

~~118515~~  
118515

BY THE COMPTROLLER GENERAL

# Report To The Congress

OF THE UNITED STATES

## A CPI For Retirees Is Not Needed Now But Could Be In The Future

Beneficiaries of many Federal retirement programs receive cost-of-living increases tied to a consumer price index that reflects the buying habits of urban wage earners and clerical workers. GAO assessed the financial implications of using a "workers index" to trigger increases in retirement benefits.

The most significant financial implications GAO identified were due not to the use of a workers index, as such, but to the way the index's homeownership component is constructed. The methodology for computing homeownership costs is being revised. GAO is recommending legislative action that will hasten the revision's effect on Federal retirement programs.

After allowing for the change in computing homeownership costs, existing indexes would have provided a reasonable indicator of the impact of inflation on retirees. Differences in how retirees and workers spend their money could change that, however, depending on future economic conditions. GAO is recommending steps directed at ensuring that the Government knows if and when that has happened.



GAO/GGD-82-41  
JUNE 1, 1982

022 222

**Request for copies of GAO reports should be sent to:**

**U.S. General Accounting Office  
Document Handling and Information  
Services Facility  
P.O. Box 6015  
Gaithersburg, Md. 20760**

**Telephone (202) 275-6241**

**The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".**



COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON D.C. 20548

B-206898

To the President of the Senate and the  
Speaker of the House of Representatives

There has been much discussion recently about the propriety of cost-of-living adjustments to Social Security and Federal pension benefits and about alternatives to the current indexing mechanism. This report presents our assessment of one of those alternatives--construction of a separate Consumer Price Index for retirees.

We are sending copies of this report to the Director, Office of Management and Budget; the Secretaries of Labor, Defense, and Health and Human Services; the Director, Office of Personnel Management; and the Chairman, Railroad Retirement Board.

A handwritten signature in cursive script that reads "Charles A. Bowsher".

Comptroller General  
of the United States



retirees index using that revised methodology and to recompute that index at least annually thereafter. To compute the index, the Bureau should apply retiree expenditure weights to the price data already being collected in support of CPI-U.

#### RECOMMENDATION TO THE DIRECTOR, OMB

Once the Bureau starts computing a retirees index, OMB should (1) monitor the relationship of that index to the index being used to calculate cost-of-living adjustments for Federal retirement programs, and (2) determine, with input from agencies responsible for administering those programs, whether differences between the indexes are significant enough to warrant proposing changes to the mechanism for computing cost-of-living adjustments.

#### AGENCY COMMENTS

Although it did not disagree that CPI-U is more appropriate than CPI-W for escalating retirement benefits, OMB disagreed with GAO over the timing of any shift from W to U. According to OMB, a shift in 1983 could cost the Government about \$2 billion. But, others see it differently. Given the unclear dollar impact, GAO sees no valid reason to delay a shift to the more appropriate CPI-U.

The Bureau disagreed with GAO's call for a hybrid index, saying it would rather focus on certain technical issues that could affect a retirees CPI. GAO sees no need to defer production of a hybrid index until those issues are addressed. OMB said there were too many questions that needed answering before it would want to raise expectations by formally monitoring the relationship between a hybrid index and existing indexes. GAO believes the questions OMB raises are the type that should be expected as an appropriate byproduct of monitoring. (See pp. 65 through 67.)



These findings argue against the need for a separate retirees index. Not to be ignored, however, are the significant differences between the consumption patterns of retirees and the consumption patterns reflected by existing indexes in areas other than homeownership and the possibility that some combination of future economic conditions in conjunction with those differences could cause significant variances between existing indexes and a retirees index.

GAO is recommending that the Bureau compute and publish a hybrid retirees index once the homeownership component is revised and at least annually thereafter. In constructing the hybrid index, the Bureau could follow essentially the approach GAO used--apply weights that reflect retiree consumption patterns to the price data now being collected for CPI-U. That approach would assure the detection of major divergences in the cost-of-living for retirees without incurring the cost of constructing and maintaining a fully separate index. (See pp. 53 through 56.)

Monitoring for such divergences should be centralized rather than segmented among the several agencies responsible for the various retirement programs. Because of the potential budgetary impact of any decision reached as a result of that monitoring, the Office of Management and Budget (OMB) seems the most logical choice to fill that role.

#### RECOMMENDATION TO THE CONGRESS

The Congress should enact legislation requiring that CPI-U be used instead of CPI-W to compute cost-of-living adjustments for Federal retirement programs. Any such legislation should be enacted in time to coincide with the Bureau's decision to revise the homeownership component of CPI-U starting in January 1983.

#### RECOMMENDATION TO THE SECRETARY OF LABOR

Once the methodology for measuring homeownership costs has been revised in the index used to escalate retirement programs, the Secretary of Labor should direct the Bureau to compute a

The Bureau plans to convert CPI-U to a rental equivalence-based index effective January 1983, to coincide with indexing provisions of the Economic Recovery Tax Act of 1981. CPI-W will not be converted until January 1985 because, according to the Bureau, that index is used extensively in escalator agreements and users need time to adjust to the change in methodology. Thus, the change to rental equivalence will not affect Federal retirement programs, which are now tied to CPI-W, until 1985.

CPI-U is the more appropriate index for computing cost-of-living adjustments to retirement benefits because the size of its target population makes it a more precise measure of inflation than CPI-W, which is targeted only at urban wage earners and clerical workers. Until now the impact of using W instead of U to escalate retirement benefits has been negligible because both indexes have tracked very closely. After 39 months they differed only by one-tenth of an index point. The two may not track so closely, however, when one is based on rental equivalence and the other is not. (See p. 58.)

Because CPI-U is the more appropriate index for escalating retirement benefits, even without considering the shift to rental equivalence, the Congress should enact legislation requiring that cost-of-living adjustments for Federal retirement programs be tied to CPI-U. Prompt enactment of such legislation will enable the programs to use the improved index when it first becomes available in 1983.

MONITORING NEEDED ONCE  
HOMEOWNERSHIP COMPONENT  
IS REVISED

GAO's analysis showed that use of a rental equivalence-based CPI-U to compute cost-of-living adjustments would have maintained the real value of benefits in the past. In comparing the Bureau's experimental version of a rental equivalence-based CPI-U with its own version of a rental equivalence-based retirees index, GAO found very small differences in index movements over the 39-month study period. The average annual rate of increase was 9.9 percent for GAO's retirees index and 9.7 percent for CPI-U. (See pp. 40 and 41.)



Because homeownership costs represent a sizeable portion of the CPI market basket (over 26 percent) and because the Bureau's methodology for computing those costs is generally considered inappropriate, GAO worked with two sets of indexes--one using the current measure of homeownership costs, the other using an experimental version of an alternative measure that the Bureau plans to start using in January 1983.

EXISTING INDEXES DO NOT  
ADEQUATELY MEASURE THE IMPACT  
OF INFLATION ON RETIREES

GAO found that use of a workers index to trigger cost-of-living adjustments for the 38 million beneficiaries of the four major Federal retirement programs (Social Security, Civil Service, Military, and Railroad) had placed an extra financial strain on those programs during the period covered by GAO's study. That strain--about \$4.2 billion--can be attributed to the fact that existing indexes are based on underlying expenditure data that do not reflect how retirees spend their money. Compared to urban wage earners and clerical workers or compared to all urbanites, retirees devote a larger share of their total expenditures to food, fuel, and medical care and a lesser share to transportation, house purchases, and mortgage interest. (See pp. 22 through 28 and 43 through 52.)

In October 1981, the Bureau announced it was going to use a new approach--called rental equivalence--to construct the CPI's homeownership component. That revision should bring existing indexes more in line with retiree consumption patterns, although significant differences will still exist. (See pp. 27 and 57.)

RETIREES' COST-OF-LIVING  
ADJUSTMENTS SHOULD BE  
TIED TO CPI-U

It was clear from GAO's analysis that the most important step the Bureau could take to make the CPI more reflective of the impact of inflation on retirees was to revise its methodology for computing homeownership costs. With its October 1981 announcement, the Bureau committed itself to that end. (See p. 57.)

D I G E S T

The cost-of-living adjustments to benefits paid by Federal retirement programs are a matter of increasing concern because of their substantial effect on the financial stability of those programs and on the Federal budget. One point of contention is that the adjustments are tied to movements in a consumer price index (CPI) that reflects the buying habits of working people. Some contend that this "workers index" overcompensates retirees for increases in their cost of living; others contend just the opposite. An oft-suggested solution is to have the Bureau of Labor Statistics construct a separate CPI for retirees.

GAO reviewed the need for a retirees CPI to aid the Congress and others in deliberating this question and in considering actions to maintain the financial stability of retirement programs.

GAO'S METHODOLOGY

The Bureau publishes two CPIs monthly. The first, CPI-W, measures the price changes associated with goods and services bought by urban wage earners and clerical workers. The second, CPI-U, measures the price changes associated with items bought by all urbanites, including retirees. The benefits paid out by many Federal retirement programs are adjusted periodically for increases in the cost of living as measured by increases in CPI-W.

Using data from the same sources the Bureau draws on in constructing existing CPIs, GAO computed an index that reflected the consumption and living patterns of retired households. GAO computed its index for each of 39 consecutive months starting with January 1978 and compared the index's movement with the movement of existing CPIs.

# C o n t e n t s

	<u>Page</u>
DIGEST	i
CHAPTER	
1	INTRODUCTION 1
	How the market basket is constructed 1
	How the CPI is used 2
	Controversy over the use of CPI-W 4
	to adjust retirement benefits 4
	Objectives, scope, and methodology 5
2	PRIOR RESEARCH HAS PRODUCED VALUABLE BUT INCONCLUSIVE EVIDENCE ON THE NEED FOR A SEPARATE INDEX 7
	BLS analytical report 7
	Study by Theodore Torda 8
	Congressional Research Service report on a CPI for the elderly 8
	The first Borzilleri study 9
	Data Resources, Inc., study on inflation and the elderly 11
	CRS report on measuring prices paid by the elderly 13
	Social Security Administration study on inflation and the elderly 14
	Analysis of household-specific price indexes by a BLS economist 15
	Study by the National Commission on Social Security 18
	The second Borzilleri study 19
	Conclusions 21
3	WOULD THE DATA UNDERLYING A RETIREES CPI DIFFER FROM THAT UNDERLYING EXISTING INDEXES? 22
	The expenditure weights used to construct the CPI do not represent retirees' spending patterns 22
	The geographic weights used to construct the CPI do not reflect where retirees live 28
	The items BLS prices to compute the CPI and the prices themselves might not apply to retirees 30
	Conclusions 34

CHAPTER		<u>Page</u>
4	WOULD USE OF A RETIREES CPI MAKE ANY DIFFERENCE?	35
	Would a retirees index increase faster or slower than existing indexes?	35
	Would a retirees index affect pension adjustments?	43
	Conclusions	51
5	HOW MUCH WOULD A RETIREES INDEX COST?	53
	Some basic issues need to be resolved before the cost of a CPI-R can be reliably estimated	53
	Conclusions	56
6	HOW DOES BLS' DECISION TO REVISE THE HOMEOWNERSHIP COMPONENT AFFECT DELIBERATIONS ON THE NEED FOR A RETIREES INDEX?	57
	BLS will be revising the homeownership component	57
	CPI-U, not CPI-W, should be used to compute cost-of-living adjustments for federally administered retirement programs	57
	Our findings relate to the past; they may not reflect the future	59
	Conclusions	61
	Agency comments and our evaluation	63
	Recommendation to the Congress	67
	Recommendation to the Secretary of Labor	67
	Recommendation to the Director, Office of Management and Budget	68
APPENDIX		
I	The homeownership component	69
II	Regional retiree expenditure weights	72
III	Aggregate effects of compounding cost-of-living adjustments for Civil Service pensions	75
IV	Aggregate effects of compounding cost-of-living adjustments for military pensions	77
V	Aggregate effects of compounding cost-of-living adjustments for Railroad Retirement pensions	79

## APPENDIX

Page

VI	Federally administered retirement programs for which a shift from CPI-W to CPI-U would require legislative action	81
VII	March 9, 1982, letter from the Department of Labor	82
VIII	March 12, 1982, letter from the Office of Management and Budget	84
IX	February 19, 1982, letter from the American Association of Retired Persons	87
X	March 9, 1982, letter from the Department of Defense	89
XI	March 10, 1982, letter from the Railroad Retirement Board	91
XII	March 25, 1982, letter from the Department of Health and Human Services	92
XIII	April 5, 1982, letter from the Office of Personnel Management	94

ABBREVIATIONS

BLS	Bureau of Labor Statistics
CPI	Consumer Price Index
CRS	Congressional Research Service
DRI	Data Resources, Inc.
GAO	General Accounting Office
OMB	Office of Management and Budget



## CHAPTER 1

### INTRODUCTION

The Consumer Price Index (CPI) measures the price change of a constant market basket of goods and services over time. The Bureau of Labor Statistics (BLS) publishes two CPIs monthly. The first, known as CPI-W, measures the price changes associated with a market basket that represents the goods and services bought by urban wage earners and clerical workers--about 40 percent of the nation's noninstitutionalized civilian population. Until 1978, CPI-W was the only consumer price index BLS published. In 1978, BLS began publishing a second index, known as CPI-U, which measures the price changes associated with a market basket that represents the goods and services bought by all urban consumers including the self-employed, the unemployed, and the retired--about two times the population covered by CPI-W. 1/

#### HOW THE MARKET BASKET IS CONSTRUCTED

The current CPI market basket contains about 400 items. Those items were selected on the basis of detailed information obtained during a Consumer Expenditure Survey conducted by BLS, through the Bureau of the Census, between 1972 and 1974. The survey consisted of two components, each with its own questionnaire and household sample:

--A sample of 20,000 households (families and single persons) from across the country was subjected to a series of quarterly interviews. Those interviews, conducted during 1972 and 1973, were designed to collect data on major items of expense as well as information on income and household characteristics.

--Another sample of about 20,000 households was asked to complete a 2-week diary. The basic objective of this diary-keeping, conducted between July 1972 and June 1974, was to obtain reliable expenditure data on small, frequently purchased items that would be difficult to recall during an interview--items such as food, housekeeping supplies, nonprescription drugs, and personal care products.

According to BLS, the market basket items are mutually exclusive and account for all household expenditures reported during the Consumer Expenditure Survey. Each item in the basket is assigned a weight (referred to as an expenditure weight) which, in effect, reflects the importance of that item in the CPI

---

• 1/We use the generic abbreviation CPI, by itself, whenever it is unnecessary to distinguish between CPI-W and CPI-U.

structure. Without getting into various technicalities, an item's expenditure weight is computed by dividing the amount of money the index population spent on that item--as determined through the Consumer Expenditure Survey--by the total amount of money that same population spent on all items. Because weights are based on expenditures by the index population and because the index population for CPI-W (urban wage earners and clerical workers) differs from that for CPI-U (all urban residents), the expenditure weights differ between the two indexes. Thus, although the items in the CPI-W and CPI-U market baskets are the same, the relative importance of the various items in the two baskets, as identified by the expenditure weights, differ.

#### HOW THE CPI IS USED

The CPI is used to measure the success or failure of Government economic policy, to translate other economic indicators into inflation-free dollars, and to escalate income payments. It is as an escalator that the CPI has its most noticeable impact. For example:

- Millions of beneficiaries of federally administered retirement programs receive annuity increases based on increases in the CPI.
- Elements of the food stamp program, involving outlays of about \$9 billion in fiscal year 1980, are indexed to the CPI.
- Millions of workers are covered by collective bargaining contracts which provide for increases in wage rates based on increases in the CPI.
- The officially defined poverty level, which is the basis for eligibility in many government health and welfare programs, is updated periodically to keep in step with the CPI.
- An unknown number of rental, royalty, and child support agreements contain escalator clauses tied to the CPI.

Most escalator clauses, including those affecting federally administered retirement programs, are specifically tied to CPI-W.



The four most significant federally administered retirement programs are Social Security, Civil Service, Military, and Railroad. 1/ As the following table shows, in 1978 2/ those four retirement programs paid monthly benefits of about \$10 billion to more than 38 million beneficiaries--81 percent of whom were 50 years old or older. 3/

Retirement program	Number of recipients	Total recipients		Number of recipients	Recipients aged 50 or older		
		Monthly benefits			Percent of total recipients	Monthly benefits	
		Total	Average			Total	Average
		(000 omitted)				(000 omitted)	
Social Security	34,216,815	\$7,724,384	\$226	27,673,947	80.8	\$6,705,810	\$242
Civil Service	1,564,510	937,541	599	1,447,055	92.4	905,570	626
Military	1,245,597	882,663	709	748,876	60.1	570,752	762
Railroad	<u>1,024,631</u>	<u>338,684</u>	<u>331</u>	<u>994,844</u>	<u>97.1</u>	<u>329,754</u>	<u>331</u>
TOTAL	<u>38,051,553</u>	<u>\$9,883,272</u>	<u>\$260</u>	<u>30,864,722</u>	<u>81.1</u>	<u>\$8,511,886</u>	<u>\$276</u>

1/In a June 1981 report on "Indexing with the Consumer Price Index: Problems and Alternatives," the Congressional Budget Office provided a list of indexed entitlement programs. That list indicated that these four retirement programs accounted for 99.7 percent of the estimated fiscal year 1981 outlays for all indexed Federal retirement programs, excluding outlays for the Central Intelligence Agency program which are classified.

2/We used 1978 data because that was the most current data available for the four retirement programs when we began our study.

3/We use 50 as the cutoff to be consistent with our definition of retired, which is more thoroughly discussed on page 6.

The Social Security Administration manages the largest of the programs, paying \$7.7 billion monthly to about 34 million recipients in 1978, an average of \$226 a person. Of those recipients, 20.8 million were retirees (including persons retired on disability) who received monthly benefits of about \$5.5 billion. Other recipients included survivors of deceased workers and dependents of retired workers.

Benefits paid out under the four major retirement programs are adjusted automatically in response to increases in CPI-W. Social Security and Railroad Retirement benefits are adjusted annually (in June) whenever the CPI-W monthly average for the first calendar quarter of a year shows an increase of at least 3 percent over the CPI-W monthly average for the first calendar quarter of the preceding year. During the years covered by our evaluation, military and Civil Service retirement benefits were adjusted every 6 months (in March and September) on the basis of the percentage increase in the CPI-W during the most recent half-year (measured in December and June). Pursuant to the Omnibus Budget Reconciliation Act of 1981 (Public Law 97-35, 95 Stat. 754) these benefits will now be adjusted annually (in March) on the basis of the percentage increase in the CPI-W during the past year (measured in December).

#### CONTROVERSY OVER THE USE OF CPI-W TO ADJUST RETIREMENT BENEFITS

Considering the number of persons affected by federally administered retirement programs and the dollar value of benefits paid them, it is apparent that any cost-of-living adjustment triggered by an increase in the CPI is going to involve a lot of money. Just considering Social Security, for example, and using the total monthly benefits paid out in May 1981 as a base, a 1 percent cost-of-living increase means about \$1.3 billion in additional benefits annually.

Figures such as those help explain the continuing controversy over the use of CPI-W to escalate retirement benefits. The controversy centers around the fact that retirement benefits are being adjusted on the basis of movements of a price index that reflects the buying habits of working people. Those on one side of the controversy argue that this situation more than adequately compensates retirees for increases in their cost of living, with a considerable drain on Federal funds. They argue, for example, that retirees seldom buy houses and thus are protected against the rising cost of new mortgages which has been a major factor in recent CPI increases. Those on the other side of the controversy contend that retirees are undercompensated for inflation because they, in comparison to workers, devote a larger share of their expenditures to goods and services, like fuel and other utilities, that have been increasing in price at a faster rate than the overall CPI.

Regardless of the point of view being argued, the question eventually comes down to whether BLS should develop a separate index based solely on the buying habits of retirees. This report responds to that question.

OBJECTIVES, SCOPE,  
AND METHODOLOGY

We conducted our study in accordance with GAO's "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions." Our purpose was to aid in any deliberations on the need for a separate CPI for retirees. We made various analyses using

- retiree expenditure data extracted from BLS' 1972 to 74 Consumer Expenditure Survey,
- retiree geographic data extracted from the same BLS survey and from the 1978 Current Population Survey,
- data on related studies done by other researchers,
- data on the number of beneficiaries and the dollar outlays associated with four federally administered retirement programs, and
- data on the costs associated with developing consumer price indexes.

Using the retiree expenditure data and the retiree geographic data, as discussed more fully in chapter 4, we recomputed the consumer price index for each of 39 consecutive months starting with January 1978. We then charted the recomputed figures and compared their movement during the 39 months with the movement of BLS' existing indexes--CPI-W and CPI-U. We selected January 1978 as the starting point for our analysis because (1) that is when the revised CPI-W and the new CPI-U went into effect, and (2) we felt that a 39-month span would be sufficient to smooth out the effects of unusual index fluctuations caused by abrupt price changes from one month to the next in particular expenditure classes.

We included CPI-U in our analysis even though federally administered retirement programs are tied to CPI-W because CPI-U seems to be the more appropriate index for escalating retirement benefits since its target population is broader than CPI-W's and specifically includes retirees. Also, a comparison of how CPI-W and CPI-U have moved since January 1978 provides an on-line example of how the use of different target populations affects the CPI.

Using the charted movement of our recomputed monthly indexes to represent how a retirees CPI would have moved over the 39

months, we estimated the financial impact on four federally administered retirement programs and on the individual beneficiaries if cost-of-living adjustments to the benefits paid out of those programs had been based on a retirees CPI rather than existing CPIs. The four retirement programs (Social Security, Federal Civil Service, Military, and Railroad) were selected because, as indicated by the Congressional Budget Office report cited on page 3, they accounted for almost all of the outlays for indexed federally administered retirement programs.

We used retirees as our target group even though many program beneficiaries, such as survivors of deceased workers, may not be retired because (1) retirees comprise the largest single group of program beneficiaries by far, and (2) it was not practical, working with BLS data, to identify households headed by other target groups. We classified a household as retired if Consumer Expenditure Survey data showed that the household was headed by someone who (1) was at least 50 years old, (2) listed his or her occupation as retired, and (3) reported no earned income such as wages and salaries.

We made our analyses using indexes computed on the basis of two different measures of homeownership costs--the measure BLS now uses and the measure BLS will be using. On October 27, 1981, BLS announced that it was going to change the homeownership component of the CPI to a rental equivalence measure and that it was going to accomplish that shift in two stages--changing CPI-U effective January 1983 and changing CPI-W effective January 1985. Our analysis shows how such a change in computing homeownership costs would have affected the relationship between a retirees index and existing indexes during the 39 months covered by our study.

During the initial stages of this study, BLS, at our request, reviewed our proposed methodology and found it sound. Although we subsequently revised some of the details--such as expanding our study period from 30 to 39 months--our basic analytical approach remained unchanged from the approach reviewed by BLS.

Each of the ensuing chapters contains pertinent and more detailed information about our methodology, including certain limitations therewith.

## CHAPTER 2

### PRIOR RESEARCH HAS PRODUCED

#### VALUABLE BUT INCONCLUSIVE EVIDENCE

##### ON THE NEED FOR A SEPARATE INDEX

Various researchers have inquired into the consumption patterns of retirees or the elderly and have discussed how a CPI based on those patterns would have moved compared to the existing CPI. The results differ somewhat from study to study, which can generally be attributed to different methodologies, time frames, target groups, and/or data bases. We have summarized past study findings to recognize the significant research effort that has preceded our report and to give proper weight to those findings in our final conclusions.

#### BLS ANALYTICAL REPORT

In December 1963, BLS reported on an analysis of the impact of rising prices on younger and older consumers. <sup>1/</sup> The analysis involved grouping all urban households into seven classes based on the age of the family head; determining, for each class, the distribution of 1950 expenditures among 26 CPI categories; and then applying appropriate price indexes to estimate the change in prices between 1950 and 1960 for different age groups.

BLS summarized the study results as follows:

"In summary, the estimate of total price increase from 1950 to 1960 was larger for each successive age group, but varied by only 2.2 percentage points from the youngest to the oldest group. Thus, even in a period when larger-than-average price changes tended to be concentrated in classes of items which are relatively more important in the spending pattern of older consumers, the total change was not substantially larger for older than younger families."

---

<sup>1/</sup>Helen Lamale, The Impact of Rising Prices on Younger and Older Consumers, Report No. 238-2 (Washington, D.C.: U.S. Bureau of Labor Statistics, December, 1963).

## STUDY BY THEODORE TORDA

In 1972, Theodore Torda authored an article on the impact of inflation on persons who were 65 years old or older. 1/ Part of that article dealt with the effects of inflation on the cost of living from 1960-61 through mid-1972. The author worked with published information from the 1960-61 Consumer Expenditure Survey and concluded that:

"On balance, there is little evidence that the cost of living has risen faster for the elderly than for the general population. Reweighting the price changes for twelve major spending categories of urban wage and clerical workers by the expenditure weights of retirees indicates that, since 1960-1961, the cost of the retiree's market basket of goods and services has risen only 2 percentage points more than that of the urban wage and clerical worker."

Mr. Torda surmised that the 2 percentage points difference would have been offset "by the effect of the Medicare program, which has helped to relieve the elderly \* \* \* from the financial burden of illness in old age." According to Mr. Torda:

"After reducing the 1960-1961 weight of the retiree's expenditures for medical care by 40 percent (to compensate for Medicare), the cost of living appears to have risen by virtually the same amount for retirees as for urban wage and clerical workers since 1967." 2/

## CONGRESSIONAL RESEARCH SERVICE REPORT ON A CPI FOR THE ELDERLY

In a November 1975 report, 3/ the Library of Congress' Congressional Research Service (CRS) compared a retired persons index with the existing CPI. Using 1960-61 Consumer Expenditure Survey data for all urban households headed by a retired person, CRS

---

1/Theodore S. Torda, "The Impact of Inflation on the Elderly" in Economic Review (Federal Reserve Bank of Cleveland, Oct. - Nov., 1972).

2/Medicare became effective in 1967.

3/Valerie Lowe Amerkhail, A Consumer Price Index for the Elderly (Washington, D.C.: Congressional Research Service, November, 1975).

grouped expenditures into 16 categories and computed an expenditure weight for each category. CRS acknowledged that it did not treat the housing category the way it is treated in the CPI but concluded that the inconsistent methodology did not affect the appropriateness of its weighting structure.

CRS applied the retiree expenditure weights to appropriate price indexes and computed a retirees index for 1960 through June 1975. After comparing that index with the existing CPI, CRS concluded that

"\* \* \* for the 14 periods covered, both indexes rose by the same percent in 3 of the periods, the retired person's index rose more in 6 periods, and the regular CPI rose more in 5 periods. Over the complete interval the regular CPI rose 80.0 percent, while the retired person's index rose 80.9 percent."

It is interesting to note that this study used as its target group retired households rather than the elderly households used by almost every other study we looked at. In its report, CRS explained that it used the retired group because that group seemed more representative of the elderly for whom a separate index might be desired. CRS did not explain, however, what criteria it used in identifying a household as retired.

#### THE FIRST BORZILLERI STUDY

Of all the studies in this area, the one that seems to be most often cited is the study published by Mr. Thomas Borzilleri in June 1978. <sup>1/</sup> Mr. Borzilleri, an economic consultant, concluded that prices increase faster for older people than measured by the existing CPI and that BLS needed to analyze the issue more thoroughly.

Using published data from the second half of the interview component of the 1972-74 Consumer Expenditure Survey for households headed by someone 65 years old or older, Mr. Borzilleri grouped expenditures into 14 categories and derived an expenditure weight for each category. Then, by applying those weights to the month-to-month price changes reported for the 14 categories from January 1970 through March 1977, he was able to construct an old persons index. Comparing that index with the existing CPI showed, according to Mr. Borzilleri, that "on the average, prices for older

---

<sup>1/</sup>Thomas C. Borzilleri, "The Need for a Separate Consumer Price Index for Older Persons: A Review and New Evidence" in The Gerontologist, V. 18, No. 3 (1978).

persons, given their differential expenditure patterns, rose about 4 percent faster than for the population in general." He concluded further that use of the existing CPI rather than an old persons index to adjust Social Security benefits cost older Social Security beneficiaries about \$500 million between 1975 and 1977.

Mr. Borzilleri's data showed the elderly index rising 2.6 percentage points more than the existing CPI during the 7 years covered by his study. Expressed another way, Mr. Borzilleri's old persons index rose at an average annual compound rate of 6.7 percent compared to the average rate of 6.5 percent recorded by the CPI.

As noted, Mr. Borzilleri's study, unlike those discussed previously, used data from the most recent Consumer Expenditure Survey--that conducted between 1972 and 1974. Although his old persons index was constructed using expenditure weights derived from that survey, the CPI he compared it to was based on expenditure weights derived from the 1960-61 Survey. <sup>1/</sup> To determine whether the 4 percent faster increase in prices paid by older persons might be attributable simply to the use of different base periods, he constructed a "new CPI" using 1972-74 survey data and compared the price changes associated with that index to the price changes associated with his old persons index. He concluded that switching over to the new CPI would reduce the estimated difference from 4 percent to 3 percent.

Mr. Borzilleri also conducted tests to determine if his results might have been skewed either because he calculated expenditure weights for only 14 categories when the CPI market basket actually contains about 400 items or because he constructed his old persons index with the implicit assumption that the elderly are geographically dispersed in the same proportion as the general population. Recognizing the limitations in his test procedures due to data limitations, Mr. Borzilleri concluded that neither factor affected his results.

Mr. Borzilleri also had some observations on the impact of Medicare which differed from those expressed by earlier researchers like Mr. Torda. According to Mr. Borzilleri:

"As the new Consumer Expenditure Survey indicates, rapid changes in the relative price of medical care throughout the late 60s have again raised the budget proportion of out-of-pocket medical expenses for older persons to the 1960-61 level, 10.1%."

\* \* \* \* \*

---

<sup>1/</sup>BLS did not start using the 1972-74 data in computing the CPI until January 1978, which was after the time period covered by Mr. Borzilleri's study.



"\* \* \*Older people spend almost 70% more on this category of goods and services, out-of-pocket, than does the younger population, and, during the period under investigation, medical care prices increased 30% faster than prices in general. Had relative prices for medical care not changed so rapidly, it is likely that the observed difference between the CPI and the [old persons index] would have been much smaller."

Mr. Borzilleri concluded that:

"Reweighting experiments of the sort reported here can only take us so far. At best, the findings of this study are indicative of the need for more thorough analysis of the issue. Only the Bureau of Labor Statistics has the resources to determine whether the consistent finding of elderly inflation experience understatement would hold if highly detailed item, regional, and retail outlet data were used."

DATA RESOURCES, INC.,  
STUDY ON INFLATION  
AND THE ELDERLY

In a study done for the National Retired Teachers Association and the American Association of Retired Persons, Data Resources, Inc., (DRI) inquired into the effects of inflation on the elderly. <sup>1/</sup> Using various sophisticated evaluation methodologies, DRI analyzed the income, expenditures, and wealth of elderly persons. Its study was historical, covering the past decade, and prospective, using forecasting models to estimate future income and expenditures.

In analyzing expenditures, DRI created age-specific price indexes for the under-55 age group and for each of four elderly age groups. DRI summarized its results as follows:

---

<sup>1/</sup>Martin Duffy et al, Inflation and the Elderly (Lexington, Massachusetts: Data Resources, Inc., 1980).

"The basic finding is as expected: since elderly consumers spend larger fractions of their budgets on the high-inflation core necessities--food at home, medical care, and fuel & utilities (which inflated at rates of 8.3 percent, 7.9 percent, and 9.4 percent respectively between 1970 and 1979, compared to 7.2 percent for the all-urban CPI)--the price of the bundle of goods and services purchased by the elderly rose somewhat faster than those goods and services purchased by younger consumers."

\* \* \* \* \*

"For the future, DRI forecasts continued rapid inflation in the core necessities--a 10.1 percent rate for health care, 9.9 percent for fuel and utilities, and 8.7 percent for food at home, between 1979 and 1985, compared to 8.7 percent for the overall CPI. Therefore, elderly consumers will continue to experience somewhat greater price inflation than younger consumers."

DRI also addressed the Medicare issue and noted that:

"There seems to be a public perception that recent improvements in Medicare and, to a lesser extent, Medicaid \* \* \* have removed most of the elderly's health care burden. Only 44 percent of health care costs of the aged (over 65) population were funded through Medicare in fiscal year 1977 \* \* \* and if the deductible and coinsurance amounts paid by the aged are subtracted, this share falls to 41 percent \* \* \* The 44 percent figure compares to 39 percent in fiscal year 1973 \* \* \* so there has been a moderate increase in the share of health care costs borne by the government between fiscal years 1973 and 1977."

CRS REPORT ON MEASURING  
PRICES PAID BY THE ELDERLY

In March 1980, CRS issued a report 1/ in which it (1) discussed how the purchasing patterns of the elderly differ from those of the population group represented in the CPI and (2) compared a special price index for the elderly with the CPI.

CRS constructed its elderly persons index by using 1972-74 Consumer Expenditure Survey data to compute expenditure weights for households headed by persons 65 years old or older and then applying those weights to the seven major CPI components (food, housing, transportation, apparel, medical care, entertainment, and other goods and services). CRS reported that the elderly index would have risen 10.3 percent between 1978 and 1979 compared to the 11.3-percent rise 2/ actually posted by the existing CPI. Between 1967 and 1979 the elderly index would have risen at an annual compound rate of 6.8 percent, which would have been slightly faster than the annual compound rate of 6.7 percent recorded by the CPI. 3/

CRS concluded that:

"Although there are significant differences between the purchasing patterns of families with heads over age 65 and all families, there does not appear to be a significant difference in the price experience of both groups. Over the past 12 years, the specially constructed consumer price index for the elderly \* \* \* has increased at about the same rate as the published CPI. During the past year the elderly price gauge increased one percentage point less than the CPI. These findings, although consistent with other studies which have examined prices paid by the elderly, cannot be considered definitive."

---

1/Barry Molefsky, Measuring Prices Paid by the Elderly (Washington, D.C.: Congressional Research Service, March 31, 1980).

2/The 11.3-percent figure relates to CPI-U. During the same period (1978 and 1979) CPI-W rose 11.5 percent.

3/The 6.7-percent figure relates to CPI-W.

CRS explained that last statement thusly:

"This index was constructed by reweighting only the major expenditures categories of the CPI. A more reliable measure could be obtained by reweighting each of the approximately 400 items for which BLS collects monthly price data. Moreover, BLS records prices at establishments frequented by all urban consumers. To properly construct a price index for the elderly, prices should be collected at retail outlets patronized by the elderly."

Although CRS used the same data base (the interview component of the 1972-74 Consumer Expenditure Survey) and the same target group (households headed by someone 65 years old or older) as Thomas Borzilleri, its results differ somewhat from Borzilleri's. That might be attributable, in part, to the use of different time frames (CRS used 1967 through 1979 while Borzilleri used January 1970 through March 1977) or the use of different levels of categorization when computing expenditure weights (CRS used 7 categories while Borzilleri used 14). The different results might also be due to the fact that the Borzilleri study predated the CRS study by a couple of years. As such, Mr. Borzilleri had to work with preliminary survey data published by BLS while CRS was able to work with final published data. In that regard, BLS noted, in publishing the final data, that:

"Some values presented in this bulletin may differ from the preliminary, combined-year averages presented in previous BLS publications due to additional processing of the interview data base and slight differences in the underlying concept of certain survey categories."

SOCIAL SECURITY ADMINISTRATION  
STUDY ON INFLATION AND THE ELDERLY

In January 1981, a Social Security Administration study team reported that it had constructed an old persons index for 1967 through 1979 using data from the 1972-74 Consumer Expenditure Survey. <sup>1/</sup> The team found that the old persons index would have risen at an average annual rate of 6.8 percent compared to an average annual increase of 6.7 percent recorded by a price index for urban wage earners and clerical workers.

---

<sup>1/</sup>Benjamin Bridges, Jr. and Michael D. Packard, "Price and Income Changes for the Elderly" in Social Security Bulletin, Vol. 44, No. 1 (1981).

The study team worked with the seven major CPI expenditure classes and found that:

"The two expenditure classes of medical care and food and beverages, which clearly were relatively more important to the aged, had relatively fast rates of price increase over the 1967-79 period \* \* \* Apparel and transportation, which clearly were relatively less important to the aged, had relatively slow rates of price increase. The remaining three expenditure classes [housing, entertainment, and other goods and services] are not clearly either more or less important for the aged."

Like most of the others, this study dealt with households headed by persons 65 years old or older and involved computing expenditure weights for that target group. But there were a couple of differences worth noting. This study, unlike the others, used data from both phases of the Consumer Expenditure Survey--the interview phase and the diary phase--in computing expenditure weights, which is consistent with what BLS does. Also, this study included an attempt to approximate BLS' procedures for computing the expenditure weight for housing which differs significantly from BLS' procedure for computing all other expenditure weights. To get some of the data needed for the housing computation, such as data on contracted mortgage interest cost, the study team had to go beyond the published Consumer Expenditure Survey data used by most other researchers.

Interestingly, even with these differences in methodology, the Social Security Administration study team's results (6.8 percent average annual rate of increase versus 6.7 percent) mirrored the CRS study results discussed just above.

ANALYSIS OF HOUSEHOLD-  
SPECIFIC PRICE INDEXES  
BY A BLS ECONOMIST

When we started our evaluation, Robert P. Hagemann, an economist in BLS' Office of Prices and Living Conditions, was working on a study of the variation in inflation rates across households. <sup>1/</sup> That study involved construction of separate price indexes for each of 13,639 urban families interviewed during

---

<sup>1/</sup>Robert P. Hagemann, "Inflation and Household Characteristics: An Analysis of Group-Specific Price Indexes," BLS Working Paper #110 (Washington, D.C.: U.S. Bureau of Labor Statistics, December 1980).

the 1972-74 Consumer Expenditure Survey. Mr. Hagemann first grouped each family's expenditures into about 40 categories, then BLS price indexes for those categories were weighted together using weights specific to that family. From the data base generated during that study, Mr. Hagemann provided us with estimates of a CPI for retired households, defined as those households whose heads were 50 years old or older and who identified themselves as retired. Of the 13,639 households included in the study, about 13 percent, or 1,799, satisfied that definition.

The CPI Mr. Hagemann constructed differs from the official CPI in a number of important aspects. First, the constructed CPI is based only on data from the interview phase of the Consumer Expenditure Survey. Therefore, expenditures for certain items, such as housekeeping supplies, are excluded altogether, and expenditures for other items, such as food, are based on global estimates obtained during the interview phase rather than the more detailed data obtained during the diary phase.

Second, rather than construct a composite market basket for all retirees and then compute a price index for the group (as done for the official CPI) Mr. Hagemann took each household's expenditures as its market basket and constructed a price index for each household. An average index was then computed for retired households. This results in a weighting structure different from that of the official CPI. The market basket of the official CPI is based on aggregate expenditures. Because high-income households tend to spend more than low-income households, they have more impact on the composition of the market basket. In the constructed CPI, however, each household has its own index, which is simply averaged together with others. Therefore each household has equal impact on the implicit market basket.

Third, Mr. Hagemann computed indexes using four different treatments of homeownership, none of which mirrors the way homeownership is handled in the official CPI. The four treatments, which are explained in appendix I, involved (1) use of current interest rates, (2) use of interest rates averaged over the prior 5 years, (3) rental equivalence, and (4) exclusion of all housing costs. The official CPI considers the entire price of a house plus the interest expected to be paid over half the stated life of the mortgage in computing the homeownership expenditure weight.

Recognizing that the above features of his methodology precluded comparison of his indexes with the official CPI, Mr. Hagemann constructed new indexes for urban wage earners and clerical workers using his methodology. In the rest of this section, we refer to the constructed indexes for retirees as CPI-Rc and the constructed indexes for wage earners and clerical workers as CPI-Wc.

From 1972-73 (the base period used in this study) through the second quarter of 1980, the official CPI-W rose by 90 percent. As the following table shows, each of the constructed indexes would have risen less than that.

<u>Constructed index</u>	<u>1972-1973</u>	<u>Second quarter 1980</u>	<u>Percent increase</u>	<u>Average compound annual rate (percent)</u>
CPI-Wc (rental equivalence)	100.0	172.7	72.7	7.6
CPI-Rc (rental equivalence)	100.0	176.9	76.9	7.9
CPI-Wc (current interest)	100.0	181.3	81.3	8.3
CPI-Rc (current interest)	100.0	182.8	82.8	8.4
CPI-Wc (average interest)	100.0	177.0	77.0	7.9
CPI-Rc (average interest)	100.0	181.7	81.7	8.3
CPI-Wc (less housing)	100.0	178.5	78.5	8.0
CPI-Rc (less housing)	100.0	187.8	87.8	8.8

The constructed indexes show that during the study period, on average, a CPI for retirees would have risen a bit faster than a CPI for workers no matter which of the four treatments of housing was used. The study sheds no light, however, on how a retirees index using the official treatment of homeownership might move compared to the existing CPI-W. 1/

Although each retirees index rose faster over the long run than its corresponding CPI-Wc, that relationship was not consistent from year to year. In that regard, further analysis of the study results shows that a retirees CPI would sometimes move faster and sometimes move slower than a workers CPI--no matter how homeownership is handled. For example, using the indexes computed on the basis of rental equivalence (which is the way BLS will be measuring homeownership costs starting in 1983) the following table shows how CPI-Wc and CPI-Rc moved from the first quarter of one year to the first quarter of the next--the same relationship that is used in computing cost-of-living adjustments to Social Security benefits.

---

1/Some light was shed in that area by the previously discussed Social Security Administration study which attempted to replicate BLS' official treatment of homeownership in computing an old persons index.

Percent Change From First Quarter of Prior Year (note a)

<u>Year</u>	<u>CPI-Wc</u>	<u>CPI-Rc</u>	<u>Difference</u>
1975	9.6	8.9	-.7
1976	6.2	6.1	-.1
1977	6.3	6.0	-.3
1978	6.0	6.8	.8
1979	8.9	9.2	.3
1980	9.1	9.9	.8

a/As a point of reference, the official CPI-W rose by the following percentages during the same 6-year period: 11.0, 6.4, 5.9, 6.5, 9.9, and 14.3.

STUDY BY THE NATIONAL  
COMMISSION ON SOCIAL SECURITY

In December 1977, the Congress created the nine-member National Commission on Social Security to study all aspects of Social Security and related programs. The Commission issued its final report in March 1981. <sup>1/</sup> As part of that report, the Commission discussed the need for a separate CPI for the elderly including the results of a study done for the Commission in which Joseph Minarik of the Brookings Institution computed two special price indexes for the elderly.

The Commission's report did not explain how Mr. Minarik defined "elderly" and contained little information on Mr. Minarik's methodology in constructing his two indexes. The only information in the Commission's report about Mr. Minarik's methodology was that the first index involved adjusting the current CPI for various factors "subject to the limitations of available knowledge" and that the second index involved a revision to the treatment of housing.

After comparing the special price indexes with the CPI over a 10-year period, the Commission concluded that:

---

<sup>1/</sup>National Commission on Social Security, Social Security in America's Future (Washington, D.C.: GPO, 1981).



"if a special price index for the elderly were to be computed, it would probably be quite similar to the Consumer Price Index, whether the current or the most likely alternative treatment of housing were used."

Despite that conclusion the Commission recommended that the Congress

"authorize the necessary funds and personnel for the Bureau of Labor Statistics to undertake the field surveys and analyses needed to determine how a special index for the elderly might be calculated and whether and to what extent it would be appropriate for adjusting the level of Social Security benefits for price increases for all Social Security beneficiaries."

#### THE SECOND BORZILLERI STUDY

On April 2, 1981, Thomas Borzilleri issued a study paper on the accuracy of the CPI for Social Security cost-of-living adjustments. <sup>1/</sup> Mr. Borzilleri constructed a market basket of goods and services for the "average" Social Security recipient on the basis of data from the 1972-74 Consumer Expenditure Survey, charted the price increases or decreases associated with those goods and services through the first quarter of 1980, and compared the results to the official CPI. His comparison showed that if increases in the cost of the Social Security market basket had been used to compute cost-of-living adjustments in 1976 through 1980, the average annual adjustment to Social Security benefits would have been 8 percent rather than the average of 8.6 percent that was obtained using CPI-W.

Among other things, Mr. Borzilleri concluded that:

--"Differences between the rate of inflation indicated by the CPI and the rate of inflation indicated by the change in the cost of the social security market basket, even given the conservative shelter cost assumptions [discussed later], were found to be quite small."

--"There is no evidence that use of the CPI has resulted in major over or undercompensation [to Social Security recipients] during the past five years."

---

<sup>1/</sup>Thomas C. Borzilleri, The Accuracy of the Consumer Price Index for Social Security Cost of Living Adjustments (Bethesda, Maryland: Typescript, April 2, 1981).

--"If future increases in the CPI are caused primarily by increases in mortgage interest rates or home prices, use of the CPI will result in overcompensation of retired social security beneficiaries. If, on the other hand, the primary 'culprit' is food, fuel or medical care, use of the CPI will result in under-adjusted benefits." [This finding emanates from Borzilleri's determination that shelter carries less weight in the Social Security recipient's market basket than in the official CPI market basket while the opposite is true of food, fuel, and medical care.]

--"Given the importance of indexing to the retired population, the high cost involved to provide cost of living protection to social security recipients \* \* \* and the differential weights for various categories of goods and services reported above, there is no assurance that the rough economic justice which obtained in the past will also obtain in the future."

Mr. Borzilleri's overall conclusion: construct a separate index based on the market basket of goods and services consumed by Social Security recipients with the goods and services defined appropriately for purpose of the index.

A few aspects of Mr. Borzilleri's methodology warrant mentioning. He used data only from the interview segment of the Consumer Expenditure Survey. He grouped the expenditure data into 44 categories instead of the 14 categories he had used in his earlier study. 1/ He did not rely on published data, as in his earlier study; this time he worked with computerized data provided by BLS. His target group was generally defined as one-or two-person households whose heads were at least 62 years old and received Social Security or Railroad Retirement income in the survey year. And he defined homeowner shelter costs "in a totally different manner than that used in the official CPI." In lieu of the home purchase and contracted mortgage interest cost items in the official CPI, he used the annual house payment and assumed that the amount of that payment would remain constant throughout the period of analysis. According to Mr. Borzilleri, he adopted that treatment of homeownership costs primarily to provide an "extremely conservative test of the assertion that the aged had received significant windfall benefit adjustments because of the current CPI definition of shelter costs."

---

1/Study results become more reliable as the number of categories increases.

## CONCLUSIONS

Past research seems to support a general conclusion that there would not be much difference, if any, in the rates of inflation reflected by existing indexes and the rate that would have been reflected by a separate old persons or retirees index. Those results are far from conclusive, however, because of methodological quirks and insufficient data on all the factors that could cause indexes to differ.

The methodological quirks, which need to be recognized although they may have had little effect on the final results, include (1) using elderly persons as the target group when, to be more precise, the programs discussed in this report are targeted at retirees, no matter what their age, (2) using expenditure data from only the interview segment of the Consumer Expenditure Survey when, in fact, the CPI is based on data from both the interview and diary segments of the survey, (3) working with Consumer Expenditure Survey data as presented in BLS publications even though those publications do not categorize expenditures in exactly the same manner as is done for CPI purposes, (4) using methods of computing the homeownership expenditure weight that differ from the "official" method, and (5) recomputing expenditure weights for only a few broad item categories when the official CPI is based on a market basket of almost 400 items.

The other factors that could cause indexes to differ were explained very clearly by Mr. Borzilleri in his 1978 study paper:

"Aside from  $\sqrt{\text{differences in the expenditure patterns of older people relative to the general population}}$  there are at least two other reasons prices might rise at a differential rate for the older population. If older persons tend to shop in retail outlets different from the average urban, suburban, rural mix or if they are geographically located in areas with different than average rates of price change, additional differences in their overall price experiences might be expected."

Because of insufficient data, researchers have been unable to assess the impact of the other differences referred to by Mr. Borzilleri and thus have generally been unwilling to attach definitiveness to their findings.

In our evaluation of the need for a retirees index, which is discussed in the rest of this report, we tried to build on the extensive research already done by correcting for the methodological quirks and by attempting to assess the impact of factors other than different expenditure patterns. We also introduced a new element into the evaluation--information on the potential costs (to the Government and to the individual retiree) associated with developing a separate retirees index.

### CHAPTER 3

#### WOULD THE DATA UNDERLYING A

#### RETIREES CPI DIFFER FROM

#### THAT UNDERLYING EXISTING INDEXES?

The first step in assessing the need for a retirees price index involves inquiry into the data underlying the CPI. Specifically:

- Do the expenditure weights used in existing CPIs adequately reflect the spending patterns of retirees?
- Do the geographic weights used in existing CPIs adequately reflect the geographic dispersion of retirees?
- Do the items being priced for the existing CPIs, the stores where those items are priced, and the prices being recorded fairly represent the items retirees consume, the types of outlets where retirees shop, and the prices retirees pay?

We were able to develop specific evidence in response to the first two questions. The third question is less susceptible to quantification. Although we know that retirees and nonretirees may not always pay the same price for the same item (because of senior citizen discounts, for example), the type of information we would need to identify the specific items consumed, outlets frequented, and prices paid by retirees is not available. Although the absence of such information precludes us from drawing any overall conclusion on the extent to which the data underlying a retirees index would differ from the data underlying existing indexes, our analysis leaves little doubt that the data would be quite dissimilar.

#### THE EXPENDITURE WEIGHTS USED TO CONSTRUCT THE CPI DO NOT REPRESENT RETIREES' SPENDING PATTERNS

A basic concern in assessing the merits of a separate CPI for retirees is whether existing indexes adequately reflect the spending patterns of retirees. Because CPI-W is based on the buying habits of urban workers only and CPI-U is based on an amalgamation of the buying habits of virtually all urbanites, it has generally been assumed that neither index accurately portrays retirees' spending patterns. Our analysis proved that assumption correct.

The CPI market basket contains about 400 items, each of which is assigned a weight that reflects its relative importance in the basket. The information for determining an item's importance came from the Consumer Expenditure Survey. BLS inflated the data from the diary component of that survey to represent an entire year's expenditures so that it could combine the results with annualized data from the interview component. Then BLS inflated the combined results to represent the entire U.S. population and various subgroups. After defining a particular subgroup (such as urban wage earners and clerical workers), BLS estimated the total spent by that group on a specific item and divided that figure by the group's total expenditures. <sup>1/</sup> The result, typically expressed as a percent, is that item's expenditure weight.

The first step in computing expenditure weights for retired households is to define such a household. Using data from the Consumer Expenditure Survey, we considered a household retired if it was headed by someone who (1) was at least 50 years old, (2) listed his or her occupation as "retired," and (3) reported no income from wages, salaries, or the like.

Using that definition, we determined that about 14 percent of the 43,161 households involved in the Consumer Expenditure Survey were retired. Although we used 50 as the cutoff age, about 84 percent of the retired households were headed by someone 65 years old or older. Also, of the 5,944 households meeting our definition, 75 percent reported that the primary source of their retirement benefits was Social Security or Railroad Retirement.

The Consumer Expenditure Survey was designed to be representative of the total U.S. population rather than retirees or any other specific group. Data derived from the survey are subject to sampling variability--the margin of error that occurs because the data are based on a sample rather than on a complete census. Sampling variability is relatively larger for subgroups (such as retirees) than for the population as a whole. Nevertheless, in our opinion the Consumer Expenditure Survey is an adequate source of data on retirees' expenditures and the only source with such broad coverage and fine detail.

---

<sup>1/</sup>For CPI purposes, expenditures include moneys spent for all goods and services purchased for consumption. That excludes such expenditures as life insurance premiums, investments in stocks and bonds, cash gifts, and income taxes.

As said before, BLS computes an expenditure weight for each of the almost 400 items in the market basket. Because it was impractical, if not impossible, for us to go to a similar level of detail in computing expenditure weights for retired households, we grouped the 400 market basket items into 39 categories that we thought provided a sufficient level of detail. Then we computed five expenditure weights for each category--one weight for each of the four regions into which BLS has divided the country for CPI purposes and a composite weight for the nation. In other aspects of our reweighting exercise, we remained true to BLS' methodology.

We worked with public use computer tapes provided by BLS to extract data from both the diary and interview portions of the Consumer Expenditure Survey. We compiled expenditure data for food and beverages, housekeeping supplies, nonprescription drugs, postage, and certain other small, frequently purchased items from the diary tape and combined those amounts with more extensive expenditure data extracted from the interview tape. We then adjusted the resulting dollar amounts for price changes occurring between the time the Consumer Expenditure Survey was conducted and December 1977--the pivot month for introduction of the revised CPI. The percent distribution of these price-adjusted expenditure amounts became the weights for the retirees index.

As mentioned in chapter 2, most other researchers have worked with published Consumer Expenditure Survey data. But the publications do not categorize expenditures in the same manner as is done for CPI purposes. Working closely with knowledgeable BLS personnel, we recategorized the Consumer Expenditure Survey data wherever necessary to be consistent with BLS' procedures for computing the CPI. For example:

- The Consumer Expenditure Survey generated specific data on how much consumers spent on gifts and what kinds of gifts they bought. That data is recorded separately on the computer tapes and in BLS publications. For CPI purposes, however, money spent on a gift is considered no differently from money spent on an item for personal consumption. Thus the CPI does not recognize "gifts" as a separate market basket item. Instead, money spent on clothing gifts, for example, is combined with money spent for other clothing in determining the expenditure weight for apparel. To duplicate BLS' procedures, we assigned each gift-related expenditure item to its appropriate CPI category.
- The Consumer Expenditure Survey produced specific data on vacation and pleasure trip expenses, such as those for food, alcoholic beverages, lodging, and transportation. In the published data, all those expenses are

included under the heading "Recreation." For CPI purposes, however, a purchase of food is a purchase of food no matter where or why it is purchased, and all such purchases are considered in computing the expenditure weight for food. The same logic prevails for alcohol, lodging, and transportation. Again, to duplicate BLS' procedures, we recategorized those expenditures as appropriate.

We attempted also, with the help of knowledgeable BLS personnel, to duplicate current procedures for computing the CPI homeownership component--which includes contracted mortgage interest cost, property tax, property insurance, maintenance and repairs, capital improvements, and home purchase. We ran into a problem with respect to the latter. At the risk of oversimplifying, the home purchase expenditure weight represents the amount spent on house purchases less the amount received from house sales. That computation for retirees produced a negative figure in one region (North Central) which meant, in effect, that the retirees in that region had received more from sales than they had spent on purchases. Rather than attempt to deal with a negative expenditure weight, we assigned a weight of zero to the home purchase category for the North Central region.

Also, because more and more attention was being directed to rental equivalence as a potential alternative to the current method of computing the homeownership component (a process that culminated in BLS' October 1981 announcement that it was going to shift to rental equivalence as the official measure of homeownership costs), we derived retiree expenditure weights using that methodology. Under that methodology as applied by BLS and copied by us, instead of separate weights for home purchase, mortgage interest, property tax, property insurance, maintenance and repairs, and capital improvements, one homeownership weight is derived which reflects, in effect, the estimated rental value of owner-occupied homes.

Simply stated, the basic argument with the current measure of homeownership costs is that it treats houses as though they were consumed in the year they were bought rather than looking at the purchase of a house as an investment in a long-term asset

that provides a flow of services that are consumed over time. Rental equivalence is one way of measuring the cost of consuming the services provided by a house. 1/

The information for computing the homeownership weight under the rental equivalence approach comes from the 1972-74 Consumer Expenditure Survey during which homeowners were asked to estimate the rental value of their houses. One could argue that those estimates are subjective and may bear little relationship to true rental values, but no better information is available.

The national expenditure weights we computed for retirees using the current measure of homeownership and using rental equivalence are shown in the following table along with comparable weights for the CPI-W and CPI-U. The regional weights we computed for retirees are presented in appendix II.

---

1/For a thorough discussion of the current methodology for computing the CPI homeownership component, the concerns therewith, and some possible alternatives including rental equivalence see our report entitled "Measurement of Homeownership Costs in the Consumer Price Index Should be Changed" (PAD-81-12, April 16, 1981). See also a January 1981 Report on Indexing Federal Programs prepared by the Council of Economic Advisors and the Office of Management and Budget.



Expenditure Weights as of December 1977

Expenditure Category	Retiree weights using official measure of homeownership	CPI-W	CPI-U	CPI-U using rental equivalence	Retiree weights using rental equivalence
Cereal and bakery products	2.839	1.692	1.530	1.696	2.755
Meats	5.119	3.274	2.887	3.199	4.966
Poultry	.965	.451	.422	.468	.936
Fish	.734	.429	.410	.454	.712
Eggs	.410	.245	.224	.248	.397
Fresh milk and cream	1.590	1.100	.971	1.076	1.542
Processed dairy products	1.252	.720	.683	.757	1.214
Fruits and vegetables	3.798	1.837	1.759	1.949	3.685
Other food at home	5.871	3.745	3.349	3.711	5.696
Food away from home	5.215	5.805	5.483	6.076	5.060
Alcoholic beverages	1.274	1.183	1.095	1.213	1.236
Total food and drink	<u>29.067</u>	<u>20.481</u>	<u>18.813</u>	<u>20.847</u>	<u>28.199</u>
Residential rent	5.484	5.322	5.624	20.732	20.372
Other rental costs	.817	.488	.712	.788	.793
Home purchase	2.024	8.753	9.968	--	--
Capital improvement services	1.653	1.638	1.615	--	--
Capital improvement commodities	.349	.554	.507	--	--
Contracted mortgage interest cost	1.262	6.145	6.505	--	--
Taxes	3.176	1.862	2.127	--	--
Insurance	.985	.501	.579	--	--
Maintenance and repair services	2.507	.684	1.185	--	--
Maintenance and repair commodities	.487	.427	.361	--	--
Total shelter	<u>18.744</u>	<u>26.374</u>	<u>29.183</u>	<u>21.520</u>	<u>21.165</u>
Household fuels	6.930	4.262	4.283	4.753	6.724
Other utilities and public services	2.855	2.131	2.227	2.468	2.770
Total fuel and utilities	<u>9.785</u>	<u>6.393</u>	<u>6.510</u>	<u>7.221</u>	<u>9.494</u>
New vehicle purchase	2.462	4.275	4.040	4.476	2.389
Used vehicle purchase	1.136	3.855	3.020	3.347	1.102
Gasoline	3.550	4.786	4.205	4.660	3.444
Auto maintenance and repair	1.306	1.664	1.516	1.680	1.267
Other private transportation	3.574	4.668	4.150	4.598	3.468
Public transportation	1.134	.985	1.097	1.216	1.100
Total transportation	<u>13.162</u>	<u>20.233</u>	<u>18.028</u>	<u>19.977</u>	<u>12.770</u>
Medical care services	7.375	3.712	4.111	4.555	7.156
Medical care commodities	1.670	.780	.859	.952	1.620
Total medical care	<u>9.045</u>	<u>4.492</u>	<u>4.970</u>	<u>5.507</u>	<u>8.776</u>
House furnishings	3.049	4.735	4.603	5.100	2.958
Housekeeping supplies	2.560	1.616	1.559	1.728	2.483
Housekeeping services	2.961	1.560	2.053	2.275	2.873
Apparel and upkeep	4.747	5.836	5.800	6.427	4.606
Entertainment	3.038	3.910	4.086	4.527	2.948
Tobacco products	1.038	1.454	1.202	1.332	1.007
Personal care	2.190	1.813	1.752	1.942	2.125
Personal and educational expenses	.615	1.100	1.441	1.597	.597
Total other	<u>20.198</u>	<u>22.024</u>	<u>22.496</u>	<u>24.928</u>	<u>19.597</u>
Total-all items	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

As the table shows, retirees devoted a greater percent of their expenditures to food, fuel, and medical care and a smaller percent to transportation than did urban wage earners and clerical workers or urbanites in general--whether the weights are computed using the official measure of homeownership or using rental equivalence. On the other hand, although the retiree weight for shelter is much lower than the CPI-W or CPI-U weight using the official measure of homeownership, that difference virtually disappears when the weights are computed using rental equivalence.

THE GEOGRAPHIC WEIGHTS USED  
TO CONSTRUCT THE CPI DO NOT  
REFLECT WHERE RETIREES LIVE

The national CPI is computed by combining several local indexes through the use of geographic weights. In assessing the need for a separate retirees index, then, one has to consider whether the geographic weights used in computing existing indexes reflect the geographic dispersion of retirees. Our analyses showed that they do not.

To construct the CPI, BLS collects prices in 85 areas of the country. The 85-area design is a probability sample of urban areas based on the results of the 1970 Decennial Census adjusted to 1973. The same 85 areas are priced for both CPI-U and CPI-W, but the weights assigned each area change depending on which index is being computed. Thus, the weights for CPI-U are based on the geographic distribution of the total urban population while the weights for CPI-W are based on the distribution of urban wage earners and clerical workers.

It is important to remember that the 85 pricing areas constitute a sample of all urban areas which means, in effect, that each of the 85 areas "represents" a portion of the total population. As such, an area's geographic weights are computed not on the basis of the proportion of the target group that lives in the area but rather on the proportion of the target group that is represented by that area. For the 27 largest pricing areas (such as New York, Chicago, Los Angeles, Philadelphia, and Detroit), that distinction is unimportant because those areas are self-representing. In other words, those 27 areas were selected because of their own large populations and their weights were computed on the basis of those populations. Each of the other 58 pricing areas (such as Springfield, Mass.; Canton, Ohio; Brownsville, Texas; and Butte, Mont.) was selected to represent similarly sized urban areas in the same region of the country and its weights were computed based on that representation.

The 85 geographic weights are decimals which sum to 1. The weights can be aggregated within regional boundaries (Northeast, North Central, South, and West) to form four regional weights. Each of the 85 areas (and thus each of the

regions) affects the national CPI in proportion to its geographic weight. BLS uses the geographic weights to combine price data collected in the 85 individual areas into a U.S. average. Prices for consumer items collected in each area are weighted by that area's geographic weight. The weighted average prices represent, for each item, the prices used in computing the national CPI.

Because the geographic weights used to construct existing indexes are based on target groups that either exclude retirees (CPI-W) or include much more than retirees (CPI-U), it seems fair to suggest that any relationship between those weights and the geographic dispersion of retirees would be purely coincidental. The question then becomes one of degree: How much would the geographic weights associated with a retirees index differ from those now being used?

To answer that question we computed two new sets of weights--one set based on data from the Census Bureau's Current Population Reports for 1978, the year the revised CPI-W and the new CPI-U went into effect, and a second set based on data from the interview phase of BLS' 1972-74 Consumer Expenditure Survey. In each case we used a different target group. In the first instance, we used households headed by someone 65 years old or older as our target group because the Current Population Reports did not show data for retired households. Our target group in the second instance was retired households, which we defined as households headed by persons who (1) were at least 50 years old, (2) listed their occupation as retired, and (3) reported no earned income such as wages or salaries. The second set of weights would be the more appropriate set for constructing a retirees index. Nevertheless, we computed both sets of weights and used them in the analyses discussed in chapter 4 because we wanted to test the CPI's sensitivity to different geographic weighting schemes.

In both cases, the weights we derived represented the percentage distribution of the target group among the four regions. Information was not available to allow us to extend our computations down to the 85 areas in the CPI city sample. The following table shows the existing geographic weights and our computed weights.

<u>Region</u>	<u>Geographic weights</u>			
	<u>CPI-U</u>	<u>CPI-W</u>	<u>Per Current Population Reports</u>	<u>Per Consumer Expenditure Survey</u>
Northeast	.27	.27	.24	.26
North Central	.26	.29	.27	.25
South	.28	.26	.32	.30
West	.19	.18	.17	.19
	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>

The table indicates that the geographic weights associated with a retirees index, whether computed for the elderly population in general or for retirees in particular, would differ from the weights used in computing existing indexes.

THE ITEMS BLS PRICES TO COMPUTE  
THE CPI AND THE PRICES THEMSELVES  
MIGHT NOT APPLY TO RETIREES

Another concern in assessing the need for a retirees index is whether the prices BLS collects to compute existing indexes adequately reflect what retirees buy and how much they pay. There is little doubt that a retiree's purchases differ from an urban worker's purchases and that the prices paid by retirees and urban workers vary even when the same item is involved. But we could not quantify the extent of those differences.

Using data compiled during its Consumer Expenditure Survey, BLS has developed a market basket of goods and services that forms the cornerstone of the CPI-W and the CPI-U. BLS prices those goods and services in various urban areas across the country to get the data it needs to compute the monthly indexes. An increase in the CPI from one month to the next, then, simply means that the aggregate cost of those goods and services has gone up.

The market basket contains about 400 goods and services ranging from houses to bread. BLS has grouped those items into 68 broad expenditure categories, such as bakery products, beef, pork, nonalcoholic beverages, rent, fuel, furniture, men's apparel, prescription drugs, and school books and supplies. The prescription drugs category, for example, includes about 20 items, such as antibiotics, sedatives and sleeping aids, cardiovasculars and anticoagulants, diabetic drugs, and gastrointestinal drugs.

After deciding what items to include in a market basket, BLS has to decide where to price those items. Of all the retail outlets in an area that sell antibiotics, for example, BLS has to select those that it wants to use as price sources. For most items like food, drugs, and clothing, the selection of price sources is based on data generated during BLS' Point-of-Purchase Survey. During that survey, which was first conducted in 1974 and which is being continually updated, thousands of households are asked where they purchase various types of goods and services. Using probability sampling techniques, BLS then selects specific price sources from the various outlets cited by the respondents. There are exceptions to that process, the most obvious involving items like electricity

where one company is the sole source of supply in an area and thus the only possible source of price data.

A final decision rests with the pricing agent. The agent is told to price antibiotics at store X, for example, but he or she has to choose the specific antibiotic that will be priced. A BLS publication explains the process as follows:

"\* \* \*an improved process called 'disaggregation' was designed for selecting the detailed items to be priced. In the previous process, BLS pricing agents were given detailed descriptions of items to be priced. Now, agents have more general descriptions to choose from. For example, the market basket item which was previously 'Vitamin D, Grade A Homogenized milk in half-gallon containers' is now 'Whole fresh milk.' Through the disaggregation process, the pricing agent selects the specific kind of fresh whole milk that will be priced continuously in each outlet. By this process, each kind of whole milk is assigned a probability, or weight, based on the quantity of it the store sells. If Vitamin D, Homogenized milk in half-gallon containers makes up 70 percent of the sales of fresh whole milk, and the same milk in quart containers accounts for 10 percent of all whole milk sales, then the half-gallon container will have a 7 times greater chance of being chosen than the quart container. After probabilities are assigned, one kind of milk is chosen by an objective selection process based on the theory of random sampling. The particular kind of milk that is selected by disaggregation will continue to be priced each month in that outlet."

The item selection and pricing process just discussed raises several questions about the applicability of existing indexes to retirees:

1. Do the items in the existing market basket fairly reflect the types of goods and services purchased by retirees?
2. Do the outlets used as price sources represent the outlets frequented by retirees?
3. Do the specific items selected for pricing by BLS' pricing agents fairly reflect the buying habits of retirees?
4. Do the actual prices recorded by the pricing agents accurately represent the prices paid by retirees?

Do market basket items  
reflect retiree purchases?

Because the items in the existing market basket are described in such general terms, it seems reasonable to suggest that those items fairly reflect the types of goods and services bought by retirees. We reviewed a list of market basket items and could identify only a couple (babysitting services and elementary/high school books and supplies) that might not end up in a retirees' basket--and even those are debatable, especially when you remember that goods and services bought as gifts are considered the same, for CPI purposes, as goods and services bought for personal consumption. Likewise, we could think of nothing a retiree might buy that would not be covered by existing market basket items.

We should emphasize that this discussion of market basket applicability to retirees only deals with the actual items in the basket, not the relative importance of the various items in relation to the total basket. That particular aspect involves the assignment of expenditure weights which was discussed earlier.

Do retirees and workers  
frequent the same outlets?

The CPI, in effect, reflects the changes in prices charged by the outlets BLS has selected as its price sources. According to BLS, it selects outlets with a view toward providing a representative sample of the retail stores, professional offices, places of entertainment and the like where the index population buys its goods and services. In the case of CPI-W, then, the selected outlets are intended to be representative of the places where urban wage earners and clerical workers do business. If those outlets are not representative of the types of outlets frequented by retirees, then the price changes being recorded by BLS could be quite different from the price changes being experienced by retirees. The price structure in a neighborhood "Ma and Pa" grocery store, for example, may be quite different from that in a store associated with a large food chain. If retirees tend to frequent the neighborhood-type store more often than workers do, or vice versa, the price changes they are experiencing could be quite different from those being experienced by workers and being recorded by BLS.

We recognize that even if retirees were frequenting different outlets than the average working person, it would not necessarily follow that they were paying different prices or, more importantly, experiencing different rates of price change. We recognize also, however, that the more differences between the types of outlets where retirees shop and those where BLS

collects prices, the less assurance that the price changes reflected by the existing CPI are applicable to retirees. Unfortunately, we could not determine the extent of such differences. We considered using Point-of-Purchase Survey data to get a fix on differences but that proved unworkable, primarily because the survey only identified an outlet's name and location, not its type (Ma and Pa store versus chain store for example).

Do the items being priced reflect what retirees buy?

As described earlier, the selection of a specific item to be priced is keyed to the sales experience of the specific outlet in which it is priced. If a particular type of cereal, for example, is the sales volume leader in the outlet, then that cereal is going to have a greater chance of being selected as the item to be priced. But what if the process were limited to purchases by retirees? Would the same cereal be the sales volume leader if we just looked at what retirees buy? The question takes on greater significance, it seems, when one considers medicine and medical services. It is fairly obvious that retirees, being older on average than workers, would tend to buy different types of medicines and medical supplies and would tend to require different medical services. One would expect, then, that the disaggregation process as applied to the medical area would produce different results if limited to retiree purchases. We have no way of knowing, however, how different those results might be or how many areas, other than the medical area, might be affected.

Actually, the disaggregation process itself probably would not work for a retirees index. For disaggregation to work, the outlets would have to have sales volume data specifically related to retiree purchases. Outlets do not have that kind of information. Even if they were inclined to keep such data, they would be stymied by the absence of any convenient way of determining whether a customer is or is not retired.

Do retirees and workers pay the same price for the same item?

There is little doubt that the prices being recorded by BLS' pricing agents are not, in many cases, the prices being paid by retirees. Most retirees are senior citizens and thus can take advantage of the senior citizen discounts offered by various department stores, pharmacies, food stores, movie theaters, public transportation providers, and the like as well as certain tax exemptions provided by various State and local governments.

Thus, even if retirees did business with the same outlets as workers and bought the exact same items as workers, a retirees index could still look different from existing indexes because of the different prices being paid by retirees.

### CONCLUSIONS

The expenditure weights, geographic weights, and price data associated with a retirees CPI would surely differ from those associated with existing indexes. But it is not the composition of an index that determines the size of a cost-of-living adjustment to retirement benefits; the size of such an adjustment is predicated on the rate of increase in the index from one period to the next. In that regard, two dissimilarly constructed indexes could show very similar rates of increase with a negligible impact on retirement benefits. Would that be the case with a retirees index or would use of a retirees index to adjust retirement benefits really make a difference? The next chapter tries to answer that question.



## CHAPTER 4

### WOULD USE OF A RETIREES

### CPI MAKE ANY DIFFERENCE?

Now that we have established that retiree consumption and living patterns differ from the patterns of existing CPI target populations, we are in a position to address the crux of the issue. What do differing expenditure and geographic weights mean in dollars and cents? Is the individual retiree suffering because there is no separate CPI for retirees or has the absence of a retirees CPI actually produced a windfall for the typical retiree? Looking at it from the other side: Could the well publicized fiscal problems of the Social Security trust fund be alleviated by use of a separate CPI to compute cost-of-living adjustments or would the problems only be exacerbated?

After looking at our results and after considering the impact of BLS' decision to change the way it measures homeownership costs, we can conclude that use of a retirees CPI would have had a negligible effect on the average retiree over the past 3 years. We would find it difficult to use the word "negligible" when referring to the effect on Government outlays, however, because any difference between indexes, no matter how seemingly insignificant, equates to many millions of dollars annually simply because of the size of the retirement programs involved. As our analysis indicated, however, a change in the way homeownership costs are measured in the existing CPI would have had more of an effect on Government pension outlays over the last 3 years than would have been realized if a separate CPI for retirees had been used to compute cost-of-living adjustments.

### WOULD A RETIREES INDEX INCREASE FASTER OR SLOWER THAN EXISTING INDEXES?

To gauge how a CPI for retirees (which we will call CPI-R) might behave compared to the index now used to adjust retirement benefits (CPI-W), we recomputed the present CPI from January 1978 through March 1981 using the expenditure and geographic weights discussed in chapter 3. We actually computed four versions of CPI-R--two using only national data (one based on the current treatment of homeownership and one based on rental equivalence). and two using regional data (again, one based on the current treatment of homeownership and the other based on rental equivalence).

Construction of CPI-R  
using national data

Our first step in constructing a CPI-R at the national level was to compute price relatives for each of the expenditure categories in our weighting structure. To compute our price relatives, which are measures of price change from one month to the next, we referred to the national CPI-U monthly indexes for the respective expenditure categories. We used CPI-U indexes instead of CPI-W because the U population includes retirees while the W population includes only specific types of workers. Thus, of the two, CPI-U would seem to more closely reflect the price changes experienced by retirees.

Next, for each month beginning with January 1978, we multiplied the price relatives by the respective expenditure weights. By summing the products we arrived at a weighted average price change for each month; that is, the overall monthly change in the retirees index. We began our index computation with January 1978 because that is when BLS started publishing the new CPI-U and the revised CPI-W. BLS used December 1977 as a pivot month, stipulating that CPI-U and CPI-W would be equal to the old CPI for that month--namely, 186.1. We did basically the same thing, setting CPI-R at 186.1 for December 1977 and then changing that figure month by month according to the weighted average price change. After estimating monthly retirees indexes through March 1981, we took the arithmetic average of relevant periods to arrive at quarterly average indexes.

As the following table shows, over the 39 months covered by our analysis, CPI-R (computed using the current treatment of homeownership) rose to 255.8 compared to 263.1 for CPI-W. The differences in rates of change for the two indexes were spread out fairly evenly over the period so that no sharp difference in quarter-to-quarter rates of change occurred--never more than six-tenths of a percentage point. Sometimes, CPI-R rose faster than CPI-W, but generally it was the other way around. Looking at changes over four quarters, the differences are more pronounced--with the CPI-W always going up faster.

Comparisons Using Current Treatment of Homeownership (note a)

	Quarterly average indexes	Percent change				
		From prior quarter		Over four quarters		
		CPI-R	CPI-W	CPI-R	CPI-W	CPI-R
1978 First quarter	189.0	188.4				
Second quarter	194.2	193.3	2.8	2.6		
Third quarter	198.1	197.8	2.0	2.3		
Fourth quarter	201.1	201.8	1.5	2.0		
1979 First quarter	206.3	207.0	2.6	2.6	9.2	9.9
Second quarter	212.6	214.3	3.1	3.5	9.5	10.9
Third quarter	218.6	221.5	2.8	3.4	10.3	12.0
Fourth quarter	223.4	227.7	2.2	2.8	11.1	12.8
1980 First quarter	231.0	236.6	3.4	3.9	12.0	14.3
Second quarter	238.1	245.2	3.1	3.6	12.0	14.4
Third quarter	243.8	249.8	2.4	1.9	11.5	12.8
Fourth quarter	248.7	256.4	2.0	2.6	11.3	12.6
1981 First quarter	255.8	263.1	2.9	2.6	10.7	11.2

a/The CPI-R indexes in this table were computed on the basis of expenditure reweighting at the national level only.

Using the rental equivalence approach to measuring homeownership costs produced a retirees index little different from that produced using the current treatment of homeownership. As the following table shows, comparing a rental equivalence-based retirees index to the rental equivalence-based CPI-U that BLS has been producing on an experimental basis <sup>1/</sup> reveals a retirees index changing at very nearly the same rate, quarter to quarter, as a broad-based CPI--sometimes slightly faster, sometimes slightly slower. Even over four quarters, the rates of change for the two indexes are very similar. The largest differences are in the first quarter to first quarter comparisons.

---

<sup>1/</sup>BLS computes its experimental rental equivalence index only for the U population. Given that CPI-W and CPI-U differed by only one-tenth of an index point after 39 months, it is unlikely that a rental equivalence version of CPI-W would change this comparison.

Comparisons Using Rental Equivalence (note a)

	Quarterly average indexes		Percent change			
			From prior quarter		Over four quarters	
	CPI-R	CPI-U	CPI-R	CPI-U	CPI-R	CPI-U
1978 First quarter	188.9	188.3				
Second quarter	194.0	192.8	2.7	2.4		
Third quarter	197.6	196.5	1.9	1.9		
Fourth quarter	200.7	199.8	1.6	1.7		
1979 First quarter	206.0	204.4	2.6	2.3	9.1	8.6
Second quarter	211.8	210.5	2.8	3.0	9.2	9.2
Third quarter	217.5	216.2	2.7	2.7	10.1	10.0
Fourth quarter	222.2	221.0	2.2	2.2	10.7	10.6
1980 First quarter	229.1	228.0	3.1	3.2	11.2	11.5
Second quarter	235.5	234.4	2.8	2.8	11.2	11.4
Third quarter	241.5	239.8	2.5	2.3	11.0	10.9
Fourth quarter	246.3	245.0	2.0	2.2	10.8	10.9
1981 First quarter	253.1	251.6	2.8	2.7	10.5	10.4

a/The CPI-R indexes in this table were computed on the basis of expenditure reweighting at the national level only.

Construction of CPI-R using regional data

In computing the CPI, BLS calculates price relatives at the local level and then, through the application of weights, builds to the national index. As discussed earlier, our calculation of price relatives started with the national CPI-U figures. We did that to see (1) how a CPI-R would compare to existing indexes if all we did was substitute national retiree expenditure weights into the index calculation and (2) how that comparison would be affected when we more closely followed BLS' methodology by using geographic weights and regional variations in expenditure patterns and price movements. Our next step, then, was to construct a CPI-R using those geographic weights and regional variations.

We developed a separate set of expenditure weights for retirees for each of the four regions--Northeast, North Central, South, and West. We then derived regional price relatives using regional CPI-U monthly indexes for the respective expenditure categories. We applied the weights for each region to the corresponding price relatives to arrive at retirees indexes for each region, using both the current treatment of homeownership

and rental equivalence. The procedure was essentially the same as that outlined earlier for computing the national retirees index. But two differences bear noting.

Item indexes at the regional level are not available in the same detail as at the national level. Therefore, some of our 39 expenditure categories had to be combined, leaving us with 31 categories in the regional weighting structure. For instance, separate indexes are available at the national level for meats, poultry, fish and seafood, and eggs. At the regional level, one index figure is published for all those items combined. Also, most of the regional item indexes we used to derive price relatives are produced bimonthly rather than monthly. In these cases, we interpolated percent changes, assuming that the same relative price change took place in both months of the period.

After we computed retirees indexes for the four regions, we combined them to form a new national retirees CPI. To do this, we computed the month-to-month percent change in each of the regional retirees indexes and then applied geographic weights representing the regional distribution of retirees to those percent changes to get a geographically weighted overall percent change for each month. Again, we used December 1977 as the pivot month and moved the index forward from there.

The indexes we finally arrived at approximate a retirees index which considers regional variations in spending patterns, regional variations in price change, and the geographic distribution of retirees. It is interesting to note that the introduction of geographic weights and regional variations made virtually no difference in the movement of CPI-R using the rental equivalence approach, but it did cause CPI-R using the official measure of home-ownership costs to increase at a somewhat faster rate.

As discussed in chapter 3, we had computed two different sets of geographic weights, one based on data from the Consumer Expenditure Survey and one based on data from the Current Population Reports. We pursued the above methodology with each of those sets to test the sensitivity of our results to different geographic weighting schemes. We found that the end result was virtually the same no matter which set of weights we used. The rest of this report, then, will reflect only the figures and results we arrived at using the Consumer Expenditure Survey-based geographic weights.

As the following tables show, retirees indexes constructed using regional data are very similar to existing broad-based indexes.

Comparisons Using Current Treatment of Homeownership

	Quarterly average indexes		Percent change			
	CPI-R	CPI-W	From prior quarter		Over four quarters	
			CPI-R	CPI-W	CPI-R	CPI-W
1978 First quarter	189.2	188.4				
Second quarter	194.5	193.3	2.8	2.6		
Third quarter	198.7	197.8	2.2	2.3		
Fourth quarter	202.0	201.8	1.7	2.0		
1979 First quarter	207.8	207.0	2.9	2.6	9.8	9.9
Second quarter	214.3	214.3	3.1	3.5	10.2	10.9
Third quarter	220.7	221.5	3.0	3.4	11.1	12.0
Fourth quarter	226.0	227.7	2.4	2.8	11.9	12.8
1980 First quarter	234.3	236.6	3.7	3.9	12.8	14.3
Second quarter	242.3	245.2	3.4	3.6	13.1	14.4
Third quarter	247.8	249.8	2.3	1.9	12.3	12.8
Fourth quarter	253.0	256.4	2.1	2.6	11.9	12.6
1981 First quarter	260.6	263.1	3.0	2.6	11.2	11.2

Comparisons Using Rental Equivalence

	Quarterly average indexes		Percent change			
	CPI-R	CPI-U	From prior quarter		Over four quarters	
			CPI-R	CPI-U	CPI-R	CPI-U
1978 First quarter	189.0	188.3				
Second quarter	194.0	192.8	2.6	2.4		
Third quarter	197.7	196.5	1.9	1.9		
Fourth quarter	200.7	199.8	1.5	1.7		
1979 First quarter	206.1	204.4	2.7	2.3	9.0	8.6
Second quarter	211.8	210.5	2.8	3.0	9.2	9.2
Third quarter	217.6	216.2	2.7	2.7	10.1	10.0
Fourth quarter	222.1	221.0	2.1	2.2	10.7	10.6
1980 First quarter	229.1	228.0	3.2	3.2	11.2	11.5
Second quarter	235.5	234.4	2.8	2.8	11.2	11.4
Third quarter	241.4	239.8	2.5	2.3	10.9	10.9
Fourth quarter	246.2	245.0	2.0	2.2	10.9	10.9
1981 First quarter	253.1	251.6	2.8	2.7	10.5	10.4

Using the current treatment of homeownership, the average annual rate of increase is 10.9 percent for CPI-R compared to 11.2 percent for CPI-W. Quarter-to-quarter rates of change for CPI-R are about the same as for CPI-W--sometimes slightly higher, sometimes slightly lower. Only once out of 12 comparisons do they differ by as much as half a percentage point. Changes over four quarters are somewhat more pronounced, with CPI-W rising faster than CPI-R in all but one instance.

Using the rental equivalence approach results in a retirees index that rises at almost exactly the same rate as the rental equivalence version of CPI-U. The average annual rate of increase is 9.9 percent for CPI-R; 9.7 percent for CPI-U. Only 1 time out of 12 do the quarter-to-quarter rates of change differ by more than two-tenths of a percentage point. In four cases the CPI-R rises slightly faster than CPI-U and in four cases the indexes rise at exactly the same rate. Percent changes over four quarters are equally close--within one-tenth of a percentage point in six of nine cases--with the two largest differences showing up in the first quarter to first quarter comparisons.

#### Impact of other factors on our computations and comparisons

As discussed in chapter 3, a retirees index could differ from existing indexes if retirees shop at different outlets than workers do, buy different items, and/or pay different prices for the same items.

Faced with an absence of information on outlets frequented and items bought, we were unable to quantify the effect of any such differences on our computations and comparisons. We find it hard to believe, however, that the frequenting of different outlets or the purchase of different items will make that much of a difference in the rate of price change experienced by retirees. Differences in outlets and items do not necessarily equate to differences in rates of price change. And, even if there are different rates of price change, it seems reasonable to assume that some differences would be positive and others negative, thereby tending to cancel each other out.

As for retirees paying different prices than workers for the same items, we were able to gather some information on discounts and exemptions that we think provides an insight on the effect these kinds of differences might have. The little bit of analytical work we were able to do only served to affirm our basic assumption--that the differences between retirees and workers would have to be quite substantial before they would have a significant impact on the overall index.

#### Special pricing

The fact that many retirees are able to take advantage of a variety of special pricing policies directed at senior citizens does not necessarily insulate them against price increases reflected by the CPI.

Many outlets offer senior citizens discounts, but most of those seem to call for a fixed percent off the regular price. With that kind of arrangement, any percent increase in the regular price will produce a similar percent increase in the discount price, which means that the payer of the discount price is subjected to the same rate of price change as the payer of the regular price. Consider, for example, a \$10 item that sells for 10 percent less--\$9--to senior citizens. If the item's price rises by 5 percent to \$10.50, the discount price will rise to \$9.45 which also equates to a 5-percent increase.

It is possible also that the discount price offered retirees will rise at a faster rate than the regular price. In late 1980, for example, the following bus fare changes, among others, were proposed for the Washington, D.C., metropolitan area.

	<u>Nonelderly</u>			<u>Elderly</u>		
	<u>Current fare</u>	<u>Proposed fare</u>	<u>Percent increase</u>	<u>Current fare</u>	<u>Proposed fare</u>	<u>Percent increase</u>
	----(cents)----			----(cents)----		
Within Washington, D.C.:						
Rush hour	55	60	9.1	20	30	50
Nonrush hour	50	60	20.0	20	30	50
Within Maryland:						
Rush hour	60	60	-	30	30	-
Nonrush hour	45	60	33.3	30	30	-
Between D.C. and Maryland:						
Nonrush hour	70	95	35.7	50	55	10

As the table shows, elderly passengers, depending on their bus routes, would be subjected generally either to a much bigger or a much smaller price increase than nonelderly passengers.

Other special pricing practices, most notably property tax exemptions, would seem to provide some retirees with a partial hedge against inflation. Fairfax County, Virginia, for example, exempts qualifying senior citizens (those who meet age, income, and financial net worth criteria) from paying any real estate tax on their homes and up to 1 acre of land. Qualifying senior citizens, then, would be unaffected by any increase in real estate tax.

To see what effect such tax relief would have on our comparisons between existing CPIs and a retirees index, we recomputed the percent increase in our CPI-R between December 1977



and March 1981 under the most extreme assumption. We assumed that every retiree was entitled to an exemption from property tax increases and that, therefore, the property tax component of a retiree's CPI would remain unchanged during the entire 39 months.

Before considering the question of property tax exemptions, our CPI-R, using the current treatment of homeownership costs, had reflected a 38.8-percent increase from December 1977 to March 1981. After factoring in our property tax assumption, that figure changed to 38.7 percent. The difference is insignificant. <sup>1/</sup>

It should be noted also, that the question of property tax exemptions becomes a nonissue when rental equivalence is used to measure homeownership costs because, under the rental equivalence approach, property tax is not part of the CPI market basket.

#### WOULD A RETIREES INDEX AFFECT PENSION ADJUSTMENTS?

The final step in the analytical process was to convert the index differences discussed in the first part of this chapter to dollar differences. In so doing, we used the CPI-R figures computed after considering geographic weights, regional expenditure weights, and regional price relatives. Looking at the results from the standpoint of the average retiree, the monetary impact of a separate index is not very substantial. Looking at the results from the standpoint of the Government, even the smallest difference in index numbers would be significant. It is important to note, however, that our analysis showed more of a variance between indexes using different measures of homeownership than between a retiree's index and a broad-based index.

#### Social Security

In May 1979, the average Social Security check sent to retired workers amounted to \$258 a month. In June, that amount was increased by \$25.54 due to a cost-of-living adjustment of 9.9 percent which represented the increase in CPI-W from the first quarter of 1978 to the first quarter of 1979. Over that period, our retiree's index increased at a rate of 9.8 percent, which would have produced a cost-of-living adjustment of \$25.28--an insignificant difference. The following May, the average monthly

---

<sup>1/</sup>In making this recomputation, we used the CPI-R we had constructed using national data in lieu of the CPI-R we had constructed using regional data. Only at the national level were we able to identify the price change specifically associated with property taxes. At the regional level, BLS combined property tax with mortgage interest cost and property insurance.

benefit was \$296, which was increased by \$42.33 due to a 14.3 percent cost-of-living adjustment. The comparable change in CPI-R was 12.8 percent, which would have increased the average payment by \$37.89--\$4.44 a month less. Over a year's time, then, the average Social Security retiree would have received about \$53 less if the 1980 cost-of-living adjustment had been based on CPI-R. In June 1981, the average monthly benefit of \$344 was increased by 11.2 percent (\$38.53). Use of CPI-R would have resulted in an 11.2-percent increase also.

The following table shows the same type of year-to-year comparison using rental equivalence-based indexes.

	CPI-U (rental equivalence)	CPI-R (rental equivalence)	<u>Difference</u>
Average benefit, May 1979	\$258.00	\$258.00	
Index change	8.6 percent	9.0 percent	
Average benefit increase	\$ 22.19	\$ 23.22	\$1.03
Average benefit, May 1980	\$296.00	\$296.00	
Index change	11.5 percent	11.2 percent	
Average benefit increase	\$34.04	\$33.15	-\$ .89
Average benefit, May 1981	\$344.00	\$344.00	
Index change	10.4 percent	10.5 percent	
Average benefit increase	\$35.78	\$36.12	\$ .34

The differences between the two indexes have little effect on individual benefits. Using rental equivalence consistently resulted in a rate of change lower than CPI-W or CPI-R using the current treatment of homeownership.

Although the differences we have been talking about are negligible for the individual beneficiary, the aggregate amounts involved can be substantial. For instance, if CPI-R (using the current treatment of homeownership) had been used to determine the 1980 cost-of-living adjustment, the increase in the average Social Security beneficiary's monthly check would have been \$4.44 less; but that equates to an annual saving to the Government of about \$1.6 billion.

The following table shows the aggregate impact on Social Security benefits using different price indexes as the basis for computing cost-of-living adjustments.

Aggregate Effects of Using Different Indexes to Compute Cost-of-Living Adjustments for Social Security

	CPI-W	CPI-R (current homeownership treatment)	Increase (decrease) in outlays using CPI-R instead of CPI-W		CPI-U (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-U instead of CPI-W		CPI-R (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-R instead of rental equivalence-based CPI-U		Increase (decrease) in outlays using rental equivalence-based CPI-R instead of CPI-W	
			Monthly	Annually		Monthly	Annually		Monthly	Annually	Monthly	Annually
Monthly benefits, May 1979 (thousands)	\$8,056,506	\$8,056,506			\$ 8,056,506			\$ 8,056,506				
Cost-of-living adjustment	9.9 percent	9.8 percent			8.6 percent			9.0 percent				
Increase in benefits (thousands)	\$ 797,594	\$ 789,538	(\$ 8,056)	(\$ 96,672)	\$ 692,860	(\$104,734)	(\$1,256,808)	\$ 725,086				
Monthly benefits, May 1980 (thousands)	\$9,143,405	\$9,143,405			\$ 9,143,405			\$ 9,143,405				
Cost-of-living adjustment	14.3 percent	12.8 percent			11.5 percent			11.2 percent				
Increase in benefits (thousands)	\$1,307,507	\$1,170,356	(\$137,151)	(\$1,645,812)	\$ 1,051,492	(\$256,015)	(\$3,072,180)	\$ 1,024,061				
Monthly benefits, May 1981 (thousands)	\$10,843,984	\$10,843,984			\$10,843,984			\$10,843,984				
Cost-of-living adjustment	11.2 percent	11.2 percent			10.4 percent			10.5 percent				
Increase in benefits (thousands)	\$1,214,526	\$1,214,526	--	--	\$ 1,127,774	(\$ 86,752)	(\$1,041,024)	\$ 1,138,618				
									\$10,844	\$130,128	(\$ 75,908)	(\$ 910,896)



The preceding analysis showed the effect of using different indexes in any one year. The following analysis shows what the cumulative effect would have been over 3 years. The analysis excludes all factors other than price indexes which might cause changes in Social Security outlays. The most important of these other factors is the increase in number of beneficiaries each month. Also, new beneficiaries have, on average, longer covered work experience and higher earnings records and, therefore, higher benefit amounts than older beneficiaries. For this reason alone, the average benefit continually increases.

The following table shows that if our retirees CPI had been used in lieu of CPI-W to compute the last three cost-of-living adjustments (all other factors being equal), the Social Security system would have paid out about \$97 million less from June 1979 to May 1980, about \$1.7 billion less from June 1980 to May 1981, and about \$1.9 billion less from June 1981 to May 1982--a total of about \$3.7 billion over 3 years. On the other hand, a comparison of cost-of-living adjustments using rental equivalence-based indexes shows that use of our retirees index would have cost the Government \$746 million over the same 3 years. As the table further shows, the biggest difference (about \$11.4 billion less in Social Security benefits over the 3 years) would have resulted if the rental equivalence-based CPI-U had been used in lieu of CPI-W to compute cost-of-living adjustments. That would have equated to about \$15 a month or \$180 a year less for the average Social Security retiree after 3 years.

The preceding analysis showed the effect of using different indexes in any one year. The following analysis shows what the cumulative effect would have been over 3 years. The analysis excludes all factors other than price indexes which might cause changes in Social Security outlays. The most important of these other factors is the increase in number of beneficiaries each month. Also, new beneficiaries have, on average, longer covered work experience and higher earnings records and, therefore, higher benefit amounts than older beneficiaries. For this reason alone, the average benefit continually increases.

The following table shows that if our retirees CPI had been used in lieu of CPI-W to compute the last three cost-of-living adjustments (all other factors being equal), the Social Security system would have paid out about \$97 million less from June 1979 to May 1980, about \$1.7 billion less from June 1980 to May 1981, and about \$1.9 billion less from June 1981 to May 1982--a total of about \$3.7 billion over 3 years. On the other hand, a comparison of cost-of-living adjustments using rental equivalence-based indexes shows that use of our retirees index would have cost the Government \$746 million over the same 3 years. As the table further shows, the biggest difference (about \$11.4 billion less in Social Security benefits over the 3 years) would have resulted if the rental equivalence-based CPI-U had been used in lieu of CPI-W to compute cost-of-living adjustments. That would have equated to about \$15 a month or \$180 a year less for the average Social Security retiree after 3 years.

Aggregate Effects of Compounding Cost-of-Living Adjustments for Social Security

	CPI-W	CPI-R (current homeownership treatment)	Increase (decrease) in outlays using CPI-R instead of CPI-W		CPI-U (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-U instead of CPI-W		CPI-R (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-R instead of rental equivalence-based CPI-U		Increase (decrease) in outlays using rental equivalence-based CPI-R instead of CPI-W	
			Monthly	Annually		Monthly	Annually		Monthly	Annually	Monthly	Annually
Monthly benefits, May 1979 (thousands)	\$ 8,056,506	\$ 8,056,506			\$ 8,056,506			\$ 8,056,506				
Cost-of-living adjustment (June 1979)	9.9 percent	9.8 percent			8.6 percent			9.0 percent				
Monthly benefits after adjustment (thousands)	\$ 8,854,100	\$ 8,946,044	(\$ 9,056)	(\$ 96,672)	\$ 8,749,366	(\$104,734)	(\$ 1,256,808)	\$ 8,781,592	\$32,226	\$386,712	(\$ 72,508)	(\$ 870,096)
Cost-of-living adjustment (June 1980)	14.3 percent	12.8 percent			11.5 percent			11.2 percent				
Monthly benefits after adjustment (thousands)	\$10,120,236	\$ 9,978,337	(\$141,899)	(\$1,702,788)	\$9,755,543	(\$364,693)	(\$ 4,376,316)	\$ 9,765,130	\$ 9,587	\$115,044	(\$355,106)	(\$ 4,261,272)
Cost-of-living adjustment (June 1981)	11.2 percent	11.2 percent			10.4 percent			10.5 percent				
Monthly benefits after adjustment (thousands)	\$11,253,703	\$11,095,911	(\$157,792)	(\$1,893,504)	\$10,770,119	(\$483,584)	(\$ 5,803,008)	\$10,790,468	\$20,349	\$244,188	(\$463,235)	(\$ 5,558,820)
Total--June 1979 to May 1982 (thousands)				<u>(\$3,692,964)</u>			<u>(\$11,436,132)</u>		<u>\$745,944</u>			<u>(\$10,690,188)</u>





## Civil Service and military

During the period covered by our study, Federal Civil Service and military pensions were adjusted semiannually--in the fall on the basis of price changes during the first half of the year and in the spring on the basis of price changes during the last half of the previous year. Our computations, as depicted in appendixes III and IV, show that from September 1978, when the cost-of-living adjustment based on price changes in the first half of 1978 went into effect, through August 1981, Government outlays for Civil Service and military pensions would have been about \$361 million less if CPI-R instead of CPI-W had been used for indexing. Using our retirees index:

--The average Civil Service pension would have risen from \$571 a month to \$783, compared with \$793 using CPI-W (all other factors remaining constant).

--The average military pension would have increased from \$645 to \$884, compared with \$896 using CPI-W.

The results are just the opposite when the comparison involves rental equivalence-based indexes. Use of the rental equivalence-based CPI-R in lieu of the rental equivalence-based CPI-U during the 3 years in question would have given rise to about \$426 million more in Civil Service and military pension benefits. As was the case with Social Security, the biggest difference--about \$2 billion less in benefits--showed up when we compared indexes using different measures of homeownership costs (CPI-W vs. CPI-U).

## Railroad Retirement

Adjustments to Railroad Retirement benefits are computed on the basis of the percent change in the CPI-W from the first quarter of one year to the first quarter of the next--just like Social Security. From June 1979 through May 1982, as the table in appendix V shows, use of our retirees index would have either decreased total benefits by about \$113 million or increased them by about \$22 million, depending on the treatment of homeownership costs. Once again, use of the rental equivalence-based CPI-U instead of the existing CPI-W would have produced the biggest difference--a \$354-million decrease in benefits during the 3 years in question.

## CONCLUSIONS

Just looking at the raw figures, our analysis showed that use of the CPI-R we constructed in lieu of CPI-W to compute the cost-of-living adjustments discussed in this report would have saved the Government about \$4.2 billion--without seeming to cause undue

financial strain on the average retiree. Just concentrating on that figure, however, tends to obscure the point that the rates of change reflected by our retirees index did not generally vary much from the rates of change reflected by CPI-W.

Even more important, in our opinion, is that our analysis indicated that if the treatment of homeownership costs were revised, a retirees index would parallel even more closely a broad-based index. Our computations using a different methodology for measuring homeownership costs (namely, rental equivalence) showed, in fact, that instead of a \$4.2-billion saving the Government would have incurred extra costs of about \$1.2 billion if it had used a retirees index to compute the cost-of-living adjustments discussed in this report.

## CHAPTER 5

### HOW MUCH WOULD A RETIREES INDEX COST?

Although our evaluation indicated that the Government might have saved a substantial sum of money in recent years if retirement benefits had been tied to a retirees index, it is uncertain whether that trend will continue in the future, especially after a different measure of homeownership costs is adopted. In our opinion, it would not be unreasonable to predict that by the time a retirees index is operational, economic conditions will be such that use of the index could increase rather than decrease Federal outlays.

With that in mind and absent any evidence that retirees have been unduly affected by the use of CPI-W to compute cost-of-living adjustments, the issue becomes more difficult. Should a separate retirees index be constructed to protect against the possibility that differences between retiree and worker spending and living patterns might cause substantive differences between indexes in the future? Or should we assume that differences between indexes over time would tend to be insignificant? The answer requires, among other things, information on the costs associated with constructing and maintaining such an index.

Various issues need to be resolved before those costs can be reliably estimated. The most important issue is whether BLS, in constructing a retirees index, would have to follow the same methodology used to construct CPI-U or whether it could use the less costly methodology recently adopted to construct CPI-W.

#### SOME BASIC ISSUES NEED TO BE RESOLVED BEFORE THE COST OF A CPI-R CAN BE RELIABLY ESTIMATED

Before deciding to construct a retirees CPI, BLS needs to know how much such an effort will cost. Although some cost estimating is possible, a reliable estimate cannot be developed until certain basic questions are answered. In other words, BLS needs to know more about what construction of a retirees CPI will entail before it can estimate the cost involved.

#### Construction of a CPI-R using CPI-U methodology

If BLS were to construct a retirees index in the same way it constructs CPI-U (which is the methodology it used also to construct CPI-W before 1982), one thing is certain--the Consumer Expenditure and Point-of-Purchase Surveys would have to be expanded to provide greater coverage of the retired population. With that in mind and at our request, BLS asked the Census Bureau to provide cost estimates for expanding those two surveys. In November 1980, the Census Bureau submitted a 3-year estimate

using salary rates in effect at that time. The estimate, totaling about \$15.3 million, was broken down as follows: 1/

	<u>First year</u>	<u>Second year</u>	<u>Third year</u>
Consumer Expenditure Survey	\$ 1,522,820	\$ 3,293,680	\$ 2,911,310
Point-of-Purchase Survey	<u>27,500</u>	<u>6,224,490</u>	<u>1,279,500</u>
Total	\$ <u>1,550,320</u>	\$ <u>9,518,170</u>	\$ <u>4,190,810</u>

That estimate could be significantly understated, however, because it is based on certain assumptions that were drawn from BLS' experience with past and ongoing expenditure and point of purchase surveys but which may not be appropriate to the retiree's situation. For example:

--In estimating the increased sample size of the two surveys, BLS assumed that retirees would cooperate to the same extent as nonretirees in responding to the interviews and filling out the diaries. But if retirees are less cooperative than nonretirees, the sample sizes will have to be increased with an attendant increase in cost.

--In estimating the cost of expanding the expenditure survey, the Census Bureau assumed, at BLS' instruction, that the current diary forms and interview questionnaires would be used. But, in fact, it may be necessary to develop different survey instruments for retirees. For example, the disaggregation process BLS now uses to select a specific item for pricing is based on an outlet's dollar sales volume. Although that process provides an appropriate indicator of the within-outlet shopping patterns of broad population groups, such as those covered by CPI-W and CPI-U, it is probably not an appropriate indicator of what retirees are buying in a particular outlet. It might be necessary, therefore, to get much more detail about the

---

1/According to the Census Bureau:

"For the first year, the estimate covers the costs of planning, designing, and preparing for the expansion \* \* \* During the second year, costs will be incurred for startup activities plus a full year of implementation of the expanded sample. The third year represents the ongoing survey costs for the expanded sample."

specific products purchased by retirees during the expenditure survey. This would require development of different survey instruments and more extensive interviews which, of course, could significantly increase the cost estimate.

The Census Bureau's estimate was just for expanding the Consumer Expenditure and Point-of-Purchase Surveys. It did not include all the potential BLS costs associated with (1) developing samples for rent, housing, and other CPI components which require special treatment, (2) collecting and processing the additional price data needed to support a retirees index, and (3) publishing a retirees index. In the absence of anything better, an indication of what those costs might be can be derived from BLS' experience with CPI-W and CPI-U.

In that respect:

--A BLS official estimated that the decision to publish two indexes instead of one resulted in nonrecurring costs during the mid 1970s of about \$3 million to expand samples and modify computer systems.

--Before 1982, about 40 percent of the consumer price information collected by BLS was used for computing both CPI-U and CPI-W, about 30 percent was used just for CPI-U, and about 30 percent was used just for CPI-W. In 1982, to save money, BLS stopped collecting separate price information for each index and decided, instead, to use the CPI-U price data to construct both indexes. BLS estimated that discontinuation of separate pricing for CPI-W would save about \$1 million annually.

It is important to remember that these figures are imprecise estimates of some of the costs that might be associated with establishing a retirees index. Actual costs will depend on such things as the extent to which BLS will be able to draw on price data now being collected for CPI-W and CPI-U in computing a CPI-R (which, in turn, will depend on the results of the expenditure and point-of-purchase surveys), and the types of changes BLS might have to make to its item selection procedures as discussed earlier.

As should be clear from the above, there are many unknowns that could have a substantial bearing on the eventual cost of constructing a retirees index, if that index is to be constructed the same way BLS constructs existing indexes. In that regard, BLS has consistently argued that the most reasonable approach to developing a retirees index would be to conduct a pilot study first that would address, and hopefully resolve, those unknowns before embarking on a full-scale expansion of the Consumer Expenditure and Point-of-Purchase Surveys.

At our request, BLS started working toward estimating the cost of conducting an appropriate pilot study, but higher priority tasks kept BLS from progressing very far in that effort. A BLS official did estimate, however, that if and when a pilot study was completed and BLS decided to go ahead with constructing a retirees index, it would be another 6 years before such an index was operable. It would take that long to conduct the Consumer Expenditure and Point-of-Purchase Surveys, process and analyze the results, select item and outlet samples, and collect and process price data.

#### Alternative to CPI-U methodology

The preceding discussion assumed that BLS would follow the same general methodology in computing a CPI-R as it does in computing CPI-U. As indicated earlier, however, there is a less costly option that BLS now uses to construct CPI-W and that is similar in many ways to the methodology we used to construct our retirees index. That option involves applying retiree weights to CPI-U price relatives.

That methodology would produce an index that recognizes retiree consumption patterns while assuming that the price changes reflected by the CPI-U price relatives fairly represent the price changes being experienced by retirees. The most BLS might have to do under this option is expand the Consumer Expenditure Survey-- which is the source of data for calculating expenditure weights-- to provide greater coverage of the retired population. BLS would not have to expand its Point-of-Purchase Survey (which the Census Bureau said would cost about \$7.5 million over 3 years) nor increase its price data collection and processing workload.

#### CONCLUSIONS

Considering the amount of money riding on every tenth of a percentage point shift in the CPI, it would be easy to characterize the cost of constructing a retirees index as insignificant. In truth, however, if BLS were to use the same methodology it uses to compute CPI-U, the cost of a CPI-R would be quite significant--with the final figure depending on answers to several basic questions. That cost could be pared considerably, however, if BLS were to use a different methodology.

## CHAPTER 6

### HOW DOES BLS' DECISION

#### TO REVISE THE HOMEOWNERSHIP

#### COMPONENT AFFECT DELIBERATIONS

#### ON THE NEED FOR A RETIREES INDEX?

Our analyses left little doubt that the single most important step that BLS could take to make the CPI more reflective of the impact of inflation on retirees would be to revise the methodology for measuring homeownership costs. BLS recently announced its intent to do just that. Now legislative action is needed to hasten the impact of that decision on federally administered retirement programs, and administrative action is needed to enable management to continue monitoring how well existing indexes measure the impact of inflation on retirees after the homeownership component is revised.

#### BLS WILL BE REVISING THE HOMEOWNERSHIP COMPONENT

On October 27, 1981, BLS announced that effective with data for January 1983 it would officially start using rental equivalence to measure homeownership costs for CPI-U similar to what it has been doing on an experimental basis since 1980 but with some refinements. BLS announced further that CPI-W will be revised to a rental equivalence-based index effective with data for January 1985.

BLS linked its decision to change CPI-U in January 1983 to the Economic Recovery Tax Act of 1981 (Public Law 97-34) which requires use of CPI-U to escalate income tax brackets and which requires announcement of the new tax brackets in December 1984 based on the 2 most recent years of CPI-U data--namely 1983 and 1984. In explaining its decision to hold off revising CPI-W until 1985, BLS noted that CPI-W is used extensively in escalation agreements in both the private and public sectors and that holding off until 1985 should give users adequate time to adjust to the change.

#### CPI-U, NOT CPI-W, SHOULD BE USED TO COMPUTE COST-OF-LIVING ADJUSTMENTS FOR FEDERALLY ADMINISTERED RETIREMENT PROGRAMS

The cost-of-living adjustments for federally administered retirement programs, including the ones discussed in this report, are tied to movements in CPI-W. Although CPI-U is the more appropriate index for escalating retirement benefits, that issue has never received much attention--probably because the choice of index would have had little impact on the level of retirement benefits. Now that BLS has announced its plans to revise CPI-U 2 years before revising CPI-W, the issue becomes more urgent.

CPI-U is the more appropriate index for computing cost-of-living adjustments to retirement benefits because the size of its target population makes it a more precise measure of inflation than CPI-W, which is targeted only at urban wage earners and clerical workers. During fiscal year 1979 appropriation hearings, the then Commissioner of BLS noted that the decision to produce a CPI-U reflected the need to

"produce a broader index more representative of the total United States population because of the extensive legislated use of the CPI in escalation of payments under social security, school lunches, food stamps, and Federal retirement programs \* \* \* "

The programs mentioned by the Commissioner were tied by numerous statutes to increases in the "Consumer Price Index." At the time those statutes were enacted, there was only one CPI--a CPI which measured the price changes associated with a market basket of goods and services bought by urban wage earners and clerical workers. When BLS began publishing two indexes in 1978, it labeled the old one CPI-W and the new one CPI-U. Thus CPI-W, as the successor to the old CPI, became the index used to calculate cost-of-living increases. Since then, legislation has been enacted to specify CPI-U as the index to be used in escalating school lunch and food stamp payments. But Social Security and other federally administered retirement programs remain indexed to CPI-W.

Until now the impact on retirement benefits of using CPI-W instead of the more appropriate CPI-U to compute cost-of-living adjustments has been negligible because both indexes have tracked very closely, to the point that after 39 months they only differed by one-tenth of an index point (265.2 compared with 265.1). For example, if CPI-U had been used to compute Social Security cost-of-living increases in 1979, 1980, and 1981, beneficiaries would have received increases of 9.8, 14.3, and 11.2 percent, respectively. The increases they actually got using CPI-W were 9.9, 14.3, and 11.2 percent.

CPI-U and CPI-W may not track so closely when one is based on rental equivalence and the other is not. The choice between the two indexes could then have significant financial repercussions. In that regard, it should be understood that a shift to rental equivalence will not necessarily prove fiscally beneficial to the Government, even though that would have been the case during the period covered by our study. If the rapid rise in house prices and mortgage interest rates that occurred during our study period were to taper off, we could see a rental equivalence-based index rising at a faster rate than an index based on the current treatment of homeownership costs. That is what happened during the 5 months from October 1981 through February 1982, when CPI-W



and CPI-U increased 1.5 percent and 1.4 percent, respectively, while BLS' experimental version of a rental equivalence-based CPI-U rose 2.1 percent.

OUR FINDINGS RELATE TO THE PAST;  
THEY MAY NOT REFLECT THE FUTURE

As our analysis indicated, when rental equivalence was used to measure homeownership costs, the existing index (in this case the rental equivalence-based CPI-U) tracked very closely with a retirees index. But our analysis, by necessity, dealt with the past. Although it serves to indicate what would have happened if certain actions had been taken, it is not necessarily a good indicator of what will happen in the future. We can be sure, in fact, that future economic conditions will differ, perhaps dramatically, from the conditions that prevailed during the period covered by our study. And we know that the rental equivalence measure of homeownership costs used in our analysis is flawed. Although we are confident that construction of a more appropriate rental equivalence measure will not affect the CPI to the point of invalidating our analysis, we have no way of predicting the effect of different economic conditions.

Rental equivalence

The rental equivalence measure of homeownership costs we used is the same measure BLS has been producing on an experimental basis since January 1980. As we explained in our report on the need to change the measurement of homeownership costs in the CPI 1/, BLS' experimental measure is flawed.

"The sample of rental housing units that BLS currently uses to measure changes in rent costs may not be suitable for estimating homeownership costs by rental equivalence. The rent sample BLS uses represents rental dwelling units, not owner-occupied housing units. Most owner-occupied housing units differ substantially from many rental units. To implement rental equivalence in the CPI, enough rental units must be found similar to owner-occupied units in size, location, and quality to enable BLS to construct a sample that represents owner-occupied houses accurately."

---

1/"Measurement of Homeownership Costs in the Consumer Price Index Should Be Changed" (PAD-81-12, April 16, 1981).

In announcing its decision to use a rental equivalence measure of homeownership costs, BLS said it would continue its efforts to improve that measure through refinements in procedures and calculation methods and eventually through supplementation of the rent sample. We understand, for example, that BLS will be re-weighting its sample of rental units so that it represents owner-occupied housing units instead of renter-occupied units and will be recalculating the expenditure weight for rental equivalence using the complex statistical estimating procedure used for weights in the official CPI rather than a shortcut method it used in computing the weights for the experimental measure.

It should be recognized that the two rental equivalence-based indexes we compared (CPI-U and CPI-R) were both computed using the same experimental measure. As such, we believe that the conclusions drawn from our analysis are valid, although we acknowledge that use of a more appropriate measure of rental equivalence might change the details behind that conclusion.

#### Future economic conditions

Even after BLS revises its measure of homeownership costs, there will still be substantial differences between the consumption patterns of retirees and the consumption patterns reflected by existing indexes. Although our analysis indicated that those differences generally would have offset each other during the period covered by our study, that will not necessarily hold true in the future. It all depends on economic conditions.

Retirees, for example, spend greater proportions of their income on food, fuel and utilities, and medical care than do workers or the urban population in general. If the economy were such that those items went up in price consistently faster than average, a retirees index would increase faster than either a workers index or an all urban index. In the past those items have not increased in price consistently faster or slower than other items. Even in the short period covered by our study, each of the items had years of more rapid than average price change and years of less rapid than average price change.

To be even more specific about the effect of differing economic conditions, consider the 1.5 percentage point difference in rate of change between CPI-R and CPI-W from the first quarter of 1979 to the first quarter of 1980. That difference was due largely to huge price increases for mortgage interest and transportation. These items constitute much greater proportions of the total consumption of workers than of retirees. If they had increased in price at a slower rate, the difference between CPI-R and CPI-W would have been less. If mortgage interest costs had increased half as fast, CPI-R would have increased overall by 12.5 percent and CPI-W by 13.1 percent--a difference of only

six-tenths of a point. Similarly, if transportation prices had increased half as fast the difference between the indexes would have been only seven-tenths of a point.

Conversely, if prices had increased faster for items which carry more weight in the retirees market basket, both indexes would have increased faster but the retirees index would have "gained" on the workers index. If either food at home, fuel and utilities, or medical care had increased in price at twice as fast a rate, the difference between CPI-R and CPI-W would have been reduced to about 1 percentage point. If all three had increased twice as fast, the retirees index would have surpassed the workers index, rising by 17 percent compared to 16.8 percent. It is problematical whether the rate of price change for all three of these categories would double. Medical care costs have been rising at a relatively steady rate in recent years while fuel and utility costs have been rising erratically. And it is easily conceivable that food prices could increase 13 percent a year rather than 6.5 percent because they have risen even faster than that in the past.

A few economic analysis organizations attempt to predict the rate of inflation and major components of price change. But their predictions provide few clues as to whether CPI-W and CPI-R would converge or diverge over the next few years. Of those consumption items which are predicted to have faster than average rates of price increase, some are more important in the retirees' market basket and some are more important in the workers' basket.

### CONCLUSIONS

The use of CPI-W instead of a retirees index to compute cost-of-living adjustments during the years covered by our study did put an extra strain on the four retirement programs discussed in this report--about \$4.2 billion worth according to our comparisons. That result can be linked to differences between the consumption patterns of retirees and workers as evidenced by differing expenditure weights.

One of the biggest differences between retirees and workers is in the proportion of expenditures devoted to homeownership and, more specifically, to home purchase and financing. According to our analysis, BLS' decision to start using rental equivalence to measure homeownership costs will erase virtually all of that difference and will result in an index that is considerably more reflective of the impact of inflation on retirees. As matters now stand, however, that improvement will not have as immediate an effect on retirement benefits as it might. Even though rental equivalence has been recognized generally as a more appropriate measure of homeownership costs than the measure now

used, federally administered retirement programs that are tied to CPI-W will not be affected by the shift to rental equivalence until 1985--2 years after the change becomes effective for CPI-U.

Because CPI-U is the more appropriate index for escalating retirement benefits, even without considering the shift to rental equivalence, the Congress should enact legislation requiring that cost-of-living adjustments for federally administered retirement programs be tied to CPI-U. Prompt enactment of such legislation will enable the programs to use the improved index when it first becomes available in 1983.

Our analysis indicates that use of a rental equivalence-based CPI-U to escalate retirement benefits in the past would have produced cost-of-living adjustments very similar to those that would have been produced by a rental equivalence-based retirees index. That finding argues against the need for a separate retirees index. We cannot ignore, however, the substantial differences between consumption patterns in areas other than homeownership. Nor can we overlook the possibility that some combination of economic conditions in conjunction with those differences could cause significant future differences between existing indexes and a retirees index.

After considering all of the evidence, including the cost data compiled in chapter 5, we believe that the most appropriate course of action is as follows:

--BLS should revise the homeownership component as it has announced.

--BLS then should compute a hybrid retirees index using our general methodology--applying retiree expenditure weights to CPI-U price relatives--to see how that index compares to existing indexes using the new measure of homeownership costs.

--Periodically thereafter, but at least annually, BLS should recompute a retirees index as above. That periodically computed index should be published so that its relationship to existing indexes can be monitored. Monitoring should focus on identifying significant differences between indexes. Such differences could signal that cost-of-living adjustments are no longer maintaining the real value of benefits or are overcompensating for the effects of inflation.

In computing the hybrid retirees index, BLS will have to decide, on the basis of the index's intended use and the availability of funds, whether to expand the Consumer Expenditure Survey to provide greater coverage of the retired population.

BLS will also need to decide whether it can construct the index using national data only, which we think would be sufficient for monitoring purposes, or whether it needs to introduce local data and geographic weights. In that regard, we found that the introduction of such data, at least at the regional level, made virtually no difference in the movement of our rental equivalence-based CPI-R.

It is important, in our opinion, that the monitoring aspects of the above process be centralized rather than segmented among the several agencies responsible for the various federally administered retirement programs. Because of the potential budgetary impact of any decision reached as a result of that monitoring, the Office of Management and Budget (OMB) seems the most logical choice to fill that role. Because it is just as important that any decision consider not only the overall impact on the Federal budget but also the potential impact on individual beneficiaries, we would expect OMB to seek input from agencies responsible for administering retirement programs.

#### AGENCY COMMENTS AND OUR EVALUATION

We sent a draft of this report to OMB, the Department of Labor, the American Association of Retired Persons, and the agencies responsible for administering the four major retirement programs--the Department of Health and Human Services, the Office of Personnel Management, the Department of Defense, and the Railroad Retirement Board. Their comments on the draft are reprinted in appendixes VII through XIII.

Only the Department of Defense, the Office of Personnel Management, and OMB spoke to our proposal that cost-of-living adjustments for federally administered retirement programs be tied to CPI-U. The Department of Defense said it had no objection to legislation that would base adjustments in military retired pay on percentage changes in the CPI-U if such legislation included other Federal programs. The Office of Personnel Management said that use of the revised CPI-U would appear to be a substantial improvement over the present use of CPI-W.

OMB did not argue with our basic point that CPI-U is more appropriate than CPI-W for escalating retirement benefits--in fact, OMB did not even comment on that aspect. It argued instead with our suggestion that the shift to CPI-U be done expeditiously to take advantage of the improved methodology for computing homeownership costs, even though it agreed that rental equivalence more closely approximates the impact of inflation for retirees than does the current measure of homeownership costs. OMB explained its position thusly:

"In recent years, during which interest rates have increased significantly, the present measurement of homeownership costs in the CPI has overstated the effect of inflation, as your report suggests. However, when interest rates decline the CPIW is expected to fall faster than the CPIU. The Administration projects that interest rates will decline in 1983 and 1984, when homeownership costs will be treated differently in the two indexes. Therefore, a shift from the more interest sensitive CPIW to the CPIU in 1983 would increase projected Federal outlays by an estimated \$2 billion over the three-year period from fiscal year 1983 to 1985. Since the Federal government has incurred the costs associated with the overstatement of inflation in earlier years, we do not believe it would be appropriate to shift to the CPIU in 1983 and 1984 when the reverse may be the case."

If it were clear that a shift to CPI-U in 1983 would cost the Government \$2 billion, we might be hard pressed to question OMB's position, especially at a time when the desire to reduce Federal spending has prompted various suggestions for cutting back the size of cost-of-living adjustments--ranging from caps to moratoriums. The potential impact on Federal expenditures is not that clear, however.

In its budget for fiscal year 1983, the Administration notes that:

"The forecasts for 1982 and 1983 are subject to substantial margins of error, particularly in the interest rate area. For periods further in the future, economic projections are subject to even greater uncertainty."

Also, recent forecasts by DRI would indicate that CPI-W and the rental equivalence-based CPI-U will track almost identically in 1983 and 1984. DRI's forecast is based apparently on economic assumptions that differ from those behind OMB's forecast, and only time will tell whose assumptions were more accurate.

In our opinion, any prediction as to how all the CPI categories are going to move in future years, how those various movements are going to interact in the different indexes, and how those movements and interactions will affect the Federal budget is uncertain to say the least. In that regard, we think the Director of the Congressional Budget Office said it best during congressional hearings in November 1981:

"Unfortunately, it is almost impossible to determine whether the revised CPI will show a lower rate of inflation in the future than would have been shown by the current CPI \* \* \* [After considering various factors, the Congressional Budget Office] concludes that inflation rates calculated using the current measure of homeownership and the rental equivalence measure will probably not differ from one another substantially. This 'best guess' forecast is unusually uncertain because it requires balancing a lot of offsetting factors in a field that is notoriously difficult to model and to forecast."

Given the uncertain budgetary impact, we believe that the decision whether and when to shift to CPI-U hinges solely on the basic premise that cost-of-living adjustments be tied to the index that more accurately reflects the impact of inflation on retirees. In our opinion, an all urban index (i.e., CPI-U) satisfies that criterion better than an urban wage earners index (i.e., CPI-W) and a rental equivalence-based index fits the bill better than an index using the current measure of homeownership costs. In 1983, a rental equivalence-based CPI-U will be available. We think it should be used to escalate retirement benefits.

Our conclusion that BLS should compute a retiree-weighted CPI and that OMB should monitor the relationship of that index to existing indexes met with mixed reviews.

The American Association of Retired Persons supported our position. The Railroad Retirement Board found our position reasonable but noted that "the extent to which the proposed CPI is used to adjust pension benefits deserves further consideration." The Department of Defense expressed "reservations about singling out one segment of the population to establish an index for a specific purpose only." It too thought further analysis was needed to ensure that all ramifications of our proposal had been explored.

BLS disagreed with our position. It pointed to the fact that a retirees index constructed by applying retiree expenditure weights to CPI-U price data suffers from the lack of information on such things as where the retirees shop and what price structures they face. BLS expressed the belief that "answering the question of how a CPI for retirees would differ from existing measures requires a definitive assessment of the importance of these factors." BLS concluded that if it were to work on a CPI for retirees, it would "focus attention on these technical issues, rather than on producing a version of the current CPI reweighted to represent retirees."

OMB disagreed with us for different reasons. It felt that formal monitoring, as we were suggesting, would raise expectations that major differences between existing indexes and the hybrid retirees index would lead to changes in cost-of-living adjustments. OMB said it did not want to raise those expectations because there were too many unanswered questions, such as (1) Who is a retiree? and (2) Would development of a retirees index create a precedent for other indexes such as a "poverty index?"

A common thread running through some of the above comments is an apparent impression that we are proposing that the hybrid retirees index be used to compute cost-of-living adjustments. That is not our intent. After rereading our draft report in the light of those comments, however, we could understand how that impression surfaced. We have made appropriate changes to clarify our position.

We see the hybrid index as a vehicle for helping OMB, the Congress, and retiree groups answer the question: do cost-of-living adjustments fairly compensate retirees for increases in their cost of living? That is a question that has been and still is being debated. And whenever someone wants to answer the question on some basis other than conjecture--which in many cases is the only basis--he or she invariably goes through an exercise that involves reweighting the existing CPI to reflect retiree expenditure patterns. Our purpose in calling for periodic computation of the hybrid CPI-R is to provide that kind of information on a regular, consistent basis so that it is readily available to those who need to know and want to know.

The hybrid index, in effect, will inject an element of rationality into the debate. It will allow one to observe trends with the assurance that the index is being computed from year to year using a consistent methodology rather than trying to observe trends by looking at various studies, each done using a different methodology.

BLS argues against our proposal because the index we are proposing does not take into account certain factors that could cause a retirees index to differ from existing indexes. BLS' position would be reasonable if we were talking about constructing a retirees index that was going to be used to compute cost-of-living adjustments. That is not what we are talking about, however. In that regard, the hybrid retirees index could be looked on as an experimental index much like the experimental indexes BLS has been publishing using different measures of homeownership costs. Those indexes have not been constructed using the same rigorous methodology used in constructing the official indexes. But, they have been good enough for experimental purposes and good enough for monitoring purposes. In that same vein, we think a retirees index that is computed as we have suggested would be good enough



for the purpose intended--monitoring. The additional information that BLS would like to focus on would certainly be nice to have and might be worth pursuing if funds are available. But we see no need to defer publishing a hybrid index until then.

OMB is concerned apparently that our proposal, if adopted, would raise more questions than it answers. Only time will tell if OMB is right. Even if it is, however, that is no reason to reject our proposal. The absence of a hybrid index has not prevented questions in the past. If nothing else, the presence of a hybrid index will provide a focus for those questions and a base for any response.

If the hybrid index, over time, tracks fairly similar to existing indexes--a very possible result--then our proposal could serve to still a lot of the controversy that has occurred in the past. If the hybrid index and existing indexes do not track closely, however, then questions can be expected, and rightfully so. We might hear questions like: What do we do now? Should we move toward constructing a full-blown retirees CPI? Should we consider indexes for other target groups? Should we propose an ad hoc adjustment to cost-of-living raises to reflect differences between the hybrid index and existing indexes? Should we just not do anything because whatever we do would be too costly or complex? Those questions are all appropriate byproducts of the process we are proposing; they are the kinds of questions one would expect in any rational debate.

#### RECOMMENDATION TO THE CONGRESS

We recommend that the Congress enact legislation requiring that CPI-U be used instead of CPI-W to compute cost-of-living adjustments for federally administered retirement programs. Any such legislation should be enacted in time to coincide with BLS' decision to revise the homeownership component of CPI-U starting in January 1983. The retirement programs involved and pertinent legal citations are listed in appendix VI.

#### RECOMMENDATION TO THE SECRETARY OF LABOR

Once the methodology for computing homeownership costs has been revised in the index used to escalate retirement programs, we recommend that the Secretary of Labor direct BLS to compute a retirees index using that revised measure of homeownership costs and to recompute that index periodically thereafter, but at least annually. To compute that index, BLS should apply retiree expenditure weights to the price information already being collected in support of CPI-U.

RECOMMENDATION TO THE DIRECTOR,  
OFFICE OF MANAGEMENT AND BUDGET

OMB      Once BLS starts computing a retirees index, we recommend that

- monitor the relationship of that index to the index being used to calculate cost-of-living adjustments for federally administered retirement programs; and
- determine, with input from the Social Security Administration and other agencies responsible for administering those programs, whether differences between the indexes are significant enough to warrant proposing changes to the mechanism for computing cost-of-living adjustments.

THE HOMEOWNERSHIP COMPONENT

The homeownership component of the official CPI is comprised of five broad categories--home purchase, contracted mortgage interest, maintenance and repairs, 1/ property tax, and property insurance. The expenditure weights for the last three categories are computed in a very straightforward, noncontroversial manner; the weights for home purchase and contracted mortgage interest are computed in ways that have caused considerable controversy. A recent GAO report 2/ described those computations thusly:

"The home purchase expenditure weight represents total expenditure on home purchases minus total receipts from the sale of homes by the index population during the reference period. The weight includes the total expenditure of people who only bought houses, the difference between purchase costs and sale receipts for those who both bought and sold houses, and the receipts, or negative expenditures, of those who only sold houses. In addition, transaction or closing costs associated with all home purchases and sales are included in the home purchase expenditure weight \* \* \* Rather than relying just on 1 year, BLS has averaged data from the 6-year period 1968 through 1973 to derive a more accurate weight for home purchase costs in the current CPI. This also assures a larger sample, lessening the problem of the infrequency of home purchases.

\* \* \* \* \*

"The expenditure weight for mortgage interest represents the total interest that borrowers in the index population contract to pay during the first half term of mortgages on homes purchased in the reference period. In 1964, BLS began limiting the contracted interest to

---

1/As used in this appendix, the term "maintenance and repairs" includes capital improvements.

2/"Measurement of Homeownership Costs in the Consumer Price Index Should Be Changed" (PAD-81-12, April 16, 1981).

the amount payable during the first half of mortgage terms, because, on the average, mortgage contracts appeared to remain in effect for only about half of their originally scheduled time. For all mortgage contracts made in the reference period, the interest rate, term, and amount borrowed are obtained from the Consumer Expenditure Survey. For each market basket, the total contracted interest payable in the half term on house purchase financing is calculated from the average interest rate, the average term, and the average amount borrowed. The calculations are made for both first and second mortgage loans, or deeds of trust."

In his study of the variation of inflation rates across households (see p. 15), Robert Hagemann computed indexes using four treatments of homeownership. One of those treatments involved computing an index exclusive of housing. The other three treatments included housing in the index but used three different approaches for computing appropriate expenditure weights. In his paper, Mr. Hagemann explained those approaches--which he called "Rental Equivalence," "Outlays Using Current Interest Cost," and "Outlays Using Average Interest Costs"--thusly:

"The attractiveness of the 'Rental Equivalence' approach lies in its sound conceptual basis and its ease of implementation. First, \* \* \* restrictive assumptions about the owner-occupied and rental housing markets are required to show that the market rental value of an owner-occupied dwelling is not closely related to the user cost of the unit. The user cost, in turn, equals the opportunity cost of consuming the flow of services provided by the owner-occupied home. Second, each owner-occupant in the [Consumer Expenditure Survey] sample was asked to report the rental value of the home, thus providing a direct estimate of the cost of residing in the unit. The relative importance of the rental value of the home is moved by the official CPI rent component in computing the rental equivalence indexes. This implicitly assumes that price movements in both the rental and owner-occupied housing markets are similar. No empirical evidence is as yet available to assess the validity of this assumption.

"In the 'Outlays Using Current Interest' approach \* \* \* the costs of owner-occupied housing are divided into two basic categories: (1) actual outlays (property taxes, insurance, and maintenance and repairs), and (2) potential mortgage interest costs. The weights for the actual outlays are straightforwardly derived from owner-occupants' reported expenditures on the separate categories. The weight for the mortgage interest component is derived from the product of the average existing mortgage interest rates in the survey years and the outstanding debt on the owned home. In computing the indexes, all of the components are moved by current price changes as measured by official CPI components. In the case of the mortgage interest cost weight, the official 'Contracted Mortgage Interest' CPI is used, thus holding constant both house quality and mortgage loan characteristics other than the interest rate. Implicit in this treatment of homeownership is the assumption that the loan to house value ratio remains constant over time.

"In the 'Outlays Using Average Interest Costs' approach \* \* \* the property taxes, insurance, and maintenance and repair components are the same as in the [Outlays Using Current Interest] approach, and are moved by current price changes. The mortgage interest component differs, however, in two respects. First, this approach uses actual mortgage interest payments reported in the survey by homeowners. Second, the mortgage interest weights are moved not by current price changes, but rather by interest rate movements lagged by the same number of years as the age of the mortgage [with a maximum lag of 5 years]. The 'Contracted Mortgage Interest' CPI is used to move the mortgage interest weights which \* \* \* holds constant house quality and loan characteristics. This approach measures changes in costs under the assumption that the age distribution of mortgages remains constant over time."

REGIONAL EXPENDITURE WEIGHTS FOR RETIREES AS OF DECEMBER  
1977 USING THE CURRENT MEASURE OF HOMEOWNERSHIP COSTS

<u>Expenditure category</u>	<u>Northeast</u>	<u>North Central</u>	<u>South</u>	<u>West</u>
Cereal and bakery products	2.976	2.961	2.896	2.385
Meats, poultry, fish and eggs	7.768	7.335	7.094	6.541
Dairy products	2.875	2.861	2.997	2.510
Fruits and vegetables	4.054	3.492	3.689	4.046
Other food at home	5.616	6.091	6.215	5.398
Food away from home	5.406	4.846	4.440	6.785
Alcoholic beverages	1.334	1.601	.772	1.616
Total food and drink	<u>30.029</u>	<u>29.187</u>	<u>28.103</u>	<u>29.281</u>
Residential rent	7.361	5.089	3.625	5.856
Other rental costs	.891	.694	.519	1.283
Home purchase	1.362	0.000 <sup>1/</sup>	4.511	2.228
Home financing, taxes and insurance	6.049	5.676	4.515	5.370
Home maintenance and repair services	3.626	4.309	5.689	2.456
Home maintenance and repair commodities	.518	.986	1.247	.509
Total shelter	<u>19.807</u>	<u>16.754</u>	<u>20.106</u>	<u>17.702</u>
Household fuels	7.518	8.346	6.430	5.039
Other utilities and public services	2.319	2.913	3.251	2.947
Total fuel and utilities	<u>9.837</u>	<u>11.259</u>	<u>9.681</u>	<u>7.986</u>
New vehicle purchase	1.527	2.742	3.444	2.023
Used vehicle purchase	.922	1.217	1.110	1.379
Gasoline	2.800	3.673	4.038	3.733
Auto maintenance and repair	1.295	1.290	1.283	1.354
Other private transportation	3.545	3.530	3.513	3.704
Public transportation	1.453	.834	.986	1.222
Total transportation	<u>11.542</u>	<u>13.286</u>	<u>14.374</u>	<u>13.415</u>
Medical care services	6.519	7.850	7.079	8.400
Medical care commodities	1.497	1.684	1.855	1.613
Total medical care	<u>8.016</u>	<u>9.534</u>	<u>8.934</u>	<u>10.013</u>
Housefurnishings	2.792	3.228	3.045	3.178
Housekeeping supplies	2.664	2.607	2.287	2.834
Housekeeping services	3.123	2.782	2.839	3.083
Apparel and upkeep	5.304	4.562	4.407	4.583
Entertainment	2.793	3.061	2.573	4.050
Tobacco products	1.191	.944	1.086	.839
Personal care	2.159	2.201	2.058	2.428
Personal and educational expenses	.741	.596	.508	.610
Total other	<u>20.767</u>	<u>19.981</u>	<u>18.803</u>	<u>21.605</u>
Total expenditures	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

<sup>1/</sup>In the North Central region, retirees received more from house sales than they spent on house purchases which produced a negative weight. Rather than attempt to deal with a negative expenditure weight, we assigned a weight of zero.

REGIONAL EXPENDITURE WEIGHTS FOR RETIREES AS OF  
DECEMBER 1977 USING RENTAL EQUIVALENCE

<u>Expenditure category</u>	<u>Northeast</u>	<u>North Central</u>	<u>South</u>	<u>West</u>
Cereal and bakery products	2.883	2.797	2.940	2.254
Meats, poultry, fish and eggs	7.526	6.929	7.201	6.184
Dairy products	2.785	2.704	3.042	2.373
Fruits and vegetables	3.927	3.299	3.744	3.825
Other food at home	5.440	5.754	6.309	5.104
Food away from home	5.237	4.578	4.506	6.415
Alcoholic beverages	1.292	1.513	.783	1.528
Total food and drink	<u>29.090</u>	<u>27.574</u>	<u>28.525</u>	<u>27.683</u>
Residential rent	7.131	4.808	3.679	5.537
Other rental costs	.863	.655	.527	1.213
Rental value-owner occupied housing	14.322	15.890	14.702	15.440
Total shelter	<u>22.316</u>	<u>21.353</u>	<u>18.908</u>	<u>22.190</u>
Household fuels	7.283	7.885	6.526	4.764
Other utilities and public services	2.247	2.752	3.300	2.786
Total fuel and utilities	<u>9.530</u>	<u>10.637</u>	<u>9.826</u>	<u>7.550</u>
New vehicle purchase	1.479	2.590	3.496	1.912
Used vehicle purchase	.893	1.149	1.126	1.304
Gasoline	2.712	3.470	4.098	3.529
Auto maintenance and repair	1.255	1.218	1.303	1.280
Other private transportation	3.434	3.335	3.565	3.502
Public transportation	1.407	.788	1.000	1.155
Total transportation	<u>11.180</u>	<u>12.550</u>	<u>14.588</u>	<u>12.682</u>
Medical care services	6.315	7.416	7.185	7.942
Medical care commodities	1.450	1.591	1.883	1.525
Total medical care	<u>7.765</u>	<u>9.007</u>	<u>9.068</u>	<u>9.467</u>
Housefurnishings	2.705	3.050	3.091	3.005
Housekeeping supplies	2.581	2.463	2.321	2.680
Housekeeping services	3.025	2.629	2.882	2.915
Apparel and upkeep	5.138	4.310	4.473	4.333
Entertainment	2.706	2.892	2.612	3.829
Tobacco products	1.154	.892	1.102	.793
Personal care	2.092	2.080	2.089	2.296
Personal and educational expenses	.718	.563	.515	.577
Total other	<u>20.119</u>	<u>18.879</u>	<u>19.085</u>	<u>20.428</u>
Total expenditures	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>





Aggregate Effects of Compounding Cost-of-Living Adjustments for Civil Service Pensions

	CPI-W	CPI-R (current homeownership treatment)	Increase (decrease) in outlays using CPI-R instead of CPI-W		CPI-U (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-U instead of CPI-W		CPI-R (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-R instead of rental equivalence-based CPI-U		Increase (decrease) in outlays using rental equivalence-based CPI-R instead of CPI-W	
			Monthly	Semiannually		Monthly	Semiannually		Monthly	Semiannually	Monthly	Semiannually
Monthly benefits, Aug. 1978 (thousands)	\$ 893,636	\$ 893,636			\$ 893,636			\$ 893,636				
Cost-of-living adjustment effective Sept. 1978	4.9 percent	5.6 percent			4.6 percent			5.3 percent				
Monthly benefits after adjustment (thousands)	\$ 937,424	\$ 943,680			\$ 934,743	(\$ 2,681)	(\$ 16,086)	\$ 940,999	\$ 6,256	\$ 37,536	\$ 3,575	\$ 21,450
Cost-of-living adjustment effective Mar. 1979	3.9 percent	3.4 percent	\$ 6,256	\$ 37,536	3.2 percent			3.1 percent				
Monthly benefits after adjustment (thousands)	\$ 973,984	\$ 975,765			\$ 964,655	(\$ 9,329)	(\$ 55,974)	\$ 970,170	\$ 5,515	\$ 33,090	(\$ 3,814)	(\$ 22,884)
Cost-of-living adjustment effective Sept. 1979	6.0 percent	6.6 percent	\$ 1,781	\$ 10,686	5.9 percent			6.0 percent				
Monthly benefits after adjustment (thousands)	\$1,041,199	\$1,040,165			\$1,021,570	(\$19,619)	(\$ 117,714)	\$1,028,380	\$ 6,810	\$ 40,860	(\$12,809)	(\$ 76,854)
Cost-of-living adjustment effective Mar. 1980	6.0 percent	5.3 percent	(\$ 1,024)	(\$ 6,144)	4.7 percent			4.6 percent				
Monthly benefits after adjustment (thousands)	\$1,103,660	\$1,095,294			\$1,069,583	(\$34,077)	(\$ 204,462)	\$1,075,685	\$ 6,102	\$ 36,612	(\$27,975)	(\$167,850)
Cost-of-living adjustment effective Sept. 1980	7.7 percent	7.2 percent	(\$ 8,366)	(\$ 50,196)	6.1 percent			6.1 percent				
Monthly benefits after adjustment (thousands)	\$1,188,642	\$1,174,155			\$1,134,828	(\$53,814)	(\$ 322,884)	\$1,141,302	\$ 6,474	\$ 38,844	(\$47,340)	(\$284,040)
Cost-of-living adjustment effective Mar. 1981	4.4 percent	4.3 percent	(\$14,487)	(\$ 86,922)	4.4 percent			4.4 percent				
Monthly benefits after adjustment (thousands)	\$1,240,942	\$1,224,644			\$1,184,760	(\$56,182)	(\$ 337,092)	\$1,191,519	\$ 6,759	\$ 40,554	(\$49,423)	(\$296,538)
Total--Sept. 1978 to Aug. 1981 (thousands)			(\$16,298)	(\$ 97,788)						\$227,496		(\$826,716)
				(\$192,828)								



Aggregate Effects of Compounding Cost-of-Living Adjustments for Military Pensions

	CPI-W	CPI-R (current homeownership treatment)	Increase (decrease) in outlays using CPI-R instead of CPI-W		CPI-U (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-U instead of CPI-W		CPI-R (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-R instead of rental equivalence-based CPI-U		Increase (decrease) in outlays using rental equivalence-based CPI-R instead of CPI-W	
			Monthly	Semiannually		Monthly	Semiannually		Monthly	Semiannually	Monthly	Semiannually
Monthly benefits, Aug. 1978 (thousands)	\$ 778,749	\$ 778,749			\$ 778,749			\$ 778,749				
Cost-of-living adjustment effective Sept. 1978	4.9 percent	5.6 percent			4.6 percent			5.3 percent				
Monthly benefits after adjustment (thousands)	\$ 816,908	\$ 822,359	\$ 5,451	\$ 32,706	\$ 814,571	(\$ 2,337)	(\$ 14,022)	\$ 820,023	\$ 5,452	\$ 32,712	\$ 3,115	\$ 18,690
Cost-of-living adjustment effective Mar. 1979	3.9 percent	3.4 percent			3.2 percent			3.1 percent				
Monthly benefits after adjustment (thousands)	\$ 848,767	\$ 850,319	\$ 1,552	\$ 9,312	\$ 840,637	(\$ 8,130)	(\$ 48,780)	\$ 845,444	\$ 4,807	\$ 28,842	(\$ 3,323)	(\$ 19,938)
Cost-of-living adjustment effective Sept. 1979	6.9 percent	6.6 percent			5.9 percent			6.0 percent				
Monthly benefits after adjustment (thousands)	\$ 907,332	\$ 906,440	(\$ 892)	(\$ 5,352)	\$ 890,235	(\$17,097)	(\$102,582)	\$ 896,171	\$ 5,936	\$ 35,616	(\$11,161)	(\$ 66,966)
Cost-of-living adjustment effective Mar. 1980	6.0 percent	5.3 percent			4.7 percent			4.6 percent				
Monthly benefits after adjustment (thousands)	\$ 961,772	\$ 954,481	(\$ 7,291)	(\$ 43,746)	\$ 932,076	(\$29,696)	(\$178,176)	\$ 937,395	\$ 5,319	\$ 31,914	(\$24,377)	(\$146,262)
Cost-of-living adjustment effective Sept. 1980	7.7 percent	7.2 percent			6.1 percent			6.1 percent				
Monthly benefits after adjustment (thousands)	\$1,035,828	\$1,023,204	(\$12,624)	(\$ 75,744)	\$ 988,933	(\$46,895)	(\$281,370)	\$ 994,576	\$ 5,643	\$ 33,059	(\$41,252)	(\$247,512)
Cost-of-living adjustment effective Mar. 1981	4.4 percent	4.3 percent			4.4 percent			4.4 percent				
Monthly benefits after adjustment (thousands)	\$1,081,405	\$1,067,202	(\$14,203)	(\$ 85,218)	\$1,032,446	(\$48,959)	(\$293,754)	\$1,038,337	\$ 5,891	\$ 35,346	(\$43,068)	(\$258,408)
Total--Sept. 1978 to Aug. 1981 (thousands)				<u>(\$168,042)</u>			<u>(\$918,684)</u>			<u>\$198,288</u>		<u>(\$720,396)</u>



Aggregate Effects of Compounding Cost-of-Living Adjustments for Railroad Retirement Pensions (note a)

	CPI-W	CPI-R (current homeownership treatment)	Increase (decrease) in outlays using CPI-R instead of CPI-W		CPI-U (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-U instead of CPI-W		CPI-R (rental equivalence)	Increase (decrease) in outlays using rental equivalence-based CPI-R instead of rental equivalence-based CPI-U		Increase (decrease) in outlays using rental equivalence-based CPI-R instead of CPI-W	
			Monthly	Annually		Monthly	Annually		Monthly	Annually	Monthly	Annually
Monthly benefits, May 1979 (thousands)	\$297,420	\$297,420			\$297,420			\$297,420				
Cost-of-living adjustment (June 1979)	9.9 percent	9.8 percent			8.6 percent			9.0 percent				
Monthly benefits after adjustment (thousands)	\$322,358	\$322,126	(\$ 232)	(\$ 2,784)	\$319,096	(\$ 3,262)	(\$ 39,144)	\$320,006	\$990	\$11,880	(\$ 2,272)	(\$ 27,264)
Cost-of-living adjustment (June 1980)	14.3 percent	12.8 percent			11.5 percent			11.2 percent				
Monthly benefits after adjustment (thousands)	\$361,739	\$357,400	(\$4,339)	(\$ 52,068)	\$350,411	(\$11,328)	(\$135,936)	\$350,687	\$276	\$ 3,312	(\$11,052)	(\$132,624)
Cost-of-living adjustment (June 1981)	11.2 percent	11.2 percent			10.4 percent			10.5 percent				
Monthly benefits after adjustment (thousands)	\$396,765	\$391,960	(\$4,805)	(\$ 57,660)	\$381,855	(\$14,910)	(\$178,920)	\$382,441	\$586	\$ 7,032	(\$14,324)	(\$171,888)
Total--June 1979 to May 1982 (thousands)				<u>(\$112,512)</u>			<u>(\$354,000)</u>			<u>\$22,224</u>		<u>(\$331,776)</u>

a/The "Monthly benefits after adjustment" cannot be derived directly using the prior amount and the cost-of-living adjustment. In the Railroad Retirement system, some benefits are adjusted at 100 percent of the CPI change, some at 32 1/2 percent of the CPI change, and some not at all.



FEDERALLY ADMINISTERED RETIREMENT  
PROGRAMS FOR WHICH A SHIFT FROM CPI-W TO  
CPI-U WOULD REQUIRE LEGISLATIVE ACTION

<u>Retirement program</u>	<u>Legal citation</u>
Social Security (Old Age, Survivors, and Disability Insurance)	Section 215 of the Social Security Act, as amended <u>1</u> / 42 U.S.C. 415(i)
Railroad	Railroad Retirement Act of 1974 45 U.S.C. 231b and c
Comptroller General	Comptroller General Annuity Adjustment Act of 1978 31 U.S.C. 43c
Civil Service	5 U.S.C. 8331(15) and 8340

A change in the computation of cost-of-living increases for the Civil Service retirement program will trigger a similar change in several other retirement programs without further legislative action. That is because legislation already exists calling for conformity between those programs and the Civil Service program. The affected programs are:

	<u>Conformity with Civil Service called for by</u>
Uniformed Services (applies to members of the Army, Navy, Marines, Air Force, and Coast Guard and commissioned officers of the Public Health Service and the National Oceanic and Atmospheric Administration)	10 U.S.C. 1401a (note)
Foreign Service	22 U.S.C. 1065
Central Intelligence Agency	90 Stat. 2472, codified as a note to 50 U.S.C. 403

---

1/A change in the way cost-of-living increases are computed for Old Age, Survivors, and Disability insurance benefits automatically triggers a change in the way such increases are computed for Supplemental Security Income benefits (42 U.S.C. 1382f) and for Veterans pension benefits (38 U.S.C. 3112).

**U. S. Department of Labor**Commissioner for  
Bureau of Labor Statistics  
Washington, D.C. 20212

MAR 9 1982

Mr. Gregory J. Ahart  
Director  
Human Resources Division  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Ahart:

This is in reply to your letter to the Secretary of Labor requesting comments on the draft GAO report entitled, "Propriety of Retiree Pension Adjustments Will Improve With Consumer Price Index Shelter Cost Changes, But A Separate Index May Still Prove Necessary." The Department's response is enclosed.

The Department appreciates the opportunity to comment on this report.

Sincerely yours,

JANET L. NORWOOD  
Commissioner

Enclosure



U.S. Department of Labor's Response To  
The Draft General Accounting Office Report  
Entitled --

PROPRIETY OF RETIREE PENSION ADJUSTMENTS  
WILL IMPROVE WITH CONSUMER PRICE INDEX  
SHELTER COST CHANGES, BUT A SEPARATE  
INDEX MAY STILL PROVE NECESSARY

Recommendation:

Once the methodology for computing homeownership costs has been revised in the index used to escalate retirement programs, we recommend that the Secretary of Labor direct BLS to compute a retirees index using that revised measure of homeownership costs and to recompute that index periodically thereafter, but at least annually. To compute that index, BLS should apply retiree expenditure weights to the price information already being collected in support of CPI-U.

Response:

The technical limitations of a Consumer Price Index for retirees (CPI-R), which is constructed from currently available data, are clearly and effectively delineated in the draft report. The methodology used in constructing the price measures unavoidably suffers from the lack of information on the detailed composition of retirees spending patterns, on where they shop, and on the price structure they face. As the draft report acknowledges, the impact on the estimated CPI-R of not accounting for these factors is unknown and at this point can only be speculated. BLS believes that answering the question of how a CPI for retirees would differ from existing measures requires a definitive assessment of the importance of these factors. Consequently, if the Bureau were to undertake work on a CPI for retirees in the future, it would focus attention on these technical issues, rather than on producing a version of the current CPI reweighted to represent retirees.



EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF MANAGEMENT AND BUDGET  
WASHINGTON, D.C. 20503

MAR 12 1982

Mr. William J. Anderson  
Director, General Government  
Division  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Anderson:

I am pleased to have the opportunity of replying to your request for the views of the Office of Management and Budget on the draft of the proposed GAO report entitled "Propriety of Retiree Pension Adjustments will Improve with Consumer Price Index Shelter Cost Changes, but a Separate Index May Still Prove Necessary."

We agree that the consumption patterns of retirees are different from the patterns of the general population and, therefore, a price index specifically constructed for retirees would have different weights than the present CPI. We also agree that, historically, a hypothetical CPI for retirees would have increased at a similar rate as the general CPI. Finally, we agree that the rental equivalency measurement of homeowner costs more closely approximates the impact of inflation on homeowner costs for retirees than the present measurement.

While we agree with these major points that are made in this draft, we do not agree with the two major GAO recommendations in the report for the reasons described below.

GAO Recommendation:

The COLA's for federal retirement programs should be linked to changes in the CPIU instead of the CPIW beginning in 1983 because of the incorporation of the preferred rental equivalency measurement of homeowner costs in the CPIU in 1983.

Comment:

The present measurement of homeownership costs in the CPIW is more sensitive to changes in interest rates than the rental equivalency measurement that will be used in the CPIU beginning in 1983. In recent years, during which interest rates have increased significantly, the present measurement of homeownership

costs in the CPI has overstated the effect of inflation, as your report suggests. However, when interest rates decline the CPIW is expected to fall faster than the CPIU. The Administration projects that interest rates will decline in 1983 and 1984, when homeownership costs will be treated differently in the two indexes. Therefore, a shift from the more interest sensitive CPIW to the CPIU in 1983 would increase projected Federal outlays by an estimated \$2 billion over the three-year period from fiscal year 1983 to 1985. Since the Federal government has incurred the costs associated with the overstatement of inflation in earlier years, we do not believe it would be appropriate to shift to the CPIU in 1983 and 1984 when the reverse may be the case. By 1985 both the CPIW and the CPIU will be measuring homeownership costs by the rental equivalency method, which we agree will be a more accurate measure of price changes than the present method.

GAO Recommendation:

The BLS construct a "retirees'" CPI and OMB monitor the changes in the general CPI and this special index. If the "retirees'" index and the general index diverge significantly in the future, a formal "retirees'" index should be considered for Federal cost-of-living adjustments.

Comment:

The construction of the "retirees'" CPI by changing the weights in the present CPI is a relatively easy process that BLS and private researchers can do on a routine basis. The technical staff at OMB will, as a matter of course, be interested in the results. But to formally monitor the process suggests that major discrepancies between the indexes would lead to changes in cost-of-living adjustments. There are simply too many unanswered questions that have not been addressed for us to raise that expectation, such as:

- Who is a retiree? Would a person retired from the military at age 38 be considered a retiree or are retirees defined by age, i.e., people 65 and older?
- If we had a "retirees'" index, would we use it to adjust the benefits of the disabled who now receive retirement benefits? Or would we have to construct a separate index for the disabled since they almost certainly have different consumption patterns from both the general population and retirees?
- Would the creation of a separate index for the retirees create a precedent for other indexes such as a "poverty" index?

-- Even if a "retirees'" CPI did deviate significantly from the general CPI, would we want to reflect the deviation in the cost-of-living adjustment?

Because these questions have not been addressed, we do not want to raise the expectation that OMB is considering a "retirees'" index by formally monitoring the changes in the general CPI and a "retirees'" index.

I appreciate the opportunity to comment on your draft. I hope our suggestions are useful.

Sincerely,

Handwritten signature of David A. Stockman in black ink.

-----	-----
NATIONAL RETIRED TEACHERS ASSOCIATION	AMERICAN ASSOCIATION OF RETIRED PERSONS

February 19, 1982

Mr. William J. Anderson  
Director  
General Government Division  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Anderson:

Having reviewed GAO's recent study of the CPI issue as it pertains to COLA's, it is our view that your conclusions are very well supported by the evidence you produced and that your recommendations are sound and well founded. In this regard I would point out that the position of AARP has consistently remained that indexing should above all, be accurate. Hence, while on the one hand we have rejected proposals for arbitrary caps on COLA's based on some vague impression of error, we have also argued long and hard that BLS should create an experimental index for the retired and establish the degree of accuracy (or inaccuracy) with some precision. Hence your parallel recommendation is particularly appreciated.

There are a few matters, however, which we suggest for your consideration. A really major and unresolved issue lies in the composition of goods or services within major component groups. In some cases, it seems unlikely that differences would be a major concern but in medical care, however, a major component of the retired's market basket, the matters are less clear.

For example, nursing home prices are not monitored by BLS nor are insurance premiums for health care, and both of these items are important components of the aged's out-of-pocket consumption expenditures. Indeed, it should also be noted that the composition of a prescription drug category would be very different for an older person relative to the average consumer. Especially in this area then, particularly given the government's involvement in Medicare and Medicaid, we

Mildred Moore  
President NRTA

Olaf J. Kaasa  
President AARP

Cyril F. Brickfield  
Executive Director

National Headquarters: 1909 K Street, N.W. Washington, D.C. 20049 (202) 872-4700

Mr. William J. Anderson  
 February 19, 1982  
 Page 2

would urge BLS to properly define this category of outlays and carefully monitor the prices of the different goods and services mix likely to obtain in the medical care area.

(See GAO note 1.)

One other matter of concern is in the finding that the extra burden on social security has amounted to \$4 billion over the 1979-1980-1981 periods. Although the text makes clear that this is primarily attributable to the overstatement of housing costs, it also would seem important to point out, at least to the casual reader, that such is not the case when interest rates were rising more slowly. For example, Dr. Borzilleri's studies concur that the CPI overstated for exactly the same years, but they also concluded that in 1976 and 1977 the CPI understated the price changes incurred by the elderly. Our suspicion is that aggregating the cumulative losses for the entire period of automatic indexing would result in a less than \$4 billion burden.

(See GAO note 2.)

In summary, it is our view that the analysis was exceptionally well done, significantly improves public knowledge of the issue and supports both the study's conclusions and recommendations.

We would only urge that some consideration be given to the matters raised above.

Sincerely,



Cyril F. Brickfield  
 Executive Director

- GAO note 1: Information available to GAO indicates that BLS does monitor nursing home prices and health insurance premiums. Also, although it is likely that the prescription drug category would be different in a retirees CPI, GAO has no way of judging the extent of that difference. It should be noted, however, that the medical care commodities category of the existing CPI, which includes prescription drugs as well as nonprescription drugs and medical supplies, has an expenditure weight of less than 1. As such, the impact of prescription drugs on the relationship between a retirees index and existing indexes would seem minor.
- GAO note 2: GAO's analysis covered a specific period and the reported results are related to that period. GAO cannot predict what its analysis would have shown if extended back beyond January 1978. The results of other studies covering different time frames, including Dr. Borzilleri's, are available to the reader in chapter 2.



MANPOWER,  
RESERVE AFFAIRS  
AND LOGISTICS

## ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

9 MAR 1982

Mr. William J. Anderson  
Director, General Government Division  
United States General Accounting Office  
Washington, D.C. 20548

Dear Mr. Anderson:

In accordance with your request, we have reviewed the draft of your proposed report of February 10, 1982, entitled "Propriety of Retirees Pension Adjustments Will Improve with Consumer Price Index Shelter Cost Changes, but a Separate Index May Still Prove Necessary." (Code 275152, OSD Case 5894.)

We appreciate the opportunity to review the draft report since changes in the Consumer Price Index (CPI) have impact on military retired pay, retainer pay, and annuities paid under the Survivor Benefit Plan and the Retired Serviceman's Family Protection Plan. These payments are adjusted annually in relation to percentage changes in the CPI covering a twelve-month period. Presently, such adjustments are based on the index published by the Bureau of Labor Statistics that represents the price changes in the goods and services bought by urban wage earners and clerical workers--known as CPI-W.

When the Bureau of Labor Statistics began publishing their new index representing price changes in the goods and services bought by all urban consumers, known as CPI-U, the Department recognized that this index was more representative and inclusive of economic changes. In order to base our adjustments on the CPI-U, however, enabling legislation was necessary. We had no objection to the legislative proposal to base adjustments in retired pay, retainer pay, and annuities on percentage changes in the CPI-U if such legislation included other federal programs. Our position in this regard has not altered.

With regard to the establishment of a separate index unique to the retired population, we have reservations about singling out one segment of the population to establish an index for a specific purpose only. It has long been our position that retired members and survivors generally should be subject to the same laws and regulations that apply to the general public with a recognition that military service transcends single employee/employer relationships and the econometric factors thereto. Although we defer to

the Department of Labor on this subject, we would recommend that before such a proposal be submitted to the Congress for consideration, further analysis be conducted to ensure that all ramifications of such a proposal be explored. (See GAO note.)

We appreciate the opportunity to review this draft report. Technically, it represents a comprehensive study of a most complex subject. The investigation and analysis of the issue represent a professional effort by your staff.

Sincerely,



**James N. Jullana**  
**Acting Assistant Secretary of Defense**  
**(Manpower, Reserve Affairs & Logistics)**

GAO note: According to a Department of Defense representative, the word "single" on the second line from the bottom of the prior page should read "simple."



UNITED STATES OF AMERICA  
RAILROAD RETIREMENT BOARD  
844 RUSH STREET  
CHICAGO, ILLINOIS 60611

BOARD MEMBERS:  
WILLIAM P. ADAMS  
C.J. CHAMBERLAIN  
EARL OLIVER

March 10, 1982

Mr. Gregory J. Ahart, Director  
United States General Accounting  
Office  
Washington, D. C. 20548

Dear Mr. Ahart:

We have reviewed the proposed report on the need for and feasibility of developing a separate Consumer Price Index for retirees. In general, the recommendations made in the report on the development of a separate CPI for retirees seem reasonable to us. We believe that the extent to which the proposed CPI is used to adjust pension benefits deserves further consideration. In particular, it is questionable whether the CPI should be used to adjust pensions in periods when the increase in the CPI exceeds the average increase in the wages of active workers.

Sincerely,

*Beatrice Ezerski*  
FOR THE BOARD  
Beatrice Ezerski



## DEPARTMENT OF HEALTH &amp; HUMAN SERVICES

Office of Inspector General

Washington, D.C. 20201

MAR 25 1981


Mr. Gregory J. Ahart  
Director, Human Resources  
Division  
United States General  
Accounting Office  
Washington, D.C. 20548

Dear Mr. Ahart:

The Secretary asked that I respond to your request for our comments on your draft of a proposed report "Propriety of Retiree Pension Adjustments Will Improve with Consumer Price Index Shelter Cost Changes, But a Separate Index May Still Prove Necessary." The enclosed comments represent the tentative position of the Department and are subject to reevaluation when the final version of this report is received.

We appreciate the opportunity to comment on this draft report before its publication.

Sincerely yours,

  
For Richard P. Kusserow  
Inspector General

Enclosure

COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES ON  
GAO'S DRAFT REPORT, "PROPRIETY OF RETIREE PENSION ADJUSTMENTS WILL  
IMPROVE WITH CONSUMER PRICE INDEX SHELTER COST CHANGES, BUT  
A SEPARATE INDEX MAY STILL PROVE NECESSARY"

GAO proposes that a special Consumer Price Index (CPI) for the aged be developed by the Bureau of Labor Statistics (BLS) according to GAO's methodology of applying retiree expenditure weights to the CPI for All Urban Consumers (CPI-U) as modified by a rental-equivalence mechanism. Such an index would be monitored by the Office of Management and Budget to determine whether differences between the indexes warrant revising the cost of living adjustments.

As the GAO report indicates, had the rental equivalence treatment of shelter costs been operative in the past several years, benefit adjustments based on either a broad based CPI (CPI-U or CPI-W) or a more specific CPI for retirees (CPI-R) would have been lower than those made using the now official CPI-W with its traditional treatment of shelter costs. While a CPI-R with a traditional treatment of shelter costs also would have produced somewhat lower costs, the change to rental equivalence would have made a greater difference and diminished the variance between CPI-W (or CPI-U) and a CPI-R.

The Department takes no position on the GAO recommendation to switch social security and other retirement programs to CPI-U (from CPI-W). The National Commission on Social Security Reform, however, might wish to examine this issue.

We defer to BLS on the issue of the validity of GAO's proposed methodology for developing a CPI for retirees.



United States  
**Office of  
Personnel Management**

Washington, D.C. 20415

**APR 5 1982**

In Reply Refer To

Your Reference

Honorable Charles A. Bowsher  
Comptroller General of the  
United States  
Washington, D.C. 20548

Dear Mr. Bowsher:

This is in response to your office's request for our comments on a draft report entitled "Propriety of Retiree Pension Adjustments Will Improve With Consumer Price Index Shelter Cost Changes, But a Separate Index May Still Prove Necessary."

The draft report recommends that Congress enact legislation to change the index used as a basis for cost-of-living adjustments for Civil Service retirees, Social Security recipients, and beneficiaries of certain other Federal income security programs from the CPI-W that is now used to the CPI-U. The report argues that this change would be desirable both because the CPI-U is a broader and more representative index and because the planned revision of the CPI-U in January 1983 to use a rental equivalence method for housing costs in place of the present home ownership method will correct what the report finds to have been a serious overstatement of increases in retirees' living costs. The draft report also suggests that further study be devoted to whether a separate index reflecting retiree spending patterns should be used for adjustments under these income security programs.

The Office of Personnel Management certainly agrees that it is important that an accurate indicator of retirees' living costs be used where appropriate in making adjustments in Federal income security payments, and it does appear that use of the revised CPI-U would be a substantial improvement over the present use of the CPI-W. However, with respect to the Civil Service Retirement System in particular, we do not believe that any form of the Consumer Price Index should be used as the sole basis for future benefit adjustments. (See GAO note.)

In recent years, Civil Service annuities have increased at a considerably faster pace than the Government's pay rates, since annuities have been fully indexed to increases in the Consumer Price Index (and were even over-indexed under the now-repealed "kicker"), while pay has gone up more slowly than inflation. As a result, new retirees under the Civil Service Retirement System find their annuities are much smaller than those of employees with similar service histories who retired some years ago. This has led employees to retire earlier than they otherwise might have. In order to correct this anomalous situation and prevent its future recurrence, we will shortly be proposing legislation to limit future adjustments in

Civil Service annuities to the lesser of the increase in the Consumer Price Index or the average increase in General Schedule pay. Furthermore, the proposal will cap future increases of past retirees in order to draw their annuities back into a reasonable relationship with the annuities of new retirees. We believe that the enactment of this proposal, rather than a mere improvement in the Consumer Price Index, is necessary to ensure that Civil Service retirees do not continue to receive greater protection from inflation than their counterparts who remain in the work force.

The Office of Management and Budget advises that, from the standpoint of the Administration's program, there is no objection to the submission of this report.

Sincerely yours,



Donald J. Devine  
Director

GAO note: The question of whether the CPI, in any form, should be used as the sole basis for future benefit adjustments is beyond the scope of this report.

(275152)



**AN EQUAL OPPORTUNITY EMPLOYER**

**UNITED STATES  
GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548**

**OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300**

22000

**POSTAGE AND FEES PAID  
U. S. GENERAL ACCOUNTING OFFICE**



**SPECIAL FOURTH CLASS RATE  
BOOK**

a  
69  
28

