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THE RELATIONSHIP OF SOCIAL SECURITY  
BENEFITS AND THE MILITARY SURVIVORS  
BENEFIT PLAN

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14 July 1980

William C. Letzkus, PhD, CPA  
Associate Professor of Accounting  
University of Arkansas

Charles R. Margenthaler, PhD  
Dean, School of Systems and Logistics  
Air Force Institute of Technology

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The 1977 amendments to the Social Security Act significantly changed procedures for computing social security benefits. These changes have had a profound effect on the social security offset from the military survivors benefit plan (SBP). This study demonstrates the new social security computation procedures and their effect on the SBP.		

THE RELATIONSHIP OF SOCIAL SECURITY BENEFITS AND  
THE MILITARY SURVIVOR BENEFITS PLAN

Have you recently made any \$200,000 decisions that affect the well being of your family? All professional military members are faced with such a decision shortly before their retirement. Retiring members of the armed forces must decide whether they wish to participate in the Survivor Benefit Plan (SBP) and, if they elect to do so, the extent to which they desire to participate. Participation in the plan may cost the military member thousands of dollars. Failure to participate may cost the member's survivors several hundred thousand dollars. Only about 75% of the officers and 40% of the enlisted members retiring from the armed services elect to participate in the SBP. Why?

Do you understand the economic ramifications of this decision? Do you understand how the Survivor Benefit Plan (SBP) works, its interface with the Social Security System, and the social security offset for SBP benefits?

The purpose of this study is to help you better answer these questions by (1) briefly discussing the major features of the SBP system and the computation of SBP benefits, (2) explaining the computation of social security benefits based on military service, and (3) demonstrating the SBP social security offset. Because of the many possible scenarios which can exist for SBP and social security benefits, this study addresses only the basic requirements of these systems. For simplicity, a nondisability retirement and the absence of any dependent children are assumed.<sup>1</sup>

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<sup>1</sup> To avoid cumbersome, duplicative references, this study assumes male retirees and female spouses. The reader may wish to reverse these roles.

This study does not attempt to make any recommendation for or against participation in the SBP. That is the responsibility of the military member and his spouse. Hopefully this study will contribute to a more informed decision.

#### The Survivor Benefit Plan

The monthly SBP annuity to be paid to a member's designated survivors is always 55 percent of some "base" amount. The member may elect as a base amount his gross retirement pay (the maximum base), \$300 (normally the minimum base), or some amount in between these extremes.

The SBP annuity costs will be deducted directly from the member's monthly retirement pay. The SBP cost formula for spouse only coverage is:

2½% of the first \$300 of the base amount

10% of any remainder in the base amount

Thus, for example, the monthly SBP cost of a \$1,000 base amount would be \$77.50  $[(.025 \times \$300) + (.10 \times \$700)]$ . Additional coverage for dependent children can be elected for only minimal additional cost.

Military retirement pay receives periodic cost of living adjustments. Because these cost of living adjustments will be included in future SBP annuity payments, SBP costs to the member will be increased to reflect these cost of living adjustments.<sup>2</sup> Widows already receiving SBP annuity payments will receive the same percentage cost of living adjustments.

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<sup>2</sup> S.91, which is currently being considered by the Congress, would change the formula for computing changes to military SBP costs whenever retired pay is adjusted to the same cost basis used for the civil service survivor benefit plan. In the absence of final passage, however, this study uses the higher costs of the current cost formula. The reader should consider this when reading the SBP scenarios associated with appendices D and E.

For federal income tax purposes the member's SBP cost is excluded from his gross income and thus from federal income taxes. Only the net retirement pay (gross retirement pay less SBP costs) is taxable. In most states only net retirement pay is subject to state income tax. A few states, however, tax a member's gross retirement pay.

Participation in SBP cannot be changed or modified once the member's application becomes effective. Deductions from retired pay continue as long as the retiree has an eligible beneficiary for the annuity. If his wife dies before him or he is divorced, deductions from his retirement pay will be discontinued. If and when a retiree remarries, his new wife becomes an eligible beneficiary. The same SBP coverage that was in effect for the former wife and a current liability for deductions from retired pay begin one year after the remarriage. If the member elected coverage for both his wife and child/children (or child/children only), the additional cost will be discontinued when the youngest child reaches age 18 or, if in school, age 22.

A SBP annuity will be paid to a covered widow until her death. Should a widow remarry before age 60, her SBP annuity will be terminated. If, however, that marriage is terminated for any reason, her SBP annuity would be reinstated. If a widow remarries after age 60, her annuity would continue. SBP annuity payments to a widow are wholly subject to federal income taxes.

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### Social Security Offset

Social security benefits are payable to an eligible widow based on her husband's primary insurance amount (PIA)<sup>3</sup> and her age at the time of application. Percentages payable are:

<u>Widow's Age</u>	<u>Percent Payable</u>
60	71.5%
61	77.2
62	82.9
63	88.6
64	94.3
65	100.0

A widow less than age 60 who is caring for one or more dependent children also is eligible for social security benefits based on her husband's PIA. Obviously, the higher the husband's PIA, the greater the benefits to be paid.

The SBP annuity of a widow under age 62 is not reduced if she is not receiving social security benefits. Conversely, the SBP annuity of a widow aged 62 or over is reduced if the widow is *entitled* to a widow's social security survivor benefit based on her husband's covered employment. The SBP annuity is also reduced if the widow is under age 62 and is receiving a mother's social security benefit because there is one dependent child in her care. The SBP annuity is not, however, reduced if a widow under age 62 has two or more dependent children in her care.

A widow's SBP annuity is reduced after she is age 62 even though she may not apply for social security survivor benefits or may be entitled to

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<sup>3</sup> Computation of PIA will be covered in the next section of this study.

a greater benefit from her own earnings. The fact that she is entitled to benefits based on her husband's earnings makes the reduction mandatory. There is, however, no reduction in the annuity if the widow is working and, because of her income, is not eligible to receive social security benefits.

Reduction of a widow's SBP annuity (hereafter called the SBP offset) is based solely on the member's social security "covered" wages (including military wage credits) earned on active military service after 1956. Any social security benefits earned in any civilian employment have no impact on the social security offset.

The issue at hand thus is the computation of social security benefits based on active military service after 1956. These computations are little understood by most military members due to the changes and complexities introduced by the 1977 amendments to the Social Security Act.

#### Determining the SBP Offset

The SBP offset is wholly based on social security benefits earned as a result of a military member's covered military wages earned after 1956. To understand the SBP offset it thus is necessary to first understand social security benefit computations.

The concepts and procedures underlying computation of social security benefits were significantly changed by the 1977 amendments to the Social Security Act. Among the various changes introduced by these 1977 amendments, those relevant to this study include provisions for indexing wages and a new benefit formula. The provisions of these changes went into effect on January 1, 1979.



The earnings of a worker first eligible for benefits after 1978 will be indexed to reflect the changes in general wage levels that have occurred during his working lifetime. These indexed earnings will be averaged over his working career. A new, three-step, weighted benefit formula will be applied to the worker's average indexed monthly earnings (AIME) to produce the worker's primary insurance amount (PIA) on which social security benefits are based.

For those becoming eligible for benefits subsequent to 1978, the benefit factors (percentage amounts) will not be indexed. However, the bend points (dollar amounts) at which these percentages are applied will be adjusted annually as average wages increase or decrease. The indexing of both earnings and the bend points will result in benefits which are based on the worker's relative earnings position averaged over his working lifetime.

Essentially there are four steps in the computation of the SBP offset:

1. Index the member's covered wages.
2. Compute average indexed monthly earnings (AIME).
3. Compute the primary insurance amount (PIA).
4. Compute the SBP offset.

Each of these four steps is separately discussed below.

One of the most difficult aspects of understanding both the SBP offset and the underlying social security computations is the terminology. The reader should become familiar with the following terms: benchmark year, index year, indexed earnings, average wages, covered wages, average

indexed monthly earnings (AIME), primary insurance amount (PIA), and bend points.

#### Determining Indexed Wages

Indexing is the process of determining the current value of covered wages earned in prior years. Covered wages are those wages which are subject to social security taxes. A worker's covered wages (including military service wage credits)<sup>4</sup> will be indexed to the second year prior to the benchmark year (the year the worker reaches age 62, becomes disabled or dies). Thus, the indexing year is the second year preceding the benchmark year. Note that the indexing year is based on the benchmark year, not the first year of entitlement to social security benefits. The second prior year is used because this is the most recent year for which average wage data necessary to index earnings will be available.

The worker's earnings will be indexed by multiplying his actual covered earnings by the ratio of average wages in the index year (i.e., the second year prior to the year the worker reaches 62, becomes disabled, or dies) to the average wages in the year being indexed. The worker's earnings for each year will be indexed in this manner.

The indexing formula can be expressed as follows:

$$\begin{array}{l} \text{Indexed Earnings} \\ \text{for a Given} \\ \text{Year} \end{array} = \frac{\text{Average Earnings} \\ \text{For an Index Year}}{\text{Average Earnings} \\ \text{for a Given Year}} \times \text{Actual Covered Earnings} \\ \text{for a Given Year}$$

<sup>4</sup> Beginning in 1957, military personnel were granted free wage credits of \$100 a month (\$1200 a year) for purposes of social security benefits. These wage credits cannot, however, cause a member's covered wages of a given month/year to exceed the maximum social security covered wages of said month/year.

Appendix A presents (1) the maximum social security wage base for the years 1957<sup>5</sup> through 1980, (2) average wages for the years 1957 through 1978, and (3) projected average wages for the years 1979 through 2002. Using these data it is possible to index one's wages to any year from a 1979 benchmark year (the first year subject to the indexing provisions of the 1977 social security amendments) through a 2004 benchmark year.

Using the indexing formula given above, assume, for example, that a worker reaches age 62 in 1980. His benchmark year is 1980 and the index year is 1978. If this worker had covered wages of \$6,000 in 1966, his 1966 wages would be indexed as follows:

$$\begin{aligned}
 \text{Indexed Earnings for 1966} &= \frac{\text{Average Earnings for 1978}}{\text{Average Earnings for 1966}} \times \text{Actual Covered Earnings for 1966} \\
 &= \frac{\$10,556.03}{\$4,938.36} \times \$6,000 \\
 &= 2.138 \times \$6,000 \\
 &= \$12,828
 \end{aligned}$$

Note that actual covered earnings for any given year cannot exceed the maximum wage base subject to social security for that year. There is no such limit, however, with respect to indexed wages; i.e. indexed wages can and normally will exceed the social security maximum covered wage for a given year.

It is important to note that until a benchmark year is achieved, the indexing of a given year's covered wages will change annually. For example,

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<sup>5</sup> Although the 1977 social security amendments call for indexing 1951 and years subsequent thereto (as relevant), this study begins with 1957. This year (1957) is the first year subject to survivor benefit plan (SBP) provisions.

the \$6,000 indexed above to 1978 results in an indexed wage of \$12,828. Indexed to 1995, however, these \$6,000 of 1966 wages will result in indexed wages of \$35,520 (\$29,234.54 + \$4,938.36 or 5.90 X \$6,000).

Appendix B uses the data from Appendix A to index maximum covered social security wages for the years 1957 through 1980 to both 1978 and 1995. The 1978 indexed data of Appendix B are relevant to any retiree whose benchmark year is 1980. These data also can be used by 1980 retirees as a basis for computing at the time of their retirement a current estimate of the social security offset to their survivor's SBP annuity. The 1995 indexed data are relevant to any retiree whose benchmark year is assumed to be 1997. Both the 1978 and 1995 indexed data are used in subsequent illustrations of this study.

#### Computation of AIME

Once a worker's wages have been indexed, the next step is to compute the worker's average indexed monthly earnings (AIME). This computation can be expressed as follows:

$$\frac{\text{total indexed wages}}{\text{total relevant months}} = \text{AIME}$$

For social security purposes the period for this computation will include years after 1950 (or after age 21, if later) up to the year the worker reaches age 62, becomes disabled, or dies, whichever occurs first. The 5 years with the lowest indexed earnings<sup>6</sup> or no earnings are excluded

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<sup>6</sup> Note that both the index year, per se, and the year immediately preceding the benchmark year are not indexed.

from the computation period (i.e. from both the numerator and the denominator).

For SBP purposes of computing social security benefits attributable to military earnings, both the computation period (denominator) and the relevant indexed wages (numerator) differ somewhat from that prescribed for social security purposes. For purposes of determining the denominator, the computation period will still include only years after 1950 (or after age 21, if later), but now up to the year the retiree reaches age 65. For SBP offset purposes the retiree thus is assumed to always reach age 65.<sup>7</sup> Five years are subtracted from this computation period to arrive at the denominator.

Table 1 provides examples which demonstrate derivation of the computation period. For example, the divisor (denominator) years for individual B would be computed as follows:

SBP: From and including 1957 (the year after age 21)	
<u>to</u> year 2000 (Age 65) . . . . .	43 years
	- 5
computation period (denominator)	38 years
Soc Sec: From and including 1957 (the year after age 21)	
<u>to</u> year 1985 (death) . . . . .	28 years
	- 5
computation period (denominator)	23 years

<sup>7</sup> PL 92-425 (Sec 1451) calls for a SBP offset based on the assumption that the member will reach age 65, regardless of whether the members dies or becomes disabled at an earlier age. Thus in the event of death or disability prior to age 65, the denominator for computing AIME will for SBP purposes normally exceed the denominator used for social security purposes. The primary effect of this provision is to reduce the SBP offset for the eligible survivors of those members who do not reach age 65.

TABLE 1

Derivation of the Computation Period

	<u>SBP</u>			<u>Social Security</u>		
	<u>Individual</u>			<u>Individual</u>		
	<u>A</u>	<u>B</u>	<u>C</u>	<u>A</u>	<u>B</u>	<u>C</u>
Age 65	2007	2000	1990	2007	2000	1990
Age 62	2004	1997	1987	2004	1997	1987
Age 21	<u>1963</u>	<u>1956</u>	<u>1946</u>	<u>1963</u>	<u>1956</u>	<u>1946</u>
"divisor yrs"	38	38	34	35	35	31
-----						
Death	1985	1985	1985	1985	1985	1985
"divisor yrs"	38	38	34	16	23	29

Unless the individual was 21 prior to 1951, for normal retirement purposes the divisor years will be 35 at age 62 (social security) and 38 at age 65 (SBP). The divisor years, for social security purposes only, would change if the benefit computation were to be based on an earlier death or disability.

For SBP purposes the numerator for computing AIME attributable to military earnings will include all indexed, covered military earnings (including military wage credits) earned subsequent to 1956, whether the military member was 21 or not. For purposes of this computation all non-military (i.e. civilian) years are assumed to have no (zero) earnings.

Computation of PIA

The benefit formula for determining a worker's primary insurance amount (PIA) is based on the worker's AIME and the following "bend points":

- 90% of the first \$180 of AIME
- 32% of AIME over \$180 and through \$1,085
- 15% of AIME over \$1,085

The "bend points" of this benefit formula are relevant, however, only for those workers whose benchmark year is 1979. If the benchmark year is after 1979 the PIA is determined based on the same percentages as stated above, but the bend points will be adjusted annually based on the change in average wages of the index year. Thus, for a worker whose benchmark year is 1980, the bend points noted above would be adjusted for the 1978 growth in average wages. The "bend points" for a 1980 benchmark year thus were adjusted for a 7.941% growth in 1978 wages and became:

90% of the first \$194 of AIME  
32% of AIME over \$194 and through \$1,171  
15% of AIME over \$1,171

Appendix C presents possible growth in bend points given certain economic assumptions as to present and future growth of average wages. Actual growth in average wages and the resultant effect on "bend points" will be published in the Federal Register not later than 1 November of each year (1 Nov 79 for calendar year 1978, etc.).

#### Computation of the SBP Offset

A military member can only estimate at the point of his retirement both his PIA and the resultant SBP offset attributable to his covered military earnings. He must, however, at this point make his decision as to whether to participate in the SBP.

Any amounts computed at the point of retirement will change over time due to changes in bend points and the fact that covered wages are indexed to the second year prior to the benchmark year (the year the member becomes 62, disabled, or died). Social security benefits (and the resultant SBP

offset) are based on a benchmark year, not the members year of retirement from the military.

Assume a military member retires in 1980 and has had maximum covered military wages from (and including) 1957 through 1980. His PIA based on military service could be computed at the point of retirement as follows:

1980 retirement

Total indexed wages attributable to military service = \$354,678.20 (see Appendix B)

AIME =  $\$354,678.20 \div (38 \text{ yrs} \times 12 \text{ mos}) = \$777.80$

PIA =  $.9(194) + .32(777.80 - 194)$

=  $174.60 + 186.82$

= \$361.40

A dependent widow's social security benefit is based on her spouse's PIA. At the point of retirement the retiree could estimate a SBP offset by multiplying his PIA based on military service (\$361.40) by 82.9% (the relevant rate for a dependent spouse at age 62). The resultant \$299.60 is an estimate of the SBP offset only at the point of retirement. The SBP offset would change over time until the retiree reached age 62, became disabled, or died (i.e. until a benchmark year was attained). Only at this point could the actual SBP offset be computed.

Normally a military member does not retire at age 62 (a benchmark year). Assume the following scenario:

- (1) Military member retired in 1980 at age 45 with maximum covered wages from (including) 1957 through 1980.
- (2) Military retiree dies in 2000 at age 65.



(3) Spouse becomes 62 in 2000.

(4) Inflation from 1995 to 2000 is 6% annually.

Since the retiree becomes 62 in 1997 (a benchmark year), his index year would be 1995 (the second year prior to the benchmark year). The retiree's PIA thus would be computed as:

$$\begin{aligned} \text{Total indexed wages} & & & = \$967,903.10 \text{ (See Appendix B)} \\ \text{attributable to military service} & & & \\ \\ \text{AIME} & = \$967,903 + (38 \text{ yrs} \times 12 \text{ mos}) & = \$2,122.59 \\ \\ \text{PIA} & = .9(538) + .32 (2,122.59 - 538) & \text{(See Appendix C for} \\ & & \text{change in bend points.)} \\ & = 484.20 + 507.07 \\ & = \$991.30 \end{aligned}$$

Note that although, in this scenario, the widow becomes entitled to social security benefits at age 62 in 2000, the PIA on which her benefits are based has been indexed to 1995. A widow's social security benefits are adjusted for cost of living increases beginning with the benchmark year (1997) to year of entitlement (2000) and each year thereafter. The widow's social security benefit based on member's military earnings thus would be:

$$\begin{aligned} & 82.9\% \text{ of PIA} \\ & .829 \times \$991.30 = \$821.80 \end{aligned}$$

Note, however, that this \$821.80 (indexed to 1995) is in turn adjusted for cost of living increases (assumed to be 6% annually) beginning with the benchmark year (1997).

$$\begin{aligned} 3 \text{ years at } 6\% \text{ annually} & = 1.191 \\ & \times \underline{\$821.80} \\ & \quad \quad \quad \$978.80 \end{aligned}$$

This \$978.80 is the social security benefit received by the widow in year 2000 which is assumed to be attributable to her spouse's military earnings. Thus, this \$978.80 is the initial amount of SBP offset. It will be adjusted in future years for any subsequent cost of living increases.

#### Some Examples of SBP Computations

There is no way that this study can address all possible retirement situations. Retirement grades, active duty service, pay grades and the ages of the member and his spouse are variables. Other complicating factors include dependent children, divorce, death of a spouse, remarriage, etc. The possible scenarios are limitless. It is hoped, however, that the following two scenarios will enable the reader to better understand the various interactions and changes over time of his (the member's) retirement pay, SBP costs and benefits, and social security benefits.

A fundamental point to understand is that retirement pay, SBP costs and benefits, and social security benefits are not static. The amounts thereof will change over time if there is any change in the consumer price level. Social security benefits, moreover, will also change with any change in average annual wages and (although not relevant to the SBP offset) covered civilian wages.

A military member must, however, make a decision at the point of retirement as to whether he will participate in the SBP. At the time of his decision he can determine with certainty only his present retired pay, SBP costs, SBP benefits, and SBP offset (social security benefits attributable to military service). His decision must, however, consider the future and

the changes it will bring. If the member lives beyond the year of his retirement, all previously computed amounts will change.

For simplicity this study assumes a 6% annual growth in both average wages and cost of living from 1980 ad infinitum. These economic assumptions will affect future levels of military retirement benefits, SBP costs, SBP benefits, and social security benefits. The reader may, however, wish to use different economic assumptions.

#### A Lt Col with Over 21 Years

The first example assumes the retirement in 1980 of a lieutenant colonel with over 21 years service for both pay and retirement purposes. The following are other relevant assumptions to this scenario:

- (1) Entered active military duty on 1 April 1959.
- (2) Retired effective 1 September 1980.
- (3) Retirement pay based on the 1 October 1978 pay scale, as adjusted for cost of living.
- (4) Age 45 at retirement (1980)/reaches age 62 in 1997.

It must again be emphasized that any computations at the point of retirement as to the amount of the SBP offset will change over time unless the member dies, becomes disabled, or reaches age 62 in the year of retirement. These amounts will continue to change until a benchmark year is reached. For comparative purposes, however, the computations are presented below:

Total indexed wages attributable to military service	= \$317,574.60 (See Appendix D - Page 1)
AIME = \$317,574.60 ÷ (38 yrs x 12 mos)	= \$696.44

$$\begin{aligned}
 \text{PIA} &= .9(194) + .32 (696.44-194) \\
 &= 174.60 + 160.78 \\
 &= \$335.40
 \end{aligned}$$

An SBP offset based on this PIA would be \$278 (.829 X \$335.40).

Appendix D (pages 2 and 3) shows the growth in retirement pay, monthly SBP costs, and cumulative SBP costs given the economic assumption of a 6% annual cost of living increase. Since the retiree becomes 62 in 1997 (the benchmark year), his social security benefits are indexed to 1995 (see Appendix D - pg 1). Note that these wages are now indexed at \$867,713.80 vis-a-vis \$317,574.60 when indexed to 1978. The PIA computation at this point would be as follows:

$$\begin{aligned}
 \text{Total indexed wages} & & & = \$867,713.80 \text{ (see Appendix D - pg 1)} \\
 \text{attributable to military service} & & & \\
 \\
 \text{AIME} &= \$867,713.80 + (38 \text{ yrs} \times 12 \text{ mos}) & = & \$1,902.88 \\
 \\
 \text{PIA} &= .9(538) + .32 (1,902.88 - 538) \text{ (See Appendix C for changes in bend points)} \\
 &= 484.20 + 436.76 \\
 &= \$921.00
 \end{aligned}$$

If the spouse becomes 62 in 2000 (the assumption here), she does not receive social security benefits in 1997 (the benchmark year). For simplicity assume the spouse does not apply for social security benefits until she reaches 62 (year 2000). Her benefits in year 2000 would be computed as follows:

Member's PIA (indexed to 1995)	\$921.00
Spouse's benefit at age 62 (82.9% of member's PIA)	\$763.50

Remember that the member's PIA was indexed to 1995. There is no further indexing of the PIA. However, any benefits based on this PIA (indexed to 1995) will be adjusted for cost of living increases beginning with the benchmark (1997) year. Given the assumption of a 6% annual cost of living increase, the spouse's benefit would be adjusted to \$909.30 (3 yrs @ 6%: 1.191 x \$763.50).

There is no social security offset to the member's retirement pay as long as he lives. Once he dies, however, and the SBP goes into effect, his widow's SBP payments (a maximum of 55% of his retirement pay) will have deducted (offset) that portion of any social security benefit she receives which is attributable to his military service.

If the member should die in year 2000, the \$909.30 benefit computed above would be the initial offset. Both the offset and the SBP payments would be adjusted each year thereafter for any cost of living increases.

If the member dies at some point in time after year 2000, the SBP offset will begin at that point. Appendix D (page 3) indicates both the gross (55%) and net (55% less offset) SBP payments for years 2000 through 2020. For each year these amounts have been adjusted for an assumed 6% cost of living increase.

Appendix D (pages 2 and 3) also lists cumulative SBP costs paid by the member through the end of the indicated year. Beginning with year 2000 the "SBP Recovery" column indicates the number of years it would take a widow to recover SBP cumulative costs if her spouse had died at the end of the preceding year. For example, if the member died in December 2007, cumulative SBP costs paid by the member through 2007 would be \$111,010.

It would take 3.6 years of net SBP payments beginning in 2008 for the widow to recover these SBP costs.<sup>8</sup>

The last column of Appendix D (page 3) indicates a spouse's life expectancy at a given age.<sup>9</sup> For example, in year 2008 the widow would be 70 years old and have a life expectancy of 11.5 years.

#### A Master Sergeant With Over 20 Years

The second example assumes the retirement in 1980 of a master sergeant with over 20 years service for both pay and retirement purposes. The following are other relevant assumptions for this scenario.

- (1) Entered active military duty on 1 July 1960.
- (2) Retired effective 1 September 1980.
- (3) Retirement pay based on the 1 October 1978 pay scale, as adjusted for cost of living.
- (4) Age 38 at retirement (1980)/reaches age 62 in 2004.

Again it must be emphasized that any computations at the point of retirement as to the amount of the SBP offset will change over time unless the member dies, becomes disabled, or reaches age 62 in the year of retirement. These amounts will continue to change until a benchmark year is reached. For comparative purposes, however, the computations are presented below:

Total indexed wages attributable to military service	=	\$193,366.70	(See Appendix E - Pg 1)
AIME = \$193,366.70 ÷ (38 yrs x 12 mos)	=	\$424.05	

<sup>8</sup> Note that for simplicity this study has ignored any time value of money.

<sup>9</sup> The life expectancy tables are those for a military member (nondisabled) and thus would be conservative for a woman.

$$\begin{aligned}
 \text{PIA} &= .9(194) + .32 (424.05 - 194) && \text{(See Appendix C for bend points.)} \\
 &= 174.60 + 73.62 \\
 &= \$248.20
 \end{aligned}$$

A SBP offset based on this PIA would be \$205.80 (.829 x \$248.20).

Appendix E (pages 2 and 3) shows the growth in retirement pay, monthly SBP costs, and cumulative SBP costs given the economic assumption of a 6% annual cost of living increase. Since the retiree becomes 62 in year 2004 (the benchmark year), his social security benefits would be indexed to year 2002 (see Appendix E-pg 1). Note that these wages are now indexed at \$795,852.10 vis-a-vis \$193,366.70 when indexed to 1978. The PIA computation at this point would be as follows:

$$\begin{aligned}
 \text{Total indexed wages} &= \$795,852.10 && \text{(See Appendix E - pg 1)} \\
 \text{attributable to military service} &&& \\
 \text{AIME} &= \$795,852.10 \div (38 \text{ yrs} \times 12 \text{ mos}) && = \$1,745.29 \\
 \\
 \text{PIA} &= .9(808) + .32 (1,745.29 - 808) && \text{(See Appendix C for changes in bend points.)} \\
 &= 727.20 + 299.93 \\
 &= \$1,027.10
 \end{aligned}$$

If the spouse becomes 62 in 2007 (the assumption here), she does not receive social security benefits in 2004 (the benchmark year). For simplicity assume the spouse does not apply for social security benefits until she reaches 62 (year 2007). Her benefits in year 2007 would be computed as follows:

Member's PIA (indexed to 2002)	\$1,027.10
Spouse's benefit at age 62 (82.9% of member's PIA)	\$851.50

Remember that the member's PIA was indexed to 2002. There is no further indexing of the PIA. However, any benefits based on this PIA (indexed to

2002) will be adjusted for cost of living increases beginning with the benchmark (2004) year. Given the assumption of a 6% annual cost of living increase, the spouse's benefit for year 2007 would be adjusted to \$1,014.10 (3 yrs @ 6%: 1.191 x \$851.50).

There is no social security offset to the member's retirement pay as long as he lives. Once he dies, however, and the SBP goes into effect; his widow's SBP payments (a maximum of 55% of his retirement pay) will have deducted (offset) that portion of any social security benefit she receives which is attributable to his military service.

If the member should die in year 2007, the \$1,014.10 benefit computed above would be the initial offset. Both the offset and the SBP payments would be adjusted each year thereafter for any cost of living increases.

If the member dies at some point in time after year 2007, the SBP offset will begin at that point. Appendix E (page 3) indicates both the gross (55%) and net (55% less offset) SBP payments for years 2007 through 2027. For each year these amounts have been adjusted for an assumed 6% cost of living increase. Appendix E (pages 2 and 3) also lists cumulative SBP costs paid by the member through the end of the indicated year. Beginning with year 2007 the "SBP Recovery" column indicates the number of years it would take a widow to recover SBP cumulative costs if her spouse had died at the end of the preceding year. For example, if the member died in December 2014, cumulative SBP costs paid by the member through 2014 would be \$75,090. It would take 5.9 years of net SBP payments beginning in 2015 for the widow to recover these SBP costs.<sup>10</sup>

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<sup>10</sup> Note that for simplicity this study has ignored any time value of money.



The last column of Appendix E (page 3) indicates a spouse's life expectancy at a given age.<sup>11</sup> For example, in year 2015 the widow would be 70 years old and have a life expectancy of 11.5 years.

#### The Effects of Inflation

The reader may have noted the seemingly astronomical future payments to be made to retirees and their spouses. For example, a lieutenant colonel retiring in 1980 at \$1454 dollars a month is projected to receive \$4663 in year 2000 and \$8351 in year 2010. His spouse would receive a net SBP payment of \$1491.40 in year 2000 and \$2670.80 in year 2010. Comparable growth would be encountered by the master sergeant and his spouse.

Don't be deluded! Remember that these payments reflect "then year" dollars which have been adjusted for an assumed 6% annual increase in both cost of living and average wages. Although the economic projections of this study may prove to be wrong, a point to understand is that if all payments were stated in constant 1980 dollars, all future year payments would approximate those established in 1980.<sup>12</sup> In other words, if there were no changes in prices and wages over time, the costs and benefits computed in 1980 would not change.

Obviously, however, prices and wages are not constant. The consumer price index has risen from 100 in 1967 to 239.8 at the end of March 1980. This equates to roughly a 7 1/2% annual rate of inflation. To put this

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<sup>11</sup> The life expectancy tables are those for a military member (nondisabled) and thus would be conservative for a woman.

<sup>12</sup> Some differences in social security benefits attributable to military earnings (the SBP offset) would occur due to (1) changes in bend points over time and (2) the probability that cost of living and average wages would not grow synchronously.

into perspective, a 6% annual increase in cost of living and average wages, as assumed by this study, would double prices and wages in roughly 12 years and treble them in less than 19 years.

Moreover, inflation does not "hit" all items equally. Table 2 graphically illustrates the effects of compounding inflation. Note that the projected 1989 price for a gallon of gas is already nearly here.

This discussion of the compounding effects of inflation is intended to demonstrate that "inflated" future retirement benefits and SBP benefits will have to pay for the "inflated" prices of various goods and services. Unfortunately not everyone recognized this. Critics of the military retirement system frequently cite apparently bloated figures without explicitly acknowledging the effects of inflation. For example, one recent article<sup>13</sup> indicated that while the number of military retirees would rise by nearly 36% from 1980 to the year 2000, the associated pension costs would increase 175%. Using the underlying data of this assertion, one can demonstrate that on average these increased benefits reflect roughly a 3 1/2% annual rate of inflation. These so called bloated increases in pension benefits would have to pay comparably bloated costs of living.

#### Summary and Conclusion

The decision as to whether or not one should participate in the SBP can only be made by the military retiree and his spouse. Although participation in the plan may cost thousands of dollars, the potential benefits to survivors may exceed several hundred thousand.

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<sup>13</sup> "The Skyrocketing Costs of Federal Pensions," US News and World Report (April 21, 1980), pp 53-54.

TABLE 2  
The Compounding Effects of Inflation  
What Things May Cost

Items	1962	Today	Compounded rate of increase	Cost assuming same rate of increase	
				1989	1999
One-family house	\$19,300*	\$68,300	8.8%	\$158,748	\$368,975
Chevrolet Impala 4-door	2,529	5,828	5.4	9,861	16,685
Annual college costs†	980	2,230	5.3	3,738	6,264
Medical bills	468**	1,070	7.1	2,125	4,219
Annual Social Security deduction	150	1,403	15.0	3,561 ††	6,770 ††
Man's wool suit	130	238	3.9	349	512
Auto insurance premium	87	250	6.8	483	932
Monthly electric bill	8	30	8.6	68	156
Prime-rib dinner	4.65	10.95	5.5	18.70	31.94
Haircut	1.00	3.50	8.2	7.70	16.93
Paperback novel	.95	2.60	6.5	4.88	9.16
Movie ticket	.81	2.46	7.2	4.93	9.88
Gasoline per gallon	.31	.79	6.0	1.41	2.53
Hamburger (McDonald's double)	.28*	.80	7.2	1.60	3.21
Pizza (slice)	.15	.70	10.1	1.83	4.80
Hershey bar	.05	.25	10.6	.68	1.88
Daily newspaper - N.Y. Times	.05	.20	9.1	.48	1.14
First-class postage stamp	.04	.15	8.6	.34	.78

\*1963 data †For state resident  
†† Amounts set by legislation

\*\*1966 data

What You May Earn

Earnings	1962	Today	Compounded rate of increase	Earnings with same rate of increase	
				1989	1999
<b>IN-HOUSE ATTORNEY</b>					
Gross earnings	\$16,440	\$42,318	6.1%	\$76,502	\$138,302
Aftertax earnings	12,872	30,113	5.5	41,860	56,878
Aftertax adjusted for inflation	29,577	30,113		23,155	17,404
Aftertax earnings as % of gross	78%	71%		55%	41%
<b>PRODUCTION WORKER</b>					
Gross earnings	5,021	13,850	6.5	25,998	48,802
Aftertax earnings	4,420	11,795	6.3	19,698	30,615
Aftertax adjusted for inflation	10,156	11,795		10,494	8,688
Aftertax earnings as % of gross	88%	85%		76%	63%

Assumptions: Married taxpayer; joint return; two dependent children; standard deduction; no change in 1979 tax structure for subsequent years; gross earnings less net tax liability, state and local income taxes (assuming the same proportion of state and local taxes to federal taxes); Social Security tax for 1989 and 1999 from legislation in effect.

Source: "Statistical Spotlight: Compounding Inflation," Forbes (June 11, 1979), p. 108

The SBP of itself is relatively straightforward. The designated beneficiary will receive 55% of some selected base amount. A major complexity enters, however, when the surviving spouse becomes entitled to social security benefits based on the military retiree's covered military earnings. In most instances this social security entitlement which emanates from military service after 1956 will be offset (deducted) from the widow's SBP annuity).

How does one project what will be future SBP annuity and social security amounts? To do so requires economic assumptions as to future inflation rates and changes in average wages. Even more critical, one must project his longevity and that of his designated beneficiary. In other words, one bets on his life.

This study has demonstrated how to calculate social security benefits and to project these benefits and the resultant SBP offset into the future. One must recognize, however, that these projected costs and benefits are stated in "then" year dollars. It is important to understand that if all projected costs and benefits were stated in constant dollars of the retirement year (e.g. 1980), these future year payments would approximate those established at the time of retirement (1980).

One last point must be raised. This study has not addressed any of the various proposals to change the SBP system which are currently before the Congress. Will the SBP offset be reduced from 100% (as implicitly discussed by this study) to 50%? Will SBP costs to the retiree be reduced? Will the surviving spouse be guaranteed at least 60% of her SBP annuity, despite the SBP offset? The probability of changes such as these must also be considered by the retiree as he makes his decision to participate in the SBP.

APPENDIX A

Maximum Soc. Security Wage Base***	Avg Wages (actual)*	Avg Wages (projected)**
1957 - \$ 4,200	1957 - \$ 3,641.72	1979 - \$11,400.51
58 4,200	58 3,673.80	80 12,198.55
59 4,800	59 3,855.80	81 12,930.46
		82 13,706.29
1960 - 4,800	1960 - 4,007.12	83 14,528.67
61 4,800	61 4,086.76	84 15,400.39
62 4,800	62 4,291.40	
63 4,800	63 4,396.64	1985 - 16,324.41
64 4,800	64 4,576.32	86 17,303.88
		87 18,342.11
1965 - 4,800	1965 - 4,658.72	88 19,442.64
66 6,600	66 4,938.36	89 20,609.19
67 6,600	67 5,213.44	
68 7,800	68 5,571.76	1990 - 21,845.75
69 7,800	69 5,893.76	91 23,156.49
		92 24,545.88
1970 - 7,800	1970 - 6,186.24	93 26,018.63
71 7,800	71 6,497.08	94 27,579.75
72 9,000	72 7,138.80	
73 10,800	73 7,580.16	1995 - 29,234.54
74 13,200	74 8,030.76	96 30,988.61
		97 32,847.92
1975 - 14,100	1975 - 8,630.92	98 34,818.80
76 15,300	76 9,226.48	99 36,907.93
77 16,500	77 9,779.44	
78 17,700	1978 10,556.03	2000 - 39,122.41
79 22,900		01 41,469.76
1980 25,900		2002 43,957.95

\*Source: Soc Sec publication TN 4788, "Determination of PIA's and Benefit Amounts," (Dec 79) and Federal Register (Nov 1, 1979)

\*\*8% growth assumed for 1979  
7% growth assumed for 1980  
6% growth assumed for each year after 1980

\*\*\*Wage bases are those established by the Social Security Administration. Future increases will be based on an automatic escalator provision. The escalated wage base will be published in the Federal Register (approximately 1 Nov).

APPENDIX B

MAXIMUM INDEXED WAGES  
(Assuming Age 62 in 1997)

<u>Index</u> (1978 Index Yr)	x	<u>FICA</u> <u>Wages</u>	=	<u>Indexed</u> <u>Wages</u>	<u>Index</u> (1995 Index Yr)	x	<u>FICA</u> <u>Wages</u>	=	<u>Indexed</u> <u>Wages</u>
1957 -	2.899	x \$ 4,200	=	\$12,175.80	1957 -	8.028	x \$ 4,200	=	\$33,717.60
58	2.873	x 4,200	=	12,066.60	58	7.958	x 4,200	=	33,423.60
59	2.738	x 4,800	=	13,142.40	59	7.582	x 4,800	=	36,393.60
1960 -	2.634	x 4,800	=	12,643.20	1960 -	7.296	x 4,800	=	35,020.80
61	2.583	x 4,800	=	12,398.40	61	7.153	x 4,800	=	34,334.40
62	2.460	x 4,800	=	11,808.00	62	6.812	x 4,800	=	32,697.60
63	2.401	x 4,800	=	11,524.80	63	6.649	x 4,800	=	31,915.20
64	2.307	x 4,800	=	11,073.60	64	6.388	x 4,800	=	30,662.40
1965 -	2.266	x 4,800	=	10,876.80	1965 -	6.275	x 4,800	=	30,120.00
66	2.138	x 6,600	=	14,110.80	66	5.920	x 6,600	=	39,072.00
67	2.025	x 6,600	=	13,365.00	67	5.608	x 6,600	=	37,012.80
68	1.895	x 7,800	=	14,781.00	68	5.247	x 7,800	=	40,926.60
69	1.791	x 7,800	=	13,969.80	69	4.960	x 7,800	=	38,688.00
1970 -	1.706	x 7,800	=	13,306.80	1970 -	4.726	x 7,800	=	36,862.80
71	1.625	x 7,800	=	12,675.00	71	4.500	x 7,800	=	35,100.00
72	1.480	x 9,000	=	13,320.00	72	4.098	x 9,000	=	36,882.00
73	1.393	x 10,800	=	15,044.40	73	3.857	x 10,800	=	41,655.60
74	1.314	x 13,200	=	17,344.80	74	3.640	x 13,200	=	48,048.00
1975 -	1.223	x 14,100	=	17,244.30	1975 -	3.387	x 14,100	=	47,756.70
76	1.144	x 15,300	=	17,503.20	76	3.169	x 15,300	=	48,485.70
77	1.079	x 16,500	=	17,803.50	77	2.989	x 16,500	=	49,318.50
78	1	x 17,700	=	17,700.00	78	2.769	x 17,700	=	49,011.30
79	1	x 22,900	=	22,900.00	79	2.564	x 22,900	=	58,715.60
1980 -	1	x 25,900	=	25,900.00	1980 -	2.397	x 25,900	=	62,082.30
				<u>TOTAL</u>					<u>\$354,678.20</u>
									<u>\$967,903.10</u>

APPENDIX C

GROWTH IN BEND POINTS

Bend Points\*\*

<u>Benchmark Year</u>	<u>\$180 base</u>	<u>\$1085 base</u>
1979	\$180*	\$1085*
80	194*	1171*
81	210	1265
82	225	1354
83	239	1435
84	253	1521
1985	268	1612
86	284	1709
87	301	1812
88	319	1921
89	338	2036
1990	358	2158
91	379	2287
92	402	2424
93	426	2569
94	452	2723
1995	479	2886
96	508	3059
97	538	3243
98	570	3438
99	604	3644
2000	640	3863
01	678	4095
02	719	4341
03	762	4601
2004	808	4877

\*Actual bend points

\*\*8% growth assumed for 1979

7% growth assumed for 1980

6% growth assumed for each year after 1980

APPENDIX D

A LT COLONEL WITH OVER 21 YEARS

<u>Index</u> <u>(1978 Index Yr)</u>		x	<u>FICA</u> <u>Wages*</u> =	=	<u>Indexed</u> <u>Wages</u>	<u>Index</u> <u>(1995 Index Yr)</u>	x	<u>FICA</u> <u>Wages*</u> =	=	<u>Indexed</u> <u>Wages</u>
1957 -	2.899	x	0	=	0	8.028	x	0	=	0
58	2.873	x	0	=	0	7.958	x	0	=	0
59	2.738	x	3,200	=	8,761.6	7.582	x	3,200	=	24,262.4
			est.					est.		
1960 -	2.634	x	4,200	=	11,062.8	7.296	x	4,200	=	30,643.2
			est.					est.		
61	2.583	x	4,800	=	12,398.4	7.153	x	4,800	=	34,334.4
62	2.460	x	4,800	=	11,808.0	6.812	x	4,800	=	32,697.6
63	2.401	x	4,800	=	11,524.8	6.649	x	4,800	=	31,915.2
64	2.307	x	4,800	=	11,073.6	6.388	x	4,800	=	30,662.4
1965	2.266	x	4,800	=	10,876.8	6.275	x	4,800	=	30,120.0
66	2.138	x	6,600	=	14,110.8	5.920	x	6,600	=	39,072.0
67	2.025	x	6,600	=	13,365.0	5.608	x	6,600	=	37,012.8
68	1.895	x	7,800	=	14,781.0	5.247	x	7,800	=	40,926.6
69	1.791	x	7,800	=	13,969.8	4.960	x	7,800	=	38,688.0
1970 -	1.706	x	7,800	=	13,306.8	4.726	x	7,800	=	36,862.8
71	1.625	x	7,800	=	12,675.0	4.500	x	7,800	=	35,100.0
72	1.480	x	9,000	=	13,320.0	4.098	x	9,000	=	36,882.0
73	1.393	x	10,800	=	15,044.4	3.857	x	10,800	=	41,655.6
74	1.314	x	13,200	=	17,344.8	3.640	x	13,200	=	48,048.0
1975 -	1.223	x	14,100	=	17,244.3	3.387	x	14,100	=	47,756.7
76	1.144	x	15,300	=	17,503.2	3.169	x	15,300	=	48,485.7
77	1.079	x	16,500	=	17,803.5	2.989	x	16,500	=	49,318.5
78	1	x	17,700	=	17,700.0	2.769	x	17,700	=	49,011.3
79	1	x	22,900	=	22,900.0	2.564	x	22,900	=	58,715.6
1980	1	x	19,000	=	19,000.0	2.397	x	19,000	=	45,543.0
			est.					est.		
			TOTAL		317,574.6			TOTAL		867,713.8

\*Note that except for 1959 and 1960, covered wages are the social security maximum.



	<u>Retired Pay*</u>	<u>Monthly SBP Cost</u>	<u>Cumulative SBP Costs at Yr End</u>
1980 -	\$1454	\$122.9	\$ 491.6
81	1541	131.6	2,070.8
82	1633	140.8	3,760.4
83	1731	150.6	5,567.6
84	1835	161.0	7,499.6
1985	1945	172.0	9,563.6
86	2062	183.7	11,768.0
87	2186	196.1	14,121.2
88	2317	209.2	16,631.6
89	2456	223.1	19,308.8
1990	2603	237.8	22,162.4
91	2759	253.4	25,203.2
92	2925	270.0	28,443.2
93	3101	287.6	31,894.4
94	3287	306.2	35,568.8
1995	3484	325.9	39,479.6
96	3693	346.8	43,641.2
97	3915	369.0	48,069.2
98	4150	392.5	52,779.2
99	4399	417.4	57,788.0
2000	4663	443.8	63,113.6

\*An 8% cost of living increase is assumed effective 1 September 1980 with a 6% increase for each year thereafter.

	<u>Retired Pay</u>	<u>Monthly SBP Cost</u>	<u>Cumulative SBP Costs at Yr End</u>	<u>SBP (55% of ret pay)*</u>	<u>SBP Less Offset (\$909.30 base)*</u>	<u>SBP Recovery*</u>	<u>Spouse's Life Expectancy</u>
1999	\$ 4,399	*	\$ 57,788.0	*	*	*	*
2000	4,663	\$ 443.8	63,113.6	\$2419.5	\$1510.2	3.0 yrs	16.7 yrs
01	4,943	471.8	68,775.2	2564.7	1600.8	3.1	16.0
02	5,240	501.5	74,793.2	2718.7	1697.0	3.2	15.3
03	5,554	532.9	81,188.0	2882.0	1799.0	3.2	14.6
04	5,887	566.2	87,982.4	3054.7	1906.7	3.3	14.0
2005	6,240	601.5	95,200.4	3237.9	2021.0	3.4	13.3
06	6,614	638.9	102,867.2	3432.0	2142.1	3.4	12.7
07	7,011	678.6	111,010.4	3637.7	2270.4	3.5	12.1
08	7,432	720.7	119,658.8	3856.1	2406.8	3.6	11.5
09	7,878	765.3	128,842.4	4087.6	2551.3	3.6	10.9
2010	8,351	812.6	138,593.6	4332.9	2704.4	3.7	10.3
11	8,852	862.7	148,946.0	4593.1	2866.9	3.7	9.8
12	9,383	915.8	159,935.6	4868.6	3038.8	3.8	9.3
13	9,946	972.1	171,600.8	5160.7	3221.1	3.8	8.8
14	10,543	1031.8	183,982.4	5470.3	3414.3	3.8	8.3
2015	11,176	1095.1	197,123.6	5798.7	3619.3	3.9	7.8
16	11,847	1162.2	211,070.0	6146.8	3836.6	3.9	7.3
17	12,558	1233.3	225,869.6	6515.9	4067.1	4.0	6.9
18	13,311	1308.6	241,572.8	6906.9	4311.2	4.0	6.5
19	14,110	1388.5	258,234.8	7321.1	4568.6	4.0	6.1
2020	14,957	1473.2	275,913.2	7760.5	4842.8	4.1	5.8

\*Computations are based on retirement pay, SBP offset and cumulative SBP costs at the end of the previous year. The wife is assumed to become 62 in January 2000.

APPENDIX E

A MASTER SERGEANT WITH OVER 20 YEARS

<u>Index</u> <u>(1978 Index Yr)</u>		<u>FICA</u> <u>Wages * =</u>	<u>Indexed</u> <u>Wages</u>	<u>Index</u> <u>(2002 Index Yr)</u>		<u>FICA</u> <u>Wages * =</u>	<u>Indexed</u> <u>Wages</u>
1957 -	2.899	x 0 =	0	12.071	x 0 =	0	
58	2.873	x 0 =	0	11.965	x 0 =	0	
59	2.738	x 0 =	0	11.400	x 0 =	0	
1960 -	2.634	x 1,100 =	2,897.4	10.970	x 1,100 =	12,067.0	
61	2.583	x 2,400 =	6,199.2	10.756	x 2,400 =	25,814.4	
62	2.460	x 2,500 =	6,150.0	10.243	x 2,500 =	25,607.5	
63	2.401	x 3,000 =	7,203.0	9.998	x 3,000 =	29,994.0	
64	2.307	x 3,300 =	7,613.1	9.606	x 3,300 =	31,699.8	
65	2.266	x 3,400 =	7,704.4	9.436	x 3,400 =	32,082.4	
66	2.138	x 3,700 =	7,910.6	8.901	x 3,700 =	32,933.7	
67	2.025	x 4,300 =	8,707.5	8.432	x 4,300 =	36,257.6	
68	1.895	x 4,600 =	8,717.0	7.889	x 4,600 =	36,289.4	
69	1.791	x 4,900 =	8,775.9	7.458	x 4,900 =	36,544.2	
1970 -	1.706	x 5,900 =	10,065.4	7.106	x 5,900 =	41,925.4	
71	1.625	x 6,300 =	10,237.5	6.766	x 6,300 =	42,625.8	
72	1.480	x 6,900 =	10,212.0	6.162	x 6,900 =	42,517.8	
73	1.393	x 7,900 =	11,004.7	5.799	x 7,900 =	45,812.1	
74	1.314	x 8,600 =	11,300.4	5.474	x 8,600 =	47,076.4	
75	1.223	x 9,000 =	11,007.0	5.093	x 9,000 =	45,837.0	
76	1.144	x 10,000 =	11,440.0	4.764	x 10,000 =	47,640.0	
77	1.079	x 10,400 =	11,221.6	4.495	x 10,400 =	46,748.0	
78	1	x 12,300 =	12,300.0	4.164	x 12,300 =	51,217.3	
79	1	x 13,300 =	13,300.0	3.856	x 13,300 =	51,284.8	
1980 -	1	x 9,400 =	9,400.0	3.604	x 9,400 =	33,877.6	
			TOTAL 193,366.7			TOTAL 795,852.1	

\*All amounts are estimated. Maximum covered social security wages were not met in any year. Amounts include military wage credits.

	<u>Retired Pay*</u>	<u>Monthly SBP Cost</u>	<u>Cumulative SBP Costs at Yr End</u>
1980 -	\$ 636	\$ 41.10	\$ 164.40
81	674	44.90	703.20
82	714	48.90	1,290.00
83	757	53.20	1,928.40
84	802	57.70	2,620.80
1985 -	850	62.50	3,370.80
86	901	67.60	4,182.00
87	955	73.00	5,058.00
88	1,012	78.70	6,002.40
89	1,073	84.80	7,020.00
1990 -	1,137	91.20	8,114.40
91	1,205	98.00	9,290.40
92	1,277	105.20	10,552.80
93	1,354	112.90	11,907.60
94	1,435	121.00	13,359.60
1995 -	1,521	129.60	14,914.80
96	1,612	138.70	16,579.20
97	1,709	148.40	18,360.00
98	1,812	158.70	20,264.40
99	1,921	169.60	22,299.60
2000 -	2,036	181.10	24,472.80
01	2,158	193.30	26,792.40
02	2,287	206.20	29,266.80
03	2,424	219.90	31,905.60
04	2,569	234.40	34,718.40
05	2,723	249.80	37,716.00
2006 -	2,886	266.10	40,909.20

\*An 8% cost of living increase is assumed effective 1 September 1980 with a 6% increase for each year thereafter.

	Retired Pay	Monthly SBP Cost	Cumulative SBP Costs at Yr End	SBP (55% of ret pay)*	SBP Less Offset (\$1014.10 base)*	SBP Recovery*	Spouse's Life Expectancy
2006	\$ 2,886	*	\$ 40,909.20	*	*	*	*
2007	3,059	\$ 283.40	44,310.00	\$1,587.30	\$ 573.20	5.2 yrs	16.7 yrs
08	3,243	301.80	47,931.60	1,682.50	607.60	5.3	16.0
09	3,438	321.30	51,787.20	1,783.70	644.30	5.4	15.3
10	3,644	341.90	55,890.00	1,890.90	683.10	5.5	14.6
2011	3,863	363.80	60,255.60	2,004.20	723.90	5.6	14.0
2012	4,095	387.00	64,899.60	2,124.70	767.60	5.7	13.3
13	4,341	411.60	69,838.80	2,252.30	813.80	5.8	12.7
14	4,601	437.60	75,090.00	2,387.60	862.80	5.8	12.1
15	4,877	465.20	80,672.40	2,530.60	914.30	5.9	11.5
16	5,170	494.50	86,606.40	2,682.40	969.10	6.0	10.9
2017	5,480	525.50	92,912.40	2,843.50	1,027.40	6.0	10.3
18	5,809	558.40	99,613.20	3,014.00	1,088.90	6.1	9.8
19	6,158	593.30	106,732.80	3,195.00	1,154.40	6.2	9.3
20	6,527	630.20	114,295.20	3,386.90	1,223.90	6.2	8.8
21	6,919	669.40	122,328.00	3,589.90	1,297.10	6.3	8.3
2022	7,334	710.90	130,858.80	3,805.50	1,375.10	6.3	7.8
23	7,774	754.90	139,917.60	4,033.70	1,457.50	6.4	7.3
24	8,240	801.50	149,535.60	4,275.70	1,544.90	6.4	6.9
25	8,734	850.90	159,746.40	4,532.00	1,637.40	6.4	6.5
26	9,258	903.30	170,586.00	4,803.70	1,735.40	6.5	6.1
2027	9,813	958.80	182,091.60	5,091.90	1,839.50	6.5	5.8

\*Computations are based on retirement pay, SBP offset and cumulative SBP costs at the end of the previous year. The wife is assumed to become 62 in January 2007.