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Unemployment and Absenteeism Pension Effects for Low Income Workers

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Abstract: This study investigated the effects that expected absenteeism and unemployment, based on BLS and Census data, would have on the income and thus retirement contributions made into the OAI Social Security Retirement plan, and also into a private account, by a low-income worker. Low-income-worker is defined as one earning half the average annual wages subject to FICA taxes, or $17, 449 in the year 2004. Low income workers are reported to have significantly higher absenteeism and unemployment rates than do high income workers. The conclusion is that absenteeism and unemployment have about equal impacts on Social Security Retirement benefits and on savings into a private account. Low income workers opting for a combination of a private account and a corresponding reduction in contribution to and benefits from, Social Security Retirement, end up slightly ahead of the worker who stayed totally with the Social Security retirement plan.

HISTORY OF THE PROGRAMS

The Social Security Act was passed by Congress and signed into law in 1935 as the primary system of social protections for the U.S. The Act established three separate programs, among them the Public Insurance Programs (Williams, Turnbull & Cheit 1982, p. 19). Public Insurance Programs were referred to as "rights" programs because workers prepaid for the benefits with FICA taxes and had a "right" to the benefits. The combined package of "rights" benefits are known as OASDI. These are the Old Age Insurance program [OAI], the Survivors' Insurance program [SI], and the Disability Insurance program [DI]. In 2006, the FICA tax rate was 6.2% of the first $94,200 of an employee's wages and salaries, matched by the employer.(www.ssa.gov) For a number of years, the Trustees of the Social Security programs have warned of long term financial inability of the program to meet its obligations and provide its promised benefits.

The Trustees report that, based on actuarial estimates, the OASI Trust Fund will begin to decline in the year 2018 as benefit payout exceeds FICA tax receipts. In 2028, benefit payout will begin to exceed tax receipts and interest earnings. The OASI fund is expected to be exhausted in the year 2043. As the Trustees note,

> There is a big increase in the shortfall of dedicated payroll tax and premium income in the 2010 to 2030 period as the baby boom generation reaches retirement age, but this shortfall continues to grow rapidly after that point due to health care costs that are expected to grow faster than GDP and to the increasing life expectancy of beneficiaries. In 2004 the combined annual cost of HI, SMI, and OASDI was about 7 percent of GDP, or two-fifths of total Federal revenues. It is projected to double to 14 percent of GDP by 2040 and then to rise further to 20 percent of GDP in 2079, at which time it would exceed total Federal revenues at their historic share of 19 percent of GDP. We do not believe such a long-term rate of growth for the two programs can be sustained. (http://www.ssa.gov/OACT/TRSUM/trsummary.html)

Fund exhaustion can be attributed not only to an increase in the number of retirees receiving benefits, but to a reduction in the number of workers paying FICA taxes into the fund. Reduced family sizes and increased life expectancies combine to cause the threat to the fund and benefits. Fund exhaustion would

either necessitate a major reduction in retirement benefits, or alternative forms or sources of benefit funding.

One of the proposals, suggested by President Bush (Bernstein 2005), to try to overcome some of the funding inadequacies, is to permit workers to set aside 2% of their FICA contributions, matched by the employer, and invest that combined 4% in "private accounts." The expectation is that these accounts would earn a greater return for the worker, in combination with the reduced Old Age Insurance [OAI] retirement benefits [because of the lowered FICA contribution], than that worker would earn solely with OAI benefits. One of the fears held by low income workers is that such a private account shifts an increasing portion of the retirement benefit responsibility onto the INDIVIDUAL worker. The low income worker's Social Security Retirement benefit has always been subsidized by the FICA contributions of the high income workers [those whose incomes approach the maximum income subject to FICA taxes]. For perspective on this effect, see the AIME-to-PIA formula below. The "fear" is that this responsibility-shifting would hurt the low income worker and substantially benefit the high income worker.

Others (Bernstein 2005; Faust 2006) have provided evidence that the workers, even those low-income workers earning half the average wage subject to FICA taxes, would be better off with the private accounts than without them, if those workers could earn at least 5% return, compounded, on their private accounts. These reports assumed that the worker would remain a full time worker working 40 hours per week for 52 weeks per year over the entire 40-year period of the calculations. However, those studies did not consider the possible effects that absenteeism and/or spells of unemployment might have on the retirement contributions, and thus benefits, of these plans.

The purpose of this paper is to try to determine those effects of absenteeism and turnover/unemployment on the income, contributions, and retirement benefits for these low income workers.

LOW-INCOME WORKER INCOME LOSS DUE TO UNEMPLOYMENT

BellaOnline[sm] refers to the US Census Bureau 1999 report on education, employment/unemployment, and income. The Census Bureau provides much more detail of this in its "The Big Payoff: Educational Attainment ...."

Full Time Employment Rates	Education Level	Annual Income	Lifetime earnings
83.6% w/ full-time jobs	Professional degree	$109,600	$4,384,000
80.9% "	Doctoral degree	89,400	3,576,000
76.1% "	Master's degree	62,300	2,492,000
76.7% "	Bachelor's degree	52,200	2,088,000
74.9% "	Associate's degree	38,200	1,528,000
73.9% "	Some college	36,800	1,472,000
73.1% "	High school graduate	30,400	1,216,000
65.3%	Not high school graduate	23,400	936,000

From these data we infer three things—1) that as the education level attained by a worker is less, the average annual income is also less; 2) that as average annual income is less, the portion of employees with "full time jobs" is also lower; 3) as full time employment declines, the probability of experiencing spells of temporary or longer term unemployment or "partial employment" during a given year, increases.

Poverty, as reported by the U.S. Census Bureau "Historical Poverty Tables," stood at $9,646 for one person, $12,335 for two, $15,066 for three and $19,307 for four persons, for the year 2004. Using these "Historical Poverty Tables" for 1999 to define the "poverty-aspect" of income for the "low-income worker" that is the focus of this paper, where 2004 income of "half the average income subject to FICA taxes" defines the "low income worker," the low income worker had 2004 income of $17,449, from Table I, taken from Faust's work. The 1999 equivalent of that figure, also from Table I, was $15,235, so a direct comparison can be made between the Census data on education, income, and percent full time employed. Categorically, this low income worker is essentially at or below the poverty level if (s)he is the earner for a family of three or four individuals. To the extent that the "socio-emotional" status of "living below the poverty line" affects a worker's attitudes about working, or being absent, or changing jobs and experiencing spells of unemployment between jobs, these data are meaningful.

The "low income worker" also has income, at $17,449 in 2004, considerably lower than the 1999 $23,400 reported in the table above for the "Not high school graduate" education and income category. $15,235 is SUBSTANTIALLY LOWER than the $23,400 of the 1999 Census Bureau reported earnings. We infer that this "low income worker" would fall into this educational category, and thus experience

TABLE 1
MAXIMUM, AVERAGE, & HALF-AVERAGE WAGES SUBJECT TO FICA TAXES

YEAR	Half Average Wage subject to FICA tax	National Average Wage subject to FICA	Maximum Wages subject to FICA tax
1965	$2,329.36	4,658.72	4,800
1966	2469.18	4,938.36	6,600
1967	2606.72	5,213.44	6,600
1968	2785.88	5,571.76	7,800
1969	2946.88	5,893.76	7,800
1970	3093.12	6,186.24	7,800
1971	3248.54	6,497.08	7,800
1972	3566.9	7,133.80	9,000
1973	3566.9	7,580.16	10,800
1974	4015.38	8,030.76	13,200
1975	4315.46	8,630.92	14,100
1976	4613.24	9,226.48	15,300
1977	4889.72	9,779.44	16,500
1978	5278.015	10,556.03	17,700
1979	5739.73	11,479.46	22,900
1980	6256.73	12,513.46	25,900
1981	6886.55	13,773.10	29,700
1982	7265.67	14,531.34	32,400
1983	7619.62	15,239.24	35,700
1984	8067.535	16,135.07	37,800
1985	8411.255	16,822.51	39,600
1986	8660.91	17,321.82	42,000
1987	9213.255	18,426.51	43,800
1988	9667.02	19,334.04	45,000
1989	10049.775	20,099.55	48,000
1990	10513.99	21,027.98	51,300
1991	10905.8	21,811.60	53,400
1992	11467.71	22,935.42	55,500
1993	11566.335	23,132.67	57,600
1994	11876.765	23,753.53	60,600
1995	12352.83	24,705.66	61,200
1996	12956.95	25,913.90	62,700
1997	13713	27,426.00	65,400

1998	14430.72	28,861.44	68,400
1999	15234.92	30,469.84	72,600
2000	16077.41	32,154.82	76,200
2001	16460.96	32,921.92	80,400
2002	16626.045	33,252.09	84,900
2003	17032.475	34,064.95	87,000
2004	17448.84	34,897.68	87,900

periodic unemployment that, although the hourly wage might remain the same, would have the effect of lowering the annual income, thus lowering the OAI Social Security Retirement contribution and benefit, and lowering the amount of Private Account contribution he/she would make if he/she were participating in the proposed "Private Account Mix Alternative" [private account retirement benefits plus reduced OAI retirement benefits] rather than a straight OAI Retirement benefit.

The educational attainment of the unemployed, reported in Table No. 626 from the U.S. Bureau of Labor Statistics, shows that the percent of workers who have "less than a high school diploma" runs on average 1.95 times the national total unemployment rate. This ratio [1.95x] will be used to reduce the expected annual hours worked and for which private account contributions and FICA taxes will be made.

Unemployment Rates by Educational Attainment
No. 626, Unemployed and Unemployment Rates by Educational Attainment, ...

Year	Total Unemployment rate	Less than high school diploma	High School graduate, no more	College, less than bachelor's degree	Bachelor's degree/college
1992	6.1	11.5	6.8	5.6	3.2
1995	4.3	9.0	4.8	4.0	2.4
2000	3.0	6.3	3.4	2.7	1.7
2002	4.6	8.4	5.3	4.5	2.9

Table 2 [in the appendix] shows the U.S. Unemployment Rate for all workers 16 and over, retrieved from various issues of the Monthly Labor Review over the 40-year period leading up to 2004. These were multiplied by the 1.95 ratio of unemployment rates of those workers in the table above who had less than a high school diploma. Column four of Table 2 shows the calculated work hours expected to be lost annually by these low-income, poorly educated workers, e.g., the simple formula:

(Unemployment Rate x 1.95 x 2080 hours per year) = expected hours lost due to
unemployment for these workers

These lost hours will lower the wages earned and contributions made to OAI and to a private account.

LOW-INCOME WORKER INCOME LOSS DUE TO ABSENTEEISM

Cascio (P. 46) defines "absenteeism" as "*any failure to report for or remain at work as scheduled, regardless of reason.*" He reports (P. 49) an "Average Monthly Rate: All companies: of 2.7%. The BLS reports that slightly more than half of all workers were covered by an employer-provided "Paid Sick Leave" benefit plan—

Year ⟶	1999	2004	2005	2006
	53%	59%	58%	57%

The presence of an employer-provided paid sick leave plan camouflages the rate of absenteeism, so an employer NOT providing such a benefit would report a significantly higher absenteeism rate than the employer who does provide such a plan. The BLS reports (46. Absences from work ....) that, for the year 2005, the total absenteeism rate, all workers 16 years and over, was 3.3%. Table 47 in that series breaks

the absenteeism out by occupation, by illness, and by "other" reasons. Management, professional, and related occupations had the lowest reported absenteeism rate, while Service Occupations [3.7%] and Production, transportation, and material moving occupations [3.5%] had the highest rates. The "over-all" rate of 3.3% is less appropriate to use for our analysis here, since a low-income worker earning half the average wage subject to FICA taxes would more likely work in either "Production, transportation, and material moving occupations," where the absenteeism rate is at 3.5%; or this worker would be employed in a Service Occupation [Healthcare support—5.7%; Protective services—3.5%; Food preparation and serving—3.2%; Cleaning occupations—3.8%; or Personal care and service—3.5%] Merging the two categories—Production-related with 3.7% and Service at 3.5%--leads to a more realistic absenteeism rate of 3.6%, which will be used in this study.

3.6% of a full work year of 2080 hours represents a loss of 75 hours per work year, and thus a reduction in income for FICA contributions and also for contributions to private accounts. 75 hours per year means 9.36 work days absent in the year. That is less than one work-day per month.

BENEFIT CALCULATIONS

Private Account

The right column of Table 2 shows the calculations for the combined lost hours due to both absenteeism and unemployment. As Table 3 indicates, over a 40-year period,

a worker would lose 12,632.9 hours representing $52,343.72 in lost income. Faust reported that this worker, working full time at 2080 hours per year, would have accumulated a private account fund balance of $31,758.91 at the end of 40 years, if invested and earned 5% compounded, each year over the 40 years. The present study finds that this worker, suffering from some loss of wages due to absenteeism and unemployment, would end up with a fund balance of $28,012.44, similarly contributing 2% that was matched by the employer, for a 4% savings rate. The private account balance is thus $3,746.47 lower in the end, due to the absenteeism and unemployment.

Had this worker been able to earn 10%, compounded, over the same 40 years for the same 4% saving rate from the same wage level as above, the private account fund balance would have been $91,566.52 for a 2080 work year, but is reduced to --$88,525.46 when the worker loses the hours to absenteeism and unemployment.

OAI Retirement Benefits

To make a comparison of the relative goodness of a straight OAI Social Security Retirement benefit, or a reduced OAI Retirement benefit plus a Private Account retirement benefit, the OAI retirement benefit must be calculated based on the reduced income caused by the absenteeism and unemployment. Reviewing the FICA tax provisions, of the 6.2% of income subject to FICA taxes, 4.5% goes into the OASI Fund for the payment of Retirement Benefits, .8% goes into the OASI Fund for Survivors' Insurance, and .9% goes to the Disability Insurance Fund. Each of these is matched by the employer. So the "contribution rate" for the OAI program is the sum of the employee's 4.5% and the employer's 4.5%, or 9% of the employee's wages. Without going through the details of the calculations, we state that the "Average Indexed Monthly Earnings" for this worker is $1133. Using the standard conversion formulas provided by the Social Security Administration, this worker's individual benefit would be his/her "Primary Insurance Amount" [PIA].

In 2005, PIA was converted from the AIME using the formula:

> 90% of the first $627 of AIME, plus
> 32% of the next $3779 of AIME, plus
> 15% of all remaining AIME.

These amount to (.9 * $627) + (.32 * $506) = $564.50 + $161.92 = $726.22 = $726 PIA. Retiring at the full retirement age of 65 years 4 months, the PIA is adjusted upward for the COLA of the years for the worker's 62, 63, and 64th year, in this case amounting to an adjustment upward of the PIA of 1.0634. This brings the actual retirement benefit up to $772.00. This is the OAI retirement benefit this worker would have received starting at his/her full retirement age. It would have been = $792 if the worker had worked a full work year of 2080 each of the 40 years. His straight, but reduced, OAI benefit is $20 per month lower with the loss of income due to absenteeism and unemployment.

Had the worker, instead, made reduced contributions to OAI corresponding to the contributions to the private account of the 4% of income, his/her OAI benefit would be further reduced by the amount of the reduction in the contributions to OAI. This worker would be diverting 45% of the FICA tax rate that would otherwise go into the OASI Trust fund for his/her OAI Retirement benefits, into a private account, leaving 55% of the FICA tax rate still going into the OASI Trust Fund for his/her retirement benefits. This would end up with a Total Indexed Income of $261,820.67, down from the unreduced amount of 476,037.59. The Average Indexed Monthly Earnings, AIME, is now $623.38, which produces a PIA of $561. Applying the COLA index provides a monthly pension of $596.00 This is his/her new OAI Retirement benefit, again assuming this worker retired at his/her full retirement age of 65 years and 4 months of age.

TABLE 2
HALF-AVERAGE FICA WAGES' SAVINGS CONTRIBUTIONS

FICA Year	Calendar Year	Half Average Wage s.t. FICA tax*	National Unemployment Rates**	Work hours lost due to unemployment	Combined Work hours lost, unemployment and absenteeism
1	1965	$2,329.36	4.5%	182.5 hours	257.5 hours
2	1966	2469.18	3.8%	154.2 hours	229.2 hours
3	1967	2606.72	3.8%	154.2 hours	229.2 hours
4	1968	2785.88	3.6%	146 hours	221.0 hours
5	1969	2946.88	3.8%	154.2 hours	229.2 hours
6	1970	3093.12	4.9%	198.7 hours	273.7 hours
7	1971	3248.54	5.9%	239.3 hours	314.3 hours
8	1972	3566.9	5.6%	227.2 hours	302.2 hours
9	1973	3566.9	4.9%	198.7 hours	273.7 hours
10	1974	4015.38	5.6%	227.2 hours	302.2 hours
11	1975	4315.46	8.5%	344.8 hours	419.8 hours
12	1976	4613.24	7.7%	312.3 hours	387.3 hours
13	1977	4889.72	7.0%	283.9 hours	358.9 hours
14	1978	5278.015	6.0%	243.4 hours	318.4 hours
15	1979	5739.73	5.8%	235.2 hours	310.2 hours
16	1980	6256.73	7.1%	287.9 hours	362.9 hours
17	1981	6886.55	7.6%	308.3 hours	383.3 hours
18	1982	7265.67	9.7%	393.4 hours	468.4 hours
19	1983	7619.62	9.6%	389.3 hours	464.3 hours
20	1984	8067.535	7.5%	304.2 hours	379.2 hours
21	1985	8411.255	7.2%	292.2 hours	367.2 hours
22	1986	8660.91	7.0%	283.9 hours	358.9 hours

23	1987	9213.255	6.2%	251.4 hours	326.4 hours
24	1988	9667.02	5.5%	223.1 hours	298.1 hours
25	1989	10049.775	5.5%	223.1 hours	298.1 hours
26	1990	10513.99	5.3%	214.9 hours	289.9 hours
27	1991	10905.8	6.8%	275.8 hours	350.8 hours
28	1992	11467.71	7.4%	300.1 hours	375.1 hours
29	1993	11566.335	6.9%	279.9 hours	354.9 hours
30	1994	11876.765	6.2%	251.4 hours	326.4 hours
31	1995	12352.83	5.7%	231.1 hours	306.1 hours
32	1996	12956.95	5.4%	219.1 hours	294.1 hours
33	1997	13713	4.7%	190.6 hours	265.6 hours
34	1998	14430.72	4.5%	182.5 hours	257.5 hours
35	1999	15234.92	4.2%	170.3 hours	245.3 hours
36	2000	16077.41	4.0%	162.2 hours	237.2 hours
37	2001	16460.96	4.8%	194.7 hours	269.7 hours
38	2002	16626.045	5.8%	235.2 hours	310.2 hours
39	2003	17032.475	6.0%	243.4 hours	318.4 hours
40	2004	17448.84	5.5%	223.1 hours	298.1 hours

*   Taken from Social Security Administration tables online**.**

**   Taken from various issues, "Current Labor Statistics," *Monthly Labor Review.*

TABLE 3
REDUCED INCOME DUE TO ABSENTEEISM & TURNOVER

FICA Year	Calendar Year	Half Average Wage s.t. FICA tax*	Combined Work hours lost, unemployment and absenteeism	Income Lost due to absent & unemployed	Reduced annual income
1	1965	$2,329.36	257.5 hours	$288.37	$2,040.99
2	1966	2469.18	229.2 hours	272.0846423	2197.095358
3	1967	2606.72	229.2 hours	287.2404923	2319.479508
4	1968	2785.88	221.0 hours	295.99975	2489.88025
5	1969	2946.88	229.2 hours	324.7235077	2622.156492
6	1970	3093.12	273.7 hours	407.0129538	2686.107046
7	1971	3248.54	314.3 hours	490.8731356	2757.666864
8	1972	3566.9	302.2 hours	518.2294135	3048.670587
9	1973	3566.9	273.7 hours	469.356024	3097.543976
10	1974	4015.38	302.2 hours	583.3883827	3431.991617
11	1975	4315.46	419.8 hours	870.9760135	3444.483987
12	1976	4613.24	387.3 hours	858.9941596	3754.24584
13	1977	4889.72	358.9 hours	843.7117827	4046.008217
14	1978	5278.015	318.4 hours	807.9422962	4470.072704
15	1979	5739.73	310.2 hours	855.992426	4883.737574
16	1980	6256.73	362.9 hours	1091.618902	5165.111098
17	1981	6886.55	383.3 hours	1269.045488	5617.504512
18	1982	7265.67	468.4 hours	1636.172994	5629.497006
19	1983	7619.62	464.3 hours	1700.860368	5918.759632
20	1984	8067.535	379.2 hours	1470.773688	6596.761312
21	1985	8411.255	367.2 hours	1484.910017	6926.344983
22	1986	8660.91	358.9 hours	1494.423365	7166.486635
23	1987	9213.255	326.4 hours	1445.772323	7767.482677
24	1988	9667.02	298.1 hours	1385.45128	8281.56872
25	1989	10049.775	298.1 hours	1440.306696	8609.468304

26	1990	10513.99	289.9 hours	1465.387356	9048.602644
27	1991	10905.8	350.8 hours	1839.305115	9066.494885
28	1992	11467.71	375.1 hours	2068.047125	9399.662875
29	1993	11566.335	354.9 hours	1973.505909	9592.829091
30	1994	11876.765	326.4 hours	1863.738508	10013.02649
31	1995	12352.83	306.1 hours	1817.885223	10534.94478
32	1996	12956.95	294.1 hours	1832.037978	11124.91202
33	1997	13713	265.6 hours	1751.044615	11961.95538
34	1998	14430.72	257.5 hours	1786.495385	12644.22462
35	1999	15234.92	245.3 hours	1796.695133	13438.22487
36	2000	16077.41	237.2 hours	1833.443102	14243.9669
37	2001	16460.96	269.7 hours	2134.385054	14326.57495
38	2002	16626.045	310.2 hours	2479.518826	14146.52617
39	2003	17032.475	318.4 hours	2607.278865	14425.19613
40	2004	17448.84	298.1 hours	2500.720771	14948.11923
	Totals	$346,228.10		$52,343.72	$293,884.38
			12632.9 hours lost	Income lost	Total reduced income

*   Taken from Social Security Administration tables online.

Added to this will be the annuity stream of retirement benefits purchased from his Private Account. At age 65, this worker has a remaining life expectancy [from standard mortality tables] of 10.68 additional years. The Private Account balance of $28,012.44 produces an annual annuity income of $2622.89. Converting the reduced OAI benefit to annual figures [$596 x 12] produces an OAI benefit of $7152, and a Private Account annuity of $2622.89, which sums to a combined retirement benefit of $9,774.89. Had this worker stayed totally with the Social Security OAI pension, his/her annual benefit would have been $772 x 12 = $9264.00. The private account still provides an annual benefit $510 greater than if the worker had stayed totally with the OAI retirement program.

This is to say, by reducing the worker's work hours by the expected amounts lost due to absenteeism and to expected unemployment, for ALL calculations, and assuming that the worker is able and willing to invest his/her private account at 5% compounded per year, the worker still ends up ahead with the private account than without it.

SUMMARY AND CONCLUSIONS

This study investigated the expected absenteeism and unemployment a low income worker [earning half the average annual income subject to FICA taxes, as reported by the Social Security Administration] would experience over a forty year period. The purpose was to determine how absenteeism and unemployment might reduce the wages an hourly worker would earn, and then calculate the corresponding effects this reduced income would have on that worker's OAI Social Security Retirement benefit. Similar calculations were made to determine the effects absenteeism and unemployment might have on contributions to a private account. Finally, comparisons were made between the OAI retirement benefits reduced for absenteeism and unemployment, and the combined retirement income from an annuity purchased by the private account funds at full retirement age complemented by the reduced OAI retirement benefits.

This study concluded that the absenteeism and unemployment reduced both retirement plan benefits about equally, but that the retiree is NOT HURT—is still slightly ahead financially—by adopting the private account than by not adopting a private account.

This study's conclusions are limited in that, although it used government data tables from the Bureau of Labor Statistics and the Bureau of the Census, the "view" was backwards, not forwards. That

is to say, this study reached back forty years and calculated what would have been the retirement benefits if the worker had begun a private account forty years ago and invested it at 5% interest compounded. The effects of an investment earning ten percent were calculated but not reported in detail here once the 5% investment revealed slightly better results for the private account than the straight OAI Social Security retirement benefits would have been. The author chose to "look backward" to investigate the effects, because the forty-year history is known. There are so many unknowns in the future forty years as to make the calculations so fraught with ambiguities as to be too unclear to conclude anything.

An additional limitation rests with the assumption that, at the full retirement age of 65 years and four months, the new retiree would be able to purchase a life annuity with the saved and invested $28,000, or with $32,000, at an interest rate earning 6%, while only being able to earn 5% during the forty year saving period. This was based on the argument that a worker contributing about $100 per year initially, would not be able to get the same high interest rate as someone wanting to invest $28,000 or $32,000, would. Should the retiree have to settle for an annuity earning less than 6% in the retirement period, or to have had [or only be willing] to settle for an investment earning less than 5% during the forty years saving period, the outcomes would be less favorable for the private account option.

Finally, we have not investigated the "risk propensity" of low income earners, relative to average- or high-income earners. If a low income earner were to be more of a "risk-taker" and would invest in higher-return-higher-risk-of-loss investments, the calculations should focus more on the "ten-percent" return calculations. The possibility that a significant portion of the savings might be lost due to major market downturns, also must be considered.

Is the low income worker better off with the private account than without it? The difference seems to be so minor as to be insignificant [$510 per year, or $42.50 per month]. With moderately conservative investment assumptions, at the very least this worker is not worse off with the private account.

TABLE 4
CONTRIBUTIONS ON REDUCED INCOME

FICA Year	Calendar Year	Reduced annual income	4% invested at 5% compounded	4% invested at 10% compounded
1	1965	$2,040.99	$81.64	81.639
2	1966	2197.095	$174.01	178.503
3	1967	2319.479	276.3635	290.918
4	1968	2489.880	391.1587	422.514
5	1969	2622.156	517.5587	573.877
6	1970	2686.107	653.4687	744.448
7	1971	2757.666	799.7162	936.644
8	1972	3048.670	965.6474	1161.621
9	1973	3097.543	1142.66	1413.302
10	1974	3431.991	1342.786	1706.044
11	1975	3444.483	1554.418	2031.489
12	1976	3754.245	1790.081	2405.122
13	1977	4046.008	2050.376	2831.526
14	1978	4470.072	2341.949	3321.797
15	1979	4883.737	2666.106	3882.544
16	1980	5165.111	3019.346	4516.229
17	1981	5617.504	3410.111	5237.714
18	1982	5629.497	3822.847	6039.043
19	1983	5918.759	4269.854	6940.088
20	1984	6596.761	4768.566	7967.368

21	1985	6926.344	5307.891	9120.832
22	1986	7166.486	5886.484	10410.783
23	1987	7767.482	6520.94	11866.669
24	1988	8281.568	7210.855	13503.265
25	1989	8609.468	7951.831	15333.003
26	1990	9048.602	8751.125	17381.578
27	1991	9066.494	9595.097	19656.211
28	1992	9399.662	10498.81	22194.381
29	1993	9592.829	11459.96	25019.476
30	1994	10013.026	12490.78	28172.140
31	1995	10534.944	13599.17	31692.473
32	1996	11124.912	14792.12	35623.641
33	1997	11961.955	16084.17	40020.720
34	1998	12644.224	17474.57	44928.768
35	1999	13438.224	18973.2	50408.462
36	2000	14243.96	20586.48	56523.152
37	2001	14326.574	22291.8	63313.761
38	2002	14146.526	24083.71	70844.136
39	2003	14425.196	25985.32	79213.999
40	2004	14948.119	28012.44	88525.464
	Totals	$293,884.38	Ending	
		Total reduced	balance--	Ending Balance--
		income	$28,012.44	$88,525.46

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