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CHANGING SOCIAL SECURITY BENEFITS
TO REFLECT CHILD CARE YEARS: A
POLICY PROPOSAL WHOSE TIME HAS
PASSED?

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Changing social security Benefits to Reflect Child Care Years: A Policy Proposal Whose Time Has Passed?

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It is well known that women's social security benefits are lower than men's benefits. The difference reflects the lower lifetime earnings of women rather than any difference in treatment of men and women by program regulations. Part of the difference reflects zero or reduced earnings in years when women drop out of the labor force to take care of young children or disabled relatives. Some advocates think society should not penalize women who perform unpaid work in the home raising children by giving them lower social security benefits. Some believe that removing the effect of dropping out to care for children is a good policy to reduce poverty among older women. In 1990, 15.4 percent of women 65 and over were below the poverty line.²

Child Care Proposals

Some proposals alter the social security benefit formula by increasing retirement benefits for women who had no earnings or very low earnings during the period when they raised young children. Two proposals receiving the most attention are a child care dropout and a child care credit to the Special Minimum Benefit. The child care dropout removes periods of child care from the computation of social security retirement benefits. The Special Minimum credits years of child care to a subsidized social security benefit for long-term workers with low earnings.

Two rationales have been used to promote the proposals: an adequacy argument related to increasing the benefits of poor women and an equity argument emphasizing that it is unfair to penalize with lower retirement benefits women who do not work because they take care of young children. In general, adequacy refers to whether the benefit received is adequate (to alleviate poverty). Equity reflects whether groups of women are receiving an appropriate rate of return for their payroll taxes.

Although several variations have been proposed, excluding caregiving years from the computation of benefits is one main thrust (AARP 1991). Most commonly, these proposals would exclude or 'drop out' years in which care was given and the caregiver had no paid work. For example, House Bill H.R. 865 of the 102nd Congress would have disregarded from average earnings up to 5 years with no paid work "occasioned by a need to provide child care or care to a chronically dependent relative".

Reducing the number of years used to compute average earnings by dropping the zero years raises average monthly earnings and subsequent retirement benefits of caregivers. - Proponents claim the proposal improves equity by removing the penalty for caregiving (ie. the penalty for zero earnings in a year included in the benefit formula). Implicitly the proposal values full-time caregiving for social security purposes as the average earnings in years where there had been no caregiving. It does, which improves adequacy by raising benefits of women workers, which often are low, particularly among mothers of more children.

Another policy to subsidize child care is to count "caregiving" years toward the social

²Based on the Current Population Survey and reported by the U.S. House of Representatives, Committee on Ways and Means (1992).

security Special Minimum Benefit (SMB) available to workers with a history of low earnings (AARP 1991, p.8). The SMB gives a higher benefit to long-term workers with low earnings. Under current legislation, the individual receives a year of SMB credit if covered earnings are at least 25 percent of the taxable maximum of earnings in 1951- 1978³. For example, the earnings minimum was \$9,250 in 1990. The SMB begins with a benefit at 11 years not below the credit minimum, and increases \$11.50 for each additional year not below the credit minimum to a maximum of 30 years. In Dec. 1992, the SMB was \$24.50 at 11 years of credit and \$492.50 at 30 years of credit. A caregiving credit would increase the SMB by \$11.50 for each credit year with caregiving and no earnings, and in some variants, years with caregiving and low earnings. The inclusion of low earnings years rewards women who provide care at the sacrifice of lower but not all earnings. The caregiving credit would increase the benefits of those who had provided care and also had long work histories at low wages.

This paper estimates the effects of child care proposals for women categorized by economic and demographic characteristics. It presents information about the distribution of child care drop out and special minimum credit years among women by retirement cohort and other demographic characteristics. It estimates the dollar impact of adjustments for caregiving years. With these analyses, we can determine whether subsidizing caregiving years makes sense in terms of adequacy or whether it benefits minorities and persons of lower socioeconomic status. One's judgement of the proposals should depend in part upon who benefits from them. Some of the public discussion implies that lower income women would benefit the most from excluding caregiving periods from the social security benefit computation (AARP 1991).

Cohort changes in labor force participation

Because the effect from the child care dropout proposal depends upon the extent of full-time caregiving, secular changes in women's labor force participation alters its impact. Fulltime care of young children is lower among mothers in more recent birth cohorts, implying reduced effects from the policy.

Women's labor force participation has dramatically increased in the twentieth century (Goldin 1990; Levine and Mitchell 1991). In a review of economic literature, Gunderson (1989, p.46) called women's increased labor force participation the "single most important development in the labor market in the past 40 years". The participation rate of adult women increased from 29 percent in 1950 to 58 percent by 1990 (Goldin 1990; U. S. Bureau of the Census 1991, Table 635).

Perhaps-the biggest change was the increasing participation of mothers of young children. Oppenheimer (1970, p.10) concluded from 1940 Census data that "if a woman worked, it usually was before marriage; if she worked after marriage, it was most likely before the advent of

³The required level is 25 percent of the maximum as if the 1977 Amendments had not been enacted. Beginning in 1991, the law was changed to require 15 percent of the pre-1977 law maximum for a credit year.

children". By 1950 and 1960, Census data show that mothers of young children usually didn't work but many women entered the labor force in their late thirties when children were school age (Oppenheimer 1970; Bowen and Finegan 1969). After 1960, participation rates of mothers of young children markedly increased going from 19 percent in 1960 to 58 percent in 1989 (U.S. Bureau of the Census 1991, Table 643). Part of the recent change results from first-time mothers working longer into pregnancy and returning to work sooner after childbirth in the early 1980's than in the early 1960's (O'Connell 1990).

These labor force changes imply that more recent birth cohorts had more years of social security covered earnings and higher levels of average indexed earnings (Iams 1993). Furthermore, for more recent cohorts, the earnings of wives were higher relative to their own husbands. Thus, earned benefits will increase among future women retirees, diminishing the impact of full-time caregiving adjustment policies.

II. Empirical Results

The analysis is conducted using the 1990 Survey of Income and Program Participation (SIPP) of the Census Bureau, exactly matched to social security records of annual earnings from 1951 to 1990. SIPP Wave II contains the marital and fertility histories permitting identification of the birth year of the youngest and oldest child. Caregiving to young children is constructed as having children under age 6. Wave VI provides the work history and reason for being out of the labor force for at least 6 months. The main reasons include caring for minor children, caring for elderly relatives, and caring for disabled relatives. We construct a variable-measuring the period of labor force withdrawal to care for elderly or disabled relatives.

A caregiving dropout year is a year with no covered earnings while giving care. A Special Minimum Benefit credit year is a year with no earnings or earnings below the required minimum level while giving care.

Women born in the 1930's and the 1940's form the sample used in this paper. These women reach the social security early retirement age of 62 between 1992 and 2001, and between 2002 and 2011, respectively. We analyze dropout and credit years between ages 22 and 41 for both retirement cohorts and between ages 22 and 51 for the earlier cohort.

Caregiving levels.

Full-time elder/disability care is negligible, about 1 percent of the sample provide it (Table 1). In contrast, 79 percent of the 1992-2001 cohort and 67 percent of the 2002-2011 cohort have child care dropout years in the period ages 22-41. Table 1 shows percentage with any, more than 5, and more than 10 dropout years by cohort and reason. Dropout years are mainly attributable to care of minor children. More recent cohorts have fewer dropout years.

At comparable ages, the earlier cohort averages 5.1 dropout years and the later cohort

averages 3.8 dropout years (Table 2). On average, the 1992-2001 cohort had 7.7 years, and the 2002-2011 cohort had 7 years with a child under 6 years of age. Thus the earlier cohort spent proportionately more time in full-time child care. Virtually all child care dropout years occur before women reach age 41. (The mean of child care dropout years increases 0.2 years when the period is extended from ages 22-41 to ages 22-51.)⁴

The SMB credit years are on average about two years higher than the dropout years because our measure includes periods of low earnings as well as no earnings. The earlier retirement cohort continues to have more years. At ages 22-41, the earlier cohort averages 6.4 credit years while the later cohort averages 5.3 credit years. Similarly, the percentages of women with any or more than 5 dropout years are higher among the earlier than the later cohort.

Because many of the proposals only affect women who will receive retirement benefits based on their own earnings, it is instructive to examine caregiving years for a sample restricted to expected future retired worker beneficiaries.⁵ The relationships remain similar but the level of caregiving decreases. Compared with all women, future retirees averaged about one less dropout year in the earlier cohort (4.0 versus 5.1) and 0.7 years less in the later cohort (3.1 versus 3.8). Future retired worker beneficiaries averaged 5.7 credit years in the earlier cohort and 4.8 credit years in the later cohort.

The Distribution of caregiving

It is instructive to determine how dropout and SMB credit years are distributed among the various segments of the population. Policy decisions are often influenced by the impact of the change on different types of persons. We focus upon child care years for future retired worker beneficiaries. Table 3 presents the dropout and credit years for women with specific demographic, minority status, and socioeconomic characteristics. The demographic characteristics include retirement cohort (1992-1996, 1997-2001, 2002-2006, and 2007-2011),⁶

⁴Extending the period from 22-41 to 22-51 increased the special credit years 0.2 years but didn't change the additional elder/disability care.

⁵Beneficiaries receiving wife or widow benefits completely based on their husbands earnings are not affected by policy changes on their husbands earnings are not affected by policy changes of caregiving dropout and SMB credit years. Thus, we focus our analysis on future retired worker beneficiaries with 5 years of covered earnings in the period age 22-41. Because elder/disability dropout years are negligible and we cannot measure part-time caregiving with our data, we focus upon child care years.

Future retired worker beneficiaries are defined as women with at least 5 years of covered earnings in the period ages 22-41. A worker requires 40 quarters of coverage (or the equivalent worker benefits. 10 years is one fourth of the computation period; 5 years is the equivalent for the period under study. This is obviously an imperfect measure because an individual woman's participation pattern may be very different after age 41 than before.

⁶The 1992-1996 retirement cohort was born in 1930-34; the 1997-2002 retirement cohort was born in 1935-59; the 2003-2007 retirement cohort was born in 194-1944; and, the 2008-2012 retirement cohort was born in 1945-1949.

current marital status (married, widowed, divorced or separated, and never married), and number of children ever born. Minority status includes race (black, nonblack) and ethnicity (Hispanic, nonhispanic). Socioeconomic status is identified by annual family income relative to poverty (poverty or below, 1-2 times poverty, over 2 times poverty), womants education (0-11 years, 12 years, 13 or more years), husbands earnings level when the wife was ages 2241 (median or below, third quartile, upper quartile), and husband's education (0-11 years, 12 years, 13 or more years).

Average dropout and credit year levels vary by the selected characteristics. While Hispanic and nonhispanic women have similar dropout levels, black women average about one year less. Among future retired worker beneficiaries, black women on average have 2.3 dropout years while other women have 3.6 years. The respective figures for credit years were 4.2 and 5.4.

The relationships among socioeconomic status measures and caregiving years are inconsistent. Dropout and credit years are higher among wives with husbands having higher average earnings and higher education levels. For example, among future retired worker beneficiaries, wives average 3.6 dropout years when husbands have median or lower earnings in contrast to 4.4 years when husbands have earnings in the upper quartile of earnings. Similarly, the dropout and credit years increase as the husband's education increases.

Dropout and credit years are slightly higher among women with 12 years of education, and credit years are higher among women in poverty. The inconsistency with socioeconomic status of husbands indicates that separate analysis by marital status may be appropriate.

Table 4 presents the average number of dropout and credit years of future retired worker beneficiaries by category if those persons were average in all other characteristics. The adjusted averages were calculated using multiple regression equation analysis.⁷ The adjusted average indicates the effect of characteristics while taking other characteristics into account. We present the data predicting full-time child care dropout years separately for married and nonmarried women.

Black women have significantly fewer dropout and credit years as do Hispanic married women. Controlling for other characteristics, black wives have about 2 fewer dropout and credit years than other wives, and black nonmarried women have about a credit year less than other nonmarried women. This is consistent with studies of labor force participation in the 1950's and 1960's. Bowen and Finegan (1969) for example found that nonwhite mothers were less likely than white mothers to be out of the labor force when they had young children. Hispanic wives

⁷We estimated a series of multiple regression equations predicting the number of dropout years with no earnings. We present the adjusted coefficients for selected characteristics using the average level of characteristics weighted by the appropriate coefficients of other characteristics in the equation (see Bowen and Finegan 1969). The adjusted coefficients take into account the average effects from other variables in the equations. The equations are presented in Appendix A, Tables 1A and 2A.

have approximately a half year fewer than nonhispanic wives⁸.

Both unadjusted (Table 3) and adjusted (Table 4) comparisons show that policies that subsidize child care dropout years benefit white majority women more than they do black women and hispanic wives. A policy subsidizing child care years generally benefits economically advantaged women. These findings are not surprising because the literature on labor supply has consistently shown that married women in less favorable economic circumstances are more likely to work.

The relationship between greater dropout and credit years and higher socioeconomic circumstances is documented using several measures of socioeconomic status. More educated wives and wives of husbands with earnings in the upper quartile average about one more dropout and credit year than other wives. Wives with more educated husbands and with annual family incomes over twice the poverty level average a fraction of a year more than other wives. Thus, a policy subsidizing child care years is of greater benefit to wives in more advantaged families.⁹

Removing dropout years from benefit computation

The policies increase retirement benefits for women by increasing the average indexed monthly earnings (AIME) used as the basis for calculating retirement benefits. The average indexed monthly earnings at ages 22-41 increases about \$705 to \$807 if full-time child care years are excluded (Table 5). The increase is \$102 (14 percent).

The impact on benefits would be less than this amount. First, the final basic benefit is based on the highest 35 years of earnings rather than the 20 years observed in our data between ages 22 and 41. Thus, the change in the AIME would be about half because the earnings period used would be about doubled for the retirement benefit. Second, the basic benefit formula converts average earnings to benefits using different parameters depending on the level of the AIME. A dollar increase for a person with an AIME of \$705 would increase the benefit by \$0.32. Thus, the effect of the dropout year adjustment would be \$16.

It should be noted that many women receive benefits based on their husbands earnings. As wives, they are entitled to half of their spouse's benefit and as widows they would be entitled to a benefit equal to their spouses' benefit. These dually entitled beneficiaries would not gain from a dropout benefit because their actual retirement benefit would be based on their spouses' earnings. As previously noted, about 90 percent of wivels in the 1992-2006 cohort and 85 percent in the 2007-2012 Cohort could receive a widow benefit at retirement age and about half of those in the 1992-2001 cohort and two-third's in the 2002-2011 cohort could receive a wife

⁸Interestingly, Hispanic and nonHispanic nonmarried women have levels which do not significantly differ.

⁹In contrast, this policy would be of greater benefit not only to more educated nonmarried women but also to those in poverty. Both types of nonmarried women significantly average about a half dropout year more than the nonmarried women.

benefit based on current earnings (Iams 1993).

Table 6 shows the increase in average indexed monthly earnings for women with varying demographic and socioeconomic Characteristics. Among future retired worker beneficiaries, average earnings increase less for black than for other women (\$56 compared with \$108). The increase for Hispanic women is \$76 compared with \$104 for nonhispanic women.

These minority group differences remain after statistical adjustment for other characteristics (see Table 7).¹⁰ For example, under the dropout proposal, the average earnings of married black women would increase \$64 compared with \$120 for non-black women. The black/non-black differences are always statistically significant, but the Hispanic differences may reflect sampling error (see Appendix A, Table 3A).

Women of higher socioeconomic status gain more than others from a policy subsidizing dropout years. This pattern occurs for both policies examined and for several measures of socioeconomic status (eg. the woman's education, the family income relative to the poverty level, the husband's earnings level). Under the child care proposal, future retired worker beneficiaries with 13 or more years of education gained \$134 compared with \$115 for those with 12 years and \$54 for those with 11 years. Future retirees in families with annual income over twice the poverty level gain \$120 compared with \$51 for those in poverty and \$74 for those just above poverty. These differences remain even after statistical adjustment for other characteristics. This indicates that adjusting the SSA benefit formula for child care years would help women who are economically better off than others.

Potential effects from the SMB credit

A caregiving credit to the Special Minimum Benefit (SMB) will effect only a minority of women and even for them, the effects will be small. Most women either have their own earned benefit higher than the SMB or will receive benefits based on heir husbands' earnings.

The SMB credit only affects retirees retirement benefits based on their own earnings. The credit does not affect the benefits of the majority of married women who receive (spouse or survivor) benefits based on their husbands' earnings. About 90-92 percent of wives in the 1992-2006 cohort and 85 percent of wives in the 2007-2011 cohort will receive widow benefits based on their husbands' earnings (Iams 1993). About 66 percent of wives in the 1992-1996 cohort, 58-60 percent of wives in the 1997-2006 ohort, and 53 percent of wives in the 2007-2011 cohort will receive spouse benefits based on their husbands' earnings (Iams 1993). Thus, the majority of married women will receive social security benefits based on a husbands' earnings at retirement age and would not be affected by an SMB credit.

And we expect that women who receive their own retirement benefits have benefits above

¹⁰The multiple regression equations used to obtain these results are presented in Appendix Table 3A.

the levels granted in the SMB. Depending on the cohort, the wives averaged from \$416 to \$685 in monthly earnings (Iams 1993). The SMB benefit at 20 years was \$246 and would be exceeded by benefits calculated from an average earnings of \$274.¹¹ Only 22 percent of future retired worker beneficiary women averaged monthly indexed earnings below \$274 from ages 22 to 1990-24 percent of married women and 18 percent of nonmarried women.

The effects from a caregiving credit to the SMB would be small. The effect of the caregiving credit would increase the SMB by approximately 5-6 credit years for future retired worker beneficiary women (Table 2). Under current law, a credit year is valued at \$11.50 per month for each credit year. Accordingly, the caregiving credit would raise benefits by about \$57-\$69 per month for the affected women. We estimate that about a tenth of women would benefit if a 20 year credit applied and about a fifth of women would benefit if a 30 year credit applied.¹²

VII. Discussion and Conclusion

The results in this paper raise important questions about the efficacy of proposed policies

¹¹Iams (1993) indexed earnings in the 1990 SIPP exact match and calculated earnings at ages 22-51 for the 1992-2001 cohort and at ages 22-41 for the 2002-2011 cohort. Using the same indexing pattern, the December 1992 SMB was \$24.50 with 11 credit years, \$245 with 20 credit years, and \$492.50 with 30 credit year (SSA 1993, Section 717). We estimated these benefits require average monthly earnings of \$27, \$273, and \$858, retired benefits probably will have an earnings history with a basic benefit exceeding that of the SMB. Because of variations in the taxable maximum level, the required level increased from almost 1/4 of the national average earnings in 1965 to almost 1/2 of the national average earnings in the 1970's. In 1990, for example, the SMB required level of minimum earnings was \$9,250 compared to a national average earnings of \$21,028. In 1965, the SMB required level of minimum earnings was \$1,200 compared to a national average of \$4,659.

¹²The credit is most relevant to nonmarried women expected to be future retired worker beneficiaries. They made up about 30 percent of women in the 1990 SIPP exact match studied here. In order to approximate the effects of a SMB credit, we estimated the 1992 benefit of each nonmarried woman based on her own social security record of earnings from age 22 through 1990. The annual earnings in the SSA earnings record were indexed to the 1990 equivalent based on the social security wage index as used for the 1992 benefit computation. Average indexed monthly earnings were estimated based on the earnings from age 22 to 1990. The 1992 benefit formula was used to transform these monthly earnings into a Primary Insurance Amount or basic benefit before actuarial adjustment. The benefit is calculated as 90 percent of the first \$376, 32 percent of the amount from \$388 to \$2,333, and 15 percent of the amount over \$2,333. This calculation is probably biased lower than the actual benefit at retirement. Our calculation is not based on the highest 35 years of earnings over a lifetime in contrast to the actual benefit. Ours does not exclude the lowest five years of earnings and does not include earnings later in life, which usually are at a higher level. This is a conservative bias for the policy change because it increases eligibility for a SMB credit year over what we expect at retirement.

We compared our calculation of the earned benefit of future retired worker beneficiary nonmarried women with the SMB for 11 years, 20 years, and 30 years of credit (Table 8). The SMB was higher than the earned benefit for a minority (1-2 percent) if the 11 credit year SMB applies. If the 20 credit year SMB applies, the SMB was higher than the earned benefit for 31-34 percent of the 1992-2001 cohort and about 22-25 percent of the 2002-2011 cohort. If the full 30 year credit SMB applies, then the SMB was higher for 69-76 percent of the 1992-2001 cohort and 58-64 percent of the 2002-2011 cohort. Applying these counts of nonmarried retirees to the data set of all women, we estimate about a tenth of all women would gain from the caregiving adjustment with a 20 year credit and a fifth would gain with a 30 year credit.

to increase the retirement benefits of women who reduce their labor force earnings to care for children. The policies examined do increase the retirement benefits of some women. However, the increases on average are small, are lowered with each successive retirement cohort, and benefit women from the more privileged socioeconomic groups. From an adequacy perspective, subsidizing child care drop out years does not seem to be a well-targeted policy.

There may also be problems from an equity perspective. Notwithstanding that society undervalues women's child rearing and other home-work which is not paid for with cash, it is not clear that social security benefits are the vehicle to rectify this problem.

Years of zero earnings (or years with low earnings) when a young child is present is not necessarily the best measure of the child rearing contribution. Many women work in the paid labor market and raise young children at the same time. These women are more likely to be in families with husbands that are in poorer economic circumstances. The growth in the labor force participation rates of women with young children over time indicates that this phenomenon is becoming more common. It is not equitable social policy to only subsidize the child rearing of women who do not work or who limit their earnings.

OASI is a social insurance program where retirement benefits are related to lifetime market earnings. Contributions (taxes) are paid and benefits calculated on the basis of those earnings. Deviations from that formulation should occur only for adequacy objectives.

The poverty problem for older women is concentrated among single women (Committee on Ways and Means 1992). Only 5.7 percent of married women aged 65 and over were below the poverty line in 1991 compared with 21.4 percent of widows and 24 percent of divorced, separated, and never married women. Poverty is concentrated among women 75 and over in part because the probability of being a widow increases with age. In 1990, 36 percent of women 65 to 74 were widows compared to 66 percent of women 75 and over.

In the future, although the average number of child caregiving years will diminish, older women's poverty is likely to remain a problem. Policies to help poor women might include increasing the size of SSI benefits and/or survivors' benefits in OASI. Subsidizing child care years is not an effective way to accomplish this objective. Most widows receive social security benefits based on their husband's earnings, not their own.¹³ Poor women are not well-targeted by the child care dropout and credit years proposals.

References

¹³A widow is eligible for the full basic benefit of her deceased husband, disregarding adjustments for early or late retirement. When an aged widow is also entitled to her own retirement benefit based on her own earnings, the widow benefit is reduced by an amount equal to the retirement benefit. She receives the higher of her own benefit or the widow benefit. As previously noted, Iams (1993) found most wives in the 1992-2011 cohort would receive widow benefits if their husband were dead.

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Table 1: Percentage with caregiving dropout year and special minimum credit year, based on earnings at ages 21-41 for women born 1930-1949.^{a/}

Type of year	Total women		Future retired worker beneficiaries	
	1992-2001 retirement cohort	2002-2011 retirement cohort	1992-2001 retirement cohort	2002-2011 retirement cohort

Caregiving dropout year				
With child under 6				
Any years	79.4	67.1	74.2	62.8
More than 5 years	51.3	34.8	37.3	25.9
More than 10 years	8.5	4.8	2.4	1.5
Additional Elder/Disability care years				
Any years	0.8	0.5	0.6	0.4
More than 5 years	0.4	0.1	0.2	0.0
More than 10 years	0.3	0.1	0.1	0.0
Care credit toward special minimum benefit				
Child caregiving credit years				
Any years	84.6	77.5	81.6	75.4
More than 5 years	65.7	52.6	56.9	47.0
More than 10 years	16.2	10.7	10.8	7.5
Total number (in thousands)	10,176	14,477	7,186	3,1,896

.Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records. Matches were found for 90 percent of the adults.

^{a/} See text for definition of variables.

Table 2: Average caregiving dropout years and special minimum credit years, based on earnings at ages 22-41 for women born 1930-1949^{a/}

Type of year	All women	Future retired vorkers beneficiaries		
	1992-2001 retirement cohort	2002-2011 retirement cohort	1992-2001 retirement cohort	2002-2011 retirement cohort
Caregiving dropout year				
With child under 6	5.1	3.8	4.0	3.1
Additional Elder/ Disability care	0.1	0.0	0.0	0.0
Care credit to special minimum benefit				
With child under 6	6.4	5.3	5.7	4.8

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records. Matches were found for 90 percent of the adults.

^{a/}See text for definition of variables.

Table 3: Average caregiving dropout and special minimum credit years in the period ages 22-41 by selected characteristics for women born 1930-1949.a/

Characteristics	Total women		Future retired worker beneficiaries	
	Dropout year	Credit year	Dropout year	Credit year
Total	4.4	5.8	3.5	5.2
Demographic:				
Retirement cohort				
1992-1996	5.5	6.6	4.1	5.8
1997-2001	4.9	6.2	3.9	5.6
2002-2006	4.3	5.8	3.5	5.3
2007-2011	3.5	5.1	2.9	4.7
Marital status				
Currently married 4.9	6.3	3.9	5.7	
Widowed	4.4	5.8	3.2	5.1
Divorced-separated	3.6	5.3	3.0	4.9
Never married	1.2	1.6	0.8	1.2
Number of children				
None	0.0	0.0	0.0	0.0
One	2.2	3.1	1.8	2.8
Two	4.7	6.3	3.9	5.8
Three	5.8	7.6	4.7	7.0
Four or more	6.0	7.9	4.7	7.2
Minority status				
Race				
Black	3.1	4.8	2.3	4.2
Not black	4.6	6.0	3.6	5.4
Hispanic				
Hispanic	4.4	5.9	2.3	5.2
Not hispanic	4.4	5.8	3.5	5.2
Socioeconomic status:				
Annual family income relative to poverty				
In poverty	4.7	6.1	3.5	5.5
1-2 times poverty 4.3	5.9	3.2	5.3	
Over 2 times poverty	4.4	5.8	3.5	5.2
Education (in years)				
0-11	4.4	5.9	3.3	5.3
12	4.7	6.1	3.7	5.5
13 or more	4.1	5.5	3.3	5.0
Husband's average covered earnings				
Median or below	4.6	6.1	3.6	5.3
Third Quartile	5.1	6.5	4.0	5.7
Upper Quartile	5.1	6.7	4.4	6.3
Husband's education (in years)				
0-11	4.7	6.2	3.5	5.5
12	4.8	6.3	3.8	5.7
13 or more	5.0	6.4	4.1	5.7

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records. Matches were found for 90 percent of the adults. a/ See text for definition of variables

Table 4: Adjusted child care dropout years and special minimum credit years in the period ages 22-41 by selected characteristics, for future retired worker beneficiary women born 1930-1949. a/

Selected characteristics	Dropout years		Credit years	
	Married	Nonmarried	Married	Nonmarried
Race: <u>b/</u>				
Black	2.2	2.9	3.9	3.4
White and other.	4.0	1.7	5.9	4.5
Hispanic: <u>c/</u>				
Hispanic	3.4	2.7	5.0	4.4
Non-Hispanic	3.9	2.7	5.7	4.3
Socioeconomic status:				
Annual family income relative to the poverty level- <u>d/</u>				
Under poverty	3.4	3.2	5.1	4.9
1-2 times poverty	3.2	2.6	5.3	4.5
Over 2 time poverty	3.9	2.6	5.7	4.1
Education- <u>e/</u>				
0-11 years	3.0	2.3	5.0	3.8
12 years	4.0	2.8	5.8	4.5
13 or more years	4.0	2.7	5.8	4.4
Husband's education- <u>f/</u>				
0-11 years	3.3		5.2	
12 years	3.6		5.6	
13 or more years	3.5		5.5	
Husband's earnings at ages 22-41- <u>g/</u>				
Below median	3.5		5.3	
Third quartile	3.7		5.6	
Upper quartile	4.6		6.5	

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records. Matches were found for 90 percent of adults.

a/ Adjusted for average effects of other model variables using multiple regression models in Tables A1 and A2 of Appendix A. All effects adjusted for number of children and retirement cohort. Effects for nonmarried women adjusted for being never married.

b/ Also adjusted for education and hispanic effects.

c/ Also adjusted for education and race effects.

d/ Also adjusted for race and hispanic effects.

e/ Also adjusted for race and hispanic effects. f/ Also adjusted for race, hispanic and education effects.

Table 5: Average indexed monthly earnings in the period ages 22-41 with and without adjustment for child care dropout years for future retired worker beneficiaries es born in 1930-1949. A/

Type of wav e	Wage		Change
Without adjustment	\$705.29		
With fulltime childcare adjustment	\$807.44	\$102.15	14.5%

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records. Matches were found for 90 percent of the adults.

a/ See text for definition of variables.

Table 6: Average dollar increment from adjusting for child care dropout years in the period ages 22-41 by selected characteristics for women born 1930-1949.a/

Characteristics	Total	Future retired worker beneficiaries
Total	\$87	\$102
Demographic:		
Retirement cohort		
1992-1996	87	110
1997-2001	94	115
2002-2006	88	102
2007-2011	81	91
Marital status		
Currently married	95	114
Widowed	74	90
Divorced-separated	82	92
Never married	13	15
Number of children		
None	0	0
One	48	55
Two	113	131
Three	117	139
Four or more	87	112
Minority status		
Race		
Black	49	56
Not black	91	108
Hispanic		
Hispanic	60	76
Not hispanic	89	104
Socioeconomic status:		
Annual family income relative to poverty		
In poverty	42	61
1-2 times poverty	56	71
Over 2 times poverty	96	110
Education (in years)		
0-11	47	62
12	89	106
13 or more	103	115
Husband's average covered earnings		
Median or below	84	102
Third Quartile	98	114
Upper Quartile	120	141
Husband's education (in years)		
0-11	62	75
12	87	106
13 or more	117	137

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records. Matches were found for 90 percent of the adults.

a/ See text for definition of variables and adjustment procedure.

Table 7: Adjusted average monthly earnings increase from adjustment for child care dropout years in the period ages 22-41 by selected characteristics, for future retired worker beneficiaries women born 1930-1949. a/

Selected characteristics	Married	Nonmarried
Race: <u>b/</u>		
Black	64.38	49.23
White and other	119.67	88.71
Hispanic: <u>c/</u>		
Hispanic	98.88	66.42
Non-Hispanic	115.58	81.71
Socioeconomic status:		
Annual family income relative to the poverty level- <u>d/</u>		
Under poverty	51.06	60.79
1-2 times poverty	74.00	63.07
Over 2 time poverty	119.60	89.38
Education- <u>e/</u>		
0-11 years	54.26	47.79
12 years	115.17	80.98
13 or more years	134.45	95.03
Husband's education- <u>f/</u>		
0-11 years	83.08	
12 years	105.61	
13 or more years	132.30	
Husband's earnings at ages 22-41- <u>e/</u>		
Below median	97.54	
Third quartile	108.95	
Upper quartile	150.45	

Source: 1990 Survey of Income and Program-Participation exactly matched to SSA Administrative Earnings Records. Matches were found for 90 percent of the adults.

a/ Adjusted for average effects of other model variables using multiple regression models in Table A3 of Appendix A. All effects adjusted for number of children and retirement cohort. Effects for nonmarried women adjusted for being never married.

b/ Also adjusted for education and hispanic effects.

c/ Also adjusted for education and race effects.

d/ Also adjusted for race and hispanic effects. Effects for nonmarried women also adjusted for education effects.

e/ Also adjusted for race and hispanic effects.

f/ Also adjusted for race, hispanic and education effects.

Table 8: Percentage of nonmarried, future retired worker beneficiary women who gain from a caregiving credit to the Special Minimum Benefit credit given observed earnings history and possible credit level. a/

Retirement cohort	Number of credit years assumed		
	11	20	30
1992-1996	2	34	76
1997-2001	1	31	69
2002-2006	2	25	64
2007-2011	1	22	55

Source: 1990 SIPP exactly matched to SSA Administrative Earnings Records.

a/ See text for description of estimation method.

Table 1A: Relationship of childcare dropout years in the period ages 22-41 to number of children and other variables, for future retired worker beneficiaries born 1930-1949.

Independent variables	Married women				Non-married women	
	1	2	3	4	5	6
Intercept	0.82 (4.03)	0.51 (2.32)	1.76 (14.83)	1.22 (8.77)	0.76 (3.26)	1.28 (9.23)
Number of children	0.89 (21.39)	0.89 (21.65)	0.87 (20.97)	0.86 (21.15)	0.81 (17.91)	0.75 (16.94)
Black	-1.83 (-9.37)	-1.68 (-8.53)	-1.79 (-9.08)	-1.71 (-8.71)	-1.19 (-7.19)	-1.32 (-8.04)
Hispanic	-0.49 (-2.22)	-0.40 (-1.82)	-0.65 (-2.97)	-0.58 (-2.68)	0.02 (0.08)	-0.14 (-0.68)
Retirement cohort 1992-2001	0.57 (4.60)	0.59 (4.81)	0.51 (4.16)	0.82 (6.32)	0.55 (2.82)	0.12 (0.85)
Womants education						
13+ years	0.96 (5.32)	0.46 (2.25)			0.55 (2.82)	
12 years	0.95 (5.34)	0.72 (3.85)			0.45 (2.36)	
Husband's education						
13+ years	0.90 (4.82)					
12 years	0.41 (2.31)					
Family annual income relative to poverty						
Poverty or under		-0.72 (-1.77)				0.63 (3.13)
1-2 times poverty		-0.50 (-2.33)				0.05 (0.29)
Husband's average earnings						
Third quartile				0.27 (1.86)		
Upper quartile				1.14 (7.74)		
Never married					-0.66 (-3.48)	-0.77 (-4.09)
Adjusted explained variance	0.18	0.18	0.17	0.19	0.24	0.24

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records.

Table 2A: Relationship of child care Special Minimum Benefit credit years in the period ages 22-41 to number of children and other variables, for future retired worker beneficiaries born 1930-1949.

Independent variables	Married women				Non-married women	
	1	2	3	4	5	6
Intercept	1.88 (8.91)	1.63 (7.13)	2.66 (21.51)	2.10 (14.50)	1.56 (5.88)	2.11 (13.38)
Number of children	1.34 (31.19)	1.34 (31.33)	1.33 (30.93)	1.33 (31.32)	1.24 (24.04)	1.16 (23.03)
Black	-1.92 (-9.45)	-1.83 (-8.91)	-1.89 (-9.22)	-1.78 (-8.77)	-1.15 (-6.11)	-1.34 (-7.14)
Hispanic	-0.72 (-3.12)	-0.65 (-2.83)	-0.85 (-3.72)	-0.75 (-3.34)	0.09 (0.37)	-0.12 (-0.49)
Retirement cohort 1992-2001	0.01 (0.05)	0.02 (0.19)	-0.04 (-0.30)	0.28 (2.07)	-0.14 (-0.87)	-0.19 (-1.21)
Womants education						
13+ years	0.78 (4.16)	0.46 (2.13)			0.55 (2.50)	
12 years	0.79 (4.29)	0.61 (3.58)			0.63 (2.91)	
Husband's education						
13+ years	0.62 (3.17)					
12 years	0.40 (2.16)					
Family annual income relative to poverty						
Poverty or under			-0.61 (-1.45)			0.76 (3.33)
1-2 times poverty			-0.40 (-1.81)			0.41 (2.12)
Husband's average earnings						
Third quartile				0.30 (2.02)		
Upper quartile				1.17 (7.67)		
Never married					-1.26 (-5.82)	-1.39 (-6.46)
Adjusted explained variance	0.28	0.28	0.27	0.29	0.37	0.37

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records.

Table 3A: Relationship of average earnings change from childcare dropout years in the period ages 22-41 to number of children and other variables, for future retired worker beneficiaries born 1930-1949.

Independent variables	Married women				Non-married women	
	1	2	3	4	5	6
Intercept	5.93 (0.66)	-10.98 (-1.13)	77.88 (14.70)	52.46 (8.41)	26.37 (2.73)	74.40 (12.86)
Number of children	19.56 (10.67)	19.98 (10.96)	18.01 (9.77)	17.27 (9.46)	17.23 (9.22)	15.95 (8.64)
Black	-55.24 (-6.41)	-47.12 (-5.43)	-51.88 (-5.89)	-50.94 (-5.83)	-39.49 (-5.76)	-41.15 (-5.98)
Hispanic	-16.69 (-1.70)	-11.84 (-1.21)	-27.70 (-2.82)	-29.32 (-3.02)	-15.29 (-1.68)	-22.24 (-2.47)
Retirement cohort 1992-2001	16.75 (3.08)	18.09 (3.34)	10.71 (1.96)	25.14 (4.33)	1.151 (0.20)	-4.16 (-0.73)
Woman's education						
13+ years	80.20 (10.01)	53.02 (5.83)			47.24 (5.87)	
12 years	60.92 (7.75)	48.22 (5.87)	33.18		(4.20)	
Husband's education						
13+ years	49.22 (5.97)					
12 years	22.53 (2.90)					
Family annual income relative to poverty						
Poverty or under			-68.54 (-3.77)			-28.59 (-3.42)
1-2 times poverty			45.90 (-8.05)			-26.32 (-3.69)
Husband's average earnings						
Third quartile				11.41 (1.77)		
Upper quartile				52.90 (8.05)		
Never married					-42.53 (-5.40)	-45.00 (-5.70)
Adjusted explained variance	0.08	0.09	0.06	0.07	0.13	0.12

Source: 1990 Survey of Income and Program Participation exactly matched to SSA Administrative Earnings Records.