This article describes the economic resources and economic well-being of future divorced women at retirement using data from the Social Security Administration's project on Modeling Income in the Near Term (MINT). The MINT model projects that in the near term, there will be more divorced women of retirement age. Because fewer of those women are projected to meet the 10-year marriage requirement, the proportion of economically vulnerable aged women is expected to increase when the baby boom retires.

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# Divorced Women at Retirement: Projections of Economic Well-Being in the Near Future

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#### Summary

The Modeling Income in the Near Term (MINT) data system projects retirement income for persons retiring in the 1990s through 2020. Using those data, we examine the economic well-being of divorced women at retirement. The MINT data system improves upon previous estimates of Social Security benefits by:

- Measuring and projecting years of marriage to determine if the 10year requirement has been met,
- Projecting lifetime earnings until retirement and eligibility for Social Security retirement benefits, and
- Estimating lifetime earnings of former spouses.

MINT also makes independent projections of each retiree's income from pensions, assets, and earnings (for working beneficiaries).

As a result of changes in marital patterns, MINT projects that the proportion of women who are divorced will increase. At the same time, the proportion of those women who are eligible for auxiliary benefits is projected to decrease, for two main reasons. First, changes in women's earnings and work patterns result in more women receiving

retired-worker benefits based on their own earnings. Second, an increased number of divorced women will not meet the 10-year marriage requirement for auxiliary benefits. Despite the projected decrease over time in eligibility rates for auxiliary benefits, the level of Social Security benefits is projected to change little between the older and younger birth cohorts of divorced women entering retirement.

According to the MINT data, the most vulnerable of divorced women will be those who have not met the 10-year marriage requirement. Poverty rates will be higher for them than for all other divorced women. This group of divorced women is projected to grow as more and more women divorce from shorter marriages. With more women divorcing and with fewer divorced women meeting the 10-year marriage requirement, the proportion of economically vulnerable aged women will increase when the baby boom retires.

Further research is warranted on this long neglected subject. Analyses of divorced women's economic well-being by major socioeconomic characteristics such as race and ethnicity and education are of particular interest. Such analyses can be supported by the MINT data system.

#### Introduction

In 1998, about 21 percent of divorced older women were in poverty compared with 5 percent of married, 18 percent of widowed, and 21 percent of never-married older women. Although divorced older women are poorest on several measures of economic well-being (Uhlenberg, Cooney, and Boyd 1990), the economic consequences of divorce for older women have seldom been thoroughly studied. Exceptions are Weaver (1997), Holden and Kuo (1996), and Crown and others (1993).

In the later part of the 20th century, marital histories fundamentally changed in ways that are well documented (see, for example, DaVanzo and Rahman 1993). The United States divorce rate sharply increased between the 1960s and early 1970s, fell slightly, and then leveled off at a relatively high rate in the mid-1980s (Goldstein 1999; DaVanzo and Rahman 1993; Ahlburg and De Vita 1992; Norton and Miller 1992). Although most individuals who divorce will remarry, the remarriage rate has decreased, and many second marriages end in divorce (Norton and Miller 1992). These trends imply that an increasing proportion of women will be divorced when they reach retirement.

This article describes the economic resources and economic well-being of future divorced women when they reach age 67.<sup>2</sup> To do that, we use projections of the major sources of retirement income from the Social Security Administration's (SSA's) project on Modeling Income in the Near Term (MINT).

## The Social Security Program

Changes in marital patterns will undoubtedly affect the Social Security program and its beneficiaries, particularly those who are the most economically vulnerable.<sup>3</sup> Under Social Security, divorced women receive retiredworker benefits and/or auxiliary benefits as a divorced spouse, surviving divorced spouse, or widow. Divorced women with 40 or more quarters of coverage over their work lives are considered fully insured and receive retired-worker benefits.

Those benefits are computed by indexing annual earnings over a divorced woman's working life and then calculating her average indexed monthly earnings (AIME) and primary insurance amount (PIA)—the benefit payable at the normal retirement age, which is currently 65.

Auxiliary benefits are computed for each eligible marriage among the previous marriages reported by a divorced woman. Any previous marriage that ended in divorce is considered eligible if it was to a fully insured worker and lasted at least 10 years. Any previous marriage that ended in widowhood is also considered

eligible if it was to a fully insured worker. The 10-year marriage requirement does not apply to widow(er)s. <sup>4</sup>

Auxiliary benefits are based on the earnings history of the ex-husband, deceased ex-husband, or deceased husband from each marriage. If the ex-husband is alive when a woman receives Social Security benefits, the auxiliary benefit (known as a divorced-spouse benefit) is effectively equal to one-half of the ex-husband's PIA, unless it is reduced for early retirement. If the ex-husband is deceased when a woman receives benefits, the auxiliary benefit (known as a surviving divorced-spouse benefit) is effectively equal to the deceased ex-husband's PIA, unless it is reduced for early retirement. For a previous marriage that ended in widowhood, the auxiliary benefit (known as a widow benefit) is effectively equal to the deceased husband's full PIA, unless it is reduced for early retirement.

After computing an auxiliary benefit for each marriage, SSA compares the woman's retired-worker benefit with the highest auxiliary benefit over all eligible marriages. If she is not entitled to a retired-worker benefit, she receives the full auxiliary benefit as a divorced-spouse, surviving divorced-spouse, or widow beneficiary. If she is entitled to a retired-worker benefit that is less than the auxiliary benefit, she is considered to be dually entitled, and SSA supplements her retired-worker benefit with the difference between that benefit and the full auxiliary benefit to which she is entitled. Finally, if she is entitled to a retired-worker benefit that is more than the auxiliary benefit, she receives only the retired-worker benefit.

Thus, a divorced woman's Social Security retirement benefit depends not only on her own earnings history but also, to a large extent, on her marital history and the earnings histories of her previous spouses. Furthermore, a woman whose most recent marriage ended in divorce may or may not receive a benefit based on that marriage. Although she describes herself as divorced, at retirement she may receive a divorced-spouse benefit, surviving divorced-spouse benefit, or widow benefit from Social Security. In many cases, she may be ineligible for any of those auxiliary benefits. This distinction becomes important when we present the results of our analyses.

#### The MINT Model

SSA developed the MINT model with substantial assistance from the Brookings Institution, RAND, and the Urban Institute (see Butrica and others 2001; Panis and Lillard 1999; Toder and others 1999). Using MINT, we can estimate the economic resources of future divorced women when they reach age 67. MINT projects each woman's retirement income (Social Security benefits, pensions, assets, and earnings of working beneficiaries),

changes in marital status, and mortality using the Census Bureau's Survey of Income and Program Participation 1990-93 panels matched to SSA administrative records.

MINT improves upon previous estimates of divorced women's economic well-being in retirement by: (1) measuring and projecting years of marriage to determine if the 10-year requirement has been met; (2) projecting lifetime earnings until retirement and eligibility for retirement benefits; (3) estimating lifetime earnings of former spouses; and (4) computing the level of Social Security benefits paid in retirement.

Although MINT includes information on individuals born between 1926 and 1965, the projections of retirement income described in this article cover the surviving population born from 1931 through 1960 that is expected to reach retirement age and receive Social Security retirement and survivor benefits. Furthermore, the projections in this article exclude people who are projected to receive Disability Insurance (DI).

#### **Projected Marital Status**

The MINT projections are consistent with research that suggests that an increasing percentage of older women will be unmarried in retirement.<sup>5</sup>

According to MINT data, about 86 percent of women in the 1931-35 birth cohort will be married or widowed at age 67, only 12 percent will be divorced, and 3 percent will have never married (see Table 1). In contrast, 73 percent of women in the 1956-60 birth cohort will be married or widowed, 20 percent will be divorced, and 7 percent will still not have married when they reach age 67. MINT also projects that more women in that birth cohort will be divorced (20 percent) than widowed (18 percent) at retirement.

The type of Social Security benefits that women are projected to receive at age 67 may not always reflect the self-described marital status shown in Table 1. We therefore looked at all eligible marriages to determine which spouse would provide the highest auxiliary benefit. A divorced woman is eligible for an auxiliary benefit from her *ex-husband* if the highest auxiliary benefit over all eligible marriages is based on a

marriage that ended in divorce. She is eligible for an auxiliary benefit from her *deceased ex-husband* if the highest auxiliary benefit over all eligible marriages is based on a marriage that ended in divorce and her exhusband is deceased. She is eligible for an auxiliary benefit from her *deceased husband* if the highest auxiliary benefit over all eligible marriages is based on a marriage that ended in widowhood. Because the auxiliary benefits from a deceased ex-husband and a deceased husband are computed in the same manner, we group those women together. Finally, a divorced woman is ineligible for an auxiliary benefit if none of her previous marriages ended in widowhood or divorce after at least 10 years of marriage.

In the projections for the 1931-35 birth cohort of divorced women, the highest auxiliary benefit is provided by an ex-husband for 53 percent of those women and by a deceased (ex-)husband for 34 percent (see Table 2). Another 14 percent are projected to be ineligible for auxiliary benefits. The comparable projections for the 1956-60 birth cohort of divorced women are 41 percent (ex-husband), 27 percent (deceased (ex-)husband), and 33 percent (ineligible).

Table 1. Projected marital status of women at age 67, by birth cohort (in percent)

Marital status	1931-35	1936-40	1941-45	1946-50	1951-55	1956-60
All women in cohort	100	100	100	100	100	100
Divorced	12	16	17	19	20	20
Never married	3	5	5	6	7	7
Married	57	54	57	56	55	55
Widowed	29	25	22	19	19	18

SOURCE: Authors' calculations using MINT data.

NOTE: Totals may not sum to exactly 100 percent because of rounding.

Table 2. Spouse who is projected to provide the highest auxiliary benefit for a divorced woman at age 67, by birth cohort (in percent)

	1931-35	1936-40	1941-45	1946-50	1951-55	1956-60
All divorced women	100	100	100	100	100	100
Ex-husband <sup>a</sup>	53	35	26	33	37	41
Deceased (ex-)husband b	34	49	50	38	33	27
No auxiliary benefit <sup>c</sup>	14	17	24	29	31	33

SOURCE: Authors' calculations using MINT data.

NOTE: Totals may not sum to exactly 100 percent because of rounding.

- a. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in divorce.
- b. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in widowhood or that ended in divorce and the ex-husband is deceased.
- c. None of the previous marriages ended in widowhood or divorce after at least 10 years of marriage.

As mentioned earlier, eligibility for auxiliary benefits from a marriage that ended in divorce requires that the marriage lasted at least 10 years, and the proportion of divorced women who meet that requirement is projected to decline (see Chart I). Eighty-five percent of divorced women in the 1931-35 birth cohort may be eligible for auxiliary benefits at retirement through a 10-year marriage that entitles them to benefits based on their exhusband's earnings record. That proportion falls to about three-quarters of divorced women in the 1941-45 birth cohort and about two-thirds in the 1956-60 birth cohort.

### Projected Social Security Benefit Status

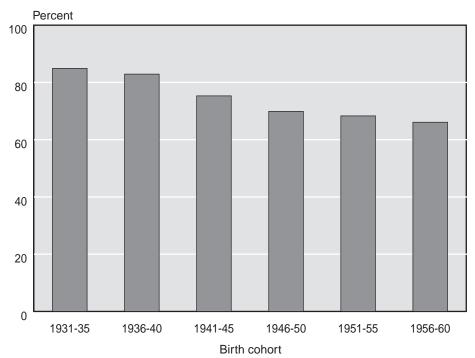
To look at the benefit status of women who are divorced at age 67, we classified the study population into four groups:

- Those with earned benefits exclusively (retired workers),
- Those with earned benefits supplemented by auxiliary benefits (dually entitled),
- Those with auxiliary benefits exclusively (divorced spouses, surviving divorced spouses, or widows), and
- Those without any benefits (nonbeneficiaries).

We then grouped them according to the spouse who provides the highest auxiliary benefit and by birth cohort.

Chart 1.

Projected percentage of divorced women at age 67 who have ever had a 10-year marriage, by birth cohort



SOURCE: Authors' calculations using MINT data.

As a retired worker, a divorced woman receives a benefit based on her own earnings history. A woman who is dually entitled receives a benefit based in part on her earnings history and in part on her ex-husband's or deceased (ex-)husband's earnings history. As a divorced-spouse, surviving divorced-spouse, or widow beneficiary, a divorced woman receives a benefit based entirely on her ex-husband's or deceased (ex-)husband's earnings history.

Divorced women are projected to rely increasingly on their own retired-worker benefits and decreasingly on only auxiliary benefits based on the earnings of their exhusband or deceased (ex-)husband. MINT projects those trends for divorced women who are eligible for divorced-spouse benefits as well as for those who are eligible for higher benefits as a surviving divorced spouse or widow. The results of the analysis are discussed below and presented in Table 3.

All Divorced Women. An increasing percentage of divorced women will receive only retired-worker benefits at age 67. More than one-half of all divorced women in the 1931-35 birth cohort are projected to receive retired-worker benefits at age 67. Because those benefits are larger than the auxiliary benefits they may be entitled to, those women will not receive auxiliary benefits from their ex-husband or deceased (ex-)husband. MINT projects that 33 percent of divorced women in this birth cohort will receive auxiliary benefits as a supplement to their

retired-worker benefits (dually entitled) and that 13 percent will receive only auxiliary benefits (as a divorced spouse, surviving divorced spouse, or widow). In the 1956-60 birth cohort, two-thirds of divorced women are projected to receive only retired-worker benefits at age 67, another 31 percent will be dually entitled, and 1 percent will receive only auxiliary benefits.

Ex-husband Provides the Highest Auxiliary Benefit. In the 1931-35 birth cohort, 63 percent of these women are projected to receive only retired-worker benefits because their own PIA is greater than one-half of their ex-husband's PIA. Another 20 percent will be dually entitled, and 16 percent will receive only auxiliary benefits as divorced-spouse beneficiaries. In the 1956-60 birth cohort, 67 percent are projected to receive only retired-worker benefits, 31 percent to be dually entitled, and 2 percent to receive only auxiliary benefits.

Deceased (Ex-)husband Provides the Highest Auxiliary Benefit. Although it is not uncommon for divorced women to have a PIA that is greater than one-half of their ex-husband's PIA, it is less common for their PIA to be greater than their deceased (ex-)husband's full PIA. In the 1931-35 birth cohort, only 17 percent of those whose deceased (ex-)husband provides the highest auxiliary benefit are projected to receive retired-worker benefits because their PIA is greater than their deceased (ex-)husband's PIA. Another 67 percent are projected to be dually entitled, and 14 percent will receive only

auxiliary benefits as a surviving divorced spouse or widow. Because of changes in marital patterns as well as changes in the labor force participation rates and earnings of women, the proportion of women in the 1956-60 birth cohort who will receive only retired-worker benefits is projected to nearly double, to 29 percent. That increase is offset by a decrease in the number of those women who are projected to receive only auxiliary benefits. Higher earnings in more recent birth cohorts preclude an increasing proportion of divorced women from receiving any auxiliary benefits.

Table 3.

Projected Social Security benefit status of divorced women at age 67, by spouse who provides the highest auxiliary benefit and birth cohort (in percent)

	1931-35	1936-40	1941-45	1946-50	1951-55	1956-60
All divorced women	100	100	100	100	100	100
Retired worker	51	47	48	56	63	66
Dually entitled	33	38	40	32	32	31
Widow/divorced spouse/						
surviving divorced spouse	13	11	9	8	3	1
Nonbeneficiary	2	3	3	4	2	2
Ex-husband <sup>a</sup>	100	100	100	100	100	100
Retired worker	63	66	69	60	65	67
Dually entitled	20	19	19	26	29	31
Divorced spouse	16	14	11	13	5	2
Nonbeneficiary	1	1	1	1	0	1
Deceased (ex-)husband <sup>b</sup>	100	100	100	100	100	100
Retired worker	17	21	17	27	29	29
Dually entitled	67	65	71	62	66	69
Widow/surviving						
divorced spouse	14	14	12	10	4	1
Nonbeneficiary	1	1	0	1	0	1
No auxiliary benefit <sup>c</sup>	100	100	100	100	100	100
Retired worker	90	86	89	90	96	96
Dually entitled	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Widow/divorced spouse/						
surviving divorced spouse	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nonbeneficiary	10	14	11	10	4	4

SOURCE: Authors' calculations using MINT data.

NOTES: Retired workers are those with earned benefits exclusively, dually entitled are those with earned benefits supplemented by auxiliary benefits, and widows/divorced spouses/surviving divorced spouses are those with auxiliary benefits exclusively. These definitions contrast with many Social Security publications that identify retired workers as those who receive earned benefits regardless of whether those benefits are supplemented by auxiliary benefits.

n.a.= not applicable.

Totals may not sum to exactly 100 percent because of rounding.

- a. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in divorce.
- b. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in widowhood or that ended in divorce and the ex-husband is deceased.
- c. None of the previous marriages ended in widowhood or divorce after at least 10 years of marriage.

No Auxiliary Benefit. Although the majority of divorced women who are ineligible for auxiliary benefits are projected to receive retired-worker benefits, a fairly large proportion in each birth cohort will be ineligible for any Social Security benefits. In the 1931-35 birth cohort, 10 percent of women who were ineligible for auxiliary benefits based on their ex-husband's or deceased (ex-) husband's earnings were also ineligible for retired-worker benefits based on their own earnings. That percentage falls to 4 percent in the 1956-60 birth cohort.

## Projected Social Security Benefit Levels

Because of changes in marital, earnings, and work patterns, we expect monthly benefit levels to vary by birth cohort for women reaching retirement in the future. Mean benefit levels in all birth cohorts are highest for divorced women whose deceased (ex-)husband provides the highest auxiliary benefit (see Table 4). Those women are eligible for the full amount of their deceased (ex-)husband's PIA, unless their benefit is reduced for early retirement.

The mean benefit level for all divorced women is projected to increase by 20 percent, from \$674 per month for the 1931-35 birth cohort to \$808 per month for the 1956-60 birth cohort. Most of that increase is realized by divorced women whose ex-husband provides the highest auxiliary benefit. Between birth cohorts, mean benefit levels for that group are projected to rise from \$564 to

\$756 (an increase of 34 percent). In contrast, mean benefit levels for divorced women who are eligible for auxiliary benefits from their deceased (ex-)husband are projected to increase from \$891 to \$1,005 (an increase of 13 percent). Finally, mean benefit amounts for those who are ineligible for auxiliary benefits are projected to increase from \$571 to \$712 (an increase of 25 percent).

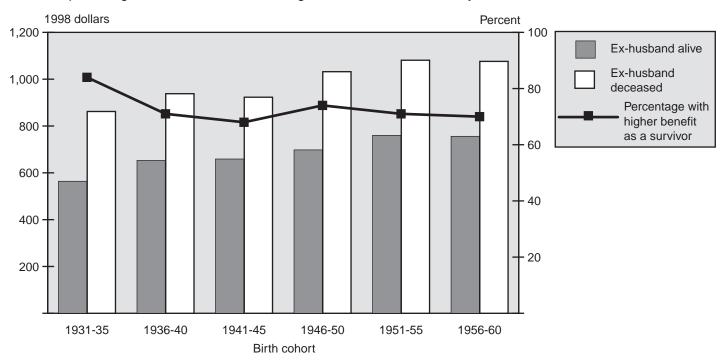
Although divorced-spouse benefits are lower on average than surviving divorced-spouse benefits, many divorced women will become eligible for the higher benefits when their ex-husband dies and they can file for benefits as a surviving divorced spouse. As shown in Chart 2, mean benefit levels are projected to increase by more than 50 percent for divorced women in the 1931-35 birth cohort after their ex-husband dies (from \$564 per month to \$862 per month) and by 42 percent for those in the 1956-60 birth cohort (from \$756 per month to \$1,076 per month). How many of those divorced women will receive higher benefits as a surviving divorced spouse? As Chart 2 shows, 84 percent of divorced women in the 1931-35 birth cohort and 70 percent in the 1956-60 birth cohort are projected to receive higher Social Security benefits after their ex-husband dies.

## Projected Sources of Retirement Income

Marital status is also an important factor in determining the amount of total income available for women at age 67. For this analysis, total income comprises Social

Chart 2.

Projected mean monthly Social Security benefit of divorced women at age 67 before and after their ex-husband dies and percentage of those who will receive higher benefits as a survivor, by birth cohort



SOURCE: Authors' calculations using MINT data.

Table 4.

Projected mean monthly Social Security benefit for divorced women at age 67, by spouse who provides the highest auxiliary benefit and birth cohort (in 1998 dollars)

	1931-35	1936-40	1941-45	1946-50	1951-55	1956-60
All divorced women	674	759	829	824	827	808
Ex-husband <sup>a</sup>	564	653	659	698	760	756
Deceased (ex-)husband <sup>b</sup>	891	901	1,001	989	979	1,005
No auxiliary benefit <sup>c</sup>	571	564	651	750	746	712

SOURCE: Authors' calculations using MINT data.

- a. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in divorce.
- b. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in widowhood or that ended in divorce and the ex-husband is deceased.
- c. None of the previous marriages ended in widowhood or divorce after at least 10 years of marriage.

Table 5.

Projected median total income of divorced women at age 67, by spouse who provides the highest auxiliary benefit and birth cohort

	1931-35	1936-40	1941-45	1946-50	1951-55	1956-60
All divorced women						
Median total income of						
divorced women (1998 dollars)	13,022	15,865	17,092	17,027	17,000	17,754
Never-married ratio	0.99	1.02	0.84	1.25	1.32	1.08
Married ratio	2.09	1.76	1.78	1.92	1.96	1.81
Widowed ratio	1.23	1.19	1.09	1.19	1.26	1.10
Ex-husband <sup>a</sup>						
Median total income of						
divorced women (1998 dollars)	12,071	16,973	13,835	15,338	16,118	16,804
Never-married ratio	1.07	0.95	1.04	1.38	1.39	1.14
Married ratio	2.26	1.64	2.19	2.13	2.06	1.92
Widowed ratio	1.32	1.11	1.34	1.32	1.33	1.16
Deceased (ex-)husband b						
Median total income of						
divorced women (1998 dollars)	17,138	15,845	18,836	19,692	19,411	19,760
Never-married ratio	0.76	1.02	0.77	1.08	1.16	0.97
Married ratio	1.59	1.76	1.61	1.66	1.71	1.63
Widowed ratio	0.93	1.19	0.99	1.03	1.10	0.98
No auxiliary benefit <sup>c</sup>						
Median total income of						
divorced women (1998 dollars)	8,821	12,086	15,684	16,444	16,494	16,286
Never-married ratio	1.47	1.33	0.92	1.29	1.36	1.18
Married ratio	3.09	2.30	1.94	1.99	2.02	1.98
Widowed ratio	1.81	1.57	1.18	1.23	1.30	1.19

SOURCE: Authors' calculations using MINT data.

NOTE: Total income is adjusted for household size using the U.S. poverty thresholds for persons aged 65 or older. It is expressed as the ratio of the median total income of never-married, married, or widowed women to that of divorced women.

- a. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in divorce.
- b. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in widowhood or that ended in divorce and the ex-husband is deceased.
- c. None of the previous marriages ended in widowhood or divorce after at least 10 years of marriage.

Security benefits, earnings, assets, and pensions and is adjusted for household size using the U.S. poverty thresholds for people aged 65 or older.<sup>8</sup> Divorced women are projected to have median income (in 1998 dollars) ranging from \$13,022 for those in the 1931-35 birth cohort to \$17,754 for those in the 1956-60 birth cohort (see Table 5). Total income for women in other marital groups is presented as a ratio of the group median to the median of divorced women.

In most birth cohorts, divorced women have lower median total income than do women who have never married or who are married or widowed. For example, widows in the 1931-35 cohort have a ratio of 1.23—that is, their projected median total income is 23 percent higher than that of divorced women. The income of married women includes their husband's Social Security benefits, earnings, pensions, and assets as well as their own. In the 1931-35 birth cohort, their total income (adjusted for household size) is projected to be 109 percent higher than that of divorced women.

The differences in retirement income by marital status are even more striking when we separate out divorced women by the spouse who provides the highest auxiliary benefit. Those whose deceased (ex-)husband provides the highest auxiliary benefit have the highest median income, followed by those whose ex-husband provides the highest auxiliary benefit and those ineligible for an auxiliary benefit.

## Projected Economic Well-Being

In most birth cohorts, divorced women are more likely than never-married, married, and widowed women to be in the bottom part of the income distribution and less likely to reach the top part of the income distribution (Iams and Butrica 2000). Table 6 shows the projected distribution of total income (adjusted for household size) for divorced women by the spouse who provides the highest auxiliary benefit and by birth cohort. The income cutoffs are the top 40 percent, middle 20 percent, and

Table 6.

Projected distribution of total income for divorced women at age 67, by spouse who provides the highest auxiliary benefit and birth cohort (in percent)

	1931-35	1936-40	1941-45	1946-50	1951-55	1956-60
All divorced women	100	100	100	100	100	100
Bottom 40%	80	71	67	63	64	63
Middle 20%	8	13	12	13	14	16
Top 40%	12	17	21	24	21	21
Ex-husband <sup>a</sup>	100	100	100	100	100	100
Bottom 40%	80	67	74	70	68	63
Middle 20%	9	16	11	8	13	15
Top 40%	11	17	15	21	19	22
Deceased (ex-)husband b	100	100	100	100	100	100
Bottom 40%	74	74	63	57	61	61
Middle 20%	10	10	14	16	17	20
Top 40%	16	16	23	27	22	19
No auxiliary benefit <sup>c</sup>	100	100	100	100	100	100
Bottom 40%	96	71	67	64	64	64
Middle 20%	2	11	11	13	13	16
Top 40%	3	18	23	23	23	20

SOURCE: Authors' calculations using MINT data.

NOTES: Total income is adjusted for household size using the U.S. poverty thresholds for persons aged 65 or older.

Totals may not sum to exactly 100 percent because of rounding.

- a. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in divorce.
- b. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in widowhood or that ended in divorce and the ex-husband is deceased.
- c. None of the previous marriages ended in widowhood or divorce after at least 10 years of marriage.

bottom 40 percent of the distribution of total income for nondisabled men and women born between 1931 and 1960 who live until age 67 or beyond. In the 1931-35 birth cohort, divorced women who are ineligible for auxiliary benefits are most likely to be in the bottom part of the income distribution, and those whose deceased (ex-)husband provides the highest auxiliary benefit are most likely to be in the top 40 percent.

MINT projects dramatic changes in the distribution of income for the 1956-60 birth cohort of divorced women at age 67. In particular, those whose ex-husband provides the highest auxiliary benefit are twice as likely to be in the top 40 percent of the income distribution as are their 1931-35 counterparts. In addition, those who are ineligible for auxiliary benefits are nearly seven times as likely to be in the top 40 percent.

Poverty rates are projected to be highest in all birth cohorts for women who never married, followed by those for divorced, widowed, and married women (Iams and Butrica 2000).9 Table 7 describes the projected poverty rates of divorced women by the spouse who provides the highest auxiliary benefit and by birth cohort. For all divorced women, poverty rates are projected to decline from 25 percent for those in the 1931-35 birth cohort to 16 percent for those in the 1956-60 birth cohort. Women who are ineligible for auxiliary benefits are projected to have the highest poverty rates, followed by women whose ex-husband and those whose deceased (ex-) husband provides the highest auxiliary benefit. Once their ex-husband dies, some divorced women will be eligible for higher Social Security benefits and survivor benefits from pensions that will improve their economic well-being relative to when their ex-husband was alive. Between the 1931-35 and 1956-60 birth cohorts, poverty rates are projected to decline by 45 percent for divorced

women whose ex-husband provides the highest auxiliary benefit, 44 percent for divorced women who are ineligible for an auxiliary benefit, and 14 percent for divorced women whose deceased (ex-)husband provides the highest auxiliary benefit. Again, much of the decline can be explained by changes in marital, earnings, and labor force patterns over time.

#### Notes

<sup>1</sup> Calculations are based on women aged 62 or older who received Social Security payments in Wave 8 of the 1996 Survey of Income and Program Participation (SIPP). Poverty rates are lower in the SIPP than in the "official" Current Population Survey (National Research Council 1995), in part because the SIPP more accurately measures income.

<sup>2</sup>We pick age 67 because MINT projects that all Social Security eligibles will start receiving benefits by that age.

<sup>3</sup> Changes in women's earnings and work patterns also occurred between the first and second half of the 20th century. During the 1950s and 1960s, many women, particularly mothers of young children, did not work (Bowen and Finegan 1969; Goldin 1990). The fundamental changes in the 1970s and 1980s earnings patterns of women reflect the greater tendency of women born in the early baby boom to work (Iams and Sandell 1997; Gunderson 1989). By the 1980s and 1990s, the majority of women worked and continued working as mothers of young children (Blau 1998; Hayghe and Bianchi 1994). These changes will also affect Social Security benefits and total income at retirement.

<sup>4</sup>Widow(er)s must have been married for at least 9 months to be eligible for widow(er) benefits. However, the 9-month marriage requirement is waived under certain conditions. For example, the requirement is waived for those who were entitled or potentially entitled to spouse or widow(er) benefits.

Table 7.

Projected poverty rates of divorced women at age 67, by spouse who provides the highest auxiliary benefit and birth cohort (in percent)

	1931-35	1936-40	1941-45	1946-50	1951-55	1956-60
All divorced women	25	16	13	16	14	16
Ex-husband <sup>a</sup>	33	17	22	22	14	18
Deceased (ex-)husband <sup>b</sup>	7	10	4	7	7	6
No auxiliary benefit <sup>c</sup>	39	34	24	21	22	22

SOURCE: Authors' calculations using MINT data.

NOTE: Poverty rates are computed using the U.S. poverty thresholds for persons aged 65 or older.

- a. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in divorce.
- b. The highest auxiliary benefit over all eligible marriages is based on a marriage that ended in widowhood or that ended in divorce and the ex-husband is deceased.
- c. None of the previous marriages ended in widowhood or divorce after at least 10 years of marriage.

- <sup>5</sup> The increase is driven by projected increases in the proportion of older women who never marry or are divorced. Cherlin (1992) has argued that although the timing of first marriage changes across birth cohorts, it is unlikely that less than 90 percent of a cohort will marry. Additional research from Easterlin, Schaeffer, and Macunovich (1993) projects that 10 percent of late baby-boom women (born 1956-65) will never marry. Furthermore, divorce rates in the 1980s have leveled off at a relatively high level, and remarriage rates have decreased (Goldstein 1999; DaVanzo and Rahman 1993; Ahlburg and De Vita 1992; Norton and Miller 1992).
- <sup>6</sup> These definitions contrast with many Social Security publications that identify retired workers as individuals who receive earned benefits regardless of whether those benefits are supplemented by auxiliary benefits.
- <sup>7</sup> The MINT model also assumes that average wages will continue to grow.
- <sup>8</sup> Income flows from assets are annuitized using a multivariate annuity calculator that accounts for age, sex, education, and race.
- <sup>9</sup> The authors found that although divorced women are projected to be more likely than women who never married to be in the bottom 40 percent of the income distribution, they are less likely to fall below the poverty line. Among women in the lowest part of the income distribution, those who never married are disproportionately poorer.

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