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ARTICLE

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Gender differences in the economic consequences of life-long singlehood among older white U.S. adults

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Abstract

Objective: Drawing on life course frameworks, this study examines how never married older adults differ from their married, cohabiting, divorced, and widowed peers with respect to three dimensions of late-life economic security, and gender differences in these associations.

Background: Lifelong singlehood has become increasingly common over the past five decades, although little is known about the economic security of never married older adults relative to their currently and formerly married peers.

Method: Data are from the Wisconsin Longitudinal Study (WLS), which tracked Wisconsin high school graduates from ages 18 (1957) to 72 (2011). The 2011 analytic sample includes 5269 persons (2498 men and 2711 women). OLS and logistic regressions are used to predict total household income, wealth, and poverty status at age 72, adjusted for covariates.

Results: Lifelong single men have higher poverty rates and lower income than men in all other marital categories, although divorced men evidence the lowest levels of wealth. Lifelong single women fare worse than married and cohabiting women but better than divorced women. Older men are more financially secure than women in every marital status category except lifelong singles.

Conclusion: By centering the experiences of never married older adults, results reveal the economic precarity of life-long single men and distinctions among subgroups of unmarried women. We document the persistence of gender inequality, where men consistently fare better than women across marital statuses.

Implications: Public policies should recognize growing heterogeneity in older adults' marital statuses and the implications thereof for their late-life economic security.

KEYWORDS
economic well-being, gender, marriage, older adults, poverty, singlehood

INTRODUCTION

Marriage is a near-universal experience for older adults in the contemporary United States. In 2022, just 6.7% of men and 6.4% of women ages 65 and older had never married (U.S. Census Bureau, 2022a). However, rates of lifelong singlehood have increased across successive birth cohorts. The proportions who have never married are just over 4% for men and women ages 75 and older, with rates roughly twice that among persons ages 65 to 74 (8.3% and 7.9%, respectively), and even higher among midlife persons ages 55 to 64 (15% and 11.5%, respectively). These increases reflect cultural, demographic, and economic forces including declining stigma associated with singlehood, widespread acceptance of non-marital sexual unions, and financial obstacles to marrying among socioeconomically disadvantaged populations (Parker & Fry, 2021; Smock & Schwartz, 2020).

Despite rising rates of lifelong singlehood, few studies have examined the economic security of never married persons in their retirement years. Lifelong singles may face economic disadvantages that accumulate over the life course and render them vulnerable to financial precarity in old age (Crystal et al., 2017). Never married adults may rely exclusively on their own income, and may not enjoy economies of scale, such as sharing the costs of food, housing, insurance, or utilities. Thus, they may be less capable of amassing the wealth that provides a financial cushion during retirement. Most lack spouse or adult child caregivers, and instead rely on costly paid assistance or long-term care (Kervin et al., 2021; Thomeer et al., 2016). The persistence of "structural singlism," or biases against single persons that occur through laws and institutional practices, may further undermine their capacity to earn or save (DePaulo, 2023).

Documenting the economic security of lifelong single older adults is a timely and important goal, especially as policy makers debate cuts to Social Security as a way to preserve its long-term solvency (Social Security Administration, 2022). Public conversations about "aging alone" focus largely on psychosocial and health concerns, neglecting the economic consequences of singlehood (U.S. Department of Health and Human Services, 2023). However, it is not sufficient to compare lifelong single older adults with their married counterparts only. Increases in the share of U.S. adults growing old outside the context of legal marriage—whether due to lifelong singlehood, divorce, widowhood, or cohabitation—necessitates an exploration of how each "unmarried" subgroup experiences economic (in)security in later life. This study fills an important research gap, as family scholars "know a lot more about the lives of partnered individuals than about those who are unpartnered" (Bergström & Brée, 2023, p. 467).

Thus, we examine marital status differences in three indicators of late-life economic security (household income, wealth, and poverty status) and gender differences therein among participants in the Wisconsin Longitudinal Study (WLS), which has tracked a large sample of white high school graduates from age 18 (1957) through 72 (2011). Our analysis is guided by life course frameworks, which emphasize the importance of understanding variability in social roles and trajectories even within a single cohort, and the consequences thereof for well-being (Elder Jr, 1994). We center the experiences of never married persons and evaluate the extent to which they differ from married, cohabiting, divorced, and widowed persons with respect to three late-life economic outcomes. This approach enables us to distinguish the economic consequences of *being single continuously* versus *becoming single* via divorce or widowhood. We focus on three dimensions of later-life economic security as each may have distinctive consequences for older adults' well-being. Income is critical for covering regular expenses like food or utilities, and poverty risk indicates that income is insufficient to meet a household's needs. Wealth, alternatively, is a “stock” or reserve that older adults rely on for major or unexpected expenditures like medical bills or long-term care (Keister, 2000).

BACKGROUND

Life course perspectives on singlehood and economic security

Economic security in old age is a consequence of the (dis)advantages experienced over the life course (Carr, 2019). The life course paradigm provides a framework for understanding how one critical life course component—marital status—affects late-life economic outcomes. A core theme is that individual life course trajectories are marked by considerable variability, even within a single cohort (Hutchison, 2014). While much of this work emphasizes gender differences in life course trajectories and the consequences thereof for later life outcomes, marital status also is a critical area of inquiry as it reveals how family experiences that depart from cohort-specific norms may undermine one's well-being.

A second life course theme is that sociohistorical contexts shape life trajectories and their consequences (Elder Jr, 1994). Current cohorts of older adults, for whom lifelong singlehood was statistically rare and more stigmatized than for recent birth cohorts, might have encountered singlism that undermined their occupational and economic attainments (DePaulo, 2023). Singlism encompasses interpersonal stigmatization, such as marginalization and discrimination, as well as broader cultural norms and institutional policies that privilege married persons and constrain single persons' opportunities, resources, and well-being. Third, life course research emphasizes the importance of timing; the impact of a role, event, or experience depends on one's age at exposure (Elder Jr, 1994). For instance, the economic consequences of lifelong singlehood may be more pronounced for older versus younger adults because older lifelong singles presumably have spent a larger fraction of their lives reliant on one income, given well-established processes of cumulative (dis)advantage over time (Crystal et al., 2017).

A fourth theme is the importance of “linked lives,” with experiences in one domain such as family affecting other domains such as work (and vice-versa). For instance, never married women who worked continuously throughout their lives—perhaps out of economic necessity—may have better economic outcomes in later life than their divorced or widowed counterparts. Married women who reduced their work hours or exited the labor force to care for their families typically suffer an economic penalty upon marital dissolution that may accumulate to undermine their late-life financial security (Engemann & Owyang, 2006; Smock et al., 2023). Drawing on these themes, we extend research in four ways: centering the experiences of never married persons; identifying the distinctive consequences of marital status for three dimensions of late-life economic security; highlighting gender differences in these associations; and adjusting for life course factors spanning childhood through old age that may account for associations between lifelong singlehood and late life economic well-being.

Centering the experiences of never married persons

We center the experiences of never married persons, and evaluate the extent to which their late-life economic well-being differs from married, cohabiting, divorced, and widowed persons. Our approach is a departure from studies that retain “married” as the reference category, a taken-for-granted strategy that “implicitly reifies and privileges couple relationships, diminishing the significance of being single” (Lavender-Stott & Allen, 2023, p. 379). Prior studies document that never married (Lin et al., 2017; Tamborini, 2007) and formerly married (Holden & Smock, 1991; Lin & Brown, 2021) older adults generally have poorer outcomes than their married counterparts, but do not highlight potential disparities among unmarried persons. Shifting the reference category away from married persons can reveal the distinctive and multifaceted ways that being single for life versus becoming single following divorce or widowhood, or being legally single yet cohabiting with a romantic partner affects late-life economic security.

Identifying distinctive subtypes of economic security

We consider *three dimensions of economic security* (household income, wealth, and poverty risk) among older adults well into their retirement years (age 72). Singlehood may matter differently for particular dimensions, providing a more nuanced portrait of late-life economic security. Older adults' retirement income has three main sources: Social Security, private pension (typically employer-provided), and interest (from savings and investments) income. Those who work past retirement age also have employment income (Carr, 2019). Total household income encompasses personal income from these sources as well as the income received by members of one's household. Income is a flow of resources into one's household that is used to pay for regular expenses such as housing, medication, food, and utilities (Caouette et al., 2020).

Older adults whose household incomes are at or beneath the federal poverty line may struggle to pay for necessities. The federal poverty line indicates the total dollar amount needed by the average person or household annually to cover basic needs such as food and housing, adjusted for household size. In 2022, in the 48 continental U.S. states, this cut point was about $14,000 for those who live alone and $18,000 for those who live with another person, typically a spouse (ASPE, 2022). This cut point also is used to determine eligibility for federal programs targeting low-income older adults, such as Medicaid (health insurance) and Supplemental Security Income (SSI; income support). We expect that never married as well as divorced and widowed older adults will have lower total household incomes and a higher poverty risk compared to married and cohabiting persons who have the advantage of income pooling (Wright et al., 2023). Married older adults also are more likely to have a private pension to supplement their Social Security income, because they can draw on their own or spouse's employment benefits (Yabiku, 2000). Thus, we expect married persons to be the most advantaged with respect to income and poverty risk.

Whereas income captures flexible financial resources, wealth (or net worth) is a "stock" or resource that protects against economic shocks, such as medical expenses or home repairs. Wealth refers to the value of assets (e.g., a home) owned by an individual or family minus debt (e.g., medical bills). For most older adults, wealth is the primary resource used to pay for long-term care before one spends down their assets and becomes impoverished and thus eligible for Medicaid (Pearson et al., 2019). Although wealth and income are related, the correlation is modest (0.50–0.60), reflecting variability in household financial situations (Keister & Lee, 2014). For instance, some people with relatively high incomes may not save, whereas others with modest incomes may save and strategically reinvest to create more wealth.

We expect that never married persons will have less wealth than their married or cohabiting counterparts. Never married persons who relied solely on their own income during their working lives without the benefit of sharing expenses may be less able to save and amass wealth (Carr, 2019). They also cannot rely on a spouse or partner as a primary caregiver, and may face wealth-depleting costs of personal care (Kervin et al., 2021). However, we expect that never married persons may have more wealth than their divorced peers. Divorced older adults, like lifelong singles, do not enjoy the benefits of shared living expenses, and may have additional wealth-reducing expenditures over the life course such as child support or legal fees (Kapelle, 2022).

Gendered experiences of singlehood and marriage

We examine whether associations between marital status and late-life economic well-being differ by gender. Lifelong singlehood may pose a greater economic disadvantage to men than women, given an historic "marriage premium" in the labor market for men (McDonald, 2020). The three main explanations for married men's earnings advantage include productivity, whereby married men work harder because they have families to support; social selection, where better labor market prospects increase the chances of marrying and remaining married; and employer preferences, like the belief that married men are more reliable workers. Employer preferences for married male workers are an indicator of singlism (DePaulo, 2023). Evidence for women is mixed, but for current cohorts of older adults like the WLS sample, marriage typically bestows a wage penalty because women tend to reduce their work hours to raise families, diminishing their human capital and personal income. However, older married and cohabiting women may enjoy household income benefits compared to unmarried peers who rely on their own income sources only.

Examinations of the intersectional effects of marital status and gender cohere with the life course theme that family and work lives are "linked." For mid-20th century heterosexual married couples, gender-based task specialization was considered a strategy for enhancing household efficiency (Killewald & Gough, 2013). Under "traditional" specialization, married women invested in family roles, and married men invested in labor market activities. Because of men's earnings advantage, their investment in paid work ensured higher total income for the household. However, specialization can undermine the financial security of formerly married women. Married women who specialized in household tasks, at the expense of their own employment, lose valuable job skills and professional connections. If their marriages end due to divorce or widowhood, they may face a labor market disadvantage relative to never married women, who specialized in work out of necessity and thus may reap higher lifetime earnings (Jalovaara & Fasang, 2020).

Married men, by contrast, typically invest in labor market activities and thus experience modest or no drops in their economic well-being after marital dissolution (Holden & Smock, 1991; Smock et al., 2023). Formerly married men also may be spared the stigma and economic penalty imposed on never married men. Across marital categories, earnings penalties in young and mid-adulthood may accumulate over time, and reduce Social Security benefits, pension income, and wealth and interest income in old age (Crystal et al., 2017). We expect a male advantage for all marital statuses, yet a less pronounced gap for never married persons as unmarried women of the WLS cohort rarely had childrearing responsibilities that reduced their labor supply.

Life course factors linked to lifelong singlehood and late life economic well-being

We consider life course covariates that may both select an individual into lifelong singlehood and affect their economic well-being at age 72. Social selection perspectives propose that an association between singlehood and late-life economic security reflects the fact that persons with better economic prospects are more likely to marry, cohabit, or repartner because they are considered more desirable partners (Brown et al., 2019; Vespa, 2012). Socioeconomic factors also affect whether one remains married. Financial strains can destabilize a marriage and increase divorce risk, and low socioeconomic status is a risk factor for widowhood given the socioeconomic gradient in mortality (Nivakoski & Nolan, 2019). Education and work characteristics, such as years of work experience, employment status and occupation, also are robust predictors of economic security in later life (Keister, 2000). Thus, we control for socioeconomic characteristics including education, occupation, and work experience.

Analyses also are adjusted for childhood and adulthood health. Persons in poorer physical and mental health are less likely to marry, cohabit, or remarry because they may be considered less desirable partners (Perelli-Harris & Styrc, 2018). Healthier persons also are more likely to remain married; poor health of one or both partners can strain a marriage, raising the risk of divorce (Wade & Pevalin, 2004). Persons in poorer health also are more likely to become widowed, given concordance in spouses' health behaviors and shared exposure to unhealthy environments (Meyler et al., 2007). Poorer adolescent health undermines long-term economic outcomes by limiting one's capacity to pursue education, and placing constraints on whether, in what types of occupations, and for how long one can work for pay. Poor health in later life can impose health expenditures that undermine wealth accumulation (Hoffmann et al., 2019). Thus, our analyses are adjusted for multiple indicators of adolescent and adult health, and history of alcohol use and depression.

We also consider early life family characteristics and adulthood family roles. Childhood poverty and number of siblings influence educational attainment and in turn, earnings and savings (Sewell & Hauser, 1975). Growing up in a metropolitan area may provide more extensive marriage and labor market opportunities to young people (Byun et al., 2015; Heaton et al., 1989). We also adjust for whether one was ever an unpaid family caregiver. Women are more likely than men to provide time-intensive care, especially to a spouse or partner (Penning & Wu, 2016). As such, being a caregiver may reduce labor supply, earnings, and wealth accumulation most dramatically among ever-married women (Lightman & Link, 2021).

Finally, we adjust for psychosocial factors potentially linked with marital status and late-life economic security. Cognitive ability and personality traits such as agreeableness, neuroticism, and extraversion as well as related characteristics like sociability may affect one's likelihood of marrying, remaining married, or forming a new marriage or cohabiting union post-dissolution (Holley et al., 2006; Sodermans et al., 2017). Research is mixed regarding the impacts of psychosocial traits on economic security, although some personality factors and cognitive ability are associated with occupational attainments (Judge et al., 2008; Mueller & Plug, 2006). Thus, our analyses adjust for personality, sociability, and cognitive ability.

METHODS

Data

Data are from the Wisconsin Longitudinal Study (WLS), a longitudinal study of a random one-third sample ($N = 10{,}317$) of all Wisconsin high school seniors in the graduating class of 1957. Baseline data were collected at age 18 (1957), and participants were followed up with a combination of in-person, telephone, and mail surveys at ages 36 (1975; 89% response rate), 54 (1993; 87% response rate), 64 (2003; 86% response rate), and 72 years (2011). In 2011, 74.4% of surviving respondents (i.e., 6152 of the 8268 individuals who were still alive) participated in a home-based face-to-face interview. The WLS obtained comprehensive data on education, employment, marriage, children, and income during the earlier waves of the study, with expanded content on wealth, pensions, and health in the later waves.

Our analytic sample includes 5269 persons (2498 men and 2771 women) who participated in the 2011 survey and provided valid responses on the three outcomes. As of 2011, 15% of the baseline sample ($n = 1587$) were deceased, 10% ($n = 1088$) refused or were unable to participate, and 16% were not fielded the at-home interview for logistical reasons ($n = 1674$). We omitted 186 respondents who were not administered the self-administered questionnaire (SAQ); 6 due to partial interview; 1 due to "not ascertained" response to the Social Security income question; 428 due to refusal to respond to the Social Security income question; and 71 due to "inappropriate" response, 187 due to a "don't know" response, and 4 due to a response of 0 on all three economic outcomes. The sample is representative of white high school graduates who survived into their 70s and agreed to participate in the study. It provides a *conservative assessment* of the economic impacts of lifelong singlehood, as the sample is over-representative of those with resources associated with economic well-being (Herd et al., 2014).

Variables

Dependent variables

We consider three indicators of economic security at age 72 (2011): total household income, total net worth, and poverty status. *Total household income* refers to income from all sources to all household members, including wages and salary, Social Security income, private pension income, alimony, and other sources of public support. We convert values to 2022 dollars, adjusted for inflation using CPI-U-RS multiplier (Bureau of Labor Statistics, 2022). The average income for our analytic sample is identical to the national average income for white adults ages 65+ in 2011 ($72,000 in 2022 dollars) (U.S. Census Bureau, 2022b). We use the absolute dollar amount rather than a transformation (e.g., natural log) which is used to adjust for skewed income distributions, such as many zero earners. Our analytic sample has virtually no zero earners as more than 99% had Social Security income in 2011.

Total net worth is the total value of one's assets minus all debts. Respondents are asked about the "different types of assets that you (or your husband/wife/partner) may have, such as real estate, motor vehicles, and financial investment." Net worth values are adjusted to 2022 dollars. In the multivariable analysis, we use the natural log due to the right-tail skewed distribution. WLS participants' median wealth values are higher than the national median for their age peers. In 2020, the median wealth of U.S. adults ages 65 to 74 was $327,000 compared to $350,000 for WLS women and $573,000 for WLS men. However, the 2020 national median is calculated for the total population 65 to 74, rather than white high school graduates only (U.S. Census Bureau, 2022b).

Poverty status refers to whether one's total household income is <100% of the Federal Poverty Line (FPL), adjusted for household size according to U.S. Census guidelines (2023a). We use a dichotomous measure indicating above or below 100% of the poverty line, rather than more fine-grained thresholds due to concerns regarding statistical power in our marital status by sex analyses. Some experts suggest that the alternative Supplementary Poverty Measure (SPM) provides a better estimate of late-life poverty, because it accounts for older adults' out-of-pocket medical expenditures (NASEM, 2023). We use the FPL to benchmark our results against national rates among older white U.S. adults. Poverty rates for our sample are 4.7% among men and 11.7% among women, which differ only slightly from national rates of 5.3 and 10.4%, respectively, for white adults ages 70 to 74 in the same period (Social Security Administration, 2010).

Independent variables

Focal predictors

Our focal predictor is *marital status*. We contrast the categories of never married (reference category; 76 men and 71 women); currently married (2045 men and 1739 women), cohabiting (70 men and 50 women), divorced/separated (183 men and 363 women), and widowed (129 men and 543 women). Consistent with prior studies showing that most older cohabitors were formerly married (Brown et al., 2006), just 16% of cohabitors in our sample were lifelong singles, 52% were divorced and 32% were widowed. We carried out supplemental analyses in which all marital status categories were stratified on the basis of marital order (i.e., 1 vs. 2+ marriages); 79% of currently married, 74% of divorced/separated, and 84% of widowed persons in the WLS had one marriage only. We use the broad marital categories here because of modest cells sizes for persons with multiple prior marriages, and because the within-marital status subgroups did not differ substantially with respect to the study outcomes (results available from authors). *Sex* is our moderator variable (1 = female; 0 = male).

Covariates

Human capital includes *education* (12, 13–15, 16, 17+ years of completed schooling); *major occupational group* for longest-held occupation, constructed from complete employment histories (white-collar, blue-collar, farm); *current* (2011) *employment status* (working vs. not working for pay); years of *work experience* from 1975 to 2004; and a dichotomous indicator that one *ever held a full-time civilian job* between completing their highest level of schooling and 1975. The WLS does not obtain the total number of years employed between 1957 and 1975, because most participated in unpaid activities in place of or alongside paid employment during the period, including schooling, military service, or stay-at-home parenting. The dichotomous measure of any full-time employment during that period, along with the total years worked between 1957 and 2004 provides a close approximation of lifetime labor supply. We also control for whether one was ever *an unpaid caregiver* for 1 month or more prior to 1993 (age 54).

Adult health characteristics include *current self-rated health* (poor/fair vs. good or better); *ever had a two-week depression spell* (yes vs. no); and total number (range: 0 to 5) of *problem drinking symptoms* (e.g., "drinking caused a problem at work") in 1993 (at age 54). Topical modules in the WLS, including the depression history and problem drinking modules, were administered to a random 80% subsample, to reduce the overall survey length. Thus, the 20% of respondents excluded in the random subsample are indicated with a missing data flag. Early life health indicators include retrospective assessments (2011) of *self-rated health* at age 16 (fair/poor vs. good or better); and a composite dichotomous measure indicating whether one had *ever missed school, was confined to home, or experienced restrictions in sports due to health* before age 16. We adjust for other early life factors associated with one's work and family roles in adulthood: a dichotomous indicator of *family poverty status at age 16* (see Hauser & Sweeney, 1997); *lived in a metropolitan area* at age 16; total *number of siblings at age 16*; and a dichotomous measure of whether one *grew up without two parents present*.

Psychosocial factors include the Big 5 personality traits of *agreeableness* ($\alpha = 0.58$), *neuroticism* ($\alpha = 0.58$), and *extraversion* ($\alpha = 0.57$). In 1993 (age 54), respondents indicated how much each of six traits describes them (e.g., "is considerate to almost everyone" [agreeableness], "can be tense" [neuroticism], "is talkative" [extraversion]), with response categories ranging from strongly agree to strongly disagree (John et al., 1991). Responses were averaged, and higher scores (range: 1 to 6) reflect higher levels of a trait. *Sociability* is a single-item measure administered at age 36 (1975): "How many times in the past four weeks have you gotten together with friends?" where responses range from 0 to 30. *Mental ability* refers to one's percentile score on the Henmon (1954) intelligence test, administered during their junior year in high school.

In models predicting *total net worth* in 2011, we also adjust for *total household income* in 1993 (age 54); we use this time point because earnings typically peak in one's late 40s and early 50s for members of the WLS cohort with at least a high school education, and thus provide a reasonable estimate of their earlier life earnings trajectories (BLS, 1999). In models predicting *total net worth* and *total household income* in 2011, we include a dichotomous measure of whether one was *coresiding with any person(s) other than their romantic partner* because total household income encompasses income from all household members. Wealth also may be affected by coresidence, as the sharing of household expenses may enable wealth accumulation. We used a dichotomous measure of any household members (other than partner) rather than a continuous measure of total household size due to a high zero-order correlation between marital status and household size; married persons had a mean household size of 2.1, compared to just 1.3 for widowed, divorced, and never married persons. We do not include this measure in models predicting poverty risk, as household size is adjusted in the FPL indicator. We do not control for the number of children because childrearing was exceedingly rare among white unmarried women in the WLS cohort, with a rate of 1.3 per 1000 (Ventura & Bachrach, 2000). Thus, parental status and never married status are nearly perfectly collinear. By controlling for years of work experience we are capturing a proximate influence on earnings, especially for ever-married women who adapted their labor force participation in response to child rearing responsibilities.

Covariates are drawn from the 1957 in-school survey and administrative records, 1975 telephone survey, 1993 and 2004 mail surveys and telephone interviews, and 2011 in-person interviews. Response rates varied across waves and modes, with rates on the mail surveys consistently lower than the telephone interviews (Herd et al., 2014). Most measures have modest levels of missing data (<5%). To maximize the number of cases retained in the analysis, we used median imputation for continuous measures and mode imputation for categorical measures. Recent comparisons of imputation techniques suggest that mean/mode imputation is appropriate when item-specific missing data is <5% (e.g., Aljuaid & Sasi, 2016). For items with more than 5% missing data (retrospective measures of early-life health and economic status, depression history, and drinking problems), we also include missing data flags in our multivariable analyses.

Analytic plan

Bivariate analyses testing both *within-sex marital status differences* and *within-marital status sex differences* for economic outcomes are presented in Table 1; all study variables are presented in Table S1a and S1b. We then use multivariable regression models to estimate the effects of marital status on the three economic outcomes, and test for statistically significant gender differences in these effects. OLS regressions are used for continuous outcomes (total household income and natural log of total net worth), and binary logistic regression for poverty status at age 72. For ease of presentation and interpretation, we plot the fully adjusted predicted values for men and women, by marital status, in Figures 1–3. Complete regression models are presented in Table S2.

RESULTS

Bivariate analyses

Table 1 reveals never married older adults' economic disadvantages relative to their married and, to a lesser extent, cohabiting counterparts (signified by superscript ^{X}). However, we found few significant differences between lifelong singles and widowed or divorced persons, with one difference: divorced men had lower median wealth than their never married counterparts. We also detected stark gender gaps (signified by asterisks) for married, widowed, and divorced persons yet less so for never married and cohabiting persons. Lifelong single men had significantly lower (mean) household income than married and cohabiting men ($44,835 vs. $88,539 and $72,899, respectively), whereas lifelong single women had significantly lower household income than married persons only ($43,609 vs. $65,012). The household income gap between never married and married persons was larger for men ($44,385 vs. $88,539) than for women ($43,609 vs. $65,012). The gap in median wealth also was substantial, with never married men and women reporting levels 50% to 60% that of their married counterparts ($387,000 vs. $621,000

TABLE 1 Descriptive statistics for economic outcomes, by marital history.

	Men (n = 2498)					
	Total (n = 2498)	**Married (n = 2045)**	**Cohabiting (n = 70)**	**Divorced (n = 183)**	**Widowed (n = 129)**	**Never married (n = 71)**
Dependent variables						
Total household income, 2011	82,886*** (100713)	88,539^X*** (103040)	72,899 ^X (75609)	60029* (115616)	52298*** (47772)	44,385 (40150)
Total net worth, 2011 ($000)	1143*** (1935)	1233^X*** (2019)	651 (936)	760** (1967)	796** (1000)	662* (712)
Total net worth, 2011, median ($000)	573*** (257,1271)	621^X*** (294,1373)	411 (50,881)	255 ^X** (51,631)	450*** (178,945)	387 (130,1022)
Total net worth, 2011, natural log	13.0*** (1.9)	13.2^X*** (1.7)	12.1 (2.2)	11.7* (2.8)	12.7*** (2.0)	12.4* (2.2)
Poor (<1.0 FPL)	4.7%***	3.6%^X***	18.6%	7.1%***	4.7%***	18.3%
	Women (n = 2771)					
	Total (n = 2771)	**Married (n = 1739)**	**Cohabiting (n = 50)**	**Divorced (n = 363)**	**Widowed (n = 543)**	**Never married (n = 76)**
Dependent variables						
Total household income, 2011	56,154*** (69537)	65,012^X*** (77112)	58,704 (50941)	43728* (62890)	37614*** (43209)	43,609 (35993)
Total net worth, 2011 ($000)	701*** (1294)	829^X*** (1419)	793 (1023)	432** (1137)	503** (970)	415* (566)
Total net worth, 2011, Median ($000)	350*** (140,748)	428^X*** (211,877)	426 ^X (139,833)	163** (27,401)	245*** (78,567)	224 (36,540)
Total net worth, 2011, natural log	12.2*** (2.3)	12.7^X*** (1.9)	12.6 ^X (1.9)	11.1* (2.8)	11.7*** (2.6)	11.4* (2.7)
Poor (<1.0 FPL)	11.7%***	8.2%***	22.0%	20.4%***	15.5%***	14.5%

Note: Wisconsin Longitudinal Study (WLS), 1957–2011. Means (and standard deviations) or median (and interquartile range) are shown for continuous measures, and proportions shown for categorical measures. Total household income and total net worth are adjusted for inflation and presented in 2022 dollars. Statistically significant within-marital-category sex differences indicated with asterisks (†p < .10; *p < .05; **p < .01; ***p < .001). Statistically significant (p < .05) within-sex marital category differences between the "never married" group and any other marital group indicated with a superscript ^X.

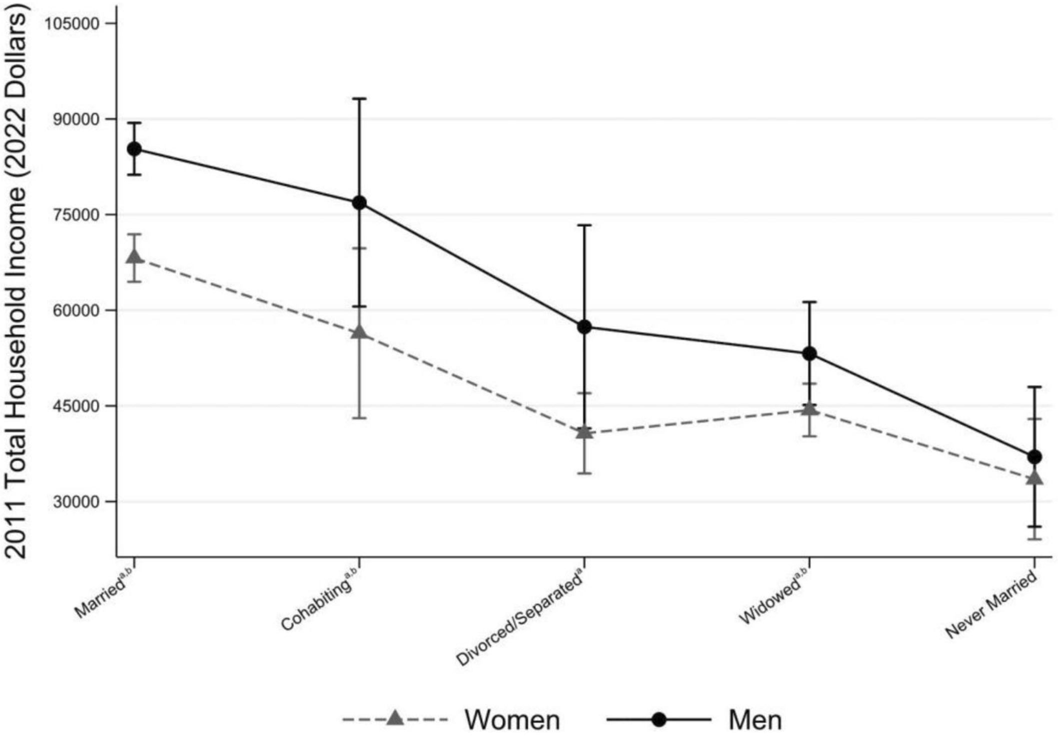

FIGURE 1 Fully adjusted model predicting 2011 total household income (in 2022 Dollars), by gender and marital status.

among men, and $224,000 vs. $428,000 among women). Never married women also reported significantly lower median wealth than their cohabiting peers ($224,000 vs. $426,000).

The magnitude and direction of income and wealth differences among unpartnered subgroups varied across outcomes, yet only one difference was statistically significant. Never married men reported lower mean income and wealth than widowed and divorced men, although divorced men reported the lowest median wealth, second only to never married men ($255,000 vs. $387,000). Never married women reported unadjusted household income levels that were comparable to their divorced peers, yet slightly higher than widowed women. The three groups of unpartnered women evidenced similar levels of mean ($415,000 to $503,000) and median ($163,000 to $245,000) wealth. Disparities in poverty risk also were stark. Never married men were more than five times as likely as married men, four times as likely as widowers, 2.5 times as likely as divorced men, and about as likely as cohabiting men to live beneath the FPL (18.3% vs. 3.6%, 4.7%, 7.1%, and 18.6%, respectively). Among women, however, poverty risk was highest among the cohabiting (22%) and divorced (20.4%), followed by widowed (15.5%), never married (14.5%) and married (8.2%).

We found significant gender gaps across the economic outcomes for every marital status category except never married and cohabiting persons, with women consistently faring worse than men. The gender gap in total household income ranged from just $776 among never married persons to more than $16,000 for the ever-married categories, including currently married persons. While gender gaps among married persons may appear surprising, recall that we compared married men and women—not husbands and wives within a single marital dyad. Thus, slight compositional differences or reporting biases (e.g., married women's underreporting of income) might have contributed to the economic advantages of married men. By contrast, we

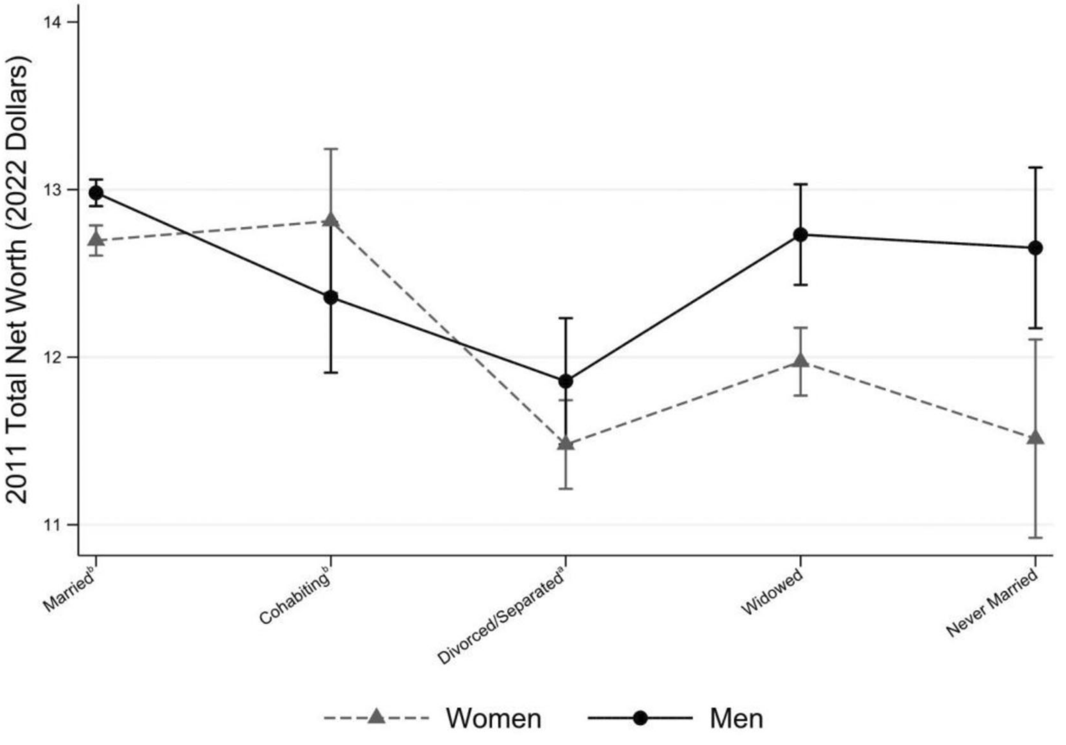

FIGURE 2 Fully adjusted model predicting 2011 total net worth (in 2022 Dollars) after log transformation, by gender and marital status, adjusted for 1993 (Age 54) total household income.

found gender equity among lifelong singles, which likely reflected men's economic disadvantage, rather than women's advantage. Despite never married men's disadvantage relative to other men, they still reported superior economic outcomes compared to *all categories* of unpartnered women.

Descriptive statistics for the study covariates (in Tables S1a and S1b) provided little support for social selection arguments, which propose that never married persons have disadvantages that would undermine both their marriage prospects and economic well-being. Rather, never married persons reported the highest levels of education, with nearly half reporting a college degree or higher, compared to 35% of men and 24% of women overall. Similarly, both lifelong single and married men and both lifelong single and cohabiting women had the highest rates of white-collar (professional) employment. Never married women were similar to cohabiting and divorced women with respect to years of work experience, yet they worked for pay significantly more years than their married and widowed counterparts.

Similarly, we found little evidence of health-based selection into lifelong singlehood. We found no statistically significant differences across current or early life physical health. However, widowed women had significantly higher rates of lifetime depression compared to their never married counterparts, who had lower rates than all other marital categories. We carried out supplemental mortality and attrition analyses, to gauge whether the relatively good health of the never married participants reflected selective survival. We evaluated the effects of lifelong singlehood at age 54 (1993) on mortality and attrition by the subsequent wave (2004), and lifelong singlehood at age 65 (2004) on mortality and attrition by 2011. Never married men and women in 1993 were nearly twice as likely as their married counterparts to have died by 2004, although this difference was not statistically significant net of covariates. However, we cannot

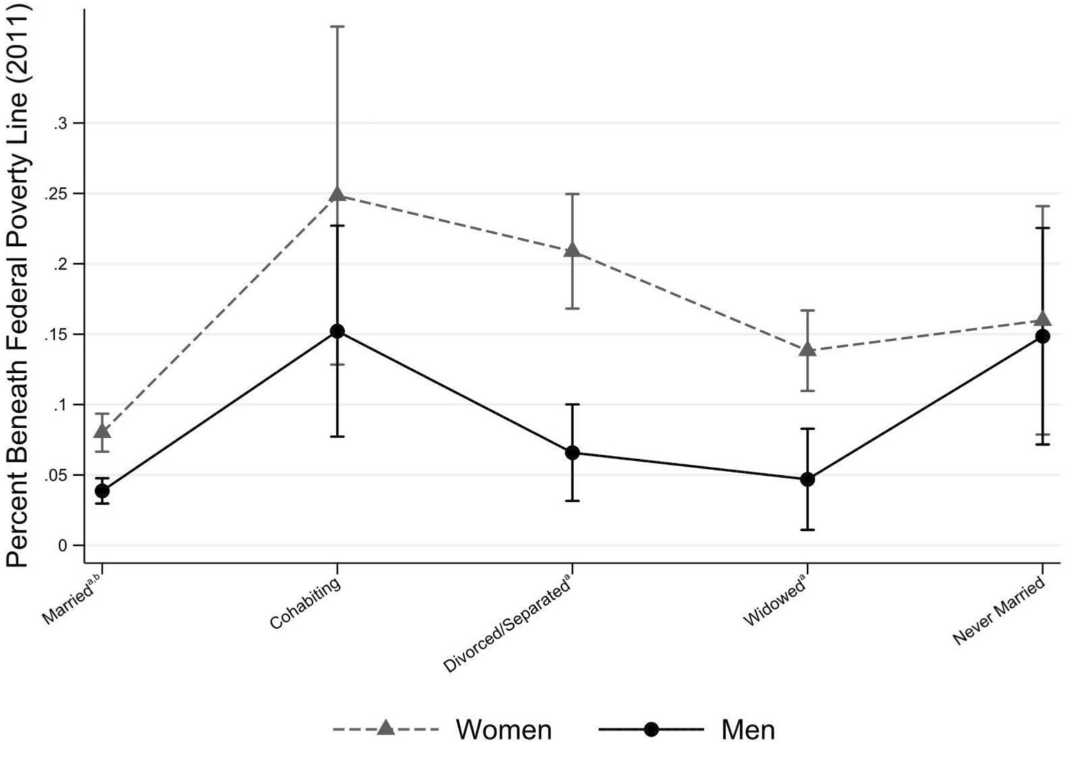

FIGURE 3 Full adjusted model predicting 2011 poverty status, by gender and marital status.

draw strong conclusions based on the small number of never married women and men who died (12 and 5, respectively) or attrited (44 and 38, respectively) between waves (models available from authors).

Never married persons did not differ from other marital groups with respect to early life economic resources, including childhood poverty and urban/rural residence. However, we detected some differences in psychological attributes. Never married men reported higher levels of neuroticism compared to married men, and lower levels of extraversion relative to all other marital categories, except cohabitors. Never married women also had the lowest levels of extraversion of any marital category. We found no differences in sociability or agreeableness.

Multivariable analyses

Figures 1–3 present fully adjusted predicted values for the three economic outcomes by marital status and gender. The complete regression models are shown in Table S2. All covariates were set equal to the sample mean. Statistically significant differences ($p < .05$) between each marital status category and the never married category are signified with superscripts *a* (men) and *b* (women). Statistically significant gender differences within each marital status category are indicated by non-overlapping error bars.

Total household income

Figure 1 shows that never married men had the lowest levels of total household income relative to all other marital categories. Lifelong single men reported significantly less income than married ($48,000 less), cohabiting ($40,000), divorced ($20,000) and widowed ($16,000) men. These gaps were statistically significant after controlling for the presence of other household members. Similarly, never married women had significantly lower household income compared to all groups except divorced women. They reported less total household income than their married ($35,000 less), cohabiting ($23,000), and widowed ($11,000) counterparts; the gap between divorced and never married women was not statistically significant ($7100). For women, unlike men, the presence of other household members was associated with a marginally significant boost in total household income ($6900 more). Men reported greater household income than women across every marital category except never married, although the gender gap among married persons was the only one to reach conventional statistical significance.

Net worth

Figure 2 reveals patterns distinct from those found for total household income, revealing the complex ways that gender and marital status intersect to affect accumulated wealth versus annual income streams. Whereas lifelong single men fared worst of all men with respect to annual income, divorced men reported the least wealth. No other marital status category differed significantly from never married persons among men. Among women, lifelong singles did not differ significantly from divorced or widowed women although they reported significantly less wealth than their married and cohabiting counterparts. Cohabiting women fared best, with slightly higher net worth than currently married women. They also reported significantly more wealth than their male counterparts—the only instance in which women fared better than men across the three economic outcomes and five marital status categories. Married, divorced, widowed, and never married women all reported significantly lower median wealth than their male counterparts.

Poverty risk

Lifelong single men had a significantly higher risk of late-life poverty relative to all other subgroups of men, except cohabitors. Never married men's predicted poverty risk was about 16%, roughly four times that of currently married, three times higher than widowed, and twice that of divorced men—yet only slightly higher than cohabiting men. Women evidenced somewhat different patterns, with lifelong single women roughly twice as likely as married women to be in poverty. However, lifelong single women had poverty risks comparable to widowed women, and lower than divorced and cohabiting women. Cohabiting women, like men, had higher rates of poverty than their lifelong single counterparts, although these differences were not statistically significant. Women were at a higher poverty risk than men for every marital status category except never married, showing that lifelong singlehood may equalize the gender gap in poverty because men are disadvantaged—not because lifelong single women are financially secure.

Supplementary analyses

Our results raised questions about the lives of never married older white adults in the contemporary U.S., particularly the income precarity of lifelong single men. We explored other potential influences, including being in an exclusive non-coresidential romantic partnership, the timing of Social Security benefits, working as clergy (a position which may prohibit marriage), and physical attractiveness, given an extensive literature on the economic benefits of attractiveness and the correlation between attractiveness and partnership formation (Jæger, 2011; Scholz & Sicinski, 2015); none accounted for the disparities.

First, never married participants were not more likely than divorced or widowed persons to be in an exclusive dating relationship—arrangements which may enable modest resource pooling. Second, only three never married persons worked as clergy from age 18 to 54, a number too small to impact our results. Third, we did not find significant marital status differences in the age at which one started drawing Social Security benefits nor the fraction who first drew benefits prior to age 65 (thus incurring up to a 30% penalty) (Social Security Administration, 2022). Finally, while never married men and women had lower physical attractiveness ratings (based on their high school yearbook photos) relative to all other marital categories, controlling for attractiveness did not attenuate marital status differences in the three economic outcomes.

DISCUSSION

We examined marital status differences in the economic well-being of white U.S. adults in their early 70s, centering the experiences of never married persons, a small yet rapidly increasing subgroup of older adults who have received scant scholarly attention. Yet we also found that other subgroups of unmarried older adults are vulnerable to particular types of economic precarity—patterns that reflect distinctive life course processes and (dis)advantages (Bergström & Brée, 2023; Elder Jr, 1994). As such, our study heeds the call of Beckmeyer & Jamison (2023:563), who observe that "singlehood is often positioned as simple, with few variations and less focus on the nuances that may contour [one's] experiences of being single." Our analyses revealed five key findings.

Income precarity among lifelong single men

Never married men evidence substantial economic precarity regarding income and poverty risk, although this disadvantage does not extend to wealth, after total household income is controlled. Lifelong single men have significantly lower household income compared to all other marital categories, with the largest gaps relative to partnered men. Never married men also had dramatically higher rates of poverty relative to married, divorced, and widowed men, yet a slightly higher risk compared to cohabiting men. These income and poverty gaps persist net of an extensive set of covariates—raising the important question of *why*.

Our results suggest the persistence of "singlism," or the structural and interpersonal forms of discrimination that may undermine lifelong single men's economic security. We cannot directly measure singlism in the WLS, yet suspect that lifelong single men might have been disadvantaged by factors including employer preferences for hiring and promoting married workers, a practice of paying a "premium" to married men based on the presumptions that they need to support their families (DePaulo, 2023) and are less likely to leave their job (Ahituv & Lerman, 2011). Structural singlism may be particularly acute for white men of the WLS cohort, for whom rates of marriage surpassed 90% and who largely expected (and were expected) to hold the role of married breadwinner (Elliott et al., 2012; Wilkie, 1993)—consistent with the life course theme of historical context shaping personal experience (Elder Jr, 1994). Further, lifelong single men likely lacked the informal support that wives might offer, such as facilitating career-enhancing social outings with colleagues or helping with husbands' employment-related activities—consistent with the life course theme of "linked lives" (Pavalko & Elder Jr, 1993).

Our supplemental analyses offer possible insights. Never married men were less physically attractive and extraverted than their peers who ever married. These measures did not account for the income and poverty disparities in our multivariable analyses, yet these or other attributes may constrain never married men's prospects for career advancement or forming advantageous professional connections (Wilmot et al., 2019). Qualitative interviews may provide insights into marginalizing workplace dynamics that undermine never married men's economic well-being.

Economic disadvantage among unpartnered women

The stark income and poverty status disadvantages detected for lifelong single men did not apply as neatly to their female counterparts. Lifelong single women had significantly less income relative to their married and cohabiting counterparts, slightly less than widowed, and levels similar to divorced women. The results for poverty risk similarly showed that all subgroups of unmarried women (cohabiting, divorced, widowed, never married) are at greater risk of poverty than their married counterparts, with divorced and cohabiting women evidencing the highest poverty rates.

These results confirm the economic benefits of marriage for older women and the financial disadvantages for those whose marriage ended. The life course theme of "linked lives" underscores how the behaviors and decisions of one spouse bear on the other, with these effects lingering even after the marriage dissolves by death or divorce (Elder Jr, 1994). In working-age couples of the WLS cohort, married women often invested their time in home and childrearing activities while husbands specialized in labor market activity to maintain household efficiency (McDonald, 2020). However, once the marriage ended, the human capital sacrifices made by the wife reduced her employment and pension income—leaving her vulnerable to late-life economic precarity (Zissimopoulos et al., 2015). Lifelong single women, conversely, invested more heavily in their human capital—attaining high levels of education, professional employment, and years of work experience—which provide some long-term economic protection relative to divorced women.

The results also may partly reflect current Social Security income policies, which advantage married and widowed persons relative to lifelong single and divorced persons. Married retirees are eligible either for their own worker or their spouse's Social Security benefit, receiving whichever is higher. Widowed retirees are eligible for either their own or their late spouse's (i.e., survivor) worker benefit, receiving whichever is higher. However, divorced persons are eligible for their former spouse's worker benefit only if their marriage lasted more than 10 years, and then receive just 50% of that benefit (Harrington Meyer et al., 2006). Single persons must rely solely on their own benefit, without the option of a potentially more generous benefit through a current or former spouse (Social Security Administration, 2023). Cohabiting persons receive benefits consistent with their legal marital status, yet have the benefit of income pooling. Taken together, our findings reveal the importance of distinguishing the economic consequences of distinctive subcategories of "unmarried" persons.

Divorce undermines wealth accumulation

Divorced men and women evidenced the lowest predicted levels of wealth across all marital categories, including lifelong singles, with a pronounced gap among men. We expected never married persons to be penalized with respect to wealth accumulation, given their lack of economies of scale over the life course. However, older divorced persons who have not repartnered also lack economies of scale, while also bearing other expenses that lifelong singles do not, such as legal fees associated with the divorce, child support or alimony, intertransfers to adult children, and the maintenance of a separate household post-dissolution (Kapelle, 2022; Zissimopoulos et al., 2013). Never married persons, by contrast, may be vigilant in saving money for long-term care, knowing that they do not have children or a spouse to provide direct care (Thomeer et al., 2016).

Our findings are consistent with studies documenting the negative wealth impacts of divorce (Kapelle, 2022). Most studies focus on divorced persons who are pre- or shortly post-retirement; we show that these gaps can persist into old age (Lin & Brown, 2021; Zagorsky, 2005). Divorced older adults may face additional challenges that intensify the strains associated with limited wealth, including tenuous ties with current and former family members who could be a source of unpaid care when health crises occur. As rising numbers of U.S. older adults are divorced, researchers and policy makers must understand their distinctive economic and care receipt needs (especially for men)—challenges that may be distinct from those of their widowed peers (Lin, 2008). Our results also are consistent with work demonstrating modest correlations between income and wealth, thus each may require distinctive policy interventions (Keister, 2000).

Complex economic profiles of cohabitors

We uncovered complex results regarding the economic security of older cohabitors. Cohabiting older adults had consistently higher income and greater wealth than their unpartnered peers, with similar patterns for men and women. These results are consistent with emerging research suggesting that older cohabitors are just as likely as remarried spouses to pool their income, although younger cohabitors are less so (Wright et al., 2023). Consistent with the life course theme of timing, the impact of a particular role may be contingent upon one's age. Because retirement age persons have lower income than working-age adults, older cohabitors may be more motivated to pool income (U.S. Census Bureau, 2023b). We cannot ascertain why the cohabitors have such high levels of wealth. On one hand, older partners may pool their wealth, just as they pool their income. However, the results also may reflect reverse causation. Older adults with significant wealth may opt for cohabitation rather than marriage as a way to protect their assets for their offspring. Under intestacy laws, bereaved spouses almost uniformly inherit their partner's major assets upon death, although cohabiting partners do not automatically receive inheritance if their partner dies without a will (Choi & Carr, 2023). These findings underscore the importance of linked lives; older cohabiting persons' financial decisions may take into consideration the needs of family members other than their romantic partner.

The relatively high poverty rates among cohabiting older adults are puzzling. Cohabiting men were three times as likely as their married counterparts to coreside with persons other than their romantic partner (15.7% vs. 4.7%); it is possible that these coresidents did not contribute to the overall household income, thus inflating their poverty risk. However, we are cautious in drawing strong conclusions. These inconsistent results may reflect the relatively small number of cohabitors (70 men and 50 women) who encompass the three distinct marital statuses of divorced, widowed, and never married. We encourage future studies to move beyond the coarse indicator of cohabitation, and instead examine whether the economic arrangements of older cohabiting couples vary on the basis of each partner's legal marital status.

Consistent gender gaps in economic security

Women had less income and wealth and a higher poverty risk relative to men across all marital categories except lifelong singles. However, gender equity among lifelong singles is a function of men's disadvantage rather than women's advantage. Never married men's adjusted poverty risk is about 16%, higher than nearly all other men yet comparable to never married and widowed women and lower than divorced women. Similarly, never married men's total (adjusted) household income ($42,000 in 2022 dollars) is the lowest among all men, yet is comparable to divorced and never married women. Our results are consistent with literature on the feminization of poverty, especially in old age. Unmarried older women are further disadvantaged because they tend to rely on Social Security as their main or only source of income, whereas men often supplement their income with interest from their pension wealth and savings (U.S. Census Bureau, 2022a). As such, women are particularly vulnerable when Social Security benefits lag behind annual cost of living increases, or are cut during periods of austerity. Given women's life expectancy advantage over men and their need for medications, hospitalizations, and long-term care as their age-related health problems increase, the consequences of their economic precarity can be dire (Carr, 2019).

LIMITATIONS AND CONCLUSION

This study revealed that marital status and especially subtypes of "singlehood" are an important source of within-cohort variability in older adults' economic well-being, building on core themes of life course research (Hutchison, 2014). However, several limitations lessen its generalizability. First, the WLS cohort comprises white high school graduates born in the late 1930s. As such, they had structural advantages, including a high school education and a transition to the labor market during a time of relative economic prosperity. Further, white adults typically have greater economic returns to higher education than their Black and Hispanic counterparts, and marriage confers greater economic benefits to white women relative to Black and Hispanic women, given Black and Hispanic men's well-documented earnings disadvantage—a consequence of systemic racism (Assari, 2020; Smock et al., 2023). Future studies drawing on racially and ethnically diverse samples from multiple birth cohorts can yield more generalizable conclusions regarding the life course of never married persons relative to their partnered and unpartnered peers. We also encourage future studies to explore other sources of heterogeneity within the never married population, such as educational levels, occupational categories, geographic region, or health. Given the small number of never married persons in our sample (71 men and 76 women), we lacked sufficient power to carry out more fine-grained analyses.

Second, we focused on those who survived until their post-retirement years (age 72) because of our emphasis on understanding economic precarity in old age. However, our sample may be biased toward those with superior health, human capital, and social ties given their survival until age 72. We replicated all models exploring associations between marital status and the three economic outcomes at ages 64 (just prior to retirement) and 53 (one's prime working years). These supplemental analyses help to evaluate whether our results reflect unique attributes of never married persons who survived until age 72, given extensive literature on marital status disparities in survival especially among men (Kaplan & Kronick, 2006). These supplemental analyses show remarkably similar patterns (all models available from authors) to the results presented here. Thus, we are reasonably confident that our results do not reflect selective survival. Importantly, our analysis is a conservative estimate given the many advantages experienced by WLS participants, making the marked precarity of these lifelong singles even more troubling.

Third, the WLS did not obtain measures of sexual orientation; thus we cannot ascertain whether the economic penalty associated with lifelong singlehood and (for poverty risk only) nonmarital cohabitation is attributable to labor market discrimination on the basis of sexual orientation (Denier & Waite, 2019). Members of the WLS cohort were ages 65–66 in 2015, the year that the Supreme Court's Obergefell v. Hodges ruling legalized same-sex marriage, a legal milestone that may have come too late to benefit many of the WLS participants.

Despite these limitations, our analyses reveal the complex ways that singlehood affects older adults' economic well-being. We encourage future studies to reconsider the taken-for-granted use of marriage as a reference standard, and instead strategically explore patterns and sources of difference among the growing and heterogeneous population of unmarried persons. This approach may shed new light on the distinctive benefits and disadvantages experienced by never married, divorced, and widowed older men and women (and differences therein), especially given that rising numbers of U.S. adults are spending their later years outside the institution of legal marriage.

Our results also challenge the notion that never married persons' economic precarity reflects social selection, a "deficit" perspective that presumes never married persons possess undesirable traits that doom them to a life of disadvantage (DePaulo, 2023). Rather, our results suggest that never married persons may experience diminishing economic returns to their years of education and labor supply, due to factors like employer discrimination, interpersonal stigma, or other dimensions of singlism. We hope future studies will identify ways that social institutions discriminate (explicitly or implicitly) against never married persons, generating recommendations for structural changes rather than individual-level adaptations. Although lifelong singlehood often is considered involuntary (Fitzpatrick, 2023), research concurs that older adults are much more likely than younger persons to be content with their status, and less likely to desire a romantic partnership (Brown, 2020). Never married older adults, especially women, often round out their lives with friendships and hobbies, and strategically use formal services to obtain the practical supports they may require (DePaulo, 2023). Fully 18% of lifelong single women in our sample coresided with someone other than a romantic partner, suggesting that they are not growing old alone. However, as rising numbers of U.S. adults spend their later years outside of marriage, it is critical that they have sufficient economic resources to enjoy a financially secure old age. Innovative income security policies, such as a minimum retirement benefit adjusted to reflect the recipient's partnership status, and share of monthly income spent on housing and other essential purchases, may be a first step to achieving economic equity among older adults.

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REFERENCES

Ahituv, A., & Lerman, R. I. (2011). Job turnover, wage rates, and marital stability: How are they related? *Review of Economics of the Household*, *9*(2), 221–249. https://doi.org/10.1007/s11150-010-9101-6

Aljuaid, T., & Sasi, S. (2016). *Proper imputation techniques for missing values in data sets* (pp. 1–5). International Conference on Data Science and Engineering (ICDSE). https://doi.org/10.1109/ICDSE.2016.7823957

Assari, S. (2020). Understanding America: Unequal economic returns of years of schooling in whites and blacks. *World Journal of Education Research*, *7*(2), 78–79. https://doi.org/10.22158/wjer.v7n2p78

Assistant Secretary for Planning and Evaluation. (2022). *2022 poverty guidelines: 48 contiguous states*. ASPE. https://aspe.hhs.gov/sites/default/files/documents/4b515876c4674466423975826ac57583/Guidelines-2022.pdf accessed January 2, 2024.

Beckmeyer, J. J., & Jamison, T. B. (2023). Understanding singlehood as a complex and multifaceted experience: Insights from relationship science. *Journal of Family Theory & Review*, *15*(3), 562–577. https://doi.org/10.1111/jftr.12497

Bergström, M., & Brée, S. (2023). Not a single meaning: Definition and evolution of singlehood in France and the United States. *Journal of Family Theory & Review*, *15*(3), 465–484. https://doi.org/10.1111/jftr.12519

Brown, A. (2020). *Nearly half of U.S. adults say dating has gotten harder for most people in the last 10 years*. Pew. https://www.pewresearch.org/social-trends/2020/08/20/a-profile-of-single-americans/

Brown, S. L., Lee, G. R., & Bulanda, J. R. (2006). Cohabitation among older adults: A national portrait. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *61*(2), S71–S79. https://doi.org/10.1093/geronb/61.2.S71

Brown, S. L., Lin, I. F., Hammersmith, A. M., & Wright, M. R. (2019). Repartnering following gray divorce: The roles of resources and constraints for women and men. *Demography*, *56*(2), 503–523. https://doi.org/10.1007/s13524-018-0752-x

Byun, S. Y., Irvin, M. J., & Meece, J. L. (2015). Rural–nonrural differences in college attendance patterns. *Peabody Journal of Education*, *90*(2), 263–279. https://doi.org/10.3102/00028312114163

Caouette, S., Boss, L., & Lynn, M. (2020). The relationship between food insecurity and cost-related medication non-adherence in older adults: A systematic review. *AJN the American Journal of Nursing*, *120*(6), 24–36. https://doi.org/10.1097/01.NAJ.0000668732.28490.c1

Carr, D. (2019). *Golden years? Social inequality in later life*. Russell Sage Foundation.

Choi, S. L., & Carr, D. (2023). Older adults' relationship trajectories and estate planning. *Journal of Family and Economic Issues*, *44*(2), 356–372. https://doi.org/10.1007/s10834-022-09839-y

Crystal, S., Shea, D. G., & Reyes, A. M. (2017). Cumulative advantage, cumulative disadvantage, and evolving patterns of late-life inequality. *The Gerontologist*, *57*(5), 910–920. https://doi.org/10.1093/geront/gnw056

Denier, N., & Waite, S. (2019). Sexual orientation at work: Documenting and understanding wage inequality. *Sociology Compass*, *13*(4), e12667. https://doi.org/10.1111/soc4.12667

DePaulo, B. (2023). Single and flourishing: Transcending the deficit narratives of single life. *Journal of Family Theory & Review*, *15*(3), 389–411. https://doi.org/10.1111/jftr.12525

Elder, G. H., Jr. (1994). Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly*, *57*(1), 4–15. https://doi.org/10.2307/2786971

Elliott, D. B., Krivickas, K., Brault, M. W., & Kreider, R. M. (2012). Historical marriage trends from 1890-2010: A focus on race differences. In Annual meeting at the population of America. San Francisco, CA (p. 12).

Engemann, K. M., & Owyang, M. T. (2006). Social changes lead married women into labor force. *The Regional the Economist*, April, 10–11.

Fitzpatrick, J. (2023). Voluntary and involuntary singlehood: Salience of concepts from four theories. *Journal of Family Theory & Review*, *15*(3), 506–525. https://doi.org/10.1111/jftr.12526

Harrington Meyer, M., Wolf, D. A., & Himes, C. L. (2006). Declining eligibility for social security spouse and widow benefits in the United States? *Research on Aging*, *28*(2), 240–260. https://doi.org/10.1177/0164027505284166

Hauser, R. M., & Sweeney, M. M. (1997). Does adolescent poverty affect the life chances of high school graduates? In G. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 541–595). Russell Sage.

Heaton, T. B., Lichter, D. T., & Amoateng, A. (1989). The timing of family formation: Rural-urban differentials in first intercourse, childbirth, and marriage. *Rural Sociology*, *54*(1), 1.

Henmon, V. A. C. (1954). *The Henmon-Nelson tests of mental ability. Manual for administration* (Vol. 171, pp. 297–318). Houghton-Mifflin.

Herd, P., Carr, D., & Roan, C. (2014). Cohort profile: Wisconsin longitudinal study (WLS). *International Journal of Epidemiology*, *43*(1), 34–41. https://doi.org/10.1093/ije/dys194

Hoffmann, R., Kröger, H., & Geyer, S. (2019). Social causation versus health selection in the life course: Does their relative importance differ by dimension of SES? *Social Indicators Research*, *141*, 1341–1367. https://doi.org/10.1007/s11205-018-1871-x

Holden, K. C., & Smock, P. J. (1991). The economic costs of marital dissolution: Why do women bear a disproportionate cost? *Annual Review of Sociology*, *17*(1), 51–78. https://doi.org/10.1146/annurev.so.17.080191.000411

Holley, P., Yabiku, S., & Benin, M. (2006). The relationship between intelligence and divorce. *Journal of Family Issues*, *27*(12), 1723–1748. https://doi.org/10.1177/0192513X06291887

Hutchison, E. D. (2014). Life course theory. In R. J. R. Levesque (Ed.), *Encyclopedia of adolescence*. Springer.

Jæger, M. M. (2011). "A thing of beauty is a joy forever"? Returns to physical attractiveness over the life course. *Social Forces*, *89*(3), 983–1003. https://doi.org/10.1093/sf/89.3.983

Jalovaara, M., & Fasang, A. E. (2020). Family life courses, gender, and mid-life earnings. *European Sociological Review*, *36*(2), 159–178. https://doi.org/10.1093/esr/jcz057

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *Big five inventory*. APA Psychological Tests.

Judge, T. A., Klinger, R., Simon, L. S., & Yang, I. W. F. (2008). The contributions of personality to organizational behavior and psychology: Findings, criticisms, and future research directions. *Social and Personality Psychology Compass*, *2*(5), 1982–2000. https://doi.org/10.1111/j.1751-9004.2008.00136.x

Kapelle, N. (2022). Time cannot heal all wounds: Wealth trajectories of divorcees and the married. *Journal of Marriage and Family*, *84*(2), 592–611. https://doi.org/10.1111/jomf.12824

Kaplan, R. M., & Kronick, R. G. (2006). Marital status and longevity in the United States population. *Journal of Epidemiology and Community Health*, *60*(9), 760–765. https://doi.org/10.1136/jech.2005.037606

Keister, L. A. (2000). *Wealth in America: Trends in wealth inequality*. Cambridge Press.

Keister, L. A., & Lee, H. Y. (2014). The one percent: Top incomes and wealth in sociological research. *Social Currents*, *1*(1), 13–24. https://doi.org/10.1177/232949651351090

Kervin, L., Teo, K., Churchill, R., Riadi, I., & Cosco, T. D. (2021). Barriers in health and social care access and navigation for elder orphans: A scoping review protocol. *BMJ Open*, *11*(5), e043876. https://doi.org/10.1007/s12062-023-09430-9

Killewald, A., & Gough, M. (2013). Does specialization explain marriage penalties and premiums? *American Sociological Review*, *78*(3), 477–502. https://doi.org/10.1177/0003122413484151

Lavender-Stott, E. S., & Allen, K. R. (2023). Not alone: Family experiences across the life course of single, baby boom sexual-minority women. *Family Relations*, *72*(1), 140–158. https://doi.org/10.1111/fare.12721

Lightman, N., & Link, C. (2021). Gender, class, and the cost of unpaid care: An analysis of 25 countries. *Journal of Comparative Family Studies*, *52*(2), 206–244. https://doi.org/10.3138/jcfs-52-2-004

Lin, I. F. (2008). Consequences of parental divorce for adult children's support of their frail parents. *Journal of Marriage and Family*, *70*(1), 113–128.

Lin, I. F., & Brown, S. L. (2021). The economic consequences of gray divorce for women and men. *The Journals of Gerontology: Series B*, *76*(10), 2073–2085. https://doi.org/10.1093/geronb/gbaa157

Lin, I. F., Brown, S. L., & Hammersmith, A. M. (2017). Marital biography, social security receipt, and poverty. *Research on Aging*, *39*(1), 86–110. https://doi.org/10.1177/0164027516656139

McDonald, P. (2020). The male marriage premium: Selection, productivity, or employer preferences? *Journal of Marriage and Family*, *82*(5), 1553–1570. https://doi.org/10.1111/jomf.12683

Meyler, D., Stimpson, J. P., & Peek, M. K. (2007). Health concordance within couples: A systematic review. *Social Science & Medicine*, *64*(11), 2297–2310. https://doi.org/10.1016/j.socscimed.2007.02.007

Mueller, G., & Plug, E. (2006). Estimating the effect of personality on male and female earnings. *ILR Review*, *60*(1), 3–22. https://doi.org/10.1177/001979390606000101

National Academies of Sciences, Engineering, and Medicine. (2023). *An updated measure of poverty:(Re) drawing the line*. NASEM.

Nivakoski, S., & Nolan, A. (2019). Expected widowhood duration varies with socio-economic status. *Applied Economics Letters*, *26*(15), 1218–1223. https://doi.org/10.1080/13504851.2018.1543934

Parker, R., & Fry, K. (2021). *Rising share of U.S. adults are living without a spouse or partner*. Pew.

Pavalko, E. K., & Elder, G. H., Jr. (1993). Women behind the men: Variations in wives' support of husbands' careers. *Gender & Society*, *7*(4), 548–567. https://doi.org/10.1177/089124393007004005

Pearson, C. F., Quinn, C. C., Loganathan, S., Datta, A. R., Mace, B. B., & Grabowski, D. C. (2019). The forgotten middle: Many middle-income seniors will have insufficient resources for housing and health care. *Health Affairs*, *38*(5), 851–859. https://doi.org/10.1377/hlthaff.2018.05233

Penning, M. J., & Wu, Z. (2016). Caregiver stress and mental health: Impact of caregiving relationship and gender. *The Gerontologist*, *56*(6), 1102–1113. https://doi.org/10.1093/geront/gnv038

Perelli-Harris, B., & Styrc, M. (2018). Mental well-being differences in cohabitation and marriage: The role of childhood selection. *Journal of Marriage & Family*, *80*(1), 239–255. https://doi.org/10.1111/jomf.12431

Scholz, J. K., & Sicinski, K. (2015). Facial attractiveness and lifetime earnings: Evidence from a cohort study. *Review of Economics and Statistics*, *97*(1), 14–28. https://doi.org/10.1162/REST_a_00435

Sewell, W. H., & Hauser, R. M. (1975). *Education, occupation, and earnings. Achievement in the early career*. Academic Press.

Smock, P. J., & Schwartz, C. R. (2020). The demography of families: A review of patterns and change. *Journal of Marriage and Family*, *82*(1), 9–34. https://doi.org/10.1111/jomf.12612

Smock, P. J., Tzoc, K., & Carr, D. (2023). Gender and the economic consequences of divorce in the United States: Variation by race and ethnicity. *Journal of Economic and Family Issues*. https://doi.org/10.1007/s10834-023-09940-w

Social Security Administration. (2022). The 2022 annual report of the board of trustees of the federal old-age and survivors insurance and federal disability insurance trust funds. https://www.ssa.gov/oact/TR/2022/tr2022.pdf

Sodermans, A. K., Corijn, M., Vanassche, S., & Matthijs, K. (2017). Effects of personality on postdivorce partnership trajectories. *Journal of Social and Personal Relationships*, *34*(7), 1031–1052. https://doi.org/10.1177/026540751666525

Tamborini, C. R. (2007). The never married in old age: Projections and concerns for the near future. *Social Security Bulletin*, *67*, 25–44.

Thomeer, M. B., Mudrazija, S., & Angel, J. L. (2016). Relationship status and long-term care facility use in later life. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(4), 711–723. https://doi.org/10.1093/geronb/gbv106

U.S. Census Bureau. (2022a). *US Families and Living Arrangements: 2022*. Census Bureau. https://www.census.gov/data/tables/2022/demo/families/cps-2022.html

U.S. Census Bureau. (2022b). Wealth, asset ownership and debt of households: detailed tables. https://www.census.gov/newsroom/press-releases/2022/income-sources-older-households.html#:~:text=Among%20all%20households%20with%20a%20householder%20age%2065,Security%20is%20common%20across%20the%20entire%20income%20distribution

U.S. Census Bureau. (2023a). How the Census Bureau Measures Poverty. https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html

U.S. Census Bureau. (2023b). Age of householder-households, by total money income, type of household, race, and Hispanic origin of householder. https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-hinc/hinc-02.html

U.S. Department of Health and Human Services. (2023). Our epidemic of loneliness and isolation the U.S. surgeon general's advisory on the healing effects of social connection and community. https://www.hhs.gov/sites/default/files/surgeon-general-social-connection-advisory.pdf

Ventura, S. J., & Bachrach, C. A. (2000). Nonmarital childbearing in the United States, 1940-99. *National Vital Statistics Reports*, *48*(16), n16.

Vespa, J. (2012). Union formation in later life: Economic determinants of cohabitation and remarriage among older adults. *Demography*, *49*(3), 1103–1125. https://doi.org/10.1007/s13524-012-0102-3

Wade, T. J., & Pevalin, D. J. (2004). Marital transitions and health. *Journal of Health and Social Behavior*, *45*, 155–170. https://doi.org/10.1177/002214650404500202

Wilkie, J. R. (1993). Changes in US men's attitudes toward the family provider role, 1972-1989. *Gender & Society*, *7*(2), 261–279.

Wilmot, M. P., Wanberg, C. R., Kammeyer-Mueller, J. D., & Ones, D. S. (2019). Extraversion advantages at work: A quantitative review and synthesis of the meta-analytic evidence. *Journal of Applied Psychology*, *104*(12), 1447–1470. https://doi.org/10.1037/apl0000415

Wright, M. R., Schwartz, T. A., Brown, S. L., & Manning, W. D. (2023). Income pooling in midlife: A comparison of remarried and cohabiting relationships. *The Journals of Gerontology: Series B.*, *78*, 1402–1411. https://doi.org/10.1093/geronb/gbad051

Yabiku, S. T. (2000). Family history and pensions: The relationships between marriage, divorce, children, and private pension coverage. *Journal of Aging Studies*, *14*(3), 293–312. https://doi.org/10.1016/S0890-4065(00)08023-3

Zagorsky, J. L. (2005). Marriage and divorce's impact on wealth. *Journal of Sociology*, *41*(4), 406–424. https://doi.org/10.1177/1440783305058478

Zissimopoulos, J. M., Couch, K. A., & Daly, M. C. (2013). Marriage and wealth changes at older ages. In *Lifecycle events and their consequences: Job loss, family change, and declines in health* (pp. 158–177). Stanford Economics and Finance.

Zissimopoulos, J. M., Karney, B. R., & Rauer, A. J. (2015). Marriage and economic well-being at older ages. *Review of Economics of the Household*, *13*(1), 1–35. https://doi.org/10.1007/s11150-013-9205-x

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