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Shattering the Retirement Glass Ceiling

Women Need a Three-Legged Stool

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Introduction

The issue of retirement security remains a great concern for all Americans. Recent National Institute on Retirement Security (NIRS) research found that 83% of Americans are concerned about their ability to retire. Yet women in particular seem to display great anxiety concerning their retirement prospects: a full 88% of women are concerned that the current economic conditions will affect their ability to achieve retirement security, as compared with just 79% of men. Furthermore, men seem more confident that they will be able to achieve retirement security, with 78% of respondents believing this, as opposed to just 73% of female respondents. Finally, a full 72% of women and 69% of men believe that it is more difficult to prepare for retirement today as compared to previous generations.¹

Such concerns are not surprising, nor are they unwarranted; the numerous risks facing women in retirement have been widely reported. This issue brief will look at the specific challenges facing women in retirement, and assess the policies that may help to achieve retirement security for women.

Key Findings

We find that achieving retirement security for women can be more challenging than for men, due to several factors.

Specifically, we find that:

- Women may need to accumulate more assets for retirement than men because they tend to live longer, and need additional money to avoid outliving their savings. At the same time, women have lower wages and less access to retirement plans than men during their working years, making accumulating assets more challenging.
- Defined benefit (DB) pension plans can be especially beneficial to women, as they include key spousal protections, and offer a lifetime income that cannot be outlived.²
- Supplemental defined contribution (DC) savings plans offer portability of assets, and can be an important supplemental savings tool for women who may move in and out of the workforce more often than men.
- Therefore, attaining the three-legged retirement stool of Social Security, a traditional DB pension, and supplemental DC savings offers the greatest opportunity for women to achieve security in retirement.

Women Are Still More at Risk in Old Age, Making the Three-Legged Stool All the More Necessary

In the past, it was assumed that when a couple in the United States was married, the husband would be the major wage earner and the woman would stay home to care for the children. Therefore, their husbands' workplaces needed to incorporate paternalistic arrangements to care for the wives, who were largely dependent on their husbands' earnings and compensation. Defined benefit (DB) pension plans, which offered spousal benefits even after the death of the retiree, were a way to ensure that women had some modicum of retirement income no matter how long their husbands may have lived.

As American society has changed, younger generations of women are sometimes assumed to be more financially and socially independent than the older generations. Between 1970 and 1995, for example, a greater proportion of women was in the labor force and was working for longer periods of time. Additionally, women's real wages grew during that time as well.³

However, research also shows that the gender gap, though smaller, is still quite present—women are still much less financially secure than their male counterparts, and women continue to have labor market disadvantages as compared with men. Primarily, women still make less than men do, even when they work the same jobs. A 2007 study shows that full-time female workers made just 76.2% of their male counterparts' wages. Many reasons are cited for the pay differential between men and women—human capital discrepancies, occupational and industry differences, and sexual discrimination, to name a few.⁴ No matter what the reason, however, the fact remains that when women are paid less than men, they will have less disposable income, and therefore less money to put away for retirement. A survey of single women conducted by the Transamerica Center for Retirement Studies found that a majority of these women do not save as much as they would like for retirement

due to spending on "immediate needs," such as basic living expenses and debt payments.⁵

Furthermore, although women have made some gains in the workplace, today women are still much less likely to have access to a workplace retirement plan than men. As early as 1990, Even and Macpherson found that women were 11 to 19% less likely than men to have a pension.⁶ More recently, unfortunately, this gap has not declined by much. The Social Security Administration reports that, in 2004, 63% of women near retirement participated in a workplace pension plan at some point in their careers, as compared with just 52% of their 1994 counterparts. Yet the percentage of men participating during both time periods was much higher than the number of women, at 75%.⁷

In addition, women who have a pension still tend to receive less pension income than men. Boston College researchers have found that the average woman's benefit was much lower than that of her male counterpart,⁸ while a Women's Institute for a Secure Retirement (WISER) study found that the median annual pension income was just \$4,501 for women, as compared to \$9,855 for men.⁹ Also, the number of women with pension income varies greatly by race and ethnicity; a 2007 study finds that just 31% of white women, 26% of African American women, 17% of Asian American women, and 13% of Hispanic women have pension income.¹⁰

Data from the U.S. Census Bureau's 2006 Survey of Income and Program Participation shows that the gender gap for retirees is large. Table 1 shows that women aged 60 and older have far less access to DB pensions than men of the same age. Just 23.3% of women have their own DB pension, as compared to 42.0% of men; and just 37.8% of women have pensions from themselves or a spouse, as compared to 46.8% of men. Also, among women who have DB pensions, they generally have less pension income than their male counterparts. Women receive an average of just \$10,995 from their own or their spouse's pension, while men receive an average of \$18,184.¹¹

Table 1				
Number and Percentage of Persons Age 60 or Older with Pension Income by Sex, 2006				
	Percentage with DB Income		Mean Amount of DB Income	
	Men	Women	Men	Women
From Own Employer	42.0%	23.3%	\$16,529	\$11,535
From Own or Spouse's Employer	46.8%	37.8%	\$18,184	\$10,995

Source: U.S. Census Bureau's Survey of Income and Program Participation, and author calculations.

With lower lifetime wages and less pension income across the board, it is, from the start, more challenging for women to achieve retirement security as compared to men. However, the goal becomes even more difficult for women when life expectancy is taken into account. The Government Accountability Office (GAO) estimates that by the year 2020 women who reach age 65 will go on to live another 20 years.¹² Clearly, because on average women tend to live longer than men, they must accrue more retirement income in order to avoid outliving their savings even when all else is equal.¹³ One study estimates a woman must save an average of 2% more of pay each year than a man in order to achieve the same standard of living in retirement.¹⁴ This extra necessary savings can add up quickly; for example, a woman with a salary of \$50,000 must save an additional \$1,000 each year—over and above what her male counterpart must save—in order for her to achieve a retirement equitable to his.

Additionally, because women live longer than men, they are more likely to need long-term care in retirement than men are. In fact, the National Center for Health Statistics reports that in 2004, a full 74% of nursing home residents over age 65 were women.¹⁵ The Center for Retirement Research at Boston College estimates that, when health care and other long-term care costs are taken into account, the percentage of total households at risk in retirement increases from a baseline of 44% to 65%.¹⁶

Thus, with lower pay, less access to retirement plans, and longer life expectancies, women are generally less financially secure in retirement than men, and are much more likely than men to outlive their retirement assets. In 2007, for instance, women of retirement age had a median income of \$13,877—nearly half of that of median retirement-aged men, who had a median income of \$24,412.¹⁷ Additionally, women are much more likely than men to be poor or experience poverty in old age. Of those aged 65 and older in 2007, nearly twice as many women than men were poor,¹⁸ and women are more likely to become poor in retirement as they get older.¹⁹ Finally, more than one-quarter (26.8%) of elder women have incomes below 150% of the poverty line.²⁰

DB Plans Offer Benefits and Protections that are Especially Helpful to Women

Recent research seems to indicate that women with their own workplace DB plan tend to fare better upon retirement. One study found that the availability of a pension plan in the workplace has a positive effect on women's economic well-being in retirement.²¹ Another found that women are more likely to live above the poverty line in retirement when they have income from pensions.²²

Also, because women still make less in wages and total compensation during their working years and still tend to work for fewer years than

men,²³ many women are still highly dependent on their husband's retirement income in order to finance their own retirement.²⁴ As recently as 2007, researchers found that women with limited work lives were "almost totally dependent" on their husbands' retirement income and community welfare programs in retirement.²⁵

Among women dependent on their husband's retirement plan, those whose husbands have a DB plan may be better off than women whose husbands have only a DC plan, because DB plans have special protections for women. First of all, all DB plans governed by the Employee Retirement Income Security Act (ERISA) must offer a joint and survivor annuity—as the default draw down option—for married participants. This means that, should a woman's husband die before her, she will continue to receive a monthly paycheck, even after the death of her husband, for the rest of her life. Additionally, this joint/survivor benefit may only be waived upon the spouse's written approval—the husband may not choose to opt out of his wife's benefit without her expressed consent. State and local DB pensions, although not subject to the same regulations as private plans under ERISA, generally offer these same spousal protections. That is, similar to ERISA plans, the default option for state and local pension plans is a similar joint and survivor annuity, in most cases.

When one spouse relies on the other spouse's retirement plan to finance his/her own retirement, then, DB pension plans offer specific protections to ensure that the spouse receives a steady, monthly paycheck for the rest of his/her life. This is all the more significant to women, who, as discussed previously, tend to outlive their husbands, and for whom a guaranteed income that cannot be outlived is all the more important. DB pensions offer specific protections for spouses that ensure at least a certain modicum of retirement security for women.

Women seem to understand the positive effects that a DB pension brings to them, and as a result, women seem to value workplace pensions highly. Recent NIRS opinion research found that among

women who do not have a DB pension, 61% say that having such a pension would make them feel more confident about their chances of having a comfortable retirement, as compared to just 48% of men.²⁶ Another survey found that 68% of women would rather have guaranteed health coverage and a pension than a higher-paying job.²⁷

DC Plans Work Best as Supplemental Retirement Plans for Women

As more women have joined the workforce, more have gained access to retirement plans in the workplace. Yet as has been the case for many private-sector American workers, fewer women are gaining access to DB plans—and more are gaining DC plans.²⁸

DC plans can be beneficial to women specifically because women tend to have shorter job tenures, tend to move in and out of the labor force more often than men do, and tend to work more part-time jobs than their male counterparts. For example, among working-age adults, nearly 30% of women are not in the workforce at any given time, as compared to just 15% of men. Women also work fewer hours per week than their male counterparts, at 37 hours, as compared to 43 hours among men.²⁹ For such workers, the flexibility and portability that individualized DC savings offer can be incredibly important. That is, no matter how often a woman changes jobs, she may take assets that have accumulated in her DC account with her, without penalty, and may therefore continue to build retirement savings throughout a shorter and/or more varied career.

Yet DC plans were established as secondary retirement vehicles; they were never meant as substitutes for DB pension plans. The fact that they have come to replace DB plans throughout the private sector is unfortunate for many workers, since research indicates that DC plans are inherently less economically efficient across the board; that is, to deliver the same retirement income, DC plans cost almost twice as much as DB plans.³⁰ Yet, women may fare even worse than their male counterparts under the DC-only

structure. The reason for this is threefold. First, because women make less than men throughout their working life, as discussed earlier, they are able to accrue less money in a DC retirement account than men. As a result, one survey found that a full 63% of women feel that they are not saving enough money for retirement, as compared to just 51% of men.³¹

Secondly, women are much more risk averse than men, on average.³² Researchers have found that even after controlling for economic and demographic variables, a large proportion of women invested in minimum-risk portfolios. They further found that married women hold fewer stock investments than married men, even after controlling for age and income level.³³ Such risk aversion has clear consequences: investing in a too-conservative portfolio means giving up the higher expected investment returns associated with stocks. All else equal, those who give up such an equity premium will have fewer assets over the course of a career-length investment horizon, as compared with those who maintain a more diversified portfolio of more- and less-conservative assets. Indeed, several researchers believe that such risk aversion among women means “that women’s pension accumulations will exacerbate the gender gap in retirement income over time.”³⁴

Thirdly, women have been found to be significantly less financially literate than men. A National Bureau of Economic Research paper finds high levels of financial illiteracy among women, even after controlling for education and many other demographic characteristics.³⁵ Lusardi and Mitchell find not only that older women exhibit much lower levels of financial literacy than the overall elderly population, but they also find that less financially literate women are also less likely to both plan for retirement, and plan for retirement successfully.³⁶ Similarly, among younger generations of Americans, Lusardi and Tufano find that women under the age of 30 are less financially literate than their male counterparts as well.³⁷ At the same time, as private sector workers are moved more and more into individual retirement accounts by their

employers, the GAO reports that “financial literacy will likely play an ever important role in the retirement security” of future generations of retirees, partly due to “the decline in traditional pensions that provide guaranteed retirement income and the rise in account-based defined contribution plans.”³⁸ Clearly, the less financially literate people are, the less successful they will be in planning for their retirement on their own.

Finally, research shows that women are more likely than men to take lump sum distributions out of their DC accounts before retirement. The Institute for Women’s Policy Research finds that women are much less likely to roll over their lump sum distributions from a previous employer into another retirement, savings, or investment account (47% of women versus 57% of men.) Additionally, women are more likely to use the lump sum payments for household and family needs, such as investing in a child’s education, medical and dental expenses, and paying off bills (48.8% of women versus 41.6% of men).³⁹ And, clearly, the withdrawal of lump sum distributions can be incredibly harmful to the accrual of ample retirement savings, given the importance of compound interest.⁴⁰ For example, if an individual withdraws just \$5,000 at age 35, that person will have lost out on over \$38,000 in retirement savings by age 65.⁴¹

For women who rely on their husbands’ workplace retirement plans, DC plans may lack the joint and survivor spousal protections that DB plans provide. The individualized nature of a DC plan typically means that the retiree makes all of his or her own draw-down choices. That is, instead of the default of receiving a guaranteed monthly paycheck for life that is standard in a DB plan, a retiree in a DC plan usually receives a lump-sum amount to spend however he or she chooses over time. Under this system, the amount of money a husband chooses to draw down while alive directly impacts how much money the wife will have to live on, for the rest of her life, if he dies first. Holden and Zick calculate that women over age 60 experience a 39% decrease in asset income upon the deaths of their husbands.⁴²

Although some DC plans offer an annuity pay out option, these plans remain in the minority. In 2007, just 15% of employer-sponsored 401(k) plans offered an annuity option, according to Hewitt Associates.⁴³ And again, with no default joint and survivor annuity distribution, a retiree may choose to take either a lump sum distribution or take periodic installment distributions, without any required spousal consent. Many researchers believe that should spousal consent be mandated for DC plans, as they are for DB plans, the number of retirees choosing an annuity with survivor protections would increase dramatically,⁴⁴ and women whose husbands have these plans would thereby be much better protected. Indeed, if public policies were implemented to shore up adequacy of survivor benefits—in other words, to make DC plans more like DB plans in this regard—many researchers believe that widowed women would be better off in old age.⁴⁵

Women Achieve Greater Retirement Security with Access to All Three Legs of the Retirement Stool

Trends in retirement plan coverage have been both positive and negative for women. On the one hand, more women have access to some form of workplace retirement plan than ever before. On the other hand, the majority of these women have access to a DC plan only. This may be problematic for two reasons. Firstly, DC plans are in general much less economically efficient than DB plans, in that the cost of delivering the same retirement benefit in a DC plan is nearly double that of a DB plan.⁴⁶ Secondly, because women have greater average longevity than men, they are required to save much more money in a DC plan than their male counterparts in order not to outlive their retirement income. Yet because women are in general more risk averse and less financially literate than men, accruing ample savings in a DC account becomes even more difficult.

Researchers at the Social Security Administration, for instance, believe that the increase in

retirement plan coverage among women is beneficial; however, these potential gains are offset by the fact that the American workforce has been shifting out of DB pensions and into DC accounts “that depend on investment success over a lifetime.”⁴⁷ Indeed, another study found that although women now have greater access to pension plans, such “changes have preserved, and perhaps increased, familiar disadvantages associated with gender, marital status, and labor market position.”⁴⁸

Public opinion research seems to verify the public—and especially women’s—desire for more adequate retirement security across the country. A NIRS public opinion poll found that a full 89% of women and 85% of men support government action to encourage pensions in the private sector. Furthermore, 81% of women and 76% of men support government sponsorship of a pension plan to be made available to small employers or individuals.⁴⁹ Such polling indicates that women understand the benefits of traditional pensions, which offer women a guaranteed, secure income for the rest of their lives—no matter how long that might be. Women who depend on their husband’s retirement plan are better protected under a DB system, and women who have their own workplace retirement plan fare better under the DB system due to the economic efficiencies and specific group characteristics of DB plans that are especially beneficial to women.

Thus, the three-legged retirement stool—of Social Security, a traditional pension, and individual DC savings—is all the more necessary for today’s working women. Social Security and DB pensions both offer a secure income that cannot be outlived, which is all the more helpful to ensure the retirement security for women with greater longevity. DC plans offer flexibility and portability to the female workforce, who tend to have shorter job tenures, and tend to move in and out of the labor force more often than men do. Therefore, the combination of Social Security, DB pensions, and supplemental DC income remains the most effective way to ensure the retirement security for women in the United States.

Endnotes

- ¹ National Institute on Retirement Security. 2009. *Pensions and Retirement Security: A Roadmap for Policy Makers*. Washington, DC: National Institute on Retirement Security.
- ² DB plans provide employees with a predictable monthly benefit in retirement. The amount of the monthly pension is typically a function of the number of years an employee devotes to the job and the worker's final average pay. In a DC plan, employers (and usually employees) contribute to the plan over the course of a worker's career, and there is no guarantee of a specific retirement income level. Any employee's final retirement income depends on factors including the level of contributions to the plan, the investment returns earned on assets, whether loans are taken or funds are withdrawn prior to retirement, and the individual's lifespan.
- ³ Shaw, L., and Hill, C. 2001. *The Gender Gap in Pension Coverage: What Does the Future Hold?* Washington, DC: Institute for Women's Policy Research.
- ⁴ Caiazza, A., Shaw, A., and Werschkul, M. 2007. *Women's Economic Status in the United States: Wide Disparities by Race, Ethnicity, and Region*. Washington, DC: Institute for Women's Policy Research.
- ⁵ Transamerica Center for Retirement Studies. 2008. *Single Women in the USA: Retirement Dreams v. Financial Realities*. 9th Annual Transamerica Retirement Survey. Transamerica Center for Retirement Studies.
- ⁶ Even, W.E., and Macpherson, D.A. 1990. The gender gap in pensions and wages. *The Review of Economics and Statistics*, 72(2), 259-265.
- ⁷ Iams, H.M., Phillips, J.W.R., Robinson, K., Deang, L., and Dushi, I. 2008. *Cohort Changes in the Retirement Resources of Older Women*. Social Security Bulletin 68(4). Washington, DC: Social Security Administration.
- ⁸ Munnell, A.H., and Zhivan, N. 2006. *Earnings and Women's Retirement Security*. Work Opportunities for Older Americans Series, Working Paper No. 3. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- ⁹ The Women's Institute for a Secure Retirement. 2008. *Minority Women and Retirement Income. Your Future Paycheck: Pay, Social Security, Pensions, Savings and Investments*. Washington, DC: WISER.
- ¹⁰ Lee, S. 2007. *Racial and Ethnic Differences in Women's Retirement Security*. Washington, DC: Institute for Women's Policy Research.
- ¹¹ For full results see: Porell, F. Forthcoming. *The Cost of a Failed Retirement System*. Washington, DC: National Institute on Retirement Security.
- ¹² Government Accountability Office. 2006. *Baby Boom Generation: Retirement of Baby Boomers Is Unlikely to Precipitate Dramatic Decline in Market Returns, but Broader Risks Threaten Retirement Security*. GAO 06-718. Washington, DC: Government Accountability Office.
- ¹³ Babbel, D.F. 2008. *Lifetime Income for Women: A Financial Economist's Perspective*. Philadelphia: The Wharton School, University of Pennsylvania.
- ¹⁴ Prost, M.A. 2008. Gender disparities in retirement. *Human Resource Executive Online*. August 11.
- ¹⁵ National Center for Health Statistics. 2007. *Health, United States, 2007: With Chartbook on Trends in the Health of Americans*. Hyattsville, MD: National Center for Health Statistics.
- ¹⁶ Munnell, A.H., Webb, A., Golub-Sass, F., and Muldoon, D. 2009. *Long Term Care Costs and the National Retirement Risk Index*. Issue Brief No. 9-7. Boston: Center for Retirement Research at Boston College.
- ¹⁷ Purcell, P. 2008. *Income and Poverty Among Older Americans in 2007*. CRS Report for Congress. Washington, DC: Congressional Research Service, The Library of Congress.

- ¹⁸ Purcell, P. 2008. *Income and Poverty Among Older Americans in 2007*. CRS Report for Congress. Washington, DC: Congressional Research Service, The Library of Congress.
- ¹⁹ The Women's Institute for a Secure Retirement. 2008. *Minority Women and Retirement Income. Your Future Paycheck: Pay, Social Security, Pensions, Savings and Investments*. Washington, DC: WISER.
- ²⁰ The Women's Institute for a Secure Retirement. 2006. *Older Women and Poverty: A Not So Rosy Picture*. Washington, DC: WISER.
- ²¹ McNamara, J.M. 2007. Long-term disadvantage among elderly women: The effects of work history. *Social Service Review*, 81(3), 423-52.
- ²² Lee, S., and Shaw, L. 2008. *From Work to Retirement: Tracking Changes in Women's Poverty Status*. Washington, DC: AARP Public Policy Institute.
- ²³ Prost, M.A. 2008. Gender disparities in retirement. *Human Resource Executive Online*. August 11.
- ²⁴ Lee, S. 2007. *Racial and Ethnic Differences in Women's Retirement Security*. Washington, DC: Institute for Women's Policy Research.
- ²⁵ Angel, J.L., Jimenez, M.A., and Angel, R.A. 2007. The economic consequences of widowhood for older minority women. *The Gerontologist*, 47(2), 224-234
- ²⁶ National Institute on Retirement Security. 2009. *Pensions and Retirement Security: A Roadmap for Policy Makers*. Washington, DC: National Institute on Retirement Security.
- ²⁷ Lovell, V., Hartmann, H., and Williams, C. 2008. *Women at Greater Risk of Economic Insecurity: A Gender Analysis of the Rockefeller Foundation's American Worker Survey*. Washington, DC: Institute for Women's Policy Research.
- ²⁸ Iams, H.M., Phillips, J.W.R., Robinson, K., Deang, L., and Dushi, I. 2008. *Cohort Changes in the Retirement Resources of Older Women*. Social Security Bulletin 68(4). Washington, DC: Social Security Administration.
- ²⁹ Shaw, L., and Hill, C. 2001. *The Gender Gap in Pension Coverage: What Does the Future Hold?* Washington, DC: Institute for Women's Policy Research.
- ³⁰ Almeida, B., and Fornia, W. 2008. *A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans*. Washington, DC: The National Institute on Retirement Security.
- ³¹ Lovell, V., Hartmann, H., and Williams, C. 2008. *Women at Greater Risk of Economic Insecurity: A Gender Analysis of the Rockefeller Foundation's American Worker Survey*. Washington, DC: Institute for Women's Policy Research.
- ³² Babbel, D.F. 2008. *Lifetime Income for Women: A Financial Economist's Perspective*. Philadelphia: The Wharton School, University of Pennsylvania. Also Beckmann, D., and Menkhorff, L. (2008). Will women be women? Analyzing the gender difference among financial experts. *KYKLOS*, 61(3), 364-384.
- ³³ Hinz, R.P., McCarthy, D.D., and Turner, J.A. 1997. Are women conservative investors? Gender differences in participant-directed pension investments. In: Gordon, M.S., Mitchell, O.S., and Twinney, M.M. *Positioning Pensions for the Twenty-First Century*. Philadelphia: University of Pennsylvania Press.
- ³⁴ Hinz, R.P., McCarthy, D.D., and Turner, J.A. 1997. Are women conservative investors? Gender differences in participant-directed pension investments. In: Gordon, M.S., Mitchell, O.S., and Twinney, M.M. *Positioning Pensions for the Twenty-First Century*. Philadelphia: University of Pennsylvania Press.
- ³⁵ Lusardi, A. 2008. *Financial Literacy: An Essential Tool for Informed Consumer Choice?* NBER Working Paper 14084. Cambridge, MA: National Bureau of Economic Research.
- ³⁶ Lusardi, A., and Mitchell, O.S. 2008. *Planning and Financial Literacy: How do Women Fare?*

NBER Working Paper No. W13750. Cambridge, MA: National Bureau of Economic Research.

³⁷ Lusardi, A., and Tufano, P. 2008. *Debt Literacy, Financial Experience, and Overindebtedness*. NBER Working Paper No. 13750. Cambridge, MA: National Bureau of Economic Research.

³⁸ Government Accountability Office. 2006. *Baby Boom Generation: Retirement of Baby Boomers Is Unlikely to Precipitate Dramatic Decline in Market Returns, but Broader Risks Threaten Retirement Security*. GAO 06-718. Washington, DC: Government Accountability Office.

³⁹ Shaw, L., and Hill, C. 2001. *The Gender Gap in Pension Coverage: What Does the Future Hold?* Washington, DC: Institute for Women's Policy Research.

⁴⁰ Shaw, L., and Hill, C. 2001. *The Gender Gap in Pension Coverage: What Does the Future Hold?* Washington, DC: Institute for Women's Policy Research.

⁴¹ Assuming a 7% average annual return over 30 years.

⁴² Holden, K.C., and Zick, C. 2000. Distributional changes in income and wealth upon widowhood: Implications for private insurance and public policy. In: *Retirement Needs Framework*. SOA Monograph M-RS00-1. Schaumburg, IL: Society of Actuaries.

⁴³ Hewitt Associates. 2007. *Survey Highlights: Trends and Experience in 401(k) Plans in 2007*. Lincolnshire, IL: Hewitt Associates.

⁴⁴ Papke, L.E., Walker, L., and Dworsky, M. 2008. *Retirement Security for Women: Progress to Date and Policies for Tomorrow*. Washington, DC: The Retirement Security Project.

⁴⁵ Warlick, J.L. 1985. Why is poverty after 65 a woman's problem? *Journal of Gerontology* 40(6), 751-7. and Shaw, L., and Hill, C. 2001. *The Gender Gap in Pension Coverage: What Does the Future Hold?* Washington, DC: Institute for Women's Policy Research.

⁴⁶ Almeida, B., and Forna, W. 2008. *A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans*. Washington, DC: The National Institute on Retirement Security.

⁴⁷ Iams, H.M., Phillips, J.W.R., Robinson, K., Deang, L., and Dushi, I. 2008. *Cohort Changes in the Retirement Resources of Older Women*. Social Security Bulletin 68(4). Washington, DC: Social Security Administration.

⁴⁸ O'Rand, A.M., and Shuey, K.M. 2007. Gender and the devolution of pension risks in the US. *Current Sociology*, 55(2), 2877-304.

⁴⁹ National Institute on Retirement Security. 2009. *Pensions and Retirement Security: A Roadmap for Policy Makers*. Washington, DC: National Institute on Retirement Security.

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