# Women Give 2012

New Research about Women and Giving

August 2012



By addressing significant and ground-breaking research questions and translating that research into increased understanding and improvements in practice, WPI helps to leverage new and expanded resources for the common good.

## The Center on Philanthropy at Indiana University

The Center on Philanthropy offers a comprehensive approach to philanthropy—voluntary action for the public good—through The Fund Raising School, Women's Philanthropy Institute, The Lake Institute on Faith & Giving, and its academic and research programs. The Center is dedicated to improving philanthropy by training and empowering students and practitioners to be innovators and leaders who create positive and lasting change in the world.

## Women's Philanthropy Institute at the Center on Philanthropy at Indiana University

The mission of the Women's Philanthropy Institute is to further understanding of women's philanthropy through research, education, and knowledge dissemination. Our goal is to study, learn, and share why and how gender matters in philanthropy.

By addressing significant and ground-breaking research questions and translating that research into increased understanding and improvements in practice, WPI helps to leverage new and expanded resources for the common good. WPI is the only organization to examine all aspects of women's philanthropy through a value-neutral lens.

WPI's work is bolstered by the Center's internationally respected research department, practical expertise of The Fund Raising School, and association with philanthropic partners around the globe.

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## **Executive Summary**

Even though women, in general, earn less than men, have less money in retirement, and outlive their spouses, this study demonstrates that Boomer and older women are more likely to give and give more to charity than men.

Women Give 2012 focuses on the effect of age and gender on charitable giving, with a spotlight on giving by Baby Boomers (born between 1946 and 1964) and older Americans.

The new report is the third in a series of research reports by the Women's Philanthropy Institute at the Center on Philanthropy at Indiana University that offers deeper insights as to how gender differences affect philanthropy. The Women Give studies complement a growing body of research that affirms women's growing importance as donors in the non-profit sector. They also benefit decision-makers and fundraisers seeking to expand their donor base and attract more volunteers by providing key insights to inform their strategic efforts to more deeply engage women.

## Importance of gender to giving

This new study builds on the results of Women Give 2010 which found significant differences in the likelihood of giving — as well as the dollar amounts given — between households headed by single males and those headed by single females. The 2010 study showed that single women are more likely to give to charity, and give at a higher level than single men, across most income levels, after accounting for other factors that affect giving.

## The Baby Boomer generation

Women Give 2012 contributes to the understanding of the giving patterns of Boomer and older Americans, providing a snapshot of their philanthropic behavior prior to the Great Recession (2008-2009). At 76 million strong, Baby Boomers are the largest generation in America today. Because of their sheer numbers and the societal changes that occurred as they grew up, Boomers have had a significant impact on society through their beliefs, attitudes, behaviors, and habits about buying, spending, culture, politics, and more at every stage of their lives. Their impact is expected to continue to be felt across all aspects of society as they age, including in philanthropy.

## **Key finding**

Boomer and older women are more likely to give to charity and give more than their male counterparts when other factors affecting giving are taken into consideration.

These findings are consistent when we examine the entire sample as well as those households in the top 25 percent of permanent income.

The findings challenge perceptions about who is philanthropic, revealing that Boomer and older women are as or more philanthropic than their male counterparts. The results add to the growing body of knowledge about the importance of gender in philanthropy, give female donors context for their personal experiences with philanthropy, and prompt nonprofits to seek gender balance in their fundraising strategies.

Even though women, in general, earn less than men, have less money in retirement, and outlive their spouses, this study demonstrates that Boomer and older women are more likely to give and give more to charity than men.

## **Background**

A significant body of research has demonstrated that both motivations for giving and giving patterns differ by gender. Some research also has begun to explore whether people of different ages or generations give differently. Little research, however, has examined the effect of age *and* gender on giving patterns. This study surveys only households headed by single females and single males to explain gender differences. Because married

couples tend to pool income and make joint decisions about giving to charity, studying married households does not allow for testing of gender differences in giving. This study explores whether men and women who are of the Baby Boom generation and older give differently from each other.

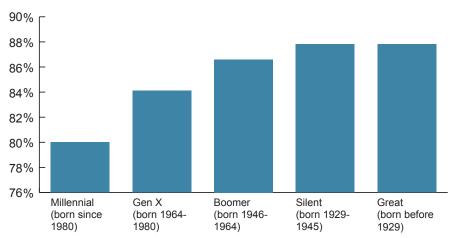
## *Influence of Boomers and older Americans in giving*

At 76 million strong, Baby Boomers (born 1946-1964) are the largest generation in America today. Baby Boomers hold more than 90 percent of the country's net worth and account for 78 percent of all financial assets.<sup>2</sup> As of 2007 projections females accounted for 51 percent of the Baby Boomer population in the United States.<sup>3</sup> By 2030, 54 percent of American Boomers will be women.<sup>4</sup> Because of their sheer numbers and the societal changes that occurred as they grew up, Boomers have had a significant impact on society through their beliefs, attitudes, behaviors, and habits about buying, spending, culture, politics, and more at every stage of their lives. Their impact is expected to continue to be felt across all aspects of society as they age, including in philanthropy. This study contributes a deeper understanding of their philanthropic behavior.

Boomers and people of older generations are more likely to give and give more on average than younger generations.

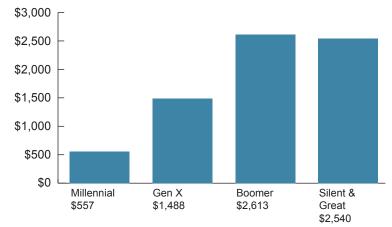
## The percent of generations which give (before controls)

Controls refer to variables or factors that researchers take into consideration when analyzing data. These factors hold constant individual or household characteristics allowing for an accurate comparison between genders. Some of the factors controlled for in Women Give include income, education, marital status, health of the head of household, and age.



Data: Generational Differences in Charitable Giving and in Motivations for Giving, The Center on Philanthropy, May 2008

# Comparison of total giving by generation (with controls) Average gift total from donor households



Data: Center on Philanthropy Panel Study of 2006 giving (Giving USA Spotlight Issue 2, 2010)

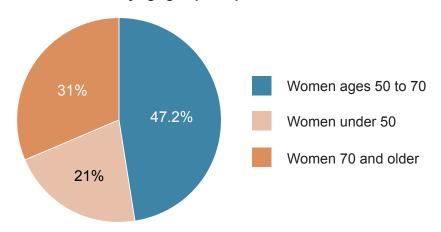
## Boomer Women and giving

Breaking out of traditional gender roles seen in earlier generations and pursuing equality in education, employment, and earnings, Boomer women are transforming philanthropy through innovative new charitable organizations and ways to engage in charitable activity. Many of the first women's funds were created by Boomer and older women, starting in 1972 with the establishment of the Ms. Foundation for Women. Women's funds are non-profit organizations, often public foundations, which are governed primarily by women and which raise money from public sources to support programs for women and girls. Today there are about 165 women's funds in 27 countries on six continents.<sup>5</sup>

Boomer sisters Helen LaKelly Hunt and Swanee Hunt raised the profile of women's philanthropy with the first Women Moving Millions campaign which sought million dollar gifts from women for women's funds around the globe. The campaign raised \$182 million in two years, 2007-2009. Banking and investment expert Darla Moore made history with her cumulative \$70 million gift made between 1998 and 2004 to the University of South Carolina Business School, the first business school in the country to be named for a woman.

Senior women age 50 and older control net worth of \$19 trillion and own more than three-fourths of the nation's financial wealth.<sup>6</sup> Women aged 50 to 70 (roughly corresponding to the age of Boomers today) hold 47.2 percent of the gross assets of the top female wealth holders in the United States today.<sup>7</sup>

## Percent of wealth by age group of top female wealth holders



Data: IRS, Statistics of Income Data, 2007 (most recent year for which data is available)

Wealthy Boomer women are not the only women who give. A recent study conducted at the Women's Philanthropy Institute at the Center on Philanthropy at Indiana University, which included women of all ages, found that, in general, households headed by single females are both more likely to give, and give more than households headed by single males after controlling for factors that affect philanthropic behavior.<sup>8</sup>

## Constraints on giving by Boomer and older women

Women are more likely than men to be concerned about their economic viability and funds available for retirement as they age. Generally, women have lower incomes and spend less time in the labor force than men. Based on existing studies, four factors in particular may more adversely affect women's financial viability than men's as they age: (1) risk aversion in financial decision-making, (2) longer life expectancy, (3) being single as they age, and (4) less money available in retirement.

## • Risk aversion in financial decision-making

It is well-documented that women tend to be conservative financial investors, taking less risk and accepting lower returns than men. This strategy requires that they save a greater percentage of their income than men. A 2007 report by the American Association of Retired Persons (AARP) stated, "Most women are unwilling to make riskier financial decisions for their money to grow faster, preferring to protect their savings with more conservative decisions." Another study found that women's lower tolerance for financial risk was a major factor in explaining why single women held significantly less wealth than single men. <sup>11</sup>

## • Longer life expectancy

At all ages and for all racial and ethnic groups, life expectancy in the United States is greater for females than for males. Since 1940, life expectancy at age 65 has increased by four years for men and five years for women and is expected to continue rising. American women who reached the traditional retirement age of 65 in 2005 can, on average, expect to live another nineteen years, nearly three years longer than their male counterparts, and by 2050, women are projected to live to age 83.4—four years longer than men.

## • Single as they age

The number of single women (divorced, widowed, or never married), i.e. those facing the reality of having no spousal support as they age, is at an historical high. More than half of the female adult population in the U.S. is single<sup>14</sup> and the vast majority of American women will become single during their adult lifetimes.<sup>15</sup>

As the *MetLife Study of Women, Retirement, and the Extra-long Life* highlights, "women are more likely than men to age solo, that is to be widowed, divorced, or otherwise live alone, shouldering the costs of retirement on their own."<sup>16</sup> The average age of widowhood in the United States is 55 and today widows outnumber widowers four to one. Although both men and women express concern about outliving their retirement resources, more women than men voiced this fear (54% to 44% for men).<sup>17</sup>

## Retirement

Boomers are reaching the traditional retirement age of 65 at the rate of 10,000 a day, a statistic that will continue through December 31, 2030. "The aging of this huge cohort of Americans (26% of the total U.S. population are Baby Boomers) will dramatically change the composition of the country. Currently, just 13% of Americans are ages 65 and older. By 2030, when all members of the Baby Boom generation have reached that age, fully 18% of the nation will be at least that age," according to Pew Research Center population projections. Boomers will continue to profoundly impact every aspect of life through their retirement years and beyond with more female than male Boomers living longer. Subsequently, women are more likely than men to be concerned about their economic viability and plans for retirement as they age, and more than half of all women feel they are behind on preparing for the future. 19

# Permanent income measures the total resources available to the head of household for both consumption and charitable donation. It includes the head of household's total labor income, head's nonlabor income, annuitized wealth, and income from other family members living in the household. A more detailed definition can be found in the Appendix.

## Overview of study

This study compares the charitable giving of Boomer and older men and women. It also looks at why women's giving (or spending more generally) may differ from that of their male peers. The study examines these questions from two angles. First, all financial resources (current income, wealth, home equity) available to the individual are considered. Then, only those households in the top 25 percent of permanent income are considered.

Women's greater life expectancy, lower incomes, and shorter time in the labor force are factors that must be taken into consideration when examining gender differences by older households. Similarly, greater risk aversion can be expected to depress women's charitable giving in two ways. First, women will set aside more money as precautionary savings—depressing any expenditures including charitable giving. Second, when accumulated wealth is invested more conservatively, we would expect a lower rate of return on that investment, yielding a lower level of permanent income. Greater risk aversion implies that women's propensities to spend out of a certain flow of income and stock of wealth will be lower than men's. By taking into consideration gender differences in uncertainty around life expectancy and in attitudes towards risk, as well as all financial resources available to the individual, we can provide a more robust and comprehensive understanding of giving.

The study examined giving across eight giving levels, from giving nothing to giving 3 percent or more of permanent income. This deep assessment allowed us to look for consistencies across all levels. Among all individuals in the study, single households contributed an average of about 1.5 percent of their permanent income to charity. Eighty-three percent of all individuals in the sample contributed less than three percent of their permanent income to charity. After the 3 percent or more giving level, the sample size became too small to conduct a valid analysis. The giving levels are:

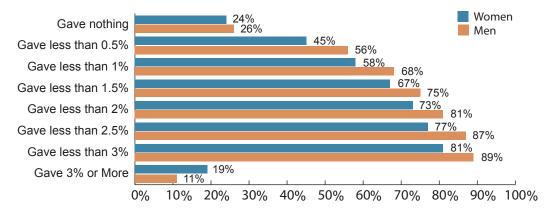
- Gave 3 percent or more of their permanent income
- Gave less than 3 percent
- Gave less than 2.5 percent
- Gave less than 2 percent
- Gave less than 1.5 percent
- Gave less than 1 percent
- Gave less than 0.5 percent
- · Gave nothing

## **Findings**

## Finding 1: Likelihood of Giving - Entire Sample (with controls)

Baby Boomer and older women are more likely to give than their male counterparts in all giving levels.

The percentage of Baby Boomer and older male and female single-headed house-holds who gave 0 to 3 percent or more of their permanent income to charity. \*



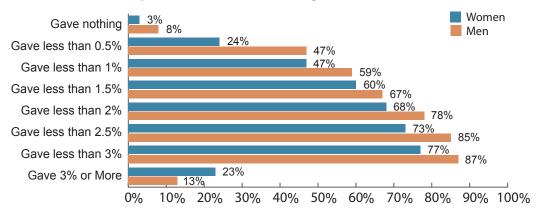
The findings show that female Baby Boomer and older single-headed households are more generous than their male counterparts at each giving level. In the highest giving level, 3 percent or more, female Baby Boomer and older single-headed households are nearly twice as likely to give three percent or more of their permanent income to charity.

\*All of the results above are significant at the 0.10 level or lower except for those who gave nothing.

## Finding 2: Likelihood of Giving - Restricted Sample to those in the top 25 percent of permanent income (with controls)

Baby Boomer and older women in the top 25 percent of permanent income are more likely to give than their male counterparts.

Among those in the top 25 percent of permanent income, the percentage of Baby Boomers and older male and female single-headed households who gave 0 to 3 percent or more of their permanent income to charity. \*\*



The findings show that female Baby Boomer and older single-headed households who are in the top 25 percent of permanent income are more generous than their male counterparts at each giving level. In the highest giving level, 3 percent or more, female Baby Boomer and older single-headed households are more than twice as likely to give three percent or more of their permanent income to charity.

<sup>\*\*</sup>All of the results above are significant at the 0.10 level or lower except for those who gave less than 2.5% of their income, less than 2% of their income, less than 1.5% of their income, or who gave nothing.

Finding 3: Gender Differences in the Amount Given to Charity (with controls)
For the entire sample Baby Boomer and older women give 89 percent more (almost

For the restricted sample of households in the top 25 percent of permanent income, Baby Boomer and older women give 156 percent more (more than 1.5 times more) to charity than men. (See methodology section for description of calculations.)

The above analyses were also conducted to see if women gave more than men in samples that were restricted to older ages. Distinct age groups within the study included single males and females age 50 and older, age 55 and older, and age 65 and older. The same pattern emerged for each age group that was analyzed. Women remained as likely or more likely to give than their male counterparts. Further analysis revealed that there were no statistically significant differences in charitable giving between the Boomer and older generations.

Significance of the study

twice as much), to charity than men.

The face and shape of philanthropy are changing.

Simply looking at average levels of giving does not provide an accurate picture of gender differences in giving by Boomer and older Americans. Because women have a longer life expectancy, are more likely to be single as they age, are more risk-averse, and have less money available in retirement, these factors need to be taken into consideration when examining gender differences in charitable giving. As such, Women Give 2012 looks at giving behavior in a comprehensive way, controlling for financial resources over the individual's lifetime and adjusting for life expectancy.

As with Women Give 2010, this study surveys only households headed by single females and single males to explain gender differences. Because married couples tend to pool income and make joint decisions about giving to charity, studying married households does not allow for testing of gender differences in giving.

Moreover, the data were analyzed using two different approaches. First, the entire sample of households was analyzed. Then, the sample was restricted to include only those households in the top 25 percent of permanent income.

Despite Boomer and older women's gains generally in employment and earnings over the last quarter-century, they still lag behind men in earnings and retirement savings. Given that women currently and will in the future outlive men, Women Give 2012 finds that Boomer and older women are more generous than men when it comes to giving to charity. These differences are even more striking when we examine those in the top 25 percent of permanent income.

The face and shape of philanthropy are changing. This study helps to challenge assumptions of who is philanthropic in America today and provides policy and decision-makers a more detailed portrait of giving.

## Conclusion

As the largest generation in America today, Boomers have had a profound effect on all aspects of society. The recent recession, however, has prompted many Boomers to work longer and defer retirement, and this may have an impact on their philanthropic behavior. This study, using data from 2003 to 2007, provides a robust picture of Boomer and older Americans philanthropic behavior pre-recession.

As each generation moves through the life cycle, its behavior may become more like that of the previous generation. This study examines Boomer and older Americans at a specific moment in time. Thus, it is not able to tell whether the behaviors observed are characteristics specific to these generations or whether they are associated with growing older regardless of one's generation.

Measuring the impact of gender on giving by controlling for financial resources over a lifetime and adjusting for life expectancy provides a richer and more nuanced understanding of philanthropic behavior.

Even though women, in general, earn less than men, have less in retirement, and outlive their spouses, this study demonstrates that Boomer and older women appear to be more generous in giving to charity than comparable men, when we take these factors into consideration.

## **Appendix**

## Methodology

## The Data Set

The sample is made up of male and female single-headed households from the Center on Philanthropy Panel Study (COPPS) and the Panel Study of Income Dynamics (PSID) in all three years of 2003, 2005, and 2007, the most recent data available when the study was conducted.

The Center on Philanthropy Panel Study (COPPS) is the nation's first and only ongoing philanthropy study surveying the same families every two years. It tracks household giving and volunteering and the factors that influence those practices throughout lifetimes and across generations. It reveals how personal characteristics including but not limited to family structure, income, education, race, ethnicity and gender impact philanthropic behavior; under what conditions, when and how people give and volunteer; and how changes in personal, political, social, economic, financial, health and other circumstances influence levels and types of philanthropic engagement. More information about COPPS is available at: http://philanthropy.iupui.edu/cop-panel-study.

## The sample

The entire sample size is 1,109 male and female single-headed households, born in 1964 or earlier. This date corresponds to the era of the Baby Boomers (1946-1964) and older generations.

The sample size for the top 25 percent of permanent income is 277 male and female single-headed households.

## **Definitions**

Annuitized Wealth/Consumption Flow Variable: The adequacy of one's stock of wealth to support a given level of household consumption will depend upon both the rate of return expected on one's assets and the number of years of life over which the consumption will occur. Life expectancy is used to calculate the constant level of consumption over the

remaining years of life that has the same present value as the observed stock of wealth. To calculate the consumption flow variable, we first average wealth (converted into 2006 US dollars), including home equity, across all three years. We then use a historically conservative discount rate of 0.03 and the life expectancy values to calculate the consumption flow variable. In the analysis, the consumption flow variable is expressed in terms of thousands of 2006 US dollars.

**Current Income Streams:** These are the head of household's total income from his or her labor, his or her income from other sources, and income from other family members living in the household. They are expressed in 2006 US dollars.

**Home Equity:** The difference between the value of the home and the amount owed on the home's mortgage.

Life Expectancy: In 2006, the Centers for Disease Control (CDC) released life expectancy calculations broken down by age, gender, and ethnicity/race. This was the first time Hispanics were included in the data. These calculations allow researchers to have better estimates of life expectancies for a more diverse segment of the U.S. population. A key innovation in this research is that the CDC estimates of life expectancy allow our annuitized wealth estimates to be more personalized to each head, based on that head's age, gender, and race/ethnicity.

Because life expectancy data is only available for Whites, non-Hispanic, Blacks, non-Hispanics, and Hispanics, only individuals that self-identify to one of these three groups are included in this study.

**Measure of total charitable giving:** We adjust total charitable giving for all three years to 2006 US dollars and then average these amounts to get our measure of total charitable giving. This study calculates the likelihood of giving different percentages of permanent income to charity.

**Permanent Income:** Permanent income measures the total resources available to the head of household for both consumption and charitable donation. In this study it is expressed in 2006 US dollars. Permanent income is an important measure used in this study to determine an individual's potential capacity to give. In the study permanent income is calculated by first adjusting the individual income streams (head's total labor income, head's non-labor income, and income from other family members living in the household) in all three years to 2006 dollars and then averaging them across all three years. We then added this averaged income to the annuitized wealth values (consumption flow amounts including home equity) that we constructed using the Center for Disease Control's estimates of life expectancy.

Thus, we are converting wealth and current streams of income into the level of permanent income they represent, and use permanent income as a more meaningful variable to measure a person's command over resources.

**Wealth:** Wealth includes all assets (savings, investments, and home equity) available to the head of household minus his or her liabilities (debts and other obligations). It is expressed in 2006 US dollars.

All of the monetary variables for each year (permanent income, charitable giving, and consumption flow) are converted to 2006 US dollars.

## **Findings**

## Findings 1 and 2

For Findings 1 and 2, we used logistic regressions to determine if there are significant differences between men and women in the likelihood of being in each of the eight giving levels. Each giving level served as the dependent variable in its own logistic regression. A result was found to be statistically significant if the p-value for the gender variable was less than or equal to 0.10, 0.05, 0.01, or 0.001. The likelihood estimates presented in the Findings section are obtained from the logistic regressions. In the models, we used the sampling weights provided by PSID. The values for the control variables that were not averaged across all three years (2003, 2005, and 2007) are from 2005.

The following independent variables were used in the logistic regressions for Findings 1 and 2:

- Gender
- Marital status (Never married, Widowed, Divorced/Annulled, and Separated)
- · Number of children in the household
- Education (Less than HS graduate, HS graduate, Associates Degree, Bachelors Degree, and More than a Bachelors degree)
- Race/Ethnicity (White, non-Hispanic, African-American, non-Hispanic, and Hispanic).
- Head reports being in good health or better.
- Geographic location (North East, North Central, South, and West, which includes Alaska, Hawaii, and foreign nations)
- · Age and Age squared

The following variables were used in the logistic regression only for Finding 1:

Permanent income quartile variables

When household income rises, we expect charitable giving to rise along with it. The size of the response, however, may vary with how rich a household is to begin with; poor households, for example, may have pressing needs that compete with charity for those extra dollars. To allow for additional income to have different effects on charity at different levels of wealth, we divide our population of households into permanent income quartiles, creating separate variables to indicate whether a household is in the richest quartile of permanent income (\$60,955 and above), the second quartile (beginning at \$34,345), the third quartile (beginning with \$19,155), or in the poorest quartile, whose resources support a yearly flow of consumption of less than \$19,155.

Permanent income quartile variables were not used for Finding 2 because only those households who were in the top 25% of permanent income were analyzed.

## Finding 3

To obtain the results for Finding 3, we used Tobit regression analysis where the dependent variable was the natural log of the total amount given to charity. The same independent variables used for Finding 1 were used in this analysis, with the exception of the permanent income quartile variables. To obtain the results for Finding 3, permanent income was used as a control variable instead of the permanent income quartile variables.

## **Center on Philanthropy Project Team**

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## **Endnotes**

- 1 Women Give 2010 is the first in the series. Causes Women Support, also released in 2010, is the second in the series. Both can be found at www.philanthropy.iupui.edu/women-give
- 2 National Association of Baby Boomer Women (http://www.nabbw.com). See *Capacity for Care: Today, Yesterday, and Tomorrow* by Havens and Schervish for additional information about boomers, assets, and giving. Retrieved from: http://www.afpnet.org/Audiences/ReportsResearchDetail.cfm?itemnumber=9250
- 3 MetLife Mature Market Institute. Demographic Profile: American baby Boomers. 2007. Retrieved from: http://www.metlife.com/assets/cao/mmi/publications/studies/mmi-studies-boomer-profile-2007.pdf
- 4 Damen, M.M. and McCuistion, N.N. 2010. Women, Wealth & Giving: The Virtuous Legacy of the Boom Generation. John Wiley & Sons Inc.: Hoboken, New Jersey.
- 5 Bennhold, K., June 28, 2012. Wealthy Women Blurring the Line Between Donors and Activists. *The New York Times*.
- 6 MassMutual Financial Group 2007. http://www.massmutual.com/mmfg/pdf/afbs.pdf
- 7 Internal Revenue Service. Statistics of Income Division. *Personal Wealth Statistics for 2007*. Retrieved from: http://www.irs.gov/taxstats/article/o,,id=225450,oo.html
- 8 D. Mesch, Women Give 2010: New Research about Women and Giving. Retrieved from: http://www.philanthropy.iupui.edu/women-give
- 9 Arno, D., Parker, C. & Terry, R. 2010. Gender-based risk aversion and retirement asset allocation. *Economic Inquiry*, 48, 174-155. DeNardi, M., French, E. & Jones, J.B. 2009. Life expectancy and old age savings. NBER Working Paper 14653. National Bureau of Economic Research, Cambridge, MA. Hartmann, H. & English, A. 2009. Older women's retirement security: A primer. *Journal of Women, Politics & Policy*, 30, 109-140. Neelakantan, U. 2010. Estimation and impact of gender differences in risk tolerance. *Economic Inquiry*, 48, 228-233.
- 10 AARP 2007. Understanding women's financial needs and behavior: Executive Summary. AARP: Washington D.C. p. 4. Retrieved from: http://assets.aarp.org/rgcenter/econ/women\_finances\_1.pdf
- 11 Chang, M.L. 2004. His and hers: Explaining the gender wealth gap. Unpublished manuscript, Department of Sociology, Harvard University, Cambridge, MA. http://convention3.allacademic.com/meta/p\_mla\_apa\_research\_citation/1/0/9/2/6/p109260\_index.html
- 12 Diamond, P.A. & Orszag, P.R. 2005. Saving Social Security. *Journal of Economic Perspectives*, 19, 11-32.
- 13 Shrestha, L.B. 2006. Life expectancy in the United States. *CRS Report for Congress*. Congressional Research Service: The Library of Congress.
- 14 Roberts, S. (January 16, 2007). 51 percent of women are now living without spouse. *The New York Times*.
- 15 Hannon, K. 1998. Suddenly single. John Wiley & Sons, Inc.: New York: NY.
- 16 MetLife Mature Market Institute. *The Met Life Study of Women, Retirement, and the Extra-Long Life: Implications for Planning*, p. 2. Retrieved from: http://www.metlife.com/assets/cao/mmi/publications/studies/2011/mmi-women-retirement-extra-long-life.pdf
- 17 Ibid.
- 18 D. Cohn and P.Taylor, *Baby Boomers Approach Age 65—Glumly*. Pew Research Center December 20, 2010. Retrieved from: http://pewresearch.org/pubs/1834/baby-boomers-old-age-downbeat-pessimism
- 19 AARP Public Policy Institute 2007. Sources of income for women age 65 and older. Washington, D.C. http://www.aarp.org/ppi
- 20 Arias, E. 2011. United States Life Tables 2007. National Center for Health Statistics, National Vital Statistics Reports 59 (9).