What is 'CLASS'?: And will it work?

Authors: Alicia Haydock Munnell, Josh Hurwitz

Persistent link: http://hdl.handle.net/2345/bc-ir:104196

This work is posted on eScholarship@BC, Boston College University Libraries.

Chestnut Hill, Mass.: Center for Retirement Research at Boston College, February 2011

These materials are made available for use in research, teaching and private study, pursuant to U.S. Copyright Law. The user must assume full responsibility for any use of the materials, including but not limited to, infringement of copyright and publication rights of reproduced materials. Any materials used for academic research or otherwise should be fully credited with the source. The publisher or original authors may retain copyright to the materials.

FEBRUARY 2011, NUMBER 11-3

CENTER FOR RETIREMENT RESEARCH at BOSTON COLLEGE

WHAT IS 'CLASS'? AND WILL IT WORK?

By Alicia H. Munnell and Josh Hurwitz*

Introduction

Long-term care is the major uninsured expense for most retirees. Neither private health insurance nor Medicare covers long-term care expenses, although Medicare provides for care in a skilled nursing facility for up to 100 days following hospitalization. Long-term care insurance is available in the private market, but few people purchase plans due to high premiums and limited benefits. As a result, many turn to family members for care or are forced to deplete their resources to qualify for Medicaid to pay for nursing home care.

Although not yet commonly known to the public, the new health care reform legislation establishes a voluntary, long-term care insurance program known as the Community Living Assistance Services and Supports, or CLASS. CLASS is designed to overcome the major problems in the existing system, which forces families of those needing long-term care to impoverish themselves, places an enormous burden on relatives caring for loved ones, and supports institutionalization over home care. This *brief* explores the potential for CLASS to solve the nation's long-term care challenge.

This *brief* proceeds as follows. The first section discusses how families currently cover the burden of long-term care. The second section describes CLASS and compares it to private insurance. The third section identifies adverse selection – that is, participation mainly by the less healthy – as the major stumbling block facing CLASS. The fourth section presents a simple actuarial model to demonstrate the sensitivity of the premiums to the health and age distribution of participants. The final section concludes that the program faces enormous challenges, but a number of programmatic changes and a major advertising campaign could improve its chances of success. Without adjustments, adverse selection will create a death spiral of rising premiums and declining participation.¹

Paying for Long-term Care Today

Long-term care helps those with chronic illnesses or injuries manage their daily lives. About two-thirds of today's 65-year-olds will need care at some point in their lives, and one-third will need to enter a nursing home for three or more months (see Table 1 on the next page).

^{*} Alicia H. Munnell is the Peter F. Drucker Professor of Management Sciences in Boston College's Carroll School of Management and Director of the Center for Retirement Research at Boston College (CRR). Josh Hurwitz is a research associate at the CRR. The authors would like to thank Francesca Golub-Sass for her work on the model.

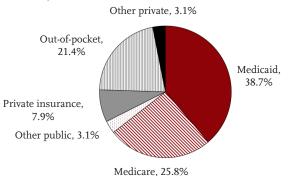
Table 1. Probability of Nursing Home Use for Individuals Turning 65, 2010

Length of stay	Probability of nursing home use	
Three months or longer	33%	
One year or longer	24	
Five years or longer	9	

Source: Congressional Budget Office (2004) based on data from Spillman and Lubitz (2002).

Medicaid pays for almost 40 percent of current long-term care expenditures (see Figure 1). It pays virtually the entire amount for nursing home care for the poor. Some states also cover home-based care, but are not required to do so under the program.² The only way middle-class people can qualify for Medicaid is to spend down their assets – in most states to less than \$2,000 for an unmarried individual – and meet strict income limits.³

Figure 1. Long-Term Care Expenditures by Source, 2008



Note: "Other public" includes veterans' health care. *Source*: Centers for Medicare and Medicaid Services (2010a).

Medicare is an important provider of skilled home health services for the elderly, but covers only temporary stays in nursing homes following hospitalizations.

Individuals pay out-of-pocket for more than 20 percent of total long-term care expenses. More importantly, experts estimate that over half of long-term care is provided without payment by spouses or other relatives – primarily daughters, and this source of support does not appear at all in Figure 1.⁴ So the major burden of out-of-pocket costs is borne by the recipients or their families.

Only 8 percent of costs are covered by private long-term care insurance. This type of insurance is a relatively recent phenomenon that has grown slowly over the last 20 years. Initially, policies covered only nursing home care, but today over three-quarters of policies cover home care as well.⁵

Researchers have explored reasons for the slow growth of private long-term care insurance. On the supply side are the limitations in the product and the cost. For example, the typical policy purchased covers only one-third of the expected present discounted value of long-term care expenditures, since many policies have a daily cap in nominal dollars. Also, the loads are high - amounting to about 18 percent of premiums on the typical policy purchased at age 65 and held until death. ⁶ But the key factors appear to be on the demand side. The first is people's general reluctance to think about the possibility of becoming disabled as they age. The second is the existence of Medicaid. Simulations suggest that even if comprehensive private policies were available at actuarially fair prices, at least two-thirds of the wealth distribution would not buy them because of Medicaid.7

The lack of private insurance coverage is a serious concern – especially for married couples. For those with adequate resources, nursing home care means an additional expenditure of up to \$75,000 per year. Less than 15 percent of elderly households could withstand such a drain, so Medicaid becomes the backstop but at the risk of impoverishing the spouse remaining in the community. Reliance on Medicaid also limits the type of nursing home that the recipient may enter. Studies suggest that along a variety of dimensions, the quality of nursing homes for those with the resources to pay – at least for a year or two – is far superior to the institutions available to those individuals who enter reliant on Medicaid.

The CLASS Program

CLASS addresses the shortcomings of the existing system by helping people remain financially independent, relieving the burden on families, and offsetting the bias toward institutionalization. The legislation creates a voluntary government insurance benefit that could provide the base for long-term care support, with private insurance serving as a supplement for middle-class participants and Medicaid serving as a supplement for low-income individuals.¹⁰ The program will be financed by participant premiums with no subsidy from the federal government.

The legislation took effect January 1, 2011, but the Secretary of Health and Human Services (HHS), who has been delegated broad authority, does not have to present full rules and regulations until October 2012. Many expect enrollment to begin in 2013, but it could occur earlier. Nevertheless, the broad outline of the program is available.

Coverage

Coverage will be available to all working people age 18 and over. The work requirement, however, is minimal; people need to earn only enough to pay Social Security taxes for one quarter, a threshold that is currently about \$1,200 per year. The law specifically prohibits underwriting that would exclude people with existing disabilities. Non-working spouses, retired persons, and the unemployed will not be eligible to participate.

Benefits

Participants will be eligible for benefits after paying premiums for five years and meeting the minimum work requirement for at least three of those years. Benefits will be triggered once a participant needs help performing two or three activities of daily living (ADLs) (eating, bathing, dressing, etc.) or needs comparable assistance because of cognitive impairment. These functional limitations must be expected to last for at least 90 days, as certified by a licensed health care practitioner. The Secretary of HHS will determine a scale for the benefit amounts, based on the level of impairment. The Congressional Budget Office (CBO) in its analysis of the legislation assumed an average daily benefit of \$75 that would increase each year with inflation. The law specifies that the average minimum benefit must be at least \$50.) The benefits continue for as long as the individual needs care.

Beneficiaries will receive cash benefits through a debit card account, giving them the freedom to choose how to allocate their funds. For more expensive services, beneficiaries will be able to roll over benefits from month to month, within a one-year period.¹²

Premiums

The premium level will be set by the Secretary to ensure that the program is self-financing over a 75-year period. When the CBO analyzed CLASS in November

2009, it estimated an average monthly premium of \$123 (assuming that about 10 million people or about 3.5 percent of those eligible chose to enroll). However, as demonstrated below, estimates of the required premium are very sensitive to the age and health of participants. For low-income workers and working students, the contribution will be set at \$5.13

Once people enroll, their premiums will stay the same over time, unless they need to be adjusted to ensure that the program is solvent for 75 years, or if individuals stop participating for three or more months and re-enroll.¹⁴ The young will pay less than the old to compensate for a longer expected contribution period. For example, using the CBO average of \$123, the premium might be \$105 for someone in his or her 20s compared to \$180 for a person in his or her 60s.¹⁵ Premiums will not vary by gender.

Enrollment

Individuals whose employers elect to participate will be automatically enrolled in the program and will have premiums deducted directly from their paychecks, unless they decide to opt out. An alternative procedure will be established for workers whose employers choose not to participate, the self-employed, and those with more than one employer.

CLASS differs from private long-term care insurance in a number of ways. First, eligibility depends only on minimal employment requirements, while private insurance underwriting often disqualifies those with health problems. Second, benefits are paid in cash through a debit card and can be used for a variety of purposes, such as modifying a home or payment to family caregivers, while the majority of private plans are service-based. Third, benefits will amount to only \$75 a day compared to, say, \$160 under private insurance. 16 But benefits continue for life instead of three to four years with most private insurance plans, which may not be so important for older people but extremely valuable for a younger person with a disability, such as cerebral palsy. (Today, about 40 percent of those individuals needing long-term care are not elderly.) Fourth, the CBOestimated premium of \$123 is slightly lower than the average premium paid for private long-term care insurance; however, the CBO estimate may well be low, as discussed in the next section.¹⁷ Finally, CLASS has an implicit vesting period in that participants have to contribute for five years (three of them while working) in order to qualify for benefits, while private insurance enables the purchaser to claim benefits immediately if disabled.

If CLASS succeeds, it should meet its goal of helping the disabled to be financially independent, relieve pressure on families, and keep people out of nursing homes by offsetting the Medicaid bias of paying only for institutionalized care. The question is whether or not the program will succeed.

The Challenge of Adverse Selection

The success and solvency of CLASS will depend primarily on the extent of participation from American workers, especially the young and healthy. For broad participation, employers must decide to offer the plan and individuals automatically enrolled must not opt out. Broad participation is an ambitious goal given the voluntary nature of the program, people's natural reluctance to think about the possibility of becoming disabled, the backstop of Medicaid, and insufficient funds to market the plan effectively to a large base of Americans.

The concern is that without underwriting to exclude those with health problems, a greater proportion of the less healthy will be attracted to the program (adverse selection). Disproportionate participation by those with health problems will drive up per-participant cost and, given the requirement of 75-year actuarial balance, require an increase in premiums. Premium increases will discourage healthy people from signing up and encourage healthy participants in the program to drop their coverage as their perception of value declines. Such continued shifts in the composition of the covered population would eventually necessitate even steeper premium hikes, a cycle known as the "death spiral" and cited as a serious risk by the Chief Actuary for the Centers for Medicare and Medicaid Services and by a joint work group from the American Academy of Actuaries and the Society of Actuaries.18

Two approaches could mitigate the tendency for adverse selection. On the program side, requiring 20-30 hours of work per week rather than one quarter at \$1,200 would help insure that participants were really healthy enough to be actively engaged. And increasing the waiting period for benefits from five years to 10-15 years would discourage those who need benefits in the near future from signing up. An alternative or supplement to program changes would be a massive advertising campaign. Administrative expenses

CLASS and the Federal Budget

The relationship between CLASS financing and the federal budget is complicated. CLASS is self-financing over 75 years, meaning that incoming premiums plus the interest earned on those premiums must exceed benefit outlays in any given year. However, the federal budget operates on a cash basis, with all available revenues – including trust fund income – being considered as an offset to total federal spending commitments. This practice means that if benefit outlays exceed incoming premiums in any given year, it would appear as a net cost to the federal budget, regardless of whether or not the Trust Fund has sufficient assets to cover the difference. In the short run, when premiums exceed payments, CLASS would improve the budget numbers.

for CLASS are limited to no more than 3 percent of premiums. Experts say this amount will be totally inadequate to cover basic functions, much less to advertise the availability of the product. Without advertising, however, the program is doomed to failure. Therefore, the administrative budget would need to be increased significantly.

A Simple Model

The following section discusses the output of a simple financial model that was constructed to project the claims costs, annual premiums, and trust fund balances for CLASS over the first 75 years. ¹⁹ (The details of the model are described in Appendix A.) Changing the underlying assumptions highlights the sensitivity of required premium amounts to the age distribution and health status of enrollees. The program is assumed to begin in 2013 and pay an initial average benefit of \$75 as assumed by the CBO. ²⁰

The model starts with the current working population and participation rates by age, based on today's purchase of private long-term care insurance. Benefit payments are projected for the 75-year horizon; then, these amounts are used to derive the premiums required to keep the program solvent. (Premiums are based on age at enrollment. Premiums for the working poor and full-time students under age 22 are set

at \$5.) The benefit trigger is an inability to perform two or more ADLs, based on age-specific data from the *National Long-Term Care Survey* (NLTCS) and the *Survey of Income and Program Participation* (SIPP). An adjustment factor is also included to account for adverse selection. The base scenario assumes a 6-percent overall participation rate and an annual lapse rate of 1.5 percent.²¹ Under these assumptions, an average premium of \$194 is required to ensure solvency through 2087 (see Table 2).

Table 2. Estimated Monthly Premiums for CLASS by Age, under Base Scenario

Age	Premium
18-29	\$142
30-39	\$142
40-49	\$150
50-59	\$159
60-69	\$241
70-79	\$289
80+	\$318
Average premium	\$194

Source: Authors' calculations.

Three additional exercises are conducted using the model. Under the current legislation, only benefits are indexed for inflation, while premiums are designed to remain constant upon enrollment. The first scenario involves a change in premium design so that premiums are adjusted annually based on changes in the CPI-U. This adjustment lowers the initial premium from \$194 to \$121 in 2013 (see Table 3).

A more extreme (and controversial) approach to a national insurance program would be to mandate coverage, completely eliminating the potential for adverse selection and insolvency.²² The second exercise simulates this design among the full population of workers, and yields an average premium of \$94. Even this low-end estimate would not be viewed as affordable by many households.

The final exercise reveals the sensitivity of premiums to the age distribution of participants. An overall participation rate of 6 percent is maintained; however, it is assumed that just 1 percent of participants are below age 40. This assumption is based on the idea that younger workers do not tend to view long-term care insurance as a priority and subsequently very few will

TABLE 3. ESTIMATED MONTHLY PREMIUMS FOR CLASS BY AGE, UNDER ALTERNATIVE SCENARIOS

Age	Scenario 1 Inflation-indexed premiums	Scenario 2 Mandated coverage	Scenario 3 Minimal participation from the young
18-29	\$89	\$84	\$215
30-39	\$89	\$84	\$215
40-49	\$94	\$89	\$227
50-59	\$99	\$94	\$240
60-69	\$151	\$143	\$365
70-79	\$181	\$171	\$437
80+	\$200	\$188	\$481
Average premium	\$121	\$94	\$312

Source: Authors' calculations.

enroll. Under this scenario, the average premium rises to \$312, which would likely deter most healthy workers from participating.

Conclusion

More than two-thirds of today's 65-year-olds will require long-term care at some point in their lives, yet it remains the major uninsured expense for most retirees. Private health insurance and Medicare generally do not cover long-term care, and Medicaid is only available once applicants have spent down the majority of their resources. Private long-term care insurance is an option, but is too expensive for many to afford and often limited in the benefits it provides.

To help Americans manage their long-term care needs, the recent health reform legislation introduced CLASS – a national, voluntary, long-term care insurance program that is designed to serve as an affordable supplement. Simulations using a simple model highlight the sensitivity of the plan's required premiums to the age distribution and health of participants. To keep premiums down, CLASS must attract a pool of young and healthy participants. Attracting a broad pool will require programmatic changes, such as more stringent work requirements and longer vesting periods, as well as an effective national advertising campaign. However, even if all of these suggestions are adopted, premiums may never reach an affordable level for middle-class households.



The basic model created for this *brief* projects the claims costs, required monthly premiums, and trust fund balance for the CLASS program over a 75-year horizon. We break down the starting population by age group and include all active workers age 18 and over, as estimated by the *Current Population Survey*.²³ Participation in the program varies by age and is estimated based on take-up rates in the private sector.²⁴ We assume an initial overall participation rate of 6 percent in the base scenario, with a 1.5 percent annual lapse rate.²⁵

In order to project claims costs for the program, we assume an initial average daily benefit of \$75, based on the Congressional Budget Office report.²⁶ Each year, the daily benefit amount increases by an assumed 2.8 percent change in the CPI-U, following the 2009 Federal Supplementary Medical Insurance Trust Fund Trustees Report.²⁷ The benefit trigger is an inability to perform two or more Activities of Daily Living (ADLs), estimated separately by sex and age group using data from the *National Long Term Care Survey* and the *Survey of Income and Program Participation*. We adjust the morbidity rates extracted from these data for expected levels of adverse selection, based on the scenario being tested. Mortality rates are derived from Social Security Population-Level Cohort Mortality Tables. We subject both the morbidity and mortality rates to an annual improvement factor of 0.5 percent, corresponding with the analysis from the American Academy of Actuaries and the Society of Actuaries.

Beginning after the initial five-year vesting period, the model projects the sum of expected benefit payments in each year based on the prevalence of claims suggested from the morbidity data. Using a nominal discount rate of 5.7 percent,²⁸ we discount the benefits in each year to calculate their net present value (2013 dollars) and then total them to get a lump sum (*Benefits*).

The pool of payees for each year (*Payees*) consists of the remaining participants after excluding beneficiaries and the deceased. We assume that 5 percent of these participants will pay the \$5 subsidized rate and adjust the level of full required premiums (*MonthlyPrem*) to cover the subsidy (*Prem*_{Sub}). We then discount the required premiums to net present value using the nominal interest rate (i) and multiply by 0.97 to account for the administrative expense, set at 3 percent of premiums. Finally, for each age group within the payee pool, we apply a pre-determined scaling factor (*Age*) to weight the required contributions so that initial premium amounts are higher for older participants.

$$[Payees] * \left\{ \left(\frac{1}{(1+i)^n}\right) * 0.97 * [Age] * [MonthlyPrem] * 12 \right\} + [Prem_{Sub}] = [Benefits]$$

As shown by the equation above, for the program to remain solvent over the 75-year horizon, the discounted sum of total premiums plus the interest earned on these premiums must equal the discounted lump sum of benefits. By rearranging this equation, the model calculates a monthly premium, which we then adjust for each age group using the scaling factor (*Age*).

Endnotes

- 1 Since eligible individuals can choose to opt-in to CLASS at any time, it poses an even greater risk for the program than a traditional death spiral. If people decide to enroll only once they expect a need for long-term care, premiums could rise, even with fairly stable participation.
- 2 Despite the desire of most older people to stay at home as long as possible, nearly three-quarters of the program's long-term care benefits for the elderly are paid to nursing facilities. See Houser, Fox-Grage, and Gibson (2009).
- 3 These tests are complicated and vary by state. Some states use the federal guidelines to qualify for Supplemental Security Income, which in 2008 amounted to \$637 in countable income and \$2,000 in countable assets for a single person. Other states provide Medicaid long-term care services for individuals up to 300 percent of the SSI threshold. Those individuals with incomes too high to qualify initially can enter a nursing home, spend down their assets, and then be eligible for benefits as medically needy.
- 4 Johnson, Tooney, and Weiner (2007).
- 5 LifePlans, Inc. (2000).
- 6 This means that, on average, a buyer will receive 82 cents in expected present discounted value benefits per dollar of expected present discounted value premiums paid.
- 7 Brown and Finkelstein (2007). In addition, others have suggested that people may be reluctant to buy a private policy due to concerns about the longevity of insurance providers.
- 8 Under Medicaid, the community spouse can retain only half of the couple's non-housing assets at the time the spouse enters a nursing home, up to a federally specified maximum (\$109,560 in 2010, adjusted annually for inflation) or the state standard, whichever is less (Centers for Medicare and Medicaid Services, 2009a). In terms of income, the community spouse can keep up to \$2,739 of the couple's combined monthly income. Furthermore, many states also claw back funds when the Medicaid patient dies.

- 9 Weissert and Scanlon (1985) find that receiving Medicaid support is positively correlated with the probability of having an unfavorable discharge status (such as death or entering another nursing home). Also see Norton (2000) for a comprehensive survey of quality of care models.
- 10 The CBO expects nearly \$2 billion in Medicaid savings during the first 10 years of the CLASS program (Congressional Budget Office, 2009).
- 11 The inflation adjustment will be based on yearover-year changes in the CPI-U.
- 12 Examples of the supports and services covered by these funds include home modifications, assistive technology, accessible transportation, homemaker services, respite care, personal assistance services, home care aides, nursing support, and consultation regarding medical care and payments to caregivers.
- 13 A primary goal for the program is to overcome the crowd-out effect of Medicaid, particularly among low- and middle-income Americans. With premiums adjusted to a nominal rate of just \$5 for those at or below the poverty line, this affordable option should help encourage participation among the poorest. However, low-income Americans whose salaries exceed the poverty line by even 1 percent will pay the normal monthly premium of nearly 25 times this amount (based on CBO estimates), making them more likely to forego the plan and wait for Medicaid eligibility. A sliding scale could be implemented on premiums up to a higher multiple of the poverty line to smooth out this cliff and encourage participation among more low-income Americans.
- 14 The \$5 premium for low-income individuals and college students will increase annually with changes in the CPI-U. Regular premiums, on the other hand, will only be adjusted for inflation following enrollment if a lapse in payment of three or more months occurs. In this case, to become eligible for benefits, participants must pay premiums for two consecutive years at a higher rate that is age-adjusted for inflation.
- 15 Authors' estimations based on Congressional Budget Office (2009).

- 16 More than two-thirds of long-term care insurance plans sold in the private market have daily benefits that average or are capped between \$100 and \$200 (LIMRA International, 2010).
- 17 The average premium paid in 2007 across all long-term care insurance plans was about \$184. The average policy provided \$160 in daily benefits for up to five years and came with some form of inflation protection (LIMRA International, 2008).
- 18 Centers for Medicare and Medicaid Services (2010b) and American Academy of Actuaries and the Society of Actuaries (2009).
- 19 In 2009, the SCAN Foundation commissioned Avalere Health, LLC to construct an interactive model, which allows the user to project premiums for any national long-term care program of their design. We concluded that a simpler model was necessary to isolate the known provisions of CLASS and demonstrate the key factors that will affect the premium level.
- 20 Due to the five-year vesting period, no benefits will be paid out until 2018.
- 21 These assumptions are modeled after the American Academy of Actuaries and the Society of Actuaries (2009).
- 22 Gleckman (2009) endorses a mandatory system in order to avoid the same market failures as private insurance.
- 23 U.S. Bureau of the Census (2010).
- 24 LIMRA International (2010).
- 25 American Academy of Actuaries and the Society of Actuaries (2009).
- 26 Congressional Budget Office (2009).
- 27 Centers for Medicare and Medicaid Services (2009b).
- 28 Centers for Medicare and Medicaid Services (2009b).

References

- American Academy of Actuaries and the Society of Actuaries. 2009. "Letter to the U.S. Senate Committee on Health, Education, Labor and Pensions." Available at: http://www.actuary.org/pdf/health/class_july09.pdf.
- Brown, Jeffrey R. and Amy Finkelstein. 2007. "Why Is the Market for Long-Term Care Insurance So Small?" *Journal of Public Economics* 91(10): 1967-1991.
- Centers for Medicare and Medicaid Services. 2009a. "1998-2010 SSI and Spousal Impoverishment Standards." Washington, DC: U.S. Department of Health and Human Services.
- Centers for Medicare and Medicaid Services. 2009b. "2009 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Trust Funds." Washington, DC: U.S. Department of Health and Human Services. Available at: https://www.cms.gov/ReportsTrustFunds/downloads/tr2009.pdf.
- Centers for Medicare and Medicaid Services. 2010a. "National Health Expenditure Web Tables," Tables 4 and 11. Washington, DC: Department of Health and Human Services. Available at: http://www.cms.gov/NationalHealthExpendData/downloads/tables.pdf.
- Centers for Medicare and Medicaid Services. 2010b. "Estimated Financial Effects of the 'Patient Protection and Affordable Care Act,' as Amended." Memorandum of Richard S. Foster, April 22.
- Compilation of Patient Protection and Affordable Care Act. 2010. Prepared by the Office of the Legislative Counsel for the Use of the U.S. House of Representatives. Available at: http://www.healthcare.gov/center/authorities/title_viii_class_act.pdf.
- Congressional Budget Office. 2004. Financing Long-Term Care for the Elderly. Washington, DC: Government Printing Office.
- Congressional Budget Office. 2009. Letter from CBO Director Douglas W. Elmendorf, November 25. Available at: http://www.cbo.gov/ftpdocs/107xx/doc10769/CLASS_Additional_Information_Miller_letter.pdf.

- Gleckman, Howard. 2009. Kaiser Health News. "The CLASS Act: A Flawed but Powerful Game-Changer for Long-Term Care," November 30.
- Houser, Ari, Wendy Fox-Grage, and Mary Jo Gibson. 2009. "Across the States: Profiles of Long-Term Care and Independent Living." Washington, DC: AARP.
- Johnson, Richard W., Desmond Toohey, and Joshua M. Wiener. 2007. "Meeting the Long-Term Care Needs of the Baby Boomers: How Changing Families Will Affect Paid Helpers and Institutions." Washington, DC: Urban Institute. Available at: http://www.urban.org/url.cfm?ID=311451&renderforprint=1.
- LifePlans, Inc. 2000. "Who Buys Long-Term Care Insurance in 2000? A Decade of Study of Buyers and Nonbuyers." Washington, DC: Health Insurance Association of America.
- LIMRA International. 2008. Chicago, IL: LIMRA International. Available at: http://www.longtermcare.gov/LTC/Main_Site/Paying_LTC/Private_Programs/LTC_Insurance/index.aspx.
- LIMRA International. 2010. "U.S. Individual Long-Term Care Insurance: Final 2009 Supplement." Chicago, IL: LIMRA International.
- U.S. Bureau of the Census. *National Long Term Care Survey*, 2004. Washington, DC.
- U.S. Bureau of the Census. Survey of Income and Program Participation, 2004. Washington, DC.
- Norton, Edward C. 2000. "Long-Term Care." In *Hand-book of Health Economics*, Volume IB, edited by Anthony J. Culyer and Joseph P. Newhouse, 956-994. New York, NY: Elsevier Science B.V.
- Spillman, Brenda C. and James Lubitz. 2002. "New Estimates of Lifetime Nursing Home Use: Have Patterns of Use Changed?" *Medical Care* 40(10): 965-975.
- U.S. Bureau of the Census. 2010. *Current Population Survey Table Creator*. Washington, DC. Available at: http://www.census.gov/hhes/www/cpstc/cps_table_creator.html.
- Weissert, William G. and William J. Scanlon. 1985. "Determinants of Nursing Home Discharge Status." *Medical Care* 23(4): 333-343.

CENTER FOR RETIREMENT RESEARCH at BOSTON COLLEGE

About the Center

The Center for Retirement Research at Boston College was established in 1998 through a grant from the Social Security Administration. The Center's mission is to produce first-class research and forge a strong link between the academic community and decision-makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

Affiliated Institutions

The Brookings Institution Massachusetts Institute of Technology Syracuse University Urban Institute

Contact Information

Center for Retirement Research Boston College Hovey House 140 Commonwealth Avenue Chestnut Hill, MA 02467-3808

Phone: (617) 552-1762 Fax: (617) 552-0191 E-mail: crr@bc.edu Website: http://crr.bc.edu

The Center for Retirement Research thanks AARP, Bank of America, InvescoSM, LPL Financial, MetLife, National Reverse Mortgage Lenders Association, Nationwide Mutual Insurance Company, Prudential Financial, State Street, TIAA-CREF Institute, T. Rowe Price, and USAA for support of this project.

© 2011, by Trustees of Boston College, Center for Retirement Research. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that the authors are identified and full credit, including copyright notice, is given to Trustees of Boston College, Center for Retirement Research.

The research reported herein was supported by the Center's Partnership Program. The findings and conclusions expressed are solely those of the authors and do not represent the views or policy of the partners or the Center for Retirement Research at Boston College.