Voluntary Long-Term Care Insurance: Best Practices for Increasing Employee Participation

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Issue Brief

- This is the second of two *Issue Briefs* (April and May 2000) on long-term care (LTC) insurance. The previous *Issue Brief* addressed the problem of increasing sponsorship, while this report addresses the issue of increasing employee participation.

- Participation rates in group LTC insurance plans tend to be low. A potential watershed event for the development of the employment-based group LTC market is the proposed LTC program for federal employees and retirees (a program that would have to be enacted by Congress). The perception of a successful offering to federal employees could provide an enormous boost to the group LTC insurance market.

- Employee communication and education are seen as critical to the success of LTC enrollments. The importance of support shown by an employer for a new LTC plan offering cannot be overstated. Unlike 401(k) plan participation trends, LTC participation rates are highest among large companies.

- Insurers tend to view the 40–60 age range as the primary target for group LTC insurance, and employee salary as the best predictor of LTC insurance enrollment. Higher educational levels also are associated with higher levels of LTC participation. Perceived need for LTC insurance is perhaps the biggest barrier to the purchase of LTC insurance by employees due to competing financial priorities and the fact that LTC issues are generally off the "radar screens" of younger employees.

- Plans with skilled nursing home and home care benefits experience higher participation rates than plans lacking these benefits. The availability of lower-cost and long duration benefit options can be an important factor in determining participation.

- Most sponsors have chosen to offer noncontributory (i.e., fully employee-paid) LTC plans. Employer reluctance to make contributions may be caused by HIPAA's prohibition on the inclusion of LTC insurance in cafeteria plans.

- One of the major advantages of group LTC plans is the availability of *guaranteed issue* (i.e., issuing coverage without requiring evidence of insurability) for employees, which is not available in the individual LTC market.

- It is easy for enrollment to be derailed by the presence of any of a number of harmful conditions, such as employer-sponsors who distance themselves from the offer, ineffective communications, or difficult enrollment processes. Achieving consistently strong levels of participation in LTC plans will require employer-sponsors and their insurance carriers to form strong partnerships, with worker participation as their primary stated goal.

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Introduction

As summarized in a previous *Issue Brief*,[1] employment-based long-term care (LTC) insurance is increasingly viewed as a viable means of reducing the growth in government obligations for financing long-term care. However, for private long-term care insurance to soften the projected blow to the Medicaid and Medicare programs, there would need to be a dramatic increase in the prevalence of employer sponsorship from the current level of less than 1 percent, and an equally dramatic increase in the participation levels of eligible workers. The previous *Issue Brief* addressed the problem of increasing sponsorship, while this *Issue Brief* addresses the issue of increasing the level of employee participation.

A potential watershed event for the development of the employment-based group LTC market is the proposed LTC program for federal employees and retirees (a program that would have to be enacted by Congress). The perception of a successful offering to federal employees could provide an enormous boost to the group LTC insurance market; conversely, a federal offering that is perceived as a failure has the potential to curtail future market growth. The federal Office of Personnel Management (OPM) has clearly stated that it would measure the success of this offering—if it is extended to federal employees—according to the participation level. Participation in the proposed federal offering has been estimated by OPM at 300,000 insured lives, which would represent an increase in the size of the total U.S. group LTC market of approximately 50 percent.

Different proposals before Congress, however, would result in vastly different numbers of eligible individuals, ranging from approximately 8 million to 20 million, significantly affecting the ultimate number of lives to be insured under this program. Advocates hope that sponsorship of an LTC plan for federal employees will increase employer and consumer interest in LTC insurance.

This report reviews several studies of the employment-based group LTC market and analyzes the factors associated with employee participation rates. Participation rates associated with group LTC are highly variable across employer groups, averaging less than 10 percent, but reaching 40 percent and higher in some cases. The existing literature on group LTC enrollment is reviewed with an emphasis on insurer, employer, benefits consultant, and employee perspectives on facilitating and inhibiting factors. Key concepts are reviewed and definitions recommended for assessing participation in group LTC plans.

Analysis of the existing data focuses on answering the following questions:

- How should LTC participation rate be defined?
- What levels of LTC participation are achieved, on average?
- What employer and employee characteristics are associated with participation?
- What plan designs are associated with participation and which policy offerings are most popular among employee purchasers?
- What communications and enrollment campaign characteristics are associated with participation?
- What participation levels are most likely for the proposed LTC program for federal employees?

Results form the basis for a set of recommended "best practices" for maximizing employee participation.

[1] *Jeremy Pincus, "Employer-Sponsored Long-Term Care Insurance: Best Practices for Increasing Sponsorship,"* EBRI Issue Brief *no. 220 (Washington, DC: Employee Benefit Research Institute, April 2000).*

Employee Participation

Although employer sponsorship of LTC plans is an essential prerequisite to employee ownership of LTC insurance, the ultimate determinant of the extent of coverage is the rate of participation (or "take-up rate") by workers in employment-based plans. The following section reviews the results of several studies of the determinants of participation in employment-based LTC plans and presents recommendations for maximizing participation in voluntary plans.

Definitions

Definitions of participation rates vary dramatically both within and outside of the LTC insurance industry. Participation rates may be calculated using a variety of methods including:

- Employee participation rate:

$$= \frac{employees_{\ insured}}{employees_{\ eligible}}$$

- Retiree participation rate:

$$= \frac{retirees_{\ insured}}{retirees_{\ eligible}}$$

- Aggregate participation rate:

$$= \frac{\sum (employees_{insured} + retirees_{insured} + spouses_{insured} + parents/in\text{-}laws_{insured} + ...)}{\sum employees_{eligible} + retirees_{eligible}}$$

- Book of business participation rate:

$$= \frac{\sum (employees_{ever\text{-}insured} + retirees_{ever\text{-}insured} + spouses_{ever\text{-}insured} + parents/in\text{-}laws_{ever\text{-}insured} + ...}{\sum employees_{ever\text{-}eligible} + retirees_{ever\text{-}eligible}}$$

Employee, retiree, and aggregate participation rates tend to be reported when participation is sought on a company-by-company basis, especially following the initial enrollment. Cumulative participation rates (i.e., participation rates for a specific company or an entire book of business that are aggregated over time) tend to be used to measure an insurer's (or company's) overall participation rate over time. Actuaries tend to view participation in terms of ultimately achieving a *target participation rate* after a specified number of years, which allows estimation of the base size for spreading fixed and variable costs of enrollment and administration.[2]

For purposes of comparison, when cumulative participation rates are reported, it is important to know whether lapses and deaths are included in the numerator (i.e., is the numerator a measure of individuals *ever* or *currently* insured?). Clear definition of the denominator is also important because company employment is dynamic, with higher worker displacement rates seen in the mid-1990s than during the 1980s (Aaronson and Sullivan, 1998). Many employer sponsors of LTC insurance have experienced higher participation rates over time, primarily due to downsizing of the number of eligible employees during the 1990s.

Because the promise of significant savings to public programs depends upon widespread ownership among working-age adults, for the purposes of this paper, the *participation rate* will be defined as *employee participation rate.* Employee participation rate also affords researchers greater specificity, as the size of the eligible group is a known quantity; aggregate participation is less specific, as numbers of eligible spouses and parents are generally unknown and can vary significantly by industry.[3] Employee participation rate will be

[2] *The target participation rates of five top group LTC insurance companies range from 5 percent to 12 percent (The Advisory Board Company, 1996).*

[3] *Younger work forces are more likely to have living parents, but are less likely to be married, than older work forces. At the group level, employee spouses are more likely to enroll in LTC plans than parents/in-laws of employees.*

used in this report to evaluate the relative influences of sponsoring company environments, demographics, enrollment campaigns, and plan designs.[4]

Average Participation

Due to a variety of factors, employee participation rates currently average less than 10 percent and vary widely among sponsoring companies within the range of less than 1 percent to 46 percent (Brenerman, 1999; see table 1). Participation rates tend to run lower still among retiree and parent-eligible groups (parents and parents-in-law of eligible employees) due to employer-negotiated pricing, which favors active employee ages, and generally lower income levels among retirees and parents.

The average participation rate associated with employment-based LTC plans is relatively low when compared with other types of employment-based voluntary plans, and extremely low when compared with "core" benefits such as health insurance and 401(k) salary deferral retirement plans. According to LIMRA's 1994 survey of insurance carriers, participation rates for most types of voluntary employment-based group insurance plans range between 32 percent and 48 percent, as follows: accidental death and dismemberment, 32 percent; supplemental life, 36 percent; dental, 43 percent; and long-term disability, 48 percent. The same survey found group LTC average participation to be the "outlier" at just 5 percent; LIMRA suggests that the reason for relatively low LTC participation may be low levels of interest among younger employees and the high cost of premiums for older workers.

By comparison, the Employee Benefit Research Institute estimates that 83 percent of workers offered health insurance participate in their employer's health plan (Fronstin, 1999). A recent survey by Buck Consultants (1999) found average employee participation in 401(k) plans to be 77 percent, ranging from 67 percent of workers whose plans have no employer match to 70 percent to 99 percent for those with an employer match, depending on the type of match provided.

Table 1
Employment-Based Long-Term Care Insurance Participation Rates

Ranges of Participation Rates[a]	Sample Distribution: Mercer	Sample Distribution: International Foundation of Employee Benefit Plans
15% or Higher	12%	3%
10%–14%	16	17
5%–9%	23	19
Less than 5%	49	52
Executive Only	NA	5
No Response	NA	5
Total	100	101[b]

	Average Participation
LIMRA International, 1994	5%
LIMRA International, 1999[c]	8
William M. Mercer, 1998	6.2
Health Insurance Association of America, 1998	6
Bureau of Labor Statistics, Part-Time Employees, 1997	3
Bureau of Labor Statistics, Full-Time Employees, Medium and Large Establishments, 1995	6
Bureau of Labor Statistics, Full-Time Employees, Small Establishments, 1996	1
Datamonitor, 1997	2
Lutzky et al., 1999	8.8

Sources: William M. Mercer (1998), International Foundation of Employee Benefit Plans (1999), The Advisory Board (1995), LIMRA International (1999), U.S. Department of Labor, Bureau of Labor Statistics, *Employee Benefits in Medium and Large Private Establishments, 1997*, Datamonitor (1997), Lutzky et al. (1999).

[a]Because no definition of participation rate was provided to respondents and responses tended to be rounded, the percentages should be interpreted with caution.

[b]Does not equal 100 percent because of rounding.

[c]LIMRA International, *Worksite Marketing of Voluntary Products: A Group Insurance Perspective* (Windsor, CT: LIMRA International, 1999).

Determinants of Participation

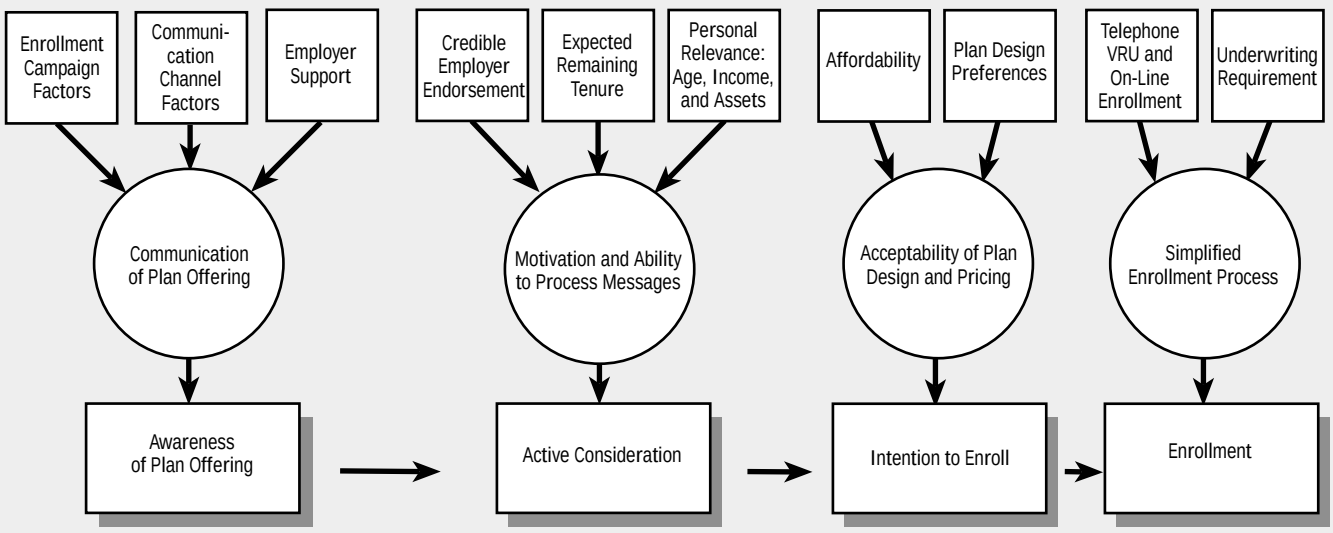
A theoretical model is proposed to summarize some of the more important antecedents of LTC plan participation (see chart 1). Although this model is intended to describe enrollment in employment-based LTC plans, it is conceptually similar to many general communication process models[5] and could be applied to any new voluntary benefit offering.

[4] *To evaluate the success of LTC insurance campaigns, ideally, participation rates within defined employee target markets (e.g., employees age 40 and older earning $40,000 or more) should be measured and compared for added specificity.*

[5] *Examples include Strong's AIDA model (1925), Lavidge and Steiner's "Hierarchy of Effects" model (1961), McGuire's "Information Processing" model (1978), and Colley's DAGMAR method (1961) of setting advertising campaign objectives, summarized in Belch and Belch (1990).*

Chart 1

A Theoretical Model of the Determinants of Employment-Based Long-Term Care Plan Participation



Source: Jeremy Pincus.

The shadowed boxes represent intra-individual steps (both psychological and behavioral) in the enrollment process, wherein the progression toward enrollment is dependent upon the completion of each step in order (i.e., individuals cannot consider enrolling until they are aware of the plan's existence, they cannot intend to enroll until they have considered it, etc.). Despite the intra-individual nature of the steps of this process, these concepts may be extended to eligible groups as collections of individuals who have progressed to each step. For example, during an enrollment, an eligible group may be 90 percent comprised of individuals who are aware of the benefit offering, 50 percent who are actively considering it, 25 percent who intend to enroll, and 8 percent who actually enroll.

The circles represent latent (i.e., not directly measurable) concepts, which, with the influence of the previous step, exert a causal influence on the respective steps in the enrollment process. Specifically:

- The extent and quality of communication determine awareness of the plan offering.
- The level of awareness, the motivation, and ability of eligible employees to process messages about the plan offering determine the level of consideration.
- The level of consideration and the acceptability of the plan design and pricing determine the extent of intention to enroll.
- The extent of intention to enroll and the ease of enrollment determine the level of enrollment.

The small square boxes (at top) represent measurable indicators of the extent or presence of the circled latent concepts. For example, eligible groups that contain a relatively large proportion of middle-aged, high-income employees who expect to stay employed by the sponsoring company are more likely to exhibit the motivation and ability to read and learn the messages communicated to them during the LTC insurance enrollment campaign. These indicators are measurable through such variables as average age and average income.

The majority of the following analysis of the determinants of participation relies on John Hancock's LTC Sponsor Database, although the findings of other studies are referenced where applicable. This database was designed to include all factors thought to determine or influence participation based on the experience of the long-term care insurance industry.[6]

Communication and Awareness

Enrollment Campaign Factors—At least one major benefits consulting firm has written that in its experi-

[6] *Theoretical determinants of LTC participation have been listed by Brenerman (1999), Martin (1999), and The Advisory Board (1995/1996), among others. Brenerman lists "employee age, salary level, job classification, corporate environment, and most importantly, the degree to which a sponsoring employer encourages participation and educates employees about the program" (p. 10). Martin lists the additional factors of employee educational level, geographic concentration, employee morale, and the ease of enrollment.*

With regard to effective positioning of LTC insurance, data strongly suggest that LTC should be closely tied to employee retirement planning; nearly 30 percent of plan sponsors wished they had done so.

ence, communication is the most critical factor determining LTC participation (William M. Mercer, 1998c).[7] Similarly, respondents to both the Mercer and LIMRA surveys mentioned communication and education as critical to the success of LTC enrollments; the Mercer survey found that fully 38 percent of plan sponsors wished to have communicated more effectively. This suggests that communication plays a crucial role in generating plan participation.

Reach, Frequency, and Effectiveness—*Reach* is a measure of the size of the audience actually exposed to at least one communication during a specific period of time. *Frequency* refers to the number of exposures that the audience receives to a communication (Belch and Belch, 1990). *Message effectiveness* refers to the ability to draw attention, convey cogent messages understandably and persuasively, and motivate readers toward enrollment.[8]

Employment-based LTC campaigns are generally communicated to all benefit-eligible employees, not targeted to a specific class of employees. Thus, employers usually intend to reach all employees with communications about LTC plan offerings. Employers differ, however, in the type of communications that are sent to all employees: Some merely intend to inform their employees that a new benefit is available, whereas others prefer to distribute enrollment kits with applications to each employee. Employers also differ with regard to the effectiveness and amount/frequency of plan communication.[9]

Communications expenditure per eligible employee provides an imperfect proxy for *reach*, as new forms of communication such as e-mail, voice mail, and the Internet offer the potential to reach many employees inexpensively. Traditional benefits communication vehicles, such as employee meetings, benefits fairs, and home mailings, are usually more costly. Nevertheless, to the extent that employers are using new communications technologies equally, expenditure per eligible employee should reflect variation in *reach*. The correlation between communications expenditure per employee and employee participation rate is positive and significant ($r = 0.35$, $p = 0.03$), indicating that *reach* may be a significant factor.[10] (r is a measure of linear association between two variables, p is the observed significance level.)

As further evidence of the influence of *reach* and *frequency* on participation rate, the success[11] of the self-funded California Public Employees' Retirement System (CalPERS) LTC insurance program has been largely attributed by observers to intensive education and marketing by CalPERS and its administrator, United Health Care. The enrollment campaign featured multiple mailings to eligible individuals, more than 300 statewide enrollment meetings, and the support of

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[7] This sentiment is echoed by Brenerman (1999): "Communication is the key to success in employer-sponsored LTC plans. The higher the input of the employer, the more likely that better participation rates will occur" (p. 10).

[8] The effectiveness of messages in producing desired attitudinal and behavioral outcomes has been thought to be the result of the interplay of the cogency of message arguments, the quality of the presentation, the presence of cues to accept the message (e.g., a credible source), and receiver factors, such as their level of involvement in the issue being presented (Petty and Cacioppo, 1986).

[9] Brenerman (1999) confirms the importance of reach and frequency of communications: "Experience has shown that a mere announcement of the availability of a plan and distribution of plan materials are not sufficient to experience good participation rates. Follow-up communication is essential and has proven to be extremely effective in increasing participation rates" (p. 11).

[10] The large enrollment of CalPERS may be due in large part to the investment by United Health Care of more than $3 million in the CalPERS campaign and retainer of the marketing firm of Saatchi and Saatchi to guide the campaign (Mahoney, 1995).

*[11] CalPERS provides benefits for more than 776,000 active and inactive members and approximately 332,000 retirees (*Business Wire, *April 9, 1999). With more than 115,000 LTC participants, CalPERS' aggregate participation rate = 115,000/1,108,000 = 10.4 percent. The current administrator's (i.e., The Long Term Care Group) Web site estimates the number of eligible persons at nearly 5 million, which would drop the participation rate to 2.3 percent.*

multiple public agency employers and associations.[12]

An effective proxy for *frequency* is the number of separate employee exposures to LTC communications during a given enrollment campaign. The correlation between number of exposures and employee participation rate is positive but nonsignificant ($r = 0.19$, $p = 0.18$), indicating that *frequency* is positively related to participation but with less strength of association than *reach*.

A great deal of research has been devoted to increasing the effectiveness of employment-based LTC communications, specifically addressing the problem of directing the attention of young employees to the distant issue of long-term care financing. The use of communications that accomplish this feat should be associated with higher participation enrollments, and there is anecdotal evidence that this is the case.

With regard to effective positioning of LTC insurance, analysis of the Mercer data strongly suggests that LTC should be closely tied to employee retirement planning; nearly 30 percent of plan sponsors wished they had done so. This finding suggests that integration of LTC with retirement planning vehicles or themes should be a goal of the communications campaign.[13] A framework for the integration of the LTC insurance offer within the scope of company retirement planning is presented by Granza, Madamba, and Warshawsky (1998).

Communications media also vary in their effectiveness. It is a truism among work site marketers and insurance agents that LTC sales require one-on-one contact (Metropolitan Life Insurance Co., 1995), which can be impractical in dispersed employer-group enrollments. Group seminars provide the opportunity for face-to-face contact, and industry research has found evidence that such meetings can be very effective in increasing participation.[14]

Timing of Enrollment—Enrollment of LTC insurance at a time other than during the main benefits enrollment period (i.e., *off-cycle*) has a nonsignificant positive correlation with participation ($r = 0.14$, $p = 0.33$), but when statistically controlling for other factors, the relationship turns negative (and also nonsignificant).[15] This tactic may seem reasonable for initial enrollments, when the plans are new and unknown and require extra emphasis. However, the practice of off-cycle enrollment introduces the risk of positioning the new LTC plan as a "direct mail"-type solicitation that is not really part of the company benefits package. Furthermore, removing plans from the general enrollment period could depress participation, as "benefits dollars" are allocated by

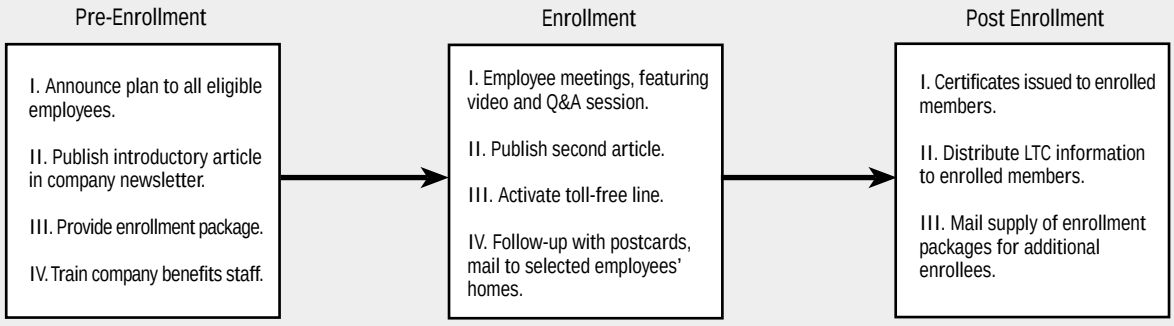
[12] *Mahoney and Connolly (1995): "CalPERS learned a valuable lesson from the lackluster outcomes of several other states' long-term care offerings: that significant resources must be dedicated to member education and marketing efforts. As this new voluntary benefit is rolled out, all members will receive at least one direct mailing and a paycheck enclosure. In addition, employer, state association, and union newsletters will highlight this new benefit. While the benefit is being marketed by mail, interested members can call a toll-free 800 number for additional information and/or attend local seminars on the program. Members will, therefore, hear about the offering through multiple communications. CalPERS recognized that direct and repeated employee education was essential for a successful voluntary offering" (p. 10).*

[13] *The highly successful State of Alaska LTC plan is totally integrated with retirement planning. Employees become eligible for the plan at retirement, and communications about the plan are packaged with retirement planning materials.*

[14] *The City National Bank of Florida's enrollment featured both group seminars for employees to explain plan features and the opportunity to meet individually with a CNA representative in the company's human resources office. The resulting employee participation rate was 28 percent (*Workforce, *July 1997). John Hancock's One-on-One Consultation Study found that approximately 40 percent of Harvard University employees participating in one-on-one consultations eventually applied for coverage under the plan. The John Hancock/SBC Communications Enrollment Meeting Survey used a self-assessment of purchase intention prior to exposure to enrollment meeting presentations, followed by a post-exposure self-assessment, followed by tracking of application behavior. Results showed that approximately half of meeting audiences applied for coverage. Approximately one-third of audiences (30 percent) would likely have applied even if they hadn't attended, and approximately one-fifth (20 percent) were converted from unlikely-to-enroll or undecided status to actual enrollment.*

[15] *The partial correlation of off-cycle enrollment and participation, controlling for number of plan choices, employer support, simplified enrollment process, facilities-only plan option, underwriting requirements, and management-only eligibility is equal to –0.01 ($p = 0.97$). This suggests that, holding other elements of plan design constant (as in the multivariate procedures in the next section), the true relationship might be negative or negligible.*

Chart 2
Group Long-Term Care Marketing Process: Best Practice



Source: Adapted from: The Advisory Board Company, *Issue Brief: Group Long Term Care Insurance* (Washington, DC: The Advisory Board Company, April 1996).

participants in the absence of LTC plans. The best practice appears to be to hold enrollments *on-cycle* (i.e., during the main benefits period), because employees expect to receive benefits information and make benefits choices during this time period.

Allowing sufficient time for the communications campaign (as opposed to rushing the process) should be associated with higher participation, as the eligible population has time to process materials. Insurers generally prefer a six-month period in which to promote and enroll new LTC plans. Insurers need this time because LTC coverage is a new benefit, with limited consumer comprehension of product features, and at least one company's research indicated that employees are more likely to enroll if they have been supplied with small amounts of information over a period of time (chart 2). Providing all information at once is perceived by employees as overwhelming and confusing (The Advisory Board, 1996).

Another important consideration is the use of an enrollment deadline as a call to action (Mahoney, 1995). The pattern of group LTC application invariably includes a peak of activity at the deadline date, which may be diminished by long or rolling enrollment periods.

Communication Channel Factors—Regardless of an enrollment campaign's potential reach, frequency, and effectiveness, some portion of the initiative must be conveyed using the company's regular communication channels, and these channels may vary in their effectiveness and "signal strength." It is expected that companies that already communicate effectively with their employees about benefits and policies are more likely to effectively communicate the LTC plan offering as well. Potential indicators of channel effectiveness include the presence of voluntary benefits, employee participation in other voluntary benefits, the size of the sponsoring company (i.e., number of employees), and its level of geographic and organizational dispersion. Another important concept is channel "noise," or the amount of unrelated information being conveyed within the communication channel, which may distract the audience from LTC campaign communications.

The presence of existing voluntary insurance benefits and the level of employee participation in them should be positively related to participation. Companies that offer voluntary benefits prior to the LTC insurance offering should have already worked through the issues surrounding communication and administration of voluntary benefits. Employees who have already been offered voluntary benefits should also be more accustomed to the idea of noncontributory benefits, and are less likely to view them as a "take away." The LTC Sponsor Database shows a small positive association between the number of existing voluntary plans and participation ($r = 0.18$, $p = 0.37$).[16] Participation in existing voluntary benefits provides an excellent indicator of participation in LTC plans, as it is a measure of enrollment behavior. The LTC Sponsor Database shows that the strength of association varies from 0.38 ($p = .06$) to 0.88 ($p = .00$), depending upon the voluntary benefit measured. It is important to note that participation in other benefits is merely a correlate of participation in LTC plans, not a cause of it; participation levels in all voluntary benefits, including LTC insurance, are probably caused by the same cluster of factors.

A 1995 study by the Advisory Board Company indicated that size of the eligible population was not predictive of LTC enrollment success in their sample of

[16] *John Hancock LTC Sponsor Database (1997).*

Table 2
Correlation of Employer Motivations for Sponsorship and Long-Term Care Insurance Participation Rates

Motivations	r values
We wanted to offer leading-edge benefits.	0.28[a]
It was a good fit for our workforce.	0.25
It could be offered at low cost to the organization.	0.07
It was offered by competitors.	0.06
Senior management wanted it.	0.01
It helped achieve an HR objective (e.g., reducing turnover).	–0.05
Employees/retirees wanted it.	–0.15

Source: Author's analysis of William M. Mercer data (1998c).
[a]Statistically significant at $p < 0.05$ level.

the 12 "best" and 12 "worst" LTC enrollments. However, it would be reasonable to hypothesize that smaller employers will experience higher participation rates on average than larger employers, because they are more likely to be geographically centralized, with more effective communication channels.[17] In fact, studies have shown consistently higher 401(k) plan participation rates among smaller companies, with highest participation among companies with fewer than 100 employees (86 percent) and lowest participation among companies with more than 10,000 employees (68 percent) (Datamonitor, 1997).

However, unlike 401(k) plan participation trends, LTC participation rates are highest among large companies (the correlation of number of employees and employee participation rate = 0.20, p = 0.05). Among companies with more than 50,000 employees, average employee participation is 7.8 percent, whereas among companies with fewer than 50,000 employees, average employee participation is 4 percent, with participation rates averaging between 3 percent and 5 percent in different employment bands below 50,000 employees. This finding is driven largely by the high participation rates associated with several very large companies known for their paternalistic policies and excellent communication and enrollment systems.

The perception among employees that the sponsoring corporation is the source of their benefits (as rated by insurer account executives in conjunction with benefit managers) is strongly associated with employee enrollment (r = 0.43, p = 0.03), primarily because participation suffers in cases where this perception is absent.

In general, the more dispersed the company, the less connection there may be between plan sponsors and eligible employees and the more difficult it may be to communicate with them. Indicators of corporate dispersion include the ratio of home office employment to total employment (r = –0.03, p = 0.80), the number of separate payroll locations (r = –0.08, p = 0.58), and recent merger and acquisition or downsizing activity (r = –0.16, p = 0.18). Although these relationships are not statistically significant, all show a negative correlation with employee participation rate, supporting the notion that dispersion complicates the offering of new benefits.

Increased channel noise may be expected to increase the likelihood of distraction and informational overload, ultimately resulting in lower LTC insurance participation. A useful indicator of channel noise might be the simultaneous introduction of other new benefits, but this factor shows no relation to participation rate (r = 0.09, p = 0.66).

Employer Support—The importance of the level of support shown by an employer for a new LTC plan offering cannot be overstated. Sponsoring employers may or may not choose to engage in a variety of activities that support LTC enrollment. Employer support may be defined in terms of the employer's attitude and motivation toward the enrollment; the level of access permitted to employees (resulting in increased campaign reach and frequency); and the degree of partnership that develops between the sponsoring employer and its insurance carrier. How employers define the goals of the plan offering (i.e., to cover as many employees as possible or to merely educate employees about LTC) often determines the character of the marketing and communications campaign (Martin, 1999), and, consequently, the level of participation.

Employer motivation for sponsorship appears to

[17] Buck Consultants (1999). As further evidence of this trend, a recent Datamonitor (1997) report on work-site marketing of insurance products concludes that "generally, the larger the company, the lower the penetration rate achieved by the insurer. This is because as the number of employees increases, it becomes increasingly difficult to accurately target a certain product to the immediate needs of a diverse pool of workers" (p. 123).

Table 3
Supportive Actions of Employer Sponsors for Long-Term Care Plan Enrollment

- Statement of achieving high participation as an employer goal.
- Working directly with insurance carrier in carefully planning the enrollment campaign.
- Allowing four to six months for communication.
- Sponsoring pre-enrollment employee research to refine communications and positioning.
- Training of benefits staff on long-term care plan.
- Sponsoring seminars during work hours at convenient locations.
- Facilitating face-to-face meetings with insurers where employee can ask questions.
- Writing supportive endorsement letter signed by a senior officer to introduce the plan.
- Using company newsletters, e-mail, voice mail, or payroll stuffers to communicate.
- Developing integrated response systems for ease and speed of enrollment.
- Permitting use of company payroll systems for payroll deduction of premiums.
- Employer contribution to communications budget.
- Employer contribution to employee premiums.

Sources: The Advisory Board (1995); *Workforce* (July 1997); Brenerman (1999).

be significantly related to participation rate.[18] Analysis of the Mercer data shows that the *desire to offer leading-edge benefits* is significantly correlated with participation, followed closely by employer assessment that LTC insurance is a *good fit for the work force* (table 2). The former suggests employers that are active in the selection of benefits, and perhaps committed to their successful enrollment, whereas the latter suggests employer awareness of the presence of demographic segments most likely to participate in LTC plans. Motivations for sponsorship that do not suggest commitment to LTC or work force suitability for LTC (i.e., low cost, competition offers it, management wanted it) are unrelated to participation rate.

When support is defined as the number of actions taken by an employer in support of an LTC campaign, the correlation with employee participation is positive and significant ($r = 0.32$, $p = 0.05$). The specific actions taken by the employer can either signal corporate enthusiasm and commitment to the LTC offering (e.g., sending an encouraging cover letter signed by a senior officer) or actions that facilitate communication (e.g., permitting enrollment meetings on company time) (table 3).

Why should employers actively support LTC enrollment campaigns? Survey data suggest that sponsors of LTC plans that achieve higher participation rates are more satisfied with the benefit than those with lower participation rates, although causality cannot be inferred. Analysis of the surveys by Mercer (William M. Mercer, 1998c) and the International Foundation of Employee Benefit Plans (IFEBP, 1999) revealed a significant correlation ($r = 0.35$, $p = 0.01$) and a nearly significant correlation ($r = 0.19$, $p = 0.13$) between employer satisfaction and participation rate, respectively.

Motivation and Ability to Process Messages

Credible Employer Endorsement—It is expected that a credible employer's endorsement of its LTC plan should increase employee receptivity to subsequent communications about it. In the communication and persuasion literature, source credibility is viewed as being based on either source *expertise* or *trustworthiness*, or both (Petty and Cacioppo, 1981). Thus, the effectiveness of an employer's implied endorsement of the sponsored LTC plan rests upon employee perception of the employer's expertise in designing and negotiating benefits, and of the employer's trustworthiness in terms of safeguarding employee welfare.[19] Employer reputations for expertise and trustworthiness may vary. For instance, the success of the CalPERS plan has been attributed largely to CalPERS's "special credibility" based on its "solid reputation for managing health care costs without

[18] *See Mahoney (1995): "At this early date, it is already obvious that enrollment is substantially higher in counties and districts which endorsed the (CalPERS) Long-Term Care offering and encouraged their employees to attend seminars and learn more about this option" (p. 8).*

[19] *Metropolitan Life Insurance Company (1996): "In terms of corporate culture, participation rates are higher when the sponsoring employer is perceived by the employee to be supportive and genuinely concerned about the welfare of employees and their families" (p. 22). Also see Advisory Board (1995): "An employer that addresses the plan in the context of 'we researched all the available options…and our carrier is the best' not only dispels the fears of uncertain employee prospects but also instills a feeling in employees that 'the employer did it for them.' Employees who feel as though their employers are caring for them are more likely to enroll than employees who simply 'see another insurance product offering in front of them'" (p. 2).*

Table 4
Source of Benefits and Long-Term Care (LTC) Insurance Participation Rates

Employees' Recognition of Sponsor as Source of Their Benefits	Average LTC Participation Rate
Low	1.27%
Medium	3.04
High	6.99

Source: John Hancock LTC Sponsor Database (1997).

sacrificing quality of care,"[20] implying *expertise* in managing benefits for the welfare of its members, which should engender *trust*.

A prerequisite to sponsor credibility is widespread acknowledgment among eligible employees that the sponsoring employer is, in fact, the source of *their* benefits (table 4). This cannot always be assumed, especially in companies that have experienced recent merger and acquisition activity. Corporations offering LTC plans to newly acquired subsidiaries consistently appear to have the lowest historical participation rates.[21]

A work environment characterized by downsizing, salary freezes, benefit cutbacks, and other events that create personal financial uncertainty can adversely affect perceptions of employer trustworthiness and has been associated with lower employee participation in LTC plans. The depressing effect of these kinds of events on LTC participation may also be caused by factors beyond trust—i.e., reduced disposable income, employee morale, job security, etc.

Expected Remaining Tenure—A potentially important factor in determining employee LTC participation is *expected remaining tenure.* Employees correctly view LTC insurance as a benefit that must be held throughout their working lives and into retirement. Despite the availability of plan portability (i.e., the ability to retain the same group coverage at the same rates upon separation from the employer), workers are unlikely to enroll if they do not expect to remain with their employer for the foreseeable future.

Organizational commitment has been shown to be strongly related to both worker desire and intent to remain with the employer (Steers, 1977); it follows that organizationally committed employees are likely to view company-sponsored benefits favorably and remain with the company over time.[22] To the extent that corporate restructurings and downsizing adversely affect organizational commitment, participation should also suffer. In support of this view, the LTC Sponsor Database shows a positive relationship between ratings of work force stability and employee participation ($r = 0.28$, $p = 0.09$).

Personal Involvement—The dominant model in the communication and persuasion literature[23] proposes that *personal involvement* determines the amount of attention and information processing devoted to a communication or campaign. Employees differ with regard to their degrees of personal involvement with LTC and LTC financing issues, and LTC involvement is associated with certain employee demographic characteristics. The prevalence of these employee characteristics in a plan sponsor's work force is strongly related to LTC participation rates.

Age—Insurers tend to view the 40–60 age range as the primary target for group LTC insurance (The Advisory Board Company, 1996) (chart 3). Insurance industry experience has been that participation rates peak between ages 40 and 50.[24] Sponsors with relatively high proportions (more than 50 percent) of those over age 40

[20] *Meiners (1998). Also see comments by Shave (1999): "Observers attribute its growth to three major factors: First, members have tremendous affinity with their retirement systems, associations, and employers. In addition to having the largest pension system in the U.S., CalPERS has also been touted as a model for managing health care without sacrificing quality. Second, the program is based on member research. Before designing the plans, CalPERS spent more than a year listening to members. And third, CalPERS and the administration took an aggressive approach on education and enrollment. Multiple individual mailings, a statewide seminar effort (featuring over 300 seminars), and the support from thousands of pubic agency employers and associations helped to educate and enlighten potential customers."*

[21] *John Hancock LTC Sponsor Database (1999).*

[22] *Average length of service (i.e., average tenure) should provide a useful indicator of expected remaining tenure. Other potential indicators of expected remaining tenure might be work force morale (i.e., group) and employee satisfaction (i.e., individual), to the extent that morale and employee satisfaction are related to employees' identification with and commitment to the organization.*

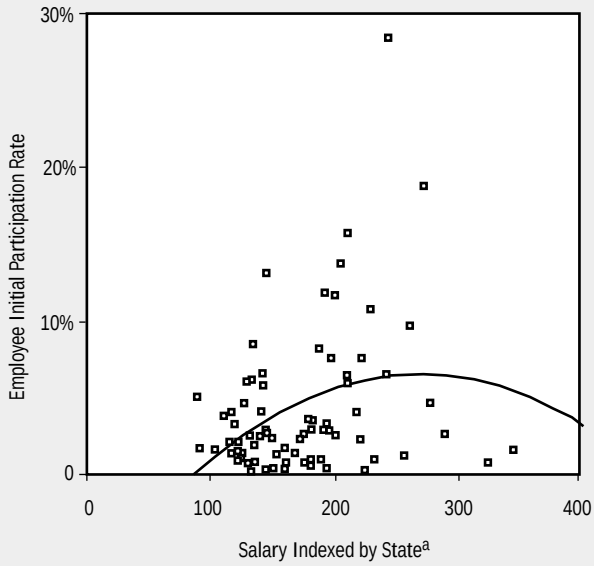
[23] *The Elaboration Likelihood Model (Petty and Cacioppo, 1981 and 1986).*

[24] *"MetLife has experienced the greatest participation among individuals in their forties, presumably because they have begun to give thought to issues associated with estate and/or retirement planning and future health care needs," Metropolitan Life Insurance Company (1996), p. 22.*

Chart 3
Scatterplot of Long-Term Care Participation and Proportion of Employees Over Age 40

Source: Author's analysis of the John Hancock Mutual Life Insurance Company LTC Sponsor Database (1999).

Chart 4
Scatterplot of Long-Term Care Participation and Indexed Average Employee Salary



Source: Author's analysis of the John Hancock Mutual Life Insurance Company LTC Sponsor Database (1999).
[a]Average salary of the employee population divided by average household income in the state in the year of enrollment X 100.

should experience higher participation than employers with younger work forces. Indeed, analysis of the LTC Sponsor Database shows a highly significant correlation between employee participation and the percentage of the eligible employee population ages 40 and older ($r = 0.41$, $p = 0.01$).

Salary—The 1995 Advisory Board study found that group LTC insurers believe that employee salary is the best predictor of enrollment success, along with active sponsor support for the plan.[25] Survey data have shown that employment-based group LTC purchasers are nearly eight times as likely as the general public to have household income in excess of $50,000, and that 80 percent of purchasers had annual incomes over $35,000 in 1990 (Health Insurance Association of America/ LifePlans, 1992).

Analysis of the LTC Sponsor Database reveals that indexed average employee salary (indexed for geography and year of enrollment) is significantly correlated with employee participation ($r = 0.31$, $p = 0.01$), although the relationship appears to turn negative at very high salary levels (i.e., salaries that are three times higher than average state salary in the year of enrollment) (see chart 4).

The downturn in participation at very high salary is primarily associated with investment bank and technology firms and may be due to a tendency toward self-insurance among the affluent.[26] To test the effect of affluence on participation rate, average salary and a variable reflecting the amount by which average salaries exceed $65,000 were entered into a regression equation predicting employee participation rates, and both were found to be statistically significant. Examination of the partial regression coefficients of these variables revealed that additional amounts of income beyond $65,000 have a negative effect more than twice as great as the initial positive effect of income (i.e., –0.08 for high salary; 0.04 for average salary) implying that the function for wage and participation takes a sharp (approximately 90 degrees) downward turn at high average salary levels.

[25] *See also Metropolitan Life Insurance Company (1996): "Participation tends to be higher among salaried employees who typically have a higher percentage of discretionary income than hourly employees. For example, one of our customers experienced an 11 percent participation rate among salaried employees and a 3 percent participation rate among hourly workers" (p. 22).*

[26] *Self-insuring against LTC risks for the affluent has been recommended by several financial planning publications, including* Money, *"Stocks vs. Insurance: Why a Long-Term-Care Policy May Not Make Sense" (August 1999): 52–53;* Fortune, *"Should You Self-Insure? The Fortune Worksheet" (October 14, 1996): 300;* Kiplinger's Personal Finance Magazine, *"The Catch-22 of Long-Term-Care Insurance" (May 1997): 97–102, "You don't need this insurance if you have enough income from retirement plans and investments that you would not have to tap assets to pay the annual tab at a nursing home."* Consumer Reports, *"Do You Need Insurance?" (October 1997) informs readers that "(You do not) need insurance if you can set aside $160,000 at compound interest solely to pay for nursing home care" p. 39.*

Table 5
Most and Least Preferred Industries for Employment-Based Long-Term Care Insurance

Industries Repeatedly Named As "Top Clients"	Industries Repeatedly Named As "Bottom Clients"
Airline	Association
Financial	Hospital
Insurance	State Government
Pharmaceutical	Municipal Government
Telecommunications	
University	

Source: The Advisory Board Company, *Issue Brief: Group Long Term Care Enrollment and the "Ideal" Employer Prospect* (Washington, DC: The Advisory Board Company, March 1995), p. 2.

Educational Level—The general educational level of employees may be an important factor in determining plan participation, because of the potential complexity and sophistication of the long-term care insurance product and the well-established relationship between education and income. A superficial analysis of the desirable industries (table 5) reveals that some of the "best" industries for employment-based LTC participation are characterized by high percentages of professionals with higher educational levels (e.g., universities, pharmaceuticals). Higher educational levels may also appeal to insurers because of lower disability rates resulting in delayed claims.[27]

Gender—Companies with relatively high numbers of female employees should have higher participation than those with relatively higher percentages of males, because females are both more likely to need long-term care and to provide informal long-term care.[28] Analysis of the LTC Sponsor Database reveals no correlation between overall employee participation and the proportion of female employees ($r = -0.04$, $p = 0.80$), although segmentation analyses of individual buyers of employment-based LTC plans find that single, high-income females enroll in disproportionately high numbers.[29]

Salaried and Management Employees—Some of the highest participation enrollments have occurred in companies where only management-level employees were solicited. When managers and nonmanagers are both solicited, management participation rates are close to double those of nonmanagers. Managers tend to be older and to have higher salaries and higher educational levels, on average, all of which predispose them toward participation. Analysis of the LTC Sponsor Database reveals that LTC plans that are offered to salaried and/or management employees only have a higher average employee participation rate (11 percent) than LTC plans offered to all benefit-eligible employees (4 percent), which is consistent with the experience reported by others.[30] The correlation between this type of offer and the employee participation rate is positive and statistically significant ($r = 0.23$, $p = 0.03$).

Pre-Enrollment Employee Research and Needs Assessment—One of the cornerstones of the success of the CalPERS LTC program cited by observers was extensive pre-enrollment research on employee preferences (Mahoney, 1995). Interestingly, companies that survey their employees' wants and needs *prior to offering* LTC insurance tend to experience higher participation rates than those that do not measure employee interest.[31] Analysis of the IFEBP survey reveals a significant correlation between the participation rate and the tendency to measure employees' level of knowledge and concern about LTC issues ($r = 0.26$, $p = 0.04$). Of those employer sponsors measuring employee LTC awareness and knowledge, half experienced rates of 10 percent or higher; of those not surveying their employees, only 8 percent achieved such participation rates. Similarly, the Mercer survey found that the desire "to find out more about employee wants and needs beforehand" was one of

[27] New York Times, *"New Era of Robust Elderly": "In study after study, educational level is associated with better health...throughout life and late in life" (February 27, 1996).*

[28] *The National Alliance for Caregiving/The American Association of Retired Persons (1997); Murtaugh et al. (1997).*

[29] *Jeremy Pincus, "Increasing GLTC Participation: What Works?" Presentation to the 1997 John Hancock client conference, Boston, June 5, 1997.*

[30] *Metropolitan Life Insurance Company (1996): "Participation tends to be higher among salaried employees than union employees. For example, one employer group offered our plan to both salaried and union employees. The participation rate among salaried employees was 15 percent, while the participation rate for union employees was only 3 percent" (p. 22).*

[31] *The 28 percent LTC participation rate of City National Bank of Florida employees also involved pre-enrollment employee needs assessment. According to a benefits manager, "We expected participation in the plan because we knew it was something our employees wanted" (*Workforce, *July 1997).*

the top three lessons learned by sponsors. This effect is likely due to employer screening of new benefits in light of employee interest levels, resulting in companies with relatively high levels of interest in LTC insurance being offered an LTC plan. Employee need assessments that reveal high levels of interest should equate to strong demand and plan participation. However, for employee surveys to provide a useful indicator of demand, employee response needs to be truly representative. Too often such surveys are vulnerable to self-selection bias, wherein only the more interested employees respond to the survey, creating the illusion of widespread interest.

It is also instructive to consider the relationship between participation and employee reaction to the LTC plan *following* the offering. The Mercer survey found that the majority of sponsors (59 percent) have not measured employee reaction to the LTC plan and have no plans to do so. Only 4 percent have formally surveyed employee response (with another 17 percent planning to do so), and 20 percent claim to have informally measured employee reaction. Of those respondents measuring employee response, three-quarters reported positive reactions and one-quarter report neutral reactions; no negative responses were reported. Analysis of the Mercer survey reveals a significant correlation between positive employee reaction and participation rate ($r = 0.57$, $p = 0.02$).

Acceptability of Plan Design and Pricing

Affordability—The affordability of LTC insurance is a function of three factors: *cost*, *discretionary income*, and *perceived need* (Center for Long-Term Care Financing, 1999). The average cost of premiums is affordable to the average American, although many consumers assume that premiums are unaffordable, which suggests the cost of LTC premiums should be a focus of plan communication efforts. Discretionary income is affected by who pays for how much of the plan—the employee or the employer—and the cost associated with other benefits. Employer contributions are a guaranteed method of increasing plan participation. Plan participation can also be enhanced by avoiding enrollments accompanied by cost increases associated with other benefits.

Perceived need for LTC insurance is perhaps the biggest barrier to the purchase of LTC insurance by employees due to competing financial priorities and the fact that LTC issues are generally off the "radar screens" of younger employees. As a result, education of employees regarding the need for LTC insurance is an essential (and measurable) goal for any communications campaign by employers and insurers. Plan participation should be higher when eligible employees know the actual cost of plan premiums, are not presented with new competing demands on their incomes, and are aware of the need for LTC insurance.

Cost of LTC Premiums—By most standards, employment-based LTC insurance should be affordable to most working people. The average annual premium in the employment-based LTC insurance market is $446,[32] or $37 per month. The work-site marketing insurance industry uses hourly salary as the yardstick of affordability of the weekly cost of all voluntary benefits[33] (i.e., if an employee earns $10 per hour, he or she can afford up to $10 per week on all voluntary benefits); using this measure, employees earning more than $9.25 per hour should be able to afford the average group LTC policy.

When compared with median annual household income of $37,005,[34] this average premium represents approximately 1 percent of household income, or 2 percent if two LTC insurance policies are purchased (one for each spouse). On a percentage basis and in absolute dollars, the cost of employment-based LTC insurance is far below the cost of individual LTC policies, primarily

[32] *Author's analysis of LIMRA (1999a) data.*

[33] *See Podgurski (1995).*

[34] *U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Consumer Income, P60-200, Money Income in the United States: 1997, Washington, DC: U.S. Government Printing Office, 1998.*

Although most sponsors have chosen to offer noncontributory (i.e., fully employee-paid) LTC plans, some employers subsidize a portion of the premiums or pay for a base plan, and employees are given the option of paying for higher coverage levels.

because of younger issue age; individual LTC insurance purchasers spend an average of 6 percent of their annual household income on their policies.[35]

The most common objection to purchasing LTC insurance is that it is unaffordable.[36] However, qualitative and survey research has consistently demonstrated that nonowners of LTC insurance significantly overestimate the actual cost of LTC insurance.[37] The tendency to overestimate is most pronounced at younger ages (i.e., under age 65).[38] Ironically, younger employee nonpurchasers are far more likely to cite concerns about cost as the primary barrier to purchase of group LTC policies (46 percent) than significantly older nonpurchasers of costlier individual LTC policies (25 percent).

Analysis of the LTC Sponsor Database reveals a negative correlation between employee participation rate and the average premium associated with the employer group (where both employees and retirees were eligible: $r = -0.30$, $p = 0.03$). The finding of an inverse relationship between average premium and employee participation could mean either (a) that employees are price sensitive (i.e., demand increases at lower prices), or (b) lower average premium is an artifact of higher participation among younger employees. Further analysis supports the latter explanation: other measures of affordability (e.g., the presence of low-cost plan designs [$r = 0.07$, facilities-only and $r = 0.03$, shortened benefit period] and the lowest available premium at age 45 [$r = -0.09$]) show no relationship to participation rate, while average age of insured employees is inversely related to employee participation rate. This indicates that plans with higher participation are those with greater numbers of younger insured employees.

Price sensitivity analysis (using the van Westendorp technique) has been conducted by at least one major LTC insurer (John Hancock/Eastern Research Associates, 1998). This study demonstrated that demand for LTC insurance is relatively elastic at younger ages (i.e., one unit change in price results in greater than one unit change in demand) and relatively inelastic at older ages (i.e., one unit change in price results in less than one unit change in demand). Although the degree of elasticity and the most acceptable price varied by age group (with younger employees more price sensitive and older employees less price sensitive), this study showed that average group LTC premiums fall within the range of acceptable prices within each age group. The employment-based LTC insurance buyer/nonbuyer study conducted by Health Insurance Association of America/LifePlans (1992) similarly showed that "slightly more than one in three nonpurchasers (of employment-based LTC plans) would be willing to pay an annual premium that was at least 1.5 times that of the industry average" (p. 75).

Discretionary Income—Group differences in discretionary income are accounted for in the Salary section above; this section will review other factors that affect the availability of discretionary income for purchasing

[35] *Health Association of America/LifePlans, Inc.,* Who Buys Long-Term Care Insurance?: 1994–95 Profiles and Innovations in a Dynamic Market, *Health Insurance Association of America (1995), p. 2.*

[36] *As found by the Health Insurance Association of America/LifePlans (1992) and the National Council on the Aging/John Hancock (1996) surveys.*

[37] *The National Council on the Aging/John Hancock (1997): "Both a lack of knowledge of long-term care insurance and misperceptions of its cost affect Americans' decisions about purchasing this type of coverage. Sixty-eight percent of working-age Americans reported that they could not afford a policy, even though their estimates of policy costs were three to seven times higher than actual market rates. Forty percent of respondents could not even guess how much long-term care insurance would cost per month."*

[38] *The National Council on the Aging/John Hancock (1997): "A comparison of median respondent cost estimates and industry premium data yields the following ratios: The estimates of respondents age 21–34 are 6.5 times higher than actual market rates for this age group; for those age 35–44, estimates are 5.0 times higher; for those age 45–54, estimates are 3.0 times higher; for those age 55–64, estimates are 2.6 times higher; and for those age 65+, estimates are 1.1 times higher, or nearly even with actual market rates."*

employment-based LTC insurance, such as the presence of employer contributions to premiums and the cost of other benefits to employees.

Employer Contributions—Perhaps the most basic decision an employer makes (after the decision to offer LTC insurance as a benefit) is whether to make the plan contributory or noncontributory. Although most sponsors have chosen to offer noncontributory (i.e., fully employee-paid) LTC plans, some employers subsidize a portion of the premiums or pay for a base plan, and employees are given the option of paying for higher coverage levels. Employer-funded LTC plans are the surest way to increase employee coverage levels, but this practice has been generally limited to smaller employers and executive "carve-outs." Observers have speculated that employer reluctance to make contributions may be caused by HIPAA's prohibition on the inclusion of LTC insurance in cafeteria plans (Lutzky et al., 1999). The IFEBP survey found that only 6 percent of sponsors contribute to employee LTC plans, and half of these employers experienced participation rates above 15 percent. In contrast, no sponsors offering LTC insurance on a noncontributory basis experienced participation rates higher than 15 percent. Typical LTC design elements are shown in table 6.

The IFEBP survey results suggest that the trend toward noncontribution is likely to continue, although there is hope for increased employer funding of LTC benefits. The majority of nonsponsors that may sponsor LTC insurance in the future (54 percent) expect to offer employee-pay-all plans, yet 11 percent expect to make a partial contribution, and an additional 1 percent expect to fully fund the LTC benefit.

Costs of Other Benefits—Another determinant of the level of discretionary "benefit dollars" available to employees is the cost of other benefits. In general, benefits programs that require smaller contributions from employees leave more discretionary income available for LTC insurance and have been associated with higher participation rates.[39] Although decreased benefit costs would likely be associated with increased participation, such changes are rare in today's benefits climate and could not be tested using the LTC Sponsor Database. Instead, benefit cutbacks or increased benefit costs (e.g., health insurance premiums) are the rule rather than the exception.

Table 6
Typical Employment-Based Long-Term Care Insurance Plan Design

Covered Services
Skilled and custodial nursing facility care (most commonly $80–$120 per day)
Skilled and custodial home care (most commonly $40–$80 per day)
Assisted living facilities
Adult day care
Respite care
Homemaker services
Home modifications
Informal care
Benefit Structures
Most common maximum dollar benefits: $100,000–$200,000
Most common elimination period: 90-day deductible period
Most common inflation protection option: future purchase option
Most common nonforfeiture (lapse protection): reduced paid-up benefit
Benefit Triggers
Two out of six activities of daily living (ADLs) or cognitive impairment (post-HIPAA[a])
Eligible Groups
Full-time employees
Spouses of full-time employees
Parents and in-laws
Retired employees

Source: Steven Lutzky, John Corea, Lisa Alecxih, Laura Marburger, and Kathlyn Wee, *Preliminary Data From a Survey of Employers Offering Group Long-Term Care Insurance to Their Employees: Interim Report* (1999), ASPE website, http://aspe.hhs.gov/daltcp/reports/ltcinsir.htm
[a]Health Insurance Portability and Accountability Act of 1996.

Perceived Need for LTC Insurance—Establishing the need for LTC insurance generally falls to the communications campaign, and involves identifying three essential ingredients of perceived need: the lifetime risk of needing LTC services, the cost of LTC services, and the positioning of LTC insurance as a desirable financing option. Unfortunately, baseline knowledge levels are low as LTC and LTC insurance are widely misunderstood by consumers (The National Council on the Aging/John Hancock, 1996–1999).

Employer sponsors of LTC plans and their

[39] *"If employers offer rich benefit programs with various indemnities, such as flexible benefits programs (especially those that incur very minimal out-of-pocket expenses), employees are much more likely to enroll in LTC components of programs. Because LTC is fully paid by employees, the 'affordability issue' becomes less of a factor if employees are not already paying for other forms of insurance," Advisory Board (1995), p. 2.*

insurers can measure the effectiveness of their communications campaigns in terms of achieving intermediate "milestones" on the path toward enrollment. Campaigns may vary in their ability to generate awareness of the plan offering, knowledge of plan features and benefits and reasons for purchase, favorable attitudes toward enrollment, enrollment intention, and actual plan participation. These "milestones" are most useful when they are concrete and measurable, have a specified time period associated with them (e.g., by the third month of the campaign), have benchmarks available to assess the degree of change, and are linked to target audience demographics (e.g., employees age 40 and above, and earning at least $40,000) (Belch and Belch, 1990).

Plan Design Preferences—The following section reviews the plan design features associated with participation and those most popular among employee purchasers.

A recent survey by the Lewin Group (Lutzky et al., 1999) of 39 employment-based LTC plans identified the most commonly offered plan design features (see table 6). Similar findings are reported by William M. Mercer (1998c) and the IFEBP (1999). These studies provide useful information about what employers offer their employees, presumably an indicator of what employers and their benefits consultants believe to be important components of LTC insurance plans. One of the primary functions of the benefits manager and benefits consultant is to ensure the suitability of the plan design and pricing to the eligible population. In investigating the effects of plan design on employee participation, it is important to consider *employee preferences* in determining plan suitability.

Observers have noted that one of the key strengths of the CalPERS LTC plan offering was that the plan design was based on extensive member research.[40] The same approach has been employed by the Metropolitan Life Insurance Company in its design of the AARP plan.[41]

Employee Preferences—Although traditional survey research has extensively documented consumer preferences for various LTC services,[42] this method lacks the ability to simulate the tradeoffs that consumers make when they purchase goods and services. Conjoint analysis is the preferred method used to evaluate such tradeoffs and provide data on the relative importance that consumers attach to each attribute of a product and their degree of preference for each level of each attribute. Conjoint analysis has been applied to LTC insurance by at least two of the leading insurers in the employment-based group LTC market, and has been used previously by AARP.[43]

Results show that although preferences vary by consumer segment, consumers tend to value LTC attributes similarly. Both the John Hancock and the AARP studies revealed that an "adequate" amount of nursing home coverage is the most important driver of preferences, followed by an "adequate" amount of home care coverage. Although home care is consistently the preferred location of care, consumers view LTC insurance primarily as protection against the worst-case scenario of needing nursing home care.

Both the John Hancock and MetLife analyses demonstrate consumer preferences for extended (e.g.,

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[40] *Mahoney and Connolly (1995): "Mailed surveys and focus groups were used to identify the key features members wanted. The product was then designed in light of the features members had identified as essential. Every effort was made to keep choices simple…Valuable lessons can be learned from CalPERS's approach in building a program based on the features members wanted."*

[41] *MetLife/AARP (1998): "We talked with AARP members across the country, in every region of the country, so no region's bias would influence us unduly in the design of this program. We talked to both working and non-working AARP members, and we learned a lot about the way the membership looks at long-term care…AARP members understand the need for this coverage, and what they asked for in the way of an insurance program is based on their personal experience with a friend or a parent, or other family members" (p. 13).*

[42] *See Appendix D in Weiner et al. (1994), for a summary of survey research on consumer preferences.*

[43] *John Hancock/Eastern Research Associates (1998), AARP/Daniel Yankelovich Group (1990), and Metropolitan Life Insurance Company (1998).*

unlimited lifetime) benefit periods.[44] Similarly, the AARP study's longest benefit period option presented to consumers (five years) was the most preferred level. Industry data confirm this preference, especially among younger-age consumers (whose lower age-based premiums enable them to purchase richer plan options).[45] Both studies also found that consumers are willing to trade price for a shorter elimination (deductible) period. MetLife's research led them to offer AARP members a plan with the option of unlimited lifetime coverage; a 30-day waiting period; nursing home, home care, and informal care coverage; and monthly (rather than daily) benefit caps (MetLife/AARP, 1998).

Plan Design Preferences and Employee Participation—As shown in table 7, certain plan features are associated with employee participation rates. Plans with skilled nursing home and home care benefits experience higher participation rates than plans lacking these benefits, as predicted by the conjoint studies. Analysis of the Mercer dataset reveals a significant positive correlation between the highest daily benefit offered and participation rate ($r = 0.41$, $p = 0.00$), and a nearly significant correlation between the lowest daily benefit amount and participation ($r = 0.27$, $p = 0.06$). The finding that both higher and lower coverage levels are associated with participation supports the notion that group LTC plans should offer a range of options and flexibility to meet diverse needs.[46]

The availability of lower-cost options can be an important factor in determining participation, depending upon demographic distribution of eligible groups. Insurance industry data show that a much higher percentage of retirees and parents than employees elect nursing home-only coverage when this option is available. Participation in facilities-only coverage has accounted for more than one-quarter of total participation in several major employer plans. The correlation of the availability of facilities-only coverage and employee participation rate is nonsignificant ($r = 0.07$, $p = 0.53$); however, the correlation of such coverage and aggregate participation rate is nearly significant ($r = 0.19$, $p = 0.09$), indicating that its availability drives up retiree and parent participation, and consequently overall participation.[47]

Table 7
Average Employee Participation Rate by Plan Features (IFEBP and Mercer Datasets, Respectively)

	Offered	Not Offered
Nursing Home Care	6.7% (60)[a]	2.8% (5)[a]
	6.2% (56)	NA
Skilled Home Care	6.6% (61)	2.8% (4)
	6.2% (53)	6.9% (3)
Unskilled Home Care	4.8% (33)	8.0% (32)
	6.0% (42)	6.9% (14)
Adult Day Care	6.1% (44)	7.0% (21)
	6.1% (51)	7.2% (5)
Respite Care	4.9% (31)	7.8% (34)
	5.1% (40)	8.9% (16)
Hospice	9.7% (37)	2.1% (28)
	NA	NA
Physical/Occupational Therapy	10.9% (22)	4.1% (43)
	NA	NA
Alternate Care Benefit	8.7% (14)	5.8% (51)
	NA	NA
Care Management	7.3% (22)	5.3% (29)
	NA	NA
Highest Lifetime Maximum Benefit:		
5 years	5.3% (3)	
10 years	8.0% (2)	
Unlimited	8.8% (4)	

Source: Author's analysis of International Foundation of Employee Benefit Plans (1999) and Mercer (1998c) datasets.
[a]Employee participation rate (number of companies).

Interestingly, nontraditional LTC benefits are associated with the highest participation rates: physical, occupational, and speech therapy; hospice; and alternate care benefits, perhaps indicative of more sophisticated benefits purchasers or simply greater consumer prefer-

[44] *As reported in MetLife/AARP (1998), p. 13.*

[45] *See Mahoney's (1995) discussion of consumer preferences for CalPERS' plan options: "Younger active employees overwhelmingly favored and felt they could afford, lifetime coverage. By comparison, older retirees were more apt to choose shorter coverage and the lifetime asset protection of the Partnership. Purchasers seemed to make economic decisions in choosing among plans" (p. 8).*

[46] *Datamonitor (1997): "Products that are not suited for a specific pool of employees are not going to sell well…The products need to be complex but at the same time flexible enough to meet different needs. Since insurers usually have a limited amount of time, if at all, to meet with employees at the point-of-sale, the product needs to be simple enough to be understood in a relatively short amount of time" (p. 124).*

[47] *When the availability of facilities-only coverage is included in a multiple regression equation with other plan design factors, this factor achieves significance ($t = 2.21$, $p = 0.03$) as a predictor of employee participation.*

"Keeping it simple" has become the conventional wisdom of group LTC plan design.

ence for these benefits. Also anticipated by the conjoint analyses is the finding of higher participation rates among plans with long-duration lifetime maximum benefits.

Simplicity of Offer—"Keeping it simple" has become the conventional wisdom of group LTC plan design. The Lewin Group's (Lutzky et al., 1999) foremost suggestion for increasing participation is to limit plan complexity and number of choices. Similarly, observers of CalPERS's success have commented that "every effort was made to keep choices simple" (Mahoney and Connolly, 1995). Conversely, the number of employee options in employment-based LTC plans was mildly associated with enrollment success in the Advisory Board study (six of the "best" and four of the "worst" had employee option choices).[48]

Analysis of the Mercer dataset similarly reveals no correlation between the number of daily benefit amount choices and participation rate ($r = -0.10$, $p = 0.51$). Although relatively few sponsors indicate that if they "could do it all over again" they would make the plan design simpler, this response was associated with the lowest average participation rate (average = 3.2 percent) of any "lesson learned," further supporting a depressing effect of plan complexity on participation. Using the John Hancock LTC Sponsor Database, when the total number of plan choices is included in a multiple regression equation with other plan design factors, this factor has a nearly significant ($t = -1.87$, $p = 0.07$) depressing effect on employee participation.

In addition to the simplicity of the plan design in terms of number of choices that need to be made, the simplicity of the communications and enrollment process affects participation. The Lewin Group's report (Lutzky et al., 1999) cites the example of using more than one carrier as a major complicating factor that was avoided by most sponsors due to the potential for confusion, and was regretted by the one employer in the sample who used two insurers. This finding has clear implications for the structure of the federal employee LTC plan, favoring the position of offering a single plan.[49]

Payroll Deduction—A potentially important but often overlooked advantage of employment-based LTC insurance is the convenience of payroll deduction of premiums for employees and retirees.[50] A recent Roper/MetLife survey found that respondents view payroll deduction (71 percent) and convenience (67 percent), along with better group rates (74 percent), as the primary advantages of employment-based voluntary benefits (Roper Reports/Metropolitan Life Insurance Company, 1999). Analysis of the John Hancock LTC Sponsor Database reveals a significant positive correlation between the availability of payroll deduction and employee participation rate ($r = 0.32$, $p = 0.00$).

Simplified Enrollment Process

Telephone and On-line Enrollment Process—Enrollment processes vary greatly in terms of their ease of use, from paper applications (which require the applicant to find the time to read and complete forms and mail them to the insurer) to Internet-based enrollments (which require little more than a click of the mouse). As indicated in table 8, it is expected that the ease of the enrollment process is a determinant of employee participation rate, but not the participation rates of other eligible groups, as nonemployees are generally not eligible to enroll via the simplified enrollment processes (see Underwriting Requirements, below). Analysis of the John Hancock LTC Sponsor Database reveals that the use of telephone enrollment is significantly correlated with participation ($r = 0.29$, $p = 0.04$). Similarly, the Advisory Board (1995) study showed that

[48] *"Among the clients of companies profiled, a small correlation surfaces between plans that require more choices and more healthy relationships with group customers. Presumably, more choices allow for more customization and thus, more sophisticated plans" (p. 3).*

[49] *See description of Democratic and Republican positions in Causey (1999).*

[50] *Podgurski (1995): "Payroll deduction is convenient for the employee because the premium is automatically deducted from the paycheck, freeing the employee from having to write checks, pay postage, or worry about missed premium statements" (p. 17).*

Table 8
Average Long-Term Care Insurance Participation Rates Associated With Enrollment Processes

Enrollment Process	Average Employee Participation Rate
Paper Applications	2.81% (29)[a]
Enrollment Postcards	6.36 (18)
Telephone VRU[b]	8.16 (13)
On-line Enrollment	3.59 (2)

Source: John Hancock LTC Sponsor Database (1999).
[a]Employee participation rate (number of companies).
[b]Voice response unit.

all telephone and electronic enrollments included were among the "best" enrollments, whereas all of the "worst" enrollments involved paper-based application.[51]

Underwriting Requirements—One of the major advantages of group LTC plans is the availability of *guaranteed issue* (i.e., issuing coverage without requiring evidence of insurability) for employees, which is not available in the individual LTC market. Some employers prefer to have the insurer underwrite all applicants as a means of keeping premiums as low as possible. A intermediate point between guaranteed issue and full underwriting is *short-form* underwriting (or *modified* underwriting), wherein the applicant answers several "yes/no" questions related to the use of long-term care services or diagnosis with several conditions that are associated with use of such services, but does not need to provide any physical exams or physician's statements. The majority of sponsors offer LTC plans on a guaranteed-issue basis to their actively-at-work employees during the initial enrollment period; other eligible groups are generally fully underwritten.[52]

Guaranteed issue has a direct effect on participation in terms of encouraging enrollment among those who have (or perceive that they have) health conditions that might disqualify them for coverage through an individually purchased policy. A potentially larger effect of guaranteed issue, however, stems from its facilitation of streamlined enrollment processes: The primary determinant of eligibility for telephone and on-line enrollment is eligibility for guaranteed issue, primarily because these enrollment media cannot collect signatures, which are generally required with the submission of individual applications. Thus, in order to take advantage of telephone and on-line enrollment, guaranteed issue must be available.

The positive effect of guaranteed issue is supported by analysis of the John Hancock LTC Sponsor Database, which reveals a small negative relationship between the use of underwriting (as opposed to guaranteeing issue to actively-at-work employees) and employee participation ($r = -0.10$, $p = 0.46$). Similarly, the Advisory Board study (1995) found that LTC plans that require underwriting for all applicants "all appear in lists of 'bottom' clients."

Multivariate Results

The preceding discussion indicates that various characteristics of employers, the plans offered, and marketing strategy affect participation rates. However, it is difficult to consider the effects of these factors in isolation, because each may be picking up some of the effects of other correlated factors.[53]

To consider the effect of many variables simultaneously, several multivariate equations were estimated. In each of these analyses, the dependent variable (the variable we are trying to explain) is the employee participation rate during the initial enrollment period. The basic form of the estimated model is that of the Linear Probability Model (LPM), but some variables have been transformed for technical reasons.[54] This implies that the underlying relationship between participation and the independent variables is fundamentally nonlinear, so that the coefficients reported cannot be

[51] *"Enrollment methods show some correlation: companies that enrolled via media other than paper-based applications (e.g., telephone or electronic means) all appear in lists of 'top' clients" (p. 3).*

[52] *Conning & Company (1999); Lutzky et al. (1999).*

[53] *For example, we may observe high participation for companies with large employee populations and for companies that offer their employees many plan choices. However, if larger companies tend to offer more plan options, how do we separate the effects of these two factors, i.e., how much of the high participation do we attribute to size and how much to the number of plan options?*

[54] *Initial employee participation and the size of the employee population have been transformed by the natural log function to correct for non-normality.*

interpreted in the traditional fashion. In the tables below, the marginal effects (the change in participation due to a one-unit change in one of the independent variables, all else being equal) are reported alongside the regression coefficients.[55]

Demographic Effects

The first set of estimated equations describes the relationship between demographic characteristics of a group of employees and LTC plan participation.

As expected, the *size of the employee group* (EEPOP) is a highly significant predictor of the employee participation rate. Other things being equal, larger companies tend to experience higher participation rates. The coefficient estimate for population size in this model (0.28 using Model B) may be interpreted as an *elasticity*. For example, if one company is 10 percent more populous than another, one would expect enrollments at the larger company to be 2.8 percent higher than enrollments at the smaller company.[56]

A similar positive effect for *average salary* (SAL_1999) is seen in Models A and B. Salary is measured in (thousands of) constant 1999 dollars to permit comparison of real salaries across employer groups that enrolled in different years. The coefficient of average salary (0.034) can be interpreted as follows: if average salary is a thousand dollars higher at one company than at another, one would expect enrollment for the higher-paid company to be 3.4 percent higher than that for the lower-paid company.[57]

The variable "*unstable*" measures whether there was a sizable merger, acquisition, restructuring, or downsizing involving the company around the time of the initial enrollment. This variable was included as a proxy for employee job stability, based on the notion that employees who fear losing their jobs are less likely to purchase LTC insurance through their employer. This dummy variable takes on the value "1" if there was a major merger, restructuring, or layoff and the value "0" if this was not the case. The effect of a merger on participation rates ranges from highly significant to marginally significant to nonsignificant in different models. However, in all cases, the effect is negative and strong; a merger or downsizing is estimated to lower enrollment by 23 percent to 53 percent.[58]

As discussed above, *participation in other voluntary benefits* (BEN_IDX) has a significant positive relationship with participation in group LTC plans. As indicated above, this relationship represents *correlation*, rather than *causation*—the same (unobserved) factors are presumed to cause both participation in group LTC plans and participation in other voluntary benefits. However, this measure (an index of participation in several voluntary benefits) does exhibit strong predictive power, so it has been included in the model. Estimates of the size of this effect vary, but are generally strong and positive. An employee group with benefit participation rates at twice the national average is predicted to have LTC participation between 2.7 and 4 *times* higher than a group with only average participation. This suggests that LTC participation is very sensitive to general levels of participation in voluntary benefits (or, more precisely, their underlying, unobserved determinants).

The last two demographic variables considered are the *percentage of females* (PC_FEM) and the *percentage over 40* (OVER_40) in the employee population. The percentage of females in the group is positively related to participation rates, but is only marginally significant ($p = 0.11$). Although the analysis indicates that the size of the over-40 population (i.e., the LTC insurance target group) relative to the size of the total employee popula-

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[55] *Marginal effects are calculated as the first derivative of the estimated relationship. These effects are reported at the means of all variables.*

[56] *For example, if the smaller company's participation rate is 10 percent, the larger company's participation rate would be 10.28 percent. Alternatively, if one company is twice as large as another (100 percent larger), but otherwise identical, then enrollments at the large company will be 28 percent higher than enrollments at the small company.*

[57] *As* $(e^{0.034}) = 1.03$. *Alternatively, a $1,000 increase in average salary corresponds to a 3 percent increase in enrollment.*

[58] *As* $(e^{-0.26}) = 0.77$ *from Model B and* $(e^{-0.76}) = 0.47$ *from Model A.*

tion is positively related to participation rates, the relationship does not achieve statistical significance.

The results for the two demographic models are reported in table 9. The marginal effects are reported along with the unstandardized regression coefficients.

Plan Design and Offering

Evidence reviewed above suggests that aspects of the plan design and employer actions influence employee participation. These relationships are examined in this section. Multivariate regression analysis is used with the same dependent variable in the same manner as above.

The most important result that emerges from this analysis is that *employer support* (SUPPORT) for the group LTC plan plays a large part in determining participation. This result is robust across several different specifications of the model. As explained in preceding sections, the support variable is coded +1, 0, and –1, to represent extraordinary, average, and substandard levels of employer support for the LTC insurance offering, respectively. An increase in support (from –1 to 0 or 0 to +1) is estimated to increase participation by 76 percent to 98 percent, so that a very supportive employer would see participation rates *three to four times as large* as those of a very unsupportive employer. Alternatively, for the average sponsor, a one-step increase in support would add 2.24 percent to 2.70 percent to the company's participation rate.

Whether or not employees must pass medical underwriting (UNDERWRT) has a relatively large, significant effect on enrollment. This dummy variable is coded "zero" for use of guaranteed issue for employees, and "one" for any kind of underwriting for employees (nonemployee eligible classes, such as retirees, spouses, parents, etc. are almost always underwritten). This result is also very robust across different specifications of the model, and generally predicts that underwriting for employees lowers enrollments by 45 percent to 69 percent. Using the marginal effect, this corresponds to an average employee participation rate 2.3 to 4.7 percentage points lower than with guaranteed issue.

Table 9
Effects of Explanatory Demographic Variables on the Natural Log of Employee Participation

Variable	Model A (n = 36) Coefficient Estimates	Marginal Effects	Model B (n = 23) Coefficient Estimates	Marginal Effects
EEPOP	0.290427 (0.094654) p=0.0044	1.4135 E-5	0.281446 (0.114843) p=0.0254	7.0391 E-5
SAL_1999	0.033109 (0.013273) p=0.0180	0.13078055	0.033911 (0.016666) p=0.0578	0.13394845
BEN_IDX	0.992563 (0.325321) p=0.0046	3.92062385	1.391388 (0.549045) p=0.0214	5.4959826
UNSTABLE	–0.760542 (0.300597) p=0.0165	–3.0041409	–0.259561 (0.393646) p=0.5185	–1.025266
OVER_40			0.009402 (0.016977) p=0.5869	0.0371379
PC_FEM			0.018772 (0.010975) p=0.1054	0.0741494
Constant	–4.014299		–5.916553	
R-squared	0.49078		0.52357	
Standard Error	0.85897		0.85320	

Source: Author's analysis of the John Hancock Mutual Life Insurance Company LTC Sponsor Database (1999).

The presence of a *simplified enrollment process* (PHONE) appears significant in some model specifications, but not in others. However, in all models, the coefficient is positive and ranges from being associated with 32 percent increases in enrollments to being associated with more than doubled enrollment.

Similarly, the *total number of plan choices* confronting those seeking to enroll (TOT_CHC) is ambiguous in its significance; in Model B, it is marginally significant and in Model A it is nonsignificant. However, the sign of the coefficient for this variable is consistently negative, suggesting that plan designs that force consumers to make more choices tend to discourage participation. The predicted magnitudes of this change are that a plan with one more choice than another will, all else being equal, have only 70 percent to 89 percent of the enrollment of the less complicated plan. Using the marginal effect, each additional choice reduces enrollment by 0.48 percent to 1.41 percent for the average plan. Using economic reasoning, the cost to the consumer

of enrolling includes not just the monetary price of the plan, but also the "cost" of devoting time and effort to learning about each plan option and making an informed decision. As the number of choices increases, so does the effective cost of enrolling, leading some consumers not to purchase at all. Some observers have suggested bundling different options together into a fixed product to limit the number of separate decisions required.[59]

Other variables that were tested, but failed to achieve even marginal significance, are whether the plan was offered to all employees, or to *management only* (MGT_ONLY) and whether the group LTC insurance plan was offered *on- or off-cycle* with other benefits (CYCLE).[60] The effect of a management-only plan (relative to a plan offered to all employees) was positive, but not statistically significant (see preceding sections for discussion). The effect of offering a plan off-cycle was negative, but also statistically nonsignificant. However, the estimated magnitudes of this effect were fairly large—offering LTC insurance off- rather than on-cycle may reduce enrollment by 9.6 percent to 31.7 percent, i.e., lower employee participation rate by 0.4 percent to 1.5 percent for the average case. For example, an on-cycle enrollment experiencing a participation rate of 6 percent might experience an enrollment of 4.5 percent if held off-cycle.

The presence of a *facilities-only plan* (NHO) option has a very strong positive effect on participation, reflecting the lower cost of these plans. This may suggest that sponsors consider offering at least one lower-cost plan to employee groups. This conclusion should be tentatively held due to the relatively small number of cases that included a facilities-only plan option (n = 4).

Summary results of the effects of plan design and offering factors on participation rates are shown in table 10.

Table 10
Effects of Explanatory Plan Design and Employer-Specific Variables on the Natural Log of Employee Participation

Variable	Model C (n = 54) Coefficient Estimates	Marginal Effects	Model D (n = 38) Coefficient Estimates	Marginal Effects
SUPPORT	0.567816 (0.189291) p=0.0042	2.2428732	0.682600 (0.245554) p=0.0092	2.69627
UNDERWRT	–1.186879 (0.486726) p=0.0184	–4.688172	–1.102860 (0.514765) p=0.0401	–4.356297
PHONE	0.725111 (0.283317) p=0.0136	2.8641885	0.280992 (0.381837) p=0.4673	1.1099184
TOT_CHC	–0.120951 (0.156051) p=0.4420	–0.477756	–.357556 (0.202378) p=0.0871	–1.412346
MGT_ONLY			0.881460 (0.988746) p=0.3795	3.481767
CYCLE			–0.100586 (0.321617) p=0.7566	–0.397315
NHO	1.426694 (0.691856) p=0.0445	5.6354413	1.627431 (0.743115) p=0.0362	6.4283525
Constant	0.962852		1.572519	
R-squared	0.39699		0.47740	
Standard Error	0.90871		0.92518	

Source: Author's analysis of the John Hancock Mutual Life Insurance Company LTC Sponsor Database (1999).

The Full Model

Finally, an inclusive model is estimated to simultaneously account for as many factors as possible to isolate the importance of the various demographic, plan design, and offering effects.[61] Unfortunately, some variables had to be excluded from the final analysis due to missing data and collinearity (i.e., intercorrelation with other variables).[62] Table 11 summarizes the results

[59] *Conning & Company (1999), p. 48.*

[60] *The CYCLE variable is coded as off-cycle = 1 and on-cycle = 0.*

[61] *There are costs and benefits to doing this kind of analysis, particularly with a dataset that is limited in size. While it permits testing the results obtained above to determine if the same relationships hold when a wider range of effects is controlled for, this must be accomplished using a smaller number of cases. The smaller number of cases makes it more difficult to achieve statistical significance.*

[62] *Several variables were omitted from the preceding analysis because they did not achieve even marginal significance, despite being theoretically appealing. Examples include:*
- *Long and short duration benefit pools in the plans offered.*
- *Geographic dispersion.*
- *Communications expenditure per eligible employee.*
- *Payroll deduction.*
- *Lowest premium at age 45.*

obtained from this more inclusive model of enrollment behavior.

The magnitudes of both the coefficients and the marginal effects in this model are roughly consistent with estimates obtained in earlier analyses. The presence or absence of guaranteed issue seems to be less important when all variables are controlled for than in the case of plan design variables only. The coefficients associated with employer support, corporate instability, employee population, and simplified enrollment process are generally equivalent to those estimated in Models A through D. The negative effects of offering a plan off-cycle are greater in this inclusive regression, but still not statistically significant. The effects of average salary and percentage of employees over age 40 are slightly greater than estimates obtained in Models A through D. The presence of a significant high-salary effect (HISAL) here supports the "self-insurance" hypothesis presented above.

In conclusion, the evidence from the three analytical approaches suggests that the most important factors in determining initial employee participation rates are:

- Average salary of employees (including the negative effect of income at high levels).
- Employer support for the offering.
- The size of the eligible employee population.

Other important factors seem to be:

- Participation in other voluntary benefits.
- Whether the sponsoring company has experienced corporate instability (e.g., merger, acquisition, restructuring, or downsizing) around the time of the initial enrollment.
- Whether employees are guaranteed issue or whether they must submit to an underwriting process.

Table 11
Effects of Various Explanatory Variables on the Natural Log of Employee Participation

Variable	Full Model (n = 33) Coefficient Estimate	Marginal Effect
EEPOP	0.223832 (0.123724) p=0.0830	1.92358 E-5
SAL_1999	0.040324 (0.016538) p=0.0255	0.1592798
HISAL	–0.095884 (0.043081) p=0.0357	–0.3787418
OVER_40	0.014813 (0.013141) p=0.2708	0.05851135
UNSTABLE	–0.614909 (0.349154) p=0.0910	–2.42889055
CYCLE	–0.381322 (0.321146) p=0.2467	–1.5062219
UNDERWRT	–0.590247 (0.574794) p=0.3147	–2.33147565
PHONE	0.309669 (0.362583) p=0.4015	1.2231955
SUPPORT	0.671069 (0.220261) p=0.0056	2.65072255
Constant	–3.458265	
R-squared	0.61344	
Standard Error	0.78020	

Source: Author's analysis of the John Hancock Mutual Life Insurance Company LTC Sponsor Database (1999).

Extensions of the Model and Directions for Future Research

The results reported above are a first step toward a more complete theory of long-term care insurance purchasing behavior. The results above estimate only initial participation for employees. Future research might attempt to estimate aggregate participation rates (i.e., predict the additional participation of spouses, retirees, parents, in-laws, etc.). Another direction would be to analyze the behavior of participation rates over time to shed light on the potentially important effects of legislative and regulatory actions, and company growth, merging, and restructuring, on voluntary benefits participation.

Application of the Models to the Federal Employee LTC Plan

The models estimated above may be applied to other

Table 12
State-Sponsored Long-Term Care Insurance Participation Rates

	Eligible Lives	Insured Lives	Aggregate Participation Rate
State of Alaska[a]	20,650	14,137	68.46%
State of California (CalPERS)	1,108,000	115,000	10.4
State of Kansas	48,000	845	0.02
State of Maryland[b]	214,897	NA	NA
State of North Carolina	396,015	4,500	0.01
State of Oregon[b]	217,616	NA	NA
State of Rhode Island	36,000	103	0.01
State of Washington	169,000	1,813	0.01

Source: Author's discussion with state benefits personnel representing Alaska, Kansas, Maryland, Oregon, Rhode Island, and Washington; CalPERS data from administrator's Web site (www.LTCG.com); North Carolina data from David DeVries, "Long-Term Care in North Carolina," State and Local Governments Association newsletter, Vol. 9, no. 1 (February 1999).
[a]The remarkably higher participation rate of this group is attributed to very low premium rates, the scarcity and high cost of LTC providers in Alaska, and the "self-reliant" state ethic.
[b]Participation rates are not available, as the plans are currently enrolling.

Table 13
Values Associated With the Federal Employees Used in Predicting Participation Rates

Base Case	Values
Eligible Employees	2,787,100
Average Salary in 1999 Dollars	$44,900
Percentage Age 40 or Older	60%
Percentage Female	44%
Employee Participation in Optional Term Life Insurance	66.5%
Employee Participation in Thrift Savings Plan	86.3%
Instability	No
Underwriting	Short-Form Underwriting for Employees
Level of Employer Support	Average (High, Low)[a]
Simplified Enrollment Process	Yes (No)[a]
Cycle	On-Cycle (Off-Cycle)[a]

Source: U.S. Office of Personnel Management, *Fact Book: Federal Civilian Workforce Statistics, 1998* edition; and personal communications with John Cutler, Office of the Assistant Secretary of Planning and Evaluation, U.S. Department of Health and Human Services, Laura Lawrence, Office of Personnel Management, and others.
[a] Effects on participation of other values (in parentheses) were simulated.

employer groups, but this should be attempted with caution.[63] In addition to the caveat issued below, it is also important to note that the models are derived from a largely corporate sample, and have historically experienced higher participation rates than state government-sponsored LTC plans (table 12). Thus, when applying the models to the proposed federal employee LTC plan, it is reasonable to apply a correction factor to account for this disparity. Using the LTC Sponsor Database, on a group-by-group basis, the average employee participation rate is 3.95 percent; the typical (assuming that Alaska and CalPERS are atypical) state-sponsored LTC plan has experienced less than 1 percent participation. A proposed (liberal) correction would be to multiply predicted federal employee participation by 0.25.

The Base Case—The demographic characteristics of federal employees were obtained from the U.S. Office of Personnel Management's *Fact Book* (1998 edition). Information about the most likely scenario for the proposed enrollment came from personal communications with John Cutler of the Office of the Assistant Secretary of Planning and Evaluation, Department of Health and Human Services, Laura Lawrence of the Office of Personnel Management, and others.

As shown in table 13, the federal employee work force is very large (2.8 million people), relatively old, mostly male, with an average salary similar to the average of the LTC Sponsor Database. This group has relatively high participation in at least two voluntary benefits (i.e., optional life insurance and the Thrift Savings Plan[64]) and offers job stability. There was consensus that the offer of group LTC would most likely involve short-form underwriting of employees as a cost-control measure, as has been the precedent in other government-sponsored LTC plan offerings. Three deviations from the base case are simulated below, varying levels of sponsor support, ease of enrollment process, and timing of offer.

To the extent that the enrollment behavior of federal employees is similar to that of state employees, the corrected predictions should have greater accuracy.[65] The corrected predictions vary from 1.0 percent to 6.3 percent employee participation rates, with median predictions of 1.3 percent to 4.8 percent. These percent-

[63] *The models should be applicable to other groups only to the extent that they conform to the characteristics of the LTC sponsors in the dataset used to create these models.*

[64] *Participation data on the Thrift Savings Plan was provided by the Federal Retirement Thrift Investment Board, and reflects participation as of August 1999. The Thrift Savings Plan is the equivalent of a 401(k) plan.*

[65] *To the extent that the enrollment behavior of federal employees is similar to that of corporate employees, the uncorrected predictions would be more accurate. The uncorrected predictions would yield a range of covered employee lives of between 105,910 (3.8 percent) to 696,775 (25 percent). Applying the percentage of additional insured dependents and retirees increases the estimated range to between 175,811 and 1,156,647.*

ages translate to a range of 27,871 to 175,587 employees covered. Across one insurer's book of business, all other eligible groups (i.e., spouses, retirees, retiree spouses, parents, in-laws) represent an additional 66 percent of insured employee lives. Applying this percentage (i.e., 1.66) to the lowest and highest corrected predictions of employee participation yields an estimate for total lives covered ranging from 46,266 to 291,474.

As indicated in table 14, varying assumptions about the federal employee plan offering produce different predicted participation rates. As indicated above, sponsor support has the strongest effect, doubling participation when moving from average support to high levels of support, and halving participation when moving to low levels of support.[66] Substitution of a paper application-based enrollment process instead of a simplified enrollment process (e.g., telephone VRU) reduces enrollment by approximately one-quarter. Substitution of an off-cycle enrollment for an on-cycle enrollment reduces enrollment by approximately one-third.

The stated goal of the OPM is to cover 300,000 individuals under the proposed federal employee LTC plan. Based on the present analysis, this objective is not unreasonable but will require an extraordinary demonstration of sponsor support for enrollment, use of a simplified enrollment process, and on-cycle enrollment, among other facilitating factors reviewed below.

Table 14
Predictions of Federal Employee Long-Term Care Plan Participation Rates Under Different Scenarios, Using the Full Model[a]

	Low	Median	High
Base Case			
Moderate level of employer support	7.5%	9.8%	12.8%
	(1.9)	(2.5)	(3.2)
Variations			
High level of employer support	14.7	19.2	25.0
	(3.7)	(4.8)	(6.3)
Low level of employer support	3.8	5.0	6.5
	(1.0)	(1.3)	(1.7)
No simplified enrollment process	5.5	7.2	9.4
	(1.4)	(1.8)	(2.4)
Off benefits cycle	5.1	6.7	8.7
	(1.3)	(1.7)	(2.2)

Source: Author's application of the Full Model to the values associated with federal employees.
[a]Predictions with correction for government-sponsored long-term care plans are shown in parentheses

Best Practices for Maximizing Participation

The results reviewed above form the basis for a set of recommended "best practices" for maximizing participation. These recommendations relate to maximizing participation only; clearly, other considerations may be present in a particular plan offering. A useful distinction in evaluating the factors presented is the "controllable" versus "knowable" distinction—i.e., some factors are under the control of the employer and insurer (e.g., plan design and communications), whereas others can merely be known and responded to accordingly (e.g., employee demographics, cost of other benefits). Best practices are summarized in table 15.

Conclusion

At this point in time, employment-based long-term care insurance appears to have theoretical potential for achieving widespread coverage among working-age Americans. However, the current low prevalence of employer sponsorship conspires with low participation levels among eligible employees to diminish that potential. Even those cases of relatively high employee participation in long-term care plans equate to coverage of a minority of eligible workers. To achieve even this requires the alignment of multiple facilitating factors, not the least of which is the unchangeable demographic set that characterizes an employee population.

An optimistic perspective on the current level of coverage might be to view employment-based LTC

[66] *The present analysis supports Brenerman's (1999) statement that "the key to a successful Federal Long-Term Care Insurance Program is an effective education and marketing campaign. Successful employer plans that have experienced high participation rates are those that have invested in multi-faceted education and marketing campaigns. The federal government's involvement, in partnership with the participating carriers, is critical to the success of this program. Without substantial employer participation and commitment in educating employees about the importance of a long-term care insurance policy, this program will not be successful." (p. 14).*

insurance as relatively early in the "adoption curve." From this perspective, as rational consumers inevitably face the prospect of an uninsured retirement, they will become increasingly aware of LTC financing issues and will become motivated to purchase LTC insurance, resulting in its mass adoption.

However, it may be more realistic to view adoption of LTC insurance from the conceptual framework of compliance theory (e.g., taking medications as directed, wearing seatbelts, practicing safe sex, etc.), rather than adoption of ordinary new products. Whereas new product concepts are generally marketed as bundles of immediately enjoyable benefits, LTC insurance is essentially prophylactic, protecting the owner from a situation that most people dread and/or assume will never happen to them. Compliance theories[67] suggest that adoption of new socially desirable behaviors is best accomplished through discovery of barriers to change (i.e., misinformation, denial of risk); education regarding negative consequences of maintaining the status quo (i.e., lifetime risk of needing long-term care, LTC cost statistics, advantages of privately paid LTC insurance vs. disadvantages of Medicaid financing); teaching effective new behaviors (i.e., suitability for LTC insurance, how to choose a policy to match individual needs); and provision of social support for the changed behavior (i.e., confirmation that the purchase of one's LTC insurance policy was a good decision). Accomplishment of each component step in the compliance process could be greatly facilitated through government and employer interventions, primarily through signs of endorsement and provision of information.

Because multiple facilitating factors are required for successful enrollment (especially high levels of employer support, high—but not too high—employee salary, large employment size, and job stability), it is easy for enrollment to be derailed by the presence of any of a number of harmful conditions; for example, employer-sponsors that distance themselves from the offer, ineffective communications, difficult enrollment processes, corporate downsizing, etc.

Achieving consistently strong levels of participation in LTC plans will require employer-sponsors and their insurance carriers to form strong partnerships, with worker participation as their primary stated goal. With participation as a shared goal, key decisions about LTC plans (e.g., plan design and pricing, communications, support) can be evaluated in terms of their ultimate impact on participation.

Table 15
Best Practices for Maximizing Employee Participation in Employment-Based Long-Term Care Plans

Suitability for LTC enrollment:
- The company currently offers two or more voluntary benefits with at least average employee participation.
- Employee median salary is $35,000 or higher (at least half of employees earning at least $35,000).
- Employee median age is 40 or older (at least half of employees are older than age 39).
- Employees perceive that sponsoring entity is the source of their benefits.
- Employee work locations are geographically concentrated.
- Employees have job satisfaction and feel that their jobs are stable.

Before the plan is offered to employees:
- Clear statement that the primary objective is maximizing participation.
- Primary motivations for sponsoring LTC should be interest in innovative benefits and concern for employee welfare.
- Review employee demographics to determine suitability for LTC.
- Conduct needs assessment to determine employee interest level in LTC.
- Conduct pre-testing of communications campaign.
- Limit offer to a single insurance carrier.

Designing the core plan:
- Conduct research to determine employee preferences for plan design.
- Offer benefit levels that are appropriate to the cost of care in region of employment.
- Require employees to make no more than three choices.
- Offer a range of coverage, including a low-end (e.g., facilities-only) and high-end option (e.g., unlimited lifetime maximum).
- Offer a long-duration benefit pool option.
- The actual weekly cost of the plan does not exceed the hourly wage of target employees.
- The plan does not build in expensive inflation or nonforfeiture features.
- The plan design includes lower-cost options (i.e., facilities-only, shortened benefit period).

Other plan benefits:
- Offer payroll deduction of premiums.
- Offer guaranteed issue to actively-at-work employees.
- Consider partially or fully subsidizing premiums.

Communications and enrollment process:
- Employer visibly and enthusiastically supports the plan offering and acts to facilitate its communication.
- Enroll the LTC plan using simplified enrollment processes (e.g., telephone VRU).
- Conduct enrollment meetings at work locations with many employees.
- Use multiple media for communication.
- Make an informational toll-free 800 number available.
- Conduct initial enrollment on-cycle with other benefits.
- Spread the communications campaign over at least three months.
- Conduct post-enrollment research to refine future campaigns.

Source: Jeremy Pincus.

[67] *See Fisher and Fisher (2000) for review.*

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