

I. Chapter 9

Customer-oriented Services and Information: Experiences from Sweden

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9.1 Introduction

Recent trends in pension reform around the world are likely to increase individual need for information about pension plans as well as the need for general financial literacy. Many countries are moving from defined benefit plans to defined contribution plans in both their public and private systems. Compared to defined benefit plans, defined contribution plans put more of the responsibility and risk to plan for retirement on individuals because defined contribution plans often require decisions about contributions, investment, and withdrawal of funds at retirement. The reason for that is that the move to defined contribution plans has, in Sweden like in many other countries, been combined with a possibility for the insured to choose how the pension capital shall be invested. In Sweden this choice is possible both for the funded part of the public system and for parts of the occupational schemes. But it is not necessary to combine a defined contribution plan with an individual choice of investment. Examples of that are the Swedish notional defined contribution (NDC) system and also some of the Swedish occupational systems where half the contribution is put into a conventional life insurance.

It is often said that the need for pension information has increased as a result of the move from defined benefit plans to defined contribution plans. This is indeed the case if pension benefits in the defined benefit plan are calculated simply based on the final salary or the salary for the last few years before retirement. In that case, account information is not relevant and a forecast of the future pension is also less interesting because it is only a result of assumptions regarding the salary before retirement.

But pension benefits in a defined benefit plan can also be calculated based on lifetime earnings or close to lifetime earnings, which is the case in Germany or United States, for instance. A defined benefit system designed in this way will come close to a defined contribution system. And the need for pension information also increases. In the United States, individual pension information has been made available to all insured in the public pension system for many years. Similarly, Germany is working on providing such

information. Another trend in reforms of defined benefit plans is that the choice of retirement is becoming more flexible; for example, countries with a fixed retirement age are introducing the possibility of early withdrawal. This also generates an increased need for information.

Furthermore, because of the increased financial pressures imposed by aging populations, pension reforms often result in a reduction in replacement rates and hence could compel individuals to save on their own for retirement unless they are willing to accept lower pension benefits.

Compared to other products, pensions exhibit a set of characteristics that make it relatively difficult to provide information. Pensions are long-term contracts; contributions are made throughout one's lifetime while the benefits are paid much later, and the long time horizon makes it difficult to understand the product. In most countries, the average time between contribution and payment of pension benefits is around 33 years. Thus, benefits are a function of long-term economic and demographic developments, such as earnings growth, life expectancy, inflation and return on assets that are difficult to predict in several respects.

Furthermore, pension benefits often come from several sources. In many countries, the retirement income system is described as a three-legged stool, consisting of public, occupational and private plans. Thus, information and education about pensions involve several actors. What matters for participants is the sum of pension benefits from all sources. The different pension providers have an interest in providing information about their own plan, while consumers are concerned with the aggregate sum which is not known by any single actor. The value of pension information is severely diminished if information is only available on two of the three plans.

It is well documented that individuals often have limited financial knowledge and know little about the characteristics of their public and occupational pension plans or how much to expect in retirement benefits.¹ As a consequence, workers run the risk of reaching retirement with inadequate resources and may have to postpone retirement or accept lower consumption in retirement. Several studies have confirmed that financial literacy and planning have a positive effect on savings and retirement outcomes.² Individuals who approach retirement without planning have lower savings. Similarly, individuals with little financial knowledge are less likely to be successful planners and savers.³ Studies have also shown that knowledge about pension benefits affects retirement behavior. For example, workers who underestimate their benefits are less likely to retire early than those who overestimate their benefits.⁴ The experience with 401(k) plans in the United States provides evidence that funded individual accounts introduce further difficulties for workers and that financial illiteracy can negatively affect outcomes.⁵ A possible reason for the lack of financial knowledge is that learning about pensions is difficult. The complexity involved makes the costs of collecting information appear to be greater than the benefits of understanding the plans. The retirement process is something individuals only go through once and they can therefore not learn from their mistakes. In addition, for some individuals retirement can be viewed as something unpleasant and a cause for worry, which means that learning about pension systems and retirement can involve psychological costs. Furthermore, participants may not appreciate the benefits of collecting pension information because they expect that the public pension system will provide adequate benefits.

This paper examines the challenges for pension information and customer service in view of recent pension reforms. The focus is on the experience in Sweden following the introduction of an NDC plan and funded individual accounts.⁶

9.2 Information in the Swedish Pension System

The new system puts additional demands on participants. In order to make decisions about at which age to retire and how much to save, participants in the system need information about how the level of benefits varies according to the number of years they work and the age at which they retire. Because benefits in the new system are not defined but will depend on contributions and the rate of return on those contributions, it is difficult to express the expected benefit in terms of a replacement rate. Projections that help participants estimate how their “retirement wealth” will translate into monthly payments are therefore an important component of the information that Swedish participants need.

In the Swedish pension system, retirement is flexible and benefits can be withdrawn from age 61. When converting benefits into annuities, pension providers need to take life expectancy into account. In the Swedish system, the automatic adjustment of benefits in response to changes in life expectancy means that younger cohorts of workers will need to postpone their retirement to achieve the same replacement rate as older cohorts. For example, with current projections the annuity divisor for the cohort born in 1940 is 15.7 compared to 17.9 for the cohort born in 1980. Thus, those born in 1980 need to postpone retirement a full three years compared to those born in 1940 (who retire at age 65) to neutralize the effect of increased life expectancy (Table 9.1). The crucial message is that successive cohorts have to work longer to maintain similar replacement rates.

Table 9.1 *Life Expectancy and Retirement Age*

<i>Cohort</i>	<i>Life Expectancy at Age 65</i>	<i>Retirement Age Required</i>	<i>Time Spent in Retirement</i>
1930	82 yrs 5 mos	65 yrs	17 yrs 5 mos
1938	83 yrs 4 mos	65 yrs 8 mos	17 yrs 10 mos
1940	83 yrs 7 mos	65 yrs 9 mos	18 yrs
1945	84 yrs 3 mos	66 yrs 3 mos	18 yrs 3 mos
1950	84 yrs 10 mos	66 yrs 7 mos	18 yrs 6 mos
1955	85 yrs 3 mos	66 yrs 11 mos	18 yrs 8 mos
1960	85 yrs 7 mos	67 yrs 2 mos	18 yrs 10 mos
1965	85 yrs 11 mos	67 yrs 5 mos	18 yrs 11 mos
1970	86 yrs 3 mos	67 yrs 7 mos	19 yrs 1 mo
1975	86 yrs 7 mos	67 yrs 10 mos	19 yrs 2 mos
1980	86 yrs 10 mos	68 yrs	19 yrs 3 mos
1985	87 yrs	68 yrs 2 mos	19 yrs 4 mos
1990	87 yrs 1 mo	68 yrs 2 mos	19 yrs 5 mos

Source: Orange Report 2008.

An implication of the NDC design is that all adjustments to maintain financial stability take place on the benefit side. In addition to automatically adjusting benefits to life expectancy, the system includes an “automatic balancing mechanism” that will ensure that the NDC system’s assets always cover its liabilities by adjusting the indexation of earned pension rights and benefits.⁷ The financial crisis in the fall of 2008 has produced a decline in Sweden’s pension reserve funds and for the first time triggered an automatic reduction in pension indexation, to

take place in 2010. A challenge for the communication strategy is to convey that this automatic balancing is a regular component of the indexation of earned pension rights.

The lion's share of benefits in the Swedish public pension system are determined by the NDC and thus by how much an individual works; only a relatively small share of retirement income depends on investment behavior and asset returns. This share, the Premium Pension, represents 2,5 percentage points of a total contribution of 18,5 percent. On the other hand, the Premium Pension puts additional demands on workers. Participants are expected to put together a diversified portfolio suitable for retirement savings from a menu of more than 800 funds. The funds in the system allow workers to take on very large risks, so poor knowledge of how to balance risk and return could have dire consequences. At the same time, the recent reforms in the occupational plans mean that a large part of the occupational pensions will be put into chosen funds traded in financial markets. For future pensioners this means that up to 30-40 percent of their total pension could depend on investment behavior and asset returns.

In 1999, as part of the reform of the Swedish pension system, a so-called "Orange Envelope" was introduced, which provides the cornerstone of communication with participants regarding the pension system. The Orange Envelope is sent out annually and includes account information as well as a projection of benefits. In addition to providing information about expected benefits, the Orange Envelope summarizes how the new pension system works and highlights to participants that benefits are determined by lifetime earnings.

In addition to the public scheme, occupational pension plans comprise approximately 15 percent of retirement income for individuals with average earnings in Sweden. For individuals with high earnings the occupational pension can correspond to 50 percent or more of the total pension. After the recent reforms in the occupational plans, the importance of these plans will increase. For those who are young today, the occupational plans will comprise approximately 20-25 percent of their retirement income. In order to judge whether benefits will be adequate, participants therefore need projections of their total retirement income. The demand for comprehensive information was clear from the reactions of participants when they received their first statements. Therefore, the Swedish Social Insurance Agency and the Premium Pension Authority together with the insurance companies for the occupational plans, after about four years of negotiations and work, launched the website www.minpension.se in 2004. The website presents individual projections of both the public pension and occupational pension benefits and the total projected pension as well as its components.

One question of particular interest is whether all participants should receive annual pension information or if the information should be targeted to certain groups. Different solutions are found across countries when studying which "customer groups" are considered important to target. Some administrations send statements to all participants, while others choose to target specific age cohorts or "life events." The reasoning behind the different choices is typically connected to the type of scheme and the information presented in the statement.

The Orange Envelope is sent to all participants as soon as they have started to contribute to the scheme. The Orange Envelope also provides information to retirees about their benefits. In the Swedish system, it is possible to withdraw partial benefits; for example, a participant can withdraw 50 percent of their benefits and can continue working 50 percent, and for this group the Orange Envelope continues to provide information on how benefits vary depending on the amount worked.

The overall information goals are similar across pension schemes: to provide information on contributions to the system and expected benefits. An important information objective is to trigger participants to think about retirement, consider how their life choices affect benefits and make informed choices regarding the need for additional savings to provide for an adequate retirement income.

A personalized pension statement can also fulfill many information objectives in connection with a reform, such as informing about the new scheme and establishing trust. Similar to the Swedish case, personal statements have been introduced in connection with pension reform in many countries. In Sweden, the choice of using the Orange Envelope as messenger has successfully branded the color orange and the envelope as an “ambassador” for the new scheme, and for pensions in general. The success of the Swedish information in this respect has inspired other countries to follow suit. In France, the envelope is blue and in Germany it is yellow. Finland feared a brightly colored envelope would be mistaken for advertising, and chose white as it has an official connotation.⁸

Information on Earned Pension Credits

In devising the Orange Envelope, much effort has been put into providing transparent account information. The statement therefore includes separate account information on the NDC and the Premium Pension accounts. The account information shows the start balance, contributions during the year, the rate of return, administrative costs and the closing balance.⁹ For the funded individual account, information is provided on the selected funds.

Thus, participants are given a full picture of their pension accounts to date. The presentation makes clear each participant’s claim on the system. By presenting the pension account like a bank account, the Orange Envelope helps communicate to participants that the public pension system is savings for retirement.

Anecdotal evidence in several countries shows that participants often mistrust the pension system to fulfill its obligations. By making the connection between pension contributions and savings, the individual statement can contribute to the understanding that the pension system is a contract between generations and that participants have a claim on the system.

Information on Expected Benefits

A projection of future pension benefits and how benefits vary with retirement age is necessary information in order to make decisions about work and savings. In a defined contribution plan with fixed contributions, a projection is necessary to provide information on expected benefits.

In the Orange Envelope, two scenarios are presented: 0 percent wage growth and 2 percent wage growth. The rate of return on the funded individual account is assumed to be 3.5 percentage points higher than earnings growth. In the 0 percent scenario, the projected benefit can be interpreted at the current price and wage level; participants can compare the projection with their current earnings to get an estimate of the replacement rate. The projected benefit in the 2 percent scenario has to be compared to future earnings and a common mistake is to

compare the projection in the 2 percent scenario to current earnings. By providing different scenarios, the statements indicate that benefits will vary with economic growth, but because all projections are static they do not convey the uncertainty involved.

The Orange Envelope presents projections that show how benefits vary with retirement age.

Pension benefits for participants under the age of 60 are shown at the earliest age they can be withdrawn (age 61), at age 65 and age 70. The purpose is to show that working longer will result in higher benefits. The statement for persons 60 and older shows benefits for additional ages between 61 and 70, with what ages are shown depending on the participant's age. In that way, the Orange Envelope provides detailed information on how benefits will vary with retirement age for individuals in the process of planning their retirement.

Because benefits are automatically adjusted for life expectancy, younger cohorts have to work longer to receive the same replacement rates as older cohorts. The cohort-specific retirement ages could be used to convey how life expectancy affects benefits, e.g., by presenting them in the Orange Envelope. The Swedish Pension Agency has considered using the cohort-specific retirement ages in the projections in the Orange Envelope. This will probably be introduced in 2012. Similar information is available in pension statements in the United States and anecdotal evidence indicates an impact on retirement behavior.

System-level Information

The Orange Envelope provides a short description of how the pension system works. The focus is to highlight the type of information that is most relevant to participants in order to make decisions about work and savings.

In some countries, the pension statement provides information on the financial stability of the pension system. Pension statements in the United States inform participants that the system needs to be changed (e.g., benefits cut or taxes raised) in order to be financially sustainable. The accompanying text clearly spells out that the benefits presented in the statement are not guaranteed. The German statement informs participants that public pension benefits may not be sufficient in the future to maintain their standard of living and advises participants to consider private and occupational pension plans.

Information on Total Retirement Income

Typically, statements only provide information on public benefits, although retirement income generally comes from several sources. This is a disadvantage; participants may wrongly conclude that retirement benefits are lower than they actually are. The Swedish website minpension.se (my pension) includes information on both public and occupational benefits.

Since its inception in December 2004, the website has attracted 1.15 million registered users and the number of visits per day on average is around 10,000.¹⁰ The site is the result of collaboration between public and occupational pension providers. The site is marketed in several ways to draw traffic to the site and raise awareness of the three-tier pension system. To this end, a sheet describing the site has been included in the Orange Envelope during the past two years. Furthermore, the collaborating partners display a link to minpension.se on their

websites. For the new Swedish Pension Agency, minpension.se will be the main channel to provide information on total retirement income.

9.3 Does the Information Work?

The Swedish Social Insurance Agency conducts an annual survey about the Orange Envelope to examine how participants use it and how well it communicates information about the pension system. The survey has been conducted annually since 1999. The sample consists of 1,000 individuals aged between 18 and 62 and interviews are conducted by telephone. The survey asks respondents to rate their knowledge of the pension system and indicate to what extent they read the information provided in the Orange Envelope. It also includes questions to test participants' knowledge of the system. The survey includes demographic and economic background variables such as age, gender, marital status, education and income.

Most people know about the Orange Envelope; Figure 9.1 shows that the share of participants who know that they have received the envelope has held steady at around 90 percent throughout the years. However, the percentage of those who made use of it is much smaller. Roughly three-fourths of all participants say they have opened the envelope and about half report reading at least some of the content.

Figure 9.1 Share of Participants That Know About the Orange Envelope

Source: Survey of the Orange Envelope.

Not surprisingly, older participants read the contents of the Orange Envelope to a greater extent than younger participants, but the differences are quite small, with the exception of those younger than 25 (not shown in Figure 9.1). The data also show that low-income individuals are less likely to examine the Orange Envelope's materials. Participants who have private pension savings, for example an individual retirement account, are more likely to open and read the Envelope. Less than 20 percent of all participants had compared the information in the current Orange Envelope with the previous years' content. Thus, the group who is most likely to read and examine the materials corresponds to the group of participants who are most likely to already have some financial literacy. The pattern has changed little since the introduction of the Envelope, so it is not clear whether the Orange Envelope has attracted less interested participants.

To help participants translate their account balances to monthly benefits at retirement, the Orange Envelope includes a benefit projection. The survey results show that among those who *opened* the Envelope, about 70 percent looked at the benefit projection during the first years the Envelope was sent out. By 2005, that share had increased to almost 80 percent; in 2010, the share was 75 percent.

Self-reported understanding of the pension system has increased since the envelope was introduced and in 2010, 37 percent of respondents reported that they had a good understanding of the system. The share of participants who report that they do not understand the new system at all is less than 10 percent; this share has decreased somewhat in the last few years.

The survey also includes a set of questions to gauge actual knowledge of the pension system. Among those who read at least some of the Orange Envelope contents, the share is only slightly higher and follows a similar pattern over time. Overall, men are somewhat more likely than women to know about the basic principle of the pension system. Not surprisingly, income and education are also important determinants of actual knowledge – participants in the highest income brackets and with a college degree have a better understanding of the system than participants with low incomes and fewer years of education.

To summarize, most people know about and read the contents of the Orange Envelope. Still, only about 40 percent understand that lifetime earnings determine benefits, one of the most important characteristics of the pension system. But although self-rated and actual understanding could be viewed as somewhat low, participants have confidence in the system. In 2010, more than half of all participants had some or great confidence in the system, and the share of those with no confidence had decreased markedly. This level of confidence may indicate that the information provided has been successful in communicating that the pension reform has created a financially stable system.

9.4 Conclusions

The defined contribution plan redefines the benefit promise and puts more risk and responsibility on participants to plan for retirement. The automatic adjustment of benefits to life expectancy means that individuals will have to either work longer or save more to maintain replacement rates. Reliable projections of expected benefits and an understanding of how benefits vary with retirement age are crucial for participants. Furthermore, the broad investment choices in the funded individual account require participants to be familiar with general principles of investing. Therefore, an instrumental component of the reform has been information and education. In particular, a large effort has been put into the development of the annual account statement, the Orange Envelope.

The information and education efforts have to some extent paid off. Almost everyone knows about the Orange Envelope and most individuals have at least opened it. When the envelope is mailed out in the spring, news media regularly report about the pension system and expected benefits. Self-reported understanding about the pension system has increased since the envelope was introduced and in 2010, 37 percent of respondents reported that they had a good understanding of the system.

The outcome of the Swedish pension educational efforts should be viewed in light of the fact that the new Swedish pension system has been in effect for less than 10 years and that most people who will depend fully on the new system are still far from retirement. On the other hand, participants report that they would like more information. Firstly, they want more and better information on the total pension, including public and occupational pension plans and preferably also private pension plans. Secondly, they would like more help with choosing funds in the Premium Pension (and probably also in the occupational pension plans). Given the amount of information available, the demand for more information sends a signal that something is missing in the current communication with participants. Thus, the challenge is to consider alternative ways of communicating with participants so that they have the tools they need to plan for retirement. Part of the problem is that pensions are generally a low-interest matter and most people will not actively search for information. This means that we must reach these people even if they are not actively looking for information, and the information must catch their attention and must be easy to understand.

9.5 Service Delivery Today and Future Strategies

The information challenge was one of the main reasons to establish the new Swedish Pension Agency, which resulted from the merger of the former pension department at the

Social Insurance Agency and the Premium Pension Agency. The new agency was established on January 1st, 2010, and the intention was to achieve:

Efficiency. One agency would be better equipped to deliver an efficient administration and at lower cost (thus benefiting participants and beneficiaries).

Improved service for pension participants and beneficiaries – one contact, one administrator, instead of two.

Improved information. An important task for the Swedish Pensions Agency is to work towards accessible and simple information on the total pension picture. That includes public pensions, occupational pensions and private pensions. Information can be divided into two different kinds: information on demand which is initiated by the customer, and processed information initiated by the agency. For information on demand, the customer chooses the channel for meeting, while we can choose the channels ourselves for the processed information.

To meet these needs, the operational customer service operations are divided into four channels: face-to-face meetings, telephone customer services, e-services and printed matter.

Face-to-face	Local service offices, in collaboration with the Social Insurance Agency and the Tax Agency Information meetings for 60-year-olds, by invitation and/or request
Telephone	Centralised telephone customer services: information, individual case administration, access/transfer to specialists
E-services	Website, on-line application, fund information, fact sheets, projections (minpension.se), "My Pages", e-mail, etc.
Paper	<i>Benefit level:</i> Orange Envelope, brochures, decisions, forms <i>System level:</i> Orange Report, Annual Report, statistics

We are seeking the highest availability of our channels at the lowest possible cost. We are therefore trying to direct as many customers as possible to self-service over the telephone or at our web services, but we cannot exclude any channel.

Face-to-face

The Swedish Pensions Agency has offices in eight different locations, none of which are open to the public. One of the biggest challenges is to manage the face-to-face meetings.

To meet the need for the approximately 20,000 personal meetings with customers per year, we collaborate with different authorities in what we call service offices (one-stop-shops). Today, approximately 100 service offices have been established and in a couple of years there will be 124 service offices around the country – an efficient way to be present across the country, especially in northern Sweden, where distances between cities are long. The service offices are staffed with generalists. Specialist staff is sent out on a regular basis from our nearest office to the service offices to perform planned meetings and information activities.

Future Face-to-face Activities

In the future technical distance services will be implemented in the service offices. A computer with a screen, a web camera, a scanner and new software will allow us to run computerized personal meetings no matter what the distance, at a fraction of the cost of regular offices.

E-services

The Swedish website minpension.se lets participants make projections of their future pension and is the result of collaboration between public and occupational pension providers. The site is marketed in several ways to draw traffic to it and to raise awareness of the three-pillar pension system. The Swedish Pensions Agency has made minpension.se available as an embedded seamless log on service from our own site, www.pensionsmyndigheten.se. The service has been up and running since January 4th, 2010. During the second half of this year the collaborating partners will display a link to minpension.se on their websites and one or two of the major Swedish banks will also release this service.

Development of New E-services

The Swedish Pensions Agency will in the coming years focus much on the development of new e-services. The usage of computers and the Internet is increasing dramatically in Sweden and this also applies to those that are close to retirement age.

9.6 Information Improvement

As stated above, a fundamental reason for the decision to form a new agency was the need for simplifying and improving information for customers. Primarily, this concerns the public pension system, but the mission for the Pension Agency is also to work for improved information on insured persons' total pension entitlements, including occupational pensions and private pensions. An important step was taken when the website minpension.se was introduced. But still a majority of pension savers do not use

the website. Therefore, an essential task will be to plan for and build a solid base for complete and easily accessible pension information in collaboration with pension providers of occupational and private pension schemes.

For this purpose the Pension Agency has started a project in 2010 with the following planned activities:

Improve the information on minpension.se. Information on the occupational pension plans is still incomplete and there is only limited information about private plans. The first priority is to complete the information on the occupational plans. This work is continuously ongoing and mainly performed by minpension.se.

Work toward providing a forecast on both the public and the occupational pension in the Orange Envelope.

Work toward a unified calculation concerning pension forecasts. Today, many pension providers have their own tool for pension forecasts, despite the existence of minpension.se. The problem is that these different tools give different forecasts even if the underlying assumptions are the same.

Work toward easier accessibility of minpension.se. At present, customers need to find the website and then need a personal code or electronic identification to be able to use it. What we aim to do is to make it available as an embedded seamless log-on service from, for instance, the website of one's bank. The first step is taken by making minpension.se available when customers are logged in at the website of the Pension Agency.

Develop a common pension terminology for both public and private pension providers.

Endnotes

1. See, for example, Mitchell (1988), Gustman and Steinmeier (2004) and Lusardi and Mitchell (2007b).
2. Ameriks, Caplin and Leahy (2002) and Lusardi and Mitchell (2006; 2007a).
3. Ameriks, Caplin and Leahy (2002) and Lusardi and Mitchell (2006; 2007a).
4. Gustman and Steinmeier (2001) and Chan and Stevens (forthcoming).
5. See, for example, Munnell and Sundén (2004) and Beshears et al. (2006).
6. This paper builds on: “The challenge of reaching participants with the message of NDC” (Annika Sundén) presented at the NDC conference in Stockholm, December 2009.
7. The assets in the NDC are equal to the capitalized value of contributions.
8. Ingrid Kindahl, article for the Swedish Pension System Annual Report 2007.
9. [A history of contributions was provided in the second Orange Envelope. – I’m not sure I understand this. In particular, the combination of “was” (past tense) and “second Orange Envelope” is rather confusing. Was there only one such “second Orange Envelope”? (That is what “was” implies.) Or do you mean “is provided...” (i.e., each year, a participant receives two envelopes)?]
10. June 2010.

References

- Ameriks, John, Andrew Caplin, and John Leahy (2002), “Wealth Accumulation and the Propensity to Plan,” *Quarterly Journal of Economics*, 68: 1007–1047.
- Beshears, John, James J. Choi, David Laibson, and Brigitte Madrian (2006), “Simplification and Saving,” *NBER Working Paper 12659*, National Bureau of Economic Research, Cambridge, MA.
- Chan, Sewin, and Ann H. Stevens, “What You Don’t Know Can’t Help You: Pension Knowledge and Retirement Decision Making,” *Review of Economics and Statistics*, forthcoming.
- Gustman, Alan L., and Thomas L. Steinmeier (2001), “Imperfect Knowledge, Retirement, and Saving,” *NBER Working Paper 8406*, National Bureau of Economic Research, Cambridge, MA.
- (2004), “What People Don’t Know About Their Pensions and Social Security: An Analysis Using Linked Data From the Health and Retirement Study,” in W. Gale, J. Shoven, and M. Warshawsky (eds.), *Public Policies and Private Pensions*, 57–119. Washington, DC: Brookings Institution.
- Lusardi, Annamaria, and Olivia S. Mitchell (2006), “Financial Literacy and Planning: Implications for Retirement Wellbeing,” *Pension Research Council Working Paper 2006-01*, The Wharton School, University of Pennsylvania.
- (2007a), “Baby Boomer Retirement Security: The Roles of Planning, Financial Literacy, and Housing Wealth,” *Journal of Monetary Economics*, 54: 205–224.
- (2007b), “Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education Programs,” *Business Economics*, 42(1): 34–44.

Mitchell, Olivia (1988), “Worker Knowledge of Pension Provisions,” *Journal of Labor Economics*, 6(1): 28–39.

Munnell, Alicia H., and Annika Sundén (2004), *Coming Up Short: The Challenge of 401(k) Plans*. Washington, DC: Brookings Institution Press.
