

Improving Outcomes with Electronic Delivery of Retirement Plan Documents

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EXECUTIVE SUMMARY

Employers that voluntarily choose to offer defined contribution retirement plans, such as 401(k) plans, are required to distribute numerous statements and disclosures both quarterly and annually. Many plans would like, as a default, to distribute retirement plan information electronically. All participants would be given the right to “opt out” and receive paper communications at no charge.

But current rules stand in the way. The Department of Labor (DOL) and Internal Revenue Service (IRS) have issued extensive guidance governing the manner in which plans can distribute retirement plan information electronically. But depending on the nature of the information, any one of four different IRS or DOL standards can apply. In some contexts, plans can default participants into electronic delivery; for other information it is necessary to sign up each participant for electronic delivery – which entails a formidable battle against inertia. Lack of consistency causes considerable confusion for retirement plan administrators and their participants alike.

Today’s highly restrictive framework guiding electronic delivery of plan information is trapped in the Twentieth Century; this framework reflects neither recent years’ emerging information trends and technologies nor these trends and technologies’ many benefits – for both participants and plan administrators. Yet as reported in a Greenwald & Associates survey, plan participants are aware of the many potential benefits of electronic delivery and they overwhelmingly find it acceptable to make electronic delivery the default method of delivering of plan information.

Besides reducing costs (with savings significantly passed through to plan participants), electronic delivery provides an efficient and reliable means of communicating important plan information, which facilitates superior participant outcomes. This White Paper examines the many rationale for allowing plan sponsors to make electronic delivery the default method for communicating with retirement plan participants.

Findings

- **Online Access Offers the Potential to Expand Electronic Delivery** – Recent surveys indicate that virtually all Americans have access to online services, in the workplace and/or at home. Access is broad across age group, race, household income, and region.
- **Conducting Financial Business Online** – Alongside dramatic growth in computer and Internet use, so too has Americans’ reliance on electronic technology for financial communication and transactions grown significantly. This growth has taken place in areas of critical importance to everyday life:
 - **Banking and Financial Transactions** – Online and mobile phone banking is fast becoming the preferred banking method across all age groups.
 - **Social Security Benefits** – Nearly *all* Social Security recipients (98.6 percent in 2014) receive their benefits through electronic payment.
 - **Federal Income Tax Filing** – The trend to file individual tax returns electronically continues to experience steady growth. Specifically, 85 percent of the 137 million returns filed as of May 16, 2014 were filed electronically.

Since conducting day-to-day financial transactions online serves as a proxy for a retirement plan participant’s willingness to receive electronically plan-related notices, disclosures, and statements, the move toward conducting day-to-day financial transactions is a strong indicator that participants would prefer and benefit from electronic delivery of plan information.

- **Benefits of Electronic Delivery** – Relying on paper communication is both inefficient and costly. Even the federal government has recognized in its defined contribution plan for federal employees that electronic delivery of plan information is the appropriate default. Electronic delivery:
 - *Allows participants to respond quickly to plan information received electronically;*
 - *Ensures information remains up-to-date and is accessed by participants in “real time;”*
 - *Provides information that is more accessible – and digestible;*
 - *Provides information that can be more readily customized; and*
 - *Provides a better guarantee of actual receipt of information.*

- **Cost Savings** – Compared to distributing plan documents by mail, electronic delivery has significantly lower costs, with savings from printing, processing, and mailing. A recent study estimates that moving from paper to electronic delivery of certain documents could reduce costs of producing communications by 36 percent.

- **Benefits Accruing to Participants** – Allowing retirement plan administrators to make electronic delivery a default would reduce the costs associated with their plans. As our research based on economic incidence theory shows, these cost savings would ultimately be passed back to participants, translating to lower expenses – and higher net investment returns – for participants. We calculate that switching to an electronic delivery default would produce *\$200 to \$500 million in aggregate savings annually that would accrue directly to individual retirement plan participants.*

- **Attitudes Toward Electronic Delivery** – Despite the changing attitudes toward electronic mediums in all aspects of daily life, the current rules have inhibited plans from adopting “opt-out” electronic delivery practice for retirement plan documents. Yet in a poll of retirement plan participants, 84 percent find it acceptable to make electronic delivery the default option (with the ability to opt out without cost).

- **Enhancing Retirement Savings with Electronic Delivery** – Directing participants to electronic mediums promotes the use of electronic tools (such as retirement readiness calculators) that ultimately play an important role in promoting superior retirement outcomes. In fact, as provider data demonstrate, mere exposure to online tools has been shown to encourage participants to increase deferrals or modify their investment strategy to achieve a secure retirement. Consequently, participants that receive plan communications electronically have better retirement outcomes.

- **Default Rules that Rely on Opt-Out Improve Outcomes** – Behavioral economists have demonstrated the importance of setting the appropriate default rule in engaging individuals. Accordingly, in the landmark Pension Protection Act of 2006, Congress promoted the use of “automatic” rules that facilitate “automatic” behavior. The evidence is clear that this shift has had a critical impact on driving superior outcomes:
 - *Auto Enrollment Increases Participation and Deferral Rates* – Recent surveys indicates that using an opt-out provision increased retirement plan participation rates, from 49 without automatic enrollment to 91 percent with automatic enrollment; and
 - *Automatic escalation of deferral rates and automatic investment defaults* –One recent survey found that automatic escalation of contribution amounts increased plan deferral rates by 21 percent and the increased contributions resulted in average account balance growth of 78 percent for plans with automatic contribution escalation.

I. Restrictive Framework Guiding Electronic Delivery

A. Overview

Federal law (both the Employee Retirement Income Security Act of 1974 [ERISA] and the Internal Revenue Code [Code], and the regulations thereunder) requires that qualified retirement plan participants receive plan information on a regular basis. This breadth of required information, as outlined in Table 1, includes plan description and summary materials, benefit statements, and disclosures regarding expenses and fees.

Traditionally, retirement plans (through their administrators) have prepared printed (hard) copies of these materials for distribution to employees and other plan participants (including former employees who have already retired).¹ This has entailed either distributing materials to employees at the workplace or, in many cases, mailing the materials to participants. But as electronic communication has gained traction as the primary means by which individuals receive important information, retirement plans have increasingly turned to delivering information through e-mail or secure websites.² Besides reducing costs (which are passed through to plan participants), electronic delivery of plan information provides an efficient and reliable means of communicating important plan information – which can facilitate superior participant outcomes.

Rules issued by the U.S. Department of Labor (DOL) and the Internal Revenue Service (IRS) govern the distribution of plan information by electronic means. While providing some guidance for retirement plans, these rules generally do not permit plan administrators to make electronic delivery the default delivery option. Rather, current DOL and IRS guidance often requires that a plan participant affirmatively consent to receive electronic delivery of plan information. But as behavioral economics, particularly in the retirement plan context, has made clear, inertia is an exceedingly powerful force. The need for affirmative consent creates a considerable barrier for plans trying to increase efficiencies and pass those efficiencies to plan participants – even while (as Section II.B. shows) the overwhelming majority of today’s plan participants are comfortable with an electronic default that enables them to “opt out” for paper. Further, the existing DOL and IRS rules apply different electronic delivery standards to different communications; the conflicting standards create considerable confusion for plans.

Indeed, today’s highly restrictive framework guiding electronic delivery of plan information is trapped in the Twentieth Century; this framework reflects neither recent years’ emerging information trends and technologies nor these trends and technologies’ many benefits for retirement plan participants.

¹ Plan administrators include employers who sponsor a qualified retirement plan, plan trustees, or third-party managers who act as a plan fiduciary and are responsible for the plan’s administration and management.

² Use of traditional first-class mail (single piece and bulk mailing) service via the U.S. Postal Service has declined 32.8 percent since 2004. This decline is linked to the widespread use of electronic communication. Refer to U.S. Postal Service, *Postal Facts, 2014, A Decade of Facts and Figures*, available online: <http://about.usps.com/who-we-are/postal-facts/decade-of-facts-and-figures.htm>.

Given these many benefits of electronic delivery, it is not surprising that plan participants themselves are overwhelmingly willing to accept electronic communication and online access for retirement plan information. As a recent telephone survey conducted by Greenwald & Associates found, 84 percent of plan participants find it acceptable to make electronic delivery the default option (with the option to opt-out at no cost to the participant).³

The importance of these results cannot be overstated. First, the results are current, reflecting views of plan participants interviewed through January 2015. Second, this timely survey of plan participants is consistent with the many trends toward Internet access and daily use of the Internet. The surveyed plan participants reflect (1) the current trends toward online access and electronic communication in their day-to-day activities as well as (2) a number of efficiencies that would accrue from moving to electronic delivery of plan information. The Greenwald survey results indicate that participants recognize clearly the many benefits available from moving to electronic delivery.

Consistent with plan participant views, recent legislative efforts recognize the importance of allowing plan administrators to keep pace with these trends (outlined in Section II.A.) to facilitate more widespread delivery of plan information through electronic methods. Among these is Congressman Richard Neal (D-MA)'s Retirement Plan Simplification and Enhancement Act of 2012, which would allow administrators to deliver all ERISA and Tax Code notices electronically, as long as the plan meets uniform DOL requirements.⁴ Meanwhile, Senator Orrin Hatch (R-UT)'s Secure Annuities for Employee Retirement Act of 2013 would allow default electronic delivery of all plan-related notices in accordance with any of the existing DOL or IRS standards.⁵

While making electronic delivery the default delivery method, both legislative proposals would preserve the opportunity for a participant to opt-out of electronic and request, at no charge, paper copies of any document. These legislative proposals are consistent with a number of Executive Orders that President Obama has issued to Federal Agencies, directing them to conduct electronic transactions whenever feasible.⁶ By enabling plans to set electronic delivery as the default delivery method, considerable benefits would accrue to plan participants, not only from reduced costs, but also from increased efficiencies (through access to online tools and

³ The study examines plan participant views toward receiving plan documents and account updates by paper and online. A total of 1,000 randomly selected plan participants nationwide were administered a 10-minute telephone survey. The results reflect the weighted (by age and gender) responses to reflect the current demographics of plan participants. Refer to Appendix A for the complete Greenwald & Associates survey.

⁴ 112th Cong., H.R. 4050, § 402. The bill would require plan administrators to meet conditions that have already been established by the DOL for certain communications, *i.e.*, continuous secure website access, with instructions and notifications to participants of their ability to opt-out of electronic delivery (and receive paper copies) at no cost to the participant. The bill would require plan participants to receive annually these instructions and notifications.

⁵ 113th Cong., S.1270, § 241.

⁶ Office of Management and Budget, Executive Office of the President, *Reducing Reporting and Paperwork Burdens*, Memo dated June 22, 2012.

applications to assist in their saving decisions), which in turn will improve their retirement preparedness.

B. DOL and IRS Electronic Delivery Regulations

Depending on the specific required disclosure, either the DOL or the IRS provides the applicable delivery rules and interpretations.⁷ Most disclosures overseen by the DOL are subject to the DOL’s Electronic Disclosure Safe Harbor and Interpretive and Technical Guidance.⁸ Meanwhile, for disclosures required under the Tax Code, the IRS has issued Media Disclosure Guidance.⁹ The DOL and IRS rules and interpretations bear considerable similarities in terms of *how* documents can be delivered electronically: Whereas the DOL requires electronic delivery in a manner that is *reasonably calculated to ensure actual receipt of the material*, the IRS requires *effective ability to access* the material. But the regulations differ considerably on *when* documents can be delivered electronically.

Table 1 provides a list of the more common required disclosures on the horizontal access, and options available for electronic delivery on the vertical axis. As the table makes clear, DOL and IRS guidance lack a consistent approach for all plan disclosures. The lack of conformity means that plan administrators must make a case-by-case determination regarding the method for delivering plan information that maintains compliance with the rules and guidance.

Table 1 – Disclosure Requirements and Electronic Delivery Options								
<i>Source: Principal, A Guide for Plan Sponsors of 401(k) and Other Participant-Directed Retirement Plans, May, 2013</i>								
Disclosure Requirement	Electronic Delivery Options						Jurisdiction	
	Wired at Work	Affirmative Consent	Assumed Consent	Continuous Access Website	IRS General Method	IRS Alternative Method	DOL	IRS
Summary Plan Description and Summary of Material Modifications	√	√					√	
Summary Annual Report	√	√					√	
401(k) Traditional Safe Harbor Notice					√	√		√

⁷ For a detailed review of the DOL and IRS rules and interpretations, see *Principal, A Guide for Plan Sponsors of 401(k) and Other Participant-Directed Retirement Plans*, May, 2013, and OneAmerica, American Life Insurance Company, *Distributing Materials Electronically FAQ*, June 2013.

⁸ See Employee Benefits Security Administration, *Final Rules Relating to Use of Electronic Communication and Recordkeeping Technologies by Employee Pension and Welfare Benefit Plans*; Final Rule [04/09/2002], Volume 67, Number 68, Pages 17,263 – 17,276 (29 CFR Part 2520), available online: <http://www.dol.gov/ebsa/regs/fedreg/final/2002008499.htm>. See also Technical Release, No. 2011-03, *Interim Policy on Electronic Disclosure Under 29 CFR 2550.404a-5*, September 13, 2011, available online: <http://www.dol.gov/ebsa/newsroom/tr11-03.html>, and Section A of the Technical Release, No. 2011-03R, December 8, 2011, available online: <http://www.dol.gov/ebsa/newsroom/tr11-03r.html>, respectively.

⁹ The IRS has issued *Use of Electronic Media for Providing Employee Benefit Notices and Making Employee Benefit Elections and Consents*, (26 CFR Parts 1, 35, and 54) available online: <http://benefitscollective.com/images/a/a7/Td9294.pdf>.

Table 1 – Disclosure Requirements and Electronic Delivery Options

Source: Principal, A Guide for Plan Sponsors of 401(k) and Other Participant-Directed Retirement Plans, May, 2013

Disclosure Requirement	Electronic Delivery Options						Jurisdiction	
	Wired at Work	Affirmative Consent	Assumed Consent	Continuous Access Website	IRS General Method	IRS Alternative Method	DOL	IRS
Quarterly Benefit Statement	√	√					√	√
Plan and Expense Information for Participant-Directed Plans	√	√	√	√			√	
Investment Information for Participant-Directed Plans (in tabular or other accessible format)	√	√	√				√	
Automatic Enrollment and Qualified Default Investment Alternative Notices	√	√				√	√	√
Blackout Notices	√	√					√	
IRS Notices (for example, Rollover Notices or Qualified Domestic Relations Orders)					√	√		√

Reviewing this existing panoply of electronic delivery rules, a recent Government Accountability Office (GAO) report concluded that the current framework is “somewhat inconsistent and unclear.”¹⁰ The GAO found a need to clarify the rules and disclosure guidance between the DOL and IRS to avoid inconsistencies. As the following descriptions of the DOL and IRS guidance shows, this inconsistent framework complicates the process for making the many required disclosures.

1. DOL’s Electronic Disclosure Safe Harbor – A fiduciary (in this case generally the plan administrator) that complies with the safe harbor is treated as having delivered the materials by traditional postal service. To satisfy the safe harbor, the plan must ensure that the electronic systems:

- Guarantee receipt of the materials;
- Protect confidentiality of personal information;
- Deliver notices explaining the importance of the materials and the option to “opt-out” of electronic delivery;
- Contain materials that are easily understood and accessible to the participant;
- Contain the same content as documents delivered by other means; and
- Respond accordingly to requests for paper documents.

The safe harbor identifies participants who (in popular parlance) are “wired at work” or who given their “affirmative consent” as having the potential to receive information electronically.

¹⁰ See Government Accountability Office, *Private Pensions Revised Electronic Disclosure Rules Could Clarify Use and Better Protect Participant Choice*, GAO-13-594, September 2013.

An employee who is wired at work requires has access to electronic materials at any location where the employee works and use of the computer is an integral part of the employee’s work duties.

Affirmative consent requires that the plan communicate the:

- Types of document covered by consent;
- Ability to withdraw consent at any time, without cost;
- Procedures for withdrawing consent; and
- Hardware and software requirements necessary to access and store the electronic documents.

2. DOL’s Interpretive and Technical Guidance (for benefit statements) – Separate from its generally applicable safe harbor, DOL provides a separate set of rules for delivery of quarterly benefit statements. Plans may make quarterly benefit statements available through “one or more secure continuous access websites.” But to deliver quarterly statements this way, plans must provide an annual notice explaining the: (1) availability of the information on the website; (2) instructions for accessing the information; and (3) right to request paper copies at no additional cost. Participants who meet the “wired at work” or “affirmative consent” requirements can be electronically provided this annual notice regarding; otherwise, the notice must be sent via traditional postal service.¹¹

Additionally, in the context of plan and expense information and, for participant-directed plans, investment information, DOL issued additional information regarding the “assumed consent” method for electronic delivery. Specifically, the plan may treat a participant as having provided his or her consent if the participant (1) receives an annual notice consistent with the requirements under “affirmative consent” and then (2) provides an e-mail address to the administrator for electronic delivery. Moreover, the plan must continue to provide annual notices conveying the same information (as that contained in the initial notice).

3. IRS’s Media Disclosure Guidance – The IRS has two methods governing the default use of electronic delivery, its “general” and “alternative” methods. The general method parallels the DOL’s Electronic Disclosure Safe Harbor, which requires affirmative consent.

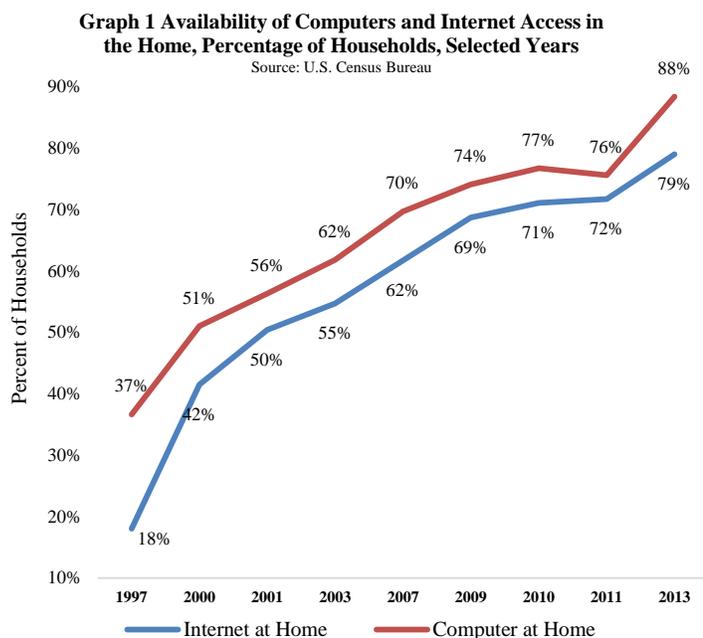
The alternative method provides greater flexibility for the plan, allowing delivery of information through any electronic medium (*e.g.*, e-mail or continual access website) as long as the individual has the “effective ability to access” the materials. In addition, the administrator must advise recipients – at the time of electronic delivery – that they have the right to request paper copies without any associated costs. Some call this the “post and push” method of delivery.

¹¹ Even if a plan administrator must send notices by mail, the participant may still also receive quarterly benefit statements through online access.

C. Online Access Offers the Potential to Expand Electronic Delivery

Allowing plan administrators to send electronically, by default, all ERISA and Tax Code notices, disclosures, and statements is compatible with widespread Internet access for the vast majority of active, separated, and retired plan participants.¹² Indeed, recent private- and public-sector surveys indicate that virtually all Americans have access to online services, either in the workplace or at home. These surveys confirm both that workplace access is widespread across sectors, and that the overwhelming majority of Americans have computers and Internet access in their homes.¹³

Further, the Greenwald survey of retirement plan participants' online habits indicate that 99 percent reported having access at home or work and 88 percent of respondents reported accessing the Internet on a daily basis.¹⁴



Workplace Access – Research on workplace Internet access finds a clear relationship between the location of a job and the likelihood that an employee has access to the Internet at work. Assessing the extent to which broadband access was present in the workplace,¹⁵ a recent National Telecommunications and Information Agency (NTIA) statistical analysis found a strong relationship between where employers tend to locate and workplace access to the Internet.¹⁶ In other words, the vast majority of employment tends to concentrate around certain geographic

¹² Under this option, the plan administrator must meet the conditions established by the DOL, *i.e.*, continuous secure website access, with instructions and notifications of the ability to opt-out at no cost to the participant. The plan participant must receive annually these instructions and notifications.

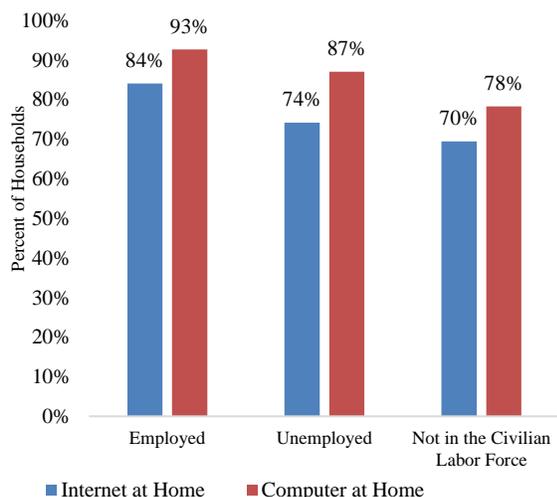
¹³ Duggan, Maeve and Aaron Smith, Pew Research Center's Internet and American Life Project, *Cell Internet Use, September 16, 2013* (data from the Pew tracking survey, July 18 through September 30, 2013). While younger respondents (age 18 to 29 years) reported the highest rates of daily use (88 percent), respondents age 65 years or older also reported significant rates (71 percent).

¹⁴ Refer to Appendix A for the complete Greenwald & Associates survey.

¹⁵ The NTIA matched statistical data from the broadband availability survey with Census block data from the Longitudinal Employer-Household Origin-Destination Employment Statistics. Refer to NTIA, *Broadband Availability in the Workplace*, Broadband Brief No. 3, November 2013 and *Broadband Availability, Beyond the Rural/Urban Divide*, Broadband Brief No. 2, June 2013.

¹⁶ Based on data from the Bureau of Labor Statistics, National Compensation Survey, 2014, this relationship is also consistent with the presence of employer-sponsored retirement benefits.

Graph 2 Internet and Computer Access by Employment Status, 2013
Source: U.S. Census Bureau



regions of that state (generally population centers). The NTIA found Internet access was widely available in these geographic regions.

While finding some variation in the speed of access, NTIA reports that “virtually all jobs in the United States are located in areas with at least basic wired or wireless broadband service availability...”¹⁷ Only employees in “very rural” regions (defined as 11 or fewer residents per square mile) faced limited high-speed Internet access, but just 5.3 percent of U.S. employees work in these very rural regions. Thus, the overwhelming majority of the workforce has workplace access to high-speed Internet services.

Households with Home Access – Over the past twenty years, household access to computers and Internet connections has increased dramatically. (Refer to Graph 1.) According to the U.S. Census Bureau, in 1997 fewer than half of all households had computers at home. By 2013, 88.4 percent of all households had computers at home, and 79 percent had Internet access in their home.¹⁸

These high access rates are generally consistent across household employment status. As Graph 2 reflects, the vast majority of Americans who are employed, unemployed, and not currently in the civilian workforce have both computer and Internet access in their home.¹⁹

Internet and Computer Access by Age – Some assume that older Americans (those at retirement age) lack Internet access. But this assumption belies reality. Rather, while younger Americans tend to have higher adoptions rates for electronic devices (including computers, tablets, and smartphones), the gap between younger and older individuals’ rates of access and adoption has narrowed considerably.

According to Census data, the majority of older individuals have access to a computer and Internet in the home, with 65 percent having computers and 64 percent with Internet access. (Refer to Graph 3.)²⁰

¹⁷ NTIA, Issue Brief No. 3, Page 5, November 2013.

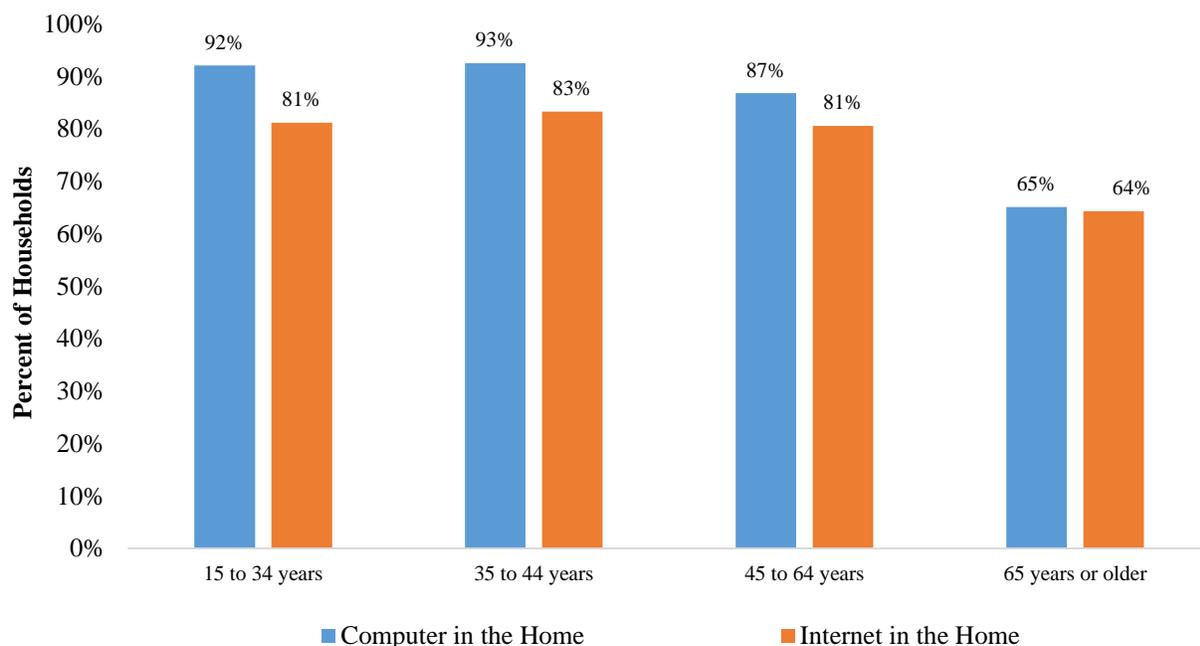
¹⁸ U.S. Census Bureau, *Computer and Internet Use in the United States, 2013*. ACS-28, November 2014 and *Computer and Internet Trends in America, 2013*.

¹⁹ The Census Bureau reports that individuals without Internet and computer access in the home reported using the Internet at public libraries, work, school, other people’s homes, cafés, and community centers. Refer to page 35, U.S. Census Bureau, *Exploring the Digital Nation: Computer and Internet Use at Home, 2011*.

²⁰ The U.S. Census Bureau indicates that there is some disparity in Internet access by racial characteristics, when considering the traditional online experience (e.g., home computer and Internet subscriptions). However, closer examination reveals significant differences in device and service choices. Generally, many African-American

Graph 3 Computer and Internet Access at Home, by Age

Source: U.S. Census Bureau, ACS-28, November 2014



Internet Access Beyond Computers – Alongside enhancements to computer access, there has been a considerable change in the available technology. Smaller, hand-held devices (including smartphones and tablets) now contain Internet browsers that enable users to have Internet access comparable to those with home computers. According to the Census Bureau, in 2011, 48.2 percent of individuals used a smartphone to access the Internet, for a variety of reported uses.²¹ Other more recent surveys suggest that this number is increasing, with 63 percent of cellphone owners using their device to access the Internet.²² Plan participants surveyed in the Greenwald & Associates found that 80 percent reported using an Internet browser on their smartphone or tablet.²³

and Hispanic households choose smartphone service over home computers and Internet subscriptions. Refer to the U.S. Census Bureau, *Computer and Internet Use in the United States, 2013*. P20-569, May 2013.

²¹ *Ibid.* Respondents reported that in addition to making phone calls, activities included web browsing, e-mail access, maps, games, social networking, as well as entertainment (music, photos, and video).

²² Duggan, Maeve and Aaron Smith, Pew Research Center’s Internet and American Life Project, *Cell Internet Use, September 16, 2013*.

²³ Refer to Appendix A for the complete Greenwald & Associates survey.

II. Conducting Financial Business Online

Alongside this dramatic growth in computer and Internet use over the past twenty years, so too has Americans' reliance on electronic technology for financial communication and transactions grown significantly. This growth has taken place across areas of critical importance to everyday life, including payment processing (payroll and Social Security benefit payments), income tax reporting and refund payments, banking and investment financial transactions, and financial information distribution. In fact, electronic communication and transactions are now the overwhelming standard for most American households.

For example, within the private sector, businesses routinely use electronic payments for payroll processing. One large payroll processing firm reported having processed electronically \$1.5 trillion in direct deposit, client tax payments, and related funds in fiscal year 2014.²⁴ Even the Federal government itself has followed this trend, using electronic delivery to pay benefits to 98.6 percent of Social Security recipients. Section A of this Part explores the trends in electronic delivery across the private and public sectors. Then, Section B outlines the benefits that accrue to individuals when government and businesses use electronic delivery methods.

A. Use of Electronic Methods in Financial Transactions

Reliance on electronic delivery for financial records and transactions has ballooned in recent years, due largely to widespread use of computers in the workplace, increases in private computer ownership, and transition from cellular to "smart" phones.²⁵ This reliance is not limited to younger people, but transcends all age groups. Further, electronic activity permeates everyday financial activities for the vast majority of Americans, including banking, receipt of program benefits, and Federal tax filing and refunds.

Banking and Financial Transactions – The Pew Research Center gauges consumer preferences by tracking activities that are proxies for consumer trust in online transactions. In other words, banking is so critical and important to everyday life that if individuals did not feel confident with electronic transactions, they would not continue to conduct such financial transactions online or using smartphones.

The most recent Pew Research Center reports that 51 one percent of U.S. adults (61 percent of Internet users) bank online and 32 percent of U.S. adults (35 percent of cell phone owners) bank using their mobile phones.²⁶ And the share is growing rapidly. These types of electronic

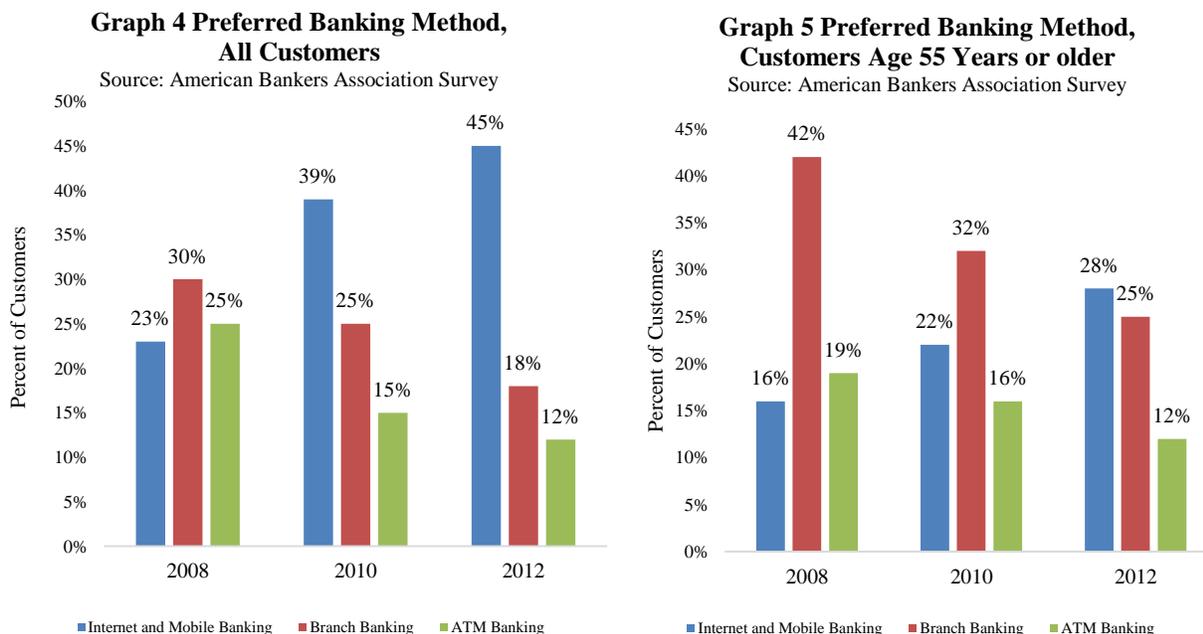
²⁴ In addition, the ADP Corporate Overview states that they service payroll for 24 million (approximately 1 in 6) U.S. workers. Available online: <http://www.adp.com/~media/corporate%20overview/adp-corporate-overview.ashx>.

²⁵ Refer to the following section for trends in access.

²⁶ Refer to the Susannah Fox, Pew Research Center's Internet and American Life Project, *Fifty-one percent of U.S. Adults Bank Online*, August 7, 2013, available online: <http://www.pewinternet.org/2013/08/07/51-of-u-s-adults-bank-online/>

transactions increased over the 2010, when where 46 percent of U.S. adults (58 percent of Internet users) reported having banked online. Similarly, in 2011, 18 percent of cell phone owners used their phone to check their balance or transact business with a bank.

The American Bankers Association (ABA) reports similar findings for customers' most preferred banking method.²⁷ Graph 4 provides the top results for the 2008, 2010, and 2012 survey years. Graph 5 displays the same information for older customers, those aged 55 or older. Both graphs make clear that online and mobile phone banking is fast becoming the preferred banking method across all age groups.²⁸



Conducting day-to-day financial transactions online serves as a proxy for a retirement plan participant's willingness to receive electronically plan-related notices, disclosures, and statements. In other words, widespread online financial activity is similar to accessing retirement plan information online: The participant would access their plan information through a secure website (as they do with their banking transactions); download statements (either electronic or printed formats); and access account information and disclosures through the website. Therefore, the move toward conducting day-to-day financial transactions serves as a strong indicator that participants would prefer and benefit from electronic delivery of plan information, though inertia is holding them back.

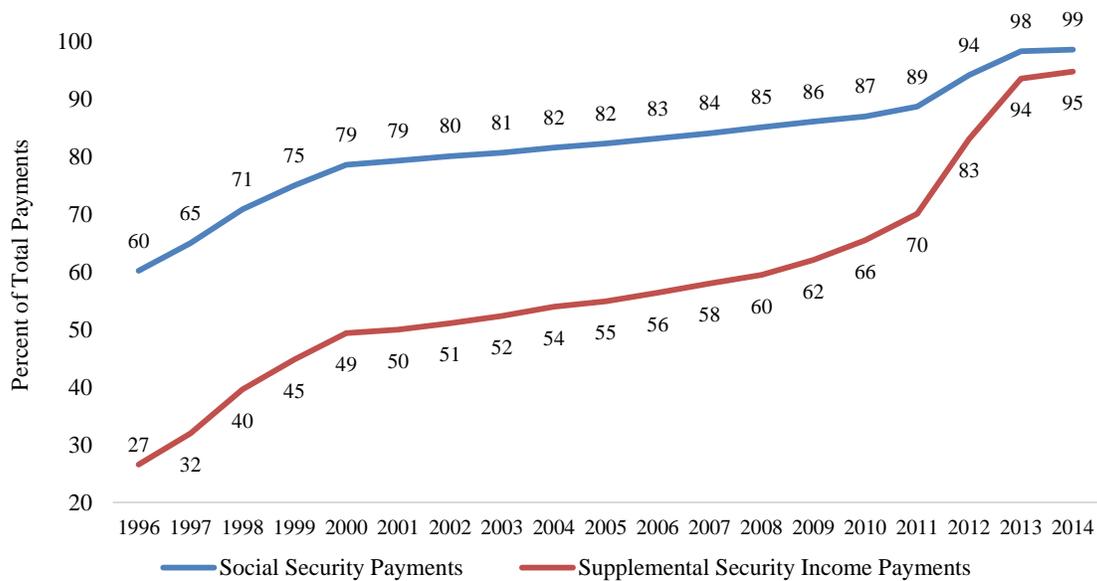
²⁷ The ABA's most current data lags one year behind that presented in the Pew Research Center's survey results. However, comparing comparable years for Pew and the ABA finds consistent results.

²⁸ This result is consistent with all age groups (18-34, 35-54, and 55 and older) respondents in the ABA customer survey.

Social Security – Like personal banking, receiving Social Security benefits is an essential financial transaction.²⁹ Given its importance – and against the perception that older Americans prefer paper documents – it is striking nearly *all* Social Security recipients (98.6 percent in 2014) receive their benefits through electronic payment. As the blue line in Graph 6 reflects, the transformation from paper checks to electronic transactions has been striking. In 1996, just 60 percent of Social Security recipients received electronic payments. Since that time, the share of Social Security payments delivered electronically increased by approximately 64 percent, to 98.6 percent [$((98.6 - 60.2)/60.2) = 63.8$ percent].³⁰

Graph 6 Electronic Payment Rates for Social Security and Supplemental Security Income Payments, 1996 through 2014

Source: Social Security Administration, Data through Fiscal Year Ending September, 2014

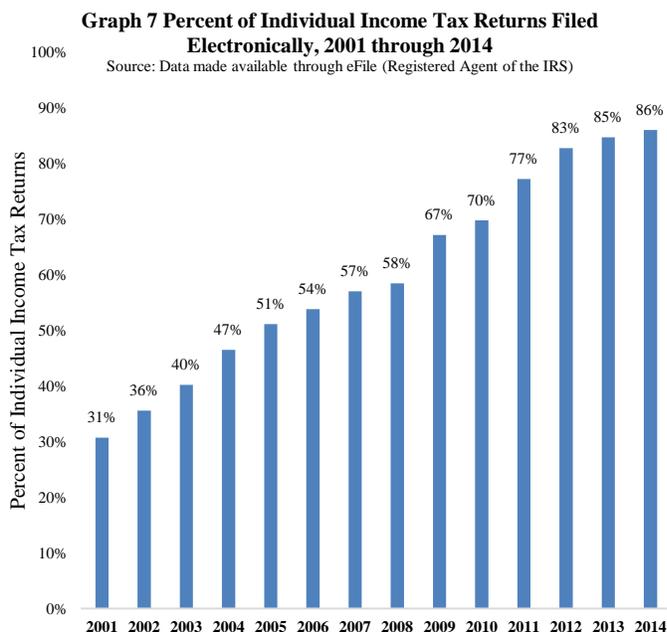


²⁹ *Ibid.* To emphasize this point, consider that the Social Security Administration (SSA) reports that among elderly recipients 52 percent of married and 74 percent of unmarried recipients rely on Social Security for at least half of their income. Further, among the elderly, 22 percent of married and about 47 percent of unmarried recipients rely on Social Security for 90 percent or more of their income. Therefore, the importance of Social Security income among the elderly cannot be overstated. Recent estimates by the Social Security Administration indicate that over 80 percent of Social Security recipients are aged 62 or older. Refer to Social Security Administration, *Social Security Basic Facts*, April 2, 2014, available online: <http://www.ssa.gov/news/press/basicfact.html>.

³⁰ Among Supplemental Security Income Payments, the rate increased by 196 percent for the same period.

Social Security’s reliance on electronic methods extends beyond payments. Today, SSA processes nearly all new claims for benefits through online applications. And rather than mailing paper benefit projections to pre-retirement workers, SSA generally directs these workers instead to the agency’s website. These moves, collectively, are making the SSA an almost-completely electronic agency. Considering that it serves a population comprised primarily of seniors, SSA’s move to electronic transactions demonstrates that such a transition would work seamlessly for private retirement plans.

Federal Income Tax – Consistent with other important financial matters, the trend to file individual tax returns electronically continues to experience steady growth. Specifically, of the 137 million returns for 2013 filed as of May 16, 2014, approximately 117 million were filed electronically. This represents an increase of 180 percent over 2001 electronic filings. Graph 7 depicts the trend from 2001 through 2014.



A related trend is found in refunds; in 2014, approximately 77 percent (102 million returns) of processed returns received income tax refunds. Of these returns nearly 80 percent received refunds through electronic payment or direct deposit to an account.

B. Efficiencies and Cost Savings

1. Efficiencies – Relying on paper communication is inefficient.

- *Electronic delivery ensures information remains up-to-date.*

Once plan administrators produce and mail paper copies of plan information, these paper documents can have a short shelf life. That is because changes to plan information can quickly render printed materials outdated and inaccurate. Moving toward electronic disclosure (on an opt-out basis) would improve greatly the efficiency of the plan communications because electronic information can be updated in real time.

- *Electronic delivery enables immediate action.*

Electronic delivery allows a participant to respond quickly to plan information. In the absence of electronic delivery, making changes to one’s account would require the participant to fill out paper forms and send the forms through traditional mail service. With electronic delivery, after receiving plan documents or disclosure electronically, the participant can make changes (such as

increasing deferral rates or diversifying investment options) with just a few ‘clicks of the mouse.’

➤ ***Electronic delivery provides information that is more accessible – and digestible.***

Electronic delivery also provides information of superior quality. For instance, when available on a secure website, online material tends to be clearer and better organized, giving participants an ability easily to access the particular document or information they desire. Generally, websites present information on separate tabs that bring up only the relevant materials. This provides a concise format for the user to page through materials in a methodical, digestible fashion.

Moreover, because electronic materials are searchable through online tools, participants can use hyperlinks or the find function to more readily locate specific information, without needing to wade through pages and pages of printed materials.

Online access ensures that plan information is always available and in a form that is user-friendly. Meanwhile, paper documents may tend to “collect dust” on a participant’s desk. This is consistent with findings from the Greenwald & Associates survey that found plan participants agreed overwhelmingly (81 percent) that electronic delivery reduces clutter.³¹

Online storage provides unlimited access to current and past plan information, improving the participant’s ability to analyze relevant information. Further, electronic access to pension disclosures and communications means that this material and content is always available in a central repository, eliminating the need to look around one’s house or office for the ever-elusive paper copy.

➤ ***Electronic delivery provides information that can be more readily customized.***

Plan administrators can alter the online experience to cater to participants needs. They are able to adapt quickly to improve the presentation, based on participant feedback. Alternatively, plans can address specific concerns of the users as characteristics and needs of the participants may change over time. In both cases, once the administrator identifies the participants’ needs, the changes can be made quickly.

➤ ***Electronic delivery provides a better guarantee of actual receipt of information.***

Electronic delivery also has the advantage of immediately alerting the sender to delivery issues. In contrast, delivery of paper documents and disclosures remains a significant problem for many plans. For instance, in 2012, the defined contribution plan for federal employees, the Thrift Savings Plan (TSP), received over 500,000 pieces of return U.S. mail. TSP cites a number of costs associated with this volume of returned mail. First, they cite the waste in printing and mailing costs. Second, TSP notes that high return-mail volume could jeopardize favorable

³¹ Refer to Appendix A for the complete results of the Greenwald & Associates survey.

mailing rates (discounted rate) that the U.S. Postal Service provides for mass mailings. Finally, TSP acknowledges that returned mailing of plan documents could increase the chance of fraud and decrease account security.³²

³² Refer to the Federal Retirement Thrift Investment Board, Strategic Plan, 2014, page 19.

2. Cost Savings – Compared to traditional mailing of plan documents, electronic delivery has significantly lower costs. A recent study estimates that moving from paper to electronic delivery of certain documents could reduce costs of producing communications by 36 percent.³³

By way of illustration, the TSP attributes the use of electronic delivery of plan documents and electronic communication as an important factor that contributes to its lower administrative costs.³⁴ In 2003, the TSP changed its policy from default delivery of participants' quarterly benefit statements by mail to electronic, paperless delivery. TSP estimates that this change reduced the costs by \$7 to \$8 million dollars in 2006 (the first year it was phased-in fully),³⁵ savings that presumably were passed back to participants through lower fees.

Similarly, SSA realized an estimated \$120 million annual cost savings when the agency shifted to electronic benefit delivery. A recent report indicated that by phasing out paper Social Security checks entirely is expected to save taxpayers more than \$1 billion over 10 years.³⁶

TSP and SSA's move toward electronic communication is consistent with the Executive Orders issued by the President and the subsequent memorandum issued by the Office of Management and Budget (OMB), to encourage specifically the use of electronic communication across government agencies and "smart disclosures." OMB encourages electronic communication stating that it can reduce burdens and increase efficiency. Specifically, the OMB states:

Smart disclosure makes information not merely available, but also accessible and usable by structuring disclosed data in standardized, machine readable formats ... In many cases, smart disclosure enables third parties to analyze, repackage, and reuse information to build tools that help individual consumers to make more informed choices in the marketplace.³⁷

³³ Refer to Martin Murray, *Electronic Data Interchanges*, Supply Chain Logistics, available online: <http://logistics.about.com/od/supplychainsoftware/a/Electronic-Data-Interchange-Edi.htm>.

³⁴ While there are many structural differences that account for the TSP's lower administrative costs, allowing electronic delivery of documents is an important contributing factor to this cost savings.

³⁵ Refer to the Federal Retirement Thrift Investment Board, Minutes of the Meeting of the Board Members, February 20, 2007. Note to address concerns with fraud and notification requirements, they continued to send annual statements in the mail.

³⁶ Refer to the U.S. Government Accountability Office, *Electronic Transfers, Many Programs Electronically Disburse Federal Benefits, and More Outreach Could Increase Use*, GAO-08-645, June 2008 and comments by Treasurer Rosie Rios, available online: <http://usgovinfo.about.com/od/federalbenefitprograms/a/No-More-Paper-Social-Security-Checks.htm>.

³⁷ Refer to the Office of Management and Budget, Executive Office of the President, *Reducing Reporting and Paperwork Burdens*, Memo dated June 22, 2012 and Office of Management and Budget, Executive Office of the President, *Informing Consumers through Smart Disclosure*, Memo dated September 8, 2011.

3. Electronic Delivery Benefits Participants – Allowing pension plan administrators to use electronic delivery (with an opt-out feature) would reduce the costs associated with their plans. Plan administrators would experience reduced printing, mailing, and storage costs. These cost savings would reduce their overall administrative costs and will ultimately benefit participants.³⁸ Reducing administrative costs translates to lower expenses – and higher net investment returns – to the participant.³⁹

Estimates to quantify the savings from moving to electronic disclosure requires first estimating per-participant cost savings, which would apply only to participants that currently receive traditional mailing and would convert to electronic delivery if that default were available to plans. Therefore, the analysis must characterize the current delivery status of participants and assumptions regarding the behavioral response of these plan participants (regarding the potential to opt-out). To characterize the current delivery status, we rely on the results of a Greenwald & Associates telephone survey, explained in Section III of this white paper.⁴⁰ This survey found that 14 percent of plan participants currently receive plan communication in electronic form. In addition, the Greenwald survey identified the remaining participants according to those that currently receive documents in both formats (37 percent) and those receiving only paper (49 percent).

Based on the documents displayed in Table 1, the analysis assumes that each participant receives an estimated 8 to 12 plan documents that could be delivered electronically. The cost associated with preparing the documents includes certain fixed costs associated with producing the documents and the variable costs associated with printing and sending the documents. The plan administrator would still incur the fixed costs. But variable costs – attributable to reduced paper costs, printing services, labor associated with mailing the documents, and postage – would be eliminated through electronic delivery.

To estimate comparable costs for allowing plan administrators to move to electronic delivery (with an opt-out provision), our analysis relies on a study produced by the mutual fund industry in connection with the Securities and Exchange Commission's summary prospectus rule.⁴¹ This study provided per document printing costs for various printing quality (color versus black and white documents). The analysis relied on U.S. Postal Service rates for first class mailing and bulk mailing rates for the postage fees.

³⁸ Refer to Appendix B for a description of the estimated cost savings and the assumptions supporting the benefits to plan participants.

³⁹ The provision would not affect the gross investment rate of return that a given investment instrument would earn. However, the participant receives the investment return net of fees and administrative costs. Reducing these costs would result in a higher net investment return.

⁴⁰ Refer to Appendix A for the complete Greenwald & Associates survey.

⁴¹ Refer to Investment Company Institute, *Cost-Benefit Analysis of the Summary Prospectus Proposal*, February 28, 2008, Appendix B.

Applying these costs to retirement plan participants (total 130 million participants adjusted for likely behavioral responses and eliminating those that receive electronically certain documents) and the number of communications required by law (estimated 8 to 12 documents per participant), our analysis outlined in Appendix B finds that total annual savings associated with moving to electronic delivery would range between \$300 and \$750 million each year, of which an estimated ***\$200 to \$500 million in savings would accrue directly to plan participants annually.***⁴²

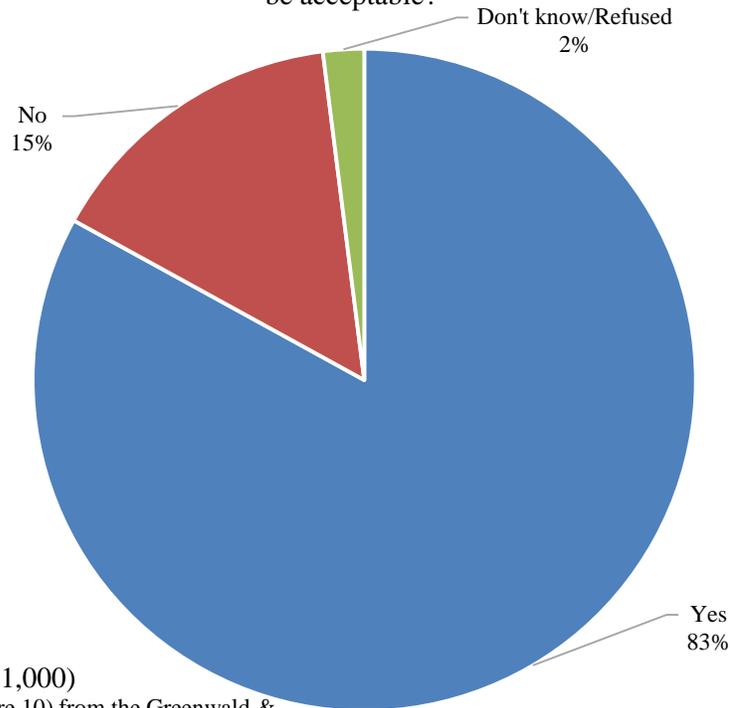
⁴² Given the degree of competition for plan administration services, nearly 70 percent is likely to pass through to the participant in the form of lower fees (higher net investment return).

III. Improving Participant Outcomes through Electronic Delivery

A. Attitudes toward Electronic Delivery of Plan Information

Despite the changing attitudes toward electronic mediums in all aspects of daily life, the current hodgepodge of DOL and IRS rules have chilled plan administrators from adopting “opt-out” electronic delivery practice for retirement plan documents. Yet plan participants show overwhelmingly acceptance of electronic delivery, when the administrator provides an option to opt out. For instance, a recent survey by Greenwald & Associates found 84 percent of plan participants were agreeable to making electronic delivery the default option (with the option to opt-out at no cost to the participant).

Figure 1 Some employers would like to automatically provide employees retirement plan information by e-mail or through a continuously available secure website. When the information is provided electronically, the employee would be told about the information's importance and of the option to return immediately to paper, at no cost to the employee. Do you find this approach to be acceptable?



All Respondents (n = 1,000)
Source: Question 15 (Figure 10) from the Greenwald & Associates Survey.

Further, participants surveyed by Greenwald & Associates recognized clearly the many benefits available from moving to electronic delivery. For instance, 53 percent agree it would be simpler to have retirement plan information online, since account balance and performance information is already available that way.⁴³

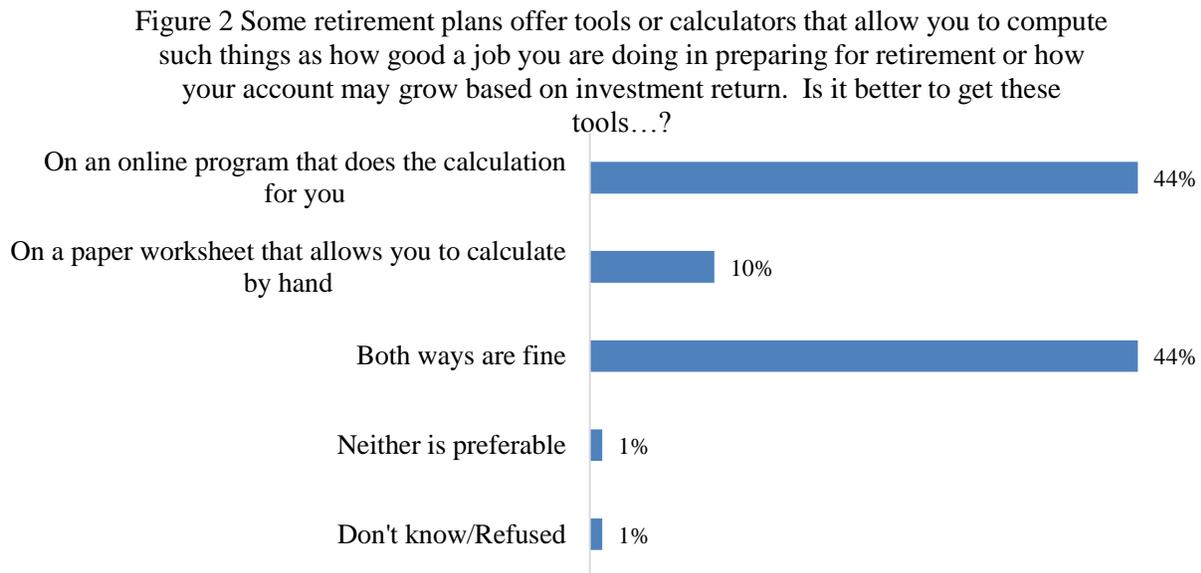
⁴³ Refer to Appendix A for the complete Greenwald & Associates survey.

Respondents to the survey indicated that the potential benefits to plan participants, including convenience, improved security, and cost reductions that will inure to participants' benefit are reasons to choose electronic delivery.

B. Enhancing Retirement Savings through Electronic Delivery

When plans notify participants that their plan information is available through secure Internet access, participants enjoy a number of benefits. Directing participants to electronic mediums encourages the use of electronic tools that ultimately play an important role in promoting superior retirement outcomes.

For instance, when participants access online plan disclosures, the provider can easily direct the participant to a simple benefit calculator tool. Use of this tool enables participants to run projections of income in retirement. Among participants expressing a preference, online calculators (44 percent) were more than four times as popular as paper worksheets (10 percent).⁴⁴ Figure 2 displays the participant responses to the survey questions regarding online tools and calculators. As shown, participants in the Greenwald survey preferred online to paper-only tools and calculators.



All Respondents (n = 1,000)

Source: Figure 9 from the Greenwald & Associates Survey.

Accordingly, provider data already show that exposure to such a calculator encourages participants to increase deferrals or modify their investment strategy to achieve a secure

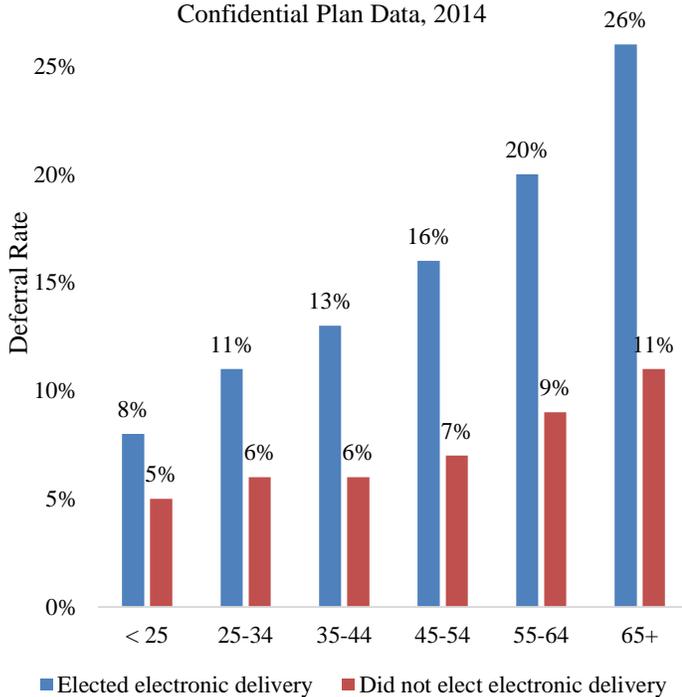
⁴⁴ The remaining participants in the Greenwald survey did not express a preference of one over the other, stating that either would be an acceptable format.

retirement.⁴⁵ As Graphs 8 and 9 reflect, participants electing electronic delivery have higher average deferral rates relative to that of their counterparts that do not elect electronic delivery.

Clearly, across all age classes, the participants electing electronic delivery defer at a rate twice that of their counterparts. While these observations do not suggest that electronic deliver alone will increase deferral rates, it does provide a sense of the participants’ interest and awareness of managing their retirement savings to ensure adequacy.

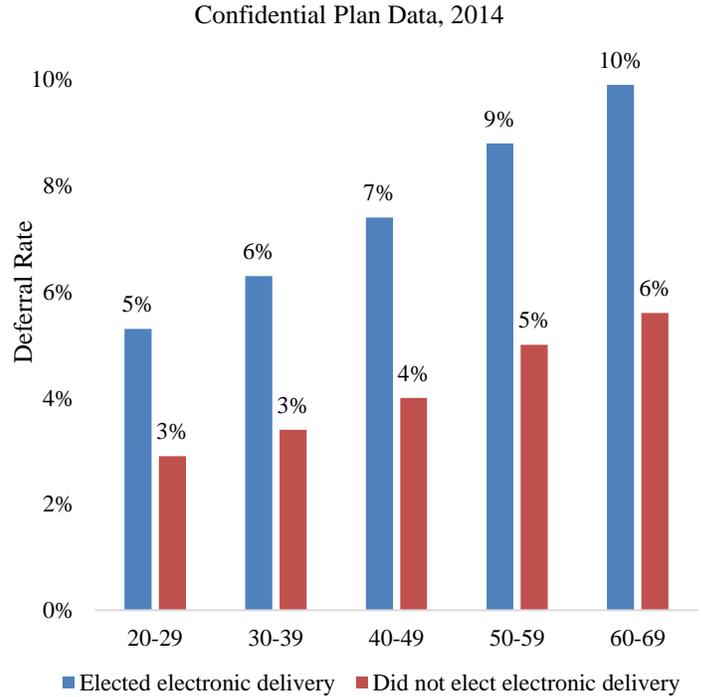
Graph 8 Average Deferral Rates for Plan Participants, by Age and Electronic Delivery Status

Source: Analysis of Provider A's Confidential Plan Data, 2014



Graph 9 Average Deferral Rates for Plan Participants, by Age and Electronic Delivery Status

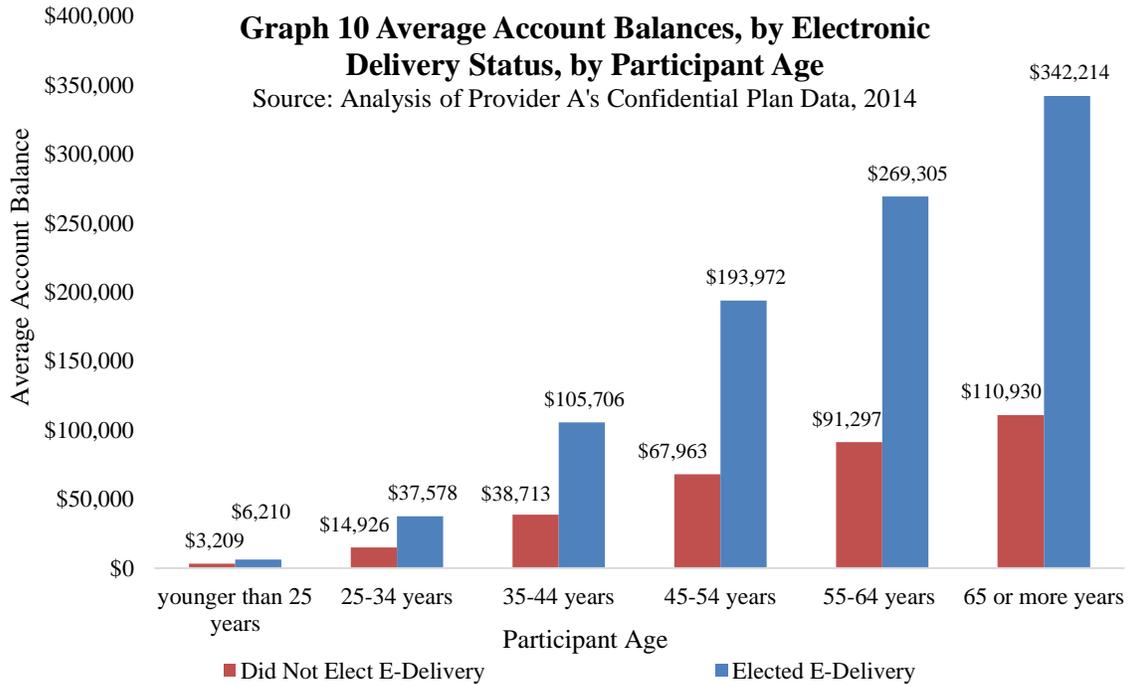
Source: Analysis of Provider B's Confidential Plan Data, 2014



In addition, these retirement plan providers found that participants electing electronic delivery also had a greater investment diversity.⁴⁶ Collectively, these higher deferral rates and investment diversity has led to higher account balances for participants that receive plan communications electronically. Graph 10 displays the contrast in account balance, by participant age, for those that elect electronic delivery and those that do not for this plan administrator. Across all age groups, the average account balance is 2.76 times greater for those electing electronic delivery compared to those participants that do not.

⁴⁵ Analysis of the plan administrator’s data indicate that participants electing electronic delivery tend to distribute their savings across a greater number of investment funds compared to those that do not elect electronic delivery (6.29 compared to 5.58 across all age groups).

⁴⁶ Participants that elected electronic delivery tended to have their retirement savings a greater number of investment vehicles. Diversity in investments tends to spread and reduce risk, thus contributing to higher future account balances.



Many retirement plan providers adapt online calculators to integrate information about other benefits (*e.g.*, private savings, Social Security, or defined benefit plans). Integrating information about other savings provides a complete picture of the participants saving behavior as well as an indicator of whether this behavior will result in adequate retirement savings.⁴⁷

C. Automatic Features with Opt-Out Improve Outcomes

Proposals to facilitate electronic delivery to pension participants would rely on an important and often-studied provision – the “opt-out” provision of automatic enrollment.⁴⁸ The power of default rules is widely recognized in the retirement plan context. Consistent with experience in retirement savings, an opt-out provision for electronic delivery will have a significant effect on behavior and ultimately on the outcomes for participants. Indeed, the same principle has been recognized as having cross-cutting utility; as the OMB Administrator recently stated: “[S]ignificant attention has been given to the possibility of improving outcomes by easing and

⁴⁷ This is consistent with other financial institutions, as most financial information is accessible online and many service providers are developing tools to allow the user or account holder to consolidate financial information for tax purposes.

⁴⁸ Automatic enrollment began to gain serious momentum for private retirement plans in 2007, following enactment of the Pension Protection Act of 2006. While automatic enrollment was available in some plans prior to this time, the Act clarified rules regarding employers’ use of automatic enrollment by creating a statutory safe harbor. According to the Profit Sharing Council of America, *49th Annual Survey*, only 17.5 percent of plans had offered automatic enrollment in 2005.

simplifying people’s choices. Sometimes this goal can be achieved by...selecting the appropriate starting point or ‘default rules.’”

Making opt-out the default rule reflects an understanding of individual behavior, that inertia is a powerful force and often chills individuals from taking actions that they would find beneficial.⁴⁹ For example, though enrollment in a retirement plan would benefit nearly every eligible worker, many individuals do not enroll when given the opportunity to enroll at the time of employment. There are a number of reasons that this occurs, but behavioral finance studies indicate that inertia is the primary reason.⁵⁰ As discussed below, Congress has already recognized the danger of inertia, and the Pension Protection Act of 2006 shifted the default rules to facilitate automatic enrollment and escalation – with key benefits for American savers.

1. Auto Enrollment Increases Participation and Deferral Rates – While workers know rationally that participation in an employer-sponsored plan is in their best interest, inertia means that they tend not to affirmatively elect to participate. In contrast, opt-out participation means that the individual must affirmatively elect *not* to participate. A recent Vanguard survey indicates that using an opt-out provision drove retirement plan participation rates from 49 without automatic enrollment to 91 percent with automatic enrollment.⁵¹ Similarly, Prudential reports that plans with automatic enrollment have participation rates 45 percent higher than those that do not.⁵²

Economic studies confirm this benefit of increased participation and recognize other benefits as well. Specifically, studies find that, as an incentive to save, automatic enrollment (with an opt-out ability) has an even greater effect on savings rates than employers’ matching contributions.⁵³

⁴⁹ Nash, Betty Joyce, *Opt In or Opt Out Automatic Enrollment Increases Participation*, Region Focus, Winter 2007.

⁵⁰ Knoll, Melissa A. Z., *The Role of Behavioral Economics and Behavioral Decision-Making in Americans’ Retirement Savings Decisions*, Social Security Bulletin, Vol. 70, No. 4, 2010. In addition, 46 percent of respondents in the Greenwald survey indicated that they have simply not taken the time to ask for information electronically.

⁵¹ Vanguard, January 2015 Survey Results, Available online: https://institutional.vanguard.com/iam/pdf/CRRATEP_AutoEnrollDefault.pdf?cbdForceDomain=false. These statistics are comparable to results of other plans according to Nash (2007) and Olson (2007).

⁵² Prudential Retirement, Q1 2013 data. Available online: http://research.prudential.com/documents/rp/Automated_Solutions_Paper-RSWP008.pdf.

⁵³ Chetty, Raj, et al., *Subsidies vs. Nudges: Which Policies Increase Savings the Most?* NBER Working Paper Number 18565, 2013 and Andrietti, Vincenzo, *Auto-enrollment, Matching and Participation in 401(k) Plans*, October 1, 2014.

2. Increasing the Power of Default Rules – More recently, plan fiduciaries observe that in addition to retirement plan participants’ failing to opt out, they also neglect to make other

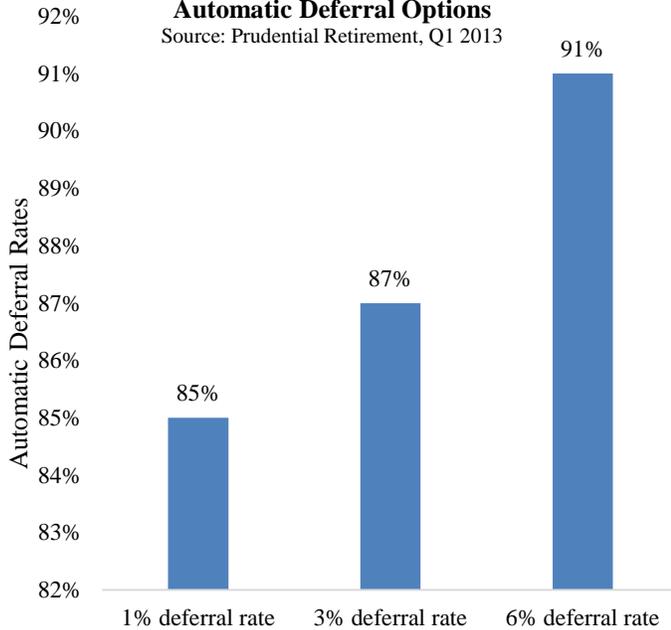
changes to their retirement contributions. Consequently, many plans are extending the power of default rules to automate more retirement plan decisions (relying on this opt-out feature) to ensure retirement adequacy. These moves include automatic escalation of deferral rates and automatic investment defaults, both authorized by Congress in the Pension Protection Act.

Along these lines, one recent survey found that automatic escalation of contribution amounts increased plan deferral rates by 21 percent. Further, the increased contributions resulted in average account balance growth of 78 percent for plans with automatic contribution escalation (compared to 57 percent for plans that did not have automatic contribution escalation).⁵⁴ Behavioral finance studies and actual participation behavior

debunk concerns regarding participants losing “control” over their pension savings. Specifically, plans with higher automatic deferral rates also tend to have higher participation rates. (Refer to Graph 11.) In the long run, studies indicate that these moves will contribute to better long-run outcomes for pension participants by increasing both participation and retirement income adequacy.⁵⁵

Graph 11 Participation Rates among Automatic Deferral Options

Source: Prudential Retirement, Q1 2013



⁵⁴ These results include continuously active pension participants, Prudential Retirement, Q1 2013 data.

⁵⁵ Refer to the Employee Benefits Research Institute for studies that estimate the impact of automatic enrollment and automatic contribution escalation on retirement income adequacy (e.g., EBRI, Nos. 349 and 341, 2010).

IV. CONCLUSION

Many plans would like, as a default, to distribute retirement plan information electronically. All participants would be given the right to “opt out” and receive paper communications at no charge. However, current rules stand in the way. The Department of Labor (DOL) and Internal Revenue Service (IRS) have issued extensive rules governing the manner in which plans can distribute retirement plan information electronically.

Today’s highly restrictive framework guiding electronic delivery of plan information is antiquated; this framework reflects neither recent years’ emerging information trends and technologies nor these trends and technologies’ many benefits for both participants and plan administrators, nor the behavior economics lessons regarding the power of setting appropriate defaults.

Plan participants views, reported in a Greenwald & Associates, show overwhelming acceptance for the move to electronic delivery as the default delivery method. Participants surveyed indicate an awareness of the many potential benefits of electronic delivery.

Besides reducing costs (which are significantly passed through to plan participants), electronic delivery of retirement plan information provides an efficient and reliable means of communicating important plan information – which can facilitate superior participant outcomes. Allowing retirement plan administrators to make electronic delivery a default would reduce the costs associated with their plans. These cost savings would reduce their overall administrative costs and will ultimately benefit participants, translating to lower expenses – and higher net investment returns – to the participant. This translates to an estimated ***\$200 to \$500 million in savings that would accrue directly to individual retirement plan participants annually.***

In addition to costs savings that accrue to participants, directing participants to electronic mediums promotes the use of electronic tools (such as retirement readiness calculators) that ultimately play an important role in promoting superior retirement outcomes. In fact, mere exposure to online tools has been shown to encourage participants to increase deferrals or modify their investment strategy to achieve a secure retirement. Consequently, participants that receive plan communications electronically have better retirement outcomes.

Further, the use of “automatic” rules that facilitate “automatic” behavior has had a critical impact on driving superior outcomes. Recent surveys indicates that using an opt-out provision increased retirement plan participation rates, from 49 without automatic enrollment to 91 percent with automatic enrollment. Another recent plan survey found that automatic escalation of contribution amounts increased plan deferral rates by 21 percent and the increased contributions resulted in average account balance growth of 78 percent for plans with automatic contribution escalation.

Allowing participants to receive retirement plan information electronically (with the option to opt out at no additional cost) would extend these cost savings to participants and create superior retirement saving outcomes.

APPENDIX A – PLAN PARTICIPANT VIEWS ON PAPER VERSUS ELECTRONIC DELIVERY OF PLAN DOCUMENTS

Results of a Telephone Survey, January 2015 Conducted by Greenwald & Associates for the SPARK Institute

Purpose

This study, commissioned by the SPARK Institute, examines plan participant views toward receiving plan documents and account updates by paper and online. A study conducted by AARP in 2012 found that when given a choice, plan participants, on balance, opted to receive information about their retirement plan by paper rather than online. The purpose of this research is to examine this preference again and to determine if electronic receipt of documents is an acceptable alternative to paper.

Methodology

A total of 1,000 randomly-selected plan participants nationwide were administered a 10-minute telephone survey. Data collection was done by Greenwald & Associates and its affiliate National Research. To qualify for the survey, respondents needed to be employed either full or part time and participate in an employer retirement plan. Sample was weighted by age and gender to reflect the demographics of plan participants in the United States, as reported in the Current Population Survey.

The study was conducted from December 3th, 2014 to January 2th, 2015 by National Research in Washington, DC.

Findings

Findings from a study sponsored by the SPARK Institute suggest that a large majority (83%) find it acceptable to receive the information online instead if they have the option to return to paper at no cost (Fig. 10). This occurs despite the fact that paper receipt is far more prevalent today. In fact, a significant majority agree with positions that suggest a willingness to consider online receipt. Those under age 50 are even more apt to consider it.

Most participants get their official statements by mail today – 49% get it this way only compared to only 14% who receive statements only online (Fig. 1). The number getting statements on paper only, however, is down greatly from 2012, where an AARP study found 62% getting paper only.⁵⁶ One quarter (25%) of those getting information by paper have some interest in receiving it online (Fig. 3). Over half of participants (55%) report receiving account information by paper only (Fig. 2).

Also of note, virtually all respondents go online either daily (88%) or once per week (8%), suggesting wide access to the internet (Fig. 22).

⁵⁶The AARP study also included retired plan participants.

There is some tendency for those getting general retirement plan information by paper to read it more thoroughly. Six in ten (60%) report reading this general information selectively or in its entirety, compared with about half (48%) who get this information online (Fig. 5-6). Furthermore, over half (54%) of those receiving information by paper only say that they would be less likely to read it if it came online (Fig. 4).

However, one advantage that the online channel offers is the ability to embed calculators into plan information. Indeed, 44% would prefer to have an online calculator rather than use a paper worksheet to calculate how well they are doing in preparing for retirement and only 10% prefer a paper worksheet. An additional 44% find both means of calculation to be fine (Fig. 9).

Generally speaking, most agree with statements in support of online delivery (Fig. 11):

- Asked a slightly different way than the statement above, over eight in ten (84%) agree that it is okay for the employer to provide retirement plan information electronically if they can opt for paper at any time.
- Over half (55%) agree that they do not need to receive information by mail since they can always print electronic information out.
- Over eight in ten (81%) agree that electronic delivery reduces clutter.
- Close to six in ten agree that when information is sent electronically, it is easier to locate it (58%), less likely to lose it (56%), and that they are likely to keep documents longer (49%).
- Over half (53%) agree it would be simpler to have retirement plan information online since account balance and performance information is already available that way.
- Close to half (46%) of those who get statements by paper say that they have simply not taken the time to ask for information electronically.

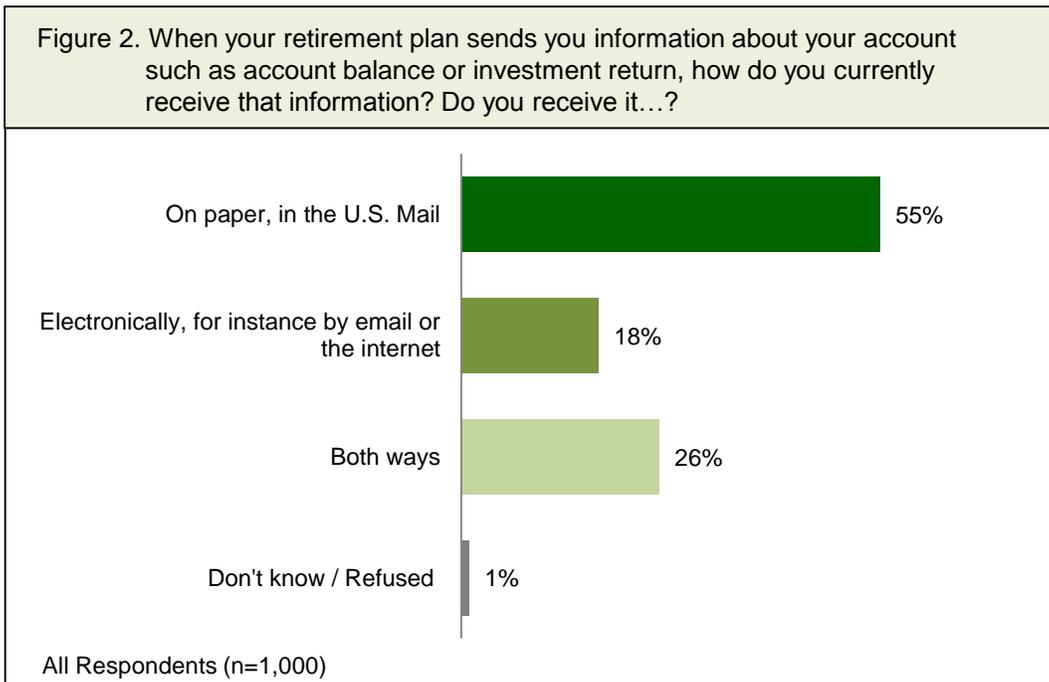
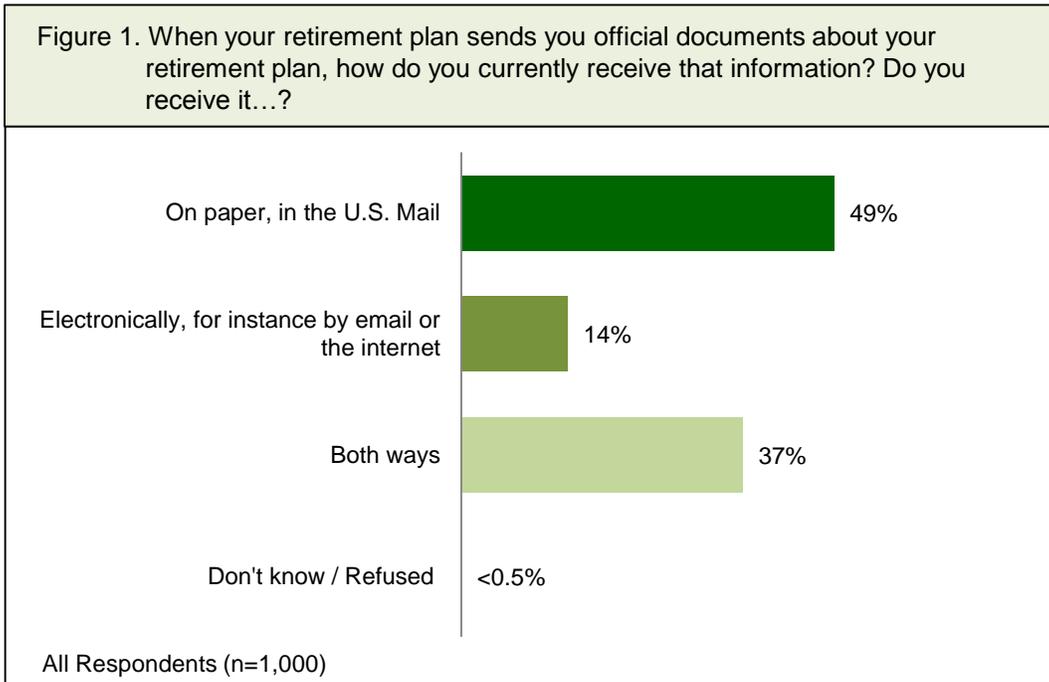
Additionally, those who currently receive documents electronically tend to have far greater agreement with each of these statements (Fig.12).

However, only 41% are more concerned about the security of mail than they are about those received electronically (Fig. 11).

Close to eight in ten say that reasons to choose electronic delivery include that it is better for the environment (78%), they can still print documents out (80%), and that they can always choose to go back paper. Over seven in ten (72%) say that a reason to choose electronic delivery would be that it is less expensive and that this could translate to lower expense and higher net return. Over half feel that having strict security requirements for online receipt would be a reason to choose it. Those who currently receive documents electronically are more likely to see all of these as reasons for choosing electronic delivery (Fig.13-14).

Findings here suggest that, coupled with the fact that online receipt is becoming more prevalent, it is likely that there will be a growing acceptance of online delivery if offered by companies.

Survey Results



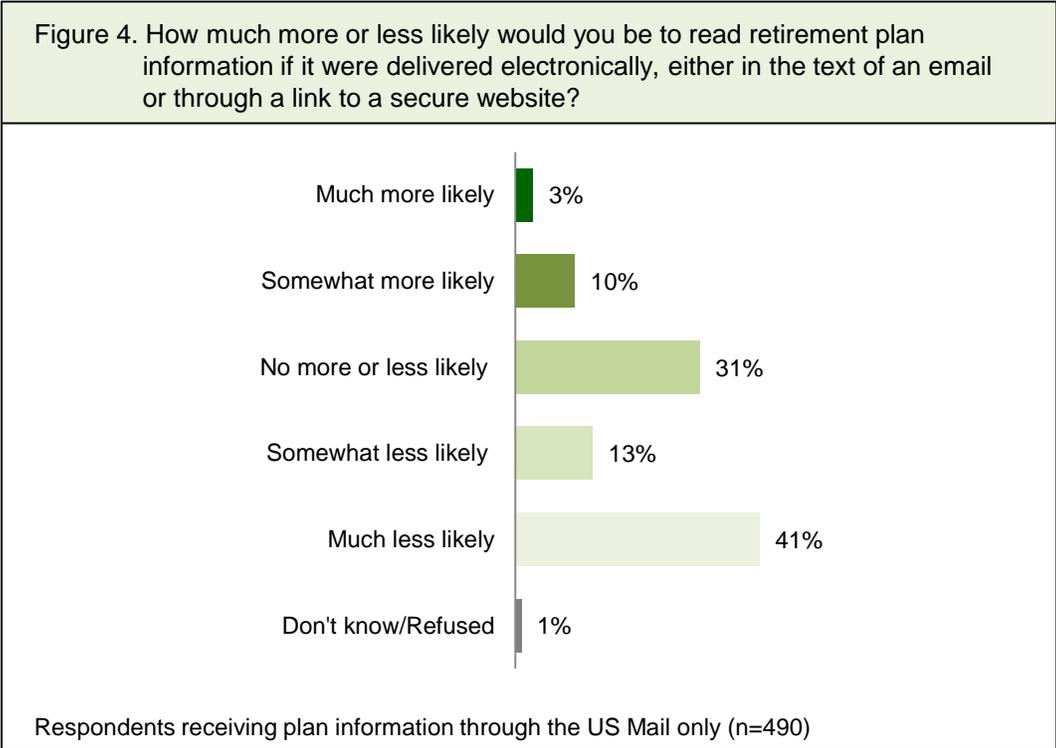
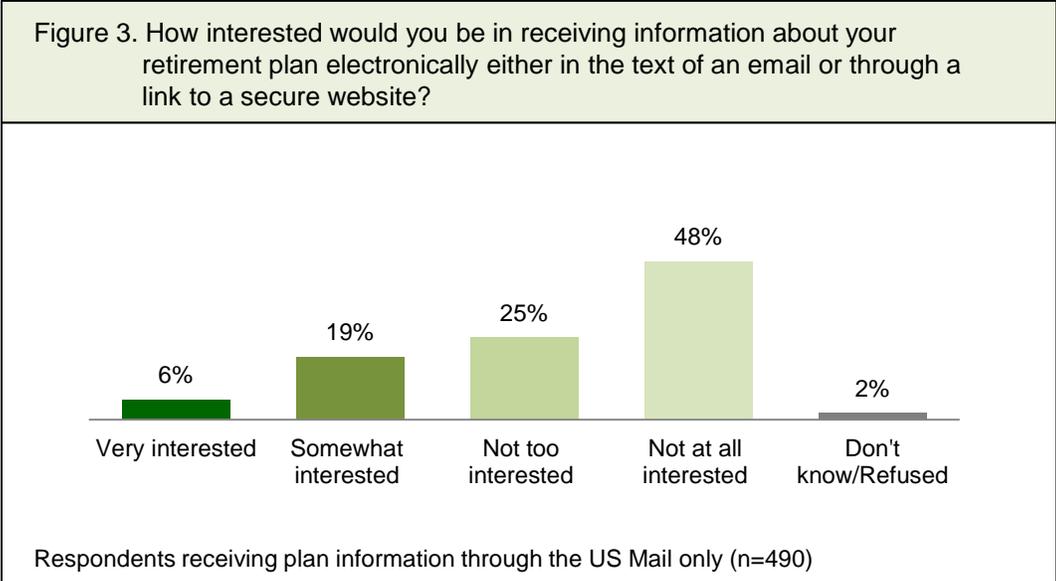
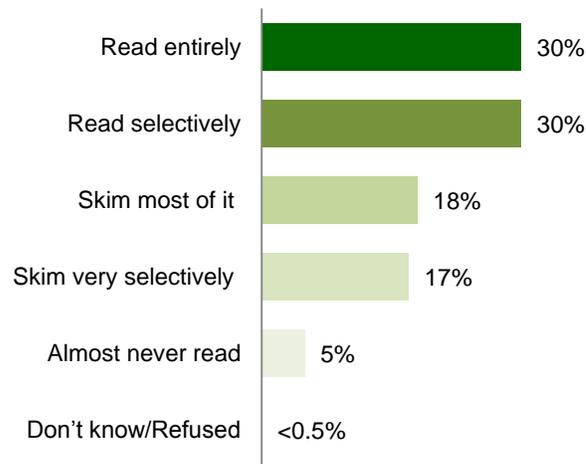
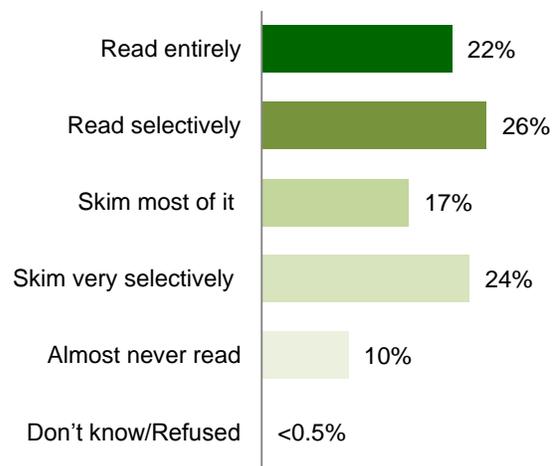


Figure 5. How thoroughly do you read information that generally describes your retirement plan that you receive by mail?



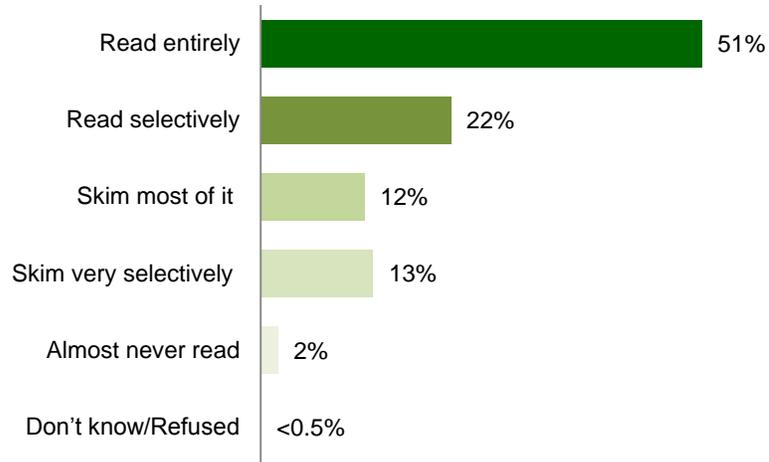
Respondents receiving plan information through the US Mail or through the US Mail and electronically (n=848)

Figure 6. How thoroughly do you read information that generally describes your retirement plan that you receive electronically, either in the text of an email or through a link to a secure website?



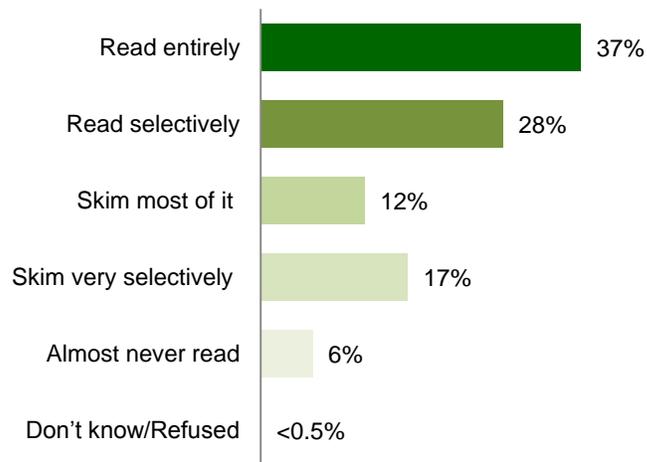
Respondents receiving plan information electronically or through the US Mail and electronically (n=503)

Figure 7. How thoroughly do you read retirement plan information about your account such as account balance or investment return that you receive by mail?



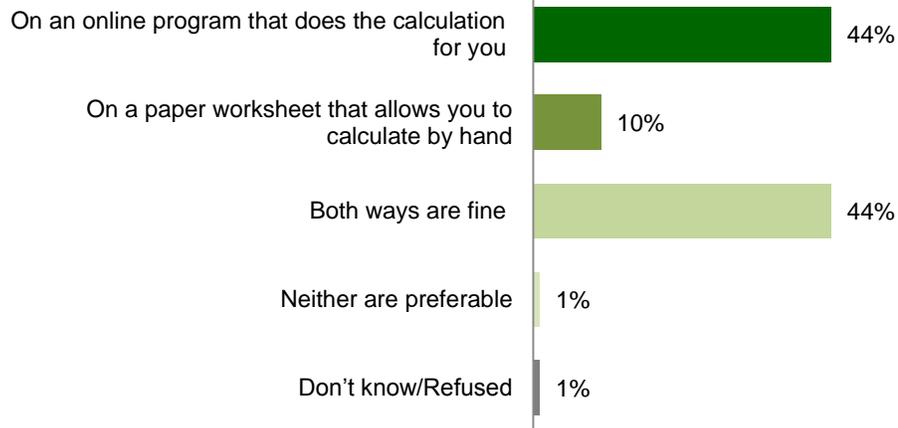
Respondents receiving account information through US Mail only or through the US Mail and electronically (n=816)

Figure 8. How thoroughly do you read retirement plan information about your account such as account balance or investment return that you receive electronically, either in the text of an email or through a link to a secure website?



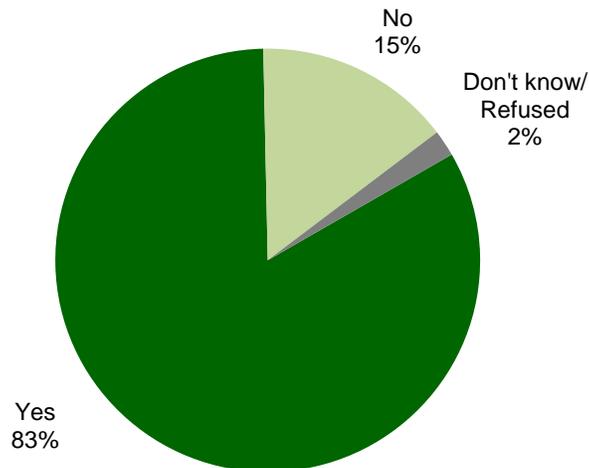
Respondents receiving account information electronically or through the US Mail and electronically (n=449)

Figure 9. Some retirement plans offer tools or calculators that allow you to compute such things as how good a job you are doing in preparing for retirement or how your account may grow based on investment return. Is it better to get these tools...?



All Respondents (n=1,000)

Figure 10. Some employers would like to automatically provide employees retirement plan information by email or through a continuously available secure website. When the information is provided electronically, the employee would be told about the information's importance and of the option to return immediately to paper, at no cost to the employee. Do you find this approach to be acceptable?



All Respondents (n=1,000)

Figure 11. To what extent do you agree or disagree with each of the following?

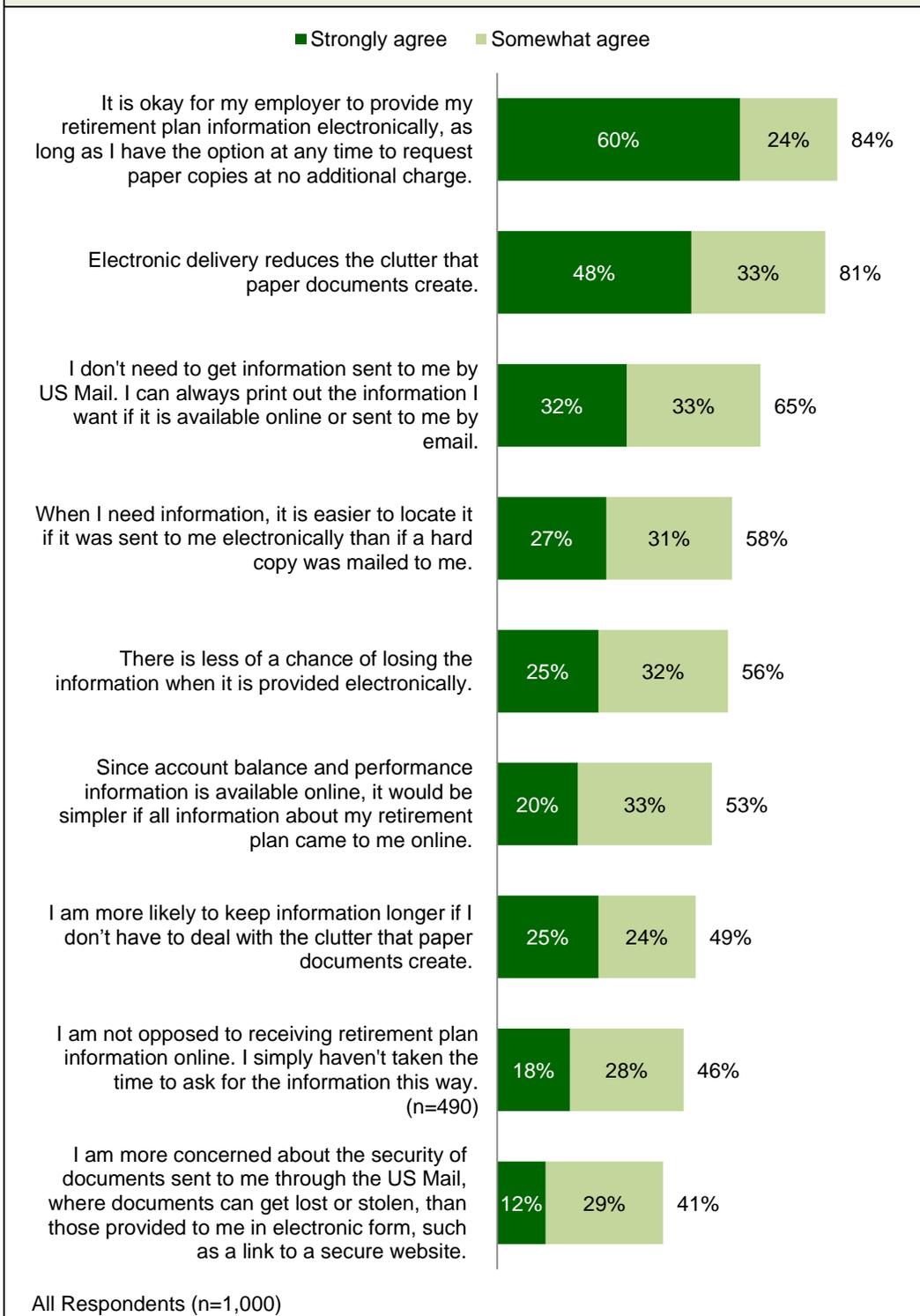


Figure 12. To what extent do you agree or disagree with each of the following?
(Percent Somewhat/Strongly Agree)

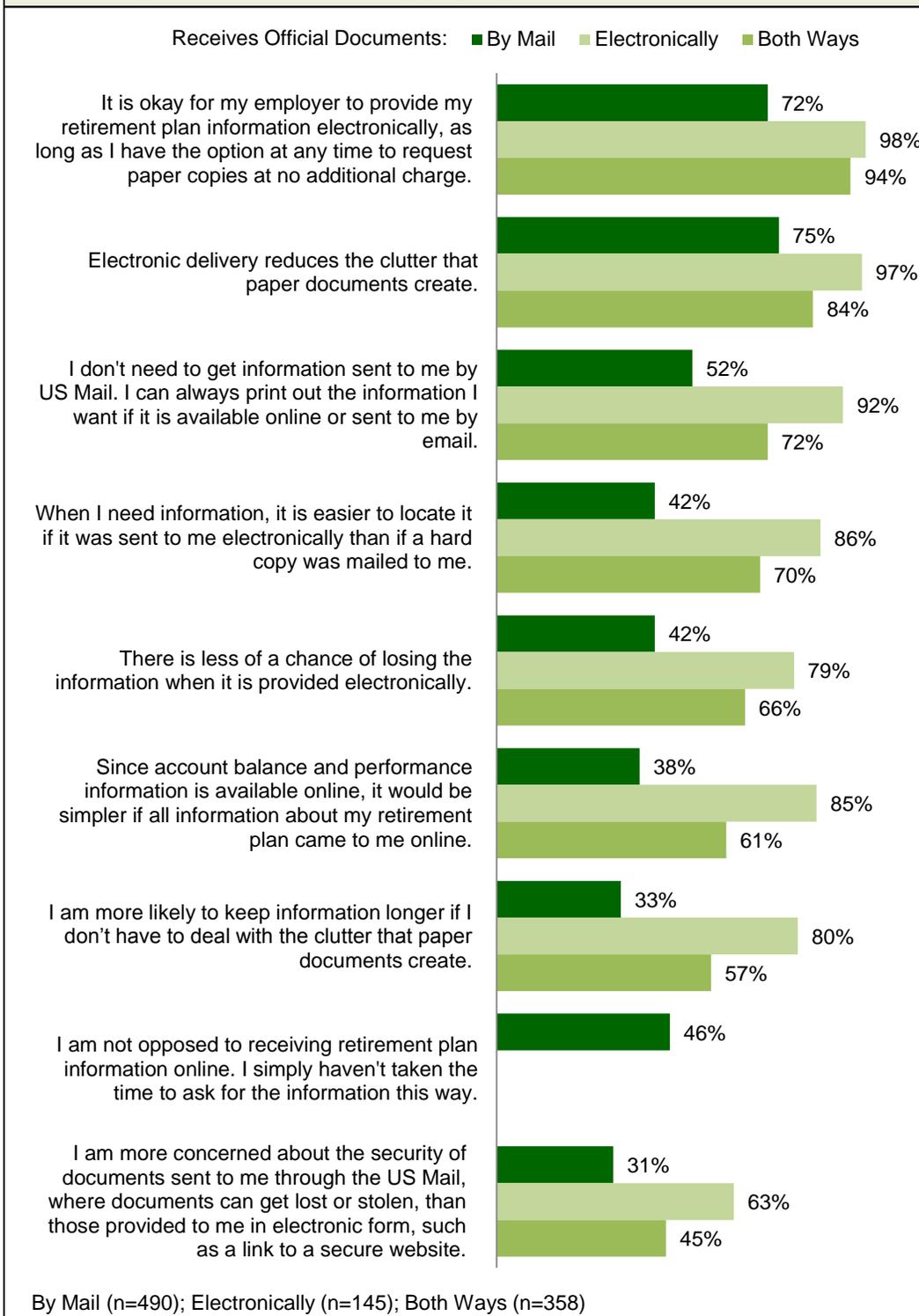
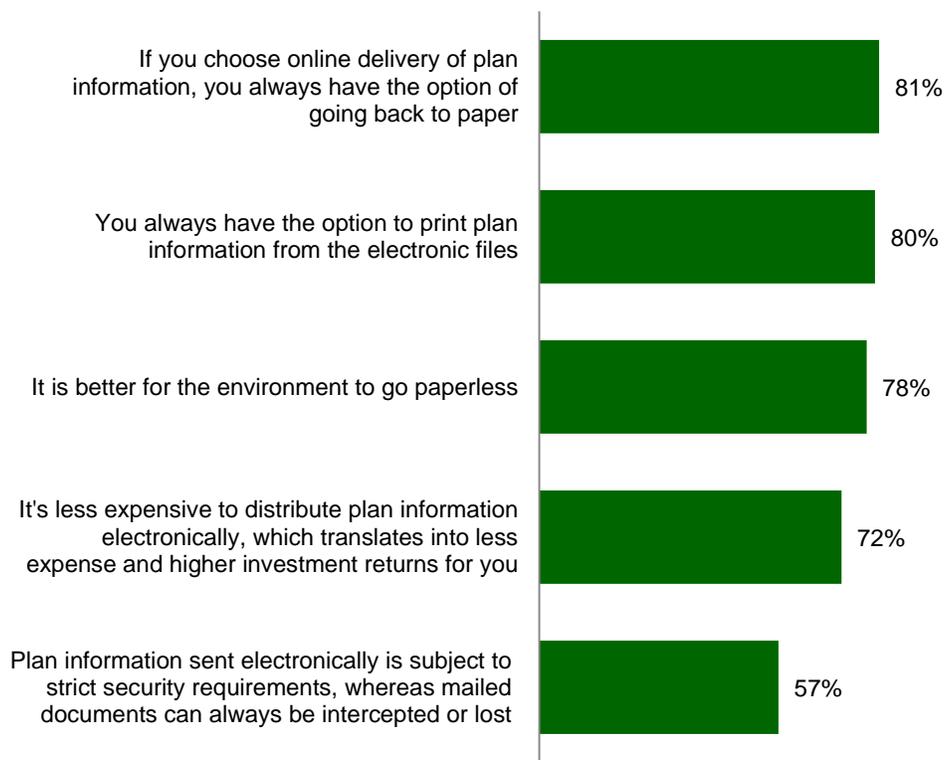
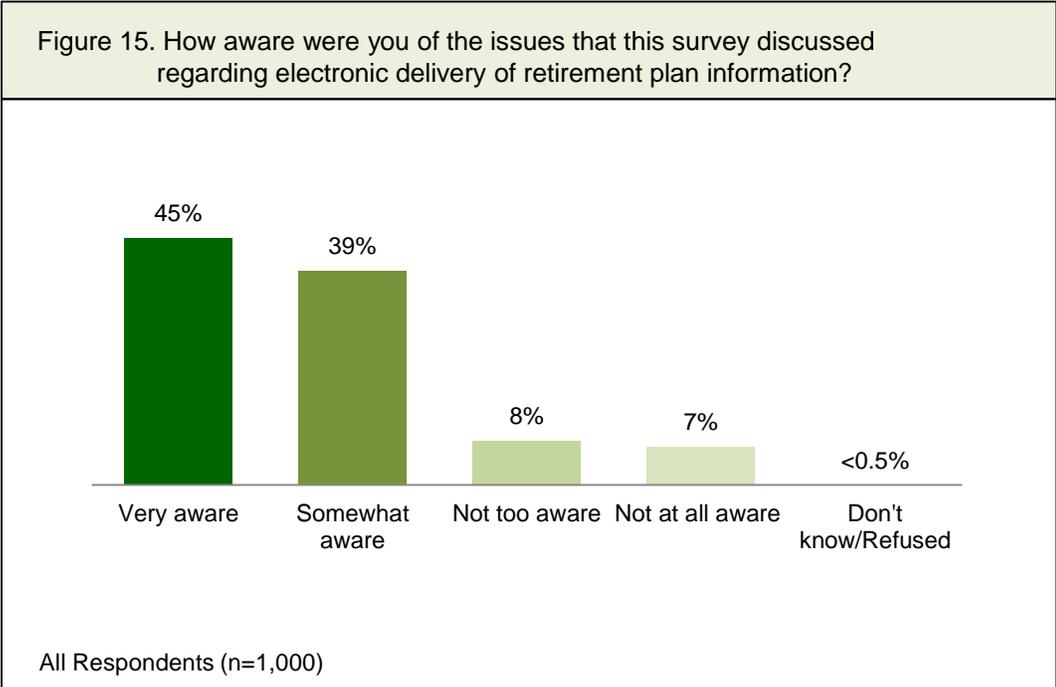
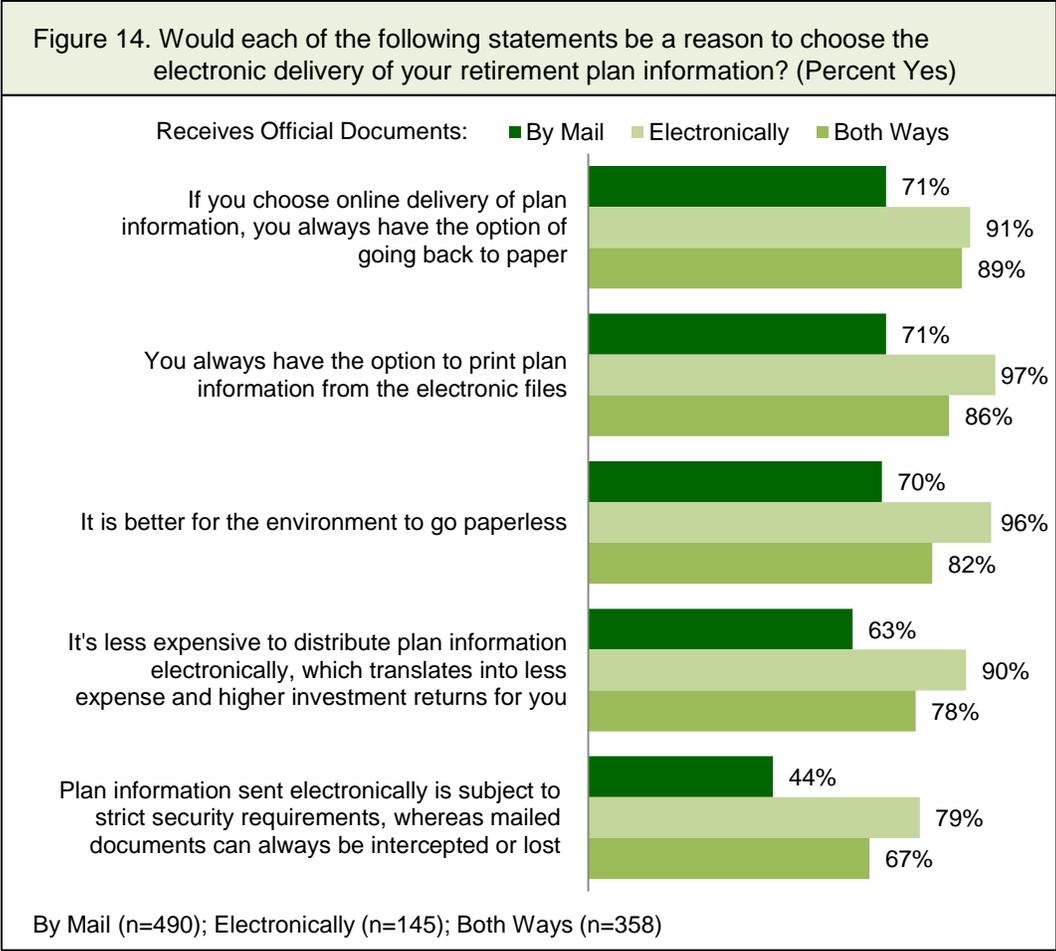


Figure 13. Would each of the following statements be a reason to choose the electronic delivery of your retirement plan information? (Percent Yes)



All Respondents (n=1,000)



Respondent Demographics

Figure 16. Gender	
	All Respondents (n=1,000)
Male	52%
Female	48

Figure 17. Age	
	All Respondents (n=1,000)
25-34	21%
35-44	24
45-54	28
55-64	22
65-74	4
75+	1

Figure 18. Household income before taxes	
	All Respondents (n=1,000)
Less than \$35,000	7%
\$35,000 to \$49,999	13
\$50,000 to \$74,999	19
\$75,000 to \$124,999	32
\$125,000 or more	23
Don't know/Refused	6

Figure 19. Marital Status	
	All Respondents (n=1,000)
Married	80%
Single, never married	8
Divorced or separated	7
Unmarried but living with partner	3
Widowed	2
Don't know/Refused	1

Figure 20. Race	
	All Respondents (n=1,000)
White/Caucasian	83%
African-American/Black	9
Hispanic/Latino	3
Asian/Pacific Islander	1
Other	2
Don't know/Refused	2

Figure 21. Education	
	All Respondents (n=1,000)
Some high school	*
High school graduate	14%
Some college/trade or business school	30
College graduate (4 year degree)	31
Post graduate work	5
Graduate degree	19
Don't know/Refused	*

Figure 22. How often do you go online or use the internet?	
	All Respondents (n=1,000)
At least once per day	88%
At least once per day but not everyday	8
At least once per month but less than once per week	1
Less often than monthly	1
Never	2
Don't know	*

Figure 23. Do you have a computer at home or work that is connected to the internet?	
	All Respondents (n=1,000)
Yes	99%
No	1
Don't know/Refused	*

Figure 24. Do you ever go online through a browser on a smart phone or tablet?	
	All Respondents (n=1,000)
Yes	80%
No	20
Don't know/Refused	*

Figure 25. Do you have an email address from which you send and receive emails?	
	All Respondents (n=1,000)
Yes	97%
No	3
Don't know/Refused	*

APPENDIX B – TECHNICAL DESCRIPTION OF COST SAVINGS

Economic incidence theory provides the framework for analyzing the potential benefits passing to participants from reduced costs. Applying incidence theory to this costs savings requires analysis of several aspects of the market, including the: (1) demand for plan administration and the ability of the plan to negotiate pricing (and/or increased services); (2) competition in the market for plan administration; and (3) potential magnitude of the estimated cost savings from allowing electronic delivery as the default delivery method (with a provision allowing the participant to “opt-out” at no additional cost).

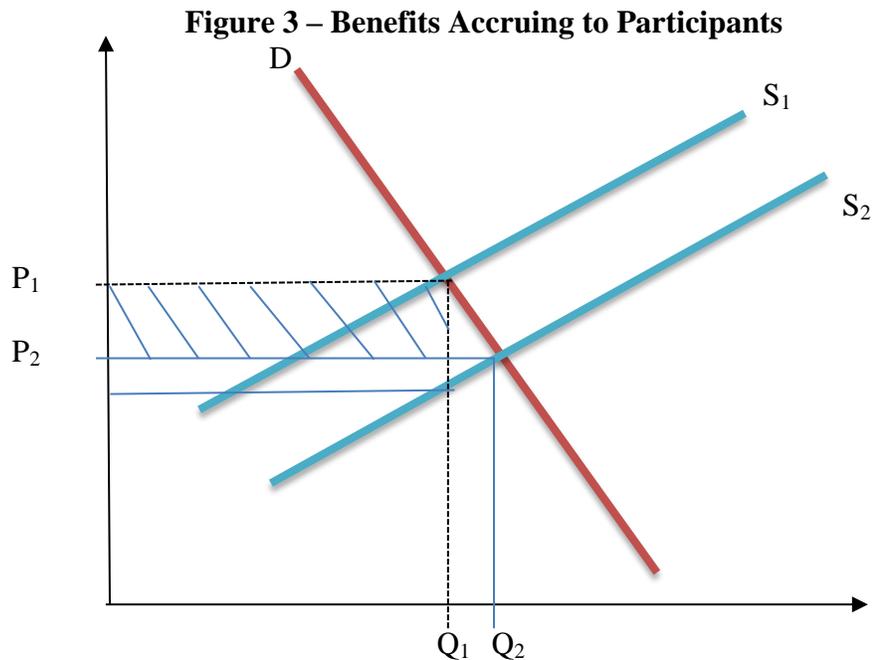
1. Incidence Theory – The costs associated with retirement plan administration are similar to a tax on a good or service. When the price of a good or service includes a tax (or in this case a fee), either the consumer or the producer must bear the burden of the taxes or fees. In the case of retirement plan administration, when the fee increases, plan administrators do not always have the ability to pass along these higher fees to the participants. The ability to do so will depend heavily on which party is able to change their behavior (*i.e.*, who has the greatest elasticity).⁵⁷

With respect to a cost savings from moving to electronic delivery, incidence or burden theory indicates that in competitive markets, the administrator must pass along most of these savings to the consumer or plan participants. In competitive markets, when costs fall, if the administrator does not extend most (or all) of the cost savings to the plan participants, the plans will change administrators in order to benefit from these cost savings. Other administrators have an incentive to extend the lower prices to gain market share.

Figure 3 depicts the potential benefits that would accrue to the plan participants, if plan administrators were to realize cost savings from electronic delivery of plan documents. In this figure, the savings are represented by the downward shift of supply (S_1 to S_2). The demand for the services is represented by D . The upper rectangle (P_1 to P_2) represents the savings that would accrue to the participants. The lower rectangle (below P_2) represents the potential savings that would accrue to administrators. The degree of competitiveness in the market for administrators will influence the size of each rectangle. The price sensitivity indicates that the incidence of this cost savings will flow to the participants.

When the price of a good or service includes a tax (or in this case a fee), either the consumer or the producer must bear the burden of this cost. In the case of retirement plan administration, when the cost decreases, plan administrators do not have the ability to retain these cost savings (in the form of higher profits).

⁵⁷ The combination of the price elasticity of demand and the price elasticity of supply will determine whether the participant or the administrator receive the benefit of the cost savings. Refer to Kotlikoff, Laurence J. and Lawrence H. Summers, *Tax Incidence*, Chapter 16, in the Handbook of Public Economics, Volume II, edited by A.J. Auerbach and M. Feldstein, 1987, for a discuss of the economic theory of incidence.



The less elastic the demand (*i.e.*, the steeper line D) and more elastic the supply (*i.e.*, the flatter line S), the more the cost savings will transfer to the plan participants. The magnitude of the benefit that passes to the participant depends upon assumptions of the degree of competition in the market and the elasticity of demand for plan administration services. Estimates of the elasticity of supply in competitive markets is about 0.68.⁵⁸ Research indicates that empirical estimates of the elasticity of demand range from -10 to zero.⁵⁹ However, given the high degree of specialization involved in plan administration, it is likely that demand is somewhat inelastic.

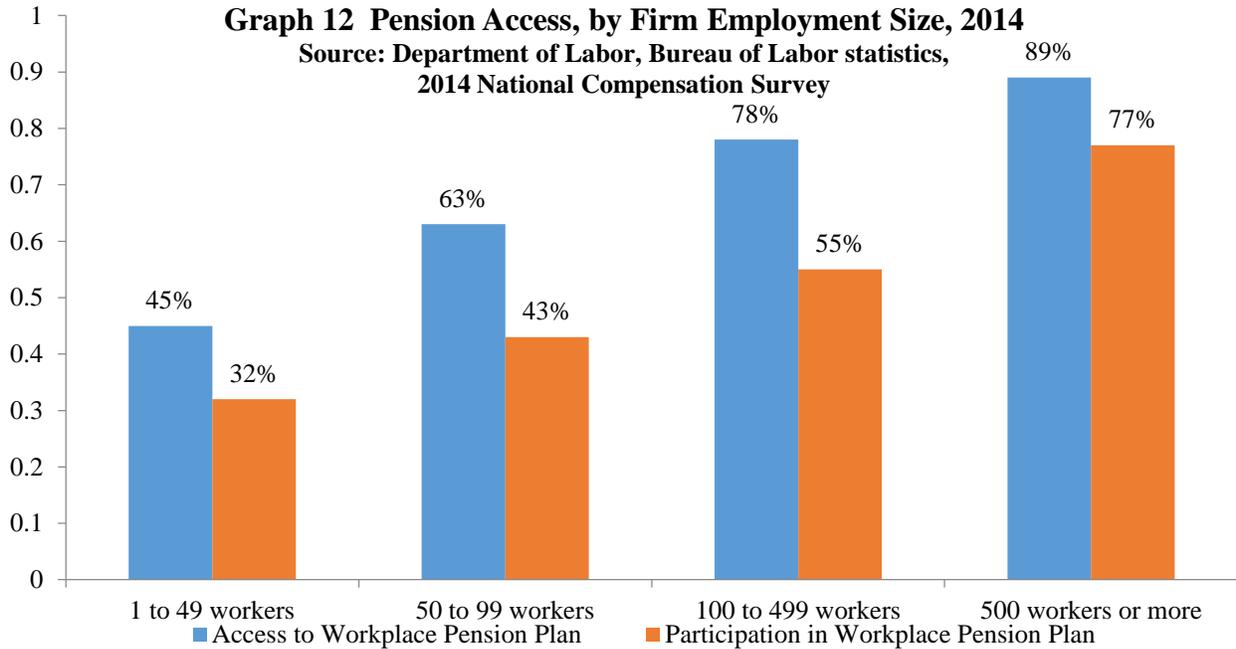
Incidence theory indicates that the benefit of lower costs will pass to the participant, if the market for plan administration is competitive. Competition in the marketplace means that there are many businesses offering plan administration services and no single plan administrator determines the market price.

2. Demand for Plan Administration – Generally, the ability to negotiate terms for plan administration will increase as the plan size increases. The vast majority of participants are in large and medium size plans. Graph 12 shows that access to pension plans increases as the firm's size of the employer increases. As employment increases, the likelihood of the employer offering a plan also increases. Participation (as shown in the graph) correlates positively with

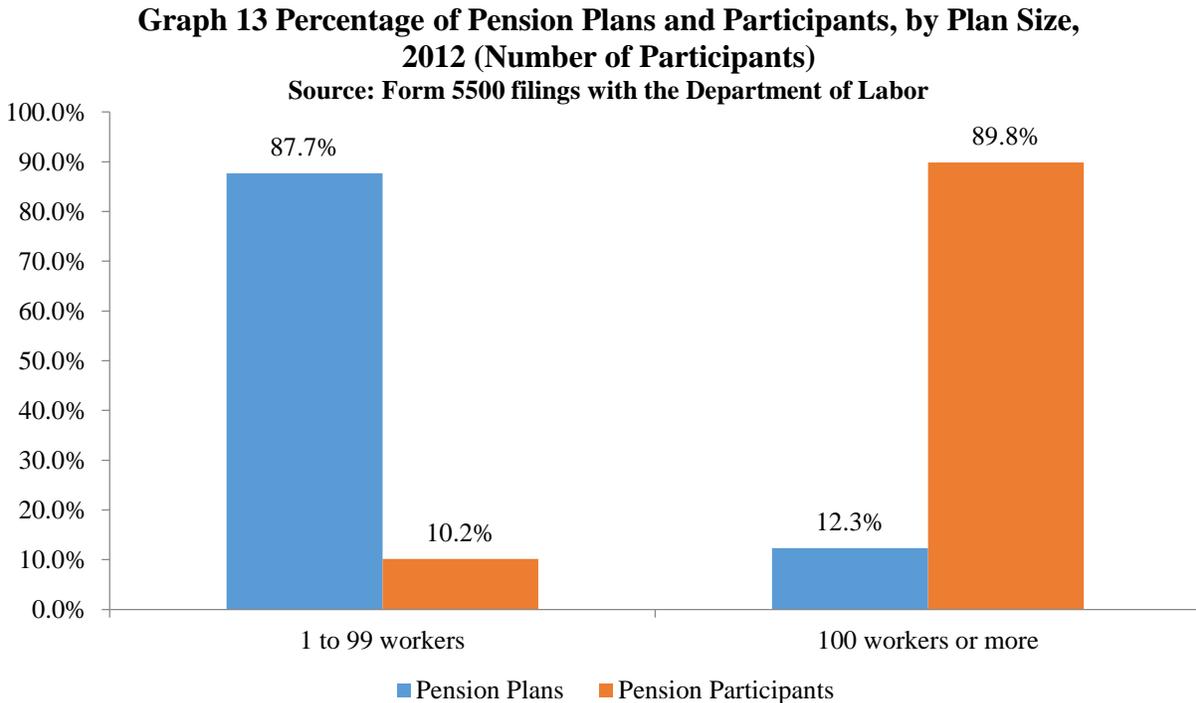
⁵⁸ Refer to Industrial Organisation Economics and Competition Law, compiled by R. S. Khemani and D. M. Shapiro, commissioned by the Directorate for Financial, Fiscal and Enterprise Affairs, OECD, 1993.

⁵⁹ *Ibid.* In theory, elasticity of demand ranges from negative infinity to zero. In addition, refer to Liu, L., *Do Taxes Distort Corporations' Investment Choices? Evidence from Industry Level Data*, mimeo, Centre for Business Taxation, Oxford University, 2011. The author's literature review includes empirical results of recent work including Cummins et al. (1994, 1996), Caballero et al. (1995), Goolsbee (2000), Ramirez Verdugo (2005) Schaller (2006) and Dwenger (2010).

firm size as well. Employees in larger firms are more likely than their counterparts in smaller firms to participate in an employer plan.

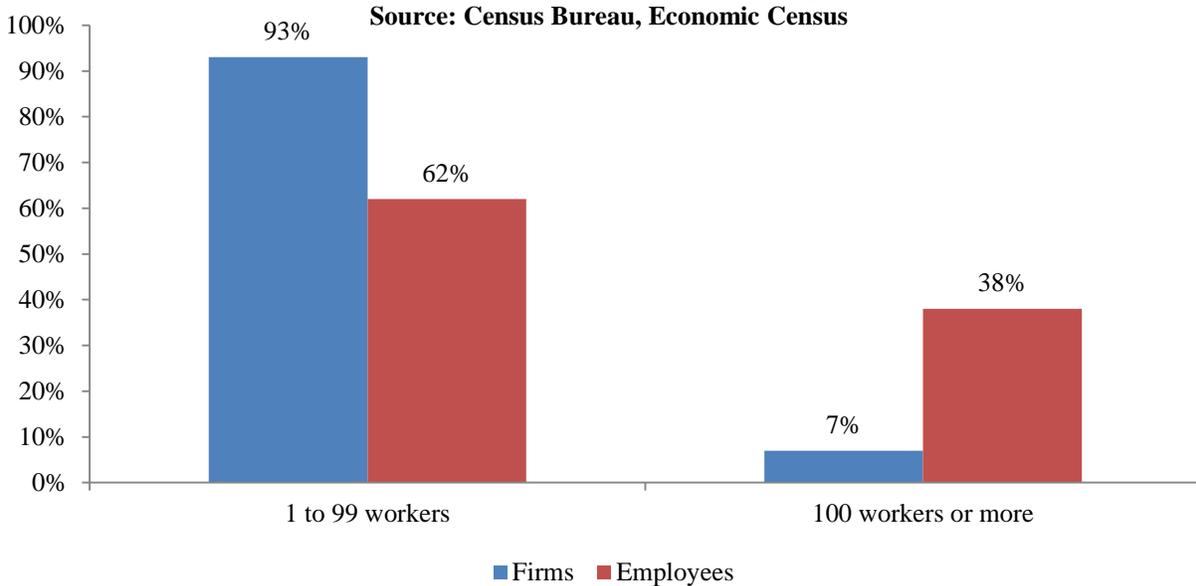


In aggregate, these access and participation rates result in the majority of participants (nearly 90 percent) in a small percentage of plans (just over 12 percent). Conversely, majority of plans are very small (about 88 percent) and they cover about 10 percent of participants.



3. Competition in the Market for Plan Administration – Data from the Economic Census provides a sense of the competition in the market for plan administrators.⁶⁰ Graph 14 displays the establishments offering third-party plan administration as well as the corresponding employment, distributed by firm size (defined as the number of employees). Data from the 2012 Economic Census indicates that there were approximately 4,741 establishments, with nearly 150,000 employees. As the graph indicates, about 50 firms have 500 workers or more.

Graph 14 Percentage of Plan Administrators and Employment, by Firm Size, 2012 (Number of Participants)



The market for plan administrators is diverse with many large and small employers.⁶¹ The market for plan administration reflects a high degree of entry and exit from the market as well as a degree of consolidation.⁶² This suggests a highly competitive marketplace and more importantly, the inability of one or a few firms to control prices – indicating that most or some cost savings would pass through to the retirement plan participants.⁶³

⁶⁰ Refer to the Economic Census from the U.S. Census Bureau, North American Industrial Classification System, Third Party Administration of Insurance and Pension Funds (524292).

⁶¹ Four characteristics or conditions must be present for a perfectly competitive market structure to exist. First, there must be *many firms* in the market, none of which controls individually the market. Second, firms should be able to *enter and exit the market easily*. Third, each firm in the market produces and sells a non-differentiated or *homogeneous product*. Fourth, all firms and consumers in the market have *complete information* about prices, product quality, and production techniques.

⁶² Refer to (NAICS 524292) U.S. Census Bureau, Survey of U.S. Business, 2012. Data indicate a high degree of firm births and deaths (entry and exit in the market place) as well as growth or concentration in employment as firm size increase.

Given that there are a large number of plan administrators in the market, and that the market is comprised of a variety of firm sizes, the ability to negotiate prices will depend upon the relative size of the plan administrator relative to the plan size.

Employers with larger plans have meaningful bargaining power vis-à-vis plan administrators (of any size). The larger plans tend to hold a significant segment of the assets associated with pension plans. Therefore, the plan administrator would want to retain or add larger plans to their base.

Employers with very small plans (fewer than 100 participants) will have less bargaining power when dealing with the larger plan administrators. But if they seek services from the many small plan administrators, they will find that they have greater powers to negotiate.⁶⁴

This market (supply) for plan administrators and the market (demand) for plan administration is a bi-modal market. In other words, there appears to be two distinct competitive markets for plan administration – one for larger plans and larger administrators and another for smaller plans and smaller administrators.

When the plan has the option to choose another administrator, the administrators must pass along these savings. Otherwise, the competition in the market means that another service provider could reduce their prices (pass along the cost savings) to gain market share. Since there are a large number of plans and administrators (large and small plans and administrators) to support competitive market forces, this will induce the administrators to pass cost savings (most or all) to the plans to retain or gain market share.

4. *Estimating the Potential Benefits to Participants* – Estimating the savings from moving to electronic disclosure depends upon the scope of documents covered by electronic delivery and the frequency of delivery of those documents, as well as the cost of preparing the documents for mailing.

The plan administrator faces certain fixed costs associated with producing the documents, but the variable costs associated with sending the documents would decrease with electronic delivery. The variable cost savings would be attributable to reduced paper costs, printing services, labor associated with mailing the documents, and postage.

To estimate comparable costs for allowing plan administrators to move to electronic delivery (with an opt-out provision), the analysis relies on a study produced by the mutual fund industry

⁶³ Conversely, if there were a small number of firms, or if employment were concentrated among a few large firms, this would suggest less competitive market structure. However, plan administrators face considerable competition both from existing forms, as well as new firms entering the market.

⁶⁴ When smaller plans receive services from the larger plan administrators, these smaller plans may benefit from cost savings negotiated by the larger plans. While they do not have the ability to negotiate directly, they may benefit through the ‘free-rider’ effect of larger plan negotiated savings.

in connection with the Securities and Exchange Commission's summary prospectus rule.⁶⁵ This study provided per document printing and postage costs for various printing quality (color versus black and white documents). In addition, assumptions regarding the current use of electronic delivery rely on a recent survey conducted by Greenwald & Associates.⁶⁶

Applying these costs to retirement plan participants (total 130 million participants adjusted for likely behavioral responses and eliminating those that receive electronically certain documents) and the number of communications required by law (estimated 8 to 12 documents per participant), we find that total annual savings associated with moving to electronic delivery would range between \$300 and \$750 million each year, with an estimated ***\$200 to \$500 million accruing to the plan participants.***⁶⁷

Our conclusion is rooted in the methodology set forth in Appendix A. In brief, range of estimates relies on assumptions regarding the percentage of plan participants that currently receive electronic delivery (approximately 14 percent according to the Greenwald survey results). In addition, the Greenwald survey identified the remaining participants according to those that currently receive documents in both formats (37 percent) and those receiving only paper (49 percent).

Behaviorally, those receiving documents in both formats are likely to transition smoothly to electronic delivery and are less likely to exercise the opt-out option. The remaining participants are likely to have a percentage that will exercise the opt-out option, as the transition to electronic delivery may initially seem less attractive. The lower cost savings assumes a greater percentage (50 percent) of the paper-only participants elect to opt-out of electronic delivery. The higher cost savings assumes that a majority (80 percent) of paper-only participants will continue to receive documents through electronic delivery.

Modest decreases in the costs associated with plan administration are likely to flow through to participants in the form of lower fees. As the fee decreases, the net return increases to the participant, thereby increasing the net return on their retirement savings.

Empirical estimates indicate that an increase in the net investment return received by participants could improve retirement security by 9 percent during the accumulation phase. For instance, if a reduction in costs associated with plan disclosures translated to an increased net investment return of one-half basis (0.005), participant balances would increase by 9 percent during the accumulation phase holding everything else constant. In other words, the extent to which these costs savings pass through to participants will influence the net investment return. The reduced fees that pass to the participant as an increase in the net investment return will improve the participant's rate of accumulation and improve the adequacy of their retirement savings.

⁶⁵ Refer to Investment Company Institute, *Cost-Benefit Analysis of the Summary Prospectus Proposal*, February 28, 2008, Appendix B.

⁶⁶ Refer to Appendix A for the complete results of the Greenwald & Associates survey.

⁶⁷ Given the degree of competition for plan administration services, nearly 70 percent is likely to pass through to the participant in the form of lower fees (higher net investment return).

REFERENCES

- Adler-Milstein, Julia, Claudia Salzberg, Calvin Franz, E. John Orav, David Westfall Bates, *The Impact of Electronic Health Records on Ambulatory Costs Among Medicaid Beneficiaries*, Medicare and Medicaid Research Review, Vol. 3, No. 2, 2013.
- Andrietti, Vincenzo, *Auto-enrollment, Matching and Participation in 401(k) Plans*, Working Paper, October 1, 2014.
- Aon Hewitt, *2013 Trends & Experience in Defined Contribution Plans An Evolving Retirement Landscape*, 2013.
- Benefits & Compensation Solutions, *A Case for Automating 401(k) Enrollment as a Default Selection*, February 2006.
- Bricker, Jesse, and Lisa J. Dettling, Alice Henriques, Joanne W. Hsu, Kevin B. Moore, John Sabelhaus, Jeffrey Thompson, and Richard A. Windle, *Changes in U.S. Family Finances from 2010 to 2013: Evidence from the Survey of Consumer Finances*, Federal Reserve Bulletin, September 2014. (Reference to this work includes SCF data files and chart book).
- Chetty, Raj, et al., *Subsidies vs. Nudges: Which Policies Increase Savings the Most?* NBER Working Paper Number 18565, 2013 and Andrietti, Vincenzo, *Auto-enrollment, Matching and Participation in 401(k) Plans*, October 1, 2014.
- Congressional Research Service, (Patrick Purcell) *Automatic Enrollment in Section 401(k) Plans*, Report RS21954, January 2007.
- Congressional Research Service, (Patrick Purcell) *Automatic Enrollment in Section 401(k) Plans*, Report RS21954, August 9, 2006.
- Congressional Research Service, (Patrick Purcell) *Automatic Enrollment in Section 401(k) Plans*, Report RS21954, October 14, 2004.
- Employee Benefits Research Institute, Fast Facts (Stephen Blakely), *Raising the (Savings) Rate*, No. 235, June 2013.
- Employee Benefits Research Institute, Issue Brief (Jack VanDerhei), *The Impact of Automatic Enrollment in 401(k) Plans on Future Retirement Accumulations: A Simulation Study Based on Plan Design Modifications of Large Plan Sponsors*, No. 341, April 2010.

- Employee Benefits Research Institute, Issue Brief (Jack VanDerhei and Lori Lucas), *The Impact of Auto-enrollment and Automatic Contribution Escalation on Retirement Income Adequacy*, No. 349, November 2010.
- Federal Communications Commission, *Internet Access Services: Status as of December 31, 2013* Industry Analysis and Technology Division, Wireline Competition Bureau, October 2014.
- Federal Communications Commission, *Local Telephone Competition: Status as of December 31, 2013*, Industry Analysis and Technology Division, Wireline Competition Bureau, October 2014.
- Federal Communications Commission (Alexander Belinfante), *Telephone Subscribership in the United States, (Data through July 2009)*, Industry Analysis and Technology Division, Wireline Competition Bureau, December 2009.
- Federal Register, *Improving Regulation and Regulatory Review*, Vol. 76, No. 14, Friday, January 21, 2011.
- Federal Register, *Request for Information Regarding Electronic Disclosure by Employee Benefit Plans*, Vol. 76, No. 67, Thursday, April 7, 2011 (Proposed Rules).
- Gerdes, Geoffrey R. and Jack K. Walton II, *The Use of Checks and Other Noncash Payment Instruments in the United States*, Federal Reserve Bulletin, Volume 88, August 2002.
- Gerdes, Geoffrey R., Jack K. Walton II, May X. Liu, and Daniel W. Parke, *Trends in the Use of Payment Instruments in the United States*, Federal Reserve Bulletin, Spring 2006.
- The Guardian Workplace Benefits Study, 2012.
- Hewitt Research, *Trends and Experience in 401(k) Plans*, 2009.
- Investment Company Institute, *U.S. House of Representatives Committee on Ways and Means Tax Reform Working Group on Pensions/Retirement Comments of the Investment Company Institute*, April 15, 2013.
- Investment Company Institute, *Electronic Dissemination of 529 Plan Disclosure Documents*, MSRB Notice 2012-10, April 2, 2012.
- Investment Company Institute, Perspective (Sarah Holden and Jack VanDerhei), *The Influence of Automatic Enrollment, Catch-up, and IRA Contributions on 401(k) Accumulation at Retirement*, Vol. 11. No. 2, July 2005.
- John, David C., *Retirement Made Simpler, Topline Survey Results*, 2008.

- Kotlikoff, Laurence J. and Lawrence H. Summers, *Tax Incidence*, Chapter 16, in the Handbook of Public Economics, Volume II, edited by A.J. Auerbach and M. Feldstein, 1987.
- Nash, Joyce, *Opt-in or Opt-Out*, Region Focus, Winter, 2007.
- National Center for Policy Analysis, *Automatic 401(k)s: A Win for Workers*, Brief Analysis, No. 567, Tuesday, August 15, 2006
- Office of Management and Budget, Executive Office of the President, *Reducing Reporting and Paperwork Burdens*, Memo dated June 22, 2012.
- Office of Management and Budget, Executive Office of the President, *Informing Consumers through Smart Disclosure*, Memo dated September 8, 2011.
- Office of Management and Budget, Executive Office of the President, *Disclosure and Simplification as Regulatory Tools*, Memo dated June 18, 2010.
- Pew Research Center, *Older Adults and Technology Use*, April 3, 2014.
- Pew Research Center, *Digital Life in 2025*, March 11, 2014.
- Pew Research Center, *African Americans and Technology Use, A Demographic Portrait*, January 6, 2014.
- Pew Research Center, *Who's not online and why*, September 25, 2013.
- Pew Research Center, *Cell Phone Activities 2013*, September 16, 2013.
- Pew Research Center, *Cell Internet Use 2013*, September 16, 2013.
- Pew Research Center, *51% of U.S. Adults Bank Online*, August 7, 2013.
- Pew Research Center, *Home Broadband 2013*, August 26, 2013.
- Plymouth, Kathi and Jody Martin, *Bill Payment Trends: Major Shifts in Consumer Behavior Require Comprehensive Planning*, A First Data White Paper, 2009.
- Principal Financial Group, *A Guide for Plan Sponsors of 401(k) and Other Participant-Directed Retirement Plans Electronic Delivery of Participant Disclosure Materials*, May 2013.
- The Retirement Security Project, *The Automatic 401(k): A Simple Way to Strengthen Retirement Savings*, N° 2005-1.

- Social Security Administration, *Data for Direct Deposit activity* (fiscal year 2008 through fiscal year 2013).
- Social Security Administration, *Data for Benefit Requests filed via Internet* (fiscal year 2008 through fiscal year 2012).
- Swire, Peter P., and Kenesa Ahmad, *Delivering ERISA Disclosure for Defined Contribution Plans Why the Time has Come to Prefer Electronic Delivery*, June 2011.
- Social Security Administration (Anya Olsen and Kevin Whitman), *Effective Retirement Savings Programs: Design Features and Financial Education*, Social Security Bulletin, Vol. 70, No. 4, 2010.
- Social Security Administration (Melissa A. Z. Knoll), *The Role of Behavioral Economics and Behavioral Decision Making in Americans' Retirement Savings Decisions*, Social Security Bulletin, Vol. 67, No. 3, 2007
- The Transamerica Center for Retirement Studies, *The Retirement Readiness Imperative: Overcoming the Challenges Faced by Small Companies*, 14th Annual Transamerica Retirement Survey, October 2013.
- Tower-Perrins (Susan Farris, Brendan McFarland and Erika Stoner), *Defined Contribution Plans of Fortune 100 Companies for the 2012 Plan Year*, February 2014.
- T. Rowe Price Retirement Plan Services, (Mark Robinson) *Success of Auto Enrollment and Auto Increase: Using Behavioral Finance to Improve Retirement Planning*, EBRI Policy Forum, May 13, 2010.
- U.S. Census Bureau, *Computer and Internet Use in the United States*, May, 2013.
- U.S. Congressional Research Service (William A. Kandel), *The U.S. Foreign-Born Population: Trends and Selected Characteristics*, R41592, January 18, 2011.
- U.S. Department of Commerce, National Telecommunications and Information Administration, Economics and Statistics Administration, *Broadband Availability in the Workplace*, Broadband Brief No. 3, November 2013.
- U.S. Department of Commerce, National Telecommunications and Information Administration, Economics and Statistics Administration, *Exploring the Digital Nation: America's Emerging Online Experience*, June 2013.
- U.S. Department of Commerce, National Telecommunications and Information Administration, Economics and Statistics Administration, *Exploring the Digital Nation: Computer and Internet Use at Home*, November 2011.

- U.S. Department of Commerce, National Telecommunications and Information Administration, Economics and Statistics Administration, *Exploring the Digital Nation: Home Broadband Internet Adoption in the United States*, September 2010.
- U.S. Government Accountability Office, Private Pensions, *Revised Electronic Disclosure Rules Could Clarify Use and Better Protect Participant Choice*, GAO-13-594, September 2013.
- U.S. Government Accountability Office, Private Pensions, *Some Key Features Lead to an Uneven Distribution of Benefits*, GAO-11-333, March 2011.
- U.S. Government Accountability Office, Electronic Transfers, *Many Programs Electronically Disburse Federal Benefits, and More Outreach Could Increase Use*, GAO-08-645, June 2008.
- U.S. Government Accountability Office, Electronic Transfers, *Use by Federal Payment Recipients Has Increased but Obstacles to Greater Participation Remain*, GAO-02-913, September 2002.
- The White House, Office of the Press Secretary, *Executive Order 13589 – Promoting Efficient Spending*, November 9, 2011.