

Internal Revenue Service

**Advancing *E-file* Study
Phase 2 Report**

**An Examination of Options to Increase
Electronic Filing of Individual Returns**

December 15, 2010

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1. Introduction

Contents of Chapter 1:

- 1.1 Purpose of AES2 Report
- 1.2 Origin and Approach
- 1.3 Summary of Advancing *E-file* Study Phase 1
- 1.4 Organization of AES2 Report
- 1.5 Conventions

This report examines the costs, impacts, and adoption of Options to increase e-filing, presents the latest research on taxpayer and preparer motivations for and barriers to e-filing, and summarizes the latest findings that could influence the IRS e-file strategy.

This Advancing *E-file* Study Phase 2 (AES2) report assesses the feasibility of Options for increasing the electronic filing (*e-filing*) of individual tax returns that were identified in Phase 1 and provides insight from new survey research into taxpayer and preparer motivations for and barriers to *e-filing*.

The Advancing *E-file* Study was conceived by the Internal Revenue Service (IRS) to evaluate and plan specific initiatives for meeting the congressionally set 80% *e-file* goal. Because of its broad scope, the study was conducted in two phases. Advancing *E-file* Study Phase 1 (AES1) represented a major effort to collect, analyze, and synthesize information on IRS *e-file*. Among other achievements, the AES1 report of September 30, 2008, yielded high-level descriptions of 10 possible initiatives for increasing *e-file* levels.

For Phase 2, or AES2, each of these approaches or initiatives — referred to in this report as Options — were explored in detail. This report does not include recommendations on selecting or implementing specific Options for increasing *e-file* levels but lays the foundation for doing so in the future. During this phase, the following themes were identified and merit keeping in mind as the reader progresses through this report:

- **Few of the AES2 Options will produce a significant gain in *e-file* adoption.** Further, given the length of time required for implementation, many of the Options will not accelerate the timeline for achieving the 80% *e-file* goal. The *e-file* level has been steadily increasing and, without any new government interventions, is projected to reach the 80% goal in 2016.
- **Substantial investments in technology, management, and organizational capability are required for the IRS to assume new roles in tax preparation and submission.** The development and maintenance of new, advanced capabilities for providing software or services comparable with those available from the commercial sector would be costly and time-consuming.
- **Efforts to advance *e-file* must consider the entire tax return preparation and submission experience and evaluate changes in the tax landscape.** Increasing *e-file* levels, and the costs thereof, must be weighed against impacts on issues such as taxpayer compliance and satisfaction and third party partnerships.

The IRS and its partners have made significant progress in increasing the level of *e-filing* among taxpayers. During the 2009 tax filing season, 67% of individual Federal income tax returns were *e-filed*.¹

¹ IRS (2009) *Two Out of Three Individuals Now Using IRS e-File*

1.1 Purpose of AES2 Report

With this report, the IRS is taking the second step toward defining a comprehensive strategy and set of actions to achieve the 80% *e-file* goal.² The purpose of this report is to further the IRS's understanding of Options to increase *e-filing* identified in AES1 by delivering a full and even examination of each and help the IRS make decisions about pursuing any particular Option or set of Options.

Specifically, this report is designed to:

- **Identify at a conceptual or very rough order of magnitude (VROM) level the costs, impacts, and adoption of each Option** — AES2 employs a structured process to create a preliminary definition of each Option and assess each Option separately without any comparison or analysis of trade-offs among Options.³
- **Clarify the motivations for taxpayers and preparers to *e-file*** — AES2 includes original research in the form of a taxpayer survey, preparer survey, and conjoint survey to better determine which issues are most salient for which groups.
- **Summarize key reports that could influence IRS strategies to increase *e-filing*** — AES2 summarizes key reports that could influence IRS strategies for increasing *e-filing*.

The focus of this report is on exploring multiple Options to reach the 80% *e-file* goal for individual taxpayer returns and finding new ways to reach the remaining 33% of taxpayers who still submit their returns on paper. By design, this report:

- Does not address the appropriate role of the IRS in the tax landscape (i.e., whether the IRS should be both tax collector and tax preparer).
- Does not address political or reputational risks associated with an Option, such as the impact on the public trust should it fail.
- Does not recommend which Options the IRS should implement.
- Does not define or recommend an overall strategy for increasing *e-filing*, but lays the foundation for the IRS to do so in the future.

1.2 Origin and Approach

The Advancing *E-file* Study was driven by the IRS's desire to meet the 80% *e-file* goal and improve taxpayer service overall. It serves as a response to the specific interests of Congress, the American public, and other stakeholders to increase *e-filing* and improve the electronic submission of tax returns. Because of its broad scope, the study was

² The 80% *e-file* goal derives from Title II, Section 2001 of the Internal Revenue Service Restructuring and Reform Act of 1998 (RRA98):

(a) IN GENERAL.—It is the policy of Congress that—

- (1) paperless filing should be the preferred and most convenient means of filing Federal tax and information returns,
- (2) it should be the goal of the Internal Revenue Service to have at least 80% of all such returns filed electronically by the year 2007, and
- (3) the Internal Revenue Service should cooperate with and encourage the private sector by encouraging competition to increase electronic filing of such returns.

³ The Options were originally identified in the Advancing *E-file* Study Phase 1 (AES1) report, and are addressed in chapters 5–15 of the AES2 report.

conducted in phases. In the initial phase (AES1), a comprehensive review of factors contributing to the current environment and *e-file* adoption rates was conducted.

AES2 builds on work completed in AES1. AES2 includes a more thorough examination of Options first identified and tagged for further study in AES1. Both the AES1 and AES2 reports were prepared by the Center for Enterprise Modernization (CEM), a Federally Funded Research and Development Center (FFRDC) sponsored by the IRS and operated by The MITRE Corporation.⁴ This report was prepared pursuant to guidelines and specifications provided by the IRS Office of Electronic Tax Administration and Refundable Credits (ETARC).⁵

In general, during AES2, each Option was examined by an integrated project team (IPT) consisting of IRS and MITRE subject matter experts. Additional information on the approach used to analyze each Option (definition, estimated costs, impacts, projected net adoption) is presented in chapter 4. This report is by definition limited in scope to the goal of advancing *e-file*. Other objectives — such as improving IRS taxpayer service and reducing costs — are discussed only to the extent that they overlap with advancing *e-file*.

1.3 Summary of Advancing *E-file* Study Phase 1

For the AES1 report, MITRE drew from numerous documents, reports, and research studies on the subject of *e-filing*.⁶ These sources were synthesized and organized into the following areas:

- How *e-filing* works, *e-file* stakeholders, and the IRS's relationship with third parties.
- IRS progress toward achieving the 80% *e-file* goal and the effect of technology adoption on *e-file* adoption (including a comparison of IRS and banking industry experiences in promoting online services).
- Taxpayer and preparer perceptions of *e-file* and motivations to file electronically.
- Experiences of States and foreign countries in the electronic submission of tax returns.
- Information regarding options for increasing the electronic submission of tax returns.

The AES1 report identified three main themes:

- **There is no silver bullet.** An advancing *e-file* strategy must take into consideration many complex factors, and there is no quick fix or any single Option approach for the IRS to convert remaining paper filers.
- **The IRS cannot meet the goal without help.** The multifaceted landscape of the US tax system, by its very nature, requires that the IRS rely on strong partnerships with third party partners, stakeholders, and Congress to advance *e-file*.

⁴ The CEM FFRDC is part of MITRE's Center for Connected Government Operating Center.

⁵ All work for this study was performed under Contract TIRNO-99-D-00005, Task Order 0221.

⁶ The AES1 report and executive summary is publically available on IRS.gov at:

<http://www.irs.gov/efile/article/0,,id=188314,00.html>

- **Technology is secondary to motivating behavior.** Even the most innovative technology will not help the IRS achieve the 80% *e-file* goal unless it is grounded in a thorough understanding of the intricacies of filer behavior — their motivators, concerns, and relative positions on the technology adoption curve.

AES1 included a thorough review and evaluation of trends, behaviors, and other factors influencing *e-file* adoption. The AES1 report also identified several Options the IRS might pursue to increase *e-filing* levels. These Options represent a range of strategies that could be pursued in whole, or in part, and at varying levels of commitment or resources. A summary and the current status of these Options (as they pertain to this AES2 report) are covered in chapter 4 of this report.

1.4 Organization of AES2 Report

This report contains 16 chapters along with appendices, an acronym list, a glossary, and a list of references, as described in Table 1-1:

Table 1-1: Organization of This Report

Chapter Number and Title	Contents
1. Introduction	Presents the report’s purpose, origin and approach, and organization; a summary of AES1; and conventions used in the report.
2. Changes in the Tax Landscape Since AES1	Provides the latest <i>e-filing</i> statistics, changes in law and commerce, and summaries of key reports since AES1.
3. New Research on <i>E-file</i> Motivators	Summarizes findings from the 2009 IRS taxpayer and preparer surveys.
4. Guide to Option Chapters	Introduces the Options presented in subsequent chapters, explains the organization of these chapters, and describes the AES2 methodology and assumptions and constraints used to define each Option, determine its impacts, and calculate its estimated costs and projected net adoption.
5. Option Fact Sheets	Summarizes each Option in a one-page Fact Sheet that defines each Option and presents the costs, impacts, and projected net adoption of each.
6. Technology Option: Free IRS Direct <i>E-file</i>	Examines a new IRS return submission service that will allow individual taxpayers who prepare their returns with commercial tax preparation software to <i>e-file</i> their returns directly to the IRS for free.
7. Technology Option: Free IRS Online Forms	Examines a new method for taxpayers to prepare their own returns by filling in tax forms on a secure IRS web site and then <i>e-file</i> their completed returns directly to the IRS for free.
8. Technology Option: Free IRS Tax Preparation Software	Examines a new IRS interview-based return preparation software taxpayers may use to complete required tax forms and then <i>e-file</i> the completed return directly to the IRS for free.
9. Technology Option: Modernized Paper Filing	Examines new optical scanning, automated data extraction, data export, and archiving techniques that can minimize the need for manual transcription of paper returns.

Chapter Number and Title	Contents
10. Policy Option: Federal <i>E-file</i> Mandate on Paid Preparers*	Examines a Federal <i>e-filing</i> mandate on paid preparers who meet a designated threshold for the number of individual tax returns prepared.*
11. Policy Option: Targeted Marketing of <i>E-file</i>	Examines a framework that the IRS can use to develop data-driven, multi-year marketing strategies aimed at specific segments of <i>e-file</i> Holdouts.
12. Policy Option: Expanded Free File	Examines changes to the Free File Alliance (FFA) Memorandum of Understanding (MOU) that could increase <i>e-file</i> participation.
13. Policy Option: More Filing Time for <i>E-filers</i>	Examines the effect of allowing <i>e-filers</i> a longer period of time than paper filers to submit their return.
14. Policy Option: Monetary Incentive	Explores a range of possible tax credits for paper filers that may persuade them to <i>e-file</i> their returns.
15. Emerging Technology: Research on Mobile <i>E-file</i>	Summarizes the current landscape and trends of mobile phone technology. Explores potential mobile <i>e-file</i> alternatives for future consideration.
16. Areas for Further Investigation	Identifies areas for further study, including gaps found in recent research and published reports.
Appendix A. Survey Research Methodologies and Additional Findings	Presents the detailed methodologies for the taxpayer and tax preparer surveys and additional findings.
Appendix B. Cost Estimation Methodology	Presents the detailed cost estimation methodology.
Appendix C. Alternative Adoption Scenarios	Presents net adoption estimates based on different assumptions about implementation timing.
Appendix D. Contributors	Lists contributors to this report.
Acronyms	Lists acronyms used in this report.
Glossary	Defines terms used in this report.
References	Lists references used to prepare this report.

1.5 Conventions

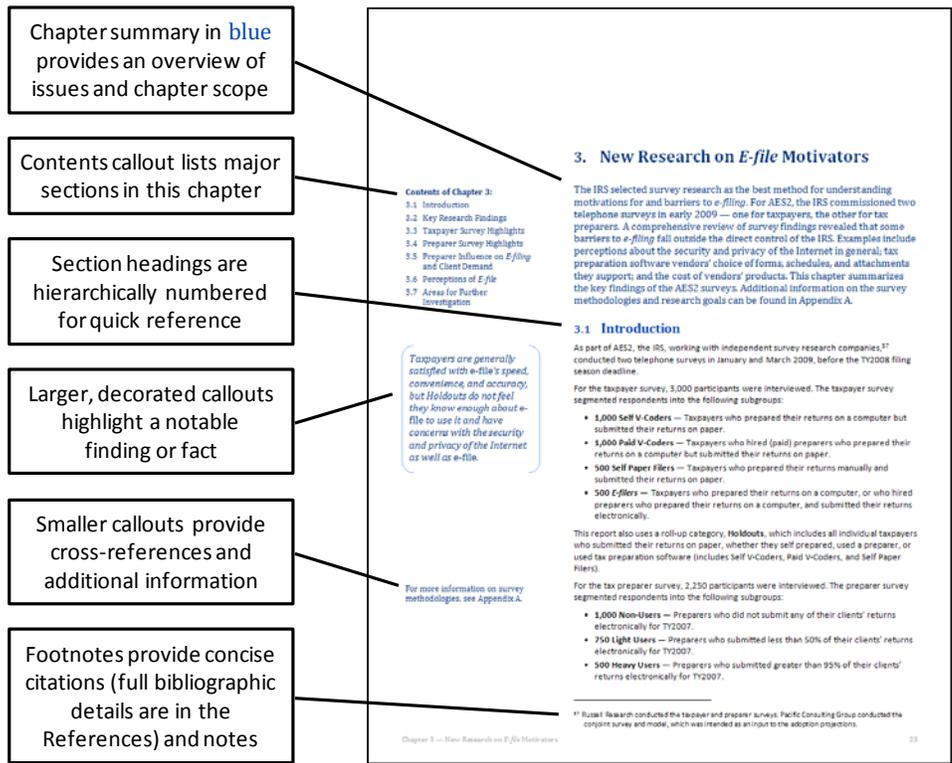
To make the report easier to navigate and understand, certain conventions are used.

Reading This Report

To the fullest extent possible, this report uses a consistent organizational and visual design for presenting information. Figure 1-1 describes the use of headings, chapter-specific tables of contents, informational and thematic callouts, and footnotes in this report.

* MITRE began work on examining a Federal *E-file* Mandate on Paid Preparers Option. Since Congress passed such a mandate before this analysis could be finalized, MITRE set aside its work on this Option.

Figure 1-1: Navigational and Informational Features of This Report



Data

To the fullest extent possible, this report uses the most current public authoritative data available on a given subject. Authoritative data is preferred to draft or unofficial data. Complete data — a single source and derivation — is preferred to piecing separately sourced/derived data together to form a point. Publicly available data is preferred to proprietary data. For clarity of presentation, some data may be rounded (e.g., tables and charts with percentage values may not total exactly 100%).

Dates

Dates are Calendar Year (CY) unless otherwise specified. Note that the Tax Year (TY) for individual returns is 1 year behind the CY. For example, during the 2009 filing season (i.e., January 1 to October 15, 2009), individuals filed their tax returns for TY2008. Returns are processed after they are received. The Processing Year (PY) for individual returns is almost always the same as the CY. In a small number of cases, usually involving amended returns from 2 or more tax years ago, the PY is later than the CY.

Use of Footnotes and Citations

Wherever possible, citations to source materials are provided in footnotes for purposes of information sharing and traceability.

Nomenclature

- “IRS” refers to the US Department of the Treasury Internal Revenue Service.
- “Returns” and “tax returns” refer to Federal individual income tax returns unless specified otherwise.
- The terms “*e-file*,” “*e-filed*,” “*e-filer*,” “*e-filers*,” and “*e-filing*” refer to IRS-branded electronic submission.
- “V-Coders” refers to individuals or paid preparers who prepare returns using a computer but submit the returns on paper.
- “Preparers” or “paid preparers” are persons who assist taxpayers in completing their tax returns.
- References to States include the District of Columbia, whose electronic filing programs “operate exactly like those in the States.”⁷
- Option (capitalized) refers to one of the proposed approaches described in this report for meeting the 80% *e-file* goal.

Electronic Filing/E-Filing

The term “electronic filing” in this report refers to the process in which a taxpayer or preparer submits a tax return to tax-collecting entity over the Internet. The term “*e-filing*” refers to the process in which a taxpayer or preparer submits a tax return to the IRS over the Internet. Given the entire process of preparing and submitting a return is commonly called filing, care has been taken to differentiate among these terms.

In some cases, other approaches to submitting a return, such as on paper or over the telephone, deliver benefits and advantages comparable to *e-filing*. In its November 2007 Tax Administration report, the Government Accountability Office (GAO) refers to barcoding as “another option to increase electronic filing.”⁸ Because of their ability to achieve benefits similar to those of *e-filing*, this report examines a wide range of approaches for submitting a return.

80% E-file Goal Definition

For the purposes of this report, the 80% *e-file* goal refers to the electronic submission of Federal individual income tax returns using the 1040 family of forms and schedules.

⁷ Duncan, H. T. (2006) *Preparing Your Taxes: How Costly Is It?*, p. 1

⁸ Government Accountability Office (2007) *Tax Administration: 2007 Filing Season Continues Trend of Improvement, but Opportunities to Reduce Costs and Increase Tax Compliance Should be Evaluated*, p. 15

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2. Changes in the Tax Landscape since AES1

Contents of Chapter 2:

- 2.1 *E-file* Adoption and Related Insights
- 2.2 Changes in Law and Commerce
- 2.3 Summaries of Key Reports Since AES1

This chapter presents a summary of changes in the tax landscape since the AES1 report was published in 2008. It provides updated data on actual and projected *e-file* adoption and a summary of key reports that were issued since AES1. This chapter also looks at issues facing the IRS as it strives to meet the congressionally set 80% *e-file* goal.

2.1 *E-file* Adoption and Related Insights

In 2009 (TY2008), the IRS reported its best year ever for *e-filed* returns:

- 67% of individual taxpayers *e-filed* in TY2008, compared with 59% the previous year.⁹
- Over 95 million tax returns were *e-filed* — an increase of 6% from the previous year.¹⁰
- About two-thirds of *e-filed* returns came from paid preparers and one-third came from individual taxpayers.¹¹
- Most of the increase in *e-filing* came from individual taxpayers. Among individuals, *e-filing* rose 20% — from 27 million in TY2007 to 32 million in TY2008.¹²

Some of the large reported *e-filing* increase in 2009 appears to be tied to the nearly flat increase reported in 2008 (compared with 2007), when the Economic Stimulus Act, which provided Economic Stimulus Payments (ESP) to some Americans, went into effect.¹³ This can be seen in Figure 2-1, which depicts the actual and projected net increase in *e-filing* adoption relative to the 80% *e-file* goal. Because returns filed only to obtain ESPs were almost entirely submitted on paper, *e-filing* growth was effectively dampened in 2008. In spite of this one-time occurrence for 2008, since the passage of the Restructuring and Reform Act of 1998 (RRA98), overall *e-filing* has increased steadily. Based on current trends and projections, the 80% *e-file* goal will be achieved in 2016.

Stakeholders working together — including States and industry — have made possible the substantial progress on e-file to date.

⁹ IRS (2009) *Two Out of Three Individuals Now Using IRS e-File*

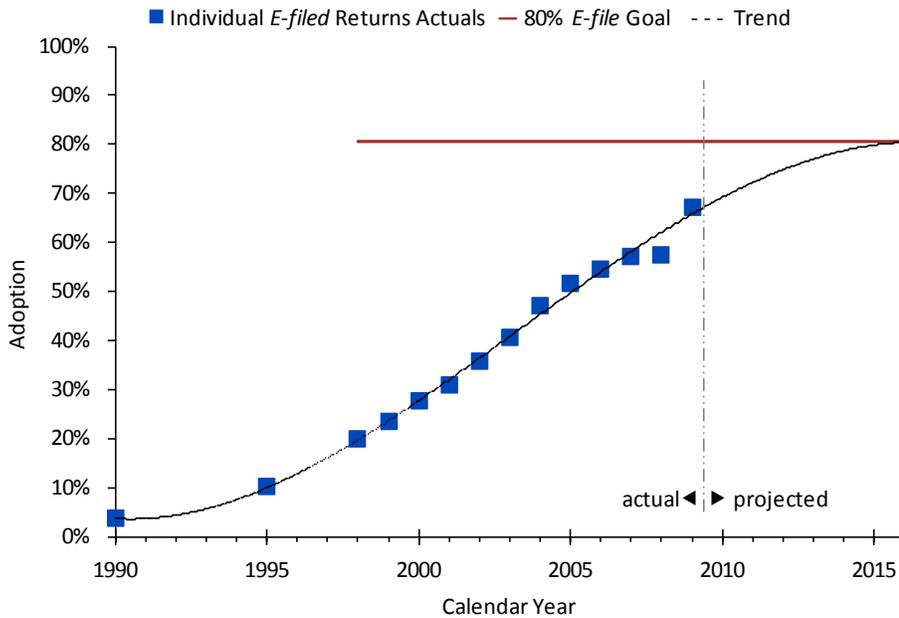
¹⁰ IRS (2009) *Two Out of Three Individuals Now Using IRS e-File*

¹¹ IRS (2009) *E-file Hits Record 90 Million; 30 Million Filed From Home Computers*

¹² IRS (2009) *Two Out of Three Individuals Now Using IRS e-File*

¹³ “Stimulus Filers” are filers who normally do not file but did so for TY2007 solely to take advantage of the Economic Stimulus Plan of 2008. These filers are not expected to file again, unless there is another Stimulus package that requires filing in order to receive benefits.

Figure 2-1: Actual and Projected E-file Adoption, 1990–2016



Based on current trends, the 80% e-file goal will be achieved in 2016. This baseline assumes that none of the Policy or Technology Options described in this report is implemented and that there are no significant changes in the tax landscape.

Source: IRS (2006) *SOI Bulletin Historical Table 22: Selected Returns and Forms Filed or To Be Filed by Type During Specified Calendar Years, 1990-2007*; IRS (2008) *2008 Filing Season Statistics - Cumulative through the weeks ending Dec. 28, 2007 and Dec. 31, 2008*; IRS (2009) *Calendar Year Projections of Individual Returns by Major Processing Categories*; IRS (2009) *Two Out of Three Individuals Now Using IRS e-File*

Table 2-1 provides the actual and projected growth in e-filed individual tax returns between 1990 and 2016. This represents a baseline projection, which assumes that none of the Policy or Technology Options described in this report is implemented and that there are no significant changes in the tax landscape (e.g., major tax legislation). The IRS utilizes the technology adoption curve (i.e., Diffusion of Innovations model) for calculating projected levels of e-filing. As reported in the IRS 2008 Statement of Methodology on E-file Projections:¹⁴

Given that e-filing has surpassed the 50% level, the increase in e-file adoption will slow due to the nature of technology adoption — those most willing to adopt e-file already have done so.

In general, [adoption] rates were projected using the diffusion of innovation model. These curves capture the growth patterns typically associated with the introduction of new technology-related products.

The electronic projections do not account for pending legislation or tentative administrative plans. Consequently, the long-run e-file projections generally represent baseline projections and should not be interpreted as precluding an alternative e-file future.

¹⁴ IRS (2008) *Statement of Methodology: SOI e-file Projections*

Table 2-1: Actual and Projected Submission of Individual Tax Returns, 1990–2016

Calendar Year	Total Returns	80% E-file Goal	E-file #	E-file %	Paper #	Paper %
1990	112,305,000	89,844,000	4,204,200	3.7	108,100,900	96.3
1995	116,059,700	92,847,760	11,806,900	10.2	104,252,800	89.8
1998	122,546,900	98,037,520	24,580,300	20.1	97,966,600	79.9
1999	124,887,100	99,909,680	29,329,500	23.5	95,557,600	76.5
2000	127,097,200	101,677,760	35,402,200	27.9	91,695,100	72.1
2001	129,444,900	103,555,920	40,206,800	31.1	89,238,100	68.9
2002	130,341,200	104,272,960	46,836,100	35.9	83,505,100	64.1
2003	130,134,300	104,107,440	52,869,000	40.6	77,265,300	59.4
2004	130,576,900	104,461,520	61,428,300	47.0	69,148,600	53.0
2005	132,275,800	105,820,640	68,463,900	51.8	63,811,900	48.2
2006	134,421,400	107,537,120	73,239,500	54.5	61,181,900	45.5
2007 ^a	140,188,000	112,150,400	79,979,000	57.1	60,209,000	42.9
2008 ^b	156,297,000	125,037,600	89,886,000	57.5	66,411,000	42.5
2009 ^c	141,376,000	113,100,800	94,980,000	67.2	46,396,000	32.8
2010 ^d	138,081,700	110,465,360	97,650,200	70.7	40,431,600	29.3
2011 ^d	138,924,800	111,139,840	101,265,600	72.9	37,659,200	27.1
2012 ^d	140,583,800	112,467,040	105,420,800	75.0	35,163,000	25.0
2013 ^d	142,206,700	113,765,360	109,180,700	76.8	33,026,000	23.2
2014 ^d	143,543,900	114,835,120	112,378,900	78.3	31,165,000	21.7
2015 ^d	144,695,600	115,756,480	115,149,100	79.6	29,546,500	20.4
2016 ^d	145,813,500	116,650,800	117,678,200	80.7	28,135,300	19.3

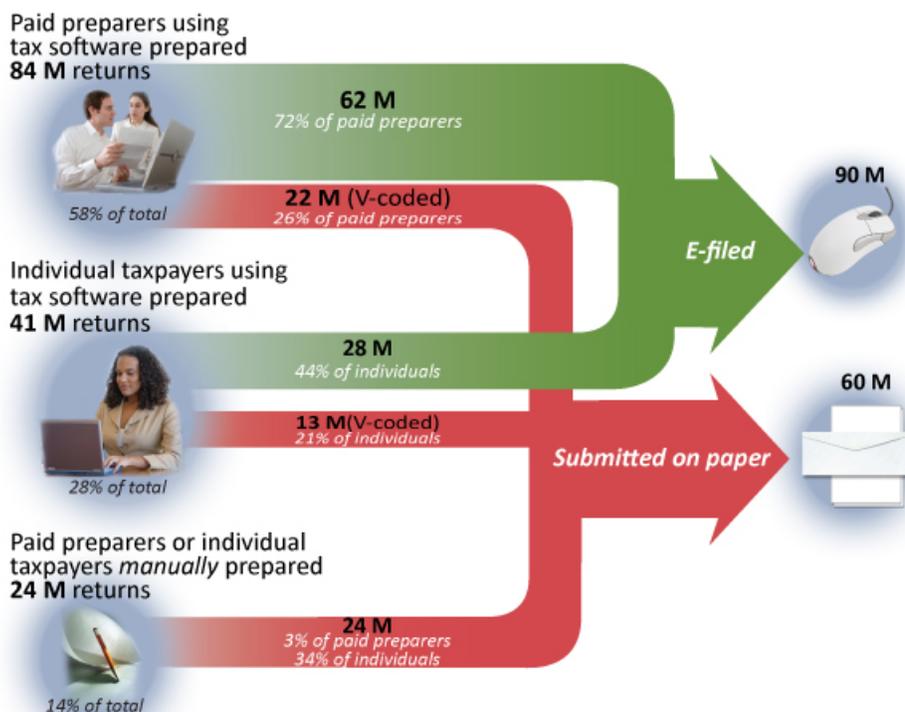
Notes: (a) 2007 data includes returns submitted to obtain the Telephone Excise Tax Refund. (b) 2008 data includes returns submitted to obtain the Economic Stimulus Payment. (c) 2009 data includes actuals year-to-date through end of filing season in October. (d) Indicates data for this year is projected.

Source: IRS (2006) *SOI Bulletin Historical Table 22: Selected Returns and Forms Filed or To Be Filed by Type During Specified Calendar Years, 1990-2007*; IRS (2008) *2008 Filing Season Statistics - Cumulative through the weeks ending Dec. 28, 2007 and Dec. 31, 2008*; IRS (2009) *Calendar Year Projections of Individual Returns by Major Processing Categories*; IRS (2009) *Two Out of Three Individuals Now Using IRS e-File*

Tax Preparation and Submission Methods

Figure 2-2 illustrates the combinations of tax preparation and submission methods chosen by taxpayers in 2008 (TY2007).

Figure 2-2: Tax Preparation and Submission Methods



Sums may not total 100% due to rounding. Figure 2-2 is based on GAO 09-297, Figure 1.

Source: IRS (2009) *Individual Master File Query: How Returns Were Prepared and Filed for TY2007*

Other findings from this analysis include:

- The large majority of paid preparers — almost 98% — prepared returns on a computer using tax preparation software; 26% of returns prepared this way, however, were V-Coded (i.e., prepared on a computer but submitted on paper).
- Among individual taxpayers who prepared their own returns, 65% prepared their returns on a computer, but only 44% *e-filed* their returns. The other 21% were V-Coders.
- Overall, close to 24% of returns were prepared on a computer but were submitted on paper.

The term “V-Coded” refers to returns that are prepared on a computer (i.e., using tax preparation software) but are submitted on paper.

Tax Returns by Submission Method, Filer Type, and Complexity

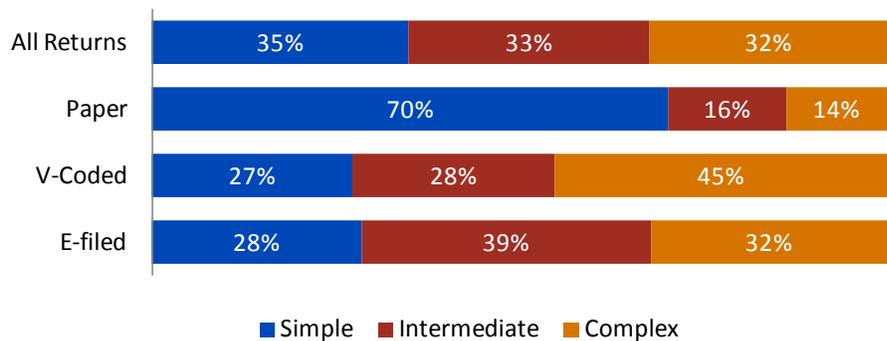
Each year, the IRS publishes an analysis of Individual Master File (IMF) tax return data. This analysis categorizes tax returns based on who prepared the return (self, paid

preparer) and relative return complexity (simple, intermediate, complex).¹⁵ These categories are:

- **Self-Prepared** — No paid-preparer identification number appears on the return.
- **Paid-Preparer-Prepared** — A paid-preparer identification number appears on the return.
- **Simple** — Returns consisting of Form 1040EZ or either Form 1040 or Form 1040A without any schedules.
- **Intermediate** — Returns consisting of Form 1040A with Schedule 1 (Child Tax Credit or Education Credit) or Earned Income Credit (EIC); or Form 1040 with Schedules A, B, D, 1 or Earned Income Credit.
- **Complex** — Returns consisting of Form 1040 with Schedules C, E, or F or other schedules and other Forms 1040 (e.g., 1040 PR).

Figure 2-3 shows distributions by submission method and level of complexity for 2008 (TY2007), the most recent tax year for which data was available.

Figure 2-3: Returns by Complexity and Submission Method



Note: As a proportion of the total number of returns received in TY2007, 14% were paper, 23% were V-Coded, and 60% were e-filed.

Source: IRS (2009) *Individual Master File Query: How Returns Were Prepared and Filed for TY2007*

This analysis revealed that in 2008:

- 70% of paper returns were simple returns.
- 45% of V-Coded returns were complex.
- 39% of e-filed returns were of intermediate complexity.
- Complex returns were almost always prepared using tax software on a computer, and most were submitted electronically.

A notable change from the year before occurred with paid preparers. Paid preparers decreased their submission of V-Coded returns by 6.4% — or by virtually the same percentage (6.3%) that they increased their e-filed returns.

¹⁵ IRS (2009) *Individual Master File Query: How Returns Were Prepared and Filed for TY2007*, p. 7

This analysis also reveals that the overwhelming majority of returns submitted on paper are simple. As addressed in chapter 3 (New Research on *E-filer* Motivators), this runs counter to commonly held views that most paper returns are complex.

2.2 Changes in Law and Commerce

Marketing and Pricing Changes for Commercial Tax Preparation Software

User-installable tax preparation software packages are purchased from retailers or downloaded from the Internet and then installed by users on their computers. In contrast, online-only software offerings (also known as Software-As-A-Service) do not require the user to install any software, because they are essentially web sites accessed through the user's web browser. Online-only software is the fastest growing category of tax preparation software.¹⁶

Prior to 2009, the two largest tax preparation software vendors — Intuit and H&R Block — charged customers who used their user-installable software packages separate fees for *e-filing* a return. The third largest tax preparation software vendor, 2nd Story Software, offered bundled pricing, in which Federal tax return preparation and *e-filing* were offered as part of the software package for a single price.¹⁷ Note that since their inception, vendors' online-only offerings have predominantly bundled *e-filing* fees into the total cost of the software.

For the 2009 filing season (TY2008), Intuit and H&R Block followed the approach of 2nd Story Software and introduced bundled pricing for user-installable software packages, with both Federal tax return preparation and *e-filing* included in the price of their products. In addition, both vendors advertised their commercial tax preparation software as including free *e-filing*.

Vendors have increased national advertising for their products offered outside the FFA that provide both Federal tax return preparation and free *e-filing*. This advertising, along with free *e-filing*, may have contributed to the 2009 increase in self-prepared returns using commercial tax preparation software.¹⁸

In general, Intuit and H&R Block's prices, including the historically separate *e-file* fee, were slightly lower in 2009 than in 2008. Prices for both companies' online software were generally lower than those of the boxed retail and downloadable packages.¹⁹ Boxed retail software can be used to complete several returns, whereas online software is sold on a per return basis.

More information on tax software and associated issues is available in the GAO report *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks* (GAO-09-297), discussed in section 2.3.

For the first time, during the 2009 filing season, Intuit and H&R Block bundled their e-filing fees into the total cost of their user-installable tax preparation software packages. Previously, customers of these packages had to pay a separate fee to e-file.

¹⁶ MSNBC (2010) *Options abound for filing tax return*

¹⁷ Government Accountability Office (2009) *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks*, pp. 4,8

¹⁸ IRS (2009) *Filing Tax Returns from Home Computers Up 20 Percent in 2009*

¹⁹ Government Accountability Office (2009) *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks*, p. 8

In early 2009, a new offering, Free File Fillable Forms, was introduced. First-year utilization was very low for these electronic equivalents of paper tax forms.

Americans who usually have no reason to file a tax return were required to file a simple, one-time-only return in 2008 to receive their Economic Stimulus Payment (ESP). Almost all of these taxpayers submitted their returns on paper, which reduced the overall e-file level for 2008.

A broadened interpretation of the 80% e-file goal raises the bar, which can both motivate and challenge the IRS.

New Offering in the Free File Program

The Free File Program consists of two components: Traditional Free File (TFF) and Free File Fillable Forms (FFFF). In 2009, the IRS and its commercial tax preparation software partners in the Free File Alliance (FFA) began offering FFFF. FFFF provides electronic equivalents of paper tax forms and schedules, which are available to all taxpayers who self-prepare their Federal tax returns.

Unlike TFF, which is generally available to taxpayers with Adjusted Gross Incomes (AGI) of \$56,000 or less, FFFF is available to all taxpayers. FFFF does not provide an interview-like, question-and-answer approach for simplifying tax preparation. Instead, using FFFF, taxpayers enter their data directly into the required tax forms and schedules. FFFF provides automated calculations and hyperlinks to IRS instructions. With FFFF, taxpayers can save their work and continue later, electronically sign and submit their returns, and print their returns for recordkeeping.

Taxpayers can access FFFF through a link on the IRS.gov web site, which redirects them to the FFA provider web site. FFFF does not support preparation or electronic submission of State tax returns. In introducing FFFF, the IRS noted that “this ‘self-service’ Option may be right for those who are comfortable with the tax law, know what forms they want to use, or don’t need assistance to complete their returns.”²⁰

During the 2009 filing season, about 3.0 million returns were filed using TFF, while about 0.3 million were filed using FFFF, together representing about 3% of all *e-filed* returns.²¹

Economic Stimulus Act of 2008

The Economic Stimulus Act of 2008 resulted in the filing of an estimated 14 million additional individual tax returns during 2008. These returns came from millions of Americans with qualifying Social Security income or veterans’ benefits who usually have no reason to file a tax return. To receive their ESPs, however, these filers were required to submit a simple, one-time-only return in 2008. Of these additional returns, 94% were submitted on paper. This high level of paper filers among ESP recipients contributed to a lower *e-file* level for 2008. The IRS Oversight Board notes that this effect was temporary and estimates that without those additional returns, the individual *e-file* level would have been slightly over 60%.²²

IRS Strategic Plan for 2009–2013

The IRS Strategic Plan for 2009–2013, issued in April 2009, defines the *e-file* level as the “percentage of all major tax returns filed electronically by individuals, businesses, and tax exempt entities.” The Plan further explains that “major tax returns are those in which filers account for income, expenses, and/or tax liabilities.” The Plan sets 2012 as the target date for achieving the 80% *e-file* goal.²³

The Strategic Plan’s appendix, which outlines IRS Long-Term Measures, provides differing definitions of the 80% *e-file* goal. In one instance, it refers to the goal as

²⁰ IRS (2009) *E-File Opens for 2009 With New Features to Expand Taxpayer Access, Help Speed Refunds*

²¹ IRS (2009) *Daily E-File At A Glance Nationwide 10/16/2009 Noon vs 10/17/2008 Noon*

²² IRS Oversight Board (2009) *Electronic Filing 2008 Annual Report to Congress*, pp. 4,9,15

²³ IRS (2009) *IRS Strategic Plan 2009-2013*, p. 32

including individual tax returns only. In another, it states that the goal includes all major tax returns.²⁴

2.3 Summaries of Key Reports since AES1

This section summarizes key reports issued since the publication of the AES1 report.²⁵ It does not include findings from recent AES2 research on taxpayers and preparers, which are covered in chapter 3.

Electronic Tax Administration Advisory Committee

Each year, the Electronic Tax Administration Advisory Committee (ETAAC) reports to Congress on the IRS's progress in meeting its *e-file* goal among other topics. This annual report includes recommendations, some of which are carried forward from one year to the next, often with modifications or updates.

The 2008 ETAAC *Report to Congress* includes 21 recommendations for increasing the participation, breadth, and depth of electronic tax administration activities. This report was not received in time for mention in the AES1 report. Several ETAAC recommendations focus on raising levels of electronic filing of individual returns. Specific recommendations made by ETAAC to the IRS in 2008 follow:²⁶

ETAAC recommendations include an e-file mandate on paid preparers, tax software standards, and an IRS emphasis on marketing e-file to high-opportunity demographics.

- Give *e-filed* returns more parity with paper returns in terms of the criteria for their acceptance by the IRS. Some *e-filed* returns are rejected for reasons other than math and format. The IRS should accept resubmission of these returns by *e-file* instead of on paper when the taxpayer disagrees with the reason for rejection. The IRS should allow taxpayers to explain why they believe the rejection is incorrect and resubmit their return by *e-file* with the explanation and an imperfect return indicator.
- Encourage transmitters, software providers, online providers, and preparers to eliminate fees for electronic filing, thus removing the disincentive to *e-file*.
- Increase funding for marketing to increase awareness and adoption of the Free File Program.

Other recommendations in the 2008 ETAAC report address areas such as web and e-services, communication with stakeholders, and Modernized e-File (MeF).

The 2009 ETAAC *Report to Congress* recognizes the IRS for achieving higher levels of *e-filing* and its work over the past few years:

The IRS made significant progress increasing the *e-file* rate for individual returns, particularly in do-it-yourself online filing.... The IRS has also made progress in establishing the foundation to develop a new e-strategy. Principally, the Advancing *e-file* Study and progress towards an over-arching Enterprise E-Strategy indicate that the IRS is on the right path.²⁷

²⁴ IRS (2009) *IRS Strategic Plan 2009-2013*, Measures Appendix

²⁵ Phase 1 of the Advancing *E-file* Study was formally issued on September 30, 2008. The main analysis for AES1, however, was concluded in May 2008.

²⁶ Electronic Tax Administration Advisory Committee (2008) *Annual Report to Congress*, pp. 7-16; See recommendations 11, 12, 13, and 19

²⁷ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 4

The 2009 ETAAC report includes 10 recommendations.²⁸ ETAAC views these as critical for the IRS to achieve the congressionally set 80% *e-file* goal. While all 10 have bearing on the scope and purpose of AES2, five have particular relevance to the Options presented in this report.²⁹ The five recommendations are:

For more information regarding the Federal *E-file* Mandate on Paid Preparers Option, see chapter 10.

Congress should enable the IRS to require preparers to *e-file*. [Recommendation 1]

The single biggest opportunity to advance the 80% goal lies with a tax preparer requirement. ETAAC recommends that Congress [provide] the IRS with the authority to require an appropriate return threshold [and] that the IRS [start] with a threshold of 200 returns, which could result in 16 million additional e-filed returns. ETAAC proposes that implementation dovetail with the completion of Modernized e-file (MeF) for Form 1040.

This recommendation was also made in 2008 and 2007. In 2008, ETAAC recommended setting the threshold — the number of returns a paid preparer submits each year that makes them subject to the mandate — at 50 individual returns and added that waivers, minimum penalties for non-compliance, and appropriate opt-out provisions be allowed. According to the 2009 ETAAC report, a Federal *e-file* mandate on paid preparers would “move the *e-file* needle further than any (other single) effort to reach the 80% goal.”³⁰

The IRS and industry should collaborate on tax software standards. [Recommendation 6]

Taxpayers need to be protected by effective and efficiently administered standards. The IRS and industry should work closely to develop an effective, efficient oversight model that ensures software accuracy, security, privacy and reliability.

For more information regarding the Targeted Marketing of *E-file* Option, see chapter 11.

The IRS should rebrand *e-file*. [Recommendation 7] It has been more than 15 years since *e-file* was introduced at the national and state levels. Marketing objectives need to be reevaluated and emphasis given to taxpayer demographics that present the greatest opportunity to increase *e-file*.

For more information regarding improvements to the essential IRS infrastructure for *e-filing*, such as Modernized E-File (MeF 1040), see chapter 4.

The IRS should develop an operational process for *e-file* rejects. [Recommendation 8] The *e-file* reject process can act as a deterrent to *e-file* for taxpayers and tax preparers. The IRS should work with industry to develop an efficient process for communicating, reducing and resolving reject issues.

For more information regarding the Expanded Free File Option, see chapter 12.

The IRS should renew the Free File Alliance agreement. [Recommendation 9] The Free File Program is a basic entry point to the important, and quickly evolving, free *e-file* market. This contract renewal year presents an opportunity to continue the IRS’ trend of making the program easier to use and understand.

²⁸ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, pp. 5-6

²⁹ The other five recommendations ETAAC made to the IRS are listed below listed with the original recommendation number for ease of cross-reference (explanatory text not included):

2. Congress should fund, and the IRS should complete, the “four pillars” of its Modernization Program.
3. The Data Strategy project should be comprehensive.
4. The IRS should modernize preparer e-services.
5. The Electronic Services Strategy should be an enterprise priority.
10. The IRS should ease the signature burden for information return sharing.

³⁰ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 15

IRS Oversight Board

The IRS Oversight Board issued two reports in January and March 2009: *Electronic Filing 2008 Annual Report to Congress* and *Annual Report to Congress for 2008*.

In its *Electronic Filing 2008 Annual Report*, the Board referred to “a new, IRS-proposed long-term goal that recommits the agency to the 80 percent *e-file* target” and called for a “combined electronic filing rate of 80 percent by the year 2012 for all major tax returns filed by individuals, businesses, and tax exempt organizations.”³¹ This is a change from how the Board acknowledged the goal previously as “commonly measured” by the number of individual tax returns filed electronically.³²

The Board noted that a greater share of individual returns was submitted electronically compared with business and tax exempt returns. In 2007, the individual return *e-file* level was 57.6%, while the business and tax exempt return *e-file* level was only 18.5% — equating to a combined 49.5% for all major return types.³³

Broadening the definition of the 2012 *e-file* goal to include segments with historically low *e-filing* rates changes the marker in terms of IRS progress in meeting the 80% *e-file* goal. Simply put, this broadened definition means that the IRS has much further to go to achieve the 80% *e-file* goal. The Board noted that “given the current state of relative *e-file* participation, the attainment of the 80% *e-file* goal by 2012 may hinge on the IRS exceeding the 80% *e-file* level among individual returns so as to compensate for a potentially lower *e-file* level among the business and tax exempt returns.”³⁴ As referenced in Table 2.1, when considering individual returns only, current projections indicate the IRS will not reach its 80% *e-file* goal until 2016.

The Board also provided comments on the ETAAC recommendations and expressed its support for lifting “the statutory prohibition on electronic filing mandates for individual returns and [giving] the IRS the discretion to implement such *e-file* mandates in the future as might be appropriate.” The Board suggested that the legislation specify that the IRS not implement a mandate until MeF 1040 is fully in place (see chapter 4 for more information on this system). The Board also expressed concern with ETAAC’s 2008 recommendation for a 50-return threshold for a preparer *e-file* mandate as being too low. It recommended basing the threshold on IRS study results on “the trade-off between expected benefits from the marginal increase in *e-file* versus the burden imposed on individual[s] and their preparers.”³⁵

In its *2008 Annual Report to Congress*, the Board noted, “One application of information technology that has shown notable progress is electronic filing.”³⁶ The report discussed the new FFFF offering, expressing the Board’s belief that “it will provide a good indication of the demand for a product of this type and help steer future electronic filing development efforts.”³⁷

The IRS Oversight Board broadened the 80% e-file goal beyond individual tax returns to include all major tax returns filed by individuals, businesses, and tax exempt organizations. According to the Board, the IRS should achieve a combined e-filing rate of 80% by 2012.

³¹ IRS Oversight Board (2009) *Electronic Filing 2008 Annual Report to Congress*, p. 6

³² IRS Oversight Board (2008) *Electronic Filing 2007: Annual Report to Congress*, p. 5

³³ IRS Oversight Board (2009) *Electronic Filing 2008 Annual Report to Congress*, pp. 13, 19

³⁴ IRS Oversight Board (2009) *Electronic Filing 2008 Annual Report to Congress* p. 13 See endnote number 8 on page 30 for a list of tax forms included for purposes of the 2012 e-file goal

³⁵ IRS Oversight Board (2009) *Electronic Filing 2008 Annual Report to Congress*, pp. 25-26

³⁶ IRS Oversight Board (2009) *Annual Report to Congress 2008*, p. 35

³⁷ IRS Oversight Board (2009) *Annual Report to Congress 2008*, p. 36

Treasury Inspector General for Tax Administration

On September 10, 2009, the Treasury Inspector General for Tax Administration (TIGTA) issued an audit report entitled *Repeated Efforts to Modernize Paper Tax Return Processing Have Been Unsuccessful; However, Actions Can Be Taken to Increase Electronic Filing and Reduce Processing Costs*. The report advocated two options to increase the *e-file* level and realize processing cost savings:

Mandate *e-filing* for paid preparers (this option would require a change in the law). The majority of paid preparers are already familiar with operating in an electronic environment. Most paid preparers who filed paper tax returns actually used an electronic tax software preparation package and 70 percent also *e-filed* at least 1 tax return, which indicates a familiarity with the electronic preparation and *e-filing* process.

Convert residual paper returns into an electronic format. Updating the Modernized Submission Processing concept to include pursuing successful processes followed by States that use scanning technology could provide the IRS with an option to convert paper-filed tax returns into an electronic format, thereby reducing processing costs associated with paper-filed tax returns.³⁸

TIGTA made two associated recommendations. One was a legislative recommendation, “consider mandating *e-filing* for all paid preparers.” The other was that the IRS should “pursue implementing successful processes followed by States that use scanning technology (Optical Character Recognition and Two-Dimensional Bar Codes) to convert paper-filed tax returns prepared by individuals using a tax preparation software package into an electronic format.”³⁹

The IRS agreed with the two TIGTA recommendations. The IRS noted that a two-dimensional (2D) barcode proposal will be submitted for the 2012 MV&S planning cycle, and a new proposal to enhance legacy systems with 2D barcodes will be submitted in the meantime.⁴⁰ The IRS noted the legislative recommendation is under consideration by the Department of the Treasury and included in the President’s FY2010 budget request.⁴¹

On June 17, 2008, TIGTA issued an audit report titled *A Self-Assistance Option Would Reduce Burden and Costs Associated With Resolving Rejected Electronic Tax Returns*. The report addressed concerns about the assistance provided by the IRS when an *e-filed* tax return is rejected:⁴²

³⁸ Treasury Inspector General for Tax Administration (2009) *Repeated Efforts to Modernize Paper Tax Return Processing Have Been Unsuccessful; However, Actions Can Be Taken to Increase Electronic Filing and Reduce Processing Costs*, p. 2

³⁹ Treasury Inspector General for Tax Administration (2009) *Repeated Efforts to Modernize Paper Tax Return Processing Have Been Unsuccessful; However, Actions Can Be Taken to Increase Electronic Filing and Reduce Processing Costs*, p. 3

⁴⁰ Treasury Inspector General for Tax Administration (2009) *Repeated Efforts to Modernize Paper Tax Return Processing Have Been Unsuccessful; However, Actions Can Be Taken to Increase Electronic Filing and Reduce Processing Costs*, p. 17

⁴¹ Treasury Inspector General for Tax Administration (2009) *Repeated Efforts to Modernize Paper Tax Return Processing Have Been Unsuccessful; However, Actions Can Be Taken to Increase Electronic Filing and Reduce Processing Costs*, p. 12

⁴² Treasury Inspector General for Tax Administration (2008) *A Self-Assistance Option Would Reduce Burden and Costs Associated With Resolving Rejected Electronic Tax Returns*

Although use of *e-file* allows tax practitioners to prepare and submit a tax return in an electronic environment, if the tax return is rejected, they are required to manually research publications and/or contact the IRS by telephone to obtain information on how to correct the reject condition(s). They noted that the manual steps required to resolve the problem are often burdensome. As a result, they sometimes simply abandon *e-file* and file a paper tax return.⁴³

TIGTA recommended that the IRS develop a self-assistance option to “reduce the number of telephone calls, eliminate the costs of maintaining redundant information in multiple systems, and improve customer service.”⁴⁴ These improvements to self-service and usability are particularly relevant since many of the Options for increasing *e-filing* levels discussed in this AES2 report involve improvements to customer support as prerequisites.

The IRS’s response to this TIGTA recommendation was that a self-assistance option was already added to the IRS.gov web site, which addressed 81% of the error codes issued in 2009. The IRS further stated that it would study the feasibility of supporting additional codes. The IRS disagreed that a study to assess the feasibility of providing self-assistance was necessary, arguing that the process for developing MeF capabilities already addresses this issue.⁴⁵

Government Accountability Office

In February 2009, GAO issued a report to the Senate Finance Committee, *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks*. This report addresses the following:⁴⁶

- IRS knowledge about how pricing strategies affect the use of tax preparation software and electronic filing.
- IRS oversight of the tax preparation software industry with regard to accuracy, security, and reliability.
- IRS knowledge about the risks of relying on commercial tax preparation software.

The GAO report recommends that the IRS:⁴⁷

- Require tax preparation software vendors, as soon as practical, to include a software identification number to identify the software used to prepare a tax return. This number could be used in IRS research efforts.
- Determine whether tax preparation software vendors that are authorized to participate in *e-filing* are adhering to security and privacy standards for the 2009 filing season.
- Develop and implement a plan to effectively monitor vendors’ compliance with recommended security and privacy standards for the 2010 filing season.

⁴³ Treasury Inspector General for Tax Administration (2008) *A Self-Assistance Option Would Reduce Burden and Costs Associated With Resolving Rejected Electronic Tax Returns*, p. 3

⁴⁴ Treasury Inspector General for Tax Administration (2008) *A Self-Assistance Option Would Reduce Burden and Costs Associated With Resolving Rejected Electronic Tax Returns*, p. 2

⁴⁵ Treasury Inspector General for Tax Administration (2008) *A Self-Assistance Option Would Reduce Burden and Costs Associated With Resolving Rejected Electronic Tax Returns*, pp. 20-21

⁴⁶ Government Accountability Office (2009) *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks*, p. 22

⁴⁷ Government Accountability Office (2009) *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks*, p. 20

- Assess the extent to which reliance on tax software creates significant risks to tax administration, particularly in the areas of tax return accuracy, security and privacy of taxpayer information, and reliability of *e-filing*.

The IRS agreed with GAO’s recommendations. It plans to require an identification number on tax returns prepared on a computer but submitted on paper.⁴⁸ The IRS plans to request this change for the 2010 filing season.⁴⁹

In June 2009, GAO issued interim results on the 2009 filing season.⁵⁰ Specific results relevant to *e-filing* include:

- Free File usage declined from 4.8 million in 2008 to 3.0 million in 2009.⁵¹ IRS officials attributed the decline to free commercial tax preparation software offered outside the Free File Program.⁵²
- FFFF, a new offering for the 2009 filing season, reported first-year usage of 0.3 million.⁵³

OECD’s insights are in line with the findings from the AES2 taxpayer and preparer research studies. This includes addressing the need for more information about e-filing, the role and importance of tax professionals, and the positive impact of monetary incentives on e-filing decisions.

Organisation for Economic Co-operation and Development

The Organisation for Economic Co-operation and Development (OECD), an international organization of 30 market democracies, released a report in January 2009 — *Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2008)* — containing data on and an analysis of tax administration in 43 countries.

This report found that although electronic filing is now well-established in many of the surveyed countries, the experience of many tax authorities suggests that “substantial progress on take-up rates is only achieved after a long and sustained effort involving a range of strategies.”⁵⁴

Other insights into tax administration covered in the report include the following:⁵⁵

- Information campaigns utilizing a variety of channels are an essential component of revenue bodies’ strategies.
- The use of incentives (e.g., faster refunds of overpaid taxes, extended filing periods) appears to play a significant role in encouraging a good rate of take-up (adoption), particularly concerning personal income tax.
- Tax professionals, who prepare a fair proportion of tax returns in many countries, are critical stakeholders in the effective operation of electronic filing systems and should be consulted widely and regularly on the development and operation of electronic tax return filing systems.

⁴⁸ Government Accountability Office (2009) *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks*, p. 20

⁴⁹ Government Accountability Office (2009) *Many Taxpayers Rely on Tax Software and IRS Needs to Assess Associated Risks*, p. 40

⁵⁰ Government Accountability Office (2009) *Interim Results of IRS’s 2009 Filing Season*

⁵¹ IRS (2009) *Daily E-File At A Glance Nationwide 10/16/2009 Noon vs 10/17/2008 Noon*

⁵² Government Accountability Office (2009) *Interim Results of IRS’s 2009 Filing Season*

⁵³ IRS (2009) *Daily E-File At A Glance Nationwide 10/16/2009 Noon vs 10/17/2008 Noon*

⁵⁴ Organisation for Economic Co-Operation and Development (2009) *Tax Administration in OECD Countries: Comparative Information Series (2008)*, p. 166

⁵⁵ Organisation for Economic Co-Operation and Development (2009) *Tax Administration in OECD Countries: Comparative Information Series (2008)*, p. 167

- Revenue bodies that have implemented mandatory electronic filing arrangements have typically targeted larger businesses and taken a cautious, progressive approach in the early years of these arrangements.
- Short of imposing mandatory requirements, which may present their own problems, a considerable investment of time, money, and staff is inevitably required over a fair period of time to achieve a good level of success.

As addressed in chapter 3, OECD's insights are in line with the findings from the AES2 2009 taxpayer and preparer research studies. This includes addressing the low levels of awareness and the need for more information about *e-filing*, the role of tax professionals, and the positive impact of monetary incentives on *e-filing* decisions.

3. New Research on *E-file* Motivators

Contents of Chapter 3:

- 3.1 Introduction
- 3.2 Key Research Findings
- 3.3 Taxpayer Survey Highlights
- 3.4 Preparer Survey Highlights
- 3.5 Preparer Influence on *E-filing* and Client Demand
- 3.6 Perceptions of *E-file*
- 3.7 Areas for Further Investigation

Taxpayers are generally satisfied with e-file's speed, convenience, and accuracy, but Holdouts do not feel they know enough about e-file to use it and have concerns with the security and privacy of the Internet as well as e-file.

For more information on survey methodologies, see Appendix A.

The IRS selected survey research as the best method for understanding motivations for and barriers to *e-filing*. For AES2, the IRS commissioned two telephone surveys in early 2009 — one for taxpayers, the other for tax preparers. A comprehensive review of survey findings revealed that some barriers to *e-filing* fall outside the direct control of the IRS. Examples include perceptions about the security and privacy of the Internet in general; tax preparation software vendors' choice of forms, schedules, and attachments they support; and the cost of vendors' products. This chapter summarizes the key findings of the AES2 surveys. Additional information on the survey methodologies and research goals can be found in Appendix A.

3.1 Introduction

As part of AES2, the IRS, working with independent survey research companies,⁵⁶ conducted two telephone surveys in January and March 2009, before the TY2008 filing season deadline.

For the taxpayer survey, 3,000 participants were interviewed. The taxpayer survey segmented respondents into the following subgroups:

- **1,000 Self V-Coders** — Taxpayers who prepared their returns on a computer but submitted their returns on paper.
- **1,000 Paid V-Coders** — Taxpayers who hired (paid) preparers who prepared their returns on a computer but submitted their returns on paper.
- **500 Self Paper Filers** — Taxpayers who prepared their returns manually and submitted their returns on paper.
- **500 E-filers** — Taxpayers who prepared their returns on a computer, or who hired preparers who prepared their returns on a computer, and submitted their returns electronically.

This report also uses a roll-up category, **Holdouts**, which includes all individual taxpayers who submitted their returns on paper, whether they self prepared, used a preparer, or used tax preparation software (includes Self V-Coders, Paid V-Coders, and Self Paper Filers).

For the tax preparer survey, 2,250 participants were interviewed. The preparer survey segmented respondents into the following subgroups:

- **1,000 Non-Users** — Preparers who did not submit any of their clients' returns electronically for TY2007.
- **750 Light Users** — Preparers who submitted less than 50% of their clients' returns electronically for TY2007.
- **500 Heavy Users** — Preparers who submitted greater than 95% of their clients' returns electronically for TY2007.

⁵⁶ Russell Research conducted the taxpayer and preparer surveys. Pacific Consulting Group conducted the conjoint survey and model, which was intended as an input to the adoption projections.

3.2 Key Research Findings

This study focuses on key research findings that are actionable by the IRS.⁵⁷ The taxpayer survey results show that many taxpayers are satisfied with *e-file*'s speed, convenience, and accuracy. But Holdouts do not know enough about *e-file* to use it and have concerns with the security and privacy of the Internet as well as *e-file*. The following conclusions were made based on taxpayer survey results:

- **The security and privacy of *e-file* — and the Internet — remains a concern for Holdouts.** Holdouts believe *e-file* does not provide the security and privacy of their data equivalent to that provided by submitting their returns on paper.
- **Understanding how *e-file* works informs the filing decisions taxpayers make.** The IRS could do more to educate taxpayers about *e-file*'s capabilities to help them see that *e-file* is compatible with their needs, skills, and technology.⁵⁸
- **Lack of support for all forms, schedules, and attachments causes some to not *e-file*.** Some taxpayers and preparers submit returns on paper because they cannot — or perceive that they cannot — submit all necessary forms, schedules, and attachments with returns when they *e-file*.
- **Paid preparers have significant influence on taxpayers' decisions to *e-file*.** Most taxpayers trust their preparers' guidance on tax matters. When preparers make the suggestion, taxpayers tend to *e-file*.

Key findings from the 2009 AES2 taxpayer and preparer surveys are summarized in the following sections.

3.3 Taxpayer Survey Highlights

The taxpayer survey gathered data on motivations and barriers affecting taxpayers' decisions about *e-filing*. This section presents survey results on barriers that may prevent taxpayers from *e-filing* and motivations that may persuade them to *e-file*.

For more information on the taxpayer survey findings, see Appendix A.

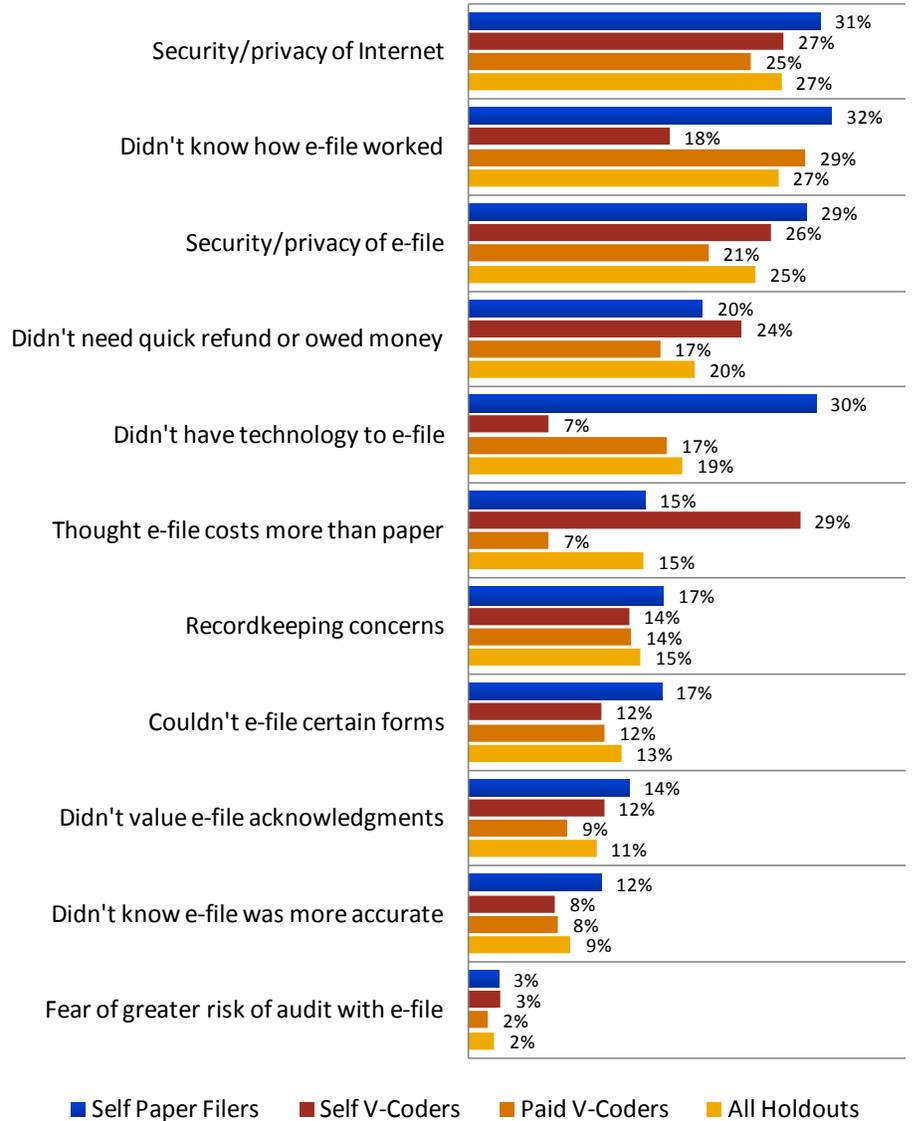
3.3.1 Taxpayer Reasons for Not Using *E-file*

The taxpayer survey included a request for Holdouts to select, from a pre-defined list, any and all reasons they did not use *e-file*. The reasons given by Holdouts for not *e-filing* are presented in Figure 3-1, broken out by taxpayer subgroup.

⁵⁷ For instance, the IRS is unable to remediate the lack of the technology required to *e-file* cited by some survey respondents as a reason they did not *e-file*.

⁵⁸ For example, for taxpayers who do not *e-file* because they owe money, the IRS could emphasize that with *e-file*, they can submit their returns now and pay later (up to the deadline). The increasing availability of tax preparation software products with free or bundled *e-filing* may also encourage these taxpayers to *e-file*.

Figure 3-1: Taxpayer Reasons for Not *E-filing*



Source: IRS (2009) *AES2 Taxpayer Survey*, Questions 5 and 8

The following lists the key findings on taxpayer reasons for not *e-filing*:

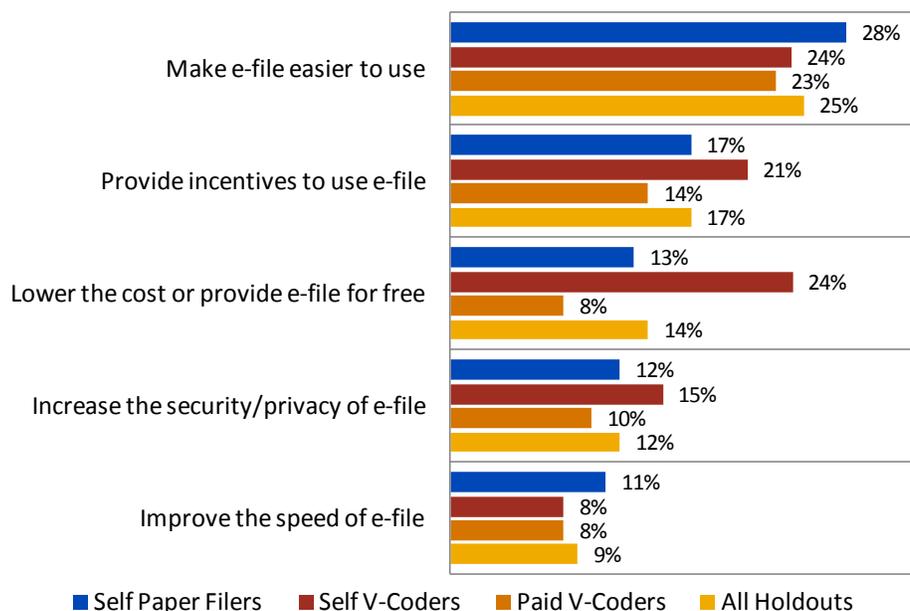
- Security and privacy were very important to all taxpayer groups surveyed, and response data suggests that taxpayers are just as apprehensive about the security and privacy of the Internet as they are about the security and privacy of electronically submitting their income tax returns. This suggests that the IRS may be limited in its ability to overcome security and privacy concerns with *e-filing*, because these concerns are closely linked to concerns about the Internet.

- 32% of Self Paper Filers and 29% of Paid V-Coders responded that they did not know enough about *e-file* to use it. This result suggests that more needs to be done to instruct taxpayers on how to use *e-file*.
- 29% of Self V-Coders cited cost as a barrier to *e-filing*.
- While an estimated 19% of all Holdouts (taxpayers who submitted a return on paper) did not have the technology to *e-file*, technology was not a significant barrier to *e-filing* for taxpayers who used commercial tax preparation software or relied on a paid preparer to submit their returns.
- Fear of audit was not cited as a significant barrier to *e-filing*.
- Respondents also volunteered other reasons for not *e-filing* that were not on the pre-defined list. For instance, 36% of Paid V-Coders said that their preparer decides on the submission method, and 16% of Self Paper Filers said that they submitted their returns on paper out of habit, comfort, or general preference.

Section 3.3.2.5 notes difficulties in obtaining insights into cost as a motivator.

The taxpayer survey offered taxpayers a chance to state in their own words what would make them switch to *e-file*. The top five response categories appear in Figure 3-2.⁵⁹

Figure 3-2: Top Motivators for Holdouts to Switch to *E-file*



Source: IRS (2009) *AES2 Taxpayer Survey*, Question 20

⁵⁹ Note that 17% of respondents stated that they would not use *e-file* under any conditions, a result that is informative but not included in the chart as it is not comparably actionable.

Self V-Coders' Use of Software

One finding of the taxpayer survey is that 41% of Self V-Coders did not *e-file* because they “bought software mainly to prepare [their] return and not to file it,” which was their most popular response.⁶⁰ This finding cannot be compared with those from other subgroups, or even among other reasons provided by Self V-Coders, because it represents circular reasoning. This response — because it is a restatement of the question — provides insufficient insight into Self V-Coders’ concerns with or perceived barriers to *e-filing*. If the Self V-Coders never intended to *e-file*, what is of interest is *why* they never intended to *e-file*⁶¹. However, it does provide insight on Self V-Coders’ focus: preparation, not submission. One way to look at these results is that some Self V-Coders were not thinking about their submission method when they chose their preparation method. That so many chose this response indicates that they value the assistance provided by the software more than they value the ability to submit their returns electronically.

An examination of the other reasons for not *e-filing* selected by Self V-Coders who bought software mainly to prepare their returns shows that this subset of Self V-Coders is similar in their responses to all Self V-Coders (see Figure 3-1), with security and privacy topping the list for not *e-filing* and fear of audit at the bottom.

For more information on Self V-Coders who did and those who did not buy software mainly to prepare their returns, see Appendix A.2.2.

If taxpayers think a submission method characteristic is important but rate e-file performance low as it pertains to that characteristic, that negative expectation gap should be addressed.

3.3.2 Taxpayer Ratings of Filing Characteristics

To discover more about how taxpayers perceive *e-file*, the taxpayer survey asked taxpayers to assess the characteristics of filing methods. Taxpayers were first asked to rate how important each characteristic was to them when filing their returns.⁶² The taxpayers were then asked to rate *e-file* performance as it pertains to each characteristic.⁶³ The objective of these two questions was to structure taxpayers’ opinions about filing characteristics in such a way that comparisons could be made between their expectations of a characteristic (i.e., the importance rating) and their perceptions of how *e-file* meets expectations (i.e., the *e-file* performance rating).

Motivations for and barriers to *e-filing* can be determined by looking at the gap between these two ratings. For example, a negative expectation gap — where *e-file* performance lags importance for a given characteristic — indicates taxpayers may not be satisfied. This method assumes that improving *e-file* would lead to higher satisfaction and therefore higher adoption among taxpayers. This performance evaluation method is similar to product evaluation focus groups used for rating many consumer products.

For all Holdouts, the characteristics with significant negative expectation gap are:

- Feeling the filing method is private and secure.
- Having all the information they need to know about it.
- Having a record of their tax returns.
- Being able to file all necessary forms, schedules, and attachments.

⁶⁰ IRS (2009) *AES2 Taxpayer Survey*, Question 8

⁶¹ For AES2, it was not a research priority to know if the decision to not *e-file* was made before, during, or after selection of the preparation method. However, these finer nuances of when the submission decision is made merit further investigation.

⁶² IRS (2009) *AES2 Taxpayer Survey*, Question 17

⁶³ IRS (2009) *AES2 Taxpayer Survey*, Question 18

For all Holdouts, the characteristics with significant positive expectation gap (i.e., where *e-file* performance was rated higher than importance) are:

- Getting a quicker refund.
- Getting the return to the IRS quickly.
- Not exposing them to a greater risk of audit.
- Letting them pay any balance due (money owed) up to the deadline.
- Having the IRS confirm receipt and acknowledge acceptance or rejection of their returns.

While the characteristics “Getting a quicker refund” and “Getting the return to the IRS quickly” have historically been marketed heavily by the IRS, this research indicates that they are currently of less importance to taxpayers. In fact, this research may suggest that IRS marketing to taxpayers who value a quick refund has succeeded. New marketing may be warranted to address the significant negative expectation gaps of other characteristics identified by Holdouts.

The following sections review the findings on the top four filing method characteristics to taxpayers: *Security and Privacy*, *Awareness*, *Availability*, and *Recordkeeping and Acknowledgment*.⁶⁴ Given specific stakeholders’ interests, a discussion of *Cost* is also included.

3.3.2.1 Security and Privacy

As a filing method characteristic, security and privacy addresses how safe taxpayers feel using computers and the Internet to prepare and *e-file* their tax returns, as well as the safety of IRS systems (e.g., from being hacked). The taxpayer survey indicates that taxpayers are equally as apprehensive about the security and privacy of the Internet as they are about the security and privacy of *e-file*. Some taxpayers and preparers believe they may never feel confident enough about the security and privacy of any part of *e-filing* to make the switch from paper.

Regardless of the filing method chosen, security and privacy were rated highest in importance for all categories of taxpayers surveyed and had the largest negative expectation gap for Holdouts.⁶⁵ More important, this finding supports taxpayer security and privacy concerns cited earlier in Figure 3-1, which shows that 27% of Holdouts expressed concern about the security and privacy of the Internet in general and 25% expressed concern about the security and privacy of *e-file* in particular.⁶⁶

To better understand these concerns, taxpayers were asked to respond to a series of questions about their comfort levels with a variety of online tax submission activities, as well as their comfort levels with other online transactions with the government.⁶⁷ The results of these questions, shown in Figure 3-3, Figure 3-4, Figure 3-5, Figure 3-6, Figure 3-7, and Figure 3-8, paint a more detailed picture of taxpayers’ apprehensions regarding the security and privacy of *e-file*.

An expectation gap is where the average rating of *e-file* performance for a given filing method characteristic is lower (negative expectation gap) or higher (positive expectation gap) than the average importance rating for the same characteristic.

For more information on submission method characteristics, see Appendix A.

Taxpayer security and privacy concerns about the Internet — as well as e-file — may limit the IRS’s ability to convince some taxpayers to e-file.

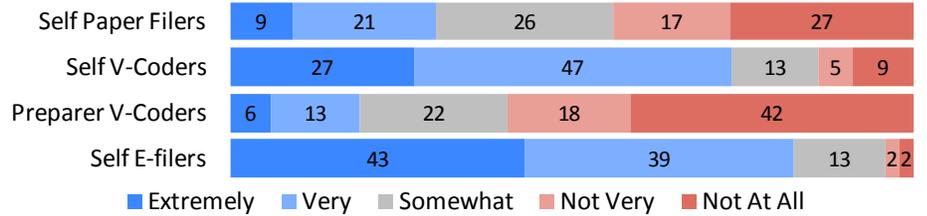
⁶⁴ Appendix A contains analysis of survey results for the remaining characteristics: *Perceived Benefits*, *Ease and Convenience*, *Third Parties*, and *Accuracy*. Note that section 3.6.1 addresses *Fear of Audit*.

⁶⁵ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

⁶⁶ IRS (2009) *AES2 Taxpayer Survey*, Questions 5 and 8

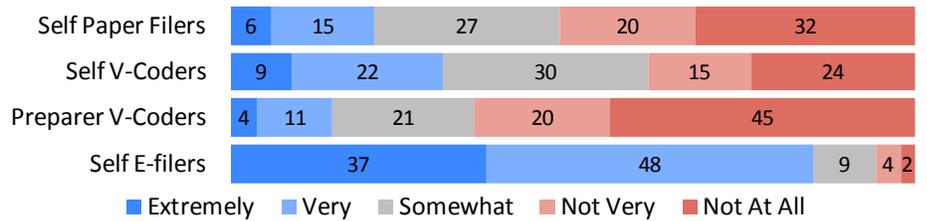
⁶⁷ IRS (2009) *AES2 Taxpayer Survey*, Question 23

Figure 3-3: Taxpayer Comfort with Preparing Tax Returns on a Computer (Percent)



Source: IRS (2009) AES2 Taxpayer Survey, Question 23

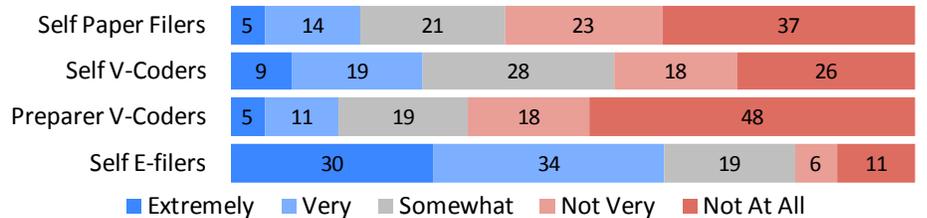
Figure 3-4: Taxpayer Comfort with Filing Tax Returns over the Internet (Percent)



Source: IRS (2009) AES2 Taxpayer Survey, Question 23

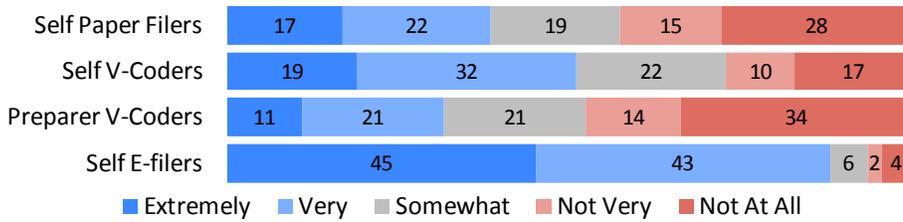
Some taxpayers may never feel confident enough about the security and privacy of any part of e-filing to make the switch from paper.

Figure 3-5: Taxpayer Comfort with Paying Taxes over the Internet (Percent)



Source: IRS (2009) AES2 Taxpayer Survey, Question 23

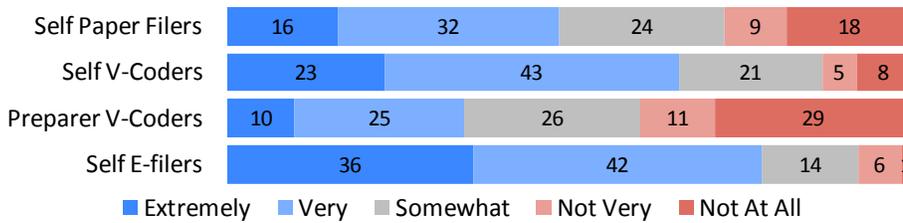
Figure 3-6: Taxpayer Comfort with Receiving Refunds by Direct Deposit over the Internet (Percent)



Note: The system (ACH) used to directly deposit refunds in taxpayers' accounts does not technically operate over the public Internet, though for clarity in the survey, this distinction was not made.

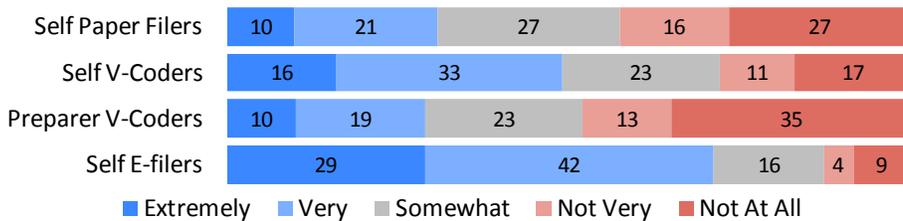
Source: IRS (2009) *AES2 Taxpayer Survey*, Question 23

Figure 3-7: Taxpayer Comfort with Researching Tax Information over the Internet (Percent)



Source: IRS (2009) *AES2 Taxpayer Survey*, Question 23

Figure 3-8: Taxpayer Comfort with Conducting Government Transactions over the Internet – For Example, Registering a Vehicle (Percent)



Source: IRS (2009) *AES2 Taxpayer Survey*, Question 23

Despite concerns about security and privacy, Self Paper Filers were not overwhelmingly uncomfortable with preparing returns on a computer and submitting them over the Internet. Given that security and privacy concerns extend to the Internet in general, the IRS may have little influence over taxpayers' comfort levels with submitting returns electronically.

3.3.2.2 Awareness

The survey looked at awareness in two respects — knowledge of how *e-file* works and awareness of — specifically familiarity with — the *e-file* brand.

Not knowing how *e-file* works was the single largest barrier to *e-file* usage among Self Paper Filers and Paid V-Coders, as shown in Figure 3-1. Results for Holdouts show a negative expectation gap for the characteristic “Having all the information [they] need to know about [*e-file*].”⁶⁸ The information in Figure 3-1 also supports this — 27% of all Holdouts indicated that not knowing how *e-file* works prevented them from using it. Although the survey cannot confirm whether knowing how *e-file* works will cause Holdouts to switch to *e-file*, it is worth noting there is this large group of taxpayers for whom having basic *e-file* knowledge may convince them to *e-file*.

Table 3-1 shows the results of asking taxpayers whether they were aware of different submission methods.

Table 3-1: Taxpayer Familiarity with Filing Methods

“Are you familiar with...”	Holdouts (Yes)	E-filers (Yes)
Electronic filing with the help of a paid tax professional?”	79%	92%
Electronic filing through an online company?”	58%	64%
Electronic filing with tax preparation software or a computer program?”	78%	80%
IRS Free File?”	30%	33%
E-file?”	71%	80%

Source: IRS (2009) *AES2 Taxpayer Survey*, Question 3

Awareness of *e-file* as a brand is estimated to be 77% for all taxpayers and 71% for all Holdouts.⁶⁹ Taxpayers seem well aware of “Electronic filing with the help of a paid tax professional” and “Electronic filing with tax preparation software or a computer program.” Electronic filing using online tax preparation software (as opposed to boxed software that might be purchased at a store) is a relatively new filing method now offered by many commercial tax preparation software vendors, which may explain why awareness of “Electronic filing through an online company” is second lowest, followed distantly by awareness of “IRS Free File.”

Taxpayer awareness of e-file as a brand is generally high, but the understanding required to use it is lacking.

For more information on how preparers influence taxpayer decisions about *e-filing*, see section 3.6

Of the submission methods, taxpayers were least aware of IRS Free File.

⁶⁸ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

⁶⁹ IRS (2009) *AES2 Taxpayer Survey*, Question 3

3.3.2.3 Availability

In the context of the taxpayer survey, availability includes both perceptions of the compatibility of *e-file* with the technology taxpayers own (e.g., in their home) or have access to (e.g., at work or a public library) and *e-file*'s support for forms, schedules, and attachments. For completeness, both characteristics are addressed together here even though results on the compatibility of *e-file* with taxpayers' technology do not indicate a significant expectation gap between how Holdouts rated its importance and how they rated *e-file* performance as it pertains to this same characteristic.

Holdouts' results show a significant negative expectation gap on *e-file*'s ability to submit all necessary forms, schedules, and attachments.⁷⁰ As shown in Figure 3-1, 13% of Holdouts did not *e-file* because they believed they were unable to *e-file* certain forms. Holdouts rated *e-file*'s performance on its compatibility with the technology they have access to as positive although this finding is not statistically significant.

Results of different survey questions about access to technology support this positive performance for *e-file*. According to the survey, 80% of Self Paper Filers have Internet access and 78% of them use the Internet to research products and services.⁷¹ This suggests that lack of access to the right technology is not what prevents Self Paper Filers from *e-filing*. Table 3-2 shows holdouts' self-reported Internet access by subgroup.

Lack of support for certain forms, schedules, and attachments may cause some who would otherwise e-file to submit their returns on paper.

Holdouts generally have access to the technology required to e-file.

Table 3-2: Holdouts' Self-Reported Access to the Internet (Percent)

Segment	Access Type	Internet Access Method		
		Dial-up	High-speed	Total
Self Paper Filer	Owns	21	57	73
	Has Access To	29	67	80
Paid V-Coder	Owns	14	63	73
	Has Access To	24	67	76
Self V-Coder	Owns	12	84	91
	Has Access To	24	85	91

Source: IRS (2009) *AES2 Taxpayer Survey*, Question 21

Although 91% of Self V-Coders had Internet access,⁷² 41% of this group purchased software "to prepare the return and not *e-file* it,"⁷³ a finding discussed previously in section 3.3.1.

Verbatim responses were collected for taxpayers who said they could not use certain forms, schedules, or attachments with *e-file*.⁷⁴ It appears that some taxpayers have difficulty *e-filing* common schedules, such as Schedule A for itemized deductions, Schedule D for investment income, and Schedule C for self-employed income. This may

⁷⁰ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

⁷¹ IRS (2009) *AES2 Taxpayer Survey*, Questions 21 and 22

⁷² IRS (2009) *AES2 Taxpayer Survey*, Question 21

⁷³ IRS (2009) *AES2 Taxpayer Survey*, Question 8

⁷⁴ IRS (2009) *AES2 Taxpayer Survey*, Questions 5 and 8

indicate a lack of knowledge among taxpayers about the basic capabilities of *e-file*. It may also indicate that taxpayers are not selecting the right software for their tax needs. Or it may indicate that taxpayers are beginning tax preparation with appropriate software but discover during preparation that their tax situation calls for the use of certain forms, schedules, or attachments not supported by their software. Support for forms, schedules, and attachments, including a list of the top 10 forms that preparers report cannot be *e-filed*, is discussed further in section 3.4.2.3.

3.3.2.4 Recordkeeping and Acknowledgment

Holdouts may not be as confident about storing electronic copies of their returns for recordkeeping as they are about storing paper copies. As shown in Figure 3-1, 15% of all Holdouts stated that they did not *e-file* due to recordkeeping concerns.

However, results for having the IRS confirm receipt and acknowledge acceptance or rejection of one's return show a significant positive expectation gap.⁷⁵ This indicates that the advantage of *e-file* in providing quick and explicit acknowledgment that the return was accepted (or rejected with errors noted) is recognized. Holdouts rated recordkeeping high in importance and rated *e-file* highest in performance in this category.⁷⁶

3.3.2.5 Cost

The taxpayer survey results found that no significant expectation gap exists for *e-file* based on cost.⁷⁷ That is, both the importance rating of "being inexpensive" and *e-file's* performance pertaining to that characteristic overlapped.

That said, cost was noted as a barrier to *e-filing* mostly for Self V-Coders, as shown in Figure 3-1. Having completed their returns with tax preparation software and typically having been presented with a screen that offered them *e-filing* for an additional cost, the Self V-Coders were acutely aware of the cost to *e-file* a return. In their actions and stated preferences, the Self V-Coders indicated that the tax preparation portion of the software was what they considered most important.

With the introduction in the 2009 filing season of bundled tax preparation and submission costs or "no charge to *e-file*" features of commercial tax preparation software, the issue of cost as a barrier to *e-filing* may decrease. With its more seamless transition from tax preparation to submission method, bundling may also decrease the percentage of Self V-Coders who mainly buy the software to prepare their returns.

Another wrinkle regarding cost is the relative difficulty for taxpayers to separate in their minds the tax preparation cost from the submission cost. The ability for taxpayers to distinguish between these historically separate costs is further eroding given the recent changes in tax preparation software pricing.

⁷⁵ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

⁷⁶ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

⁷⁷ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

3.4 Preparer Survey Highlights

This section presents survey findings on factors that prevent preparers from *e-filing* and motivators that may persuade them to *e-file*.

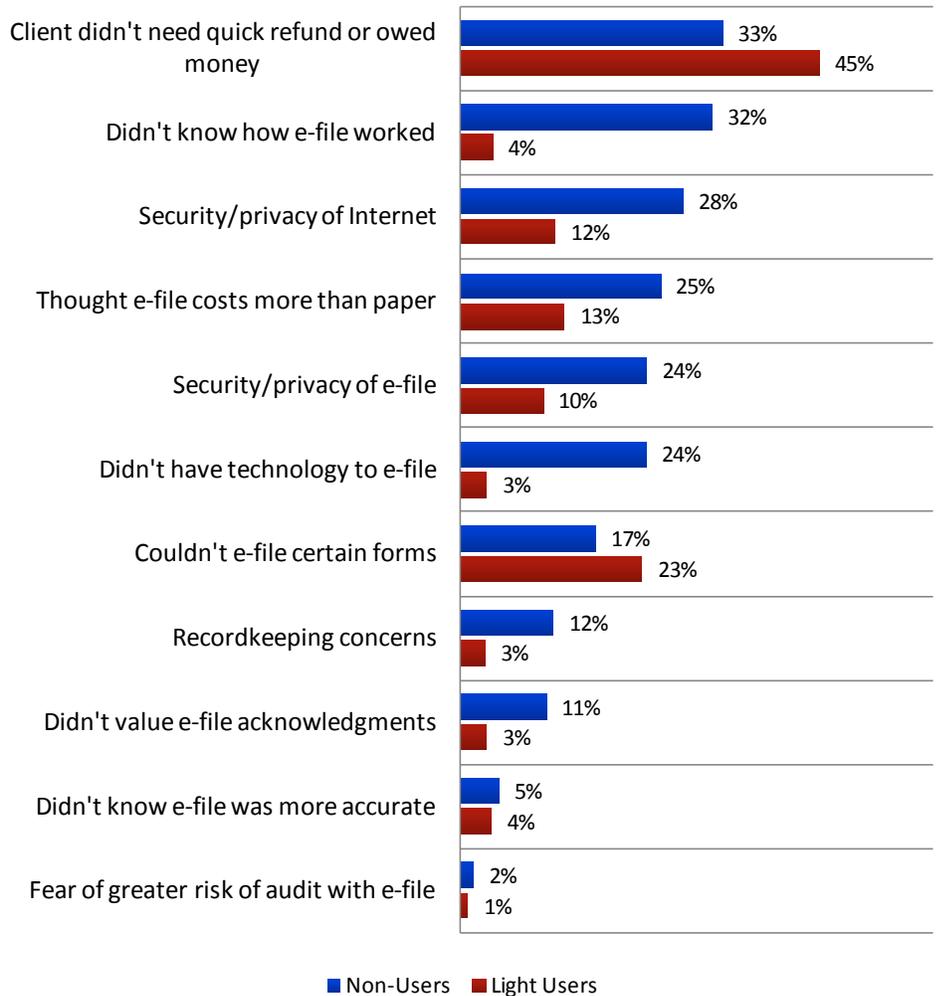
The preparer survey results convey a landscape in which preparers who have used *e-file* are generally satisfied with its performance and preparers who have never used *e-file* are apprehensive about committing to a return submission method about which they know very little. Preparers who already use *e-file* would like more support for the electronic submission of all forms, schedules, and attachments — a factor that may have more to do with the software they use than with IRS support for electronically submitting these documents. Preparers who do not use *e-file* would like more training in how to acquire and use *e-file*. The majority of preparers would accept and use *e-file* if there were a mandate for them to use it for their clients' Federal returns.

For more information on the preparer survey findings, see Appendix A.

3.4.1 Preparer Reasons for Not Using *E-file*

As with the taxpayer survey, the preparer survey requested preparers to select, from a pre-defined list, any and all reasons they did not use *e-file*. In addition, the preparer survey asked preparers to select reasons they did not use *e-file* more often. To look at the reasons, the preparer survey focused on Non-User and Light User Preparers. Figure 3-9 summarizes the results for Non-Users and Light Users.

Figure 3-9: Preparer Reasons for Not Using *E-file* or Using *E-file* More Often



Source: IRS (2009) *AES2 Preparer Survey*, Questions 5 and 6

The following lists the key findings on these reasons:

- At 33% and 45%, the number one reason Non-Users did not use *e-file* and Light Users did not use *e-file* more often, respectively, was that their clients did not need the quicker refund *e-file* provides (compared with submitting returns on paper) or their clients owed money.
- For Non-Users, the number two reason (32%) they did not use *e-file* was that they did not know enough about *e-file* to use it.
- For Light Users, the number two reason (23%) they did not use *e-file* more often was that they could not submit certain forms, schedules, and attachments with it.
- Fear of audit was not cited as a significant barrier to *e-filing* for preparers.

Along the same vein, the preparer survey also asked preparers what would motivate them to use *e-file*. Non-Users were asked to respond in their own words about what would convince them to use *e-file* in the future, as summarized in Table 3-3.

Table 3-3: Volunteered Responses (Categorized) on What Would Convince Non-Users to Use *E-file* in the Future (Percent)

Motivator Category	Non-Users
Make the process easier	18
If <i>e-file</i> were mandatory or there was no other option but <i>e-file</i>	14
Already using <i>e-file</i> /Plan on using <i>e-file</i>	13
Provide training and technical support incentives	7
Provide financial incentives to use <i>e-file</i>	5

Source: IRS (2009) *AES2 Preparer Survey*, Question 20

A sizable portion (18%) of Non-Users stated that nothing would make them use *e-file*,⁷⁸ a result not included as part of the analysis because it is not actionable by the IRS. Additional mentions of why Non-Users did not use *e-file* revealed a lingering preference for submitting returns on paper. An estimated 14% of Non-Users volunteered that either they or their clients simply prefer submitting on paper.⁷⁹ Of Light Users, 31% also simply preferred submitting on paper,⁸⁰ although 87% of Light Users stated that their submission decisions are guided primarily by their clients' preferences.⁸¹ For various reasons, among them return complexity, some preparers believe that some taxpayers' situations will continue to be best served by paper submission.

As in the taxpayer survey, preparer survey respondents provided more compelling responses when the survey questions were more structured, as they are in the questions described below. This more structured format provided more room for preparers to express what would motivate them to use *e-file* or use *e-file* more often.

Preparers were also asked to indicate their inclination to use *e-file* or use *e-file* more often when presented with different motivators. Support for electronic filing of all tax forms, schedules, and attachments would sway the largest proportion of preparers.⁸²

Perceived Effect of *E-file* on Preparers' Businesses

A number of questions were posed to paid preparers regarding the effect of *e-filing* on their businesses, as shown in Figure 3-10, Figure 3-11, Figure 3-12, Figure 3-13, Figure 3-14, and Figure 3-15.⁸³ Preparers generally saw *e-file* as having a positive impact on their businesses. As shown in Figure 3-10, preparer perceptions of *e-file*'s impact on their businesses became more positive with the increased use of *e-file*. The more that preparers used *e-file*, the more likely they were to agree that *e-file* has a positive impact

The preparer survey indicates that the more that preparers use e-file, the more likely they are to agree that e-file has a positive impact on their businesses.

⁷⁸ IRS (2009) *AES2 Preparer Survey*, Question 20

⁷⁹ IRS (2009) *AES2 Preparer Survey*, Question 5

⁸⁰ IRS (2009) *AES2 Preparer Survey*, Question 6

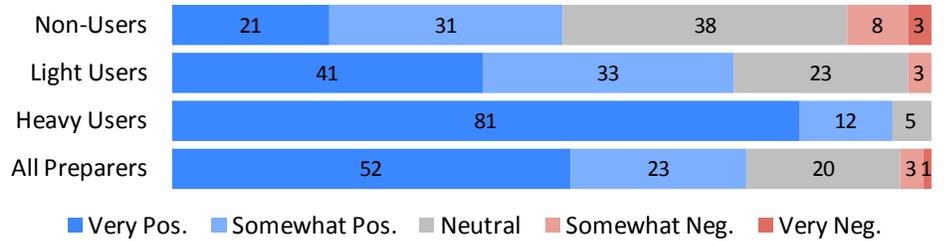
⁸¹ IRS (2009) *AES2 Preparer Survey*, Question 1

⁸² IRS (2009) *AES2 Preparer Survey*, Question 18

⁸³ Due to rounding, figures may not total 100%. For clarity, near-zero responses are not shown.

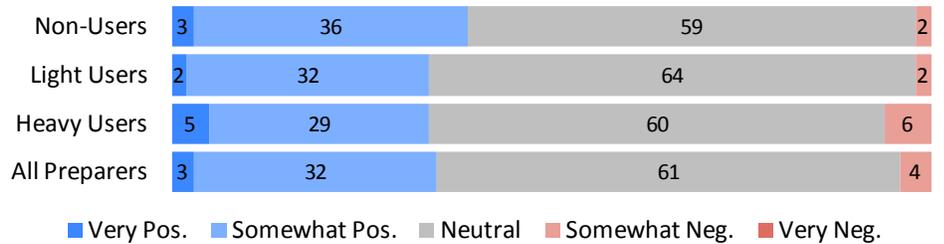
on their businesses. As shown in Figure 3-11, most preparers said that *e-file* has little to no impact on their equipment costs.

Figure 3-10: *E-file* Impact on Preparers' Businesses Overall (Percent)



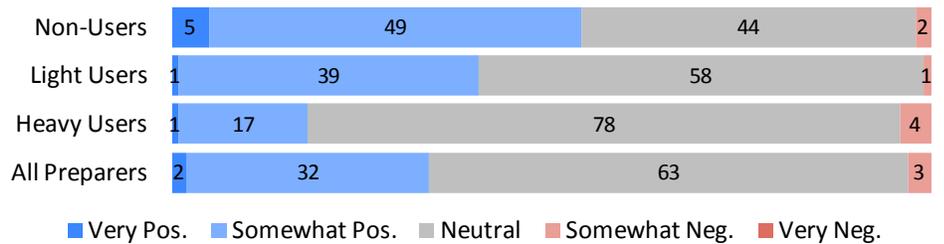
Source: IRS (2009) *AES2 Preparer Survey*, Question 23

Figure 3-11: *E-file* Impact on Preparers' Equipment Costs per Return (Percent)



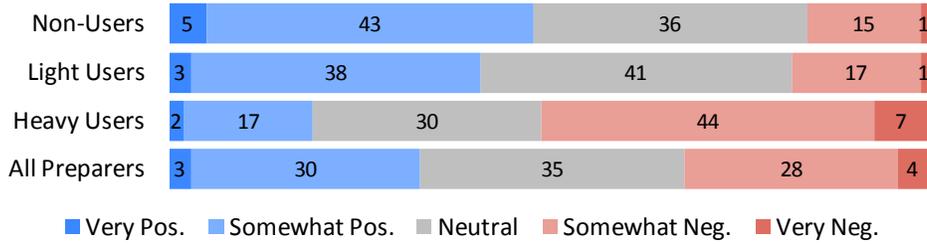
Source: IRS (2009) *AES2 Preparer Survey*, Question 23

Figure 3-12: *E-file* Impact on Fees Preparers Charge Clients (Percent)



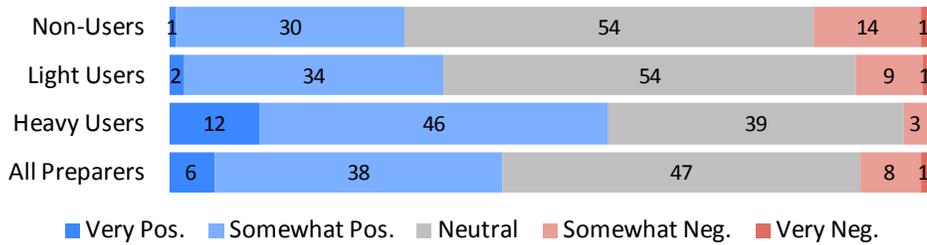
Source: IRS (2009) *AES2 Preparer Survey*, Question 23

Figure 3-13: *E-file* Impact on Preparers' Labor Hours per Return (Percent)



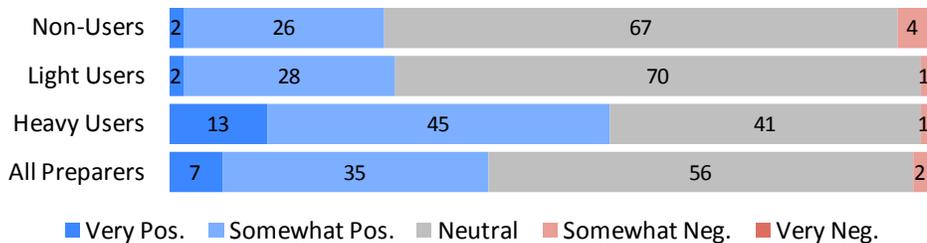
Source: IRS (2009) *AES2 Preparer Survey*, Question 23

Figure 3-14: *E-file* Impact on Preparers' Business Profitability (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 23

Figure 3-15: *E-file* Impact on Preparers' Total Number of Clients (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 23

An expectation gap is where the average rating of *e-file* performance for a given filing method characteristic is lower (negative expectation gap) or higher (positive expectation gap) than the average importance rating for the same characteristic.

For more information on preparer survey results for Accuracy, Third Parties, Fear of Audit, and Perceived Benefits, see Appendix A.

3.4.2 Preparer Ratings of Filing Characteristics

Just as in the taxpayer survey, preparers were asked to rate the importance of filing method characteristics⁸⁴ and then rate *e-file* performance as it pertains to those characteristics.⁸⁵

For Non-Users, the characteristics with significant negative expectation gap are:

- Being inexpensive.
- Having a record of clients' tax returns.
- Sustainable within their business models.
- Being easy and convenient to use.
- Being able to file all necessary forms.
- Feeling method is private and secure.

For Non-Users, the characteristics with significant positive expectation gap are:

- Providing clients with a faster refund.
- Getting returns to the IRS quickly.
- Paying any balance due (money owed) up to the deadline.
- Having the IRS confirm receipt and acknowledge acceptance or rejection of the return.
- Not exposing clients to greater audit risk.

These results show that, like taxpayers, for preparers the most highly valued characteristic of a filing method is that it be private and secure. Non-Users also indicated that *e-file* has room for improvement in the area of being able to file all necessary forms, schedules, and attachments. Like taxpayer Holdouts, Non-Users generally rated *e-file* lower than users of *e-file*.

The following sections review the findings on the top five filing method characteristics: *Security and Privacy*, *Availability*, *Ease and Convenience*, *Recordkeeping and Acknowledgment*, and *Cost*. To form a complete picture of preparers, and because it is necessary to *e-file*, *Awareness* is also discussed.

3.4.2.1 Awareness

As with taxpayers, awareness is fundamental to many of the submission decisions preparers make. The preparer survey asked about awareness of how *e-file* works in the context of reasons for using *e-file*, with 32% of Non-User and 4% of Light User Preparers citing lack of awareness as a reason they did not use *e-file* or use *e-file* more often, respectively, as shown in Figure 3-9. The results show that even light use of *e-file* increases awareness and understanding of *e-file* to a level nearly on par with heavy use of *e-file*.

⁸⁴ IRS (2009) *AES2 Preparer Survey*, Question 14

⁸⁵ IRS (2009) *AES2 Preparer Survey*, Question 15

3.4.2.2 Security and Privacy

Non-Users rated security and privacy as the most important filing characteristic but rated this characteristic as having the largest negative expectation gap. This is further supported by 28% of Non-Users citing concerns about the general security and privacy of the Internet and 24% citing concerns about the security and privacy of *e-filing* their clients' returns, as shown in Figure 3-9. Like taxpayers, preparers are just as apprehensive about the security and privacy of the Internet as they are about the security and privacy of electronically submitting income tax returns.

Preparers who used e-file gave it high marks for security and privacy.

Non-Users appear to have more apprehension about the security and privacy of *e-file* than Light Users and Heavy Users.⁸⁶ Light Users also rated the performance of *e-file* higher on security and privacy than Non-Users, and Heavy Users rated *e-file* even higher than Light Users.⁸⁷ These results indicate that increased use of *e-file* engenders increased awareness of *e-file's* security and privacy measures.

3.4.2.3 Availability

In the context of the preparer study, availability includes perceptions of both the compatibility of *e-file* with the technology preparers own or have access to and *e-file's* support for forms, schedules, and attachments. For completeness, both characteristics are addressed together here even though results on the compatibility of *e-file* with preparers' technology do not indicate a significant expectation gap between how Non-Users rated its importance and how they rated *e-file* performance as it pertains to this same characteristic.

There was no significant expectation gap between how Non-Users rated the importance of *e-file* compatibility with their technology and how they rated *e-file* performance as it pertains to this characteristic.⁸⁸ Although, as shown in Figure 3-9, just 24% of Non-Users indicated that lack of technology was the reason they did not *e-file*.

The IRS supports the *e-filing* of the vast majority of forms and schedules in the 1040 family, but does not support the *e-filing* of attachments. Attachments include supplemental information (e.g., correspondence that brokerage firms send to taxpayers, internal financial reports, receipts). Often, attachments are continuations of schedules (e.g., Schedule D, Schedule C) that are needed because the number of taxpayer entries exceeds the space available for recording them on the schedule.

Individuals who file more complex returns, such as those in sole proprietorships and owners of small businesses using a 1040 versus an 1120 form, are more likely to face the situation of insufficient space on schedules for recording entries. If a continuation sheet is required, the sheet cannot be *e-filed* (even if the schedule can be). Taxpayers with returns that are only partially supported by *e-file* may elect to submit the entire return on paper rather than *e-filing* the portion that can be *e-filed* and submitting the remainder on paper.

Tax preparation software vendors depend on the IRS to set *e-file* standards (i.e., which tax documents the IRS will accept via *e-filing*). Therefore, vendors can, at most, only support the tax documents that the IRS supports. Vendors' business decisions — either

⁸⁶ IRS (2009) *AES2 Preparer Survey*, Question 14

⁸⁷ IRS (2009) *AES2 Preparer Survey*, Question 15

⁸⁸ IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

The IRS does not support the e-filing of attachments, but does support the e-filing of the vast majority of forms and schedules in the 1040 family.

overall or on a per-software-product level — further limit the forms and schedules they support in any given software product. The current reality, therefore, is that some forms and schedules, and all attachments, cannot be *e-filed* and that the tax documents supported by vendors vary by product.

As shown in Figure 3-9, 17% of Non-Users indicated that they did not *e-file* because they perceived they were unable to *e-file* certain forms, schedules, or attachments; 67% of these respondents could not recall specific forms.⁸⁹ Among the Non-Users who could recall specifics, the top forms, schedules, and attachments they reported they could not *e-file* are listed in Table 3-4. The table includes the frequency with which each document was perceived by preparers as not being supported by *e-file* and information from the IRS indicating whether each document is supported by *e-file*. (Preparers require both IRS support and the support of their tax preparation software vendors to *e-file*.)

Table 3-4: Top Forms, Schedules, and Attachments Preparers Reported They Could Not *E-file*

Form, Schedule, or Attachment	Reported Frequency	Supported by <i>E-file</i>
<i>Combined capital gains-related documents</i>	11.9%	
Schedule D – Capital Gains and Losses	6.9%	Yes
Broker statements, long list of stock transactions	3.0%	No*
Capital gain schedules, capital gain and loss statements	2.0%	Yes
<i>Combined Non-Cash-Related documents</i>	4.7%	
Form 8283 – Noncash Charitable Contributions	1.5%	Yes
Non-cash contributions, charitable contribution statements, contribution receipts	3.2%	No*
Schedule E – Supplemental Income and Loss	3.8%	Yes
Schedule C – Profit or Loss from Business	1.7%	Yes
Form 1310 – Statement of Person Claiming Refund Due a Deceased Taxpayer	1.5%	Yes
Form 8379 – Injured Spouse Allocation	1.5%	Yes
Form 1040NR – U.S. Nonresident Alien Income Tax Return	1.5%	No
Form 8582 – Passive Activity Loss Limitations	1.2%	Yes
Schedule K1 (for Form 1065) – Partner’s Share of Income, Deductions, Credit, etc.	1.1%	No

* This information can be included on *e-filed* returns when transcribed onto IRS forms supported by *e-file*. However, *e-file* does not currently support free-form attachments.

Source: IRS (2009) *AES2 Preparer Survey, Question 9*; IRS (2009) *Tax Year 2008 Accepted Forms and Form Field References for e-file*

Most of the documents preparers perceived they could not *e-file* are related to capital gains and losses and to charitable contributions. Many of the documents preparers perceived they could not *e-file* are in fact supported by *e-file*. This suggests that some of the software used by preparers may not support these documents or that preparers

⁸⁹ IRS (2009) *AES2 Preparer Survey, Questions 5 and 9*

found *e-filing* these documents too difficult. It may be that preparers are accustomed to including documentation that is not required for filing (e.g., broker statements, charitable contribution receipts) and is not supported by *e-file*, but which the preparer thinks provides additional explanation of an individual’s tax situation.

As shown in Figure 3-18, it seems that *e-file* software packages for preparers abound: most preparers are able to find software easily.

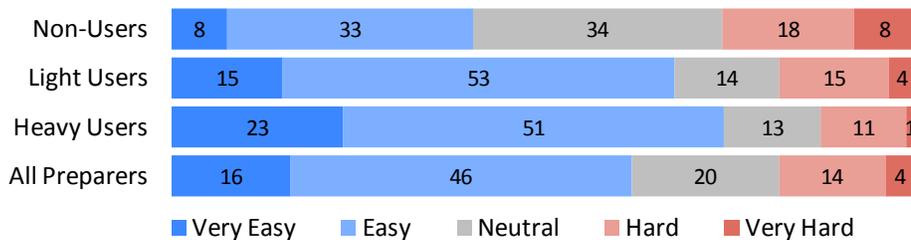
3.4.2.4 Ease and Convenience

In the context of the preparer survey, ease and convenience includes preparer perceptions of how easy it is to use *e-file* and the ability for clients to pay any balance due (money owed) right up to the deadline.

Non-Users’ ratings on the characteristic of *e-file* being easy and convenient to use show a significant negative expectation gap.⁹⁰ However, their ratings on the ability to pay right up to the deadline show a significant positive expectation gap.⁹¹

The experience preparers have with setting up *e-file* capabilities is an important dimension of ease and convenience. First, preparers must register with the IRS to become authorized *e-file* providers. The registration process involves verification of credentials as well as background checks, including fingerprinting.⁹² If they do not already have the technology they need, preparers must acquire equipment and service contracts and select and acquire *e-file*-capable tax preparation software and learn how to use it. Software selection is a crucial element of the setup process and a major driver of *e-file* support of forms, schedules, and attachments and the cost of setting up *e-file* capabilities. Preparers assessed the ease of *e-file* setup, as shown in Figure 3-16, Figure 3-17, Figure 3-18, Figure 3-19, Figure 3-20, and Figure 3-21.⁹³ In these figures, blue indicates instances where “Easy” (or “More Costly”) was the predominant answer, while red indicates instances where “Hard” (or “Less costly”) was the predominant answer.

Figure 3-16: Preparers’ Difficulty with Registration with the IRS (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 16

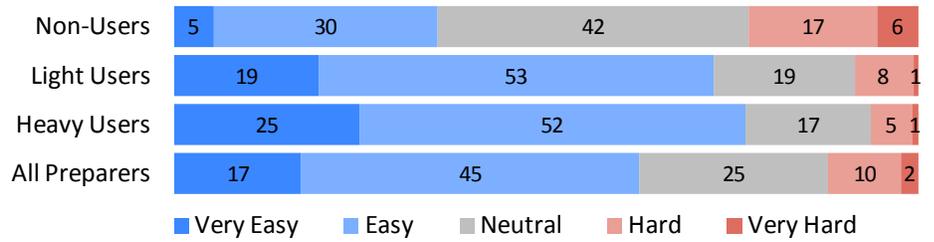
⁹⁰ IRS (2009) *AES2 Conjoint Survey*, Questions 14 and 15

⁹¹ IRS (2009) *AES2 Conjoint Survey*, Questions 14 and 15

⁹² IRS (2009) *Become an Authorized e-file Provider*

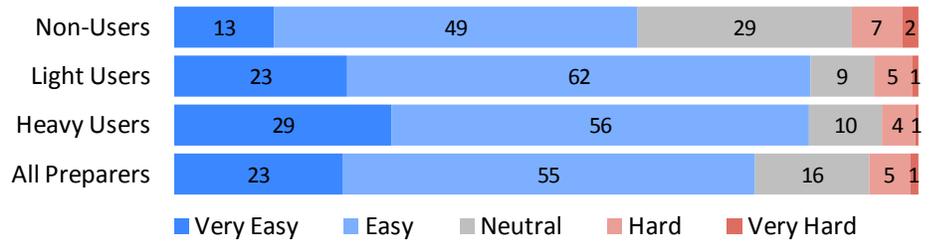
⁹³ Due to rounding, figures may not total 100%. For clarity, near-zero ‘very negative’ responses not shown.

Figure 3-17: Preparers' Difficulty with Setting Up Their Tax Practice to Be Able to Use *E-file* (Percent)



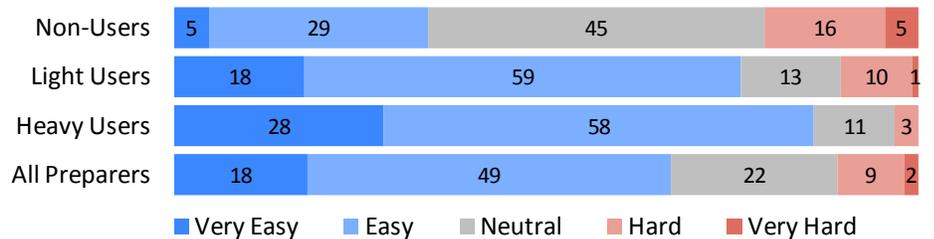
Source: IRS (2009) *AES2 Preparer Survey*, Question 16

Figure 3-18: Preparers' Difficulty with Finding the Right Software for *E-filing* (Percent)



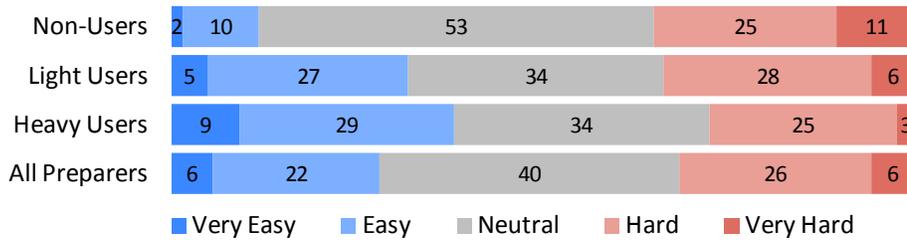
Source: IRS (2009) *AES2 Preparer Survey*, Question 16

Figure 3-19: Preparers' Difficulty with Learning to Use *E-file* (Percent)



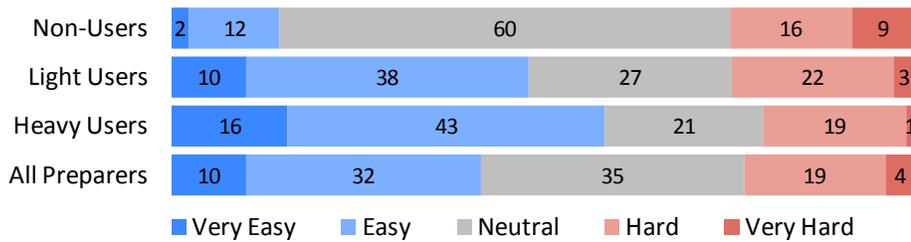
Source: IRS (2009) *AES2 Preparer Survey*, Question 16

Figure 3-20: Preparers' Difficulty with Dealing with Forms, Schedules, and Attachments They Cannot E-file (Percent)



Source: IRS (2009) AES2 Preparer Survey, Question 16

Figure 3-21: Preparers' Difficulty with Dealing with E-filed Returns that were Rejected by the IRS (Percent)



Source: IRS (2009) AES2 Preparer Survey, Question 16

As shown in Figure 3-19, 21% of Non-Users found it comparatively difficult to learn to use e-file. This indicates that there is a perception that e-file is difficult to learn to use, but this perception is not borne out by reality, as indicated by the responses of all preparers. By definition, Non-Users had no recent experience with e-filed returns being rejected by the IRS (see Figure 3-21), which may explain the small percentage of Non-Users who found that part of the e-file process to be easy. In addition, Non-Users may have responded based on vicarious experience or based on their own perceptions.

3.4.2.5 Recordkeeping and Acknowledgment

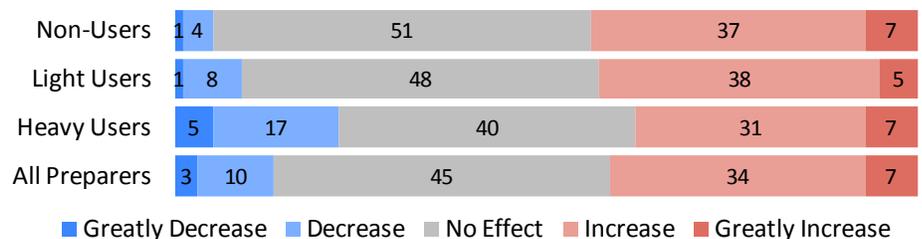
Questions in the preparer survey pertaining to recordkeeping and acknowledgment included asking about how e-filing affected preparers' overall workload,⁹⁴ recordkeeping,⁹⁵ and receipt of e-file acknowledgments from the IRS.⁹⁶

Preparers appear to be familiar with how to safely preserve e-filed returns.

⁹⁴ IRS (2009) AES2 Preparer Survey, Questions 22 and 23
⁹⁵ IRS (2009) AES2 Preparer Survey, Questions 5 and 6
⁹⁶ IRS (2009) AES2 Preparer Survey, Questions 5 and 6

Preparers were asked whether *e-file*'s faster notification of receipt and acceptance of a return increased their workload during the filing season.⁹⁷ This increase in workload is thought to be due to the quicker turnaround of electronically submitted returns — with mailed paper returns, preparers have more time between submission and response from the IRS regarding errors found on returns. For many of the mailed paper returns, the preparer may not hear from the IRS until after the filing deadline, when the workload has dropped off and the pressure to complete the returns quickly has subsided. As shown in Figure 3-22, faster notification increased workload for an estimated 41% of all preparers. The results across the subgroups are fairly consistent, with the exception of Heavy User Preparers, more of whom said that *e-file* actually decreased their workload during the filing season.

Figure 3-22: Impact of *E-file*'s Electronic Acknowledgments on Preparer Workload (2009) (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 24

Non-User Preparer results show a negative expectation gap for recordkeeping, in particular “having a copy of clients’ tax returns as filed.”⁹⁸ However, as shown in Figure 3-9, only 12% of Non-Users and 3% of Light Users were concerned about *e-file*'s effect on their recordkeeping. This is not a surprising result given the near total dominance of computer-aided tax return preparation: an estimated 97% of preparers in this survey used computers to prepare taxes.⁹⁹ The survey results indicate that preparers in fact appear to be familiar with how to safely preserve *e-filed* returns and documentation.

3.4.2.6 Cost

In the preparer survey, the costs characteristic had two key dimensions:

- **Software acquisition and connectivity costs** — Costs incurred by the preparer to acquire and learn the tax preparation software, register with the IRS to become an authorized *e-file* provider, and establish the necessary connectivity to *e-file*.
- **Cost imposed on clients** — The impact of *e-file* on preparers’ business models (e.g., how much to charge clients for submitting their returns using *e-file*).

⁹⁷ IRS (2009) *AES2 Preparer Survey*, Question 24

⁹⁸ IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

⁹⁹ IRS (2009) *AES2 Preparer Survey*, Question 26

Software Acquisition and Connectivity Costs

Cost was a concern, particularly for Non-Users: 25% of Non-Users said that they did not *e-file* because they thought it would cost more to do so.¹⁰⁰ Non-Users' rated the performance of the characteristics of sustainability within their business models and being inexpensive negatively, indicating that cost is a key driver of Non-Users' choice of submission method.¹⁰¹

One of the principal cost drivers for preparers is the tax preparation software and its associated features. Some tax preparation software vendors included filing fees in the price of the software while others charged the preparer a fee for each return submitted. Table 3-5 summarizes the survey findings.

Per return e-file fees in preparers' tax preparation software may be a driver of their willingness to e-file.

Table 3-5: How Tax Preparation Software Vendors Charged Preparers for *E-filing* (Percent)

Software Vendor <i>E-file</i> Pricing Model	Light Users	Heavy Users
Included in package price of software	44	70
Charged on a per return basis	46	18
All other	7	10

Source: IRS (2009) *AES2 Preparer Survey*, Question 10

More Heavy Users than Light Users bought software that included the *e-file* fees in the package price. Light Users were fairly evenly split between buying software that included the fees in the package price and buying software that charged *e-file* fees on a per return basis. The preparer survey results indicate that, among preparers who did pay fees to *e-file*, the average *e-filing* fee per return their software vendor or transmitter charged was \$8.66.¹⁰²

Cost Models for Clients

In general, most preparers did not charge their clients an extra fee for *e-filing* returns, as shown in Table 3-6.

Most preparers did not charge their clients an extra fee to e-file their returns.

Table 3-6: How Preparers Charged Their Clients for *E-filing* (Percent)

Preparer <i>E-file</i> Pricing Model	Light Users	Heavy Users
Charged separate <i>e-file</i> fee from preparation fee	24	4
Included <i>e-file</i> fee in preparation fee	28	16
Charged no extra fee for <i>e-file</i>	47	79

Source: IRS (2009) *AES2 Preparer Survey*, Question 12

¹⁰⁰ IRS (2009) *AES2 Preparer Survey*, Question 5

¹⁰¹ IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

¹⁰² IRS (2009) *AES2 Preparer Survey*, Question 11

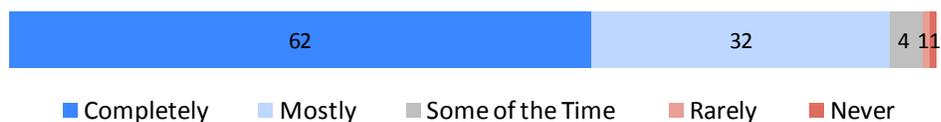
Taxpayers overwhelmingly trust their preparers' advice on tax matters (including whether to e-file).

The preparer survey results also indicate that \$29.26 and \$20.00 were the mean and median amounts, respectively, that preparers who charged extra for *e-filing* charged their clients.¹⁰³

3.5 Preparer Influence on *E-filing* and Client Demand

The preparer survey sheds some light on how tax return submission decisions are influenced by preparers. When asked whether they trusted their preparers and followed their preparers' advice on tax matters, the majority of taxpayers who used preparers said that they did, as shown in Figure 3-23.

Figure 3-23: Taxpayers' Trust of Their Preparers (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 13

Table 3-7 further illuminates how preparers and their clients decided how to submit their tax returns.

Table 3-7: How Preparers Made Submission Method Decision (Percent)

The preparer...	Non-Users	Light Users	Heavy Users
Asked clients how they wanted their returns filed and filed the way they wanted	17	44	19
Discussed filing methods with clients and mutually decided on the filing method	24	44	38
Discussed filing methods with clients but preparer decided how returns are filed	18	6	18
Did not discuss filing methods with clients – preparer or firm decided how returns were filed	39	6	23
Didn't know/could not generalize across all clients	2	1	2

Source: IRS (2009) *AES2 Preparer Survey*, Question 1

When preparers make the suggestion, taxpayers tend to e-file.

As shown in Table 3-8, almost all Heavy Users offered *e-file* to their clients. Light Users for the most part offered *e-file* to their clients. Non-Users generally did not offer *e-file* to their clients.

¹⁰³ IRS (2009) *AES2 Preparer Survey*, Question 13

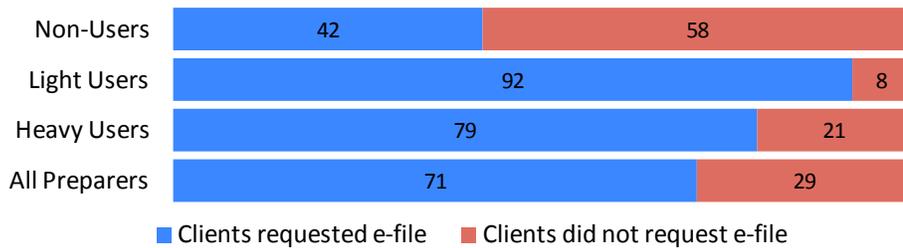
Table 3-8: Proportion of Preparers Who Offered *E-file* to Their Clients (Percent)

	Non-Users	Light Users	Heavy Users	All Users
Generally offered <i>e-file</i>	18	92	99	71
Did not offer <i>e-file</i>	82	8	1	28

Source: IRS (2009) *AES2 Preparer Survey, Question 2*

Conversely, clients may request that their preparers *e-file* their tax returns. Figure 3-24 shows the percentage of preparers who reported that their clients asked for *e-file*. It is important to note that the percentages in the figure do not represent the percentage of clients who asked for *e-file* but the percentage of preparers who reported that their clients “generally” asked for *e-file*.

Figure 3-24: Client Demand for *E-file* by Preparer Subgroup (Percent)



Source: IRS (2009) *AES2 Preparer Survey, Question 3*

The results depicted in Figure 3-24 indicate that even though Heavy Users *e-filed* 95% or more of their clients’ returns, 29% of their clients did not ask for *e-file*. The majority of Light Users reported that their clients asked for *e-file*, indicating that Light Users have other reasons for not *e-filing* more — lack of client demand is not a significant barrier to Light Users’ use of *e-file*. Interestingly, 42% of Non-Users reported that their clients generally asked for *e-file*.

Other survey results, found in Appendix A, indicate that client demand has little to no influence on preparer choice to *e-file*. Instead, the data indicates that the influence is the other way around: there is a significant correlation between preparer recommendations and taxpayer submission method choice.

Client demand is not a major influence on preparers’ decisions to e-file.

For more information on preparer influence and client demand, see Appendix A.

3.6 Perceptions of *E-file*

The results of the taxpayer and preparer surveys shed light on how *e-file* is perceived. One goal of both surveys was to assess the perceptions about audit risk when using *e-file*. Both surveys also assessed the prevalence of some common misconceptions about *e-file*.

3.6.1 Fear of Audit

The taxpayer and preparer surveys assessed whether the use of *e-file* was perceived to expose a taxpayer to a higher risk of audit. The survey results indicate that fear of audit was not a factor in choosing a submission method for taxpayers or preparers. As indicated in Figure 3-1, only 2% of all *e-file* Holdouts were concerned about a greater risk of audit when *e-filing*.¹⁰⁴ Most taxpayers did not think *e-filing* increased their chances of being audited. Fear of audit was also not a concern for preparers, as shown in Figure 3-9.¹⁰⁵

Preparers were highly aware that *e-file* posed a risk of audit no different from the risk posed by submitting a return on paper.

An analysis of actual audit data revealed that *e-filing* does not increase the risk of audit. For this report, the IRS conducted research into the audit risks posed by different submission methods, with a focus on comparing examination (i.e., audit) rates of *e-filed* returns with examination rates of returns submitted on paper. The IRS' findings are presented below:

Fear of audit from e-filing was one of taxpayers' least concerns, and preparers were also aware that e-file did not increase the risk of audit.

Data indicate that 0.9% of the electronically filed returns were examined and 1.1% of the paper filed returns were examined. The data were also further examined by the IRS individual examination classes and even at this lower level of detail, there was only one examination class with a meaningfully higher percentage of examination activities on the electronically filed component. For this one examination class, however, there was a clear driver other than *e-file* and outside the scope of this study, explaining the higher *e-file* examination rate. **From this analysis, we conclude that we can safely reject the hypothesis that electronic filing results in taxpayers being more likely to be audited.**¹⁰⁶ [Emphasis added]

In short, it is safe to say that *e-filing* one's return does not increase the risk of being audited. Given the low taxpayer concern about the audit risk posed by *e-file* and the results of the IRS's study showing no difference in examination (i.e., audit) rates of *e-filed* returns and returns submitted on paper, the audit risk of *e-filing* is neither an issue in perception nor in reality.

3.6.2 Misconceptions about E-file

Both the taxpayer survey and the preparer survey offered respondents the chance to review statements regarding *e-file* and provide their assessments of whether the statements were true or false (they were typically false). Taxpayers and preparers in general seemed well-informed about *e-file*, with two notable exceptions, as discussed in the following section.

3.6.2.1 Taxpayer Misconceptions about E-file

The two areas where taxpayers had the greatest misperceptions are:

- Most taxpayers were either unaware of or misinformed about the role of third party transmitters in *e-filing*.

¹⁰⁴ IRS (2009) *AES2 Taxpayer Survey*, Questions 5 and 8

¹⁰⁵ IRS (2009) *AES2 Preparer Survey*, Questions 5 and 6

¹⁰⁶ IRS (2009) *Individual Examination Coverage by Filing Method*

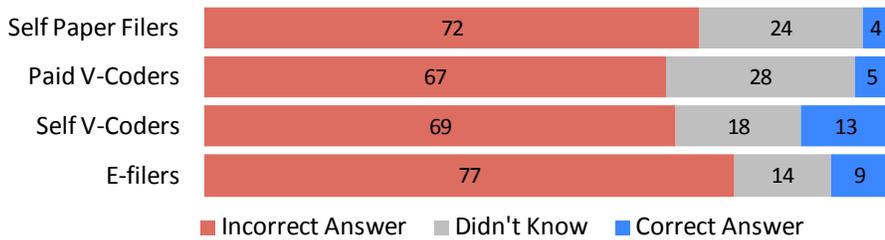
- Many taxpayers did not know that *e-filing* was available past the April 15 filing deadline.

The following figures present taxpayer survey results about these two *e-file* misconceptions:

Statement Presented: With *e-file*, when you or your tax return preparer finish your Federal return on a computer and press “submit” or “send,” your return goes directly to the IRS.

Reality: This statement is false. Returns prepared on a computer using commercial tax preparation software may be sent to the tax preparation software vendor for error checking before being sent to a transmitter for submission to the IRS. Figure 3-25 shows the responses for this statement.

Figure 3-25: Taxpayer Responses to “Returns Are Submitted Directly to the IRS” Misconception (Percent)

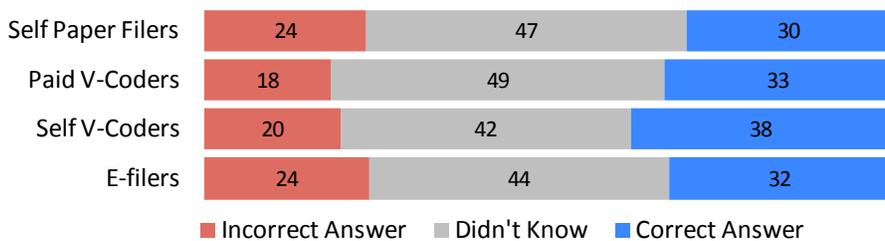


Source: IRS (2009) *AES2 Taxpayer Survey*, Question 14

Statement Presented: You cannot use *e-file* when submitting your return past the April 15 filing deadline.

Reality: This statement is false. The IRS supports *e-filing* of returns past April 15 through the end of the filing season in October. Figure 3-26 shows the responses for this statement.

Figure 3-26: Taxpayer Responses to “Cannot E-file Past April 15” Misconception (Percent)



Source: IRS (2009) *AES2 Taxpayer Survey*, Question 14

See Appendix A for more detailed findings on misconceptions about *e-file*.

3.6.2.2 Preparer Misconceptions about E-file

Preparers were presented with a slightly different set of statements to assess.¹⁰⁷ The particular differences are that preparers were asked about audit risks instead of the ability to *e-file* when a balance is due and about support for forms, schedules, and attachments instead of the ability to get tax preparation assistance at local help centers.

Looking at the answers from preparer survey respondents, all of whom were practicing at the time of the survey, the data indicates that preparers had a generally good awareness of how *e-file* works. The survey results indicate that the heavier the usage of *e-file*, the greater the awareness of how it works.

3.7 Areas for Further Investigation

Topics for further research include:

- **Demographic Determinants of Submission Method** — More research is needed into how strongly race, age, income, neighborhood type (e.g., urban, suburban, exurban), and other demographics determine submission method choices.
- **Determinants of Preparation Method** — What factors determine whether a taxpayer with a complex return uses tax preparation software versus consulting a tax preparer? How many taxpayers feel that tax preparation software can be a suitable substitute for a professional preparer?
- **Taxpayer Understanding of Filing Methods** — Investigating the extent to which taxpayers confuse electronic payment with electronic filing as well as the extent to which taxpayers confound tax preparation with submission (both on the basis of process and cost) may be informative.
- **Effect of Third Party Involvement** — Determining the extent to which third party involvement dissuades taxpayers from using *e-file* requires further research. This research should establish a behavioral baseline by exploring the extent to which third party involvement dissuades taxpayers from using certain communication channels — either paper or electronic.
- **Effect of Bundled E-filing Fees** — The effect of bundled ('free') *e-filing* fees on software pricing — seen across the vast majority of consumer tax preparation software products in 2009 — on Holdouts behaviors and their perceptions of *e-file* requires further investigation.
- **Effect of Which Forms are Supported by E-file** — Both the reality and the perception of which forms are supported by *e-file* should be studied further to determine the extent to which this is a barrier to *e-filing*.
- **Preparer Segmentation** — What segmentations of preparers (e.g., based on factors or attributes that correlate with preparer *e-file* usage) would assist the IRS in making decisions, and how would the opinions of members of these new segments differ on the issues raised in the preparer survey?
- **Outreach Effectiveness** — The IRS may benefit from investigating ways to measure its outreach and marketing effectiveness to better allocate scarce resources to viable campaigns.

¹⁰⁷ IRS (2009) AES2 Preparer Survey, Question 7

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4. Guide to Option Chapters

Contents of Chapter 4:

- 4.1 AES2 Options by Chapter
- 4.2 Definition Methodology, Assumptions, and Constraints
- 4.3 Adoption Methodology, Assumptions, and Constraints
- 4.4 Impact Methodology, Assumptions, and Constraints
- 4.5 Cost Methodology, Assumptions, and Constraints

The Option analyses are presented in summary form in the Fact Sheets (collected in chapter 5) and in full detail in the Option chapters (chapters 6–15).

Each Option was examined separately without any comparison or analysis of trade-offs among Options. Implementing more than one Option would result in overlap and duplication with existing and future IRS services.

This chapter serves as a guide for Option chapters 6–15. It presents the organization of each chapter and reviews the AES2 methodology, including assumptions and constraints, used to examine the Options in terms of their definitions, projected net adoption, impacts, and estimated costs. This report presents preliminary information and implementation considerations for each Option to help the IRS make decisions about next steps.

4.1 AES2 Options by Chapter

The Options analyzed in AES2 offer an array of approaches to advancing *e-file*. While they all require important policy decisions by Congress and/or the IRS, some involve significant technology investments while others focus primarily on policy changes. As shown in Table 4-1, Options are grouped as Technology, Policy, or Emerging Technology.

Table 4-1: Options by Type and Chapter

Type	Option Title (Chapter)
Technology	Free IRS Direct <i>E-file</i> (Chapter 6)
	Free IRS Online Forms (Chapter 7)
	Free IRS Tax Preparation Software (Chapter 8)
	Modernized Paper Filing (Chapter 9)
Policy	Federal <i>E-file</i> Mandate on Paid Preparers (Chapter 10)*
	Targeted Marketing of <i>E-file</i> (Chapter 11)
	Expanded Free File (Chapter 12)
	More Filing Time for <i>E-filers</i> (Chapter 13)
	Monetary Incentive (Chapter 14)
Emerging Technology	Research on Mobile <i>E-file</i> (Chapter 15)

Technology Options

Three of Technology Options offer the taxpayer a free, direct electronic interface with the IRS: Free IRS Direct *E-file*, Free IRS Online Forms, and Free IRS Tax Preparation Software. The fourth Technology Option, Modernized Paper Filing, seeks to greatly improve efficiency through automated processing of returns submitted on paper, given the long-term need to process paper submissions.

Policy Options

The Policy Options — Federal *E-file* Mandate on Paid Preparers, Targeted Marketing of *E-file*, Expanded Free File, More Filing Time for *E-filers*, and Monetary Incentive — address the top motivators (incentives and mandates) driving *e-filing* behavior. Note that Expanded Free File is categorized as a Policy Option even though it offers taxpayers

* MITRE began work on examining a Federal *E-file* Mandate on Paid Preparers Option. Since Congress passed such a mandate before this analysis could be finalized, MITRE set aside its work on this Option.

free tax preparation and *e-filing*, because it accomplishes this solely through an IRS partnership with third parties and does not involve a technology investment by the IRS.

Emerging Technology Option

Following up on the AES1 report discussion of phone-based *e-filing* options, AES2 examines emerging mobile phone technology in the Research on Mobile *E-file* chapter. Unlike the other Option chapters, this chapter provides no analysis of a specific Option implementation.

4.1.1 Analysis Areas

The Option analyses are presented in summary form in the Fact Sheets (collected in chapter 5) and in full detail in the Option chapters (chapters 6–15). The Options are analyzed in terms of the following:

- **Definition** — A conceptual description of the Option. The description includes the current environment, the Option’s envisioned capabilities, assumptions and constraints, and areas for further investigation. Definitions do not include detailed business requirements or system design specifications.
- **Projected Net Adoption** — An estimate of the net number and percentage of taxpayers who would switch to *e-filing* from paper filing as a result of the availability of the Option. Those who already *e-file* and would switch to the Option are not included, as this does not increase the overall *e-file* level.
- **Impacts** — The effects on or disruption to the current environment resulting from implementation of the Option.
- **Estimated Costs** — Very rough order of magnitude (VROM) estimates of the Federal budgetary costs for the IRS to implement and sustain operation of the Option (chapters 6–12). For the More Filing Time for *E-filers* Option (chapter 13), costs are estimated in terms of the cost of money due to changes in the timing of tax receipts and refunds. For the Monetary Incentive Option (chapter 14), costs are estimated in terms of the amount of associated tax credits. The estimated costs of each Option exclude costs experienced by stakeholders outside the government and are based on the Option’s early stage definition, which reflects significant uncertainty about the Option scope and design. Due to the variability in approaches used to estimate Option costs and the level of uncertainty associated with each Option definition, cost estimates cannot be readily compared across Options.

Definitions provide conceptual descriptions of each Option but do not include detailed business requirements or system design specifications.

Cost estimates cannot be compared across Options due to the variability in approaches used to estimate Option costs and the level of uncertainty associated with each Option definition.

While there may be similar capabilities among Options, each Option was examined separately without any comparison or analysis of trade-offs among Options. Implementing more than one Option would result in overlap and duplication with existing and future IRS services.

The Option definitions, projected net adoption, impacts, and estimated costs provide an idea of what each Option for advancing *e-file* might look like if implemented. Before moving forward with implementation of any Option, the IRS needs to develop more complete Option definitions and assess alternative approaches to acquire envisioned

capabilities of each Option, which will enable accurate evaluation of the Option’s cost savings and other benefits.¹⁰⁸

Relationship of AES2 to IRS Modernization Vision and Strategy Portfolio Selection Process

The Modernization Vision and Strategy (MV&S) portfolio selection process is the method used by the IRS to examine proposals for the introduction of new business and technology solutions. Since the IRS relies on the process to align business priorities and technology investments, the MV&S process most likely will be used to evaluate the Technology Options and recommend them for implementation. The MV&S process is less likely to be used to evaluate Options that do not involve a technology investment.

An outcome of technology projects that are selected through the MV&S portfolio selection process is a “Milestone 0” business case and budget request.¹⁰⁹ This report provides pre–Milestone 0 conceptual proposals that are less defined than an investment strategy proposal required for Milestone 0 in the MV&S process. In other words, the information presented here has less definition and certainty than required of a formal proposal at Milestone 0 of the MV&S process.

4.2 Definition Methodology, Assumptions, and Constraints

4.2.1 Definition Methodology

As mentioned previously, Option definitions in this report are based on the 10 possible approaches or initiatives for increasing *e-file* levels identified in AES1. During AES2, an integrated project team (IPT) consisting of IRS and MITRE subject matter experts further defined each Option.¹¹⁰ Through a series of working group sessions conducted over several months, each IPT developed a high-level vision for each Option, including the Option’s definition and capabilities.¹¹¹

The definition section of each Option chapter describes the current environment, the envisioned capabilities, assumptions and constraints, and areas for further investigation. The definition of each Option reflects the consensus of the IPT and guidance of sponsoring IRS managers and executives. The early stage definitions presented in this report intentionally do not include detailed business requirements and system design specifications.

¹⁰⁸ Among the benefits not assessed for each AES2 Option is the presumed cost savings associated with the lesser cost for processing an *e-filed* return versus a paper return.

¹⁰⁹ For selected IRS investments, Milestone 0 includes presentation of a complete Business Concept, Business Capability Description, Solution Concept, Project Cost Estimate, and — as required by OMB Circular A-11 and A-130 for effective management of capital assets — a complete OMB Budget Exhibit 300/Exhibit 53 justification for consideration in the President’s fiscal year budget presentation to Congress.

¹¹⁰ The IRS IPT members include representatives from Business Domains, Service Domains, Business Operating Divisions, and Functional Operating Divisions impacted by the proposed project.

¹¹¹ During the “Capability Definition” phase, the IPT developed a Business Capability Description (BCD) document based on IRS templates and guidelines used by the Modernization Vision and Strategy (MV&S) process. For the three Options that introduce a new technology for *e-filing*, the definition phase also included preparation of a Solution Concept document based on IRS templates and guidelines used by the MV&S process. The Solution Concept includes preliminary specification of the Functional, Logical, and Physical Architecture from which the IRS cost estimate was prepared.

4.2.2 Definition Assumptions and Constraints

The AES2 team made certain assumptions during Option definition. These are presented below and are discussed in the Option chapters:

For more information on the definition assumptions and constraints of each Option, see the assumptions and constraints sections for each Option in chapters 6–14.

- **Increased e-filing volumes from third parties can be supported** — Options that rely on the electronic submission of tax returns through third parties (see chapter 6 and 10–15) assume that IRS infrastructure and customer support is scalable to support not only the administration of the Options but any associated increase in e-file volumes.¹¹²
- **IRS web portal services and web site interfaces can handle increased usage** — All of the Options assume that the IRS.gov web site will be upgraded to support the demands of increased e-file usage.¹¹³

Two additional assumptions – that both Modernized E-file (MeF) 1040 and Taxpayer E-Authentication will be in place – warrant more detailed descriptions.

4.2.2.1 MeF 1040

In 2004, the IRS launched a new e-file system for large corporations called MeF. MeF is a secure, web-based system that enables e-filing business income tax returns over the Internet. MeF has since expanded to include tax-exempt organizations and partnerships,¹¹⁴ and the IRS plans incremental releases that support the 1040 family of forms and schedules, culminating in the MeF 1040 system. MeF 1040 is an approved project and is being implemented through the IRS Business Systems Modernization (BSM) effort. The first release of MeF 1040 is set for January 2010,¹¹⁵ with the final release in January 2012.¹¹⁶

MeF 1040 is assumed to be the platform that will be modified to accept e-file submissions from individual taxpayers under the Free IRS Direct E-file, Free IRS Online Forms, and Free IRS Tax Preparation Software Options.

MeF 1040 will have no impact on current tax return preparation methods and will preserve the roles of third parties such as Electronic Return Originators (ERO) and transmitters in submitting returns electronically. MeF 1040 alone will not enable taxpayers to e-file directly to the IRS (taxpayer e-authentication, discussed below, is among the other capabilities required). The current IRS system that receives e-filed individual returns, the Electronic Management System (EMS), will be retired when MeF 1040 is fully implemented.¹¹⁷

¹¹² For example, current systems and support involve communication channels (Internet and direct lines) between e-file providers and IRS systems for return submission; registered user (e.g., e-file provider) help desk and web services; the Fed/State electronic filing program; and e-file provider applications.

¹¹³ The Free IRS Online Forms and Free IRS Tax Preparation Software analyses both account for these required changes to IRS portal infrastructure.

¹¹⁴ IRS (2008) *Modernized e-File (MeF) Information for Authorized IRS e-file Providers and Large Taxpayers (Corporations, Partnerships and Tax Exempt Organizations) Tax Year 2007*

¹¹⁵ Phase I — Form 1040 and 22 support forms and schedules starting January 2010 through January 2011. Phase II and Phase III (combined)— Form 1040 related forms, approximately 120 in total, starting January 2012.

¹¹⁶ IRS (2008) *MeF 1040 Release Strategy*; IRS (2009) *Forms for 1040 Modernized e-File (MeF) Program*; IRS (2009) *1040 Modernized e-File (MeF) Update*

¹¹⁷ IRS (2009) *Forms for 1040 Modernized e-File (MeF) Program*

MeF 1040 will offer a new technology base to improve the *e-filing* experience. The projected benefits of MeF 1040 include the following:¹¹⁸

- **Faster Confirmation of Return Acceptance or Rejection** — Returns will be processed as they are received instead of queued in batches, as with EMS.
- **Specific Explanation of Errors** — MeF 1040 will have discrete error codes that use simple wording to clearly identify each unique error that triggers a rejected return.
- **Ability to E-file Attachments** — MeF 1040 will support attachments and thus support more taxpayers' tax situations. The current no-attachment rule of EMS limits the number of returns that can be *e-filed*.
- **Ability to Submit Amended and Prior Year Returns** — MeF 1040 will enable submission of amended and prior year returns and thus support more taxpayers' tax situations. This capability is not available under the current *e-file* program, thus limiting the number of returns that can be *e-filed*.

MeF 1040 will provide acknowledgments of return acceptance or rejection within 5 minutes of *e-filing*, an improvement over the 48-hour turnaround currently provided by EMS. With MeF 1040, the IRS will store all tax return data in XML format.¹¹⁹

4.2.2.2 Taxpayer E-Authentication

Three Options in this report involve taxpayers *e-filing* directly to the IRS: Free IRS Direct *E-file*, Free IRS Online Forms, and Free IRS Tax Preparation Software. These Options assume that the IRS will develop and successfully implement an e-authentication system to enable taxpayers to securely interact with the IRS over the Internet (e.g., access IRS resources to submit their tax returns, query the status of their tax returns, obtain information to assist in the preparation of their returns). The cost of the e-authentication system is not included in the Options' estimated costs.

An IRS taxpayer e-authentication system is in the concept stage, with no planned implementation timeline. Although detailed examination of e-authentication falls outside of the scope of AES2, a brief discussion provides important background on the integral role of e-authentication in some of the Options for advancing *e-file*.

In the current system, third parties that prepare and electronically submit returns provide the authentication and secure communication channels between themselves and millions of their clients. The IRS manages third party authentication and secure communication between itself and third parties.

Third party *e-file* providers complete a registration application and choose an ID, after which they are authenticated by IRS systems, thus enabling them to process transactions¹²⁰ on behalf of their business and individual taxpayer clients. The IRS Registered User Portal provides a strong authentication model for authorized *e-file* providers.

The IRS has some limited e-authentication capabilities already in place for current taxpayer applications.¹²¹ However, the Free IRS Direct *E-file*, Free IRS Online Forms, and

¹¹⁸ IRS (2009) *Forms for 1040 Modernized e-File (MeF) Program*

¹¹⁹ IRS (2008) *Business Systems Modernization Fiscal Year 2008 & 2009 Expenditure Plan version 4.1*, p. 6

¹²⁰ The IRS e-services Registered User Portal supports level 2 (medium) risk transactions.

¹²¹ One example is the *Where's My Refund?* application on the IRS.gov web site. As described on the web site, *Where's My Refund?* displays an individual's refund status for a tax return filed in the current year or the

Free IRS Tax Preparation Software Options involve taxpayers interacting directly with the IRS over the Internet, a process that requires a much stronger authentication model than currently exists. In addition, the e-authentication system will need to scale to support a far greater number of individual taxpayers than the relatively small number of third party *e-file* providers currently supported.¹²²

Taxpayer E-Authentication will require that the IRS develop enterprise-wide policies and procedures to address registration/enrollment, credential issuance, registration authentication (identity verification), authorization (role verification), revocation, and audit logging. Key features of a taxpayer e-authentication solution should include:

- Support for the registration of millions of taxpayers.
- Support for millions of taxpayer authentication sessions.
- A secure and user-friendly web-based interface to register taxpayers.
- The ability for taxpayers to manage their Taxpayer E-Authentication criteria (e.g., ID, password/PIN).
- An electronic signature service for tax return submissions.
- A registration process and Taxpayer E-Authentication criteria and procedures that are not burdensome to the taxpayer.
- The capability for the IRS to manage Taxpayer E-Authentication accounts.
- Full compliance with Federal law, policy, and guidance, including that pertaining to identity management, privacy/data protection, and information security.

Online interaction between the IRS and individual taxpayers represents a fundamental shift in IRS operations, and the required level of identity proofing and vetting call for strong authentication systems. There are few, if any, models in government or industry that match the scale of deployment needed to provide a user authentication system to the entire US taxpayer population.¹²³

If any of the technology Options to advance *e-filing* are considered, the IRS should conduct a detailed study to assess the feasibility of implementing an e-authentication capability at the IRS.

last 6 months of the last year. Taxpayers can check the status of their refund 7 days after *e-filing*. Users authenticate to the system by providing information about their tax returns that only they and the IRS would know. This is called a “shared secret” authentication.

¹²² Authentication is based on the criticality of the transaction and is guided by government-wide standards for securing transactions. See, for example, OMB E-Gov policy and standards, NIST standards, and IDManagement.gov. Any Federal identity management project must comply with guidance from OMB such as [M04-04](#) and guidance regarding the protection of Personally Identifiable Information (PII). Policy related documents such as Privacy Impact Assessments (PIA) and Systems of Records Notices (SORN) must be created or modified. Tools such as the GSA-developed Electronic Risk Assessment ([ERA](#)) tool should be considered in assisting in the risk assessment phase. Existing guidance documents such as [NIST 800-63](#) should be utilized to map the risk to appropriate identity management technologies. Evaluation of provisioning and policy enforcement tools utilizing web services protocols such as [SPML](#) and [XACML](#) should be conducted. Leveraging of new user level e-card technologies such as information cards and the newly drafted [IMI](#) standards as well as the [Higgins](#) identity framework should be considered.

¹²³ It should be noted that other than the telephone industry and the interconnected aspects of the banking industry (electronic funds transfer and use of ATM cards), no commercial solution has the scale and scope envisioned for the Taxpayer E-Authentication system. The only Federal systems of similar scale consist of the one currently being architected by the Centers for Medicare and Medicaid Services (CMS) as it evolves its electronic presence and the one envisioned by the Social Security Administration (SSA). In the case of CMS, the system will reside within the universe of an envisioned National Health Information Network (NHIN) supported by the activities of both the Department of Health and Human Services (HHS) as well as the private sector.

4.3 Projected Net Adoption Methodology, Assumptions, and Constraints

4.3.1 Projected Net Adoption Methodology

The net adoption projection indicates the number of additional taxpayers who might begin using e-file to submit their Federal tax returns if an Option were implemented.

For more information about the *e-file* Holdout population, see chapter 3, which addresses survey research on *e-file* motivators and barriers.

The objective of the adoption analysis was to provide projections for the net increase in *e-file* adoption resulting from the implementation of each Option.¹²⁴ The net adoption projection indicates the number of additional taxpayers who might begin using *e-file* to submit their Federal tax returns if an Option were implemented. These additional taxpayers are characterized as *e-file* Holdouts who previously submitted returns on paper and would switch to *e-filing* as a result of the availability of the Option. The net adoption projection should not be confused with usage projections. Usage projections predict the total number of tax returns that might be *e-filed* using an Option and may include taxpayers who switch from an existing *e-file* method to a new *e-file* Option.

Net adoption projections aim to predict how many *e-file* Holdouts might begin using *e-file*, thereby contributing to achievement of the 80% *e-file* goal for individual tax returns.

The IRS Office of Research categorizes *e-file* Holdouts into four populations:

- **Self V-Coders** — Taxpayers who prepare their returns on a computer but submit their returns on paper.
- **Preparer V-Coders** — Preparers who prepare their clients' returns on a computer but submit their clients' returns on paper.
- **Self Paper Filers** — Taxpayers who prepare their returns manually and submit their returns on paper.
- **Preparer Paper Filers** — Preparers who prepare their clients' returns manually and submit their clients' returns on paper.

It is important to note that the net adoption projections:

- Use current *e-file* projections (i.e., with no Options implemented) as the baseline from which the marginal increase was measured.
- Do consider new *e-file* adoption among Holdouts, less turnover and loss.
- Do not consider (include) current *e-filers*.
- Do not provide the total number of users (i.e., current *e-filers* who switch submission methods plus the net number of new *e-filers*).
- Do not include possible interaction effects from implementing multiple Options concurrently.

¹²⁴ The source of this and all other adoption content in this section is: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*. To be consistent with other AES2 terminology, some original terms used in this source document have been renamed: Paid V-Coders, Self Hand-Preparers, and Paid Hand-Preparers were changed to Preparer V-Coders, Self Paper Filers, and Preparer Paper Filers, respectively. This reflects that in the adoption projections, these are known populations based on actual versus perceived (survey) data. For example, Preparer V-Coders are those preparers who are known to have V-Coded a client's return based on the existence of a Preparer Tax Identification Number (PTIN) on the return, whereas Paid V-Coders are those taxpayers who reported that they believe their paid preparer V-Coded their return.

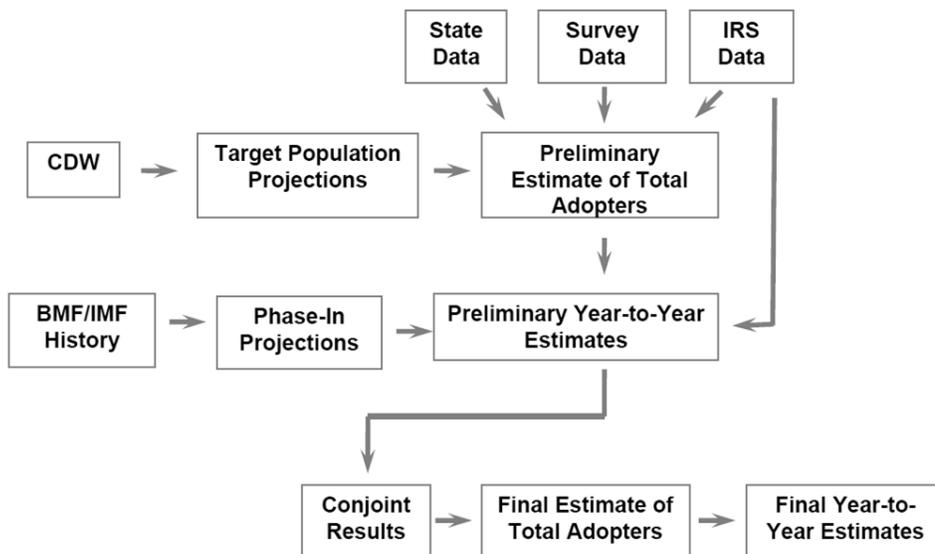
Regarding the baseline *e-file* projections, the total volume of individual tax returns submitted electronically was produced by independently modeling online and practitioner filing:

For more information about actual and projected (baseline) *e-file* adoption rates, see Figure 2-1.

- **Online Filing** — Consists of all returns *e-filed* by individual taxpayers. The baseline model used to calculate the total online filing volume is the Diffusion of Innovations model or the S-curve model.
- **Practitioner Filing** — Consists of all paid preparers who *e-filed* clients' tax returns. Due to the influence of preparers on their clients, the Diffusion of Innovations model had to be combined with additional models to calculate the total volume of returns *e-filed* by practitioners.

Figure 4-1 illustrates the data sources and analyses contributing to the net adoption projections.

Figure 4-1: Overview of Projected Net Adoption Methodology



Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*, p. 8

In general, the IRS net adoption projection methodology:

- Used the Compliance Data Warehouse (CDW) to determine the sizes of the target populations as defined by the use of pre-existing variables collected during return processing.
- Defined paid preparers using the Electronic Tax Administration definition to maintain consistency.
- Identified returns at the Taxpayer Identification Number (TIN) level and removed returns resulting from the Telephone Excise Tax Refund (TETR) and Economic Stimulus Payment (ESP) to produce baseline data free of anomalies. Taxpayers who filed returns only to obtain the TETR and/or ESP were removed from the subgroups considered for this study.
- Processed data by two independent analysts for quality assurance.

- Projected the target populations using historical trends and time series models.
- Gathered data on State I-File programs and mandate experiences from various State revenue offices. State I-File programs allow individual taxpayers to prepare and electronically submit State income tax returns directly to States through State-administered web sites.
- Used the 2009 IRS taxpayer and preparer surveys and:
 - Generated cross-tabulations of relevant survey questions for each Option.
 - Assigned weights to types of respondents based on their combined answers to address the differences between respondents' stated preferences and their actual behavior.
- Calculated likely adoption rates for each Option using the ratio of likely *e-file* adopters to total relevant population.
- Applied adoption rates to the appropriate projected filer populations in the year the Option is expected to be implemented. This provides the total estimated number of *e-file* adopters resulting from Option implementation.
- Phased in *e-file* adopters over time based on experiences with the historical *e-file* program experiences.
- Collected historical phase-in rates from current *e-file* programs.
- Projected adoption rates for additional years using the S-curve model.
- Averaged projected adoption rates with similar trends to produce three final phase-in curves: slow, medium, and fast. The most appropriate curve was selected to apply to each Option.
- Applied results from the 2009 IRS conjoint survey/model:
 - Generated Option impact estimates using the conjoint model for segments most closely representing the relevant target populations for available Options.
 - Ranked available Options from having the most impact to the least impact based on predicted *e-file* increases.
 - Refined the preliminary net adoption projections for Options where the conjoint survey results provided more information and/or the results greatly differed from the preliminary net adoption projections.

4.3.2 Projected Net Adoption Assumptions and Constraints

Net adoption projections were not adjusted for known dependencies that influence taxpayer and preparer decisions to use *e-file*. These dependencies include:

- The value of an Option to taxpayers and the ease and convenience of using the Option.
- Existing *e-file* options.
- Perceptions and attitudes about *e-filing*.
- Media coverage and response.

In addition, phase-in rates depend on information diffusion/communication strategy, and adoption depends on the level of marketing efforts.

4.4 Impact Methodology, Assumptions, and Constraints

4.4.1 Impact Methodology

The AES2 team drew on IRS and tax system domain expertise and a structured process to identify the expected impacts (i.e., outcomes, consequences, and effects) of implementing each Option.

Each Option was examined separately without any comparison or analysis of trade-offs among Options. The analysis framework for examining impacts of each Option included a qualitative identification of stakeholders and impact areas. As such, the impacts are qualitative in nature and were not measured, nor have they been externally validated.

The analysis framework considered stakeholders and impact areas as explained below.

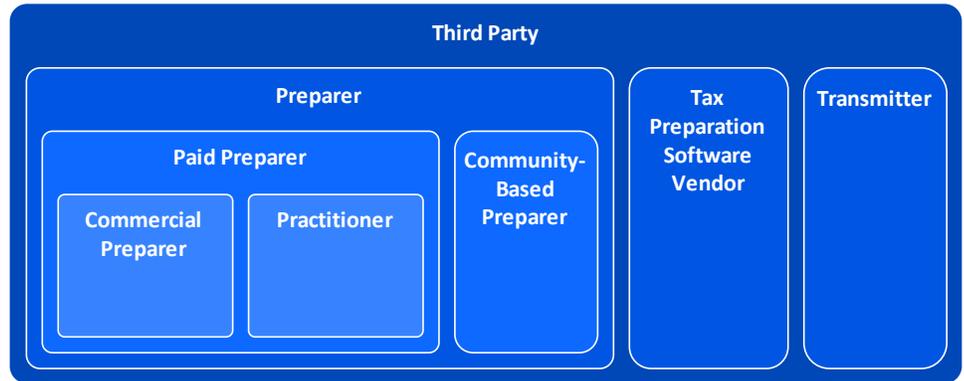
Stakeholders

- **IRS**
- **Taxpayers**
- **States**
- **Congress**
- **Preparers** — Any third party that helps complete a tax return; includes practitioners (e.g., CPAs), paid preparers, and community-based preparers.
- **Tax Preparation Software Vendors** — Any third party that offers tax preparation software (online software and/or boxed software that might be purchased at a store) to help taxpayers complete their returns and tax preparers complete their clients' returns as well as fillable and "smart" (i.e., those that automate calculations) electronic forms.
- **Transmitters** — Any third party that submits an income tax return to the IRS once the return is prepared. Transmitters must be approved by the IRS and have successfully tested software and hardware that allow them to directly connect with IRS computers.
- **Third Party Organizations** — Any organization that represents third party stakeholders and advocates on behalf of their interests in the Federal tax landscape. Examples include the American Institute of Certified Public Accountants (AICPA), Council for Electronic Revenue Communication Advancement (CERCA), Federation of Tax Administrators (FTA), National Association of Enrolled Agents (NAEA), and National Association of Tax Professionals (NATP).

Figure 4-2 illustrates the taxonomy of third parties used in this report.

Impacts are potential outcomes, consequences, or effects of implementing an Option.

Figure 4-2: Taxonomy of Third Parties



Impact Areas

The framework for assessing the impacts of each Option considered the impact areas presented below:

- Law and Policy
 - Requires revisions to existing tax laws, legislation, regulations, rulemaking, or policies
 - Requires significant legal review
 - Affects the burden of legal compliance on stakeholder
 - Affects regulation and oversight by (or of) stakeholder
- Services and Customer Support
 - Requires stakeholder to make new services available
 - Requires stakeholder to make existing services available through a different provider
 - Makes stakeholder's existing services redundant or obsolete
 - Affects quality of service that stakeholder provides to customers
 - Affects quality of service that stakeholder receives from the IRS or third parties
 - Affects taxpayers' ability to optimize their tax situations under the law
 - Affects support provided by stakeholder to its customers
 - Requires stakeholder to use a different entity/solution/channel (e.g., contact centers/help desk, web site self-service) for customer support in whole or in part
 - Affects customer support provided to this stakeholder
- Operational Processes
 - Requires changes to stakeholder's current business processes
 - Requires a new/modified organizational structure or business capability
 - Affects the tax processing cycle/season
- Human Resource Needs and Structure
 - Requires more or fewer labor resources/jobs or affects scheduling
 - Requires additional or different skill sets (affects training)

- Tax Landscape
 - Requires changes in the roles the stakeholder performs in the tax system
 - Affects the nature of the stakeholder’s business relationships with other stakeholders
 - Affects the competitive position or business of stakeholder
 - Affects the choices of products or services stakeholder offers
 - Introduces barriers to entry or other relative disadvantages to tax system stakeholders
- Taxpayer Data and Security
 - Affects the quality of taxpayer data
 - Affects access to tax information and guidance
 - Affects access to taxpayer data
 - Affects security and privacy of taxpayer data
- Infrastructure
 - Affects hardware (e.g., server data processing, storage, transport/networking/ telecommunications)
 - Affects software (custom and commercial off-the-shelf, or COTS)
 - Affects facilities (e.g., data centers)
 - Affects IT administration and support requirements

4.4.2 Impact Assumptions and Constraints

The AES2 team made certain assumptions during the analysis of impacts. These are summarized below and covered in more detail in each Option chapter:

- **Taxpayer E-Authentication and MeF 1040 are required for Technology Options** — Any direct interaction between the IRS and taxpayers for *e-filing* will occur through the Internet and depends on the IRS enhancing MeF 1040 and providing Taxpayer E-Authentication.
- **Customer service is handled by the IRS** — Greater direct interaction between preparers and/or taxpayers and the IRS related to e-filing processes will affect the type, breadth, and levels of customer service required of the IRS to support them.
- **The IRS has limited capacity for marketing and outreach** — Since the IRS does not have the resources to conduct sophisticated marketing or *e-file* education and awareness campaigns, it relies heavily on third parties to advance and promote *e-filing*. Chapter 11 presents the Targeted Marketing of *E-file* Option, which would expand *e-file* marketing with no other changes to *e-filing*, but the other Option chapters do not address the need for targeted marketing to inform taxpayers about *e-filing*. The Option chapters (excluding chapter 11) do not consider the impacts of targeted marketing as part of the Option definition, estimated costs, or projected net adoption. The scope of AES2 analysis cannot predict the impact of taxpayer marketing and outreach campaigns on taxpayer and preparer *e-filing* behavior.
- **Political and reputational risks are not addressed** — Any political or reputational risks associated with an Option or its failure are outside the scope of this report.

4.5 Cost Estimation Methodology, Assumptions, and Constraints

AES2 cost estimates rely on conceptual descriptions (high-level definitions) of the Options, which reflect significant uncertainty about them. Therefore, these estimates lack the level of detail and rigor needed to formulate funding requests.

4.5.1 Cost Estimation Methodology

Very rough order of magnitude (VROM) estimates of the one-time cost to implement each Option and the recurring cost to operate and maintain each Option were developed. All estimates rely on the conceptual descriptions (pre–Milestone 0) of the Options. By definition, cost estimates cannot provide rigorous cost findings beyond the level of detail and rigor in the requirements they are based on, in this case the Options’ conceptual descriptions (high-level definitions). Since each Option’s cost estimate is based on the Option’s high-level definition, which reflects significant uncertainty about the Option, the estimates presented in this report cannot be used to formulate funding requests.

The cost estimates presented in this report are not intended to be compared with one another. Technology Options primarily emphasize operational (recurring) costs (e.g., IT costs, taxpayer customer support costs) but may not reflect all IRS operational costs associated with their implementation. Policy Options primarily emphasize operational costs but may not include all IT costs. Furthermore, the More Filing Time for *E-filers* (chapter 13) and Monetary Incentive (chapter 14) Options exclude operational costs and reflect either reductions in government revenue (resulting from the Monetary Incentive Option) or the cost of money based on tax payment timing (a consideration of the More Filing Time for *E-filers* Option). Accordingly, the cost estimate for each Option reflects different kinds of costs and are not comparable.

Each cost estimate considers the possible Federal budgetary costs necessary for the IRS to implement the Option. Estimates do not examine costs that may be experienced outside the government by external stakeholders.

VROM cost estimates were developed using historical data, cost catalogs, estimation tools and techniques employed by the IRS, and the early stage Option definitions provided by the AES2 team. AES2 cost estimates are presented with a 70% confidence level that they predict the probable Federal budgetary resources required for the IRS to implement an Option. The 70% confidence level — consistent with GAO best practices — is appropriate for the preliminary requirements used for estimation and the early stage definition of each Option. More definitive estimates would be developed by the IRS if an Option were selected for further evaluation of its viability and possible approval for implementation.

The AES2 team approached the development of the cost estimate for each Option as shown in Table 4-2.

Table 4-2: Approaches to Cost Estimation

Option	Approach
<p>Technology Options:</p> <ul style="list-style-type: none"> Free IRS Direct <i>E-file</i> (Chapter 6) Free IRS Online Forms (Chapter 7) Free IRS Tax Preparation Software (Chapter 8) Modernized Paper Filing (Chapter 9)¹²⁵ 	<p>Parametric cost modeling and engineering build-up methods, as described in IRS cost estimation methodology.</p>
<p>Policy Options:</p> <ul style="list-style-type: none"> Federal <i>E-file</i> Mandate on Paid Preparers (Chapter 10)[*] Targeted Marketing of <i>E-file</i> (Chapter 11) Expanded Free File (Chapter 12) More Filing Time for <i>E-filers</i> (Chapter 13) Monetary Incentive (Chapter 14) 	<p>IRS standard unit cost estimates to forecast Option expenses.</p> <p>Cost of money related to fluctuations in taxpayer filing behavior.</p> <p>Costs of proposed incentive tax credit in terms of outlays from the IRS to taxpayers.</p>

The estimation methodology for the three Technology Options was developed by the IRS Portfolio Planning, Estimation, and Delivery Services (PEDS) Office. The PEDS Office provides project estimation and resource analysis services to Modernization and Information Technology Services (MITS) and business stakeholders as proposed technology solutions go through the MV&S portfolio selection process. Estimation services and multi-step processes generally align with GAO and industry guidance for developing reliable cost estimates, including:

- Government best practices** — GAO’s Cost Assessment Guide, Best Practices for Estimating and Managing Program Costs¹²⁶
- Industry best practices** — Checklists and Criteria for Evaluating the Cost and Schedule Estimating Capabilities of Software Organizations (Software Engineering Institute)¹²⁷

The framework used for developing the VROM cost estimates is detailed in Appendix B.

4.5.2 Cost Estimation Assumptions and Constraints

The AES2 team made certain assumptions during cost estimation. These are highlighted below and discussed in each Option chapter:

- Only direct costs incurred by the IRS are considered** — Costs incurred by States, tax preparation software vendors, paid preparers, and other stakeholders external to the IRS are out of scope for AES2. Opportunity costs also are out of scope.

For more information on the cost estimation assumptions and constraints of each Option, see the Cost Estimation sections of chapters 7–15.

¹²⁵ The cost estimate for Modernized Paper Filing is excerpted from a previously existing IRS MV&S estimate.

^{*} MITRE began work on examining a Federal *E-file* Mandate on Paid Preparers Option. Since Congress passed such a mandate before this analysis could be finalized, MITRE set aside its work on this Option.

¹²⁶ Government Accountability Office (2009) *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs*

¹²⁷ SEI (1995) *Checklists and Criteria for Evaluating the Cost and Schedule Estimating Capabilities of Software Organizations*

- **The IRS builds rather than buys technology** — Cost estimates for the three Technology Options assume that new applications and systems will be developed, built, and wholly owned by the government.
 - Alternative approaches to acquiring technology, such as licensing commercial tax preparation software; acquiring commercially managed software, services, and facilities; and developing new public-private partnerships were not assessed. (Appendix B, however, lists considerations associated with alternative approaches to acquiring the technology needed to provide each Option.)
 - Build-versus-buy trade-offs between approaches to acquiring technology or alternative technical solutions were not considered during AES2 cost estimation.
- **Cost estimates for Taxpayer E-Authentication are not included** — Cost estimates for implementing and operating and maintaining Taxpayer E-Authentication were not included in the estimates for any Option, including the three Technology Options (chapters 6, 7, and 8). Absent these cost estimates, the estimates for implementing and operating the Technology Options are not fully captured.
- **Cost estimates for operations and infrastructure for the Policy Options are not included** — Cost estimates for implementing Policy Options do not capture the costs associated with modifying IRS policies, procedures, publications, and systems.
- **Potential benefits and operational cost savings are not included** — Cost estimates address the probable resources needed to implement and, if applicable, operate each Option but do not account for the potential benefits and operational cost savings provided by each Option. An analysis of the potential benefits and cost savings associated with processing more tax returns through *e-file* and processing fewer paper returns are not within the scope of this report.
- **Marketing and outreach costs are not included** — Cost estimates generally do not include marketing and outreach costs needed to successfully promote the Options.
- **Date of availability** — Estimates are based on the expected amount of time needed to develop and implement each Option. For the Technology Options, the cost estimates assume a hypothetical start date of January 2012. Actual dates depend on the availability of the Taxpayer E-Authentication and MeF 1040 systems, which are assumed to be available for each Technology Option.
- **Number of users** — Each cost estimate was developed based on an assumed number of users. The cost estimate for each Option is not based on the projected net adoption analysis, which accounts for only new users of the Option. Each cost estimate is based on the total potential user population (i.e., new *e-filers* and taxpayers shifting from an existing *e-file* method to the Option).
- **Alternative approaches to acquire Option capabilities are outside AES2 scope** — AES2 cost estimates are illustrative and reflect only one approach to building and deploying technology on IRS infrastructure. Each Option will require presentation of a capital investment plan to the Office of Management and Budget (OMB) that includes an analysis of alternatives to acquire Option capabilities and trade-offs related to the Option. Appendix B explores some of these alternatives, which are not explored in AES2.

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5. Option Fact Sheets

Contents of Chapter 5:

- 5.1 Free IRS Direct *E-file*
- 5.2 Free IRS Online Forms
- 5.3 Free IRS Tax Preparation Software
- 5.4 Modernized Paper Filing
- 5.5 Federal *E-file* Mandate on Paid Preparers
- 5.6 Targeted Marketing of *E-file*
- 5.7 Expanded Free File
- 5.8 More Filing Time for *E-Filers*
- 5.9 Monetary Incentive
- 5.10 Research on Mobile *E-file*

This chapter presents a summary of each Option in a one-page Fact Sheet that includes the Option's definition, impacts, projected net adoption, and estimated costs.

Free IRS Direct E-file

Definition

The Free IRS Direct *E-file* Option will allow individual taxpayers who prepare their tax returns with commercial tax preparation software to electronically submit (*e-file*) their returns directly to the IRS for free.

The IRS will provide the taxpayer with an immediate online confirmation of receipt when the return is submitted. The taxpayer will be able to log into a secure IRS web site to retrieve an acknowledgment of return acceptance or rejection, which is available within 5 minutes of *e-filing*. The IRS will provide customer support to help with submission problems, rejected returns, or the Free IRS Direct *E-file* Option itself.

This Option will be available for use by all individual taxpayers but not by preparers. This Option is intended to address concerns with cost or third party involvement with the current *e-file* system, in which returns are submitted electronically to the IRS through a transmitter (often the same company that provided the tax preparation software).

Impacts

- Taxpayers may not perceive this Option as addressing concerns about cost for two main reasons: taxpayers will still need to purchase tax preparation software to *e-file*; and many software vendors no longer charge a separate fee to *e-file*.
- Taxpayers may not perceive this Option as addressing concerns with third party involvement because they may not be aware of transmitters' current role in *e-filing* and regardless must rely on commercial software to prepare their return.
- Third party transmitters will likely oppose this Option.
- The IRS has little experience providing technical customer support to taxpayers on resolving submission issues.
- Taxpayers may be dissatisfied with the lack of email confirmation provided by this Option, given they are used to automatically being sent real-time emails confirming their other purchases and transactions online.
- This Option requires software vendors to change their products to enable direct transmission of data to the IRS but offers vendors little incentive to do so.
- The IRS will face challenges in marketing this Option to taxpayers, particularly given that the IRS relies on its commercial partners — some of which will be affected by this Option — for much of its taxpayer outreach.
- The IRS must deliver Taxpayer E-Authentication and MeF 1040 before this Option.

Projected Net Adoption

Number and percentage of Holdouts expected to switch to *e-file* based on Option:

Year	Net E-file #	Net E-file %
2014	274,200	0.19
2015	291,500	0.20
2016	308,300	0.21

With a 2014 deployment, the 80% *e-file* goal will be achieved in 2016 (same as baseline).

Estimated Cost

One-time: \$42 million

Recurring: \$27 million/year

Key assumptions & cost drivers:

- Based on 13 million users.
- One-time costs driven by web site portal upgrades.
- Recurring costs driven by increase in IRS Customer Service Representatives.
- Taxpayer E-Authentication system costs are excluded.
- Earliest availability is 2014 if Modernized e-File (MeF) 1040 and Taxpayer E-Authentication are in place.

Please see chapter 6 of the AES2 report for more information on this Option.

Free IRS Online Forms

Projected Net Adoption

Number and percentage of Holdouts expected to switch to *e-file* based on Option:

Year	Net <i>E-file</i> #	Net <i>E-file</i> %
2015	604,800	0.42
2016	685,000	0.47

With a 2015 deployment, the 80% *e-file* goal is achieved in 2015 (1 year before baseline).

Estimated Cost

One-time: \$67 million

Recurring: \$36 million/year

Key assumptions & cost drivers:

- Based on 3 million users.
- One-time costs driven by development of system.
- Recurring costs driven by increase in IRS Customer Service Representatives.
- Taxpayer E-Authentication system costs are excluded.
- Earliest availability is 2015 if Modernized e-File (MeF) 1040 and Taxpayer E-Authentication are in place.

Please see chapter 7 of the AES2 report for more information on this Option.

Definition

The Free IRS Online Forms Option will provide individual taxpayers with a method of preparing their own returns by completing tax forms on a secure IRS web site and electronically submitting (*e-filing*) their completed tax returns directly to the IRS for free. This Option will not provide a question-and-answer approach to simplify the process. This Option will feature automated calculations; hyperlinks to standard IRS instructions; and the ability to save drafts, leave a session, and continue work at a later time. The IRS will provide the taxpayer with an immediate online confirmation of receipt when the return is submitted. The taxpayer will be able to log into a secure IRS web site to retrieve an acknowledgment of return acceptance or rejection, which is available within 5 minutes of *e-filing*. The IRS will provide customer support to help with submission problems, rejected returns, or the Free IRS Online Forms Option itself.

This Option will be available for use by all individual taxpayers but not by preparers. This Option is intended to address concerns with third party involvement or cost with the current *e-file* system.

Impacts

- Given that the IRS and its partners in the Free File Alliance (FFA) introduced Free File Fillable Forms (FFFF) in 2009, this Option may be perceived as duplicative and unnecessary.
- Taxpayers may not perceive this Option as addressing concerns about cost for two main reasons: other free filing methods from FFA and commercial tax preparation software vendors exist; and many vendors no longer charge a separate fee to *e-file*.
- Taxpayers may not perceive this Option as addressing concerns with third party involvement because they may not be aware of transmitters' current role in *e-filing*.
- This Option will likely adversely affect IRS partnerships with key stakeholders such as tax preparation software vendors and transmitters as well as the IRS-FFA agreement.
- Since this Option will not initially support State returns, taxpayers may be inconvenienced, while States may see a decline in electronically filed returns and see increased expectations that States provide their own similar Option.
- The IRS has little experience providing technical customer support to taxpayers on resolving software and submission issues.
- Taxpayers may be dissatisfied with the lack of email confirmation provided by this Option, given that they are used to automatically being sent real-time emails confirming their other purchases and transactions online.
- The IRS will face challenges in marketing this Option to taxpayers, particularly given that the IRS relies on its commercial partners — some of which will be affected by this Option — for much of its taxpayer outreach.
- The IRS must deliver Taxpayer E-Authentication and MeF 1040 before this Option.

Free IRS Tax Preparation Software

Definition

The Free IRS Tax Preparation Software Option will provide individual taxpayers with free web-based software that guides them through the return preparation process and enables them to electronically submit (*e-file*) their returns directly to the IRS. This Option will feature a question-and-answer approach that simplifies the tax preparation process, completes the required forms for the user, and provides explanations of relevant tax law. The Option also will allow taxpayers to save drafts, leave a session, and continue work at a later time. The IRS will provide the taxpayer with an immediate online confirmation of receipt when the return is submitted. The taxpayer will be able to log into a secure IRS web site to retrieve an acknowledgment of return acceptance or rejection, which is available within 5 minutes of *e-filing*. The IRS will provide customer support to help with submission problems, rejected returns, or the Free IRS Tax Preparation Software itself.

This Option will be available for use by all individual taxpayers but not by preparers. This Option is intended to address concerns with third party involvement or cost with the current *e-file* system. This Option will not offer certain features offered by commercial tax preparation software (sometimes at additional cost), such as: tools to maximize deductions, tools to flag audit risks, customized tax advice, the ability to import prior year return data, the ability to import W-2s and 1099s electronically, State return preparation, software accuracy guarantees, and audit assistance.

Impacts

- Commercial software vendors and transmitters will likely expend considerable resources opposing this Option.
- Taxpayers may not perceive this Option as addressing concerns about cost for two main reasons: other free filing methods from FFA and commercial tax preparation software vendors exist; and many vendors no longer charge a separate fee to *e-file*.
- Taxpayers may not perceive this Option as addressing concerns with third party involvement because they may not be aware of transmitters' current role in *e-filing*.
- This Option will not compare favorably to the full range of features that commercial tax preparation software vendors bring to the market.
- The IRS has no prior experience delivering user-centric tax preparation software that is frequently updated.
- This Option will likely adversely affect IRS partnerships with key stakeholders such as tax preparation software vendors and transmitters as well as the IRS-FFA agreement.
- Since this Option will not initially support State returns, taxpayers may be inconvenienced, while States may see a decline in electronically filed returns and see increased expectations that States provide their own similar Option.
- The IRS has little experience providing technical customer support to taxpayers on resolving software and submission issues.
- Taxpayers may be dissatisfied with the lack of email confirmation provided by this Option, given they are used to automatically being sent real-time emails confirming their other purchases and transactions online.
- The IRS will face challenges in marketing this Option to taxpayers, particularly given that the IRS relies on its commercial partners — some of which will be affected by this Option — for much of its taxpayer outreach.
- The IRS must deliver Taxpayer E-Authentication and MeF 1040 before this Option.

Projected Net Adoption

Number and percentage of Holdouts expected to switch to *e-file* based on Option:

Year	Net E-file #	Net E-file %
2016	1,960,300	1.34

With a 2016 deployment, the 80% *e-file* goal will be achieved in 2016 (same as baseline).

Estimated Costs

One-time:

\$136 million (3 million users)

\$141 million (24 million users)

\$160 million (46 million users)

Recurring:

\$50 million/year (3 million users)

\$58 million/year (24 million users)

\$115 million/year (46 million users)

Key assumptions & cost drivers:

- Based on three usage levels: 3, 24, and 46 million users.
- One-time costs driven by development of system.
- Recurring costs driven by increase in IRS Customer Service Representatives and software maintenance.
- Taxpayer E-Authentication system costs are excluded.
- Earliest availability is 2016 if MeF 1040 and Taxpayer E-Authentication are in place.

Please see chapter 8 of the AES2 report for more information on this Option.

Modernized Paper Filing

Projected Net Adoption

The Option does not affect *e-file* adoption. It provides similar efficiency and accuracy benefits as *e-file* for paper returns. This study did not find publishable evidence supporting or disproving the hypothesis that a tax authority's acceptance of 2D barcoded paper returns hurts the *e-filing* adoption rate.

Estimated Costs

One-time: \$71 million

Recurring: \$10 million/year

Key assumptions & cost drivers:

- IRS cost estimate developed in 2007 for proposed Msp project which was not funded.
- One-time and recurring costs are driven by customization and licensing fees for commercial Optical Character Reader (OCR) scanning technology.
- Recurring costs include electronic records storage.
- Excludes the capability for IRS enterprise-wide electronic access to the imaged return.
- Four years estimated to build and deploy.

Please see chapter 9 of the AES2 report for more information on this Option.

Definition

Even when the 80% *e-filing* goal is achieved, tens of millions of individual returns will still be submitted to the IRS on paper. For this reason, finding efficiencies and cost savings in the processing of paper returns is an important part of the IRS's overall modernization and *e-filing* strategy.

To handle individual income tax returns submitted on paper, the Modernized Paper Filing Option will include optical scanning, automated data extraction using both character recognition (CR) and two-dimensional (2D) barcodes, data export, and electronic image archiving.

This Option will provide significant flexibility and cost savings over the existing paper return processing solution. Return data will be quickly extracted and exported in formats compatible with *e-filed* returns. Most of the manual transcription of data that occurs at IRS Submission Processing Centers today (rekeying data from paper returns into IRS computer systems) will be eliminated. Optically scanned returns will be electronically retrieved, eliminating the costs and delays associated with retrieving paper returns. Additionally, optically scanned returns will become the official return-of-record, allowing the original paper returns to be destroyed.

This Option will address all paper filers, not as a means to encourage them to *e-file*, but to allow the IRS to achieve efficiencies and cost savings comparable to *e-file*. It also will put all *e-filed* and paper return data into a single modernized data pipeline supporting the retirement of costly legacy processing systems.

Impacts

- The IRS had been considering the Modernized Submissions Processing (Msp) proposal as a means of meeting its business needs for the last two years. Various proposals preceded the Msp proposal. The IRS is still in need of a solution for modernizing paper filing.
- Only CR can capture data from both V-Coded and manually prepared paper returns. 2D barcodes are limited to the 74% of paper returns that are V-Coded.
- 2D barcodes will require the IRS to redesign its tax forms.
- In the absence of a mandate, tax preparation software vendors may have little incentive to modify their software to support 2D barcodes.
- 2D barcodes may cause confusion or negative reactions among some taxpayers.
- 2D barcodes may have an adverse affect on the *e-file* level.

Federal *E-file* Mandate on Paid Preparers

MITRE began work on examining a Federal *E-file* Mandate on Paid Preparers Option. Since Congress passed such a mandate before this analysis could be finalized, MITRE set aside its work on this Option.

Please see [chapter 10 of the AES2 report](#) for more information.

Targeted Marketing of E-file

Projected Net Adoption

Due to the difficulty in linking marketing to adoption, a measure of the reach of the campaign may be provided instead of an adoption estimate.

Estimated Costs

One-time: There are no one-time start-up costs, and IRS would only incur the estimated recurring costs until it achieves the 80% *e-file* goal

Recurring: \$6 million/year

Key assumptions & cost drivers:

- Assumes IRS conducts one 4-year campaign or until the 80% *e-file* goal is attained.
- Costs for contractor support from marketing firms with the expertise to assist the IRS with detailed analysis of target population characteristics, developing campaign strategy, and evaluating campaign effectiveness are not included, but are recognized as an essential element for calculating the overall cost of this Option.

Please see chapter 11 of the AES2 report for more information on this Option.

Definition

The Targeted Marketing of *E-file* Option will identify specific groups of taxpayers and paid preparers who submit tax returns on paper and will attempt to persuade them to switch to electronic return submission (*e-filing*).

The purpose of the Targeted Marketing of *E-file* Option is to focus marketing and communication efforts on high-opportunity populations (i.e., those with greatest possibility of *e-file* adoption). For example, more analysis about V-Coders — taxpayers and preparers who prepare returns on a computer but print and submit returns on paper — might yield information based on demographics and other characteristics that could help identify potential populations for the targeted marketing of *e-file*. Since members of this group already use computers to prepare their returns, they are likely to be more open to *e-file*. The key will be to understand why these taxpayers and preparers choose not to *e-file* and to develop marketing campaigns to persuade them to do so.

To further define this Option, the IRS will draw on research performed as part of AES2 as well as other relevant sources. The desired outcome of this Option is to provide the framework the IRS needs to develop a data-driven, multi-year targeted marketing strategy aimed at specific segments of the *e-file* Holdout population. This strategy and its execution will identify *e-file* participation goals, marketing tasks, key messages, measures to gauge the effectiveness of targeted marketing campaigns, and resources required to conduct these campaigns.

Impacts

- The IRS has limited experience and resources available to develop end-to-end targeted marketing campaigns and will need assistance from targeted marketing experts.
- Without collaboration with its stakeholders, the IRS will not have the communications networks and financial and staff resources needed to wage successful *e-file* targeted marketing campaigns.

Expanded Free File

Definition

The Free File Program provides free tax preparation and *e-filing* to eligible participants. The program, which has two components, Traditional Free File (TFF) and Free File Fillable Forms (FFFF), is offered through an agreement between the IRS and the Free File Alliance (FFA). The Expanded Free File Option will expand both components of the current program. Specifically, this Option will:

- Remove the Adjusted Gross Income (AGI) limitation for TFF (free online Federal income tax preparation and *e-filing* software) to make it available to all individual taxpayers.
- Enhance the FFFF user experience and number of forms and schedules supported by FFFF.

Impacts

- This Option may be contrary to the business interests of tax preparation software vendors and may be perceived negatively by the business community.
- This Option will affect the IRS-FFA agreement and may adversely affect IRS partnerships with key stakeholders such as tax preparation software vendors and transmitters.
- Raising or removing the AGI limitation without also expanding the services provided and forms and schedules supported through the Free File Program may not produce the desired effect of increasing *e-file* adoption.

Projected Net Adoption

Number and percentage of Holdouts expected to switch to *e-file* based on Option:

Year	Net <i>E-file</i> #	Net <i>E-file</i> %
2012	1,143,100	0.81
2013	1,156,300	0.81
2014	1,167,100	0.81
2015	1,176,500	0.81
2016	1,185,600	0.82

With a 2012 deployment, the 80% *e-file* goal is achieved in 2015 (1 year before baseline).

Estimated Costs

One-time: None identified.

Recurring: Under \$1 million/year

Key assumptions & cost drivers:

- Cost driven by Free File Program management staff, additional IRS help desk support staff, additional return volume.
- Excludes communications and outreach to promote Option.

Please see chapter 12 of the AES2 report for more information on this Option.

More Filing Time for E-filers

Projected Net Adoption

Number and percentage of Holdouts expected to switch to *e-file* based on Option:

Year	Net E-file #	Net E-file %
2011	1,366,000	0.99
2012	1,452,600	1.03
2013	1,536,000	1.08
2014	1,614,500	1.12
2015	1,686,600	1.17
2016	1,751,600	1.21

With a 2011 deployment, the 80% *e-file* goal will be achieved in 2015 (1 year before baseline).

Estimated Costs*

*Includes only the cost of money

One-time: Not estimated.

Recurring: Savings of:

\$2 million/year at 1% interest,

\$5 million/year at 2% interest,

\$7 million/year at 3% interest, or

\$9 million/year at 4% interest.

Key assumptions & cost drivers:

- Estimate is based on net cost of money (savings to Treasury) combining the effects of the March 15 paper return filing and payment deadline, and the April 15 deadline for *e-file* returns.
- Net cost of money shows costs (gains) to the Treasury at different interest rates.
- Excludes: Cost of communication and outreach programs, changes to IRS information systems, changes to IRS policies and procedures, changes to IRS publications, and temporary staff to handle changes to peak filing workloads.

Please see chapter 13 of the AES2 report for more information on this Option.

Definition

The More Filing Time for *E-filers* Option will give *e-filers* more time to file (i.e., prepare and submit their tax returns and pay any money owed) than paper filers. This Option is intended to motivate taxpayers and preparers who now file paper returns to *e-file* instead. To implement this Option, the IRS must determine its features:

- The amount of additional filing time granted to *e-filers* (e.g., 15 days, 1 month).
- The scope of the filing deadline change (i.e., whether the change will apply to the submission of the return, the payment of taxes owed, or both).
- The direction of the filing deadline change (i.e., moving the paper filing deadline before April 15, moving the *e-filing* deadline after April 15, or both).

For purposes of this report, this Option is defined as follows:

- For *e-filers*, the filing deadline remains April 15.
- For paper filers, the filing deadline becomes March 15.

Under this Option, paper filers who currently file after March 15 will be targeted; these taxpayers will be forced to change their filing behavior by *e-filing*, filing paper returns earlier, or requesting an extension (note that even with an extension, any money owed is still due April 15).

Impacts

Impacts based on a March 15 paper filing deadline include:

- Changing the April 15 filing date may cause a strong negative public reaction.
- Moving the paper filing date to March 15 may burden preparers, particularly those who operate small practices. This is likely to cause an increase in the number of extension requests.
- The current pattern of filing peaks in February and April may change, requiring adjustments to staffing, operations, and peak-related capacities.
- State and local tax authorities whose filing deadlines are tied to the Federal filing date will be affected.
- The availability of W-2s, 1099s, and other information returns to taxpayers limits how early the paper deadline can be.
- IRS business processes, systems, and forms and publications will be affected.

Monetary Incentive

Definition

The Monetary Incentive Option will provide a one-time monetary incentive in the form of a tax credit to paper filers to encourage them to switch to *e-file*. The IRS will determine the dollar amount and eligibility criteria for the incentive. For the purposes of this report, incentive amounts of \$2, \$6, and \$15 are used to illustrate the costs and impacts.

Impacts

- The majority who now *e-file* will not be eligible for a monetary incentive under this Option and thus may be displeased with the Option.
- This Option reduces the risk of taxpayers “gaming the system” (i.e., quitting *e-file* only to resume *e-filing* the next tax season to get the incentive) but poses the risk that those who switch to *e-file* may not continue to do so in the absence of an ongoing incentive.

Projected Net Adoption

No adoption information is available at this time.

Estimated Costs*

*Includes only the amount of the tax credit taken by taxpayers
One-time: \$32 – \$961 million
Recurring: None. This Option based on a one-time incentive.

Key assumptions & cost drivers:

- Cost driven by cost of tax credit incentive amounts (\$2, \$6 and \$15) based on adoption rates that range from 25% to 100% of paper filers switching to *e-file* and collecting the tax credit.
- Excludes costs to implement and administer the tax credit such as changes in IRS IT systems, policies, procedures, and publications.
- Excludes cost to develop and implement a marketing strategy and outreach campaign to advertise the incentive.

Please see chapter 14 of the AES2 report for more information on this Option.

Research on Mobile *E-file*

Projected Net Adoption

Due to the early stage of this research, adoption estimates for specific Mobile *E-file* Options cannot be provided.

Estimated Costs

Due to the early stage of this research, cost estimates for specific Mobile *E-file* Options cannot be provided.

Please see chapter 15 of the AES2 report for more information on this Option.

Definition

AES1 introduced the possibility of a phone-based *e-file* option that could take advantage of the increasing usage of mobile phone devices and the growing technologies that allow these devices to perform more than traditional phone capabilities. Due to the distinct nature of Mobile *E-file* (i.e., emerging technology, new ground for IRS, etc.), it is still in the early stages of investigation. As such, it has a different treatment than the other options discussed in this report. This report considers what Mobile *E-file* might look like based on the current landscape and trends of mobile phone technology. These considerations would apply to any further development of this option.

Mobile *E-file* allows taxpayers to use a mobile phone to electronically submit their Federal individual income tax return to the IRS (and possibly to prepare the return on the mobile phone as well). Based on current technology, Mobile *E-file* would not be a stand-alone solution. Rather, it would provide a front end and user interface to an electronic tax preparation and submission system. Other than these interfaces, the capabilities required for Mobile *E-file* would be similar to those of the web-based filing options discussed in chapter 8 Free IRS Online Forms and chapter 9 Free IRS Tax Preparation Software.

Implementing Mobile *E-file* independently from a web-based application would involve extensive duplication of effort and significant cost. It is therefore likely that any Mobile *E-file* solution will involve adding a mobile front-end to an online forms or tax preparation capability, or developing mobile and web-based capabilities concurrently.

Mobile *E-file* may appeal to two groups: taxpayers who have access to a mobile phone but not necessarily to a computer with Internet access, and taxpayers who have a mobile phone with Internet access but do not currently prepare and submit their return electronically due to cost or third party involvement concerns.

Impacts

Due to the early stage of this research, assessment of impacts for specific Mobile *E-file* Options cannot be provided.

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6. Technology Option: Free IRS Direct E-file

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 - 6.1.1 The Current Environment
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 - 6.1.3 Assumptions and Constraints
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6.1 Definition

The Free IRS Direct *E-file* Option will allow individual taxpayers who prepare their tax returns with commercial tax preparation software to electronically submit (*e-file*) their returns directly to the IRS for free.

The IRS will provide the taxpayer with an immediate online confirmation of receipt when the return is submitted. The taxpayer will be able to log into a secure IRS web site to retrieve an acknowledgment of return acceptance or rejection, which is available within 5 minutes of *e-filing*. The IRS will provide customer support to help with submission problems, rejected returns, or the Free IRS Direct *E-file* Option itself.

This Option will be available for use by all individual taxpayers but not by preparers. This Option is intended to address concerns with cost or third party involvement with the current *e-file* system, in which returns are submitted electronically to the IRS through a transmitter (often the same company that provided the tax preparation software).

6.1.1 The Current Environment

Today, individual taxpayer returns are submitted electronically through a transmitter (see Figure 6-1). The transmitter is often the same company that provided the tax preparation software.

Figure 6-1: Transmitter Role in Submitting Tax Returns



To *e-file* individual returns, taxpayers consent to the submission of their returns by IRS-authorized transmitters, which submit the returns in an IRS-accepted file format, thus making the returns compatible with the IRS submission processing system.¹²⁸ In the current environment, third parties involved in electronically submitting returns may charge taxpayers a fee to cover their operating expenses and desired profit. There is currently no regulation of *e-file* fees, which vary by vendor and are shaped by market forces. Recently, third parties have increasingly bundled the historically separate *e-file* fee with the fee for the tax preparation service or in the price of the commercial software. Therefore, the role of transmitters and associated *e-file* fees are not readily apparent to taxpayers in the current environment.

6.1.2 Envisioned Capabilities and Features

The Free IRS Direct *E-file* Option will provide a new IRS service that allows individual taxpayers to prepare their returns using commercial tax preparation software and then electronically submit their returns directly to the IRS, bypassing the transmitter. This Option will be available to taxpayers 7 days a week through a secure IRS web site. The Free IRS Direct *E-file* Option will involve:¹²⁹

- Receiving the electronically submitted tax return from the individual taxpayer over the Internet.
- Providing the interface to the IRS submission processing systems that will process the returns.
- Providing confirmation of receipt and acknowledgment of return acceptance/rejection messages to the taxpayer.

Commercial tax preparation software vendors will need to update their products to provide output files that can be *e-filed* directly to the IRS using either an application-to-application interface or a log-in portal through a secure IRS web site.¹³⁰ Software vendors may also continue to offer taxpayers *e-filing* methods that involve the use of transmitters.

Free IRS Direct *E-file* is not envisioned to replace commercial tax preparation software and services available today, because it offers no analogous tax preparation capabilities itself. The primary differences between the way taxpayers *e-file* today and how they will *e-file* with the Free IRS Direct *E-file* Option are presented in Table 6-1.

¹²⁸ Transmitters are an example of an IRS-authorized *E-file* Provider. Others include Electronic Return Originators (ERO), Software Developers, and Intermediate Service Providers, as well as members of the public-private partnership program known as the Free File Alliance (FFA). *E-file* providers must register with the IRS and submit Form 8633 to participate in the IRS *e-file* program. *E-file* provider applications require all principals and responsible officials of the private entity to pass a background check with fingerprinting, FBI investigation, and tax and credit history checks to confirm their suitability and acceptance into the *e-file* program. Once approved, the IRS issues the *e-file* provider its identification numbers and credentials that authorize the provider to handle taxpayer return data based on the business role they perform in the *e-file* program.

¹²⁹ IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, p. 7

¹³⁰ IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, pp. 118-119

Table 6-1: Comparison of Current *E-file* System and Free IRS Direct *E-file* Option

Topic	Current <i>E-file</i> System	Free IRS Direct <i>E-file</i>
Registration and Authorization as <i>E-file</i> Provider	Tax preparation software vendors and transmitters register with and become authorized by the IRS to handle taxpayer data and <i>e-filed</i> returns.	No change.
Provisioning	Commercial tax preparation software offers choice of <i>e-filing</i> tax return through IRS-authorized transmitter or submitting return on paper.	Commercial tax preparation software adds new choice for <i>e-filing</i> tax return directly to the IRS through Free IRS Direct <i>E-file</i> .
<i>E-filing</i> Method	Transmitter submits batches of taxpayer returns according to IRS submission schedule.	Taxpayer, who is authenticated by the IRS, electronically submits tax return directly to the IRS.
Confirmation of Receipt	Transmitter receives IRS confirmation that return was received and informs taxpayer by email or secure web site.	Taxpayer receives immediate IRS confirmation that return was received by secure web site.
Acknowledgment of Return Acceptance/Rejection	Currently, with EMS, transmitter receives IRS acknowledgment of acceptance/rejection of individual return within 48 hours of <i>e-filing</i> and informs taxpayer by email or secure web site. In the future, MeF 1040 will likely be used, which will provide acknowledgments within 5 minutes of <i>e-filing</i> .	Taxpayer retrieves IRS acknowledgment of acceptance/rejection of return — available within 5 minutes of <i>e-filing</i> — from secure IRS web site (based on future MeF 1040 implementation).
Customer Support	Taxpayers get software support from their vendor and tax-related support from the IRS.	Taxpayers get support from the IRS.

The Free IRS Direct *E-file* Option will be built on the expanded use of the IRS Modernized e-File (MeF) system, which supports corporate *e-filers*, and on the IRS deployment of MeF 1040, which will support individual *e-filers*. MeF 1040 is planned for phased release starting January 2010 and is expected to be available by January 2012.¹³¹ Free IRS Direct *E-file* will support the 1040 family of forms and schedules.

The IRS expects to roll out support 1040 *e-file* forms and schedules in a phased manner. All forms, schedules, and attachments that will be accepted by MeF 1040 will be available with Free IRS Direct *E-file*, including PDF attachments.¹³² This Option will also allow taxpayers to file for an extension.

Free IRS Direct *E-file* will be available to taxpayers 7 days a week through a secure IRS web site.

¹³¹ IRS (2008) *MeF 1040 Release Strategy*, p. 3

¹³² See chapter 4 for details about the MeF system and supported 1040 family of forms.

Retention and archiving of return data will follow current 1040 requirements. Data from returns submitted using Free IRS Direct *E-file* will be retained and archived according to procedures in the Internal Revenue Manual (IRM) that addresses the retention and archiving of such data. Data from returns that are submitted to the IRS using Free IRS Direct *E-file* but are not accepted into the processing system will be retained until the October 15 extension deadline and then purged from IRS systems.

Additionally, Free IRS Direct *E-file* will continue to support the needs of external stakeholders, such as participants in the Fed/State single point electronic filing system, which includes 37 States and the District of Columbia. The IRS, through Free IRS Direct *E-file*, will receive State tax returns that are submitted with Federal returns and State tax returns submitted alone. The State returns will be authenticated only to ensure the existence of the taxpayer and will be stored temporarily, awaiting transfer to the appropriate State.¹³³

Table 6-2 describes the roles of the primary stakeholders of the Free IRS Direct *E-file* Option.

Table 6-2: Roles of Free IRS Direct E-file Option Stakeholders

Taxpayer Role	Commercial Tax Preparation Software Vendor Role	IRS Role
Complete Federal and State tax returns using commercial tax preparation software.	Develop Free IRS Direct <i>E-file</i> output files that meet IRS specifications.	Test output files to ensure that they are in IRS-accepted format and approve these files.
Register and obtain unique log-in credential to access Free IRS Direct <i>E-file</i> .		Provide system to register and authenticate individual taxpayer.
Install Internet connection to enable <i>e-file</i> submission. Electronically sign and submit return using Free IRS Direct <i>E-file</i> portal on secure IRS web site and receive immediate IRS confirmation that return was received.	Establish method to electronically submit taxpayer's return (output file) from tax preparation software to the IRS via application-to-application interface or log in through Free IRS Direct <i>E-file</i> portal on secure IRS web site.	Receive individual taxpayer return (output file) created with commercial software: <ul style="list-style-type: none"> • Authenticate individual taxpayer. • Generate online real-time confirmation that return was received.

¹³³ IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, p. 48

Taxpayer Role	Commercial Tax Preparation Software Vendor Role	IRS Role
Obtain customer phone support for assistance with tax questions, submission problems, or rejected returns.		Provide phone support during regular hours of operation.
Verify that tax return was accepted for processing: <ul style="list-style-type: none"> • Retrieve IRS acknowledgment of acceptance/rejection of return — available within 5 minutes of e-filing — from secure IRS web site. • If needed, correct errors on rejected return and resubmit return. 		Generate message within 5 minutes after taxpayer <i>e-files</i> return that acknowledges. ¹³⁴ <ul style="list-style-type: none"> • Acceptance/rejection of Federal return. • Receipt of State returns. If needed, allow taxpayer to correct errors on rejected return and resubmit return.

To offer Free IRS Direct *E-file*, the IRS must be able to deliver four new business capabilities:¹³⁵

- Receive electronically submitted tax returns directly from taxpayers.
- Format data from *e-filed* returns.
- Provide customer support to taxpayers.
- Generate reports on Free IRS Direct *E-file*.

The following sections describe these capabilities in more detail.

Receive Electronically Submitted Tax Returns Directly from Taxpayers

The IRS will receive Federal tax returns (forms, schedules, and attachments) and State tax returns directly from the commercial tax preparation software used by taxpayers and will provide taxpayers a confirmation of receipt and an acknowledgment of acceptance or rejection of Federal returns by a secure IRS web site. The IRS will also provide States with messages concerning State tax returns received through Free IRS Direct *E-file*.

Features of this Option include the ability to:

- Receive tax returns in IRS-accepted format from taxpayers who use commercial tax preparation software.
- Provide secure submission of tax returns from taxpayers to the IRS.
- Provide messages confirming receipt and acknowledging acceptance or rejection of the return for taxpayer retrieval via secure IRS web site.
- Maintain return data and ensure that the data is stored until the taxpayer receives acknowledgment that the IRS accepted the return.

¹³⁴ Acknowledgment messages will be available within 5 minutes on non-peak days and within 2 hours on peak days. See: IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, p. 118

¹³⁵ Capabilities described in this section are based on IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, pp. 33-48

Format Data from E-filed Returns

The IRS will reformat data from *e-filed* returns (e.g., individual taxpayer returns that may include payment information, extensions, State standalone returns) received from taxpayers into the IRS-accepted file format for storage and processing on IRS systems.

Features of this Option include the ability to:

- Identify a return as being submitted by a taxpayer who used Free IRS Direct *E-file* and assign a unique identifier to the return.
- Systemically conduct security validations (e.g., run anti-malware scans) to ensure that viruses are not passed from taxpayers' computers to IRS systems and ensure the integrity and non-repudiation of electronic receipts, acknowledgments, and tax returns.
- Provide two-way communication to verify that a taxpayer is communicating with the IRS web portal.

Provide Customer Support to Taxpayers

The IRS will provide customer support to taxpayers concerning Free IRS Direct *E-file*, completion of their returns, resolution of submission problems, and status of their returns.

Features of this Option include the ability to:

- Provide a toll-free phone number or other communication channels to answer taxpayer and State tax-collecting entity inquiries.

Generate Reports on Free IRS Direct E-file

The IRS will generate reports that track *e-filing* statistics and verify that what was submitted was actually received. In addition to providing end-to-end monitoring to ensure that "numbers in equal numbers out," features of this Option include the ability to report on:

- Number of daily, weekly, and cumulative submissions
- System downtime
- System response time
- Peak processing time and number of returns processed
- Number and type of submission errors (for trend analysis to address product weaknesses)
- File size
- Number of forms and schedules submitted
- Number of incoming and outgoing calls related to technical issues regarding return completion, return status, and submission error resolution
- Returns by pipeline production type (e.g., 1040, 1040A, 1040EZ)

6.1.3 Assumptions and Constraints

- **Commercial Tax Preparation Software Required** — To submit a return using Free IRS Direct *E-file*, taxpayers will have to use commercial tax preparation software that provides a secure Internet connection to a secure IRS web site and generates IRS-accepted output files. This Option assumes that tax preparation software vendors will update their software to create output files in the IRS-approved format and link taxpayers to the secure communication channel on the secure IRS web site for the electronic submission of their returns.
- **Liquidation and Refund Methods Unchanged** — Free IRS Direct *E-file* will not change the ability of taxpayers to liquidate their tax obligations and receive refunds through currently supported methods. In other words, taxpayers will continue to be able to receive refunds by direct deposit or check and pay money owed by EFTPS, credit card, direct debit, or check.
- **Communication Channels Unchanged** — Communication channels that exist in the current environment (Internet and direct lines) that are used by existing *e-file* providers will not be replaced or retired by Free IRS Direct *E-file*.¹³⁶
- **Taxpayer E-Authentication Required** — Free IRS Direct *E-file* will require the IRS to authenticate individual taxpayers to protect the security and privacy of their data. Taxpayers will have to obtain passwords and/or other credentials for electronic authentication by the IRS. In addition to e-authentication, the new Taxpayer E-Authentication system will need to offer taxpayers near-immediate online registration and password reset services, such as those available at most web sites. Development of the Taxpayer E-Authentication system is not part of the Free IRS Direct *E-file* Option, but an acceptable user authentication system must be in place in order to implement the Option.¹³⁷ See chapter 4 for more information on Taxpayer E-Authentication.
- **Secure Web-Based Solution Required** — All interfaces between the taxpayer and the IRS will be web-based (and will not include email). The Free IRS Direct *E-file* Option will leverage the capability that will be provided by MeF 1040 to deliver online confirmation of return receipt and acknowledgment of acceptance or rejection of returns. Taxpayers will retrieve confirmation and acknowledgment messages through a secure IRS web site where they will log in and be authenticated.¹³⁸
- **MeF 1040 Required** — Free IRS Direct *E-file* will only support the 1040 family of forms and associated schedules approved for *e-filing*. The Option will only support forms and schedules that are acceptable for MeF 1040 processing, and implementation of the Option must follow the MeF 1040 deployment schedule. See chapter 4 for more information on MeF 1040.

¹³⁶ IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, p. 118

¹³⁷ IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, pp. 117-118

¹³⁸ IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, p. 118

- **Increased Customer Support Required** — The IRS expects that Free IRS Direct *E-file* will increase the need for more help desk staffing and expertise. Taxpayers may have a limited understanding of technology, thus requiring more expertise from help desk staff to assist them. Customer Service Representatives will have to handle calls from taxpayers seeking resolution of technical issues that arise during return submission, including troubleshooting errors that cause a return to be rejected (e.g., interpreting and resolving them, resubmitting a corrected return), and from taxpayers seeking resolution of problems with the submission itself (e.g., Internet connectivity issues due to the Internet Service Provider, home network, or computer configuration, including browser settings and firewalls).¹³⁹
- **Taxpayer *E-filing* Cost** — This Option will not include any controls (e.g., regulations, policies) on the price models or fee structures of third parties — particularly with respect to *e-file* fees. Therefore, it will not prevent third parties from charging taxpayers for *e-filing*.
- **Vendors' Error Checking Continues** — This Option assumes that tax preparation software vendors will continue to perform the error checking they currently perform before returns are submitted.

6.1.4 Areas for Further Investigation

An area for further investigation is a collaborative definition of acceptable XML output files from commercial tax preparation software products. It is not expected that these formats will differ in major ways from the formats used to electronically submit returns through transmitters.

The envisioned Option will not actively “push” acknowledgments by email as is currently the case with some commercial tax preparation software. Instead, individual taxpayers will need to log into a secure IRS web site to retrieve the acknowledgment of acceptance or rejection of their returns. If the IRS finds errors that cause a return to be rejected, the taxpayer will need to correct the errors, resubmit the return, and check online 5 minutes later to see that the return was accepted. The IRS may need to examine taxpayer attitudes and behavior related to this responsibility.

Similar efforts by other countries (e.g., United Kingdom, Canada) should be studied to leverage lessons learned and best practices.

See chapter 8 of AES1 for an introduction to international electronic filing experiences.

¹³⁹ IRS (2009) *Advancing E-File Study, Phase II, Option 2 Direct File Solution Concept Version: 2009-06-11 v2.13*, pp. 105, 117

6.2 Projected Net Adoption

The IRS projects that the Free IRS Direct *E-file* Option will help the IRS achieve the 80% *e-file* goal in 2016, given a 2014 implementation date.¹⁴⁰ Table 6-3 shows the Option's projected net adoption for the years 2014 through 2018.

Table 6-3: Projected Net Adoption for Free IRS Direct *E-file* Option, 2014–2018

Adoption	2014	2015	2016	2017	2018
Baseline	78.29%	79.58%	80.70%	81.64%	82.45%
Net Projected	0.19%	0.20%	0.21%	0.22%	0.23%
<i>Baseline + Net</i>	<i>78.48%</i>	<i>79.78%</i>	<i>80.92%</i>	<i>81.87%</i>	<i>82.68%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

An adoption estimate based on an earlier implementation date is available in Appendix C.

The IRS based these projections on the following assumptions:¹⁴¹

- The target population is Self V-Coders.
- Information diffusion will be fast.
- Increasing awareness of the existence of third party transmitters does not encourage current *e-filers* to temporarily switch to submitting their returns on paper.
- The Option would have had greater impact if it had been implemented prior to processing year 2009, when the marginal cost to *e-file* a Federal tax return was eliminated by the two largest vendors of commercial tax preparation software.

6.3 Impacts

Taxpayers may not perceive this Option as addressing concerns about cost for two main reasons: taxpayers will still need to purchase tax preparation software to e-file; and many software vendors no longer charge a separate fee to e-file.

Taxpayers will have to purchase commercial tax preparation software to use Free IRS Direct *E-file*. Many software vendors already offer apparently free *e-file* by including *e-file* fees in the price of the software. From the taxpayer's standpoint, tax preparation and submission is likely to cost the same (e.g., one flat price for the commercial tax preparation software), whether the individual elects to submit the return using Free IRS Direct *E-file* or the software vendor's transmitter (or print and submit on paper).

Furthermore, it is not clear what would motivate software vendors to reduce the price of tax preparation software (i.e., to back out the bundled *e-file* charge) if this Option were offered. This effectively undercuts one of the two intended benefits of this Option — that it will be free (the other is that it will not involve third parties).

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support

¹⁴⁰ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

¹⁴¹ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

Taxpayers may not perceive this Option as addressing concerns with third party involvement because they may not be aware of transmitters' current role in e-filing and regardless must rely on commercial software to prepare their return.

In the current tax environment, taxpayers appear to have little awareness that third parties (specifically EROs and transmitters) are already involved in the electronic submission of their return, much less protecting the security and privacy of their data. This lack of awareness effectively undercuts one of the two intended benefits of this Option — that it will not involve third parties to the IRS-taxpayer relationship (the other is that it will be free).

Without a direct marketing campaign promoting this Option as a more secure method of submission, few taxpayers may see the Option as a method that preserves taxpayer confidentiality and information privacy by ensuring that returns are not routed through any third parties. Marketing the difference on the basis of third party involvement may have the unintended adverse effect of reducing the *e-filing* level.

Stakeholders: Taxpayers, Tax Preparation Software Vendors, Transmitters, IRS

Impact Areas: Services and Customer Support

Third party transmitters will likely oppose this Option.

This Option will bypass the role currently played by third party transmitters and may appear to threaten the IRS third party business relationship, which relies on partnerships with commercial *e-file* providers. Transmitters may object to the role the government would play as being in competition with them.

However, in cases in which the tax preparation software vendor also serves as the transmitter, this Option may give the software vendor an opportunity to scale back the infrastructure required to interface with the IRS, assuming that its Free IRS Direct *E-file* XML output file is close in format to the output file used for transmitter-submitted returns.

Stakeholders: Transmitters, Tax Preparation Software Vendors, Congress, IRS

Impact Areas: Law and Policy

The IRS has little experience providing technical support to taxpayers on resolving submission issues.

The Free IRS Direct *E-file* Option will require the IRS to provide customer support to taxpayers on resolving submission issues, something the IRS has been relatively insulated from due to the third party model. The impact on taxpayers will depend on the design and usability of the Option, resolution of error codes, and other features of IRS online account management. The IRS will be responsible for assisting taxpayers who are confused by and unable to troubleshoot error codes and technology-related submission issues. The new customer support services the IRS will make available to taxpayers are services that are provided today by its authorized *e-file* providers. This Option will shift responsibility for taxpayer support from *e-file* providers to IRS Customer Service Representatives.

This Option may confuse tax preparation software vendors and taxpayers seeking to coordinate error codes received from the IRS with application-specific or software vendor customer support in order to correct errors on rejected returns. For example, the IRS may identify and explain the problem that caused rejection of the taxpayer

return, but the IRS will not be able to provide application-specific help (e.g., informing the taxpayer which screen in the tax preparation software to go to for error correction) and software vendor customer support will not have access to IRS information provided to the taxpayer.

If the taxpayer experience with IRS customer support is negative, software vendors may protect their sales and customer satisfaction by promoting their own submission methods (i.e., electronic submission using third party transmitters) instead of promoting Free IRS Direct *E-file*.

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support, Tax Landscape

Taxpayers may be dissatisfied with the lack of email confirmation provided by this Option, given that they are used to automatically being sent real-time emails confirming their other purchases and transactions online.

Taxpayers will access messages acknowledging receipt and confirming acceptance or rejection of their returns through a secure IRS web site where they will log in and be authenticated. Taxpayer interactions with the Free IRS Direct *E-file* system will be exclusively through this secure web site, not through email. This will place the burden on taxpayers to actively retrieve their messages online rather than passively receive these messages. The IRS does not currently send emails to taxpayers because of the concern that doing so would increase taxpayers' risk of exposure to phishing and online fraud.

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support, Tax Landscape

This Option requires tax preparation software vendors to change their products to enable direct submission of returns to the IRS but offers vendors little incentive to do so.

Tax preparation software vendors' participation in the Free IRS Direct *E-file* Option will not be compulsory. Software vendors that participate in the IRS *e-file* program may or may not elect to participate in Free IRS Direct *E-file*. Software vendors may choose to provide the necessary output files and secure channels for taxpayer submission of returns directly to the IRS in place of, or in addition to, the current method of submitting returns through third party EROs/transmitters.

The Free IRS Direct *E-file* Option will require software vendors to establish a new secure web interface with the IRS as opposed to using their own secure third party transmission channels. The IRS will need to work with software vendors to test and accept *e-file* provider output files. In the current environment, software vendors and transmitters work with the IRS to ensure that output files are properly formatted when returns are submitted electronically to the IRS. This Option may give the software vendor an opportunity to scale back the infrastructure required to interface with the IRS, assuming that its Free IRS Direct *E-file* XML output file is close in format to the output file used for transmitter-submitted returns.

Commercial tax preparation software vendors that offer the new Free IRS Direct *E-file* submission method or both methods of submission (Free IRS Direct *E-file*, *e-file* via third

party transmitters/EROs) may experience increased calls for customer support from taxpayers confused by the new system's processes and responsibilities.

Free IRS Direct *E-file* may encourage vendors to offer new or improved tax preparation software products without the need to build or buy return submission capacity, effectively broadening the market.

Stakeholders: Tax Preparation Software Vendors, IRS, Taxpayers

Impact Areas: Services and Customer Support, Tax Landscape

The IRS will face challenges in marketing this Option to taxpayers, particularly given that the IRS relies on its commercial partners — some of which will be affected by this Option — for much of its taxpayer outreach.

The IRS is highly dependent on partnerships with industry and trade groups to conduct its marketing and outreach efforts. The IRS not only works with, but relies heavily on, preparers, tax preparation software vendors, professional associations, and trade groups to convey its *e-file* message. The combined marketing budgets of these groups far exceed what is allocated for this purpose at the IRS; the IRS marketing budget is only a fraction of what commercial partners have available. If the Free IRS Direct *E-File* Option were made available, commercial partners would likely be able to effectively drown out any IRS efforts to market the Option. Furthermore, the IRS's marketing and outreach efforts, which depend on these commercial partnerships, would likely be negatively affected.

Stakeholders: IRS, Tax Preparation Software Vendors, Taxpayers

Impact Areas: Services and Customer Support, Tax Landscape

The IRS must deliver Taxpayer E-Authentication and MeF 1040 before this Option.

The IRS's responsibility for protecting the security and privacy of taxpayer data will be critically affected by the Free IRS Direct *E-file* Option. Security and privacy will be a major consideration when taxpayers begin submitting their returns directly to the IRS over the Internet. The IRS will be required to protect taxpayer data through taxpayer authentication and encryption systems and to detect and prevent fraud on and malicious tampering with web sites.

The Taxpayer E-Authentication system will be larger, riskier, more costly, and more complex than any secure identification system the Federal government has ever developed. This is due largely to the challenges of providing possibly 150 million taxpayers with the means to access, use, and be supported in the use of the system. The scale of the effort may exceed the technological, organizational, and managerial maturity of the IRS. Therefore, the dependency of Free IRS Direct *E-file* on Taxpayer E-Authentication poses a critical risk.

This Option also depends on the completed implementation of MeF 1040.

Stakeholders: IRS, Taxpayers, Congress

Impact Areas: Taxpayer Data and Security

6.4 Estimated Costs

6.4.1 Summary

Table 6-4 provides very rough order of magnitude (VROM) estimates of the one-time cost for the IRS to implement the Free IRS Direct *E-file* Option and the annual recurring cost for the IRS to operate and maintain the Option.¹⁴²

Table 6-4: VROM Cost Estimate for Free IRS Direct *E-file* Option

One-Time Cost to Implement	\$42 million
Recurring Operations and Maintenance Cost	\$27 million/year
Duration to Implement	31 Months

Source: IRS (2009) *Advancing e-File Study Phase 2 Direct File Option Basis of Estimate Report version 1.0*

The cost estimation methodology relied on initial target usage assumptions to enable the estimators and subject matter experts to develop sizing characteristics for the Option. For Free IRS Direct *E-file*, the estimation team assumed that the Option will need to support approximately 13 million taxpayer users per filing season.

The IRS assumed that development of the Free IRS Direct *E-file* Option will start in January 2012, to align with the expected availability of the MeF 1040 system and the next available fiscal year budget formulation cycle, and that the Option will become available to taxpayers for the 2014 calendar year and tax filing season. This timeline is based on an estimated 31-month schedule for development and implementation of the Option.

6.4.2 Cost Drivers, Assumptions, and Risks

Table 6-5 summarizes key cost drivers, assumptions, and risks associated with each major element in the Estimation Breakdown Structure (EBS).¹⁴³ See Appendix B for an explanation of EBS.

¹⁴² These estimates are given with a 70% level of confidence that they predict the probable resources required for IRS to implement the Option according to the preliminary definition (scope) and degree of unknown requirements.

¹⁴³ Based on IRS (2009) *Advancing e-File Study Phase 2 Direct File Option Basis of Estimate Report version 1.0*

Table 6-5: Cost Drivers, Assumptions, and Risks for Free IRS Direct *E-file* Option

EBS Element	Cost Drivers, Assumptions, and Risks
<p>Deployment and Implementation 35% of One-Time Cost 87% of Recurring Cost</p>	<ul style="list-style-type: none"> The recurring cost for operations and maintenance (O&M) of this Option are driven by the estimated need to hire 200 additional full-time Customer Service Representatives (CSR) to assist taxpayers calling the toll-free help desk. The IRS relies on full-time year-round CSRs and does not rely on temporary hires given the level of training required for the CSR position. The deployment and implementation cost estimate includes CSR training costs. No facility (real estate) costs are part of this estimate. The IRS assumes that office space will be available at existing IRS Customer Service Centers to accommodate the additional CSRs.
<p>Project Infrastructure (Portal, Network, Disaster Recovery, Hardware/Software, Engineering Support) 40% of One-Time Cost 10% of Recurring Cost</p>	<ul style="list-style-type: none"> Infrastructure costs include portal upgrades to manage increased user traffic on the secure IRS web site and to augment the capacity of the disaster recovery/failover infrastructure. To handle tax returns <i>e-filed</i> by individual taxpayers, portal upgrades are required.
<p>Application Software 11% of One-Time Cost 3% of Recurring Costs</p>	<ul style="list-style-type: none"> This Option requires modifications to the MeF system so that the system can receive individual taxpayer returns through the Taxpayer E-Authentication system (not yet developed) and modifications to the existing Registered User Portal (RUP). A critical risk posed in the cost estimate of this Option is that they assume no software lines of code growth during Option development.
<p>Project Management Office (PMO) Support 14% of One-Time Cost <1% of Recurring Costs</p>	<ul style="list-style-type: none"> No PMO is expected; however, a small increase in program management costs will be experienced by the MeF Program Office to enable it to handle the program aspects of Free IRS Direct <i>E-file</i> management. About half the additional program costs are for travel and technical training.

Source: IRS (2009) *Advancing e-File Study Phase 2 Direct File Option Basis of Estimate Report version 1.0*

Because Taxpayer E-Authentication is not within the scope of the Option definition, the cost estimates do not address the costs or schedule estimates for the IRS to provide secure taxpayer account management over the Internet. The size, complexity, and cost of an enterprise-wide Taxpayer E-Authentication system will depend on the business requirements and the number of taxpayers expected to use the system.

7. Technology Option: Free IRS Online Forms

Contents of Chapter 7:

- 7.1 Definition
 - 7.1.1 The Current Environment
 - 7.1.2 Envisioned Capabilities and Features
 - 7.1.3 Assumptions and Constraints
 - 7.1.4 Areas for Further Investigation
- 7.2 Project Net Adoption
- 7.3 Impacts
- 7.4 Estimated Costs
 - 7.4.1 Summary
 - 7.4.2 Cost Drivers, Assumptions, and Risks

7.1 Definition

The Free IRS Online Forms Option will provide individual taxpayers with a method of preparing their own returns by completing tax forms on a secure IRS web site and electronically submitting (*e-filing*) their completed tax returns directly to the IRS for free. This Option will not provide a question-and-answer approach to simplify the process.

This Option will feature automated calculations; hyperlinks to standard IRS instructions; and the ability to save drafts, leave a session, and continue work at a later time. The IRS will provide the taxpayer with an immediate online confirmation of receipt when the return is submitted. The taxpayer will be able to log into a secure IRS web site to retrieve an acknowledgment of return acceptance or rejection, which is available within 5 minutes of *e-filing*. The IRS will provide customer support to help with submission problems, rejected returns, or the Free IRS Online Forms Option itself.

This Option will be available for use by all individual taxpayers but not by preparers. This Option is intended to address concerns with third party involvement or cost with the current *e-file* system.

This Option is functionally comparable to Free File Fillable Forms (FFFF), currently offered by the Free File Alliance (FFA); however, with Free IRS Online Forms, taxpayers will be able to submit their returns directly to the IRS without third party involvement.

This Option may appeal to taxpayers who complete electronic tax forms — such as fillable PDF tax forms downloaded from the IRS.gov web site — on their computers and then print and submit their returns on paper. It may also be attractive to those who are comfortable preparing their returns with paper forms and have avoided computer preparation because of concerns about third party involvement or cost.

7.1.1 The Current Environment

Today, taxpayers can download fillable PDF tax forms from the IRS.gov web site, use a computer to fill out the forms, print their returns, and submit their returns on paper to the IRS. These PDF forms cannot be used to *e-file* a return.

Taxpayers also may use FFFF, which is made available by FFA through the IRS.gov web site. FFFF provides taxpayers with free electronic equivalents of paper tax forms and schedules for return preparation and *e-filing*. Taxpayers can access FFFF through a link on the IRS.gov web site, which then redirects them to an FFA provider web site where they can complete and submit their returns through that FFA provider. FFFF is available to all taxpayers to prepare and *e-file* their Federal tax returns, but FFFF does not support the preparation or electronic submission of State tax returns.¹⁴⁴

¹⁴⁴ IRS (2008) *Free File Home - Your Link to Free Federal Online Filing*

Some commercial tax preparation software packages offer a forms-centric view, which provides electronic equivalents of paper tax forms for electronic preparation and filing. Some States offer I-File programs, which include online tax forms for preparing and filing State income tax returns.

For more information on State I-File programs, see chapter 7, *State Electronic Filing Experiences*, of the AES1 report.

7.1.2 Envisioned Capabilities and Features

The Free IRS Online Forms Option will expand existing IRS electronic services to include form-based online tax return preparation and electronic return submission directly to the IRS.

Free IRS Online Forms will provide taxpayers with:

- The ability to prepare tax returns online.
- Hyperlinks to standard instructions and worksheets in IRS publications.
- Basic arithmetic formulas and error checking features to calculate selected line items on the return¹⁴⁵.
- The ability to save drafts, return later to resume work on the return, and print forms and schedules.
- The ability to receive refunds by direct deposit or check and pay money owed by EFTPS, credit card, direct debit, or check.
- The ability to file for an extension.
- The ability to electronically sign and submit the completed return directly to the IRS.
- A secure IRS web site to directly access IRS confirmations of receipt and acknowledgments of acceptance or rejection of returns.

The Free IRS Online Forms Option is not envisioned to replace commercial tax preparation software and services available today, but it will offer essentially the same capabilities as provided by FFFF. The Option will differ from FFFF in that it will be built and provided by the IRS, whereas FFFF was built commercially but is provided by the IRS through its partnership with FFA. Table 7-1 provides a comparison of the two.

Table 7-1: Comparison of IRS Free File Fillable Forms and Free IRS Online Forms Option

Topic	Free File Fillable Forms	Free IRS Online Forms
Registration and Usage	Taxpayer registers with FFA provider and securely prepares and saves tax forms online.	Taxpayer registers with the IRS and securely prepares and saves tax forms online.
Eligibility	All taxpayers are eligible to use FFFF, which is offered free of charge.	Same as FFFF.

¹⁴⁵ The Free IRS Online Forms will not automate all data entry or populate information for calculation of tax liability. Taxpayers will look up the amount of tax due in the 1040 instructions and transfer the amount to the form.

Topic	Free File Fillable Forms	Free IRS Online Forms
Features	Electronic equivalents of paper tax forms and schedules perform basic mathematical calculations, provide hyperlinks to instructions, and give taxpayer the ability to sign the return electronically and print it for recordkeeping.	Same as FFFF.
Authentication	Taxpayer submits tax return electronically through FFA provider and is authenticated by FFA provider.	Taxpayer submits tax return electronically directly to the IRS and is authenticated by the IRS.
Confirmation of Receipt	Transmitter receives IRS confirmation that return was received.	Taxpayer receives immediate online IRS confirmation that return was received.
Acknowledgment of Return Acceptance/Rejection	Currently, with EMS, FFA provider receives IRS acknowledgment of acceptance/rejection of individual return within 48 hours of <i>e-filing</i> and informs taxpayer by email or secure web site. In the future, MeF 1040 will likely be used, which will provide acknowledgments within 5 minutes of <i>e-filing</i> .	Taxpayer retrieves IRS acknowledgment of acceptance/rejection of return — available within 5 minutes of <i>e-filing</i> — from secure IRS web site (based on future MeF 1040 implementation).
Customer Support	The IRS provides taxpayers with phone-based customer support during regular hours of operation.	Same as FFFF.

The Free IRS Online Forms Option will be built on the expanded use of the IRS Modernized e-File (MeF) system, which supports corporate *e-filers*, and on the IRS deployment of MeF 1040, which will support individual *e-filers*. MeF 1040 is planned for phased release starting January 2010 and is expected to be available by January 2012.¹⁴⁶ Free IRS Online Forms will support the 1040 family of forms and schedules.

The IRS expects to roll out support for 1040 *e-file* forms and schedules in a phased manner. All forms, schedules, and attachments that will be accepted by MeF 1040 will be available with Free IRS Online Forms.¹⁴⁷ This Option will also allow taxpayers to file for an extension. Free IRS Online Forms will be available to taxpayers 7 days a week through a secure IRS web site.

Retention and archiving of return data will follow current 1040 requirements. Data from returns submitted using Free IRS Online Forms will be retained and archived according to procedures in the Internal Revenue Manual (IRM) that addresses the retention and archiving of such data. Data from partially completed forms will be retained through the April 15 return due date plus two extension periods; under current guidelines, this will be around the October 15 extension deadline. Rejected returns will be treated as partially completed and retained accordingly.

¹⁴⁶ IRS (2008) *MeF 1040 Release Strategy*, p. 3

¹⁴⁷ See chapter 6 for details about the Modernized e-File (MeF) system and supported 1040 family of forms.

Table 7-2 describes the roles of the primary stakeholders of the Free IRS Online Forms Option.

Table 7-2: Roles of Free IRS Online Forms Option Stakeholders

Taxpayer Role	IRS Role
Register and obtain unique log-in credential to access Free IRS Online Forms on secure IRS web site.	Provide secure web site for individual taxpayer to access Free IRS Online Forms and authenticate taxpayer.
Prepare 1040 tax forms online: <ul style="list-style-type: none"> • Save partially completed forms as drafts and return later to complete forms. • Access appropriate information in IRS publications and instructions. • Print draft and final forms for review before submitting return. 	<ul style="list-style-type: none"> • Receive and securely retain taxpayer data from partially completed tax forms. • Perform simple arithmetic calculations and error checks. • Automatically transfer data from line items to other required forms and/or schedules (e.g., automatically transfer data from Schedule A to Form 1040). • Provide hyperlinks to IRS publications and instructions. • Purge data from incomplete tax forms at end of tax season.
Electronically sign and submit completed tax return on secure IRS web site and receive immediate confirmation that the IRS received the return.	Securely record taxpayer return data in IRS submission processing system: <ul style="list-style-type: none"> • Transform tax forms and payment information into IRS-accepted format for tax return processing. • Generate online confirmation of receipt for each <i>e-filed</i> return in real time.
Obtain customer phone support for assistance with taxpayer questions, submission problems, or rejected returns.	Provide phone support during regular hours of operation.
Verify that tax return was accepted for processing: <ul style="list-style-type: none"> • Retrieve IRS acknowledgment of acceptance/rejection of return — available within 5 minutes of e-filing — from secure IRS web site. • If needed, correct errors on rejected return and resubmit return. 	Provide acknowledgment of acceptance/rejection of return on secure web site: <ul style="list-style-type: none"> • Generate acknowledgment message within 5 minutes after taxpayer e-files return and make available to taxpayer on secure web site.¹⁴⁸ • If needed, allow taxpayer to correct errors on rejected return and resubmit return.

¹⁴⁸ Acknowledgment messages will be available within 5 minutes on non-peak days and within 2 hours on peak days.

To offer taxpayers Free IRS Online Forms, the IRS must be able to deliver five new business capabilities:¹⁴⁹

- Provide improved electronic tax forms to taxpayers.
- Receive electronically submitted tax returns directly from taxpayers.
- Format data from *e-filed* returns.
- Provide customer support to taxpayers.
- Generate reports on Free IRS Online Forms.

The following sections describe these capabilities in more detail.

Provide Improved Electronic Tax Forms to Taxpayers

The IRS will provide web-based electronic equivalents of paper tax forms and schedules. Free IRS Online Forms will enable the taxpayer to select applicable tax forms and schedules, input tax return data, and automatically calculate certain line items on the return. When complete, the taxpayer will electronically sign the return and submit it electronically to the IRS at no charge. The taxpayer also will be able to print a copy of the return (e.g., for recordkeeping).

Features of this Option include the ability to:

- Present electronic tax returns in the same format as paper returns.
- Automatically calculate a selected number of line items (e.g., by performing simple addition, subtraction, multiplication, and division) on Form 1040 and required schedules.
- Automatically transfer data from a line item to other required forms and schedules (e.g., data entries will be transferred automatically from Schedule A to Form 1040).
- Complete a basic field-level error check and provide an online message to help the taxpayer correct errors (e.g., placing an alphabetical character in a numeric-only field) without the need for assistance.
- Provide a utility that links required forms together. For example, if the taxpayer enters an amount in Line 12 (Business Income or Loss) on the current Form 1040, a Form C or C-EZ will pop up for attachment to Form 1040.
- Provide hyperlinks on forms to guide the taxpayer to information regarding tax return preparation that appears in standard IRS instructions and worksheets.
- Provide a parent 1040 tax return (1040/1040A/1040EZ) and its supported attachments as a single submission accepted by the MeF 1040 system.
- Securely capture and maintain taxpayer data during tax return preparation and store partially completed forms and schedules on a secure IRS web site. These partially completed forms and schedules will be available to the taxpayer to reopen and resume tax preparation efforts.

¹⁴⁹ Capabilities described in this section are based on: IRS (2009) *Advancing E-File Study, Phase II, Option 3A Form-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.11*, pp. 33-48

Receive Electronically Submitted Tax Returns Directly from Taxpayers

The IRS will receive tax returns (forms, schedules, and attachments) directly from taxpayers and will provide taxpayers with an immediate confirmation of receipt and an acknowledgment of return acceptance or rejection on a secure IRS web site. Free IRS Online Forms will not support the electronic submission of State tax returns.¹⁵⁰

Features of this Option include the ability to:

- Receive tax returns in IRS-accepted format from taxpayers.
- Provide secure submission of tax returns from taxpayers to the IRS.
- Provide messages confirming receipt and acknowledging acceptance or rejection of return for taxpayer retrieval via secure IRS web site.
- Maintain return data and ensure that the data is stored until the taxpayer receives acknowledgment that the IRS accepted the return.

Format Data from E-filed Returns

The IRS will reformat data from *e-filed* returns into the IRS-accepted file format for storage and processing on IRS systems.

Features of this Option include the ability to:

- Identify a return as being submitted by a taxpayer who used Free IRS Online Forms and assign a unique identifier to the return.
- Systemically conduct security validations (e.g., run anti-malware scans) to ensure that viruses are not passed from the taxpayer's computer to the IRS submission processing system, and ensure the integrity and non-repudiation of electronic receipts, acknowledgments, and tax returns.
- Provide two-way communication to verify that a taxpayer is communicating with the IRS portal.

Provide Customer Support to Taxpayers

The IRS will provide customer support to taxpayers to assist with Free IRS Online Forms, tax return completion and submission, and error resolution and to provide the status of their returns.

Features of this Option include:

- A toll-free phone number and other communication channels to answer taxpayer inquiries.

Generate Reports on Free IRS Online Forms

The IRS will generate reports on the preparation and submission of tax returns and extensions; reports on the customer support required to assist individual taxpayers; and reports that track return preparation and submission statistics and verify that what was submitted was actually received. In addition to providing end-to-end monitoring to ensure that "numbers in equal numbers out," features of this Option include the ability to report on:

¹⁵⁰ Under the Free IRS Direct *E-file* Option described in chapter 7, the IRS capability to support receipt of participating State returns is enabled because output files are generated from commercial software products for which the taxpayer has paid for both Federal and State return preparation capability.

- Number of daily, weekly, and cumulative submissions.
- System downtime.
- System response time.
- Peak processing time and number of returns processed.
- Number and type of preparation errors on submitted returns (for trend analysis to address product weaknesses).
- Number and type of submission errors (for trend analysis to address product weaknesses).
- File size.
- Number of forms and schedules submitted.
- Number of incoming and outgoing calls related to technical issues regarding return completion, return status, and submission error resolution.
- Returns by pipeline production type (e.g., 1040, 1040A, 1040EZ).

7.1.3 Assumptions and Constraints

- **Limited to Use by Individual Taxpayers Only** — Use of Free IRS Online Forms will be limited to individual taxpayers who prepare and submit their own returns. It will not be available to preparers or transmitters.
- **Liquidation and Refund Methods Unchanged** — Free IRS Online Forms will not change the ability of taxpayers to liquidate their tax obligations and receive refunds through currently supported methods. In other words, taxpayers will continue to be able to receive refunds by direct deposit or check and pay money owed by EFTPS, credit card, direct debit, or check.
- **Communication Channels Unchanged** — Communication channels that exist in the current environment (Internet and direct lines) that are used by existing *e-file* providers will not be replaced or retired by Free IRS Online Forms.
- **State Returns Unsupported** — Taxpayers will be able to prepare and submit their Federal returns using Free IRS Online Forms but not their State returns. Free IRS Online Forms will not initially support the needs of external stakeholders such as States that participate in the Fed/State single point electronic filing system. The initial scope will not include Fed/State (linked to Federal) returns or State stand-alone (unlinked) returns. Acceptance of a Fed/State linked return that merely passes on an exact copy of the Federal return to a participating State may be considered for a future release.¹⁵¹
- **Taxpayer E-Authentication Required** — Free IRS Online Forms will require the IRS to authenticate individual taxpayers to protect the security and privacy of their data. Taxpayers will have to obtain passwords and/or other credentials for electronic authentication by the IRS. In addition to e-authentication, the new Taxpayer E-Authentication system will need to offer taxpayers near-immediate online registration and password reset services, such as those available at most web sites. Development of the Taxpayer E-Authentication system is not part of the Free IRS Online Forms Option, but an acceptable user authentication system must

¹⁵¹ IRS (2009) *Advancing E-File Study, Phase II, Option 3A Form-Based Preparation Tool Solution Concept* Version: 2009-06-11 v2.11, p. 36

be in place in order to implement the Option.¹⁵² See chapter 4 for more information on Taxpayer E-Authentication.

- **Secure Web-Based Solution Required** — All interfaces between the taxpayer and the IRS will be web-based (and will not include email). The Free IRS Online Forms Option will offer web-based tax preparation only. The Option will not allow taxpayers to download tax forms on their home computers and prepare them offline. Taxpayers will be required to save all in-progress return data directly to the Option's pre-filing system and access forms through an online interface.¹⁵³ The Option will leverage the capability that will be provided by MeF 1040 to deliver online acknowledgments of acceptance or rejection of returns. Taxpayers will retrieve acknowledgments through a secure IRS web site where they will log in and be authenticated.
- **MeF 1040 Required** — Free IRS Online Forms will only support the 1040 family of forms and associated schedules approved for *e-filing*. The Option will only support forms and schedules that are acceptable for MeF 1040 processing, and implementation of the Option must follow the MeF 1040 deployment schedule. See chapter 4 for more information on MeF 1040.
- **Increased Customer Support Required** — The IRS expects that Free IRS Online Forms will increase the need for more help desk staffing and expertise. Taxpayers may have a limited understanding of technology, thus requiring more expertise from help desk staff to assist them. Customer Service Representatives will have to handle calls from taxpayers seeking resolution of technical issues that arise during return submission, including troubleshooting errors that cause a return to be rejected (e.g., interpreting and resolving them, resubmitting a corrected return), and from taxpayers seeking resolution of problems with the submission itself (e.g., Internet connectivity issues due to the Internet Service Provider, home network, or computer configuration, including browser settings and firewalls).¹⁵⁴
- **Paper Submission Permitted** — Finally, Free IRS Online Forms will not preclude a taxpayer from preparing a return online, printing the return, and submitting the return on paper instead of proceeding to the last step of *e-filing* the return directly to the IRS.

The pre-filing system is a repository for storing and managing the data entered by taxpayers during online tax preparation but not yet accepted by them as complete, accurate data to be submitted as part of their final returns.

7.1.4 Areas for Further Investigation

Some State I-File programs feature forms that are automatically pre-populated with taxpayer information saved from previous tax years. This capability is not included in the current scope of Free IRS Online Forms. If the Option is considered for implementation, the IRS should study the feasibility of, and taxpayer attitudes toward, the automatic pre-population of forms.

The IRS could explore offering electronic interfaces with taxpayer W-2 and information return (e.g., 1099-INT) data sources. With Free IRS Online Forms, taxpayers will have to transcribe all W-2 information to report the sum of their wages. The Option will not

¹⁵² IRS (2009) *Advancing E-File Study, Phase II, Option 3A Form-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.11*, pp. 123, 125

¹⁵³ IRS (2009) *Advancing E-File Study, Phase II, Option 3A Form-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.11*, p. 35

¹⁵⁴ IRS (2009) *Advancing E-File Study, Phase II, Option 3A Form-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.11*, p. 123

match data transcribed online by taxpayers to other electronic systems during return preparation and submission, and therefore fails to mitigate the possibility of human error and/or fraud and risks to both the taxpayer and the IRS.

If the IRS were to invest in this Option as a method of advancing *e-filing*, it would likely want to preclude taxpayers from using Free IRS Online Forms and then printing and submitting their returns on paper instead of taking the final step of *e-filing* the return directly to the IRS. The IRS should explore options (and associated pros/cons) for minimizing V-Coding for this Option.

The envisioned Option will not actively “push” acknowledgments by email as is currently the case with some commercial tax preparation software. Instead, individual taxpayers will need to log into a secure IRS web site to retrieve the acknowledgment of acceptance or rejection of their returns. If the IRS finds errors that cause a return to be rejected, the taxpayer will need to correct the errors, resubmit the return, and check online 5 minutes later to see that the return was accepted. The IRS may need to examine taxpayer attitudes and behavior related to this responsibility.

Similar efforts by other countries (e.g., United Kingdom, Canada) should be studied to leverage lessons learned and best practices.

See chapter 8 of AES1 for an introduction to international electronic filing experiences.

7.2 Projected Net Adoption

The IRS projects that the Free IRS Online Forms Option will help the IRS achieve the 80% *e-file* goal in 2015, given a 2015 implementation date.¹⁵⁵ Table 7-3 shows the Option’s projected net adoption for the years 2015 through 2019.

Table 7-3: Projected Net Adoption for Free IRS Online Forms Option, 2015–2019

Adoption	2015	2016	2017	2018	2019
Baseline	79.58%	80.70%	81.64%	82.45%	83.16%
Net Projected	0.42%	0.47%	0.53%	0.59%	0.66%
<i>Baseline + Net</i>	<i>80.00%</i>	<i>81.17%</i>	<i>82.17%</i>	<i>83.04%</i>	<i>83.82%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

An alternative adoption estimate based on an earlier implementation date is available in Appendix C.

The IRS based these projections on the following assumptions:¹⁵⁶

- The target population is Self Paper Filers.
- Information diffusion will be moderate.
- The Option will replace the current FFFF program.
- The change will be seamless to users despite the fact that this Option will be offered by the IRS instead of the current unbranded (unnamed) software company via FFA.

¹⁵⁵ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

¹⁵⁶ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

7.3 Impacts

Given that the IRS and its partners in the Free File Alliance (FFA) introduced Free File Fillable Forms (FFFF) in 2009, this Option may be perceived as duplicative and unnecessary.

Free IRS Online Forms will be functionally comparable to the online forms (FFFF) offered at no charge to all taxpayers through the IRS-FFA partnership. This Option, therefore, will duplicate what is already offered through FFFF. The forms will differ only on the basis of who developed them (government or commercial entity).

Stakeholders: Taxpayers, Congress, Tax Preparation Software Vendors, IRS

Impact Areas: Tax Landscape

Taxpayers may not perceive this Option as addressing concerns about cost for two main reasons: other free filing methods from FFA and commercial tax preparation software vendors exist; and many vendors no longer charge a separate fee to e-file.

Many tax preparation software vendors already offer apparently free *e-file* by including *e-file* fees in the price of their software. Also, FFA and some software vendors already offer free online tax preparation to taxpayers, including FFFF, which is analogous to the Free IRS Online Forms Option. This effectively undercuts one of the two intended benefits of this Option — that it will be free (the other that it will not involve third parties).

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support

Taxpayers may not perceive this Option as addressing concerns with third party involvement because they may not be aware of transmitters' current role in e-filing.

In the current tax environment, taxpayers appear to have little awareness that third parties (specifically EROs and transmitters) are already involved in the electronic submission of their return, much less protecting the security and privacy of their data. This lack of awareness effectively undercuts one of the two intended benefits of this Option — that it will not involve third parties to the IRS-taxpayer relationship (the other is that it will be free).

Without a direct marketing campaign promoting this Option as a more secure method of submission, few taxpayers may see the Option as a method that preserves taxpayer confidentiality and information privacy by ensuring that returns are not routed through any third parties. Marketing the difference on the basis of third party involvement may have the unintended adverse effect of reducing the *e-filing* level.

Stakeholders: Taxpayers, Tax Preparation Software Vendors, Transmitters, IRS

Impact Areas: Services and Customer Support

This Option will likely adversely affect IRS partnerships with key stakeholders such as tax preparation software vendors and transmitters as well as the IRS-FFA agreement.

The IRS's legal agreement with FFA states that "the IRS will not compete with the Consortium in providing free, online tax return preparation and filing services to taxpayers."¹⁵⁷ The Free IRS Online Forms Option will be in direct competition with the FFA offering known as FFFF. The IRS's agreement with FFA, therefore, will need to be modified before the IRS can offer this Option. Alternately, FFA may elect to dissolve its agreement with the IRS and cease providing its free tax preparation services (TFF and FFFF).

Stakeholders: Tax Preparation Software Vendors, Transmitters, IRS, Taxpayers

Impact Areas: Law and Policy, Tax Landscape

Since this Option will not initially support State returns, taxpayers may be inconvenienced, while States may see a decline in electronically submitted returns and see increased expectations that they provide their own similar Option.

Taxpayers will be responsible for submitting their State returns through other means because the Free IRS Online Forms Option will not support State returns. Taxpayer interest in this Option may be limited when compared with other Options that offer the convenience of both Federal and State return preparation and submission. Taxpayers who use this Option will need to manually transfer any required data from their Federal returns to another method for preparing and submitting their State returns (e.g., commercial tax preparation software, State I-File programs, paper forms). Taxpayers will need to assess how the convenience and ease of use of commercial tax preparation software (and its associated costs, including *e-filing* charges) balances against the Free IRS Online Forms Option, which does not involve third parties.

This Option will not initially support the Fed/State *e-filing* program.¹⁵⁸ Because the vast majority of States that assess individual income taxes depend on the Fed/State program, many State electronic filing programs may be at least partially disrupted by the initial version of the Free IRS Online Forms Option, though the precise volume of returns that will be affected is unclear. The IRS anticipates adding support for State returns as a feature in a future version of the Option.

Some States have noted that programs offered or proposed at the Federal level are often expected at the State level; this Option will not be an exception in shaping people's expectations of the services that States should provide.

Stakeholders: States, IRS, Taxpayers

Impact Areas: Law and Policy, Services and Customer Support, Tax Landscape

¹⁵⁷ Free File Alliance and IRS (2009) *2009-2014 Free On-Line Electronic Tax Filing Agreement*

¹⁵⁸ Under the currently available Fed/State program, IRS *e-File* providers may file both Federal and State returns with the IRS in a single transmission. The IRS separates State information and makes it available for downloading by the State. In the Fed/State program, the IRS effectively acts as the third party in the taxpayer-State tax administrator relationship.

The IRS has little experience providing customer support to taxpayers on resolving software and submission issues.

The Free IRS Online Forms Option will require the IRS to provide customer support to taxpayers on resolving software and submission issues, something the IRS has been relatively insulated from due to the third party model. The impact on taxpayers will depend on the design and usability of the Option, resolution of error codes, and other features of IRS online account management.

Supporting taxpayers in terms of both software-based preparation and submission issues is different from the type of customer support the IRS has offered to date. Also, offering this type of support presents a host of risks related to meeting customer expectations for end user software support, which even large technology firms whose core business relies on positive customer experience can struggle to meet in a cost-effective manner.

This Option will sharply increase help desk call volume and change the types of assistance taxpayers require from IRS Customer Service Representatives (CSR). The IRS will need to become more directly accountable to taxpayers and deliver high-quality service when supporting taxpayers with software and submission issues.

This Option will increase the demand for CSRs with skills that focus on helping taxpayers with software issues (e.g., account log-in, passwords, home computer technology, using the Option itself) and submission issues (e.g., home network technology, remediation of rejected returns). To provide such support, the IRS will need to hire and train additional CSRs.

The new customer support services the IRS will make available to taxpayers are services that are supported today by its authorized *e-file* providers, primarily tax preparation software vendors. This Option will shift responsibility for taxpayer support from *e-file* providers to IRS CSRs.

Stakeholders: IRS, Taxpayers, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support, Tax Landscape

Taxpayers may be dissatisfied with the lack of email confirmation provided by this Option, given that they are used to automatically being sent real-time emails confirming their other purchases and transactions online.

Taxpayers will access messages confirming receipt and acknowledging acceptance or rejection of their returns through a secure IRS web site where they will log in and be authenticated. Taxpayer interactions with the Free IRS Online Forms system will be exclusively through this secure web site, not through email. This will place the burden on taxpayers to actively retrieve their messages online rather than passively receive these messages. The IRS does not currently send emails to taxpayers because of the concern that doing so would increase taxpayers' risk of exposure to phishing and online fraud.

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support, Tax Landscape

The IRS will face challenges in marketing this Option to taxpayers, particularly given that the IRS relies on its commercial partners — some of which will be affected by this Option — for much of its taxpayer outreach.

The IRS is highly dependent on partnerships with industry and trade groups to conduct its marketing and outreach efforts. The IRS not only works with, but relies heavily on, preparers, tax preparation software vendors, professional associations, and trade groups to convey its *e-file* message. The combined marketing budgets of these groups far exceed what is allocated for this purpose at the IRS; the IRS marketing budget is only a fraction of what commercial partners have available. If the Free IRS Online Forms Option were made available, commercial partners would likely be able to effectively drown out any IRS efforts to market the Option. Furthermore, the IRS's marketing and outreach efforts, which depend on these commercial partnerships, would likely be negatively affected.

Stakeholders: IRS, Tax Preparation Software Vendors, Taxpayers

Impact Areas: Services and Customer Support, Tax Landscape

The IRS must deliver Taxpayer E-Authentication and MeF 1040 before this Option.

The IRS's responsibility for protecting the security and privacy of taxpayer data will be critically affected by the Free IRS Online Forms Option. Security and privacy will be a major consideration when taxpayers begin submitting their returns directly to the IRS over the Internet. The IRS will be required to protect taxpayer data through taxpayer authentication and encryption systems and to detect and prevent fraud on and malicious tampering with web sites.

The Taxpayer E-Authentication system will be larger, riskier, more costly, and more complex than any secure identification system the Federal government has ever developed. This is due largely to the challenges of providing possibly 150 million taxpayers with the means to access, use, and be supported in the use of the system. The scale of the effort may exceed the technological, organizational, and managerial maturity of the IRS. Therefore, the dependency of Free IRS Online Forms on Taxpayer E-Authentication poses a critical risk.

This Option also depends on the completed implementation of MeF 1040.

Stakeholders: IRS, Taxpayers, Congress

Impact Areas: Taxpayer Data and Security

7.4 Estimated Costs

7.4.1 Summary

Table 7-4 provides very rough order of magnitude (VROM) estimates of the one-time cost for the IRS to implement the Free IRS Online Forms Option and the annual recurring cost for the IRS to operate and maintain the Option.¹⁵⁹

Table 7-4: VROM Cost Estimate for Free IRS Online Forms Option

One-Time Cost to Implement	\$67 million
Recurring Operations and Maintenance Cost	\$36 million/year
Duration to Implement	37 Months

Source: IRS (2009) *Advancing e-File Study Phase 2 (AES2) Form-Based Preparation Tool Option Basis of Estimate (BOE) Report*

The cost estimation methodology relied on an initial target usage assumption to enable the estimators and subject matter experts to develop sizing characteristics for the Option. For Free IRS Online Forms, the estimation team assumed that the Option will need to support approximately 3 million taxpayer users per filing season. Infrastructure and network costs are also driven by the number of concurrent users expected to prepare their tax returns online at any given time. For the Free IRS Online Forms Option, the IRS estimated it will need to support peak usage of 60,000 concurrent online taxpayer sessions on the pre-filing system.

The IRS assumed that development of the Free IRS Online Forms Option will start in January 2012, to align with the expected availability of the MeF 1040 system and the next available fiscal year budget formulation cycle, and that the Option will become available to taxpayers for the 2015 calendar year and tax filing season. This timeline is based on an estimated 37-month schedule for development and implementation of the Option.

7.4.2 Cost Drivers, Assumptions, and Risks

Table 7-5 summarizes key cost drivers, assumptions, and risks associated with each major element in the Estimation Breakdown Structure (EBS).

¹⁵⁹ These estimates are given with a 70% level of confidence that they predict the probable resources required for IRS to deliver the Option according to the preliminary definition (scope) and degree of unknown requirements.

Table 7-5: Cost Drivers, Assumptions, and Risks for Free IRS Online Forms Option

EBS Element	Cost Drivers, Assumptions, and Risks
<p>Deployment and Implementation 22% of One-Time Cost 64% of Recurring Cost</p>	<ul style="list-style-type: none"> The recurring cost for operations and maintenance (O&M) of this Option are driven by the estimated need to hire 200 additional full-time Customer Service Representatives (CSR) to assist taxpayers calling the toll-free help desk. The IRS relies on full-time year-round CSRs and does not rely on temporary hires given the level of training required for the CSR position. The deployment and implementation cost estimate includes CSR training costs. No facility (real estate) costs are part of this estimate. The IRS assumes that office space will be available at existing IRS Customer Service Centers to accommodate the additional CSRs.
<p>Project Infrastructure (Portal, Network, Disaster Recovery, Hardware/Software, Engineering Support) 14% of One-Time Cost 12% of Recurring Cost</p>	<ul style="list-style-type: none"> Infrastructure costs include hardware and software for the pre-filing system and ongoing maintenance of the new system infrastructure. Infrastructure costs include portal upgrades to manage increased user traffic on the secure IRS web site and to augment the capacity of the disaster recovery/failover infrastructure. To handle tax returns e-filed by individual taxpayers, portal upgrades are required. The current process, which relies on queuing and scheduling the receipt of returns submitted in batches by IRS-authorized transmitters, cannot be used to handle e-filed returns from individual taxpayers.
<p>Application Software 53% of One-Time Cost 20% of Recurring Cost</p>	<ul style="list-style-type: none"> This biggest cost driver for this Option is development of the new pre-filing system. The IRS expects that it will take 31 months to develop, test, and deploy the new pre-filing system. This Option also requires modifications to the MeF system so that the system can receive individual taxpayer returns through the pre-filing system rather than through IRS-authorized <i>e-file</i> EROs/transmitters and give IRS CSRs electronic access to pre-file return information to provide customer support. The IRS expects that modifications to the MeF system will take 28 months to develop, test, and deploy. These estimates exclude tax form and schedule development, which is an ongoing IRS business capability. In the current environment, most 1040 forms and schedules are already available as fillable PDF forms. The cost estimates for this Option, however, do include a supplemental effort to modify 140 fillable PDF forms and provide 30 new worksheets. The modification primarily entails simple math computations and cross-populating fields between forms. During O&M, the estimate accounts for ongoing form and software updates to keep pace with annual tax law and legislative changes. A relatively high number of software development resources are required in a compressed timeframe to implement this Option, which the IRS considers a critical performance risk. Another critical risk posed in the cost estimates of this Option is that they assume no software lines of code growth during Option development.

EBS Element	Cost Drivers, Assumptions, and Risks
Project Management Office (PMO) Support 11% of One-Time Costs 3% of Recurring Costs	<ul style="list-style-type: none"> <li>A new PMO is expected to handle the program aspects of Free IRS Online Forms management and continuous service improvement. The function of this PMO will not include tax form and schedule development, which is an existing IRS business capability.

Source: IRS (2009) *Advancing e-File Study Phase 2 (AES2) Form-Based Preparation Tool Option Basis of Estimate (BOE) Report*

Because Taxpayer E-Authentication is not within the scope of the Option definition, the cost estimates do not include the costs or schedule constraints for the IRS to provide secure taxpayer account management over the Internet. The size, complexity, and cost of an enterprise-wide Taxpayer E-Authentication system will depend on business requirements and the number of taxpayers expected to use the system.

8. Technology Option: Free IRS Tax Preparation Software

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 - 8.1.1 The Current Environment
 - 8.1.2 Envisioned Capabilities and Features
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- 8.4 Estimated Costs
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 - 8.4.2 Cost Drivers, Assumptions, and Risks

8.1 Definition

The Free IRS Tax Preparation Software Option will provide individual taxpayers with free web-based software that guides them through the return preparation process and enables them to electronically submit (*e-file*) their returns directly to the IRS. This Option will feature a question-and-answer approach that simplifies the tax preparation process, completes the required forms for the user, and provides explanations of relevant tax law. The Option also will allow taxpayers to save drafts, leave a session, and continue work at a later time. The IRS will provide the taxpayer with an immediate online confirmation of receipt when the return is submitted. The taxpayer will be able to log into a secure IRS web site to retrieve an acknowledgment of return acceptance or rejection, which is available within 5 minutes of *e-filing*. The IRS will provide customer support to help with submission problems, rejected returns, or the Free IRS Tax Preparation Software itself.

This Option will be available for use by all individual taxpayers but not by preparers. This Option is intended to address concerns with third party involvement or cost with the current *e-file* system. This Option will not offer certain features offered by commercial tax preparation software (sometimes at additional cost), such as: tools to maximize deductions, tools to flag audit risks, customized tax advice, the ability to import prior year return data, the ability to import W-2s and 1099s electronically, State return preparation, software accuracy guarantees, and audit assistance.

8.1.1 The Current Environment

Today, individual taxpayers looking for tax preparation software have many options:

- Free online tax preparation software provided by Free File Alliance (FFA) partners, which are available only through the IRS.gov web site (requires computer with web browser and Internet connection).
- Free versions of commercial tax preparation software available online through vendor web sites (requires computer with web browser and Internet connection).
- Commercial online tax preparation software (requires computer with web browser and Internet connection).
- Commercial tax preparation software purchased from a store or downloaded from vendor web site (requires taxpayers to physically install the software on their computers; Internet connection required to get software updates and *e-file*).

Regardless of the preparation method, taxpayers can submit their returns on paper or by *e-filing* through IRS-authorized *e-file* providers.

8.1.2 Envisioned Capabilities and Features

Free IRS Tax Preparation Software will be an entirely new capability offered by the IRS to taxpayers. The Option will offer the following features to taxpayers:

- Screening questions to help taxpayers identify unique tax situations that would preclude them from completing a return using the Free IRS Tax Preparation Software because the software does not support a form that they require.
- Guided interview questions that elicit information about the taxpayer’s situation to identify all required forms, schedules, and attachments; automatic population of required fields based on taxpayer data and responses; and creation of a completed return.
- Ability to save drafts, leave a session, and continue work at a later time and print forms, schedules, and attachments.
- Ability to receive refunds by direct deposit or check and pay money owed by EFTPS, credit card, direct debit, or check.
- Ability to file for an extension.
- Ability to store the return on electronic media of taxpayer’s choice and print the return.
- Ability to electronically sign and submit the completed return directly to the IRS and receive immediate confirmation that the return was received.
- A secure IRS web site to directly obtain the IRS acknowledgment of acceptance or rejection of a return.

Free IRS Tax Preparation Software is not envisioned to replace commercial tax preparation software and services available today, but it will offer core features that are similar to those provided by Traditional Free File (TFF) and commercial tax preparation software (whether purchased or free). Table 8-1 provides a comparison of the two.

Table 8-1: Comparison of Traditional Free File and Commercial and Free IRS Tax Preparation Software

Topic	Commercial Tax Preparation Software	Traditional Free File	Free IRS Tax Preparation Software
Registration and Usage	Taxpayer registers with IRS-authorized <i>e-file</i> provider.	Taxpayer registers with FFA provider and securely prepares and saves tax return online.	Taxpayer registers with the IRS and securely prepares and saves tax return online.
Eligibility	Software is purchased in stores or downloaded from the Internet and installed on taxpayer’s computer, or software is used online, which requires no installation (requires web browser). Some online versions of commercial software are available for free.	Software is offered online and is free of charge to eligible taxpayers (those with Adjusted Gross Incomes [AGI] of \$56,000 or less).	Software is offered online only and is free of charge.

Topic	Commercial Tax Preparation Software	Traditional Free File	Free IRS Tax Preparation Software
Core Features	Interview-style software assesses taxpayer's situation, selects required forms and schedules, collects data and cross-populates forms with data to complete the return, does all the math, and allows taxpayer to sign return electronically and print return for recordkeeping.	Same as Commercial Tax Preparation Software.	Same.
Additional Features	Generally supports both Federal and State returns; packages 'tiered' to address tax situations; value-added features available, sometimes at additional cost.	Supports at least a minimum number of forms; may not have full set of value-added features found in Commercial Tax Preparation Software.	Supports all forms; will not have most value-added features found in Commercial Tax Preparation Software.
State Tax Return Preparation Support	Supports preparation of State tax returns, though additional fees may apply.	Some FFA providers offer State tax return preparation, though additional fees may apply.	Not available. ¹⁶⁰
Spanish Language Support	Some commercial tax preparation software vendors offer services in Spanish.	Same as Commercial Tax Preparation Software.	Not available. ¹⁶¹
Value-Added Capabilities	Provides taxpayer with value-added capabilities, such as tools to maximize deductions, tools to flag audit risks, and audit review and audit guarantee services.	Provides taxpayer with value-added capabilities, such as tools to maximize deductions, tools to flag audit risks, and audit review and audit guarantee services.	Not available.
<i>E-file</i> Method	Taxpayer electronically submits tax return through software vendor and is typically authenticated by vendor.	Taxpayer electronically submits tax return through FFA provider and is authenticated by FFA provider.	Taxpayer electronically submits tax return directly to the IRS and is authenticated by the IRS.

¹⁶⁰ Coordinating with State Return filing is not presented as part of the AES2 Option but would likely be addressed by the IRS in a future release if this Option were pursued for investment.

¹⁶¹ Offering tax preparation software in Spanish or other languages is not presented as part of the AES2 Option but would likely be addressed by the IRS in a future release if this Option were pursued for investment.

Topic	Commercial Tax Preparation Software	Traditional Free File	Free IRS Tax Preparation Software
Confirmation of Receipt	Transmitter receives IRS confirmation that return was received and informs taxpayer by email or secure web site.	Same as Commercial Tax Preparation Software.	Taxpayer receives immediate online confirmation that return was received from secure IRS web site.
Acknowledgment of Return Acceptance/Rejection	Currently, with EMS, transmitter receives IRS acknowledgment of acceptance/rejection of individual return within 48 hours of <i>e-filing</i> and informs taxpayer by email or secure web site. In the future, MeF 1040 will likely be used, which will provide acknowledgments within 5 minutes of <i>e-filing</i> .	Same as Commercial Tax Preparation Software.	Taxpayer retrieves IRS acknowledgment of acceptance/rejection of return — available within 5 minutes of <i>e-filing</i> — from secure IRS web site (based on future MeF 1040 implementation). ¹⁶²
Customer Support	Vendor provides taxpayers with software support. The IRS provides taxpayers with tax question support.	Same as Commercial Tax Preparation Software.	The IRS provides taxpayers with phone-based customer support during regular hours of operation.

The Free IRS Tax Preparation Software Option will be built on the expanded use of the IRS Modernized E-file (MeF) system, which supports corporate *e-filers*, and on the IRS deployment of MeF 1040, which will support individual *e-filers*. MeF 1040 is planned for phased release starting January 2010 and is expected to be available by January 2012.¹⁶³ Free IRS Tax Preparation Software will support the 1040 family of forms and schedules.

The IRS expects to roll out support for 1040 *e-file* forms and schedules in a phased manner. All forms, schedules, and attachments that will be accepted by MeF 1040 will be available with Free IRS Tax Preparation Software. The Option will also allow taxpayers to file for an extension.¹⁶⁴

Free IRS Tax Preparation Software will be available to taxpayers 7 days a week through a secure IRS web site.

Retention and archiving of return data will follow current 1040 requirements. Data from returns submitted using Free IRS Tax Preparation Software will be retained and archived according to procedures in the Internal Revenue Manual (IRM) that addresses the retention and archiving of such data. Data from partially completed forms will be retained through the April 15 return due date plus two extension periods; under current guidelines, this will be around the October 15 extension deadline. Rejected returns will be treated as partially completed and retained accordingly. Data retention requirements

¹⁶² Acknowledgment messages will be available within 5 minutes on non-peak days and within 2 hours on peak days.

¹⁶³ IRS (2008) *MeF 1040 Release Strategy*, p. 3

¹⁶⁴ See chapter 6 for details about the Modernized e-File (MeF) system and supported 1040 family of forms.

for taxpayer questions and responses (the interview record) will be retained by the IRS for 3 years. This record may be archived.¹⁶⁵

The IRS will provide an environment and process for development and usability testing of Free IRS Tax Preparation Software to ensure that it meets taxpayer needs. The IRS will update and modify the online interview questions when tax forms, schedules, and attachments and/or their instructions change based on legislation. This could occur more frequently than annually.

Table 8-2 describes the roles of the primary stakeholders of the Free IRS Tax Preparation Software Option.

Table 8-2: Roles of Free IRS Tax Preparation Software Option Stakeholders

Taxpayer Role	IRS Role
Provide information needed to determine eligibility to prepare and submit return using Free IRS Tax Preparation Software. <ul style="list-style-type: none"> • Register and obtain unique log-in credential to access Free IRS Tax Preparation Software on secure IRS web site. • Log into secure IRS web site to access tax preparation software. 	Provide criteria to determine taxpayer's eligibility to prepare and submit return using Free IRS Tax Preparation Software. <ul style="list-style-type: none"> • Provide secure web site for taxpayer to access Free IRS Tax Preparation Software. • Authenticate taxpayer.
Prepare 1040 tax forms using software. If needed: <ul style="list-style-type: none"> • Save partially completed forms as drafts and return later to complete forms. • Toggle between tax forms and interview questions, and view tax forms with running totals. • Access appropriate information in IRS publications and instructions. • Print draft and final forms for review before submitting return. 	<ul style="list-style-type: none"> • Receive and securely retain taxpayer data from partially completed tax forms. • Automatically populate and cross-populate forms, schedules, and attachments based on taxpayer responses to questions. • Provide hyperlinks to IRS publications and instructions. • Perform simple arithmetic calculations and error checks. • Purge data from incomplete tax forms at end of tax season.
Electronically sign and submit completed tax return on secure IRS web site and receive immediate confirmation that return was received.	Securely record taxpayer return data in IRS submission processing system: <ul style="list-style-type: none"> • Transform tax forms and payment information into IRS-accepted format for tax return processing. • Generate online confirmation of receipt for each <i>e-filed</i> return in real time.
Obtain customer phone support for assistance with tax questions, submission problems, or rejected returns.	Provide phone support during regular hours of operation.

¹⁶⁵ IRS (2009) *Advancing E-File Study, Phase II, Option 3B Interview-Based Preparation Tool Solution Concept* Version: 2009-06-11 v2.10, p. 72

Taxpayer Role	IRS Role
<p>Verify that tax return was accepted for processing:</p> <ul style="list-style-type: none"> Retrieve IRS acknowledgment of acceptance/rejection of return — available within 5 minutes of e-filing — from secure IRS web site. If needed, correct errors on rejected return and resubmit return. 	<p>Provide acknowledgment of acceptance/rejection of return on secure web site:</p> <ul style="list-style-type: none"> Generate acknowledgment message within 5 minutes after taxpayer e-files return and make available to taxpayer on secure web site.¹⁶⁶ If needed, allow taxpayer to correct errors on rejected return and resubmit return.

To offer interview-style tax preparation software, the IRS must be able to deliver eight new business capabilities:¹⁶⁷

- Ensure that the Option supports taxpayer’s situation.
- Provide taxpayer with tax return preparation checklist.
- Solicit tax return information from taxpayer.
- Collect financial institution information to enable taxpayer to pay money owed or receive a refund electronically.
- Complete tax return preparation and save/print return.
- Format data from *e-filed* returns.
- Provide customer support to taxpayers.
- Generate reports on Free IRS Tax Preparation Software

The following sections describe these capabilities in more detail.

Ensure that the Option Supports Taxpayer’s Situation

Because some individuals’ tax returns will require forms, schedules, or attachments not supported by Free IRS Tax Preparation Software, the software will provide a screening or qualifying mechanism. This will alert taxpayers that they cannot complete their returns using the software because the software does not support a form, schedule, or attachment they require. This is intended to preclude taxpayers’ frustration from discovering lack of software support for their tax situations after they begin preparing their returns using the Option.¹⁶⁸ Features of this Option include the ability to:

- Inform taxpayers that they are beginning a qualification process.
- Solicit information from taxpayers about their tax situations.
- Process the information to determine whether taxpayers are qualified to complete and submit their returns using the Option.
- Inform taxpayers who do not qualify to use the Option why they are not qualified.
- Provide qualified taxpayers with the IRS agreement allowing them to use the software and allow taxpayers to print the *e-file* agreement.

¹⁶⁶ Acknowledgment messages will be available within 5 minutes on non-peak days and within 2 hours on peak days.

¹⁶⁷ Capabilities described in this document are based on the IRS (2009) *Advancing E-File Study, Phase II, Option 3B Interview-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.10*

¹⁶⁸ According to the IRS Modernized E-File 1040 Release Schedule dated December 4, 2008, the MeF platform is expected to support 99% of all standard 1040 forms when the system becomes available in January 2012.

Provide Taxpayer with Tax Return Preparation Checklist

Free IRS Tax Preparation Software will provide taxpayers with an initial checklist of information they need to provide in order to complete and *e-file* their tax returns.

Features of this Option include the ability to:

- List information sources taxpayers will need to refer to in order to complete and *e-file* their returns.
- Inform taxpayers that they may not be able to complete and *e-file* their returns if they fail to provide specific information.
- Allow taxpayers to begin preparing their returns.

Solicit Tax Return Information from Taxpayer

Free IRS Tax Preparation Software will present interview-style questions for the taxpayer to answer. The taxpayer's answers will be used as input to complete the tax return. The software will have the ability to branch to related questions and skip irrelevant questions, depending on the taxpayer's tax situation.

Features of this Option include the ability to:

- Collect and assess taxpayers' responses to questions about their tax situations. Taxpayer responses will be assessed to determine the applicability of subsequent questions and the necessity for them to complete supporting forms, schedules, or attachments.
- Allow taxpayers to prepare a draft, form-based return view that includes running total of refund or balance due (money owed), and toggle between interview questions and form view.
- Automatically calculate money owed or refund amount and cross-populate forms, schedules, and attachments with the following information:
 - Subtotals.
 - Worksheets and supporting schedules (examples: AMT, itemized deductions).
 - Exemptions.
 - Tax liability.
 - Money owed or refund amount.
 - Taxpayer name, address, and Social Security number.
- Complete a basic field-level error check and provide an online message to help the taxpayer correct errors (e.g., placing an alphabetical character in a numeric-only field) without the need for assistance.
- Provide hyperlinks to instructions, frequently-asked questions, and guidance available on a secure IRS web site. For example, if taxpayers need to know who qualifies as a dependent, they will be able to link to relevant guidance.
- Securely capture and maintain taxpayer data during tax return preparation and store partially completed forms and schedules on a secure IRS web site. These partially completed forms and schedules will be available to the taxpayer to reopen and resume tax preparation efforts.
- Protect the taxpayer from data loss during tax preparation by saving data on a pre-determined basis (e.g., elapsed time, number of responses, question number).

Collect Financial Institution Information to Enable Taxpayer to Pay Money Owed or Receive a Refund Electronically

Free IRS Tax Preparation Software will allow taxpayers to securely input information on their financial institutions (e.g., banks) or credit card information to pay money owed or receive a refund electronically, or to make other payment or deposit arrangements.

Features of this Option include the ability to:

- Give the taxpayer the choice to input information to enable electronic payment of a refund to the taxpayer's financial institution (i.e., direct deposit) or to receive a refund check by mail.
- Allow information to be used to debit a taxpayer's account at a financial institution if the taxpayer owes money and wants to pay the balance electronically.
- Allow the taxpayer to print a payment voucher and mailing instructions if the taxpayer owes money and wants to pay by check.
- Inform the taxpayer what options exist for scheduling payment at a later date if the taxpayer owes money.

Complete Tax Return Preparation and Save/Print Return

Free IRS Tax Preparation Software will give the taxpayer the ability to:

- Electronically sign the return to indicate the return is complete.
- Submit the return (a return cannot be submitted until signed).
- Receive immediate confirmation that the return was received.
- Retrieve an acknowledgment, which will be available within 5 minutes of *e-filing*, of acceptance or rejection of the return on a secure IRS web site.
- View electronic tax returns in the same format as paper returns.
- Store the return on electronic media of taxpayer's choice and print the return.
- Purge returns that have been submitted and returns that were started but never completed.
- Retrieve, correct, and resubmit rejected returns.

Format Data from E-filed Returns

The IRS will reformat data from *e-filed* returns into the IRS-accepted file format for storage and processing on IRS systems.

Features of this Option include the ability to:

- Identify a return as being submitted by a taxpayer who used Free IRS Tax Preparation Software and assign a unique identifier to the return.
- Systemically conduct security validations (e.g., run anti-malware scans) to ensure that viruses are not passed from the taxpayer's computer to the IRS submission processing system, and ensure the integrity and non-repudiation of electronic receipts, acknowledgments, and tax returns.
- Provide two-way communication to verify that a taxpayer is communicating with the IRS portal.

Provide Customer Support to Taxpayers

The IRS will provide customer support to taxpayers concerning Free IRS Tax Preparation Software, completion of their returns, resolution of submission problems, and status of their returns.

Features of this Option include the ability to:

- Provide a toll-free phone number or other communication channels to answer taxpayer and State tax-collecting entity inquiries.

Generate Reports on Free IRS Tax Preparation Software

The IRS will generate reports on usage of the software, reports on the customer support required to assist individual taxpayers, and reports that track return preparation and submission statistics.

Features of this Option include the ability to report on:

- Number of daily, weekly, and cumulative submissions.
- System downtime.
- System response time.
- Peak processing time and number of returns processed.
- End to end monitoring (i.e., number in equals number out).
- Number and type of preparation errors on submitted returns (for trend analysis to address product weaknesses).
- Number and type of submission errors (for trend analysis to address product weaknesses).
- File size
- Number of forms and schedules submitted.
- Number of incoming and outgoing calls related to technical and non technical issues regarding return completion, return status, and submission error resolution.
- Number of returns started and saved but not yet submitted as a completed and signed return.
- Number of returns started yet subsequently filed as V-Coded returns.
- Returns by pipeline production type (e.g., 1040, 1040A, 1040EZ).
- Number of taxpayers who complete the qualification process, number of taxpayers who do and do not continue to the preparation process, and number of taxpayers who do not qualify, by reason.

8.1.3 Assumptions and Constraints

- **Limited to Use by Individual Taxpayers Only** — Free IRS Tax Preparation Software will be limited to individual taxpayers who prepare and submit their own returns. It will not be available to preparers or transmitters.
- **Communication Channels Unchanged** — Communication channels that exist in the current environment (Internet and direct lines) that are used by existing *e-file* providers will not be replaced or retired by Free IRS Tax Preparation Software.

- **State Returns Unsupported** — Taxpayers will be able to prepare and submit their Federal returns using Free IRS Tax Preparation Software but not their State returns. Free IRS Tax Preparation Software will not initially support the needs of external stakeholders such as States that participate in the Fed/State single point electronic filing system. The initial scope will not include Fed/State (linked to the Federal) returns or State stand-alone (unlinked) returns. Acceptance of a Fed/State linked return that merely passes on an exact copy of the Federal return to a participating State may be considered for a future release.¹⁶⁹
- **Taxpayer E-Authentication Required** — Free IRS Tax Preparation Software will require the IRS to authenticate individual taxpayers to protect the security and privacy of their data. Taxpayers will have to obtain passwords and/or other credentials required for electronic authentication by the IRS. In addition to e-authentication, the new Taxpayer E-Authentication system will need to offer taxpayers near-immediate online registration and password reset services, such as those available at most web sites. Development of the Taxpayer E-Authentication system is not part of the Free IRS Tax Preparation Software Option, but an acceptable user authentication system must be in place in order to implement the Option.¹⁷⁰ See chapter 4 for more information on Taxpayer E-Authentication.
- **Secure Web-Based Solution Required** — All interfaces between the taxpayer and the IRS will be web-based (and will not include email). The Free IRS Tax Preparation Software Option will be available online only; taxpayers will not be able to download the software for use on a home computer. The Option will require taxpayers to save all in-progress return data directly to the Option's pre-filing system and access forms through an online interface.¹⁷¹ The Option will leverage the capability that will be provided by MeF 1040 to deliver online acknowledgments of acceptance or rejection of returns. Taxpayers will retrieve acknowledgments through a secure IRS web site where they will log in and be authenticated.¹⁷²
- **MeF 1040 Required** — Free IRS Tax Preparation Software will only support the 1040 family of forms and associated schedules approved for *e-filing*. The Option will only support forms and schedules that are acceptable for MeF 1040 processing, and implementation of the Option must follow the MeF 1040 deployment schedule. See chapter 4 for more information on MeF 1040.
- **Usability-Driven, Responsive Development Required** — To field an Option that users will accept, the IRS must be prepared to provide annual updates that address any changes in tax law as well as provide updates as a part of its annual release cycle, including ongoing usability enhancements and additional features requested by customers.

¹⁶⁹ IRS (2009) *Advancing E-File Study, Phase II, Option 3B Interview-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.10*, p. 36

¹⁷⁰ IRS (2009) *Advancing E-File Study, Phase II, Option 3B Interview-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.10*, p. 155

¹⁷¹ IRS (2009) *Advancing E-File Study, Phase II, Option 3B Interview-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.10*, pp. 55, 153

¹⁷² IRS (2009) *Advancing E-File Study, Phase II, Option 3B Interview-Based Preparation Tool Solution Concept Version: 2009-06-11 v2.10*, p. 153

- **Increased Customer Support Required** — The IRS expects that Free IRS Tax Preparation Software will increase the need for more help desk staffing and expertise. Taxpayers may have a limited understanding of technology, thus requiring more expertise from help desk staff to assist them. Taxpayers will also turn to the IRS as the primary provider of tax advice and return preparation assistance. Customer Service Representatives will have to handle calls from taxpayers seeking (1) tax advice and return preparation assistance; (2) resolution of technical issues that arise during software use (e.g., problems using the software, bugs in the software, compatibility and other issues with taxpayers' operating systems and security software); (3) resolution of errors that cause a return to be rejected (e.g., interpreting and resolving them, resubmitting a corrected return); and (4) resolution of problems with the submission itself (e.g., Internet connectivity issues due to the Internet Service Provider, home network, or computer configuration, including browser settings and firewalls).¹⁷³ The number of tax law, submission-related, and technical calls is expected to substantially increase, requiring more help desk employees with more training and more technical knowledge.
- **Paper Submission Permitted** — Finally, Free IRS Tax Preparation Software will not preclude a taxpayer from preparing a return online, printing the return, and submitting the return on paper instead of proceeding to the last step of *e-filing* the return directly to the IRS.

8.1.4 Areas for Further Investigation

Before advancing this Option, the IRS will need to consider the extent to which taxpayers will adopt Free IRS Tax Preparation Software over the commercial tax preparation software available today. Key factors to investigate are how the IRS software will be perceived compared with commercial software on the basis of cost, features (including value-added features), usability, and customer support, and how IRS marketing of its software will compare with commercial software marketing on the basis of scope and message.

Other areas that may require future investigation include:

- Expanding IRS customer service to 24 x 7 and/or offering online customer support in addition to phone support.
- Offering pre-populated taxpayer information based on information reported in prior tax year for preparation of either current year or amended returns.
- Offering the tax preparation software in Spanish or other languages.

Another area that could be explored by the IRS is offering electronic interfaces with taxpayer W-2 and information return (e.g., 1099-INT) data. With Free IRS Tax Preparation Software, taxpayers will have to transcribe all W-2 information to report the sum of their wages. The Option will not match data transcribed online by taxpayers to other electronic systems during return preparation and submission, and therefore fails to mitigate the possibility of human error and/or fraud and risks to both the taxpayer and the IRS.

¹⁷³ IRS (2009) *Advancing E-File Study, Phase II, Option 3B Interview-Based Preparation Tool Solution Concept* Version: 2009-06-11 v2.10, pp. 153, 156

If the IRS were to invest in this Option as a method of advancing *e-filing*, it would likely want to preclude taxpayers from using Free IRS Tax Preparation Software and then printing and submitting their returns on paper instead of taking the final step of *e-filing* the return directly to the IRS. The IRS should explore options (and associated pros/cons) for minimizing V-Coding for this Option.

The envisioned Option will not actively “push” acknowledgment messages by email as is currently the case with some commercial tax preparation software. Instead, individual taxpayers will need to retrieve online acknowledgments of acceptance or rejection of their returns. If the IRS finds errors that cause a return to be rejected, the taxpayer will need to correct the errors, resubmit the return, and check online 5 minutes later to see that the return was accepted. The IRS may need to examine taxpayer attitudes and behavior related to this responsibility.

Similar efforts by other countries (e.g., United Kingdom, Canada) should be studied to leverage lessons learned and best practices.

See chapter 8 of AES1 for an introduction to international electronic filing experiences.

8.2 Projected Net Adoption

The IRS projects that the Free IRS Tax Preparation Software Option will help the IRS achieve the 80% *e-file* goal in 2016, given a 2016 implementation date.¹⁷⁴ Table 8-3 shows the Option’s projected net adoption for the years 2016–2020.

Table 8-3: Projected Net Adoption for Free IRS Tax Preparation Software Option, 2016–2020

Adoption	2016	2017	2018	2019	2020
Baseline	80.70%	81.64%	82.45%	83.16%	83.80%
Net Projected	1.34%	1.42%	1.49%	1.56%	1.62%
<i>Baseline + Net</i>	<i>82.05%</i>	<i>83.06%</i>	<i>83.94%</i>	<i>84.72%</i>	<i>85.41%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

The IRS based these projections on the following assumptions:¹⁷⁵

- The target population is Self Paper Filers and Self V-Coders.
- Information diffusion will be fast.
- No response from tax preparation software vendors.
- All individual taxpayer forms and schedules will be available.

An alternative adoption estimate based on an earlier implementation date is available in Appendix C.

8.3 Impacts

Commercial software vendors and third party transmitters will likely expend considerable resources opposing this Option.

The Free IRS Tax Preparation Software Option will bypass the roles currently played by third party transmitters and tax preparation software vendors. Although the Option will not replace these roles entirely, transmitters and software vendors may be faced with

¹⁷⁴ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

¹⁷⁵ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

choices such as: challenging the IRS in the legal system and/or in the courts of public opinion, lobbying Congress to restrict the IRS's ability to implement this Option and/or other services that may be perceived as competing with commercial offerings, changing their business models to demonstrate value-added capabilities beyond those of Free IRS Tax Preparation Software; downsizing; merging; or going out of business.

Commercial tax preparation software vendors will likely pressure Congress to enact legislation prohibiting IRS competition with private industry and to assess the effectiveness of taxpayer spending on software that is successfully provided by private industry.

Tax preparation software development and delivery is outside the core IRS business of tax administration. The IRS business model for tax administration relies on third parties to serve as preparers and tax preparation software vendors to assist the taxpayer. Public perception may view this Option as an unnecessary expenditure of taxpayer dollars.

Stakeholders: Tax Preparation Software Vendors, Transmitters, Congress, IRS

Impact Areas: Law and Policy, Services and Customer Support, Tax Landscape

Taxpayers may not perceive this Option as addressing concerns about cost for two main reasons: other free filing methods from FFA and commercial tax preparation software vendors exist; and many vendors no longer charge a separate fee to e-file.

Many tax preparation software vendors already offer apparently free *e-file* by including *e-file* fees in the price of the software. Also, FFA and some tax preparation software vendors already offer free online tax preparation to taxpayers. From the taxpayer's standpoint, tax preparation and submission is likely to cost the same whether the individual elects to submit the return using Free IRS Tax Preparation Software, print and submit a return on paper, or use a commercially provided method.

Furthermore, it is not clear what would motivate software vendors to reduce the price of tax preparation software (i.e., to back out the bundled *e-file* charge) if this Option were offered. This effectively undercuts one of the two intended benefits of this Option — that it will be free (the other is that it will not involve third parties).

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support

Taxpayers may not perceive this Option as addressing concerns with third party involvement because they may not be aware of transmitters' current role in e-filing.

In the current tax environment, taxpayers appear to have little awareness that third parties (specifically EROs and transmitters) are already involved in the electronic submission of their return, much less protecting the security and privacy of their data. This lack of awareness effectively undercuts one of the two intended benefits of this Option — that it will not involve third parties to the IRS-taxpayer relationship (the other is that it will be free).

Without a direct marketing campaign promoting this Option as a more secure method of submission, few taxpayers may see the Option as a method that preserves taxpayer confidentiality and information privacy by ensuring that returns are not routed through

any third parties. Marketing the difference on the basis of third party involvement may have the unintended adverse effect of reducing the *e-filing* level.

Stakeholders: Taxpayers, Tax Preparation Software Vendors, Transmitters, IRS

Impact Areas: Services and Customer Support

This Option will not compare favorably with the full range of features that commercial tax preparation software vendors bring to the market.

This Option will be functionally similar to the core features of higher-end commercial tax preparation software in terms of tax situations (e.g., forms and schedules) supported and use of a question-and-answer interview approach to simplify the preparation process. However, the Free IRS Tax Preparation Software Option will be unable to offer many value-added features that are currently marketed heavily by commercial vendors. For example, as currently defined and based on legal and policy constraints, the Option will not:

- Import prior year return data.
- Import W-2s and 1099s electronically.
- Initially support preparing or submitting State returns.
- Transfer data from the Federal to the State return, thus saving the taxpayer the time and effort required to re-enter the data.
- Provide tax advice or help interpret IRS rules.
- Flag potentially auditable entries.
- Provide software accuracy guarantees (i.e., cover the taxpayer's penalties and interest if an error in the return was caused by a bug in the tax preparation software).
- Provide live help or professional tax advice.
- Provide the Option to have the return to be evaluated by a tax professional.
- Provide the Option of audit support insurance (i.e., represent the taxpayer in case of audit).
- Be available as installable software that can be used offline (the tax preparation software is only available online).

Were this Option made available, commercial vendors would likely further differentiate their products on the basis of value-added features, assurances, and guarantees the IRS cannot or will not be able to offer.

The taxpayer will need to weigh the perceived benefits of government-provided free online tax preparation software versus commercial software that is marketed with other value-added capabilities aimed at optimizing the taxpayer's tax situation and that supports both Federal and State return preparation and submission.

On the other hand, Free IRS Tax Preparation Software could improve taxpayer compliance and reduce preparation errors, depending on the manner in which the software guides the taxpayer through the interview questions.

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors, Congress, States

Impact Areas: Law and Policy, Services and Customer Support, Tax Landscape

The IRS has no experience delivering user-centric tax preparation software that is frequently updated.

Development of tax preparation software would be a very high risk investment for the IRS, because it is significantly outside its core business. To offer the Free IRS Tax Preparation Software Option, the IRS will have to be able to lead complex development, testing, and continuous upgrading of software. While the IRS has had success in developing and fielding complex internal systems, none has the number of end users, need for rapid deployment of updates (possibly as frequently as weekly), or critical usability considerations that this publically available Option will have. The IRS will need to maintain a user-centric software development capability that is as responsive to taxpayer needs and usability testing as it is to changes in tax law. The IRS will also need to manage complex system and program integration between ongoing development and user testing of the software and the operation and maintenance of the IT infrastructure. To undertake such an Option, the IRS will need to add and retain personnel with software development skills and experience in usability testing to provide continuous support for the software and keep pace with changes in tax law.

Even if the IRS is able to add and retain staff capable of specifying, designing, and developing the software, it faces legal, policy, and procedural challenges in delivering the frequency of updates envisioned. For example, current government requirements to certify the security of IT systems prior to deployment are appropriately time and resource intensive. The IRS will thus be challenged to provide the monthly, much less the weekly or daily, software updates that commercial vendors release during tax season to address changes in tax law and software bugs/usability issues. Similarly, the IRS enterprise software development life cycle — a traditional, rigorous waterfall approach — does not support frequent releases (the typical time between releases is on the order of quarters to years). The IRS will be challenged to adopt more responsive approaches such as spiral development, much less agile-like development methods.

The Option also raises potential legal concerns over the accountability of the IRS if software bugs lead to erroneous return preparation and submission by a taxpayer.

Stakeholders: IRS, Taxpayers, Tax Preparation Software Vendors, Congress

Impact Areas: Services and Customer Support, Operational Processes, Human Resources Need and Structure

This Option will likely adversely affect IRS partnerships with key stakeholders such as tax preparation software vendors and transmitters as well as the IRS-FFA agreement.

The IRS's legal agreement with FFA states that "the IRS will not compete with the Consortium in providing free, online tax return preparation and filing services to taxpayers."¹⁷⁶ The Free IRS Tax Preparation Software Option will be in direct competition with the FFA offering known as Traditional Free File (TFF). The IRS's agreement with FFA, therefore, will need to be modified before the IRS can offer this Option. Alternately, FFA may elect to dissolve its agreement with the IRS and cease providing its free tax preparation services under TFF and FFFF.

Stakeholders: Tax Preparation Software Vendors, Transmitters, IRS, Taxpayers

¹⁷⁶ Free File Alliance and IRS (2002) *Free On-Line Electronic Tax Filing Agreement*

Impact Areas: Law and Policy, Tax Landscape

Since this Option will not initially support State returns, taxpayers may be inconvenienced, while States may see a decline in electronically submitted returns and see increased expectations that they provide their own similar Option.

Taxpayers will be responsible for submitting their State returns through other means because the Free IRS Tax Preparation Software Option will not support State returns. Taxpayer interest in this Option may be limited when compared with other Options that offer the convenience of both Federal and State return preparation and submission. Taxpayers who use this Option will need to manually transfer any required data from their Federal returns to another method for preparing and submitting their State returns (e.g., commercial tax preparation software, State I-File programs, paper forms). Taxpayers will need to assess how the convenience and ease of use of commercial tax preparation software (and its associated costs, including *e-filing* charges) balances against the Free IRS Tax Preparation Software Option, which does not involve third parties.

This Option will not initially support the Fed/State *e-filing* program.¹⁷⁷ Because the vast majority of States that assess individual income taxes depend on the Fed/State program, many State electronic filing programs may be at least partially disrupted by the initial version of the Free IRS Tax Preparation Software Option, though the precise volume of returns that will be affected is unclear. The IRS anticipates adding support for State returns as a feature in a future version of the Option.

Some States have noted that programs offered or proposed at the Federal level are often expected at the State level; this Option will not be an exception in shaping people's expectations of the services that States should provide.

Stakeholders: States, IRS, Taxpayers

Impact Areas: Law and Policy, Services and Customer Support, Tax Landscape

The IRS has little experience providing customer support to taxpayers on resolving software and submission issues.

The Free IRS Tax Preparation Software Option will require the IRS to provide customer support to taxpayers on resolving software and submission issues, something the IRS has to date been relatively insulated from due to the third party model. The impact on taxpayers will depend on the design and usability of the Option, resolution of error codes, and other features of IRS online account management.

Supporting taxpayers in terms of software-based preparation and submission issues is different from the type of customer support the IRS has offered to date. Also, offering this type of support presents a host of risks related to meeting customer expectations for end user software support, which even large technology firms whose core business relies on positive customer experience can struggle to meet in a cost-effective manner.

¹⁷⁷ Under the currently available Fed/State program, IRS *e-file* provides may file both Federal and State returns with the IRS in a single transmission. The IRS separates State information and makes it available for downloading by the State. In the Fed/State program, the IRS effectively acts as the third party in the taxpayer-State tax administrator relationship.

This Option will sharply increase help desk call volume and change the types of assistance taxpayers require from IRS Customer Service Representatives (CSR). The IRS will need to become more directly accountable to taxpayers and deliver high-quality service when supporting taxpayers with software and submission issues.

This Option will increase the demand for CSRs with skills that focus on helping taxpayers with software issues (e.g., account log-in, passwords, home computer technology, using the Option itself) and submission issues (e.g., home network technology, remediation of rejected returns). To provide such support, the IRS will need to hire and train additional CSRs.

The new customer support services the IRS will make available to taxpayers are services that are supported today by its authorized *e-file* providers, primarily tax preparation software vendors. This Option will shift responsibility for taxpayer support from *e-file* providers directly to IRS CSRs.

Stakeholders: IRS, Taxpayers, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support, Tax Landscape

Taxpayers may be dissatisfied with the lack of email confirmation provided by this Option, given that they are used to automatically being sent real-time emails confirming their other purchases and transactions online.

Taxpayers will access messages confirming receipt and acknowledging acceptance or rejection of their returns through a secure IRS web site where they will log in and be authenticated. Taxpayer interactions with the Free IRS Tax Preparation Software system will be exclusively through this secure web site, not through email. This will place the burden on taxpayers to actively retrieve their messages online rather than passively receive these messages. The IRS does not currently send emails to taxpayers because of the concern that doing so would increase taxpayers' risk of exposure to phishing and online fraud.

Stakeholders: Taxpayers, IRS, Tax Preparation Software Vendors

Impact Areas: Services and Customer Support, Tax Landscape

The IRS will face challenges in marketing this Option to taxpayers, particularly given that the IRS relies on its commercial partners — some of which will be affected by this Option — for much of its taxpayer outreach.

The IRS is highly dependent on partnerships with industry and trade groups to conduct its own marketing and outreach efforts. The IRS not only works with, but relies heavily on preparers, tax preparation software vendors, professional associations, and outreach groups to convey the *e-file* message. The combined marketing budgets of these groups are far in excess of what is allocated for this purpose at IRS. The IRS marketing budget is only a fraction of what other *e-file* stakeholders have available. Were this Option made available, commercial vendors would likely be able to effectively drown out any IRS efforts to market awareness of the Free IRS Direct *E-file* Option. Furthermore, the IRS' marketing and outreach efforts dependent on partnership with industry would likely be negatively affected.

There is a related but less tangible concern that the IRS, as the administrator of the tax code, cannot be trusted to look out for one's best interests in meeting tax obligations under the law. As a result, the tax return preparation assistance provided by the IRS

Option may be perceived by taxpayers as suspect and/or suboptimal. Were this Option made available, commercial vendors would likely reinforce the message that they have historically emphasized — third parties are an advocate of the taxpayer in interacting with the government.

Given the broader set of value-added features among commercial tax preparation software products compared with this Option, and given the significant edge in marketing reach and budget the commercial vendors hold, if this Option were made available, commercial vendors would likely be able to effectively counter any IRS efforts to market the Option on the basis of cost or lack of third party involvement by comparing the full set of value-added features provided by their products with the Option's lack of such features, not to mention the vendors' value add as an advocate of the taxpayer.

Stakeholders: IRS, Taxpayers, Tax Preparation Software Vendors, Congress, States

Impact Areas: Law & Policy, Services & Customer Support, Tax Landscape

The IRS must deliver Taxpayer E-Authentication and MeF 1040 before this Option.

The IRS's responsibility for protecting the security and privacy of taxpayer data will be critically affected by the Free IRS Tax Preparation Software Option. Security and privacy will be a major consideration when taxpayers begin submitting their returns directly to the IRS over the Internet. The IRS will be required to protect taxpayer data through taxpayer authentication and encryption systems and to detect and prevent fraud on and malicious tampering with web sites.

The Taxpayer E-Authentication system will be larger, riskier, more costly, and more complex than any secure identification system the Federal government has ever developed. This is due largely to the challenges of providing possibly 150 million taxpayers with the means to access, use, and be supported in the use of the system. The scale of the effort may exceed the technological, organizational, and managerial maturity of the IRS. Therefore, the dependency of Free IRS Tax Preparation Software on Taxpayer E-Authentication poses a critical risk.

This Option also depends on the completed implementation of MeF 1040.

Stakeholders: IRS, Taxpayers, Congress

Impact Areas: Taxpayer Data and Security

8.4 Estimated Costs

8.4.1 Summary

For the Free IRS Tax Preparation Software Option, three alternative scenarios were examined to look at estimates based on different volumes of users. The resulting cost estimates, sized for three different user populations, are compared in Table 8-4.¹⁷⁸

The estimation team assumed the Free IRS Tax Preparation Software Option will need to support up to 46 million taxpayer users per filing season, which reflects the largest number of potential users.¹⁷⁹ Estimates were also prepared assuming the Option will support either 3 million taxpayers or 24 million taxpayers.¹⁸⁰ For the scenario with 3 million taxpayer users, the estimate assumes that all taxpayers will be new *e-filers*. In the scenario assuming 24 million taxpayer users, the estimate assumes 11 million new *e-filers* plus 13 million taxpayers that will switch to preparing and submitting their returns with Free IRS Tax Preparation Software instead of purchasing commercial tax preparation software.

Table 8-4 provides very rough order of magnitude (VROM) estimates of the one-time cost for the IRS to implement the Free IRS Tax Preparation Software Option and the annual recurring cost for the IRS to operate and maintain the Option based on different usage scenarios.¹⁸¹

Table 8-4: VROM Cost Estimate for Free IRS Tax Preparation Software Option, Based on 3 Million, 24 Million, and 46 Million Taxpayer Usage Scenarios

Taxpayer Usage Scenario	One-Time Cost to Implement	Recurring Operations and Maintenance Cost	Duration to Implement Option
3 million users/year	\$136 million	\$50 million/year	48 Months
24 million users/year	\$141 million	\$58 million/year	48 Months
46 million year/year	\$160 million	\$115 million/year	48 Months

Source: IRS (2009) *Advancing e-File Study Phase 2 (AES2) Form-Based Preparation Tool Option Basis of Estimate (BOE) Report*

The IRS assumed that development of the Free IRS Tax Preparation Software Option will start in January 2012, to align with the expected availability of the MeF 1040 system, and that the Option will become available to taxpayers for the 2016 calendar year and tax filing season.

The time required to implement the Free IRS Tax Preparation Software Option does not depend on usage volume as software development complexity is unchanged.

¹⁷⁸ IRS (2009) *Advancing e-File Study Phase 2 Interview Based Preparation Tool Basis of Estimate Report*

¹⁷⁹ The 46 million taxpayer estimate consists of an expected 11 million new e-filers plus 35 million taxpayers that would switch to filing their returns with the Free IRS product instead of purchasing commercial tax preparation software.

¹⁸⁰ For purpose of comparison, the IRS Online Forms Option is expected to have 3 million users, while the IRS Direct E-File Option is estimated to support 13 million taxpayers.

¹⁸¹ These estimates are given with a 70% level of confidence that they predict the probable resources required for IRS to deliver the Option according to the preliminary definition (scope) and degree of unknown requirements.

Infrastructure and network costs are driven by the number of concurrent users expected to prepare their tax returns online at any given time. For the Free IRS Tax Preparation Software Option, the IRS estimated it will need to support peak usage of 900,000 concurrent online taxpayer sessions on the pre-filing system, assuming 46 million *e-filers* per year. In the case of 24 million *e-filers* per year, the IRS estimated that it will need to support peak usage for 450,000 concurrent online taxpayer sessions on the pre-filing system, whereas for 3 million *e-filers* per year, the number of concurrent sessions is expected to be 60,000. Fewer expected *e-filers* will reduce the recurring cost, because fewer Customer Service Representatives will be needed, and IRS Customer Service Center facility expenditures to operate and maintain the Option will be lower.

8.4.2 Cost Drivers, Assumptions, and Risks

Table 8-5 summarizes key cost drivers, assumptions, and risks associated with each major element in the Estimation Breakdown Structure (EBS).

Table 8-5: Cost Drivers, Assumptions, and Risks for Free IRS Tax Preparation Software Option

EBS Element	Cost Drivers, Assumptions, and Risks
Deployment and Implementation 11% of One-Time Cost 75% of Recurring Cost	<ul style="list-style-type: none"> • If the volume of taxpayers using this Option is assumed to be 46 million, recurring O&M costs are driven by the estimated need to hire 1,430 additional full-time Customer Service Representatives (CSR) to assist taxpayers calling the toll-free help desk. The IRS assumes the need to build three new Customer Service Centers to accommodate the additional CSRs. • If the volume of taxpayers using this Option is assumed to be 24 million, the estimated number of CSRs needed will be reduced to 500, only one additional Customer Service Center will be needed, and the overall O&M cost to implement the Option will be reduced, which represents a proportionally lower percentage of the total estimate. • If the volume of taxpayers using this Option is assumed to be 3 million, the estimated number of CSRs needed will be reduced to 200, there will be no need for additional Customer Service Centers, and the overall O&M cost to implement the Option will be reduced, which represents a proportionally lower percentage of the total estimate. • The IRS relies on full-time year-round CSRs and does not rely on temporary hires given the level of training required for the CSR position. The cost estimate includes CSR training costs.
Project Infrastructure (Portal, Network, Disaster Recovery, Hardware/Software, Engineering Support) 24% of One-Time Cost 7% of Recurring Cost	<ul style="list-style-type: none"> • Infrastructure costs include hardware and software for the pre-filing system and ongoing maintenance of the new system infrastructure. • Infrastructure costs include portal upgrades to manage increased user traffic on the secure IRS web site and to augment the capacity of the disaster recovery/failover infrastructure. To handle tax returns <i>e-filed</i> by individual taxpayers, portal upgrades are required. The current process, which relies on queuing and scheduling the receipt of returns submitted in batches by IRS-authorized transmitters, cannot be used to handle <i>e-filed</i> returns from individual taxpayers.

EBS Element	Cost Drivers, Assumptions, and Risks
Application Software 46% of One-Time Cost 13% of Recurring Cost	<ul style="list-style-type: none"> • Given software size, implementation of the Option in a single release would be impractical; therefore, the estimate assumes implementation in various releases. • Implementation resource and schedule constraints are identified by the IRS as critical performance risks. • The IRS assumes a 48-month timeline for implementation of this Option, representing a highly compressed and high risk schedule for software development. • To deliver the Option based on desired 48-month schedule, a high number of software development personnel will be required (181 on average) in a short timeframe. • Another critical risk posed in the cost estimate of this Option is that they assume no software lines of code growth during Option development.
Project Management Office (PMO) Support 19% of One-Time Cost 5% of Recurring Cost	<ul style="list-style-type: none"> • A new PMO is expected to handle the program aspects of Free IRS Tax Preparation Software management and continuous service improvement. • Extensive usability testing will be a key capability coordinated by the PMO.

Note: EBS element percentages of one-time and recurring costs reflect allocations for the 46M user estimate.
 Source: IRS (2009) *Advancing e-File Study Phase 2 (AES2) Form-Based Preparation Tool Option Basis of Estimate (BOE) Report*

Because Taxpayer E-Authentication is not within the scope of the Option definition, the cost estimates do not include the costs or schedule constraints for the IRS to provide secure taxpayer account management over the Internet. The size, complexity, and cost of an enterprise-wide Taxpayer E-Authentication system will depend on business requirements and the number of taxpayers expected to use the system.

The requirements for this Option involve software development methodology and usability testing that is more aggressive than what the IRS can estimate. The cost estimate does not reflect the fundamental organizational shifts and associated costs and risks of using an entirely new approach to rapid user-centric software development.

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9. Technology Option: Modernized Paper Filing

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9.1 Definition

Even when the 80% *e-filing* goal is achieved, tens of millions of individual returns will still be submitted to the IRS on paper. For this reason, finding efficiencies and cost savings in the processing of paper returns is an important part of the IRS's overall modernization and *e-filing* strategy.

To handle individual income tax returns submitted on paper, the Modernized Paper Filing Option will include optical scanning, automated data extraction using both character recognition (CR) and two-dimensional (2D) barcodes, data export, and electronic image archiving.

This Option will provide significant flexibility and cost savings over the existing paper return processing solution. Return data will be quickly extracted and exported in formats compatible with *e-filed* returns. Most of the manual transcription of data that occurs at IRS Submission Processing Centers today (rekeying data from paper returns into IRS computer systems) will be eliminated. Optically scanned returns will be electronically retrieved, eliminating the costs and delays associated with retrieving paper returns. Additionally, optically scanned returns will become the official return-of-record, allowing the original paper returns to be destroyed.

This Option will address all paper filers, not as a means to encourage them to *e-file*, but to allow the IRS to achieve efficiencies and cost savings comparable to *e-file*. It also will put all *e-filed* and paper return data into a single modernized data pipeline supporting the retirement of costly legacy processing systems.

9.1.1 The Current Environment

Today, the IRS operates regional Submission Processing Centers that receive and process paper returns, remittances, and correspondence. The 1040 family of forms and schedules submitted on paper are handled by the Austin (TX), Fresno (CA), Kansas City (MO), Andover (MA), and Atlanta (GA) centers. The process at these centers includes mail room receipt and sorting, remittance processing, coding and editing, transcribing, filing, and archiving. To handle the transcription of data from paper returns, each year the IRS hires (or in many cases, rehires) about 5,000 temporary workers to manually key in tax return and payment data.

The IRS processes paper returns using the Integrated Submission and Remittance Processing (ISRP) system, a manual transcription system deployed in 1998. Data from paper returns is keyed into the system by transcriptionists. Along with the 1040 family of forms and schedules, ISRP is also used to process IRS time sheets, correspondence, and other types of documents.

In addition to ISRP, the IRS operates the Service Center Recognition Image Processing System (SCRIPS), a high-speed electronic document imaging system that processes returns and payments. This includes Information Return Processing (IRP) forms such as the 1041, 1065, 1120S (Schedule K-1), and 940/941. SCRIPS cannot be adapted or

expanded to handle the complexity or volume associated with the 1040 family of forms and schedules.

Current and Past Proposals for Modernized Paper Filing at the IRS

Revenue bodies worldwide have been automating the processing of paper returns.¹⁸² Consistent with this direction, the IRS has researched and prepared several proposals for modernizing its paper return processing environment. To date, however, none of these proposals has been funded.

Various options have been considered to provide the IRS with an efficient means of processing paper returns. In June 2007, a summit was held among executives from IRS Wage and Investment (W&I) and Modernization and Information Technology Services (MITS) to establish a paper processing strategy. A range of options were considered, from maintaining current processes, to modifying existing systems with new capabilities such as optical imaging and 2D barcoding, to developing new systems with modern document management capabilities. Ultimately, the executives concluded that the most cost-effective solution would be to deploy new processing systems.

The most recent proposal, for a Modernized Submission Processing (Msp) system, was proposed in FY2008. Although IRS senior executives ranked Msp a high-priority modernization project for the FY2010 investment portfolio, Msp did not receive funding. This proposal has since been withdrawn. A new proposal has been submitted to enhance legacy systems with 2D barcode capabilities, but because it is in its early stage, the particulars are unknown. At present, the IRS is without a paper processing modernization strategy. Contracts for the legacy paper processing systems will expire in 2012.

For purposes of this report, the Option described in this chapter is based on capabilities and features that were researched for the Msp project and proposal, because Msp is the most recent fully formed and robust solution considered. Costs and impacts described herein reflect information presented in the FY2008 Msp proposal.

9.1.2 Envisioned Capabilities and Features

The assessment of this Option is based on information obtained through the FY2008 Msp proposal.¹⁸³ Based on Msp assessments and plans, the 1040 family of forms and schedules was the initial target for automation. Subsequent releases would have targeted additional form types on a case-by-case basis.

¹⁸² Historically, revenue bodies have spent considerable resources processing paper-based tax returns and payments. With pressures to reduce staff and expand value-adding compliance work (both of a service and enforcement nature), revenue bodies have had considerable incentive to automate these processes through greater use of technology. The key benefits of effective use of technology include: 1) faster collection of government revenue; 2) improved data accuracy and elimination of reverse workflows; 3) reduced paperwork for taxpayers; 4) faster crediting of tax refunds; and 5) faster capture of taxpayer data for a range of administrative purposes. In aggregate, there is strong business case for revenue authorities to invest substantial funds and efforts to establish modern and comprehensive systems of electronic filing and payment. Source: Organisation for Economic Co-Operation and Development (2009) *Tax Administration in OECD Countries: Comparative Information Series (2008)*

¹⁸³ IRS (2008) *Modernized Submission Processing (Msp) - Solution Concept Definition - Domain: Submission Processing*

The 2008 Msp Solution Concept¹⁸⁴ described six operational processes. These processes serve as a model for whatever environment the IRS chooses to implement:

1. Optical Scanning
2. Data Extraction
3. Data Validation
4. Data Export
5. Image Archive and Retrieval
6. Form Introduction and Change

The following sections describe these processes and capabilities in more detail.

Optical Scanning

This Option will support high-resolution optical scanning at high volumes (more than 1 billion images per year). During a peak week, an estimated 118 million images will be scanned.¹⁸⁵ Key features of optical scanning include:

- Two-sided scanning.
- Multiple-form-size feeders.
- Sorting and collating.
- Full content scanning, including all attachments and the envelope.

Once a return is scanned, all electronic content will become the return-of record — the official government record of the tax return.

Data Extraction

Once a return has been optically scanned, data will be extracted from the electronic image by one of three methods — CR technology, 2D barcode technology, or manual transcription.

Regardless of which method is used, all data relevant for tax processing — or all transcription lines¹⁸⁶ as specified through current processing requirements — will be extracted from the tax return. This includes any required data outside the form fields and lines, such as in cases where the instructions specify the use of margins to record return data, and any data from attachments that are part of the official return-of-record.

CR allows computers to read typed or handwritten alpha-numeric text. This capability provides a means of automated data extraction that does not impose any burden on filers, preparers, or tax preparation software vendors. The accuracy of CR varies widely based on the readability of the original return. Significant system resources are required to support the validation processes to determine whether tax return data was extracted accurately.

¹⁸⁴ IRS (2008) *Modernized Submission Processing (Msp) - Solution Concept Definition - Domain: Submission Processing*, p. 7

¹⁸⁵ IRS (2007) *Modernized Submissions Processing (Msp) Sizing Model*, p. 1

¹⁸⁶ Transcription lines, or T-lines, are the data fields (such as form 1040 line 37, adjusted gross income) that are manually captured from the paper return pursuant to instructions in the Internal Revenue Manual.

2D barcodes embed all taxpayer-entered data into a graphic that can be read at high speeds and with high levels of accuracy by optical scanners. 2D barcodes are only applicable for paper filers using tax preparation software. In order to implement this technology, the IRS would need to establish a barcode standard and regularly validate that returns created by vendors' tax preparation software meet the standard. Tax preparation software vendors would need to modify their products to provide compatible barcodes. This process is currently employed by SCRIPS for Form 941 Schedule K1. Implementation of 2D barcodes for the 1040 family of forms and schedules is expected to require significant redesign of existing forms.

Transcription, the manual rekeying of data from tax returns, is the IRS's primary data extraction method and is used when processing returns through the ISRP system. Of the data extraction methods considered, transcription is the most costly and least accurate. Capabilities to support manual data extraction, however, must be retained in any new system to support returns that cannot be handled using CR or 2D barcodes. The transcription system selected should give IRS personnel the ability to transcribe from both the paper return and an electronic image of the return.

The IRS paper processing modernization strategy should employ all three data extraction methods. These methods will provide a complete solution for the extraction of data from paper returns that is as efficient and accurate as the solution used for the extraction of data from *e-filed* returns.

Data Validation

Extracted data will be validated and, if needed, corrected. This process will not eliminate all error correction functions currently being performed, but it will correct the majority of simple errors (e.g., transcription, entry, math).

Key features of data validation include:

- Automated validation of data against an authoritative data source (e.g., matching return data to current records).
- Automated computational validation of data in selected data fields (e.g., ensuring that data in fields representing the result of a calculation is in fact correct).
- Automated parameter validation of data in selected data fields (e.g., ensuring that fields contain the type of information — numerical, alpha-numeric, check boxes, and other — they are supposed to). This includes the ability to specify valid data types.
- Manual error correction for selected returns (e.g., when human intervention is required because automated validation/correction failed).
- Classification and correction of form identification errors (e.g., ensuring that forms are identified correctly since each form may be processed differently).
- Workload management capability to more evenly distribute volume across validation sites.

Data Export

Validated data will be exported and formatted for modernized systems, existing legacy systems, and other interfacing systems as necessary.

Image Archive and Retrieval

Returns (both the image as return-of-record and the link to extracted return data) will be stored in and retrieved from a repository in accordance with information security and records management requirements. Key features of image archive and retrieval include:

- Electronic storage of returns.
- Records management.
- Image retrieval.
- Access to previous years' returns based on individual form retention requirements.
- Compatibility with and connectivity to other enterprise-level record distribution systems.

Form Introduction and Change

New forms will be allowed to be introduced and existing forms to be changed without extensive modifications to the Option's software. New forms will be introduced and changes to existing forms will be made quickly and cost effectively during the current filing season and from one filing season to the next. Key features include:

- A standard rules engine, which will limit the need for custom code development.
- A forms change interface (e.g., to allow configuration of optical scanning, form identification, and data extraction settings).
- An automated business rules toolkit (for customizing form templates).

9.1.3 Assumptions and Constraints

This Option assumes that no matter how successful the IRS advancing *e-file* effort is, the IRS will continue to receive a significant number of returns on paper.

- Imaged returns, including all schedules and attachments, along with envelopes for late returns, can be legally used as returns-of-record.
- On average, 1.5 million sheets per day, 10.6 million sheets per week, and 46 million sheets per month will be scanned. Reengineered processes must be capable of handling peak periods in which significantly more sheets than average are handled.
- To achieve optimum data extraction (e.g., CR accuracy, 2D barcode read rates), some IRS forms may need to be redesigned. This could coincide with other form changes.
- This Option is expected to result in reductions, reassignments, retraining, and hiring of new staff at IRS Submission Processing Centers. Job changes on such a large scale are disruptive to the organizational culture.
- Space within IRS Submission Processing Centers must be redesigned to support the new equipment and automated processes.
- Volume estimates for scanning and processing are based on the Msp sizing model.¹⁸⁷

¹⁸⁷ Olson, N. E. (2008) *The 2008 Tax Return Filing Season, IRS Operations, FY 2009 Budget Proposals, and The National Taxpayer Advocate's 2007 Annual Report to Congress*

- This Option is likely to yield significant cost savings through the modernization of paper processing. It currently costs \$0.20 to process an *e-filed* return, versus \$2.68 per paper return.¹⁸⁸ This Option is likely to decrease the cost of processing a paper return.
- Space requirements within IRS facilities for storage of paper returns could, over time, be significantly reduced, resulting in cost savings.
- This Option will result in a robust document imaging capability while preserving taxpayer filing options.
- This Option may be leveraged to address other areas of document imaging and management, including IRS correspondence. It could expand into a document imaging Center of Excellence to support the entire Treasury Department.
- This Option may accelerate the retirement of several other IRS document imaging systems.

9.1.4 Areas for Further Investigation

As stated earlier, the IRS has considered several alternatives and made various proposals for modernizing paper return processing. In addition to the Msp system, the following solutions were proposed:

- In 2004, the Modernized Paper Pipeline Processing system was proposed to address all IRS form types. This project did not move forward because of the high initial cost for development.
- During the 2006–2007 period, the Modernized Paper Processing system was proposed, which reflected a scaling back of the 2004 proposal. This proposal was not funded.
- In 2008 the Modernized Submission Processing (Msp) system was proposed. While Msp was selected as a major modernization project, this project did not receive funding either, and has since been deferred.

After Msp was proposed in FY2008, a new proposal to enhance legacy systems with 2D barcode capabilities was submitted. Detailed requirements and timetables for this proposal are still being developed. The broader strategy for modernizing the processing of paper returns is being refined as part of an overall effort to maintain and enhance the IRS's paper processing capability after current contracts for legacy paper processing systems expire in 2012.

9.2 Projected Net Adoption

This Option — which will use CR as the primary data extraction technology — will not affect *e-file* adoption. The Option will enable paper return processing to be as efficient and accurate as the processing of *e-filed* returns and is part of the overall IRS *e-file* strategy.

Additional research is needed on the potential adverse effect of 2D barcoding on *e-filing*. The AES2 team did not find evidence supporting or disproving the hypothesis that 2D barcoded paper returns will hurt *e-file* adoption (e.g., because filers will recognize

¹⁸⁸The cost per paper 1040 return is \$2.68 and cost per electronic 1040 return is \$0.20 or a net cost to file paper of \$2.48 (IRS (2008) *Form 1040 Costs - Paper versus ELF FY2007*).

that submitting a 2D barcoded paper return will deliver them benefits equivalent to *e-filing* it, with none of the perceived risks or costs of *e-file*).

That said, of the two data extraction technologies, only CR has the potential to extract data from all returns. 2D barcodes will be limited to the roughly three-quarters of paper returns that are prepared on a computer (this assumes, furthermore, that all tax preparation software will fully support the IRS 2D barcode standard). Therefore, any solution that depends exclusively on 2D barcodes will require the transcription of data from at least 25% of paper returns, independent of any transcription required to correct misread data.

9.3 Impacts

The IRS had been considering the Modernized Submissions Processing (Msp) proposal as a means of meeting its business needs for the last two years. Various proposals preceded the Msp proposal. The IRS is still in need of a solution for modernizing paper filing.

The IRS has put forward a number of proposals to modernize paper processing. To date, none of these proposals, including Msp, has been funded. The IRS needs to field some solution to modernize paper filing to realize the desired business capabilities, processing efficiencies, and cost savings it would provide.

Stakeholders: IRS

Impact Areas: Infrastructure

Only CR can extract data from both V-Coded and manually prepared paper returns. 2D barcodes are limited to the 74% of paper returns that are V-Coded.

2D barcodes and CR offer similar data extraction results but for different reasons.

If a 2D barcode is legible — that is, the extraction solution can detect and read/decode it — data extraction is 100% accurate. Therefore, the extraction capability of 2D barcodes is more a measure of the percentage of barcodes that are legible in the real world — some figures indicate 93% to 96% — than a measure of the accuracy of extracted data.¹⁸⁹ With 2D barcodes, data extraction is an all-or-nothing proposition that depends entirely on whether the barcodes can be read.

CR systems allow data to be extracted from imperfect source material. This is because accuracy or confidence in the extracted data can vary — and is noted, for potential human intervention if it drops below a set confidence threshold — at the word or character level. CR, therefore, can extract data in situations where 2D barcodes cannot, with the trade-off that the extracted data could be less than 100% accurate, thus requiring additional validation or remediation. The operational implication of CR is that

¹⁸⁹ Potential causes of an imperfect read rate include:

- Design issues relating to built-in error correction settings and the physical attributes — size, aspect ratio — of the 2D barcode.
- Printing issues such as insufficient native resolution of the user's printer, insufficient print quality, and print margins impinging on the barcode.
- Handling issues such as folds, tears, writing, and other marks that occlude or damage the integrity of the barcode.
- Processing issues such as insufficient scan resolution, insufficient image cleanup, and insufficient software capabilities regarding recognizing the barcode in the scanned image and decoding it.

while imperfect data may be read, incorrectly read data poses an issue requiring remediation (typically, manual transcription).

It is important to note that a 2D barcode solution not only has a data extraction component (when the return is processed) but also a creation component (when the return is printed). Tax preparation software must be configured to create the correct, standards-compliant 2D barcodes. Therefore, 2D barcodes only work for V-Coded returns — about 74% of paper returns. Conversely, CR applies to all paper returns, including the 25% of paper returns that are handwritten (though CR of handwriting typically provides reduced accuracy compared to CR of computer print).

CR technology is more system-intensive than 2D barcode technology.

Stakeholders: IRS

Impact Areas: Services and Customer Support, Taxpayer Data and Security

2D barcodes will require the IRS to redesign its tax forms.

Given the visual complexity/density of the current 1040 family forms and schedules, the amount of data potentially contained in a return, and practical limitations on the amount of information that can be reliably encoded in 2D barcodes, redesigning IRS forms to accommodate required 2D barcodes within the existing page(s) may prove challenging, if not infeasible. It is likely that a new “form” consisting primarily of the required 2D barcodes for the return may need to be developed. Significant changes to the 1040 family of forms and schedules may be needed to support 2D barcodes.

Besides further delays in realizing modernized paper return processing, any form redesign has a number of related implications, including communicating to the public the purpose of and instructions for using 2D barcode-enabled forms, working with tax preparation software vendors to accommodate the new forms in their software, and reengineering existing submission processing systems to accommodate the increased volume of data extracted from paper returns and passing that data along the processing pipeline.

While a CR-based solution may benefit from CR-optimized tax forms, redesigning tax forms is not necessarily a requirement for CR.

Stakeholders: IRS

Impact Areas: Services and Customer Support, Taxpayer Data and Security, Tax Landscape

In the absence of a mandate, tax preparation software vendors may have little incentive to modify their software to support 2D barcodes.

If there is no mandate for tax preparation software vendors to implement 2D barcodes, the IRS could receive V-Coded returns without 2D barcodes, thus negatively affecting the success of a 2D barcode solution. Implementing 2D barcodes will require tax preparation software vendors to update their software to produce standards-compliant 2D barcodes on printed returns. Many vendors already have this capability because many State revenue agencies require 2D barcodes on returns; however, implementing 2D barcodes for Federal returns is a significant change. Standards would need to be developed to identify the data that needs to be extracted from particular forms as well as the attributes of the barcode itself (e.g., type, size, placement, error correction level). These standards would need to be defined, tested, and implemented before a vendor

could release its software that supports 2D barcodes on individual returns. Given the burden this would place on commercial tax preparation software vendors, it is not clear what incentive they would have to voluntarily produce 2D barcodes on printed 1040 forms and schedules.

Stakeholders: Tax Preparation Software Vendors

Impact Areas: Services and Customer Support, Taxpayer Data and Security, Tax Landscape

2D barcodes may cause confusion or negative reactions among some taxpayers.

Communication will be needed to introduce 2D barcodes to the public. Extra pages may be required for printing forms from a home computer, and these forms may include multiple barcodes. Taxpayers may be confused about what to do with the pages that include 2D barcodes or concerned about what information is contained in the barcodes. In the case of a separate page of 2D barcodes, taxpayers may simply forget (or willfully neglect) to include that page with the rest of the printed return, rendering the return unreadable in the absence of CR or transcription. Communication efforts will be needed to address taxpayer concerns and to ensure that taxpayers understand that all printed pages, including those with 2D barcodes, must be included in their paper returns.

Stakeholders: Taxpayers, IRS

Impact Areas: Services and Customer Support, Taxpayer Data and Security, Tax Landscape

2D barcodes may have an adverse effect on the e-file level.

Some States have noted that because they accept 2D barcodes on V-Coded returns, there is little incentive for Holdouts to electronically submit their returns. Holdouts may be aware that data extracted from paper returns with 2D barcodes is as accurate as data extracted from electronically submitted returns, without any of the privacy and security concerns associated with submitting returns over the Internet. The growth in *e-file* adoption, therefore, may suffer as a result of 2D barcodes.

Stakeholders: IRS, Taxpayers

Impact Areas: Services and Customer Support, Taxpayer Data and Security, Tax Landscape

9.4 Estimated Costs

9.4.1 Summary

Table 9-1 provides very rough order of magnitude (VROM) estimates of the one-time cost for the IRS to implement the Modernized Paper Filing Option and the annual recurring cost for the IRS to operate and maintain the Option.¹⁹⁰

Table 9-1: VROM Cost Estimate for Modernized Paper Filing Option

One-Time Cost to Implement	\$71 million
Recurring Operations and Maintenance Cost	\$10 million/year
Duration to Implement	48 Months

Source: IRS (2008) *Modernized Submission Processing (Msp) - Solution Concept Definition - Domain: Submission Processing*

9.4.2 Cost Drivers, Assumptions, and Risks

Table 9-2 summarizes key cost drivers, assumptions, and risks associated with each major element in the Option's Estimation Breakdown Structure (EBS).

¹⁹⁰ These estimates are given with a 70% level of confidence that they predict the probable resources required for IRS to deliver the Option according to the preliminary definition (scope) and degree of unknown requirements.

Table 9-2: Cost Drivers, Assumptions, and Risks for Modernized Paper Filing Option

EBS Element	Cost Drivers, Assumptions, and Risks
Deployment and Implementation	Development, customization, and implementation costs for optical scanning and CR software are the most significant cost drivers.
Project Infrastructure (Equipment and Licensing)	<ul style="list-style-type: none"> • Estimates include licensing fees for optical scanning and CR software and hardware, including sorters and optical scanning equipment. • Combination sorting/optical scanning equipment will be acquired. • All tax returns received at any of the five Submission Processing Center mail rooms will be automatically sorted by tax return type. (This automated sorting process will provide a collateral benefit to the entire mail room operation.) • Electronic images will be created for all return information received (envelope and all contents). • Paper returns will be destroyed after they have been optically scanned. • Sizing and capacity is based on the projected size and capacity requirements for handling tax returns only. Other types of documents received at Submission Processing Centers (e.g., correspondence, information returns) are not included in these cost estimates. • Five Submission Processing Centers will be operational. This number is based on volume projections and logistical requirements. • The IRS will operate two storage centers to provide redundancy for the permanent storage of all electronically imaged tax returns. • Costs for Campus Bulk Remittance Processing are not included in the cost estimate for this Option. (Campus Bulk Remittance Processing, a paper check conversion system that allows paper checks to be processed as Electronic Funds Transfer transactions, is being addressed separately.) • Costs for the Enterprise Return Retrieval system are not included in the cost estimate for this Option. (Enterprise Return Retrieval, a system that allows IRS-wide electronic access to return data, including imaged returns, is being addressed separately.)

Source: IRS (2008) *Modernized Submission Processing (Msp) - Solution Concept Definition - Domain: Submission Processing*

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10. Policy Option: Federal *E-file* Mandate on Paid Preparers

As a part of Advancing *E-file* Study Phase 2, MITRE began work on examining a Federal *E-file* Mandate on Paid Preparers Option. Since Congress passed such a mandate (see below) before this analysis could be finalized, MITRE set aside its work on this Option.

Before November 6, 2009, US law prohibited the IRS from requiring that individual income tax returns be *e-filed*. On that date, Congress mandated that individual income tax returns filed after December 31, 2010 by preparers who file more than 10 returns in a calendar year be *e-filed*. Section 17, “Certain Tax Return Preparers Required to File Returns Electronically,” of the legislation reads:¹⁹¹

(a) IN GENERAL.—Subsection (e) of section 6011 of the Internal Revenue Code of 1986 is amended by adding at the end the following new paragraph:

“(3) SPECIAL RULE FOR TAX RETURN PREPARERS.—

“(A) IN GENERAL.—The Secretary shall require that any individual income tax return prepared by a tax return preparer be filed on magnetic media if—

“(i) such return is filed by such tax return preparer, and

“(ii) such tax return preparer is a specified tax return preparer for the calendar year during which such return is filed.

“(B) SPECIFIED TAX RETURN PREPARER.—For purposes of this paragraph, the term ‘specified tax return preparer’ means, with respect to any calendar year, any tax return preparer unless such preparer reasonably expects to file 10 or fewer individual income tax returns during such calendar year.

“(C) INDIVIDUAL INCOME TAX RETURN.—For purposes of this paragraph, the term ‘individual income tax return’ means any return of the tax imposed by subtitle A on individuals, estates, or trusts.”.

(b) CONFORMING AMENDMENT.—Paragraph (1) of section 6011(e) of the Internal Revenue Code of 1986 is amended by striking “The Secretary may not” and inserting “Except as provided in paragraph (3), the Secretary may not”.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to returns filed after December 31, 2010.

¹⁹¹ Worker, Homeownership, and Business Assistance Act of 2009 (H.R. 3548)

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11. Policy Option: Targeted Marketing of *E-file*

Contents of Chapter 11:

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 - 11.1.1 The Current Environment
 - 11.1.2 Envisioned Capabilities and Features
 - 11.1.3 Assumptions and Constraints
 - 11.1.4 Areas for Further Investigation
- 11.2 Projected Net Adoption
- 11.3 Impacts
- 11.4 Cost
 - 11.4.1 Summary
 - 11.4.2 Cost Drivers, Assumptions, and Risks

11.1 Definition

The Targeted Marketing of *E-file* Option will identify specific groups of taxpayers and paid preparers who submit tax returns on paper and will attempt to persuade them to switch to electronic return submission (*e-filing*).

The purpose of the Targeted Marketing of *E-file* Option is to focus marketing and communication efforts on high-opportunity populations (i.e., those with greatest possibility of *e-file* adoption). For example, more analysis about V-Coders — taxpayers and preparers who prepare returns on a computer but print and submit returns on paper — might yield information based on demographics and other characteristics that could help identify potential populations for the targeted marketing of *e-file*. Since members of this group already use computers to prepare their returns, they are likely to be more open to *e-file*. The key will be to understand why these taxpayers and preparers choose not to *e-file* and to develop marketing campaigns to persuade them to do so.

To further define this Option, the IRS will draw on research performed as part of AES2 as well as other relevant sources. The desired outcome of this Option is to provide the framework the IRS needs to develop a data-driven, multi-year targeted marketing strategy aimed at specific segments of the *e-file* Holdout population. This strategy and its execution will identify *e-file* participation goals, marketing tasks, key messages, measures to gauge the effectiveness of targeted marketing campaigns, and resources required to conduct these campaigns.¹⁹²

11.1.1 The Current Environment

Since the passage of RRA98, the IRS *e-file* marketing approach has focused on building a general awareness of the *e-file* brand by educating taxpayer and preparer populations as a whole about its benefits. Key messages of annual campaigns promote features such as faster refunds, accuracy, electronic acknowledgments of return acceptance, and the opportunity to file now and pay later.

Budgets for these efforts started at \$9 million in 1999 and peaked at \$13 million in 2004. These budgets allowed ample funding for advertisements on television and radio and in cinemas, magazines, and other typical private sector venues.¹⁹³ In 2005, the budget shrank to \$1.2 million. The FY2009 budget was \$2.4 million.¹⁹⁴

Since 2005, and with its more limited budgets, the IRS has relied primarily on its IRS.gov web site and public service announcements (PSA) to communicate its *e-file* message. In FY2009, however, the IRS undertook a single *e-file*-related targeted marketing campaign strategy by creating new Free File PSAs aimed at the under-30 age group.

¹⁹² IRS (2009) *Business Vision for Option 2--Target Marketing of E-file*, p. 2

¹⁹³ IRS (2008) *Marketing*

¹⁹⁴ IRS (2009) *Marketing Budgets*

ETAAC Perspective on IRS E-file Marketing

In its 2009 *Annual Report to Congress*, ETAAC observed that for the past 15 years, the IRS focused its limited *e-file* marketing budget on “touting the traditional benefits of *e-file* — fast refund, accurate, and secure — to the different segments of the taxpayer and preparer demographic.”¹⁹⁵ ETAAC recommended that the IRS change its strategy to get a better return on its limited budget by conducting “data driven research”¹⁹⁶ to assess “how well the current core messages ‘fast, easy, accurate’ resonate”¹⁹⁷ and “target those few segments that promise the greatest possibility of *e-file* ‘self-adoption.’”¹⁹⁸ ETAAC also urged the IRS to leverage existing relationships with “IRS/Industry/State *e-file* working groups and organizations to formulate *e-file* marketing hypotheses and strategies.”¹⁹⁹

IRS Targeted Marketing of Earned Income Tax Credit

Targeted marketing is not unprecedented at the IRS. The IRS Earned Income Tax Credit (EITC) annual campaign provides a long running example of targeted marketing.²⁰⁰ Inaugurated in 1975, EITC campaigns target eligible taxpayers as well as the preparer population serving those taxpayers. The goal of EITC campaigns is to ensure that everyone entitled to the credit takes advantage of it. In TY2006, 22.2 million returns included EITCs. This represents a 75% to 80% participation rate.²⁰¹

Elements of EITC marketing campaigns include hyperlinks on the IRS.gov web site targeted to taxpayers, preparers, and partners. The preparers and partners sections also include a link to Marketing Express, a tool for tailoring and downloading marketing materials.²⁰² Other marketing and communication materials include downloadable radio and print PSAs as well as newsletter materials. Many of the materials are targeted to specific segments of the taxpayer population such as senior citizens, military personnel, empty-nesters, and people with disabilities.²⁰³

In addition to providing information through the IRS.gov web site, the EITC Program Office conducts an annual marketing campaign each filing season. This campaign involves IRS Stakeholder Partnerships, Education and Communication (SPEC) and its national partners — a group of more than 60 government agencies, volunteer/community groups, financial institutions, and educational groups.²⁰⁴ The annual highlight of each EITC campaign is a group of IRS-sponsored EITC Awareness Day events with participation by IRS executives and national/local political figures. These events are timed to coincide with the opening of the filing season and occur at venues such as Taxpayer Assistance Centers across the country.²⁰⁵

¹⁹⁵ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 23

¹⁹⁶ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 24

¹⁹⁷ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 23

¹⁹⁸ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 23

¹⁹⁹ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 24

²⁰⁰ The EITC is a refundable Federal income tax credit for low to moderate income working individuals and families. The income maximum for TY 2008 is \$41,646 for a family with more than one child. Source: IRS (2009) *EITC Thresholds and Tax Law Updates*

²⁰¹ IRS (2007) *Earned Income Tax Credit (EITC) Summary of Vital Statistics*

²⁰² IRS (2009) *Marketing Express Homepage*

²⁰³ IRS (2009) *Basic Marketing & Communications Material*

²⁰⁴ IRS (2007) *The 2007 Taxpayer Assistance Blueprint, Phase 2*, pp. 175-177

²⁰⁵ IRS (2009) *IRS and Partners Mark EITC Awareness Day with Nationwide Events; EITC Could Mean Bigger Refunds for Millions of Taxpayers*

Other IRS Communications Organizations and Stakeholder Networks

In addition to the EITC Program Office and SPEC national partners, the IRS has a wide range of communications organizations and relationships with many stakeholder groups whose networks can be leveraged to promote *e-file*. On the national level, the IRS uses its national public liaisons to coordinate with national-level practitioner groups and other third party organizations. The IRS uses its national and field media relations offices to coordinate with the media. The IRS also has national account managers who work with major tax preparation software vendors and tax preparation companies. At the State and local levels, IRS stakeholder liaisons and government liaisons work closely with their State and local counterparts, which include not only government officials but also representatives from State practitioner and professional organizations.

E-file-related targeted marketing campaigns will need to include these groups to foster collaboration, leverage their networks, and maximize resources.

Third Party Marketing Efforts

The IRS not only works with, but relies heavily on, preparers, tax preparation software vendors, professional associations, and outreach groups to convey its *e-file* message. The combined marketing budgets of these groups far exceed what is allocated for this purpose at the IRS. Furthermore, marketing is a core competency for most of these groups.

For example, according to its 2008 annual report to shareholders, Intuit's selling and marketing expenses increased from \$742 million in 2007 to \$859.6 million in 2008. According to the report, "20% of the fiscal 2008 increase in selling and marketing expenses in dollars was due to higher advertising and other marketing expenses to support our Consumer Tax offerings."²⁰⁶ An estimated \$23.5 million increase in 2008 selling and marketing expenses can be attributed to Intuit's consumer tax offerings (e.g., TurboTax).

According to Nielsen, in 2008 H&R Block spent \$89.4 million as the number one tax preparation advertiser.²⁰⁷ Optimedia reported that H&R Block increased the share of its media budget allocated to television from 81% to 85% in 2009. It sponsored the Super Bowl pre-game show, bought 5 pre-game show spots, and spent \$3 million on a single 30-second spot just before halftime.²⁰⁸

11.1.2 Envisioned Capabilities and Features

The Targeted Marketing of *E-file* Option will center on a repeatable, focused, and coordinated marketing approach that goes beyond education to persuasion in order to encourage the targeted population to adopt *e-file*. Table 11-1 describes the roles of the primary stakeholders of the Option.

²⁰⁶ SEC (2008) *Intuit Inc. Form 10-K*, p. 33

²⁰⁷ The Nielsen Company (2009) *Financial Investments and Tax Services*

²⁰⁸ Young, A. (2009) *It's Tax Day: H&R Block vs. TurboTax - Optimedia CEO Antony Young on Who Had a Better Media Strategy*

Table 11-1: Roles of Targeted Marketing of E-file Option Stakeholders

Taxpayer Role	Third Party Role	IRS Role
N/A	<ul style="list-style-type: none"> Collaborate with the IRS to help convey its <i>e-file</i> message. Continue marketing products and services. 	<ul style="list-style-type: none"> Work with preparers, tax preparation software vendors, professional associations, and outreach groups to coordinate and leverage marketing efforts. Identify potential target populations based on internal research and the technology adoption curve. Select target population candidates, assess population viability, and increase understanding of population behavior and drivers. Develop data-driven, multi-year targeted marketing campaign strategy and plan. Assess the marketing budget and resource allocation to implement targeted marketing campaign plan. Measure campaign effectiveness and make adjustments as needed.

The approach to implement the Targeted Marketing of E-file Option consists of the following steps:²⁰⁹

- Identify potential target populations based on the technology adoption curve.
- Select candidate target populations.
- Assess target populations to determine potential contributions to *e-file* adoption.
- Explore target population filing behavior and motivators to *e-file*.
- Develop targeted marketing campaign plan for selected target populations.

The following sections describe these steps in more detail.

Identify Potential Target Populations Based on the Technology Adoption Curve

The first step in this Option’s approach is identifying potential target populations based on the technology adoption curve. A number of people have written about technology adoption. Foremost is Everett Rogers, whose *Diffusion of Innovations* is based on research by Joe Bohlen and George Beal.²¹⁰

²⁰⁹ The MITRE Corporation (2009) *AES2 Target Market Segmentation*, p. 3

²¹⁰ Bohlen, J. M. & Beal, G. M. (1957) *The Diffusion Process (Special Report No. 18)*; Rogers, E. M. (2003) *Diffusion of Innovations, Fifth Edition*

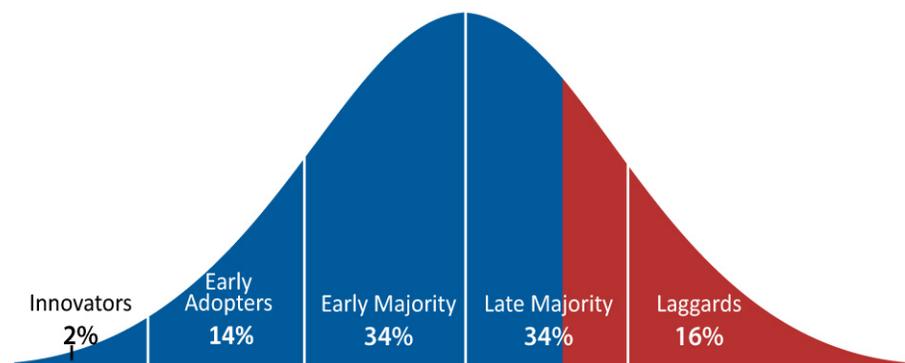
Rogers describes the adoption or acceptance of a new product or innovation according to the demographic and psychological characteristics of defined adopter groups (segments) as follows:²¹¹

- **Innovators** — Approximately 2.5% of the population, this segment consists of well-informed risk-takers who are willing to try an unproven product.
- **Early Adopters** — Approximately 13.5% of the population, this segment usually consists of educated opinion leaders.
- **Early Majority** — Approximately 34% of the population, this segment consists of careful consumers who tend to avoid risk.
- **Late Majority** — Approximately 34% of the population, this segment consists of somewhat skeptical consumers who acquire a product after it has become commonplace.
- **Laggards** — Approximately 16% of the population, this segment consists of those who avoid change and may not adopt a new product until traditional alternatives are no longer available.

Rogers notes that a different marketing approach is needed to target each technology adoption segment.

Figure 11-1 illustrates Rogers' technology adoption curve. The red-shaded portion indicates the population (about one-third of taxpayers) that the IRS needs to persuade to *e-file*. This group straddles the Late Majority and Laggard segments.

Figure 11-1: Technology Adoption Segments



Source: Rogers, E. M. (2003) *Diffusion of Innovations, Fifth Edition*

As of 2009, about 32% of individual tax returns were still not *e-filed*. This means that the IRS needs to target taxpayers from the latter part of the adoption curve to achieve its 80% *e-file* goal. The marketing the IRS has conducted to date has not persuaded the late majority and laggard segments to *e-file*²¹². Identifying specific groups within these segments and crafting a campaign tailored to them may help persuade them to *e-file*.

²¹¹ Rogers, E. M. (2003) *Diffusion of Innovations, Fifth Edition*

²¹² Nor, by definition of technology adoption, would it have been expected to.

For this report, the IRS initially identified the following potential target populations within the late majority and laggard segments:

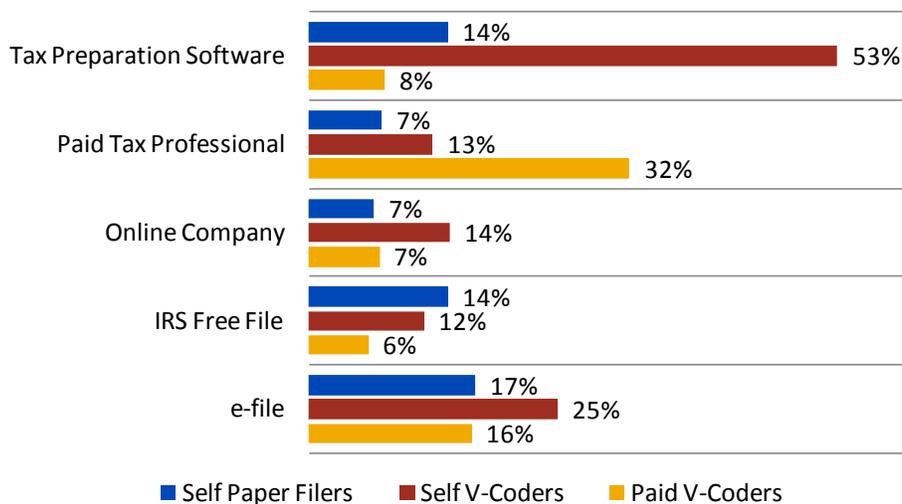
- **V-Coders** — This group includes individual taxpayers and paid preparers who prepare returns on a computer but submit returns on paper instead of electronically.
- **Taxpayers age 60 and older** — This group tends to have more complicated returns. It is not clear whether return complexity influences their decisions on whether to *e-file*.
- **Taxpayers under age 30** — Having grown up in a digital world, this group is more comfortable using computers. The IRS currently has a Free File marketing campaign aimed at this group.
- **Free File eligible population** — Although 70% of the population is eligible to use Free File, as of 2008, only about 4.8 million taxpayers (3.2%) had actually used it.²¹³ (See chapter 12 for more information about expanding the population of taxpayers eligible to use Free File.)

Select Target Population Candidates

The IRS will need to select target populations that are viable candidates for the targeted marketing of *e-file*.

As part of AES2, the IRS conducted a survey of taxpayer attitudes toward electronic filing. Figure 11-2 presents the percentage of individual taxpayers who did not *e-file* (i.e., Holdouts) in 2008 (TY2007) who might *e-file* in the future using certain options.

Figure 11-2: Methods Holdouts Might Use to *E-file* in the Future



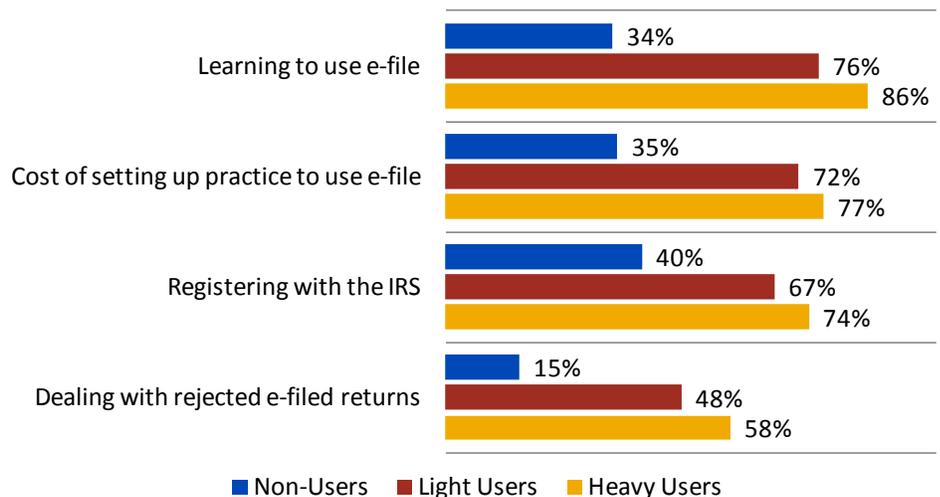
Source: IRS (2009) *AES2 Taxpayer Survey*, Question 4

²¹³ IRS (2008) *For Individual and Business e-File, 2008 Is a Record Breaker*

Figure 11-2 indicates that 53% of Self V-Coders might be convinced to *e-file* using tax preparation software and 32% of Paid V-Coders might be convinced to *e-file* using a paid tax professional. Both of these groups represent target populations that would be viable candidates for *e-file* marketing.

The IRS conducted a separate survey of paid preparers. According to the survey, in TY2007, 83% of preparers who did not *e-file* and 97% of Light Users of *e-file* had tax preparation software with *e-file* capabilities.²¹⁴ Yet, while most preparers had the tools to *e-file*, some segments lagged in *e-file* adoption. Figure 11-3 compares perceptions among preparers regarding selected aspects of *e-file*.

Figure 11-3: Preparers' Easy/Very Easy Ratings of Selected Aspects of *E-file*



Source: IRS (2009) *AES2 Preparer Survey*, Question 16

According to the survey, the difference in ratings between preparers who were Heavy Users of *e-file* and Light User and Non-Users suggests that the latter two segments need more targeted marketing to persuade them to *e-file*.

The IRS Oversight Board in its 2006 *Annual Report to Congress* also supported marketing targeted to segments of the V-Coding population:

Well over 85 percent of all individual tax returns filed in 2006 were initially prepared on a computer... finding new strategies to turn significantly more of these returns into actual *e-file* transmissions seems plausible and something that the IRS... could reasonably accomplish during the years leading up to 2012.²¹⁵

²¹⁴ IRS (2009) *AES2 Preparer Survey*, Question 26

²¹⁵ IRS Oversight Board (2007) *Electronic Filing 2006: Annual Report to Congress*, p. 18

ETAAC in its 2009 *Annual Report to Congress* was even more specific. It recommended that the IRS provide:

...simpler, targeted materials on IRS.gov to make it easier for tax preparers to understand the benefits of electronic filing for their practices, [and] how to adapt their business practices to gain the practice efficiencies that electronic filing delivers...²¹⁶

Assess Target Populations to Determine Potential Contributions to E-file Adoption

Once candidate target populations are identified, the IRS will need to determine whether they are large enough to help increase overall *e-file* adoption.

Table 12-2 provides information about paid preparers and individual taxpayers who *e-filed* and V-Coded returns in TY2007. Out of the 52.5 million paper returns submitted, an 18.8 million returns were V-Coded by paid preparers and an 12.5 million returns were V-Coded by individual taxpayers, for an total of 31.2 million returns. These two segments accounted for more than half the *e-file* holdouts.

Table 11-2: Filing Behavior of *E-file* Holdouts (in Millions)

Return Type	Paid Preparers		Individual Taxpayers	
	<i>E-filed</i>	V-Coded	<i>E-filed</i>	V-Coded
1040	45.0	15.8	15.6	8.1
1040 A	10.1	2.0	6.3	2.3
1040 EZ	4.4	1.0	5.6	2.1
Totals	59.5	18.8	27.5	12.5

Source: The MITRE Corporation (2009) *AES2 Target Market Segmentation*, p. 5

Explore Target Population Filing Behavior and Motivators to E-file

For each target population selected, the IRS will need to explore the population’s filing behavior and motivators to persuade members of the population to *e-file*.

Table 11-3 presents filing characteristics rated as extremely important or very important among taxpayer Self V-Coders and Paid V-Coders, and Non-User and Light User preparers.

²¹⁶ Electronic Tax Administration Advisory Committee (2009) *Annual Report to Congress 2009*, p. 24

Table 11-3: Filing Characteristics Rated as Extremely Important or Very Important by Taxpayer V-Coders and Non-User and Light User Preparers

Filing Characteristic	Taxpayer		Preparer	
	Self V-Coder	Paid V-Coder	Non-User	Light User
Feeling the filing method is private and secure	93%	92%	90%	90%
Being able to file all necessary forms, schedules, and attachments	87%	83%	83%	82%
Not exposing taxpayer to greater risk of audit	58%	67%	58%	62%
Being easy and convenient to use	84%	77%	76%	85%
Being compatible with the technology filer has access to	78%	69%	76%	85%
Having a record of the return as filed	90%	91%	79%	81%
Being alerted to potential errors sooner rather than later	80%	84%	70%	82%
Being inexpensive	74%	67%	64%	69%
Allowing balance due (money owed) payments up to the deadline	59%	65%	49%	54%
Getting the return to the IRS quickly	51%	64%	44%	66%
Having the IRS confirm receipt and acknowledge acceptance or rejection of return	72%	77%	62%	85%
Getting a quicker refund	39%	45%	40%	71%
Being able to file directly with the IRS without third party involvement	74%	75%	50%	37%
Having all the information you needed to know about it	86%	84%	—	—

Source: IRS (2009) *AES2 Preparer Survey Q14*; IRS (2009) *AES2 Taxpayer Survey Q17*

Develop Targeting Marketing Campaign Plans

Once the targeted populations are selected, the IRS will need to develop a targeted marketing campaign plan for each. The following list identifies and describes the key components of a targeted marketing campaign plan:

- **Core Issue(s)** — The motivator(s) or barrier(s) affecting filing behavior of the target population that the campaign will address.
- **Marketing Message** — What the IRS needs to say to motivate the target population to change its filing behavior.
- **Medium/Channel** — The methods (e.g., web advertisements, seminars, PSAs) to be used to communicate the marketing message.
- **Metrics** — Measures to gauge the effectiveness of the campaign.
- **Costs** — The costs of conducting the campaign.

One approach could be to adapt the EITC targeted marketing model for *e-file*. For example, the IRS, State tax administrators, preparers, tax preparation software vendors, and outreach groups could jointly formulate campaigns aimed at persuading Self V-Coders to *e-file* their returns. Activities might include an “*E-file Expo*” co-sponsored by the IRS and other stakeholders similar to EITC Awareness Day, where the IRS could explain *e-file* basics, software vendors could demonstrate how to *e-file* using their software, and preparers could demonstrate their *e-file* capabilities.

11.1.3 Assumptions and Constraints

- IRS Customer Service Representative (CSR) workload will not be affected.
- Taxpayers switching to *e-file* as a result of targeted marketing campaigns will have no impact on IRS *e-file* help desk activities because taxpayers will contact their tax preparation software vendors for assistance on *e-filing* returns. However, preparers new to *e-filing* may need IRS *e-file* help desk assistance to set up *e-file*.
- The IRS lacks a readily available sample population database to assist in formulating a targeted marketing campaign strategy.
- The IRS will have the infrastructure in place to respond to an increasing number of inquiries about how to *e-file* and to accommodate the secure receipt of increasing numbers of *e-filed* returns resulting from targeted marketing campaigns.
- The IRS will have systems in place or leverage existing systems to accomplish new processes that may be needed for administering the Targeted Marketing of *E-file* Option.
- No technology costs are included for this Option.

11.1.4 Areas for Further Investigation

Tools are needed to gauge the effectiveness of targeted marketing campaigns, and repositories are needed to store information and materials that can be used for future campaigns. The IRS needs to determine what tools are currently available to track campaign activities and gauge campaign success.

11.2 Projected Net Adoption

Due to the difficulty in linking marketing to *e-file* adoption, the IRS did not project net adoption for this Option. If this Option is implemented, the IRS may measure the reach of targeted marketing campaigns as a proxy for a net adoption.

11.3 Impacts

The IRS has limited experience and resources available to develop end-to-end targeted marketing campaigns and will need assistance from targeted marketing experts.

To convince the late majority and laggard segments, who are on the downside of the technology adoption curve, to adopt *e-file*, marketing efforts will need to focus on the presentation of *e-file* solutions for Holdouts that remove barriers to *e-filing*. The IRS will need to depart from its status quo/general unfocused marketing approaches to convince these segments to *e-file*.

Marketing at the IRS often includes outreach and education, and messages not just intended to increase awareness of a service, but also on how to use a particular service. According to the 2009 preparer survey, getting started with *e-file* is one of the dislikes among Non-User (9%) and Light User (3%) preparers.²¹⁷ In fact, making *e-file* easier to use was a top reason among lapsed or Non-Users to try *e-file* again.²¹⁸ Table 11-3,

²¹⁷ IRS (2009) AES2 Preparer Survey, Question 17

²¹⁸ IRS (2009) AES2 Preparer Survey, Question 20

presented earlier, lists filing characteristics that V-Coding taxpayers, Non-User preparers, and Light User preparers considered extremely or very important. Being easy and convenient to use was rated as extremely/very important by 76% to 85% of these subgroups.

In addition, marketing efforts must include metrics to gauge campaign effectiveness. Capturing such metrics will help make campaigns more effective.

Stakeholders: IRS, Taxpayers, Preparers, Tax Preparation Software Vendors, Third Party Organizations

Impact Areas: Tax Landscape, Operational Processes, Services and Customer Support

Without collaboration with its stakeholders, the IRS will not have the communication networks and financial and staff resources needed to wage successful e-file targeted marketing campaigns.

Although the IRS has considerable experience with EITC targeted marketing, the EITC effort focuses only on a specific income segment, with an estimated 22.2 million returns submitted in TY2006.²¹⁹ This segment's EITC participation rate (75% to 80%) could be partly attributed to the EITC Program Office's collaboration with its national partners, which have the networks and financial and staff resources to support EITC program goals.

In contrast, there were about 45 million returns submitted on paper in 2009, and this spans all income levels.²²⁰ As stated earlier, the IRS marketing budget is only a fraction of what other *e-file* stakeholders have available. Realizing the 80% *e-file* goal demands stakeholder collaboration similar to that used for EITC marketing to reach an even broader population.

The IRS has the data to identify the population segments that need to be targeted. Preparers, tax preparation software vendors, and third party organizations have the networks and financial and staff resources to help the IRS market *e-file*. Together, these stakeholders have the ingredients to create marketing campaigns that persuade Holdouts to switch to *e-file*.

Stakeholders: IRS, Preparers, Tax Preparation Software Vendors, Third Party Organizations

Areas Impacted: Services and Customer Support

²¹⁹ IRS (2007) *Earned Income Tax Credit (EITC) Summary of Vital Statistics*

²²⁰ IRS (2009) *Calendar Year Projections of Individual Returns by Major Processing Categories*

11.4 Estimated Costs

11.4.1 Summary

Table 11-4 provides very rough order of magnitude (VROM) estimates of the one-time cost for the IRS to implement the Targeted Marketing of *E-file* Option and the annual recurring cost for the IRS to operate and maintain the Option.²²¹ For this Option, annual operations and maintenance costs will no longer be applicable when the 80% *e-file* goal is achieved.

Table 11-4: VROM Cost Estimate for Targeted Marketing of *E-file* Option

One-Time Cost to Implement	\$0
Recurring Operations and Maintenance Cost	\$6 million/year
Duration to Implement	[Until 80% <i>e-file</i> goal is achieved]

Source: IRS (2009) *Targeted Marketing of E-file Basis of Estimate*

The cost estimation methodology relied on preliminary estimates used to create the framework for two targeted marketing campaigns based on costs incurred by the IRS for other marketing and outreach efforts such as Free File. One campaign will focus on V-Coding taxpayers in the top 10 V-Coder States. The V-Coding taxpayers in these States represented 7.3 million (57%) of the estimated 12.7 million taxpayer V-Coders nationwide in TY2007.²²² The other campaign will be aimed at V-Coding preparers in the top 10 V-Coder States. The V-Coding preparers in these States represented 86,412 (69%) of the estimated 124,914 V-Coding preparers.²²³

Costs for contractor support from marketing firms with the expertise to help the IRS analyze target population characteristics, develop a targeted marketing campaign strategy, and evaluate campaign effectiveness are not included in this report but are recognized as an essential element to calculating the overall cost of this Option.

11.4.2 Cost Drivers, Assumptions, and Risks

Table 11-5 summarizes key cost drivers, assumptions, and risks associated with each major element in the Option's Estimation Breakdown Structure (EBS).

²²¹ These estimates are given with a 70% level of confidence that they predict the probable resources required for IRS to deliver the Option according to the preliminary definition (scope) and degree of unknown requirements.

²²² IRS (2009) *Targeted Marketing of E-file Basis of Estimate*

²²³ IRS (2009) *Targeted Marketing of E-file Basis of Estimate*

Table 11-5: Cost Drivers, Assumptions, and Risks for Targeted Marketing of *E-file* Option

EBS Element	Cost Drivers, Assumptions, and Risks
<p>Targeted marketing campaign plan development for selected segments 94% of Annual Recurring Cost</p>	<ul style="list-style-type: none"> • IRS cost drivers may include production of marketing materials, updates to IRS.gov web site, and time and travel for designated IRS media relations staff, government liaison, and SPEC to conduct/participate in marketing events.
<p>Governance 5% of Annual Recurring Cost</p>	<ul style="list-style-type: none"> • The Targeted Marketing of <i>E-file</i> Program Management Office (PMO) will oversee all <i>e-file</i>-related marketing campaigns. The PMO will operate only until the 80% <i>e-file</i> goal is realized. A 48-month duration is expected for this PMO. • The PMO will oversee campaigns, cultivate/manage stakeholder relationships, and direct contractor support.
<p>Identification of target populations 1% of Annual Recurring Cost</p>	<ul style="list-style-type: none"> • Cost drivers may include focus groups and survey development and execution tasks.
<p>Analysis of each target population’s viability for contributing to <i>e-file</i> adoption and selection of segments from each population Costs not included — Further research required</p>	<ul style="list-style-type: none"> • The Targeted Marketing of <i>E-file</i> PMO will initiate tasks to perform this analysis.
<p>Campaign effectiveness review Costs not included — Further research required</p>	<ul style="list-style-type: none"> • Cost drivers may include evaluating metrics to gauge campaign effectiveness and producing reports to communicate campaign results. • The PMO will initiate tasks to perform this review.
<p>Targeted marketing contractor support Costs not included — Further research required</p>	<p>Provide necessary expertise to assist with:</p> <ul style="list-style-type: none"> • Target population identification and analysis. • Targeted marketing campaign plan development. • Identification of campaign goals and metrics to gauge campaign effectiveness. • Analysis of campaign results.

Source: IRS (2009) *Targeted Marketing of E-file Basis of Estimate*

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12. Policy Option: Expanded Free File

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 - 12.4.1 Summary
 - 12.4.2 Cost Drivers, Assumptions, and Risks

12.1 Definition

The Free File Program provides free tax preparation and *e-filing* to eligible participants. The program, which has two components, Traditional Free File (TFF) and Free File Fillable Forms (FFFF), is offered through an agreement between the IRS and the Free File Alliance (FFA). The Expanded Free File Option will expand both components of the current program. Specifically, this Option will:

- Remove the Adjusted Gross Income (AGI) limitation for TFF (free online Federal income tax preparation and *e-filing* software) to make it available to all individual taxpayers.
- Enhance the FFFF user experience and number of forms and schedules supported by FFFF.

12.1.1 The Current Environment

The Free File Program was established in 2002 when the IRS entered into a 3-year partnership agreement with FFA, a consortium of tax preparation software vendors that voluntarily participate in the Free File Program. At present, 18 commercial vendors and one non-profit vendor participate in FFA. A second 4-year agreement was signed in October 2005.

Each year, the IRS and FFA outline operational guidelines and improvements in a Memorandum of Understanding (MOU). This MOU addresses terms and conditions of FFA membership, program offerings and scope, performance standards and administration, and other details.

The original agreement between the IRS and FFA provided free *e-filing* for at least 60% of individual taxpayers.²²⁴ The agreement that was renegotiated in 2005 adjusted eligibility requirements, added certain consumer protections (e.g., shielding taxpayers from being sold products through the IRS.gov web site), and made modifications to other elements.²²⁵ In 2009, the IRS and FFA extended their partnership agreement for a 5-year period ending in 2014.²²⁶ The MOU will continue to be reviewed and approved annually.²²⁷ Note also that a variety of free online tax preparation/*e-filing* solutions from commercial vendors exist outside the FFA.

Traditional Free File

Traditional Free File (TFF) provides basic online interview-based tax preparation and *e-filing* to eligible taxpayers who select a link to an FFA provider from the IRS.gov web site. Eligibility is based on an agreement between FFA and the IRS to provide the service to 70% of individual taxpayers based on AGI.²²⁸ For TY2008, this translated into individual

²²⁴ Free File Alliance and IRS (2002) *Free On-Line Electronic Tax Filing Agreement*

²²⁵ Free File Alliance and IRS (2005) *Free On-Line Electronic Tax Filing Agreement Amendment*, p. 6

²²⁶ Free File Alliance and IRS (2009) *2009-2014 Free On-Line Electronic Tax Filing Agreement*

²²⁷ Free File Alliance and IRS (2009) *Fourth Memorandum of Understanding on Service Standards and Disputes*

²²⁸ Free File Alliance and IRS (2008) *Third Memorandum of Understanding on Service Standards and Disputes*, p. 2

taxpayers with an AGI of \$56,000 or less. FFA members have the option to apply lower AGI limits as well as eligibility criteria besides AGI. This includes, for instance, limits based on age, State of residence, Earned Income Tax Credit (EITC) status, and military status.

All FFA members agree to support, at minimum, a core set of 26 frequently used tax forms and schedules.²²⁹ Other forms and schedules may be provided at the discretion of each FFA member.

Free File Fillable Forms

In January 2009, the IRS introduced FFFF. FFFF provides free electronic equivalents of paper tax forms and schedules for *e-filing* (i.e., online forms that look like blank paper forms). Taxpayers choose, self-prepare, and *e-file* 1040, 1040A, and 1040EZ forms and associated schedules.

Unlike TFF, FFFF is available to all individual taxpayers (i.e., there is no limitation on its use based on AGI or other criteria). Taxpayers can access and complete almost all tax forms and schedules electronically through the IRS.gov web site and then *e-file* their completed returns free of charge. FFFF provides basic mathematical calculations.

Table 12-1 provides an overview of the current offerings for each component of the Free File Program.

Table 12-1: Current Offerings of Free File Program

Topic	Traditional Free File	Free File Fillable Forms
Description	Free basic electronic tax preparation and <i>e-filing</i> .	Free electronic equivalents of paper tax forms and schedules to be completed and submitted electronically.
Eligibility	AGI no greater than \$56,000. Other eligibility requirements may also apply as established by individual FFA members (e.g., age, State of residence, EITC status, military status).	All individual taxpayers.
Usage	Taxpayer selects an TFF provider from the IRS.gov web site.	Taxpayer selects FFFF offering from the IRS.gov web site.
Key Features	Interview-based tax preparation and <i>e-filing</i> . TFF is similar to software provided by tax preparation software vendors.	Free electronic versions of paper tax forms and schedules to be completed and submitted electronically. Performs basic checks and mathematical calculations.
Forms Offered	All FFA members offer, at minimum, a core set of 26 frequently used forms and schedules.	144 forms available. ²³⁰
Help Desk	Help desk support provided by FFA provider.	Help desk support provided by the IRS.

²²⁹ IRS (2009) *Free File – Most Commonly Filed Federal Forms are Available*

²³⁰ IRS (2009) *Free File Fillable Forms – List of Available Forms*

Topic	Traditional Free File	Free File Fillable Forms
State Filing	Supports preparation and submission of Federal tax returns only. Many vendors offer State tax preparation and submission though fees may apply.	Supports preparation and submission of Federal tax returns only. Does not support the preparation or submission of State tax returns.

Free File Program Usage

Table 12-2 presents the number of returns submitted through the Free File Program since its inception. Established in late 2002, the program was operational for all of 2003.²³¹

Table 12-2: Free File Adoption, 2003–2009

Year	Total # of Returns Filed	FFA-Eligible Ceiling ^a	# of Free Filed Returns	Adoption as % of Total	Adoption as % of Ceiling
2003	130,134,300	78,080,580	2,800,000	2.2	3.6
2004	130,576,900	78,346,140	3,500,000	2.7	4.5
2005	132,275,800	79,365,480	5,100,000	3.9	6.5
2006	134,421,400	94,094,980	4,000,000	3.0	4.3
2007	139,272,000	97,490,400	3,900,000	2.8	4.0
2008	155,490,000	108,843,000	4,800,000	3.1	4.4
2009 ^b	141,376,000	98,963,200	3,000,000	2.1	3.0

Notes: (a) This ceiling reflects only the AGI limitation as defined by the IRS in that particular year. Given the further restrictions (e.g., lower AGI, age limit) imposed by some FFA providers, the actual ceiling for each year is lower. Note that targeted ceiling changed from at least 60% to not more than 70% in 2006. (b) 2009 data is as of end of tax season (October 16) and includes Traditional Free File as well as Free File Fillable Forms.

Source: IRS (2007) *Special Studies in Federal Tax Statistics, 2006: An Analysis of the Free File Program*, p. 117; IRS (2008) *For Individual and Business e-File, 2008 Is a Record Breaker*; IRS (2009) *Daily E-File At A Glance Nationwide 10/16/2009 Noon vs 10/17/2008 Noon*

The fact that Free File Program usage has been consistently low suggests that reasons other than cost or eligibility factor into taxpayer decisions about whether to use the program.

When considering the contribution of Free File to the 80% *e-file* goal, the target population consists of eligible taxpayers who either V-Code (prepare or have their returns prepared on a computer but submit their returns on paper) or prepare their returns manually and submit their returns on paper.

²³¹ IRS (2008) *For Individual and Business e-File, 2008 Is a Record Breaker*

12.1.2 Envisioned Capabilities and Features

As part of the Expanded Free File Option, both components of the current Free File Program will be expanded:

- The TFF component will be available to all individual taxpayers.
- The FFFF user experience will be improved and more forms and schedules will be supported.

Table 12-3 summarizes the key changes to each component of Free File under the Expanded Free File Option.

Table 12-3: Changes to Free File Program Under Expanded Free File Option

Topic	Traditional Free File	Free File Fillable Forms
Additional Key Features	No changes.	New features, for example: <ul style="list-style-type: none"> • Context-specific help • Improved hyperlinks • New error codes • More calculations • Worksheets
Changes to Eligibility	Eliminate the AGI cap (elimination may occur in phases by raising the AGI level in increments each year).	No change.
Additional Forms and Schedules Supported	No change.	Expand to include almost all remaining forms and schedules.

Traditional Free File Available to All Taxpayers

Under the Expanded Free File Option, all eligibility requirements for use of TFF will be removed, enabling all individual taxpayers to use Free File. The AGI threshold may be removed altogether or phased out. This change will require a renegotiation of the IRS-FFA partnership agreement.

Enhanced Free File Fillable Forms

For FFFF, almost all forms and schedules will be supported. Enhancements — such as context-specific help, improved hyperlinks, new error codes, and more calculations — will be made to improve the user experience. Improvements may include the addition of worksheets, whose data, when entered, will populate the return.

Actual capabilities will be determined as the IRS assesses taxpayer experiences during the tool’s first full year of use.

Table 12-4 describes the roles of the primary stakeholders of the Expanded Free File Option.

Table 12-4: Roles of Expanded Free File Option Stakeholders

Taxpayer Role	FFA Member Role	IRS Role
Prepare and <i>e-file</i> return using one of two components (TFF, FFFF) of Expanded Free File Option.	Renegotiate partnership agreement with the IRS.	Renegotiate and monitor partnership agreement with FFA.
	Maintain service offerings for TFF and FFFF.	Continue to maintain IRS.gov web site.
	Continue help desk support for TFF.	Continue help desk support for FFFF.
	Enhance usability and forms and schedules support of FFFF.	

12.1.3 Assumptions and Constraints

- Expansion of the Free File Program will be bound by the terms of the IRS-FFA partnership agreement. Changing eligibility requirements is a key point of negotiation and must be agreed to by FFA.
- Free File will continue to apply to Federal returns only.

12.1.4 Areas for Further Investigation

Expanding the Free File Program can take many forms. Eligibility requirements can be removed or relaxed. Marketing and communication efforts can be launched to attract higher numbers of taxpayers. Broader efforts can be introduced to encourage more tax preparation software vendors to voluntarily participate.

Detailed research and analysis of users' reactions to both components of the Free File Program may help the IRS develop better offerings to maximize *e-file* use and achieve the 80% *e-file* goal. About 95 million individuals, or 70% of all taxpayers, meet the Free File Program's eligibility requirement of an AGI no greater than \$56,000. This eligibility criterion, however, does not tell the whole story. A more accurate description of the target population for Free File includes the following eligible taxpayers:

- **Self Paper Filers and Self V-Coders** — Attracting eligible individuals who already *e-file* will not help the IRS achieve the 80% *e-file* goal.
- **Paid V-Coders** — Research suggests that individuals who already use a preparer are not likely to switch to an Option that requires self-preparation. For individuals who use a preparer, other options may be more appropriate.

The IRS must have a better understanding of taxpayer motivations for using the Free File Program. As part of its 2007 *Annual Report to Congress*, ETAAC recommended that the IRS "invest more to market the Free File Program and to assess the reasons why more taxpayers do not take advantage of the program's services."²³² This recommendation could go a long way in helping the IRS convince taxpayers to use Free File and thus help it achieve the 80% *e-file* goal.

²³² Electronic Tax Administration Advisory Committee (2007) *Annual Report to Congress*, p. 8

12.2 Projected Net Adoption

The IRS projects that the Expanded Free File Option will help the IRS achieve the 80% *e-file* goal in 2015, given a 2012 implementation date.²³³ Table 12-5 shows the Option's projected net adoption for the years 2012 through 2016.

Table 12-5: Projected Net Adoption for Expanded Free File Option, 2012-2016

Adoption	2012	2013	2014	2015	2016
Baseline	74.99%	76.78%	78.29%	79.58%	80.70%
Net Projected	0.81%	0.81%	0.81%	0.81%	0.82%
<i>Baseline + Net</i>	<i>75.80%</i>	<i>77.59%</i>	<i>79.10%</i>	<i>80.39%</i>	<i>81.52%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

The IRS based these projections on the following assumptions:²³⁴

- The target population is Self Paper Filers and Self V-Coders.
- Taxpayer behavior will be similar to that exhibited during the 2005 Free File Program, when all individual taxpayers were eligible to use the program.
- The percentage of the eligible population participating in the Free File Program (around 4%) will remain consistent over the 5 years.
- Most of the estimated eligible population will adopt *e-file* in 2012.

12.3 Impacts

This Option may be contrary to the business interests of tax preparation software vendors and may be perceived negatively by the business community.

FFA members may be unwilling to support expansion of the existing Free File Program, because this may encroach on their ability to sell their own products and produce revenue. Fewer or no tax preparation software vendors may choose to participate in the IRS-FFA partnership if the terms of the renegotiated agreement do not support their business objectives. Vendors who specialize in State tax preparation software may be more negatively affected than vendors who specialize in Federal tax return preparation software.

The IRS may be perceived as putting too much pressure on tax preparation software vendors to offer their products for free. This may raise the issue of whether the IRS should be compensating private industry for a service that the US government could or should be providing.

Stakeholders: Tax Preparation Software Vendors, IRS, Congress

Impact Areas: Law and Policy, Services and Customer Support, Tax Landscape

²³³ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

²³⁴ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

This Option will affect the IRS-FFA agreement and may adversely affect IRS partnerships with key stakeholders such as tax preparation software vendors and transmitters.

The IRS-FFA agreement would need to be renegotiated before the IRS could offer this Option. Alternately, FFA may elect to dissolve the agreement and cease providing free tax preparation and *e-filing* through TFF and FFFF.

Stakeholders: Tax Preparation Software Vendors, Transmitters, IRS, Taxpayers

Impact Areas: Law and Policy, Tax Landscape

Raising or removing the AGI limitation without also expanding the services provided and forms and schedules supported through the Free File Program may not produce the desired effect of increasing e-file adoption.

Higher income earners often have more complex tax returns that cannot be prepared and submitted using the basic tax preparation software offered under TFF. In other words, AGI by itself is not a key determinant in whether taxpayers can use the Free File Program.

A look at recent trends, with a review of motivations and behaviors of taxpayers who use Free File, could provide more accurate information on factors that convince taxpayers to use the Free File Program.

Stakeholders: IRS, Taxpayers, Transmitters, Tax Preparation Software Vendors, IRS, Congress

Impact Areas: Services and Customer Support, Tax Landscape

12.4 Estimated Costs

12.4.1 Summary

At this time, no one-time cost for the IRS to implement the Expanded Free File Option has been identified. Some enhancements to FFFF are likely, but these cannot be identified at this time because FFFF has only been available for a short time. Moreover, FFA, as the provider of FFFF, shoulders the costs associated with its development. Any material changes or enhancements to FFFF, therefore, must be negotiated between and agreed on by the IRS and FFA.

Table 12-6 provides a very rough order of magnitude (VROM) estimate of the annual recurring cost for the IRS to operate and maintain the Expanded Free File Option.

Table 12-6: VROM Cost Estimate for Expanded Free File Option

One-Time Cost to Implement	\$0 (none)
Recurring Operations and Maintenance Cost	Less than \$1 million/year
Duration to Implement	N/A

Source: IRS (2009) *Expanded Free File Basis of Estimate*

The recurring annual cost estimate was developed by analyzing current activity levels within the Free File Program and assessing the additional labor needed to support projected increases in its use.

12.4.2 Cost Drivers, Assumptions, and Risks

Table 12-7 summarizes key cost drivers, assumptions, and risks associated with each major element in the Option’s Estimation Breakdown Structure (EBS).

Table 12-7: Cost Drivers, Assumptions, and Risks for Expanded Free File Option

EBS Element	Cost Drivers, Assumptions, and Risks
Project Infrastructure (Portal, Network, Disaster Recovery, Hardware/Software, Engineering Support)	No infrastructure costs identified at this time.
Application Software	No software costs identified at this time.
Project Management Office (PMO) Support	<ul style="list-style-type: none"> • IRS costs to implement this Option are primarily labor related. • Additional Free File Program management staff members (1.5) will be needed to support program management activities. • Additional IRS help desk staff members (2.0) will be needed to support increased requests for assistance from taxpayers. • Current and projected return volumes: <ul style="list-style-type: none"> • 3 million returns were <i>e-filed</i> through Free File Program in TY2007. • An estimated 2 million additional returns are expected to be <i>e-filed</i> through Free File Program each year. • An estimated 250,000 additional returns are expected to be <i>e-filed</i> though Free File Fillable Forms each year. • FFA members will provide tax preparation and technical support for their products to their customers.

Source: IRS (2009) *Expanded Free File Basis of Estimate*

13. Policy Option: More Filing Time for *E-filers*

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13.1 Definition

The More Filing Time for *E-filers* Option will give *e-filers* more time to file (i.e., prepare and submit their tax returns and pay any money owed) than paper filers. This Option is intended to motivate taxpayers and preparers who now file paper returns to *e-file* instead. To implement this Option, the IRS must determine its features:

- The amount of additional filing time granted to *e-filers* (e.g., 15 days, 1 month).
- The scope of the filing deadline change (i.e., whether the change will apply to the submission of the return, the payment of taxes owed, or both).
- The direction of the filing deadline change (i.e., moving the paper filing deadline before April 15, moving the *e-filing* deadline after April 15, or both).

For purposes of this report, this Option is defined as follows:

- For *e-filers*, the filing deadline remains April 15.
- For paper filers, the filing deadline becomes March 15.

Under this Option, paper filers who currently file after March 15 will be targeted; these taxpayers will be forced to change their filing behavior by *e-filing*, filing paper returns earlier, or requesting an extension (note that even with an extension, any money owed is still due April 15).

13.1.1 The Current Environment

Current law makes no distinction between paper filers and *e-filers* with respect to the filing deadline of April 15. There are, however, certain categories of taxpayers whose deadlines differ from the usual April 15 date. This includes military personnel, US citizens living abroad, and farmers and fisherman living domestically.

In the current environment, any taxpayer may request an extension to submit a return, but no extension is available for paying money owed. Taxpayers unable to meet their tax obligations can spread their payments out, however, by requesting an Installment Agreement.

Choices and Tendencies for Submitting Returns and Paying Money Owed

Regardless of when or how a return is submitted, all taxpayers have until April 15 to pay any money owed either by check or electronically. *E-filers* can specify any date up to April 15 for the IRS to directly debit their bank accounts, or pay by credit or debit card. *E-filers* can also pay by check (with accompanying Form 1040-V Payment Voucher) up to April 15.

Paper filers can make electronic payments by credit card or direct debit through third parties or directly by using the Electronic Federal Tax Payment System (EFTPS).

Taxpayers who submit their returns late in the filing season are more likely to owe money and file on paper than earlier filers. However, even among relatively late filers, a majority still claim a refund.²³⁵

Previous Considerations by Congress and the IRS

Since the drafting of RRA98, when a provision for a 30-day extension was considered but not included in the final legislation, there has been ongoing debate over whether *e-filers* should be offered a filing extension as a benefit²³⁶ and a motivator.

In December 2001, the IRS submitted a proposal to change the deadline for *e-filed* individual tax returns to April 30.²³⁷ The IRS proposal was included in President George W. Bush's budget request submitted to Congress on February 4, 2002. No action resulted.

Other proposals followed, none of which resulted in a change to the April 15 deadline for returns filed on paper:

- **2003** — H.R. 1528, the Taxpayer Protection and IRS Accountability Act of 2003, was introduced in the House of Representatives (the legislation was renamed the Tax Administration Good Government Act of 2004 by Senate amendment), including a provision for a 15-day extension of the deadline for *e-filed* returns. That part of the bill did not pass.²³⁸
- **2005** — A similar proposal for an extension, Extend the Due Date for Electronically Filed Returns, was included in the Bush Administration's FY2006 budget proposal. This also would have extended the *e-filing* deadline by 15 days if taxpayers paid money owed by electronic funds transfer (EFT). No action resulted.²³⁹

As far as can be determined, moving the deadline for paper filers to an earlier date has never been proposed by an Administration or considered by Congress. No legislation or IRS actions are currently pending to change the April 15 filing deadline.

United Kingdom Experience

In an effort to increase electronic filing, in 2008 the United Kingdom (UK) established separate electronic and paper filing deadlines for filers of Self Assessment (SA) tax returns. SA returns are comparable to individual Federal income tax returns. They are relatively complex and include, for instance, the equivalent of Form 1040 with Schedule C or D. Under the UK's "Pay As You Earn" system, taxpayers whose situations are simpler do not have to file a tax return.

Prior to 2008, all United Kingdom SA taxpayers were required to file by January 31. Under the new rules, electronic filers still must submit their returns and pay money owed by January 31. Paper filers, however, must submit their returns 3 months earlier, by the previous October 31, but still have until January 31 to pay money owed.

²³⁵ IRS (2009) *Individual Income Tax Returns Received and Processed for Headquarters (IIRAPHQ) Query: Balance Dues and Refunds by Filing Method*

²³⁶ Wongtrakool, B. M. (1998) *Does Paperless Mean Painless? Electronic Tax Return Filing in the New Millennium*, p. 19

²³⁷ IRS (2001) *Proposal to Change the Due Date For Electronically Filed Form 1040 Returns to April 30*

²³⁸ *Taxpayer Protection and IRS Accountability Act of 2003*, see Section 305 as reported in House

²³⁹ Department of the Treasury (2005) *General Explanations of the Administration's Fiscal Year 2006 Revenue Proposals*, p. 130

Exceptions are allowed for the small number of paper filers for whom electronic filing is not available.²⁴⁰

This change within the UK seems to have contributed to an increase in electronic filing. For the 2008–2009 filing season (2007–2008 tax year), 67% of returns filed by the deadline were filed electronically.²⁴¹ In the previous filing season (2007–2008), only 46% of returns were filed electronically.²⁴² Approximately 39% of paper SA filers in the 2008–2009 filing season switched to electronic filing.

13.1.2 Envisioned Capabilities and Features

Selected scenarios for the More Filing Time for *E-filers* Option are illustrated in Table 13-1. Scenarios are defined in terms of the amount of additional filing time given to *e-filers* (e.g., 15 days, 30 days).

Table 13-1: Scenarios for More Filing Time for *E-filers* Option

Filing Deadline for Paper Filers	Filing Deadline for <i>E-filers</i>	Additional Filing Time Given to <i>E-filers</i>
April 15	April 30	15 days
April 15	May 15	30 days
March 31	April 15	15 days
March 15	April 15	31 days

To implement the More Filing Time for *E-filers* Option, the IRS will need to define the three features mentioned at the beginning of this chapter. These are discussed below, with references to the UK’s experience:

- **Amount of Additional Filing Time Granted to *E-filers*** — When the UK established separate paper and electronic filing deadlines in 2008, the difference between these deadlines became 3 months. This time difference has proven to be effective in increasing electronic filing. The UK filing season, however, is much longer than that of the United States (9 months versus 3½ months). A filing deadline shift of this magnitude would not be practicable in the United States due to information availability (e.g., when W-2s and 1099s are made available to taxpayers). A 3-month shift, resulting in a filing deadline of January 15, would also unreasonably limit the time taxpayers would have to prepare and submit their returns. In the United States, a difference of 2 weeks to 1 month would be more feasible.
- **Scope of Filing Deadline Change** — The scope of the filing deadline change (i.e., whether the change will apply to the submission deadline, the payment deadline, or both) will need to be determined. In the UK, the paper filing deadline was moved up from January 31 to October 31, but the payment deadline remained January 31. For the More Filing Time for *E-filers* Option, the filing and payment deadline for paper filers is assumed to be March 15.

²⁴⁰ HM Revenue & Customs (2008) *Introduction to Self Assessment*

²⁴¹ HM Revenue & Customs (2009) *Online filing – a new record*

²⁴² HM Revenue & Customs (2008) *Departmental Autumn Performance Report 2008*, p. 58

- **Direction of Filing Deadline Change** — The More Filing Time for *E-filers* Option will consider an earlier filing deadline for paper filers but will keep the April 15 deadline for *e-filers*. Moving the deadline for paper filers earlier could force them to change their behavior in one of three ways: (1) by switching to *e-file* (the desired behavior), (2) by submitting their paper returns earlier, or (3) by requesting an extension.²⁴³

Roles

Table 13-2 summarizes the roles of the primary stakeholders of the More Filing Time for *E-filers* Option.

Table 13-2: Roles of More Filing Time for *E-filers* Option Stakeholders

Taxpayer Role	Third Party Preparer	IRS Role
File Federal tax returns by new deadlines.	Adjust business processes and systems to accommodate new deadlines.	Define and set policies around the nature of the incentive (i.e., choose one of the alternatives).
		Adjust policies to accommodate new deadlines.
		Develop and execute a communication and outreach plan.
		Adjust business processes and systems to accommodate new deadlines.

13.1.3 Assumptions and Constraints

- Both the filing and the payment deadline (which includes the deadline for requesting an extension) for paper filers will move up by 30 days to March 15.
- The filing and payment deadline for *e-filers* will remain April 15.
- Exceptions will be allowed for hardship and other reasons. These exceptions will be granted more readily during the Option’s initial years.
- Financial institutions, employers, and other entities will continue to have until January 31 to provide information returns (e.g., W-2s, 1099s) to taxpayers.
- The Option targets paper filers who file between March 15 and April 15. All other taxpayers will be unaffected; their behavior will not change.

²⁴³ Pushing out the *e-filer* deadline does not require changes to any taxpayer behaviors, whereas moving the paper filer deadline up targets paper filers specifically.

13.1.4 Areas for Further Investigation

If the More Filing Time for *E-filers* Option is considered for implementation, the following areas merit further investigation:

- The UK experience should be studied in detail to reveal lessons learned and best practices.
- The IRS should assess the impact caused by the timing of the receipt of money owed by taxpayers and the disbursement of taxpayer refunds, the possible need to borrow money (e.g., to maintain cash flow), and the interest expense associated with borrowing money. For example, will the cash flow implications of this Option change the amount of money the government borrows?
- The IRS should determine the extent to which varying features of the Option will influence taxpayers' decisions to *e-file*. This information should be used to formulate specific capabilities of this Option. The effect of deadline changes on patterns of filing volume also is an area that requires further study.

13.2 Projected Net Adoption

The IRS projects that the More Filing Time for *E-filers* Option will help the IRS achieve the 80% *e-file* goal in 2015, given a 2011 implementation date.²⁴⁴ Table 13-3 shows the Option's projected net adoption for the years 2011 through 2016.

Table 13-3: Projected Net Adoption for More Filing Time for *E-filers* Option, 2011–2016

Adoption	2011	2012	2013	2014	2015	2016
Baseline	72.89%	74.99%	76.78%	78.29%	79.58%	80.70%
Net Projected	0.99%	1.03%	1.08%	1.12%	1.17%	1.21%
<i>Baseline + Net</i>	<i>73.88%</i>	<i>76.02%</i>	<i>77.86%</i>	<i>79.41%</i>	<i>80.75%</i>	<i>81.91%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

The IRS based these projections on the following assumptions:²⁴⁵

- The target population is all paper filers with the exception of Self Paper Filers who owe money.
- Information diffusion will be fast due to effective communication and outreach.
- Increased *e-file* adoption will primarily occur among taxpayers who usually file on paper between mid-March and mid-April.
- Projected net adoption will be higher among taxpayers who file simple returns than among those who file complex returns.

²⁴⁴ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

²⁴⁵ IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

13.3 Impacts

Although the following impacts are based on a new filing deadline of March 15 for paper filers, they are likely to be relevant to other scenarios involving changes to established filing deadlines.

Changing the April 15 filing deadline may cause a strong negative public reaction.

April 15 is a well-established date in the minds of American taxpayers. New filing deadlines for different types of taxpayers could cause confusion and resistance and a strong negative reaction. The simplicity of the single filing deadline would be lost by allowing earlier or later filing deadlines based on certain criteria. Taxpayers who are more likely to submit returns on paper may perceive an earlier date for paper filing as unfair and discriminatory.

Stakeholders: Taxpayers, Congress, Preparers

Impact Areas: Law and Policy, Tax Landscape

Moving the paper filing deadline to March 15 may burden preparers, particularly those who operate small practices. This is likely to cause an increase in the number of extension requests.

The reduction in the time available to prepare returns for paper filers may make it difficult for preparers with small practices to complete their work by the earlier deadline. This could result in lost revenue for these preparers. A related consideration is that March 15 is the deadline for corporate returns. Small practices that serve both individuals and corporations, therefore, could be particularly burdened by this Option.

Stakeholders: Preparers

Impact Areas: Tax Landscape

The current pattern of filing peaks in February and April may change, requiring adjustments to IRS staffing, operations, and peak-related capacities.

At present, the first filing peak occurs in mid- to late-February. A second peak occurs in late March through April 15. Any change in this pattern will have an impact on IRS staffing and operations. IRS seasonal hiring practices, which are timed to coincide with these peaks, also will be affected.

In addition, IRS network and computing capacity is engineered to support the current pattern of peak loads. If the magnitude of the shifted peaks is greater than the anticipated year-over-year growth, the IRS may have insufficient network and computing capacity to handle the peak loads.

Stakeholders: IRS, Preparers, Taxpayers, Transmitters, Tax Preparation Software Vendors

Impact Areas: Operational Processes, Human Resources Needs and Structure, Infrastructure

State and local tax authorities whose filing deadlines are tied to the Federal filing deadline will be affected.

Many State and local tax authorities have filing deadlines that are implicitly or explicitly tied to the Federal filing deadline. In addition, some State returns require information contained in the taxpayer's Federal tax return. These authorities may be required to adjust their filing deadlines, particularly if the Federal deadline for *e-filers* is extended.

Stakeholders: States, Taxpayers, Congress, Tax Preparation Software Vendors, Preparers

Impact Areas: Law and Policy, Tax Landscape, Operational Processes

The availability of W-2s, 1099s, and other information returns to taxpayers limits how early the paper filing deadline can be.

Financial institutions, employers, and other entities are required to provide information returns (e.g., W-2s, 1099s) to taxpayers by January 31.²⁴⁶ Allowing for delivery time, this means paper filers would have about 6 weeks to prepare and submit their returns if the paper filing deadline were changed to March 15.

Additionally, corrected information returns are more likely to be sent to paper filers closer to (or after) the date they submit their returns, which may result in an increase in amended returns.

Stakeholders: Taxpayers, Congress, States, Tax Preparation Software Vendors, Third Parties

Impact Areas: Law and Policy, Tax Landscape, Operational Processes

IRS business processes, systems, and forms and publications will be affected.

Numerous IRS business processes, systems, and products and services are tied to the April 15 filing deadline. These will need to be identified, assessed, and in some cases modified to accommodate multiple filing deadlines. IRS forms, publications, and instructions also will need to be reviewed and may need to be changed. Private-sector business processes, systems, and products and services will be similarly affected.

Stakeholders: IRS, Tax Preparation Software Vendors, Preparers, Third Parties

Impact Areas: Services and Customer Support, Operational Processes, Human Resource Needs and Structure, Infrastructure

13.4 Estimated Costs (Cost of Money)

13.4.1 Summary

Monies received later (in the form of later payments from taxpayers for money owed) and refunds paid earlier decrease the Federal government's cash flow and thus increase the need for the Treasury to borrow money to run the Federal government. Conversely, monies received earlier (in the form of early payments from taxpayers for money owed) and refunds paid later increase the government's cash flow and thus reduce the

²⁴⁶ The following sections of the Internal Revenue Code (IRC) specify the January 31 requirement by which entities must provide their customers information returns: §6045 (Brokers); §6042 (Institutions paying interest); §6051 (Employers withholding taxes, etc.), §408 (Institutions or Trustees of IRAs).

Treasury’s need to borrow money. The estimated annual recurring cost for the IRS to offer the More Filing Time for *E-filers* Option is based on the cost of money (COM) to the Federal government to borrow money and the savings it will realize by not borrowing money. Table 13-4 presents the savings the Treasury will realize by implementing this Option (i.e., getting paper filers to switch to *e-file*).

Table 13-4: COM Cost Estimate for More Filing Time for *E-filers* Option, Based on 1%, 2%, 3%, and 4% Interest Rates

One-Time Cost to Implement	Not Estimated.
Recurring Operations and Maintenance Cost	Savings of: \$2.3 million/year at 1%, \$4.7 million/year at 2%, \$7.0 million/year at 3%, \$9.3 million/year at 4%.
Duration to Implement	Not Estimated.

Source: IRS (2009) *More Filing Time for E-filers Basis of Estimate*

The one-time cost for the IRS to implement the Option was not estimated. This cost could include costs related to the following:

- Changes to IRS systems
- Changes to IRS forms and publications
- Changes to IRS policies and procedures
- Communication and outreach

13.4.2 Cost Drivers, Assumptions, and Risks

The cost of the More Filing Time for *E-filers* Option will be affected by the three elements of the Option’s Estimation Breakdown Structure (EBS): Target Population, Participation Level, and Interest Rate.

- **Target Population** — The target population for this Option is taxpayers who file on paper between March 15 and April 15. This analysis assumes that members of the target population will change their behavior by switching to *e-file*, or filing on paper by March 15 (includes making payment by this deadline and requesting an extension).
- **Participation Level** — This is the level of participation of taxpayers in the desired filing behavior change (switching from paper filing to *e-file*). The COM cost estimate is affected by both participation and non-participation. For example, taxpayers who continue to file on paper (don’t switch) and who owe money will be required to make their payments earlier.²⁴⁷ Taxpayers who continue to file on paper but are owed a refund will receive their refund earlier. Taxpayers who switch from paper filing to *e-file* as a result of the Option and who are owed a refund will receive their refund somewhat earlier.

²⁴⁷ It does not matter, for the purposes of this analysis, whether the Holdouts file timely or request an extension, since any balance due (money owed) is payable on the deadline date, even if the actual return is not filed until later.

- **Interest Rate** — The interest rate determines the cost to the Treasury for borrowing money and the savings the Treasury will realize by not borrowing money. The timing of money received and refunds paid affects the Treasury in the short term; cash flow usually evens out by April 15. For this reason, short-term interest rates based on 1-month Treasury bills were used to estimate the costs for offering the More Filing Time for *E-filers* Option.

Table 13-5 summarizes key cost drivers, assumptions, and risks associated with each major element in the Option’s EBS.

Table 13-5: Cost Drivers, Assumptions, and Risks for More Filing Time for *E-filers* Option

EBS Element	Cost Drivers, Assumptions, and Risks
Target Population	For this report, the following is assumed: <ul style="list-style-type: none"> • Only the members of the target population will change their filing behavior. • Those who switch from paper filing to e-file will file at the same point in the filing season as they do now. • Those who continue to file on paper will file their returns on or just before March 15.
Participation Level	This is the level of taxpayer participation in the desired filing behavior change (switching from paper filing to e-file). The participation level is estimated to be 9.5% of the target population (taxpayers who file on paper between March 15 and April 15), based on IRS net adoption projections.
Interest Rate	This represents the short-term interest rate the Treasury will pay, based on rates for 1-month Treasury bills over the past 5 years, which ranged from -0.1% to 5.18%, with an average rate of 2.76%. For purposes of this report, a range from 1% to 4% was considered.

Source: IRS (2009) *More Filing Time for E-filers Basis of Estimate*

Other cost assumptions include:

- Refund amounts and the amount of money owed by taxpayers used for this analysis were equal to the average amounts for TY2006.²⁴⁸ The average refund used for the analysis was \$2,691, and the average money owed used for the analysis was \$4,731.²⁴⁹
- Taxpayers who switch to *e-file* will receive refunds 1 week earlier than if they had continued to file on paper.
- Money-owing taxpayers who switch to *e-file* could switch their payment methods from check to direct debit. To account for this effect, it is assumed that payments of money owed by these taxpayers will be accelerated by half a week.

²⁴⁸ Available data indicates that average refunds decline from week to week during the filing season while average balances due increase. Taxpayers anticipating large refunds, in other words, are more likely to submit their returns early, whereas those who owe large balances tend to hold onto their money as long as possible. Data on refund and balance-due amounts broken out on a weekly basis are not readily available. However, the effect of using annual averages on the results is relatively small. For this reason, a constant average was used for the period.

²⁴⁹ IRS (2008) *Individual Income Tax Returns 2006*, p. 114

- Some members of the target population may request an extension rather than file by the earlier deadline. However, since an extension request does not affect the requirement to pay money owed by the filing deadline, the effect of these requests should be minimal and is not included in this analysis.

Explanation of COM Cost Estimate

The recurring cost of the More Filing Time for *E-filers* Option will be affected by the following:

- Number of taxpayers who continue to file on paper.
- Number of taxpayers in this group who owe money versus those receiving refunds.
- Amount of money owed and amount of refunds.
- Interest rate paid by the Treasury for short-term borrowing.

Taxpayers who continue to file on paper will either pay money owed earlier or receive their refunds earlier under this Option. The impact of this on the Option's recurring cost will depend on when taxpayers would have filed in the absence of the Option. For those who usually file close to the April 15 deadline, the shift in paying money owed or receiving refunds will be 1 month; for those who usually file earlier, the shift will be proportionally smaller.

It is assumed that taxpayers who switch to *e-file* will file at the same time as they would have in the absence of this Option. Taxpayers due refunds who switch to *e-file* will receive their refunds earlier as a result of *e-filing*; money owed by taxpayers who switch to *e-file* may be collected slightly faster, because these *e-filers* are more likely to pay by direct debit than by check.²⁵⁰

Somewhat more than half of the taxpayers in the target population received refunds in TY2006 (55.4%).²⁵¹ However, as discussed above, the average amount of money owed (\$4,731) was significantly greater than the average refund amount (\$2,691). Thus, the amount of money the Treasury received in earlier payments by paper filers exceeded the amount it paid in earlier refunds to these taxpayers, as shown in Table 13-6.

At a 1% interest rate, the cost to the Treasury for providing earlier refunds to paper filers is estimated at \$6.8 million, while the negative cost (i.e., savings) associated with receiving earlier payments by taxpayers who owe money is \$9.3 million, as shown in Table 13-6. Because the shift in the timing of the payment of refunds is comparatively small and relatively few taxpayers are expected to switch to *e-file*, the estimated costs to the Treasury also will be relatively small, ranging from \$0.1 million at a 1% interest to \$2.2 million at a 4% interest rate. The Treasury will save \$2.3 million at a 1% interest rate if the Option is implemented.

As shown in Table 13-6, the estimated costs to the Treasury for borrowing money or savings the Treasury will realize for not borrowing are proportionally higher for higher interest rates.

²⁵⁰ A certain percentage of balance-due taxpayers who switch to *e-file* may choose to pay their balances due close to April 15 rather than paying at the time they file, either by scheduling an electronic debit or by mailing a check with Form 1040-V. It is unknown how many *e-filers* would choose to delay balance due (money owed) payments in this way, and this effect was not included in the cost analysis. Note that *e-filers* can elect to submit their return but schedule payment at a later date, up to the deadline.

²⁵¹ IRS (2006) *Tax Year 2006 Taxpayer Usage Study*

Table 13-6: COM Cost Estimate for More Filing Time for *E-filers* Option, by Filing Population

Population	1% Interest	2% Interest	3% Interest	4% Interest
Paper Filers Who Are Due Refunds	\$6,800,000	\$13,500,000	\$20,300,000	\$27,000,000
Paper Filers Who Owe Money	-9,300,000	-18,500,000	-27,800,000	-37,100,000
<i>E-filers</i> Who Are Due Refunds	500,000	1,100,000	1,600,000	2,200,000
<i>E-filers</i> Who Owe Money	-400,000	-700,000	-1,100,000	-1,500,000
Net Cost of Money	-2,300,000	-4,700,000	-7,000,000	-9,300,000

Note: Negative values reflect estimated savings.

Source: IRS (2009) *More Filing Time for E-filers Basis of Estimate*

Thus, the Option’s cost will be dominated by taxpayers who continue to file on paper, and the payments of money owed will exceed the cost to the Treasury for providing earlier refunds. Combining the effects on paper filers and *e-filers*, the negative cost (i.e., savings) to the Treasury for this Option is estimated to range from of \$2.3 million at a 1% interest rate to \$9.3 million at a 4% interest rate.

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14. Policy Option: Monetary Incentive

Contents of Chapter 14:

- 14.1 Definition
 - 14.1.1 The Current Environment
 - 14.1.2 Envisioned Capabilities and Features
 - 14.1.3 Assumptions and Constraints
 - 14.1.4 Areas for Further Investigation
- 14.2 Projected Net Adoption
- 14.3 Impacts
- 14.4 Cost
 - 14.4.1 Summary
 - 14.4.2 Cost Drivers, Assumptions, and Risks

14.1 Definition

The Monetary Incentive Option will provide a one-time monetary incentive in the form of a tax credit to paper filers to encourage them to switch to *e-file*. The IRS will determine the dollar amount and eligibility criteria for the incentive. For the purposes of this report, incentive amounts of \$2, \$6, and \$15 are used to illustrate the costs and impacts.

14.1.1 The Current Environment

Section 2001(c) of RRA98 authorizes the Secretary of the Treasury to “implement procedures to provide for the payment of appropriate incentives for electronically filed returns.”²⁵² This could include tax credits or other monetary incentives to encourage individual taxpayers and preparers to *e-file*.

In 1997, the IRS considered a program that would pay transmitters \$3 for every tax return they *e-filed*. The proposal did not find much traction and ultimately was not implemented.²⁵³ Currently, no monetary incentives are in effect to encourage individual taxpayers or preparers to *e-file* tax returns, and no proposals are under consideration.

14.1.2 Envisioned Capabilities and Features

Several elements will influence the Monetary Incentive Option, including incentive amount, eligible population, and eligibility period:

- **Incentive Amount** — Three possible amounts will be considered: \$2, \$6, and \$15. Two dollars represents the approximate cost differential to the IRS between processing a paper return and an *e-filed* return.²⁵⁴ Six dollars corresponds to the approximate weighted average cost to the taxpayer of *e-filing*, according to IRS Research, Analysis, and Statistics (RAS). Fifteen dollars corresponds to the typical market price charged for *e-filing* a return using tax preparation software.²⁵⁵
- **Eligible Population** — For purposes of this report, the eligible population includes all individual taxpayers who did not *e-file* in the previous tax year.
- **Eligibility Period** — The IRS will offer the monetary incentive one time only (a single filing season). The IRS may decide to offer it in subsequent filing seasons, although this will require further consideration of cost and impact.

Table 14-1 describes the roles of the primary stakeholders of the Monetary Incentive Option.

²⁵² Internal Revenue Service Restructuring and Reform Act of 1998 (RRA98)

²⁵³ Wongtrakool, B. M. (1998) *Does Paperless Mean Painless? Electronic Tax Return Filing in the New Millennium*, p. 4

²⁵⁴ The cost per paper 1040 return is \$2.68 and cost per electronic 1040 return is \$0.20 or a net cost to file paper of \$2.48. Source: IRS (2008) *Form 1040 Costs - Paper versus ELF FY2007*

²⁵⁵ Based on a review of commercial tax preparation software fee structures prior to TY2008; in 2008, commercial providers incorporated *e-filing* fees in their software prices.

Table 14-1: Roles of Monetary Incentive Option Stakeholders

Taxpayer Role	Preparer (if used)	IRS Role
Prepare (by any method) and <i>e-file</i> tax return in order to claim one-time tax credit.	Prepare and <i>e-file</i> individual taxpayer’s return in order for individual to claim the one-time tax credit.	Define incentive amount, eligible population, and eligibility period.
		Conduct a communication and outreach campaign to increase awareness of Option.
		Administer, operate, and maintain the Option.

14.1.3 Assumptions and Constraints

- The Monetary Incentive Option assumes that the IRS will not be required by law or policy to treat all filers in a similar manner. In other words, the IRS will be allowed to offer the incentive to paper filers only.
- The IRS will leverage existing systems and resources to implement and operate and maintain the Option.
- The IRS will develop a communication and outreach campaign aimed at the target population.
- The IRS will have the infrastructure in place to securely receive more *e-filed* returns.

14.1.4 Areas for Further Investigation

In addition to the Monetary Incentive Option described in this chapter, other types of monetary incentives could be offered to encourage the *e-filing* of individual tax returns. The alternatives described below were not considered for this report, and the implementation of any of these alternatives requires further investigation.

- **Preparer/ERO Monetary Incentive** — An alternative monetary incentive (noted in the AES1 report) is for the IRS to pay preparers and EROs a negotiated rate per return or flat fixed fee for *e-filing*. In this scenario, preparers and EROs would provide free *e-filing* to taxpayers, although the taxpayer may still be charged for tax preparation services or tax preparation software. This alternative was not considered for this report primarily because during the 2008 filing season, tax preparation software vendors either bundled *e-filing* costs into the cost of their software or eliminated *e-file* costs completely, thus rendering the incentive partially, if not totally, unnecessary.

- **Monetary Incentive Offered to All Individual Taxpayers Who E-file Returns** — Paper filers are the target of the Monetary Incentive Option. In TY2008, of the more than 154 million individual taxpayer returns filed, more than 89 million were *e-filed*.²⁵⁶ Offering an incentive to *all* individual taxpayers, including current *e-filers*, was not considered for this report due to potentially excessive costs.
- **Monetary Incentives Offered for Multiple Years** — The Monetary Incentive Option will offer the incentive one-time only (a single filing season). As an alternative, the IRS may consider a multi-year approach. This alternative was not considered for this report due to excessive costs and potential adverse effects. For example, an individual taxpayer could *e-file* the first year to receive the incentive, revert to paper filing the next year, and *e-file* the third year to receive the incentive again.
- **Fee for Paper Filers** — Another possible alternative is charging a fee to individual taxpayers who submit returns on paper. This alternative was not considered for this report.

14.2 Projected Net Adoption

No projected net adoption information is currently available.

14.3 Impacts

The majority who now e-file will not be eligible for a monetary incentive under this Option and thus may be displeased with the Option.

Taxpayers who already *e-file* without the benefit of a monetary incentive may not appreciate being excluded and thus may be displeased with the Option. They may express their displeasure to the IRS, Congress, preparers, and tax preparation software vendors.

Stakeholders: Taxpayers, IRS, Congress, Preparers, Tax Preparation Software Vendors

Impact Areas: Tax Landscape

This Option reduces the risk of taxpayers “gaming the system” (i.e., quitting e-file only to resume e-filing the next tax season to get the incentive) but poses the risk that those who switch to e-file may not continue to do so in the absence of an ongoing incentive.

Were the IRS to offer a monetary incentive for more than 1 year, there is a risk that current *e-filers* may stop *e-filing* for 1 year and revert to *e-filing* the next year to get the incentive. The ability of the IRS to monitor and control this effect is unclear. This Option decreases that risk by only providing a single year incentive. However, the Option poses the risk that the desired effect — that those who switch to *e-filing* continue to do so — will not persist beyond the availability of the incentive (the one time it is offered).

Stakeholders: Taxpayers, IRS

Impact Areas: Tax Landscape

²⁵⁶ IRS (2009) *Internal Revenue Service Data Book 2008*, Table 3, Number of Returns Filed, by Type of Return and State, and Fiscal Year 2008 and Table 4 Number of Returns Filed Electronically, by Type of Return and State, Fiscal Year 2008

14.4 Estimated Costs

14.4.1 Summary

As shown in Table 14-2, the estimated one-time cost for the IRS to implement the Monetary Incentive Option is expected to be in the range of \$32 million to \$961 million, depending on the incentive amount selected and the participation level. These estimates are based on participation levels ranging from 25% to 100% for an estimated 64 million paper filers who may switch to *e-file*. Except for the cost of the incentive itself, no other implementation or operations and maintenance costs were considered.

Table 14-2: Cost Estimate for Monetary Incentive Option, Based on \$2, \$6, and \$15 Incentive Amounts

One-Time Cost to Implement	\$2 incentive: \$32 to \$128 million \$6 incentive: \$96 to \$384 million \$15 incentive: \$240 to \$961 million
Recurring Operations and Maintenance Cost	Not Estimated.
Duration to Implement	12 Months.

Source: IRS (2009) *Monetary Incentive Basis of Estimate*

14.4.2 Cost Drivers, Assumptions, and Risks

Table 14-3 summarizes key cost drivers, assumptions, and risks associated with each major element in the Option's Estimation Breakdown Structure (EBS).

Table 14-3: Cost Drivers, Assumptions, and Risks for Monetary Incentive Option

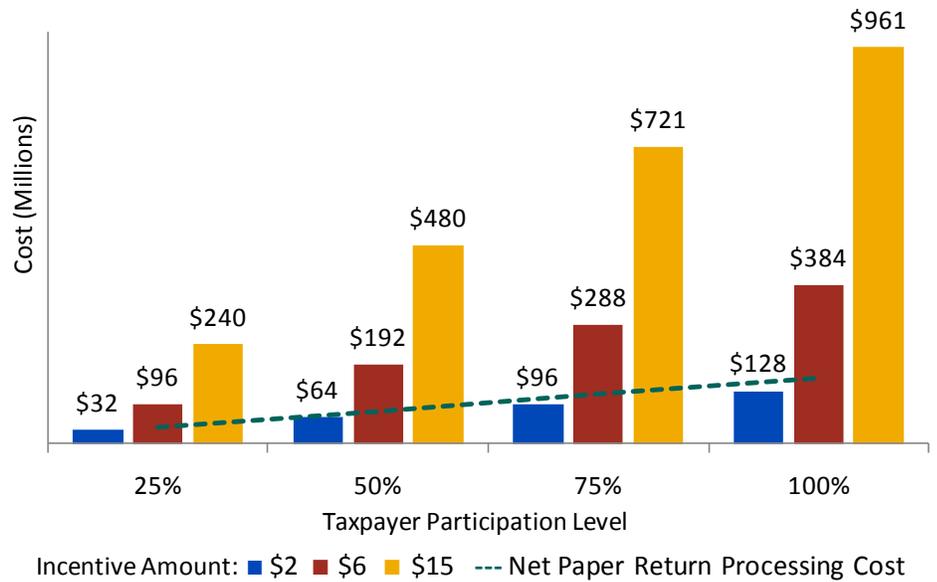
EBS Element	Cost Drivers, Assumptions, and Risks
Cost of Incentive Payments 100% of One-Time Cost	More precise estimates for the Monetary Incentive Option depend on the incentive amounts and the net adoption projections from the ongoing conjoint survey. In the interim, quartile ranges (25%, 50%, 75%, 100%) are provided.
Operations and Maintenance Costs No cost impact	The IRS will leverage existing systems and resources to operate and maintain the Monetary Incentive Option.
Communication and Outreach Costs not included — Further investigation required	Cost drivers may include production of communication and outreach materials, updates to the IRS.gov web site, and time and travel for designated IRS staff to conduct/participate in communication and outreach events.

Source: IRS (2009) *Monetary Incentive Basis of Estimate*

Estimated Costs of Monetary Incentive Option Based on Participation Levels

Using 2008 return data, Figure 14-1 illustrates the estimated costs for the IRS to offer the Monetary Incentive Option to individual taxpayers who did not *e-file* the previous year, based on potential incentive participation levels.²⁵⁷ This figure also compares these costs with net paper return processing costs if *e-file* Holdouts continued to submit their returns on paper.

Figure 14-1: Estimated Monetary Incentive Option Costs by Incentive Amount and Participation Level Compared with Net Paper Return Processing Costs



Source: IRS (2009) *Monetary Incentive Basis of Estimate*

²⁵⁷ IRS (2008) *AES2 Data Request*

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15. Emerging Technology: Research on Mobile *E-file*

Contents of Chapter 15:

- 15.1 Definition
- 15.2 The Current Environment
 - 15.2.1 Current Mobile Phone Adoption
 - 15.2.2 Mobile Phone Service Landscape
 - 15.2.3 Current Uses for Mobile Phones
 - 15.2.4 Capability Considerations
- 15.3 Areas for Further Investigation

For more information on electronic preparation and submission of tax returns, see chapter 7, Free IRS Direct *E-file*; chapter 8, Free IRS Online Forms; chapter 9, Free IRS Tax Preparation Software; and chapter 13, Expanded Free File.

Any mobile e-file solution will likely involve adding a mobile front end to an online forms or tax preparation software capability or developing mobile and web-based capabilities concurrently.

AES1 introduced the possibility of a mobile phone-based *e-file* option. Because of the distinct nature of Mobile *E-file* described in this chapter (e.g., use of emerging technology, new ground for the IRS), it is still in the early stages of investigation. Therefore, this chapter differs from the other Option chapters in this report. This chapter considers what Mobile *E-file* might look like based on the current landscape and trends in mobile phone technology. These considerations will apply to the development of this as an Option.

15.1 Definition

Mobile *E-file* allows taxpayers to electronically submit (*e-file*) their individual Federal income tax returns to the IRS (and possibly prepare their returns) using a mobile phone. Based on current technology, the Mobile *E-file* will not be a stand-alone solution. Rather, it will provide a front end and user interface to an electronic tax preparation and submission system. Other than the user interface, the capabilities of Mobile *E-file* will be similar to those of the Technology Options discussed in chapters 6, 7, and 8 and the Policy Option discussed in chapter 12, including:

- User account management.
- Extraction and secure storage of return data.
- Acceptance of taxpayer payments to the IRS and payment of IRS refunds to taxpayers.
- Electronic submission of returns to the IRS.
- IRS confirmation of receipt and acknowledgment of acceptance or rejection of returns.
- Customer support.

Implementing Mobile *E-file* independent of another web application will involve extensive duplication of effort and significant cost. It is likely, therefore, that any Mobile *E-file* solution will involve adding a mobile front end to an online forms or tax preparation software capability or developing mobile and web-based capabilities concurrently.

Mobile *E-file* may appeal to two groups: taxpayers who have access to a mobile phone but not necessarily to a computer with Internet access and taxpayers who have access to a mobile phone with Internet access but do not currently prepare and submit their returns electronically.

15.2 The Current Environment

Although the IRS has offered phone-based tax submission in the past, it does not currently offer such a capability (mobile or landline) to taxpayers or preparers. The defunct IRS TeleFile program was based on the use of a landline phone and operated from 1997 to 2005. At its peak in 1998, 6 million returns were *e-filed* through TeleFile, representing 4.9% of all individual taxpayer returns. By 2005, the number of returns TeleFiled had declined to 3.3 million, representing 2.5% of all individual taxpayer returns.²⁵⁸ The decline in TeleFile usage paralleled the rise of the Internet.

The defunct IRS Telefile program was based on the use of a landline phone. The decline in Telefile usage paralleled the rise of the Internet.

The simplest version of a Mobile *E-file* option would enable taxpayers to use a mobile phone exactly as they would a landline phone submit their returns (i.e., accessing a voice/keypad-based application). This does not suggest, however, that the IRS should resume TeleFile as it existed previously.

The following sections discuss current mobile phone use and availability.

15.2.1 Current Mobile Phone Adoption

In June 2009, there were an estimated 277 million mobile phone subscribers in the United States.²⁵⁹ Among US households, 84% have at least one mobile phone, and this figure increases to 93% for “young families” (parents under 40, with children under 18 living at home).²⁶⁰ For many people, a mobile phone has become their only phone. The National Center for Health Statistics reports that in 2008, “Approximately 18.4% of all adults — more than 41 million adults — lived in households with only wireless telephones.”²⁶¹

The Pew Internet & American Life Project reports:

Cell phone users are more likely to be found in groups that have generally lagged in Internet adoption, such as senior citizens, blacks, and Latinos. In our December 2007 survey, 50% of Americans age 65 and over had cell phones compared with 36% who used the Internet. Some 84% of English-speaking Hispanics reported having cell phones and 71% of blacks had cell phones, compared with 78% and 63%, respectively, for online access.... Even lower-income Americans with cell phones (61%) are active in using non-voice data applications on cell phones; 44% of cell users in households with incomes below \$30,000 annually do one such non-voice data activity on a typical day.²⁶²

Over 80% of households have at least one mobile phone, and this figure increases to 91% for households in the 18–28 age segment.

²⁵⁸ Treasury Inspector General for Tax Administration (2007) *Eliminating TeleFile Increased the Cost and Burden of Filing a Tax Return for Many Taxpayers*, p. 17; IRS (2007) *Calendar Year Projections of Individual Returns by Major Processing Categories*, p. 5

²⁵⁹ Cellular Telecommunications and Internet Association (2009) *Background on CTIA’s Semi-Annual Wireless Industry Survey*, p. 2

²⁶⁰ Forrester Research (2009) *The State Of Consumers And Technology: Benchmark 2009*, p. 14

²⁶¹ Centers for Disease Control and Prevention (2009) *Wireless Substitution: Early Release of Estimates Based on Data from the National Health Interview Survey, July–December 2008*, p. 2

²⁶² Pew Internet & American Life Project (2008) *Seeding The Cloud: What Mobile Access Means for Usage Patterns and Online Content*, pp. 2-3

Further research on users' access to and use of sometimes multiple solutions for voice and Internet services is required and must keep pace with changes in technology and its adoption.

US mobile phone service providers tightly control phone features, the applications customers can download and execute, and the web sites and content that customers can access from phones on their proprietary networks.

Forrester reports that young singles and couples (younger than 40 with no children at home) are particularly enthusiastic mobile phone users: 84% of adults in this category own a mobile phone. About three-quarters of these young mobile phone owners use texting services. However, only 24% use their phones to browse the Internet.²⁶³

According to Pew, while there are more Americans over 65 with mobile phones than desktop or laptop computers, they are much less accustomed to using their phones for anything other than voice conversations. For example, only 4% of those over 65 used their phones to access the Internet.²⁶⁴

Among respondents to the taxpayer survey, there was considerable overlap among mobile phone and Internet use. Of the 88% who owned or had access to a mobile phone (basic or with text messaging and/or a web browser), 91% owned or had access to Internet services. Viewed from a different angle, of the 86% who owned or had access to Internet services, 94% owned or had access to a mobile phone.²⁶⁵

15.2.2 Mobile Phone Service Landscape

The US mobile phone service landscape is dominated by four major service providers: Verizon, Sprint/Nextel, AT&T, and T-Mobile. These four providers serve 85.5% of US mobile phone users.²⁶⁶ Numerous smaller firms serve the remaining 14.5%.

In the United States, the vast majority of mobile phones are sold by service providers; 90% to 95% were sold by service providers in 2007.²⁶⁷ This gives service providers significant control over phone features (e.g., what applications can run, what content or web sites can be accessed). As a part of this control, mobile phone features may be intentionally limited. This occurs, for example, when a provider requires a manufacturer to develop phones and/or phone features that can be used only on the provider's network.²⁶⁸ Alternatively, phones may be configured to prevent certain uses; reconfiguration by the user may be either impossible or extremely difficult.

Many service providers use what are commonly referred to as walled gardens, or closed-off services that limit the web sites or content that customers can access from phones on their networks.²⁶⁹ Providers also tightly control the applications that customers can download and execute on their phones.²⁷⁰ Applications for newer Converged Media Devices (discussed below) can typically be obtained only from the provider's or phone vendor's "app store." This restricts customers to provider-approved functionality and content, unless they are willing to accept the risks of jailbreaking²⁷¹ their phone.

²⁶³ Forrester Research (2009) *The State Of Consumers And Technology: Benchmark 2009*, p. 14

²⁶⁴ Pew Internet & American Life Project (2009) *Wireless Internet Use*, p. 26

²⁶⁵ IRS (2009) *AES2 Taxpayer Survey*, Question 21

²⁶⁶ Cellular Telecommunications and Internet Association (2009) *Comments of CTIA — The Wireless Association: In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 (WT Docket No. 09-66) Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless including Commercial Mobile Services*, p. 10

²⁶⁷ CNET News (2007) *Will Unlocked Cell Phones Free Users?*, p. 2

²⁶⁸ PC World (2005) *20 Things They Don't Want You to Know*, p. 7

²⁶⁹ Wireless Week (2008) *What Lies Beyond the Walled Garden*, p. 1

²⁷⁰ New America Foundation (2007) *Wireless Net Neutrality: Working Paper #17*, p. 14

²⁷¹ Jailbreaking a phone requires the user have sufficient technical know-how (or use a third party) to bypass software and/or hardware restrictions on their phone to run unofficial applications, content, etc. About

A third component in this landscape is the cost to consumers of data services. In the first quarter of 2008, only 14% of mobile phone users had unlimited data services; the remaining 86% either paid “by the byte” for data services or did not receive data services.²⁷² For example, in 2009 Verizon charged \$1.99 per megabyte for data access.²⁷³ In a 2008 Forrester study of mobile Internet users, 65% said they would have used mobile Internet more if it cost less to use.²⁷⁴

Flat-rate plans have recently emerged and are growing in popularity. However, these plans cost more than voice-only plans. For example, in 2009, Verizon’s Basic (voice-only) plan started at \$39.99/month, whereas its Nationwide Connect plan (unlimited web access) started at \$69.99/month.²⁷⁵ Some popular converged mobile devices (AT&T/Apple iPhone, T-Mobile/HTC G1) are sold only with unlimited data plans.²⁷⁶

Types of Mobile Phones

In the United States, more than 1,000 models of mobile phones are currently in use.²⁷⁷ For this report, three types of mobile phones — basic phones, smartphones, and converged mobile devices (CMD) — were considered, as shown in Table 15-1.

Capabilities of these types of phones are discussed in greater detail in section 15.2.4. The distinctions among these types of mobile phones will continue to shift and blur due to market forces and the growing computational power of phones, reflecting Moore’s law. These trends ensure that high-end features will continually make their way into entry level mobile phones.

10% of Apple iPhone and iPod touch devices are estimated to be jailbroken. Source: Wired.com (2009) *Rejected By Apple, iPhone Developers Go Underground*.

²⁷² The Nielsen Company (2008) *Critical Mass The Worldwide State of the Mobile Web*, p. 5

²⁷³ Verizon Wireless (2009) *Pricing For Data Usage*, p. 1

²⁷⁴ Forrester Research (2008) *Usability And Cost Slow Mobile Internet Adoption*, p. 3

²⁷⁵ Verizon Wireless (2009) *Compare Plans*

²⁷⁶ Forrester Research (2009) *How The iPhone Has Changed Mobile Banking*, p. 2

²⁷⁷ Forrester Research (2009) *Mobile Internet: Where Is Your Audience?*, p. 2

Basic mobile phone displays accommodate only a few lines of text, which is impractical for tax return preparation. Smartphones offer more usable web browsing and have more capable keyboards. Converged media devices are designed as much for web surfing as they are for voice. They also support an extensive range of downloadable applications.

Table 15-1: Typical Mobile Phone User Interface Characteristics

Phone Type	Example	Display Size, Resolution	Input Capabilities
Basic	 <p>Motorola V195</p>	2" 128 x 160 pixels	12-key telephone-style keypad Function keys Four directional keys Select button
Smartphone	 <p>BlackBerry Bold</p>	3.0" 480 x 320 pixels	QWERTY-style physical keyboard Trackball Select button
Converged Mobile Device (CMD)	 <p>Apple iPhone</p>	4.5" 320 x 480 pixels	QWERTY-style physical or virtual keyboard Touchscreen

Basic mobile phones are relatively inexpensive and are sometimes provided free with a new service contract. These phones typically support voice communication, texting, primitive web browsing, simple games, and communication-related applications (e.g., an address book). The display is often limited (128 x 160 pixels), and input capabilities include the traditional 12-key telephone-style keypad and a few dedicated function keys or soft keys. Text input is supported by a “multi-tap” protocol; the “2” is pressed once for “A,” twice for “B,” and so on.²⁷⁸ Some basic phones incorporate predictive software that attempts to reduce user effort by guessing words on the basis of the first few letters.²⁷⁹

The displays on these phones is limited to a few lines, making them impractical for presenting large amounts of text, such as tax return preparation instructions. These display limitations, combined with the tedious multi-tap input protocol, suggest that basic phones are most appropriate for simple query/response applications with a limited number of interactions. For tax preparation and submission purposes, this means the simplest tax returns such as 1040EZ.

More capable phones, usually referred to as smartphones, evolved by adding mobile phone capabilities to personal digital assistants (PDA) and until recently have been

²⁷⁸ Motorola (2009) *Motorola V195 Specifications*, p. 1

²⁷⁹ IDC (2007) *Evolution of Mobile Touchscreens: Is the World Ready for the Third Generation of Input?*, pp. 2-4

targeted more to business users than consumers. BlackBerry phones from Research In Motion exemplify the smartphone class. Smartphones typically offer e-mail, calendaring, other business applications, and more usable web browsing than basic phones. They offer larger displays and more capable keyboards (usually QWERTY style, although some employ innovative new styles).²⁸⁰

CMDs are a newly emerging class represented by phones such as the Apple iPhone, Google/Android-based phones, and the BlackBerry Storm2. CMDs are more focused on the consumer marketplace than earlier smartphones. They are designed for web surfing and voice communication and support an extensive range of downloadable applications.

Although still less than a quarter of the size of laptop displays, CMDs typically offer a relatively large display compared to other mobile phones. The larger displays on CMDs and smartphones are capable of supporting more extensive text, data, graphics, and video than the smaller displays of basic phones. CMDs also offer a variety of input mechanisms, which in some cases are quite innovative.²⁸¹

15.2.3 Current Uses for Mobile Phones

According to the Pew Internet & American Life Project, “In 2009, 69% of all adult Americans said they had ever done at least one of the ten activities [e.g., texting, emailing, taking a picture, looking for maps or directions, recording video] versus 58% who did this in late 2007.”²⁸²

Non-voice activities of mobile phone users are mostly limited to simple applications. Forrester reports that in 2009, text messaging was the only mobile application used at least once a month by a majority (51%) of users.²⁸³

In 2009, 19% of adult mobile phone users reported using their phones to browse the Internet on a typical day.²⁸⁴ A possible reason for this relatively low level is that a smartphone or CMD is required to surf the Internet effectively. Roughly half of CMD and smartphone users access the Internet via their phones on at least a weekly basis, while weekly Internet access by basic phone users is less than 10%.²⁸⁵ CMD and smartphone usage is increasing, but is not likely to represent the bulk of the mobile phone user population for the foreseeable future. Gartner reports that in the second quarter of 2009, smartphones represented 26% of mobile phones sold to end users.²⁸⁶ However, only 8% of US adults report owning a smartphone.²⁸⁷

Moreover, most mobile phone users who access the Internet with their phones also have traditional computer-based Internet access. Pew reports that 91% of mobile phone users who access digital data or tools on their phones are also online Internet users.²⁸⁸

²⁸⁰ Research In Motion (2009) *BlackBerry Bold Specifications*, p. 1

²⁸¹ Apple (2009) *Apple iPhone 3G Technical Specifications*, p. 1; HTC (2009) *T-Mobile G1 Specification*, p. 1

²⁸² Pew Internet & American Life Project (2009) *Wireless Internet Use*, p. 5

²⁸³ Forrester Research (2009) *The State Of Consumers And Technology: Benchmark 2009*, p. 14

²⁸⁴ Pew Internet & American Life Project (2009) *Wireless Internet Use*, p. 14

²⁸⁵ Forrester Research (2008) *Benchmark 2008: Mobile Is Everywhere*, p. 3

²⁸⁶ Gartner (2009) *Market Share: Mobile Devices and Smartphones by Region and Country, 2Q09*

²⁸⁷ Forrester Research (2009) *The State Of Consumers And Technology: Benchmark 2009*, p. 6

²⁸⁸ Pew Internet & American Life Project (2008) *Data Memo: Mobile Access to Data and Information*, p. 7

Currently, only 5% of avid mobile phone users use mobile banking. However, some analysts assert that by 2010, 35% of online banking households will use mobile banking.

US Financial Industry: Mobile Banking

Most mobile banking services are relatively simple: customers can check balances, view recent transactions, and receive alerts when selected conditions arise, such as when an account is in danger of being overdrawn. More advanced services include transferring money between accounts and paying bills. However, at the moment no identified service approaches the complexity of preparing and filing a tax return. Figure 15-1 presents an example of a mobile banking application.

Figure 15-1: Mobile Banking Application on Basic Phone



Source: Chase (2009) *How Chase Mobile via Text Works*.

Mobile banking applications are typically integrated with online banking. Customers may be required to enroll in mobile banking online in order to establish a link between their mobile phone numbers and their customer IDs. Certain activities that are tedious to accomplish using a mobile phone may also be done online. For example, a bill payment function (e.g., entering payee information) may be set up online before a mobile phone can be used to make payments.

Acceptance of mobile banking is low (5%), even among avid mobile phone users.²⁸⁹ The key barriers seem to be customers' lack of a perceived need for mobile banking and security concerns. Forrester notes that lack of interest was relatively insensitive to online use of secure transactions, age group, or household income.²⁹⁰ However, some analysts assert that mobile banking is near the tipping point. Celent, an international strategy consultant to the financial industry, estimates that by 2010, 35% of online banking households will use mobile banking.²⁹¹ To increase acceptance, banks are attempting to develop mobile-sensitive applications, such as locating the nearest branch or automated teller machine (ATM). Use of mobile phones for contactless payments — making less expensive purchases by simply placing the phone on or near a sensor — is also expected to drive the growth of mobile banking.

²⁸⁹ Forrester Research (2008) *Consumers are Apathetic About Mobile Banking*, p. 1

²⁹⁰ Forrester Research (2008) *Consumers are Apathetic About Mobile Banking*, p. 3

²⁹¹ Celent (2007) *U.S. Mobile Banking: Beyond the Buzz*, p. 1

US Financial Industry: Investments

Investment firms also offer mobile services, some of which appear to offer relatively powerful capabilities even to users of basic mobile phones. Fidelity Investments' mobile capability, Fidelity Anywhere, supports many of the services available on its web site, including obtaining market information, accessing accounts, and trading (see Figure 15-2). Users can set up watch lists and receive alerts when certain events occur. The Fidelity application is notable in that it is accessible via the limited-capability browser typically available on basic phones. Other investment firms' mobile solutions typically require a phone such as an iPhone or BlackBerry to leverage the advantage of the larger screens and more robust input methods of smartphones and CMDs.

While a few investment firms offer mobile services to users of basic mobile phones, most services require the larger screen and robust input methods of smartphones and CMDs.

Figure 15-2: Browser-Based Application on Basic Phone



Source: Fidelity Investments (2008) *Fidelity Anywhere*, p. 1.

International Tax Filing

Several Scandinavian countries, including Sweden and Norway, incorporate the use of mobile phones in their tax filing systems.²⁹² These countries provide taxpayers with pre-computed tax returns prepared by the government tax administration, using information provided by employers and financial institutions. The pre-computed returns are mailed to the taxpayer or are available online. The taxpayer can then accept the tax administration's proposed return via a number of channels, including a web application, a landline phone (using the keypad), or a mobile phone. The mobile phone option involves sending a text message to the tax administration to effect acceptance. The mobile phone capability does not allow the taxpayer to make changes or corrections to the proposed return. In Norway in 2007, 365,454 returns were submitted via texting, out of a total of 2.1 million electronic returns.²⁹³ However, submission of returns via texting declined significantly in 2008 when Norway adopted a process whereby the pre-computed return was considered accepted if the taxpayer did not respond.

Sweden and Norway use mobile phones as one of several electronic channels to distribute pre-computed tax returns to taxpayers, who can accept the returns by texting the tax administration office.

²⁹² Nordic Council of Ministers (2009) *Nordisk eTax Portal*, p. 1

²⁹³ Norway (2009) *Statistics of Returns Submitted Electronically in 2007*, p. 1

The IRS should further investigate the Scandinavian approach to incorporating mobile phones into the tax system if the US decides to implement a similar system based on pre-computed returns.

US Tax Filing

To date, tax preparation software vendors such as Intuit (TurboTax) and H&R Block (TaxCut) have chosen not to offer their solutions in a mobile phone environment.²⁹⁴ The IRS also has no phone-based *e-file* program (mobile or landline).

The following are considerations for implementing the Mobile *E-file* Option in the current environment:

- **Platform Partnerships** — Service providers may be willing to allow the IRS and/or third parties such as tax preparation software vendors to place an *e-file* application (either downloadable or web-based) within their walled gardens or app stores. However, the IRS and third parties may be required to partner with each service provider individually in order to provide taxpayers with access to the tax preparation application (see section 15.2.2).
- **Data Transmission Costs** — Although the data transmission requirements of an *e-file* application may be relatively minor, any data transmission charges could reduce the attractiveness of the Mobile *E-file* service.
- **Excessive Complexity** — Preparing a tax return is more complex than performing other tasks currently supported on a mobile phone. The most complex mobile banking task on a basic phone requires only 5 or 6 data entries, whereas preparation of the simplest tax return (1040EZ) on a basic phone requires a minimum of 15 to 20 data entries. Moreover, even the relatively simple mobile banking applications have not achieved much popularity. In a 2008 Forrester Research study, only 6% of respondents in the 18–28 age segment reported “checking financial accounts” using their mobile phones as frequently as once per month.²⁹⁵
- **Business Case** — Forrester characterizes successful mobile Internet sites as providing content that is updated frequently, pertains to the user’s current context (e.g., location), and requires little input and provides clear output — not a combination that seems to characterize the preparation of one’s tax return.²⁹⁶

For the Mobile *E-file* Option, a fill-in-the-blanks application for simple forms (1040EZ, 1040A) might be feasible, but a more comprehensive application that supports complex forms seems impractical.

Using a basic mobile phone, preparing the simplest tax return (1040EZ) requires a minimum of 15 to 20 data entries, whereas performing the most complex mobile banking task only requires 5 or 6 data entries.

²⁹⁴ It is not clear why no commercial phone filing services have been deployed. One reason for this may be the difficulty in creating an attractive value proposition for the taxpayer. Other types of mobile applications sometimes emphasize the mobility dimension of an application or service. For example, an application could take advantage of knowledge of the customer’s location to create value, as in the case of the “Where’s the nearest branch?” service in a mobile banking offering. Since there is no comparable benefit in Mobile *E-file*, it seems that the value proposition would have to result from the simplicity and ease of service in comparison to other means of preparing and submitting taxes.

²⁹⁵ Forrester Research (2008) *Benchmark 2008: Mobile Is Everywhere*, p. 3

²⁹⁶ Forrester Research (2008) *Usability And Cost Slow Mobile Internet Adoption*, pp. 4-5

While smartphones and CMDs could support the display of tax return information in a suitable format, their displays are too small at present for interactive fillable forms that closely resemble paper tax forms. QWERTY-style keyboards, whether physical or virtual, could be used to enter textual information into either fillable forms or tax preparation software.

15.2.4 Capability Considerations

This report describes mobile phone capabilities that are the most relevant to a Mobile *E-file* option. These capabilities include a user interface, applications, and security. Mobile phone types and their user interfaces are described in section 15.2.2; the following section focuses on applications and security. This section also addresses other considerations as they relate to emerging technology.

While the capabilities of mobile phones vary widely, the trend is for higher-end capabilities to trickle down to lower-cost mobile phones.

15.2.4.1 Applications

Three types of mobile phone applications were identified for this report:

- Short Message Service (SMS)
- Embedded
- Mobile Web

Short Message Service Applications

SMS, the most basic data service typically available on mobile phones, is the technical basis for text messaging. Virtually all mobile phones support SMS.²⁹⁷ As implied by its name, SMS supports short messages. Message length depends on the language used; the maximum message length in English is 140 characters.

SMS applications are limited by the fact that each message exchange is effectively a separate transaction; extended request/reply or query/response sequences are clumsy. Typical applications answer simple queries with a single response. For example, texting “pizza” followed by a ZIP code to 466453 (GOOGLE) elicits a response from Google listing pizza restaurants in that ZIP code.²⁹⁸ Some banks (e.g., Chase) respond to mobile phone banking queries (e.g., balance queries) in the same way.²⁹⁹ SMS is also used in “push” applications (to inform customers of an event, such as providing users alerts of an overdraft or low balance).

SMS may be useful for other electronic tax administration functions such as notifying a taxpayer that a return has been accepted. However, SMS may not be well suited to performing the complex interactions required for *e-filing*. Moreover, SMS presents security concerns (which are addressed later in this chapter).

As implied by its name, SMS supports short messages. The maximum message length in English is 140 characters. SMS may not be well suited to performing the complex interactions required for e-filing. However, SMS may be useful for other electronic tax administration functions such as notifying a taxpayer that a return has been accepted.

²⁹⁷ Developer's Home (2009) *Short Message Service/SMS Tutorial*, p. 1

²⁹⁸ Google (2009) *Google SMS for your phone*, p. 1

²⁹⁹ Chase (2009) *How Chase Mobile via Text Works*, p. 1

Although most mobile phones can execute embedded applications, the size of applications that can run on most mobile phones is highly constrained. Furthermore, because many mobile phone platforms exist, extensive customization and testing of embedded applications is required to ensure that they will work properly on a significant portion of phones in service.

Embedded Applications

Most mobile phones, even basic phones, are capable of executing embedded applications. These applications can access the phones' display and input functions and can communicate with external servers. Some applications are pre-loaded on mobile phones (e.g., browser, Instant Messaging); others can be downloaded. However, embedded applications are an unlikely vehicle for *e-filing* for a variety of reasons:

- Except for high-end smartphones, the size of applications that can run on mobile phones is highly constrained. Installing tax preparation software, such as might be installed on a personal computer (PC), is infeasible. Although an embedded application supporting a simple user interface and communicating with an external server might be feasible, building and distributing such an application will be difficult. On the other hand, the mobile browser already installed on most phones provides a user-interface capability and does not require a custom embedded application.
- Because many mobile phone platforms³⁰⁰ exist, extensive customization and testing of embedded applications is required to ensure that they will work properly on a significant portion of phones in service.
- Platform standardization focuses on high-end smartphones. Even in this portion of the market, at least six different standards might have to be supported (Windows Mobile Edition, Symbian,³⁰¹ Android, BlackBerry, Qualcomm BREW,³⁰² Palm OS).³⁰³

Mobile Web Applications

Similar to PC-based web applications, a mobile web application does not require the user or service provider to install a custom application: the browser provides a general purpose user interface to server-based applications. Virtually all mobile phones are delivered with an installed browser. However, the capabilities of these browsers vary widely. Basic mobile phone browsers are hampered by small displays and limited pointing capabilities. CMDs and smartphones are increasingly advertised as supporting full-functionality browsers; in principle, these phones could support existing web-based *e-file* solutions. Forrester notes that full web browsers are rapidly moving into the mid-range handset market.³⁰⁴ However, even CMD browsers are limited by displays that are much smaller than those on PCs (which could lead to onerous amounts of scrolling when using existing *e-file* applications) and by limitations on the number of windows or browser sessions that can be open simultaneously. For purposes of *e-filing*, several browser capabilities may be important: multiple concurrent windows/sessions and ability to access instructions in PDF form.

³⁰⁰ In this case, a platform is a specific combinations of hardware (e.g., input, processing, output) and software (e.g., operating system, applications)

³⁰¹ Symbian Foundation (2008) *Mobile Software Set Free*

³⁰² Qualcomm (2008) *BREW: Bring wireless services to life*

³⁰³ Forrester Research (2008) *The Mobile Operating System Wars Heat Up*, p. 1

³⁰⁴ Forrester Research (2009) *Why Mobile's Time Has Come*, p. 2

15.2.4.2 Security

Security-Related Capabilities

Digital transmission of both voice and data is encrypted. However, there is a risk that encryption schemes can be broken. In addition, the encryption applies only to the over-the-air portion of the network; data may not be protected within the service provider's network. Thus, sensitive data could be revealed to persons who have access to the service provider's network or who can intercept data on the Internet.³⁰⁵

Data stored on the phone itself may be compromised if the phone is lost or stolen. This vulnerability is a particular concern for applications based on SMS. Naive users may also store passwords or personal identification numbers (PIN) on the phone (e.g., in a message template for a balance inquiry). Data that has been "deleted" can often be retrieved. While data protection methods such as locking passwords do exist, they may be vulnerable to sophisticated attacks and, in any event, few consumers use them.³⁰⁶

End-to-end encryption enables an application to offer a level of security equivalent to that provided by a PC-based web application. End-to-end encryption can be implemented in both embedded applications and mobile web applications.

Mobile web applications often leverage the phone itself to support user authentication. Users register their phones with an application provider; the provider then authenticates the user based on the phone number from which the user called. Two-factor authentication ("something I have plus something I know") can be implemented by requiring the user to identify the phone itself ("something I have") and requiring the user to enter a password or PIN ("something I know").³⁰⁷

With appropriate design, a mobile web-based *e-file* application could be made as secure as a PC-based web application. However, taxpayer confidence in mobile phone security may be another matter. For example, when asked why they do not use mobile banking, 26% of respondents said that they believe it is insecure.³⁰⁸

Other Capabilities

Mobile phones are not typically used as record storage devices nor are they generally capable of producing printed records. Tax return data could be maintained by the application provider; the taxpayer could then be provided with a mechanism for accessing the data, either from a mobile phone or from a PC. Some taxpayers, especially ones with fairly simple returns, may not demand a printed record of their returns at the time of submission provided a mechanism exists to retrieve a copy of their returns later.

While technology exists to make a mobile web-based e-file application as secure as a PC-based web application, lack of taxpayer confidence in mobile phone security may limit overall acceptance of a mobile e-file application.

³⁰⁵ Ng, Y. L. (2006) *Short Message Service (SMS) Security Solution for Mobile Devices*, p. 1

³⁰⁶ NIST (2008) *Guidelines on Cell Phone and PDA Security*, pp. 3-2 to 3-6

³⁰⁷ IDC (2006) *Reducing Friction and Cost of Customer Interactions: Leveraging Mobile Devices to Deliver New Services and Multifactor Authentication*, p. 5

³⁰⁸ Forrester Research (2008) *Connecting the Dots to Mobile Banking and Payments*, p. 2

15.2.4.3 Emerging Technology

Mobile phone capabilities will continue to improve. Advanced capabilities such as multi-touch screens are rapidly moving down-market. The next generation of lightweight and flexible screens in research and development will also provide new features (e.g., a screen that unfolds or unrolls to be much larger than the phone) when realized in the larger market. For example, Gartner envisions a “transphone,” which it defines as a mobile device with “form factors that users can adapt dynamically to suit their specific context and needs.”³⁰⁹

IDC predicts that CMDs will grow at a compound annual growth rate of 33.4% in the United States between 2008 and 2012. However, IDC also notes that “feature phones,” mobile phones that do not support an operating system platform and whose capabilities are tightly controlled by the service provider, will continue to dominate the marketplace.³¹⁰

In the longer term, capabilities that have not even been imagined will become routine. Forrester predicts a “wearable digital assistant” (WDA) to emerge within a 10-to 15-year timeframe that “will include all the capabilities of today’s phones, PDAs, and related devices, plus gaming, TV, video conferencing, video, as well as payment and identification — plus a digital agent for defined tasks.”³¹¹ At a minimum, high-resolution displays and advanced input devices (e.g., touchscreens) and pointing devices are likely to become widely available.

Technological advances may make user-friendly, secure, and inexpensive mobile *e-file* feasible; however, they do not guarantee that paper filers will switch to *e-file*. The 2009 Taxpayer Survey discussed in chapter 3 provides some insight into how and whether *e-file* Holdouts will embrace Mobile *E-file*.

For more information about the attitudes of taxpayer and preparer *e-file* Holdouts, see chapter 3, *New Research on E-File Motivators*.

15.3 Areas for Further Investigation

The IRS may investigate one or more alternatives for a Mobile *E-file* option should the business case justify it. The three primary alternatives for a Mobile *E-file* option are presented below.

Mobile E-file Alternative 1: Voice/Keypad

The simplest version of the Mobile *E-file* Option would enable taxpayers to use a mobile phone exactly as they would a landline phone to prepare and submit their returns (i.e., accessing a voice/keypad-based application).

Possible drawbacks of this alternative include:

- This alternative would be significantly more costly to implement and operate and maintain than other Mobile *E-file* alternatives as indicated by analysis of the IRS’s discontinued TeleFile program. Depending on assumptions about the number of taxpayers who would use it, the cost of this alternative could be even higher than the cost of processing paper returns.³¹²

³⁰⁹ Gartner (2009) *Emerging Technology Analysis: Mobile Transphones, Mobile Device Technologies, 2009*, p. 4

³¹⁰ IDC (2008) *Worldwide Converged Mobile Device 2008-2012 Forecast Update*, p. 7

³¹¹ Forrester Research (2008) *Intelligent Devices Will Drive Ubiquitous Banking*, p. 3

³¹² The MITRE Corporation (2008) *Advancing E-file Study Phase 1 Report*, p. 176

Mobile E-file Alternative 2: Mobile Fillable Forms

This alternative would replicate for mobile phones web-based forms solutions such as Free File Fillable Forms (FFFF) and the Free IRS Online Forms Option.

The size of mobile phone displays makes it infeasible to present electronic versions of forms and schedules that closely resemble their paper versions — even on CMDs or smartphones. Instead, data would need to be entered into forms and schedules via a user interface more suited to a small display. However, the mobile phone version would be aligned with paper forms and schedules (e.g., use the same line numbers and text as appears on the paper versions). The application would perform straightforward computations, such as adding income sources to compute Adjusted Gross Income and calculating money owed. Unlike web-based FFFF, however, Mobile Fillable Forms might not offer access to detailed instructions or IRS publications. With the exception of simple returns, the taxpayer would likely have to prepare returns in worksheet form, then access the application to *e-file* the returns. The IRS would have considerable flexibility in deciding which forms and schedules to incorporate into this application; virtually any form or schedule could be supported in principle, although as a practical matter the application would most likely be limited to basic forms and schedules.

Mobile Fillable Forms could be implemented as a mobile web application, sharing back-end processing capabilities with web-based forms solutions (FFFF or Free IRS Online Forms). Assuming a common back end with existing capabilities, the mobile web application would allow a taxpayer to save and resume work at a later time and even to alternate between online and mobile phone sessions. The IRS could send text messages confirming receipt and acknowledging acceptance/rejection of the return to the taxpayer's mobile phone.

Mobile Fillable Forms would be accessible to virtually all mobile phone users, assuming that service providers agree to allow the application within their walled gardens or app stores. For authentication purposes, the same techniques used for the web-based forms solutions would be used (i.e., the taxpayer creates an account with a user ID and password and signs the return with a combination of the prior year's AGI and a self-selected PIN). Data would be encrypted end to end; the overall security of the application would be comparable to the web-based forms solutions.

Unlike the first alternative, Mobile Fillable Forms would give taxpayers the advantage of seeing data as it is entered, thus reducing errors. Data entry could be somewhat more efficient, because a taxpayer might be able to enter several data items on a single screen rather than one data item at a time. The alternative could be implemented on conventional data processing systems; special interactive voice response (IVR) systems would not be needed.

Since displaying tax forms and schedules on mobile phones is impractical, any Mobile E-file alternative will require user interfaces suited to a small display. As a result, the forms and schedules supported may be limited, access to detailed instructions and IRS publications may not be feasible, and only a copy of the tax worksheet could be saved as a permanent record of the return.

Possible drawbacks of this alternative include:

- The IRS would have to negotiate access to service providers' walled gardens and app stores. Forrester notes that "Reaching 80% of the US audience using mobile browsers means developing Web sites for approximately 60 handsets and 13 different browsers. Reaching 90% of the same population requires a solution for nearly 150 handsets."³¹³
- Taxpayers could incur data transmission costs, depending on their service plans.
- Taxpayers may view overcoming the limitations of a mobile phone application as being more trouble than it is worth. Taxpayers may find "thumbing" a tax return on a basic mobile phone too tedious or difficult.
- Compared with FFFF, there would be several limitations:
 - Taxpayers would lack the capability to access detailed instructions and IRS publications within the application (except on CMDs or smartphones that support PDFs).
 - Unlike the web-based forms solutions intended for PCs, Mobile Fillable Forms would not replicate the layout and look of paper tax forms and schedules.
 - Due to screen size limitations, navigation within a form or schedule on a mobile phone would be more complicated than on a PC.
 - Other than a worksheet, taxpayers would have no permanent record of their tax returns. However, they could be provided with a receipt that would allow the return to be recovered.

The limitations in the last bullet would apply to taxpayers who lack Internet access and can only run the application on their mobile phones. Taxpayers with Internet access could log on via a PC at another time to access detailed instructions and IRS publications or to print copies of their completed return.

Mobile E-file Alternative 3: Tax Preparation Application

Given their display and input limitations, it seems unlikely that full-fledged interview-based tax return preparation and *e-file* applications could be successful on basic mobile phones. However, smartphones and CMDs should be capable of supporting these applications. The applications would work much as they do on a PC, although allowance would have to be made for the smaller screen size. As noted above, smartphones with full-capability browsers should be able to support existing web-based tax preparation software; however, unless the applications are designed with the smaller mobile phone displays in mind, they would be inconvenient to use.

An interview-based tax preparation application could be implemented either as a mobile web application or an embedded application. A mobile web application seems more likely, given the difficulties associated with developing and testing embedded applications across a large number of mobile platforms.

The application could be implemented by the IRS or third parties. Implementation would be a significantly smaller effort for third parties who already have PC-based web applications, because the primary task would be to redesign display formats to accommodate smaller mobile phone displays. As with existing web applications, a third

Smartphones and CMDs should be capable of supporting interview-based tax preparation and e-file applications. However, taxpayers could incur data transmission costs, depending on their mobile phone service plans.

³¹³ Forrester Research (2009) *Mobile Internet: Where Is Your Audience?*, pp. 8-9

party Mobile *E-file* application could be available to taxpayers either as a commercial product or via FFA.

Some drawbacks of this alternative include:

- The application would only be useable on smartphones and CMDs and thus would be largely unavailable to lower-income taxpayers, who tend to use basic phones.
- Since the bulk of smartphone and CMD users have access to the web from a PC, the value proposition of this alternative to the taxpayer is unclear. Moreover, it is unclear why a taxpayer who currently has PC-based web access but nevertheless chooses to submit a return on paper would be motivated to *e-file* just because a Mobile *E-file* option is available.
- Since third party preparers are already free to develop mobile versions of their products and have chosen not to do so, the commercial viability of this alternative is questionable. The IRS might have to subsidize development of a mobile application to make the alternative viable.
- Taxpayers could incur data transmission costs, depending on their service plans.
- Other than a worksheet, taxpayers would have no permanent record of their tax returns. However, they could be provided with a receipt that would allow the return to be recovered.
- Smartphones and CMDs have more limitations than PCs, which may complicate tax return preparation. For example, it may not be possible to multi-task on a smartphone or CMD, thus preventing taxpayers from having the tax preparation application, a spreadsheet containing expenses, and a PDF version of an IRS publication open at the same time.

Other Tax Administration Services

Although the focus of this report is *e-filing*, mobile phones may be better suited for providing other tax administration services. Some possibilities that could be explored include:

- **Simple query/response transactions such as those available on *Where's My Refund?*** — Taxpayers could send a text message query via SMS to the IRS and receive a text message response with the estimated date when their refunds will be issued.
- **Proactive messaging** — The IRS could “push” messages to taxpayers via SMS to inform them that a refund has been issued or that a scheduled payment on an Installation Agreement is due.
- **Acceptance of pre-computed tax returns** — If the United States were to institute a pre-computed tax return system similar to the system used in several Scandinavian countries and in California, the taxpayer could accept the proposed return by sending a text message to the IRS. Such a system was suggested in 2006 by Austan Goolsbee, an economic advisor to the Obama administration.³¹⁴ A pre-computed tax return option is out of scope for this report.

Mobile phones may be better suited for providing other tax administration services, such as those provided by the Where's My Refund? application, proactive messaging to inform taxpayers of their refund status, and taxpayer acceptance of pre-computed tax returns (if a pre-computed tax return option were implemented).

³¹⁴ Goolsbee, A. (2006) *The 'Simple Return': Reducing America's Tax Burden Through Return-Free Filing*

16. Areas for Further Investigation

Contents of Chapter 16:

16.1 Research-Related Areas

16.2 Option-Related Areas

This chapter synthesizes areas for further investigation to help the IRS increase *e-file* adoption from discussion elsewhere in this report.

16.1 Research-Related Areas

The following sections summarize topics for further research based on the research in chapters 3 and 15.

16.1.1 Demographic Determinants of Submission Method

More research is needed into how strongly race, age, income, neighborhood type (e.g., urban, suburban, exurban), and other demographics determine submission method choices.

Mentioned in section: 3.7

16.1.2 Determinants of Preparation Method

What factors determine whether a taxpayer with a complex return uses tax preparation software versus consulting a tax preparer? How many taxpayers feel that tax preparation software can be a suitable substitute for a professional preparer?

Mentioned in section: 3.7

16.1.3 Taxpayer Understanding of Filing Methods

Investigating the extent to which taxpayers confuse electronic payment with electronic filing as well as the extent to which taxpayers confound tax preparation with submission (both on the basis of process and cost) may be informative.

Mentioned in section: 3.7

16.1.4 Effect of Third Party Involvement

Determining the extent to which third party involvement dissuades taxpayers from using *e-file* requires further research. This research should establish a behavioral baseline by exploring the extent to which third party involvement dissuades taxpayers from using certain communication channels — either paper or electronic.

Mentioned in section: 3.7, Appendix A

16.1.5 Effect of Bundled *E-filing* Fees

The effect of bundled ('free') *e-filing* fees on software pricing — seen across the vast majority of consumer tax preparation software products in 2009 — on Holdouts behaviors and their perceptions of *e-file* requires further investigation.

Mentioned in section: 3.7

16.1.6 Effect of Which Forms are Supported by *E-file*

Both the reality and the perception of which forms are supported by *e-file* should be studied further to determine the extent to which this is a barrier to *e-filing*.

Mentioned in section: 3.7

16.1.7 Preparer Segmentation

What segmentations of preparers (e.g., based on factors or attributes that correlate with preparer *e-file* usage) would assist the IRS in making decisions, and how would the opinions of members of these new segments differ on the issues raised in the preparer survey?

Mentioned in section: 3.7

16.1.8 Outreach Effectiveness

The IRS may benefit from investigating ways to measure its outreach and marketing effectiveness to better allocate scarce resources to viable campaigns.

Mentioned in section: 3.7

16.1.9 Mobile Internet Use

Further research on users' access to and use of sometimes multiple solutions for voice and Internet services is required and must keep pace with changes in technology and its adoption.

Mentioned in section: 15.2.1

16.1.10 Taxpayer and Preparer Demographics

Surveys are often used to capture data from relatively small samples in order to characterize much larger populations. To accurately extend the results from a sample to its population, the objects (e.g., people, tax returns) that form the sample must be representative of the population. In large random sampling plans, it is generally assumed that each subgroup of the population will be represented in proportion to its relative fraction of the total population. In smaller sampling plans, stratification can be used to ensure that subgroups are proportionally represented. Alternatively, weighting factors can be developed for various subgroups if their relative percentages in the survey and target populations are known.

The IRS does not collect or have complete information on taxpayer and preparer demographics. Without population demographic data, it is not feasible to make statistical inferences — mathematically sound assertions based on a sample — about the target population. The survey statistics reported in this paper were not weighted. Given the absence of population demographic data, the survey results do, however, present valuable qualitative insights into taxpayer beliefs and attitudes about *e-filing*.

The lack of population demographics represents a challenge for all IRS survey research, including the AES2 taxpayer and preparer surveys. The IRS should determine the demographics of its customer populations of interest — not just to better understand its

customers, but to allow more precise inferences to be drawn about them and its surveys to be used to the fullest extent possible.

Mentioned in section: Appendix A

16.2 Option-Related Areas

The following sections summarize the topics for further research which were discussed in the Option chapters.

16.2.1 E-Authentication

Before many of the AES2 Options under consideration can be implemented, a system to electronically authenticate taxpayers must be in place. This e-authentication capability would verify that individual taxpayers are who they claim to be. The function of this secure, web-based system would be to authenticate all prospective *e-filers* before granting them access to IRS tax preparation and submission services and products.

Given the size of the population affected — the entire US taxpaying public — and the cash flows involved, a strong system will be needed to perform the necessary level of identity proofing. Numerous modifications to IRS processes and operations will be involved. Changes will also be necessary in the ways that taxpayers and the IRS interact.

An e-authentication system of this scale is without precedent in the Federal sector. While the commercial sector has implemented financial systems with e-authentication systems, none approach the scale of the system needed to serve the entire US taxpayer population.

Detailed investigations into Federal e-authentication will be needed before committing to any AES2 Option that requires e-authentication. This could include systems being developed or under investigation at the Centers for Medicare and Medicaid Services (CMS) and the Social Security Administration (SSA).

Mentioned in section: 4.2.2.2

16.2.2 XML Output Files

At present, there is no agreed-on definition of the format or content of XML output files created through commercial tax preparation software to ensure that these files are compatible with the IRS submission processing system. The IRS should investigate establishing a standard definition of XML output files, based on input from and collaboration with software vendors.

Mentioned in section: 6.1.4

16.2.3 Pre-Populating Forms with Taxpayer Information

Some State I-File programs automatically pre-populate forms with taxpayer information from previous years' returns. This was not included in the Free IRS Online Forms Option. If the Option is considered for implementation, the IRS should study the feasibility of, and taxpayer attitudes toward, the automatic pre-population of forms.

Mentioned in section: 7.1.4

16.2.4 Verifying Taxpayer-Provided Data

The IRS could explore offering electronic interfaces with taxpayer W-2 and information return (e.g., 1099-INT) data sources. With Free IRS Online Forms, taxpayers will have to transcribe all W-2 information to report the sum of their wages. The Option will not match data transcribed online by taxpayers to other electronic systems during return preparation and submission, and therefore fails to mitigate the possibility of human error and/or fraud and risks to both the taxpayer and the IRS. Assessing the cost, impacts, and feasibility of verifying taxpayer data is another area the IRS should investigate.

Mentioned in section: 7.1.4, 8.1.4

16.2.5 Minimizing V-Coding with Technology Options

If the IRS were to invest in a technology option — Free IRS Direct *E-file*, Free IRS Online Forms or Free IRS Tax Preparation Software — it would likely want to preclude taxpayers from using the Option and then printing and submitting their returns on paper instead of taking the final step of *e-filing* the return directly to the IRS. The IRS should explore options (and associated pros/cons) for minimizing V-Coding for the technology options.

Mentioned in section: 7.1.4, 8.1.4

16.2.6 E-file Status Messages ('Push' vs. 'Pull')

Unlike most commercial tax preparation software, the Free IRS Direct *E-file* Option as defined in AES2 will not automatically “push” messages to taxpayers confirming receipt of their returns or acknowledging acceptance or rejection of their returns. Instead, taxpayers will have to check online for these messages. If errors are found in the return, the taxpayer would need to correct the error, resubmit the return, and check again online to ensure IRS receipt and acceptance of the return. The IRS may need to examine taxpayer attitudes and behavior related to this responsibility.

Mentioned in section: 6.1.4, 7.1.4, 8.1.4

16.2.7 Lessons Learned from Other Countries

Similar efforts by other countries (e.g., United Kingdom, Canada) should be studied to leverage lessons learned and best practices.

Mentioned in section: 6.1.4, 7.1.4, 8.1.4

16.2.8 Taxpayer Expectations of Free IRS Tax Preparation Software

Before pursuing the Free IRS Tax Preparation Software Option, the IRS will need to consider the extent to which taxpayers will the Option over the commercial tax preparation software available today. Key factors to investigate are how the IRS software will be perceived compared with commercial software on the basis of cost, features (including value-added features), usability, and customer support, and how IRS

marketing of its software will compare with commercial software marketing on the basis of scope and message.

To ensure that free IRS tax preparation software is viewed favorably by the target population, the IRS needs to study what taxpayers expect from the software in terms of features and capabilities and customer service. What specific features and capabilities must be included to encourage taxpayers to use this product instead of commercial products? What are the expectations among the target population for customer service and support? Should customer service be provided on a 24 x 7 basis? What methods are needed to provide taxpayer access to customer service and support? Should this product be offered in Spanish or other languages? Are there specific concerns that must be overcome before a product of this type would be acceptable to the target population?

Mentioned in section: 8.1.4

16.2.9 Alternatives for Modernizing Paper Processing

The IRS is still in need of a solution for modernizing paper processing.

Mentioned in section: 9.1.4

16.2.10 Tools for Targeted Marketing

The IRS should investigate what tools are available to gauge the effectiveness of *e-file* targeted marketing campaigns. These tools will be essential for measuring the response of such campaigns among target populations and making adjustments to campaigns in progress. This is particularly important for dynamic campaigns such as direct email or call campaigns.

Mentioned in section: 11.1.4

16.2.11 Understanding the Free File Target Population

Although about 95 million individuals, or 70% of all taxpayers, meet the AGI eligibility requirement for the Free File Program, relatively few details are known about the population that uses the program. A more thorough investigation of the population that uses either component of the program — Traditional Free File (TFF) or Free File Fillable Forms (FFFF) — would be useful for identifying the populations' perceptions, filing behaviors, and motivators that might convince them to switch to *e-file*.

Mentioned in section: 12.1.4

16.2.12 Clarifying Expansion with Respect to Free File

Expansion of the Free File Program could take many forms. Eligibility requirements could be removed or relaxed. Communication and outreach efforts could be launched to convince more taxpayers to use Free File. Efforts could be introduced to encourage more tax preparation software vendors to voluntarily participate in the program. Detailed study into these and other areas would help the IRS develop better Free File offerings and thus increase participation levels in both components of the Free File Program.

Mentioned in section: 12.1.4

16.2.13 Government Experiences with Later Electronic Filing Deadlines

If the IRS decides to offer an *e-filing* deadline that is later than the paper filing deadline, the experiences of States and other countries, particularly the United Kingdom, with later electronic filing deadlines should be studied to reveal lessons learned and best practices.

Furthermore, the IRS should assess the impact of the timing of the receipt of money owed by taxpayers and the disbursement of taxpayer refunds, the possible need to borrow money to provide refunds, and the interest expense associated with borrowing money. The IRS will need to answer the following question: Will the cash flow implications of the More Filing Time for *E-filers* Option change the amount of money the Federal government borrows?

Mentioned in section: 13.1.4

16.2.14 Analysis of New Filing Deadlines

IRS research is needed to determine the extent to which changing filing deadlines based on filing method will influence taxpayers' decisions to *e-file*. The effect of changing both the *e-filing* and paper filing deadlines versus changing only one deadline could also be investigated. Research should also focus on taxpayer perceptions of different filing deadlines for paper filing versus *e-filing*. The role of tax return complexity on choice of filing method is also an area that could be examined, specifically when this choice affects the taxpayer's filing deadline. This level of detailed research is needed if the IRS chooses to implement the More Filing Time for *E-filers* Option.

Mentioned in section: 13.1.4

16.2.15 Additional Monetary Incentive Approaches

The Monetary Incentive Option described in chapter 14 is but one approach to offering a monetary incentive to encourage *e-filing*. Several other approaches should be considered if the IRS decides to implement the Option. These approaches include a preparer/ERO monetary incentive, offering all *e-filers* a monetary incentive, and offering monetary incentives for multiple years.

Mentioned in section: 14.1.4

Appendix A. Survey Research Methodologies and Additional Findings

Contents of Appendix A:

- A.1 Survey Methodology
 - A.1.1. Taxpayer Survey Methodology
 - A.1.2. Preparer Survey Methodology
- A.2 Additional Taxpayer Survey Findings
 - A.2.1. Taxpayers' Ratings of Filing Method Characteristics
 - A.2.2. Taxpayers' Motivators to *E-file*
- A.3 Additional Preparer Survey Findings
 - A.3.1. Preparers' Ratings of Filing Method Characteristics
 - A.3.2. Preparers' Motivators to *E-file*
- A.4. Preparer Influence and Taxpayer Demand
- A.5. Mandate Opt-Out

The IRS selected survey research as the method best suited to provide insight into filer motivators and behaviors as they pertain to tax return preparation and submission (filing) methods and conducted a survey of taxpayers and a survey of paid preparers in early 2009. Commercial companies assisted with all phases of both studies, including conducting the actual surveys.³¹⁵ This appendix provides supplemental information about the survey methodology and research goals and presents additional details from each survey's findings. The key survey research findings are presented in chapter 3 of this report.

A.1. Survey Methodology

A.1.1. Taxpayer Survey Methodology

The goals of the 2009 IRS Taxpayer Survey were to:³¹⁶

- Identify and understand the factors that influence an individual's choice of filing method, specifically:
 - Filing behaviors
 - Perceptions of e-file
 - Motivations
 - Awareness of e-file
 - Barriers to *e-filing*
- Assess the viability of AES2 Options under consideration.

The taxpayer survey was conducted through telephone interviews with 3,000 participants. Interviews took place during January and February 2009. A stratified design was developed to ensure that the segments of the taxpayer population that were the focus of this research were adequately represented. The 3,000 survey participants were stratified into four subgroups:

- **1,000 Self V-Coders** — Taxpayers who prepared their returns on a computer but submitted their returns on paper.
- **1,000 Paid V-Coders** — Taxpayers who hired preparers who prepared their returns on a computer but submitted their returns on paper.
- **500 Self Paper Filers** — Taxpayers who prepared their returns manually and submitted their returns on paper.
- **500 E-filers** — Taxpayers who prepared their returns on a computer, or who hired preparers who prepared their returns on a computer, and submitted their returns electronically.

³¹⁵ IRS contracted with Russell Research for the Taxpayer and Tax Preparer Surveys.

³¹⁶ Each year, the IRS conducts customer surveys to assess taxpayer satisfaction. These surveys are separate and distinct from the research studies addressed in this chapter.

Survey participants were selected as a stratified sample from a randomized list of taxpayers provided by the IRS to represent four filing methods (Self Paper Filers, Paid V-Coders, Self V-Coders, and *E-filers*).

As is common with phone-based surveys, respondents (who necessarily answered the phone) tended to be older, better-educated, and more well-off than the general population of US adults, and were more likely to be white or female. Because the IRS does not collect or have information on taxpayer demographics, the survey was not designed or weighted to reflect the actual demographic composition of taxpayers. Thus, the estimated statistics may be biased, to the extent that the under- and over-represented characteristics actually differ in their use of, and attitudes toward, *e-filing*. The authors believe that the survey results do, however, present valuable qualitative insights into taxpayer beliefs and attitudes about *e-filing*. The survey results were weighted to accurately represent the correct proportions of filing method subgroups in the population (this data is available from the IRS). The weights were intended to correct the estimation population proportions based on the stratified sample. The survey statistics presented in this report, and their associated confidence intervals, should thus be seen as accurate for an ideal population where the weights are exact, and a reasonable approximation to the statistics for the real taxpayer population.

At the 95% confidence level, the taxpayer survey margin of error was plus or minus:

- 1.79% for total (all taxpayers) results
- 4.38% for Self Paper Filer and *E-filer* subgroup results
- 3.10% for Self V-Coder and Paid V-Coder subgroup results

A.1.2. Preparer Survey Methodology

The goal of the 2009 IRS Preparer Survey was to better understand the role of paid preparers in determining the filing methods they use to prepare and submit their clients' returns.³¹⁷ Specifically, the following areas were studied:³¹⁸

- Preparer influence on their clients.
- Cost structure among paid preparers for tax preparation and submission services offered to clients.
- Preparer motivators and concerns with respect to *e-filing*.
- Factors and characteristics that contribute to the filing method for preparer-filed returns.
- Preparer views on voluntary and involuntary *e-filing* compliance.
- Business impacts of preparer preparation and submission decisions.
- Preparer population demographics.

³¹⁷ Since the number of returns prepared by tax preparers has grown over the years, understanding preparer behaviors and motivators is an important component for achieving the 80% *e-file* goal. As noted by the IRS, "The number of tax returns prepared by tax preparers grew from 56 percent to 61 percent from Tax Year (TY) 2000 to 2005. This shows that filing methods are at least in part influenced by the behavior of tax preparers" Source: IRS (2009) *AES2 Preparer Survey*, p. 3)

³¹⁸ IRS (2009) *AES2 Preparer Survey*

The preparer survey was conducted through telephone interviews with 2,250 participants. Interviews took place during January and March 2009. A stratified design was developed to ensure that the segments of the preparer population that were the focus of this research were adequately represented. The 2,250 survey participants were stratified into three subgroups:

- **1,000 Non-Users** — Preparers who did not submit any of their clients' returns electronically for TY2007.
- **750 Light Users** — Preparers who submitted less than 50% of their clients' returns electronically for TY2007.
- **500 Heavy Users** — Preparers who submitted greater than 95% of their clients' returns electronically for TY2007.

Survey participants were selected as a stratified sample from a randomized list of tax preparers provided by the IRS to represent three subgroups with varying levels of *e-file* usage (Non-Users, Light Users, and Heavy Users).

Because the IRS does not collect or have information on preparer demographics, the survey was not designed or weighted to reflect the actual demographic composition of preparers. Thus, the estimated statistics may be biased, to the extent that the under- and over-represented characteristics actually differ in their use of, and attitudes toward, *e-filing*. The authors believe that the survey results do, however, present valuable qualitative insights into preparer beliefs and attitudes about *e-filing*. The survey results were weighted to accurately represent the correct proportions of the subgroups in the population (this data is available from the IRS). The weights were intended to correct the estimation population proportions based on the stratified sample. The survey statistics presented in this report, and their associated confidence intervals, should thus be seen as accurate for an ideal population where the weights are exact, and a reasonable approximation to the statistics for the real tax preparer population.

At the 95% confidence level, the preparer survey margin of error was plus or minus:

- 2.07% for total (all preparers) results
- 3.10% for Non-User subgroup results
- 3.58% for Light User subgroup results
- 4.38% for Heavy User subgroup results

A.2. Additional Taxpayer Survey Findings

A.2.1. Taxpayers' Ratings of Filing Method Characteristics

Figure A-1, Figure A-2, Figure A-3, and Figure A-4 present the ratings of the importance of filing characteristics and *e-file* performance as it pertains to these characteristics across for all Holdouts (taxpayers who submitted their returns on paper) and Self V-Coders, Paid V-Coders, and Self Paper Filers.

The results are presented using paired confidence interval graphs. The blue symbols represent the confidence intervals for each characteristic based on how Holdouts rated that characteristic in importance when filing their returns (5 = extremely important, 1 = not at all important). The red symbols represent the confidence intervals for each

characteristic based on how Holdouts rated *e-file* performance as it pertains to the same characteristic (5 = excellent, 1 = very poor).

The yellow shaded area highlights significant negative expectation gaps (i.e., where *e-file* performance was rated lower than importance). The green shaded area highlights significant positive expectation gaps (i.e., where *e-file* performance was rated higher than importance). Significant expectation gaps are defined as confidence interval pairs that do not overlap. Only results for significant expectation gaps are discussed.

The rating scale used for Taxpayer Survey Questions 17 and 18 is shown in Table A-1. For clarity of presentation, the tables in this appendix use more concise wording than the verbatim questions on the survey.

Table A-1: Rating Scale for Taxpayer Survey Questions 17 and 18

Score	Importance of Characteristic	<i>E-file</i> Performance as it Pertains to Characteristic
1	Not At All Important	Very Poor
2	Not Very Important	Poor
3	Somewhat Important	Good
4	Very Important	Very Good
5	Extremely Important	Excellent

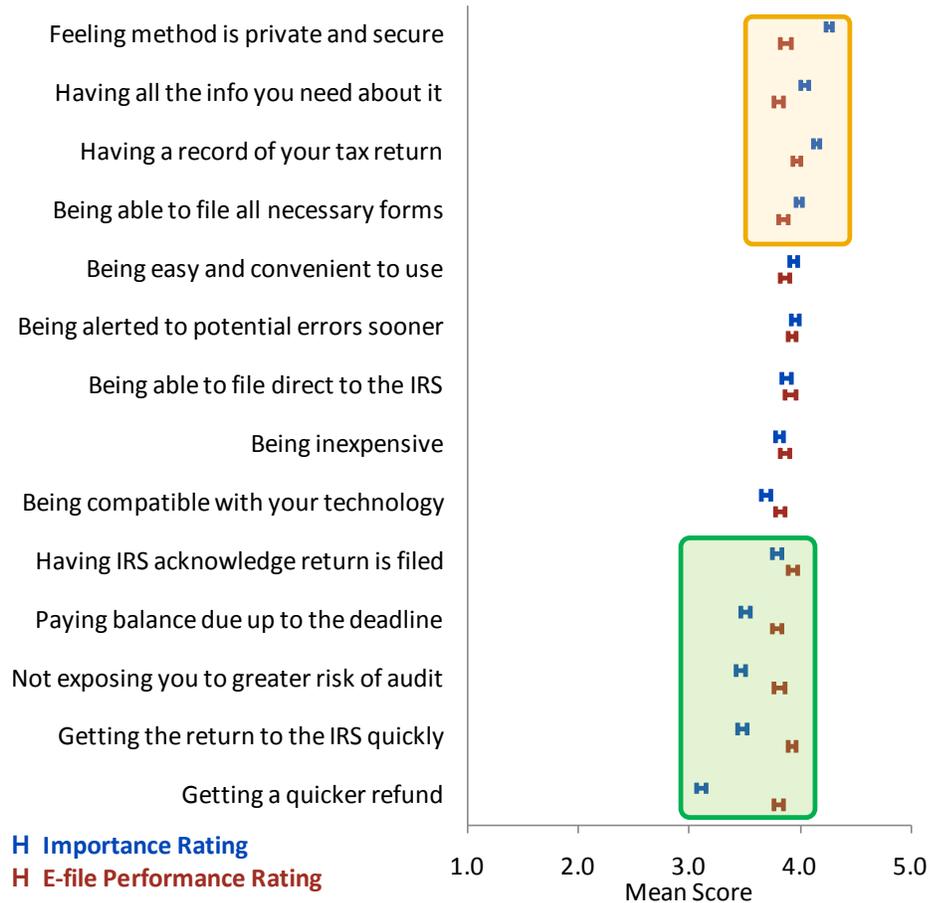
All Holdouts

Figure A-1 presents the filing method characteristics as rated by All Holdouts, ordered from greatest negative to greatest positive expectation gap.

Figure A-1: Ratings of Filing Method Characteristics by All Holdouts

The yellow shaded area highlights significant negative performance gaps between the characteristics taxpayers considered important and their ratings of e-file performance pertaining to that same characteristic.

The green shaded area highlights significant positive performance gaps.

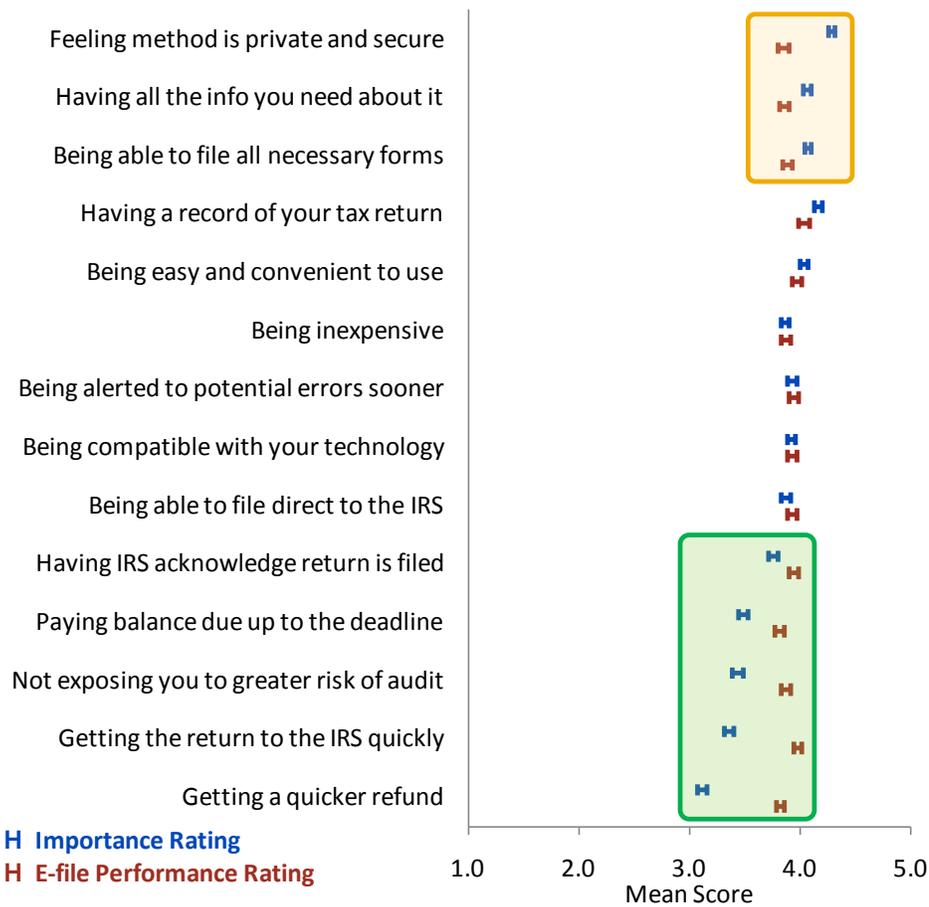


Source: IRS (2009) AES2 Taxpayer Survey, Questions 17 and 18

Self V-Coders

Figure A-2 presents the filing method characteristics as rated by Self V-Coders, ordered from greatest negative to greatest positive expectation gap.

Figure A-2: Ratings of Filing Method Characteristics by Self V-Coders



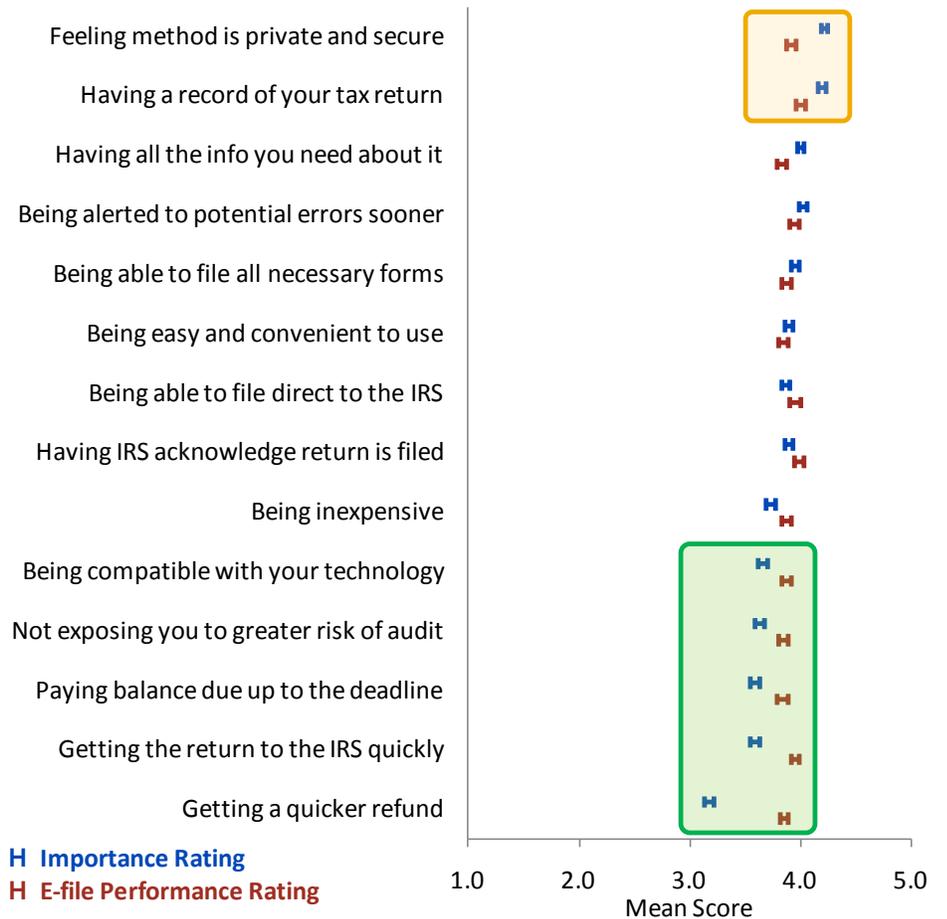
Source: IRS (2009) AES2 Taxpayer Survey, Questions 17 and 18

Self V-Coders noted three of the same low-performing characteristics as all Holdouts, with “Having a record of your tax return” as the fourth.

Paid V-Coders

Figure A-3 presents the filing method characteristics as rated by Paid V-Coders, ordered from greatest negative to greatest positive expectation gap.

Figure A-3: Ratings of Filing Method Characteristics by Paid V-Coders



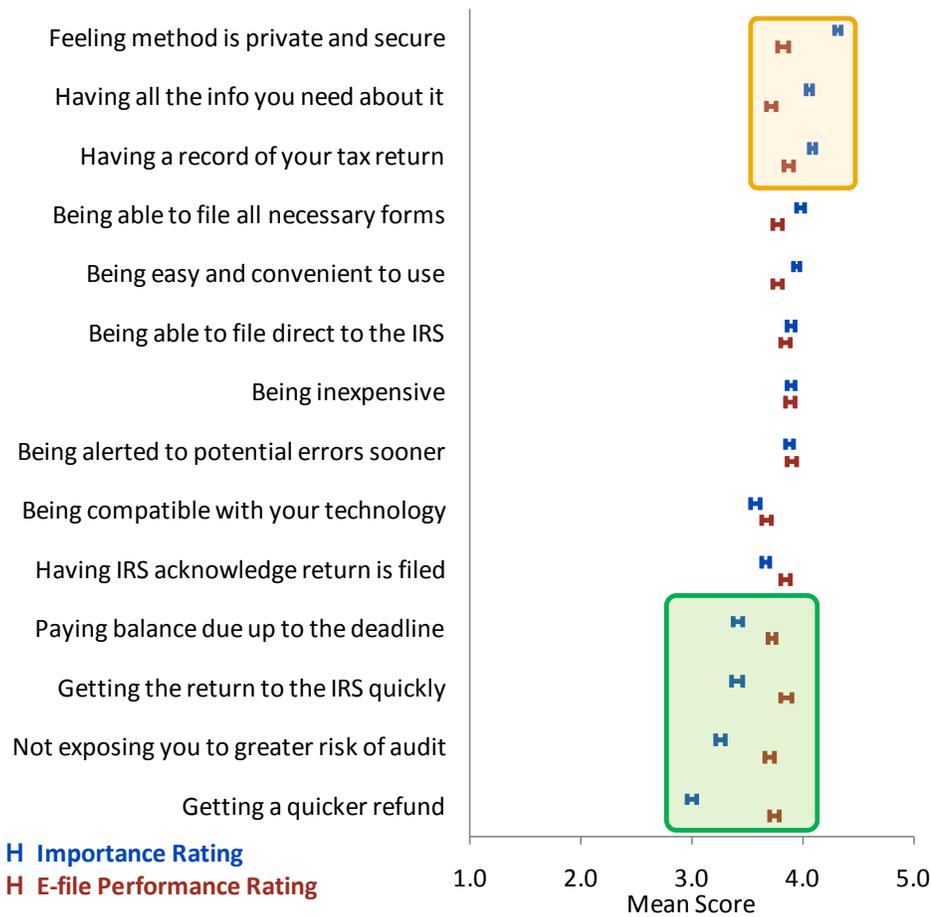
Source: IRS (2009) AES2 Taxpayer Survey, Questions 17 and 18

The top two characteristics Paid V-Coders rated as important were “Feeling the method is private and secure” and “Having all the information you need to know about it.”

Self Paper Filers

Figure A-4 presents the filing method characteristics as rated by Self Paper Filers, ordered from greatest negative to greatest positive expectation gap.

Figure A-4: Ratings of Filing Method Characteristics by Self Paper Filers



Source: IRS (2009) AES2 Taxpayer Survey, Questions 17 and 18

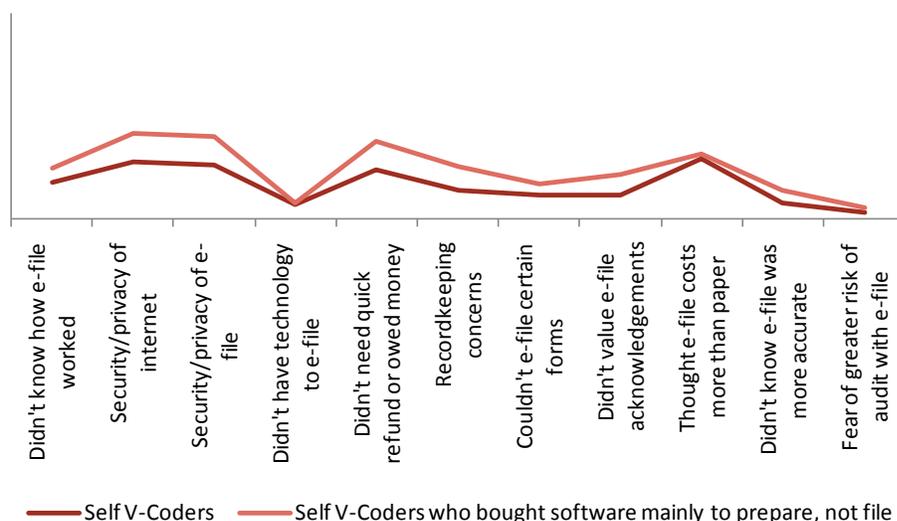
Self-Paper Filers rated *e-file* performance lower than importance in the areas of privacy and security, awareness, and recordkeeping. Self-Paper Filers value privacy and security higher than all holdouts. Only *E-filers* value privacy and security more. Generally, Self Paper filers do not rate *e-file* as high as *E-filers*. The least important characteristic for Self Paper filers is getting a quicker refund. Self Paper filers value quicker refunds less than any other subgroup. Among the subgroups, Self-Paper Filers rated *e-file* the lowest on “being compatible with the technology you have access to.”

A.2.2. Taxpayers' Motivators to E-file

Self V-Coders' Reasons for Not E-filing

In selecting reasons why they did not *e-file*, Self V-Coders overwhelmingly (41%) said they did not *e-file* because they “bought software mainly to prepare [their] return and not to file it.”³¹⁹ There were 413 respondents who selected this answer, 363 of whom selected other answers as well.³²⁰ The results from this subgroup are compared with results from all Self V-Coders in Figure A-5, which shows a similar response pattern.

Figure A-5: Reasons for Not Using *E-file*, All Self V-Coders Versus Subgroup that Bought Software for Preparation Assistance Only



Source: IRS (2009) *AES2 Taxpayer Survey, Question 8*

Additionally, 50 Self V-Coder respondents did not give any other answer to this question besides “bought software mainly to prepare [their] return and not to file it,” which represents 5% of Self V-Coder respondents.³²¹

³¹⁹ IRS (2009) *AES2 Taxpayer Survey, Question 8*

³²⁰ IRS (2009) *AES2 Taxpayer Survey, Question 8*

³²¹ IRS (2009) *AES2 Taxpayer Survey, Question 8*

A.2.3. Other Taxpayer Survey Findings

The taxpayer survey offered participants a chance to state their motivators to use *e-file* in their own words (17% of respondents stated that they would not use *e-file* under any conditions).³²² These verbatim results were of interest to inform the conjoint survey design and other research efforts. Note that apparent differences with closed questions on the survey are not cause for concern given the different purpose and type of question. The open-ended question yielded responses on how *e-file* could be improved; however, with this technique, there was no reasonable way to determine the importance of these characteristics to respondents. The results below are useful for the detailed reasons, in taxpayers' own words, why they thought, for example, *e-file* is not easy to use or is not as secure or private as they would like. The following sections present these responses, which give the IRS crucial information: product feedback.

Security and Privacy

Select verbatim responses from taxpayers concerned about privacy and security of the Internet:

"I just like doing it on paper better. I don't really trust putting that kind of information on the Internet."

"I just do not trust computers. I will never put any personal information on a computer."

"I don't like doing anything on a computer [because] too many people can get your information."

"I do not want to be vulnerable to hackers."

Select verbatim responses from taxpayers concerned about the privacy and security of *e-filing*:

"I think it invades my privacy and any hacker can hack into it. My concern is that if something happened and it wasn't properly received, there would be no record of my having filed. I like having a paper copy of it."

"[My concern] has something to do with all these government computers getting lost and people not being able to control their data."

"I feel more secure in mailing in my return."

Awareness

Select verbatim responses from taxpayers professing lack of knowledge or awareness of *e-file* or how it works:

"Overall it is a knowledge thing for me. I don't know what I can and cannot do with e-file."

"I had too many other forms to file. I'm not familiar with e-file so I didn't use it."

"I would have to read more about e-file before I try doing my taxes by e-file. My tax return is very simple and always the same."

³²² IRS (2009) *AES2 Taxpayer Survey*, Question 20

“I do not use the computer much, so I would not know how to e-file my tax return.”

“I just have no knowledge of it and [I am] not computer smart.”

Recordkeeping and Acknowledgment

Select verbatim responses from taxpayers concerned about recordkeeping:

“If I used e-file I would have no way of documenting my return.”

“I want to review a hard copy of my return that I send in to make sure that it is accurate to the best of my knowledge.”

“I would always want to have a paper copy for my records and security purposes.”

There were no verbatim responses from taxpayers who did not see value in *e-file*'s ability to provide electronic confirmation that the IRS received their returns and acknowledgment that the IRS accepted or rejected their returns. This indicates that taxpayers do not think of electronic confirmation and acknowledgment messages unless prompted.

Availability

Select verbatim responses from taxpayers professing lack of technology or Internet access required to *e-file*:

“I have no access to the Internet and I have no need to use it. We don't even use an ATM.”

“The biggest reason that we did not e-file is that we do not have the Internet.”

“Do not have a computer and do not want to use the one in the library.”

Select verbatim responses from taxpayers who said they could not use certain forms, schedules, or attachments with *e-file*:

“I owed the IRS a form and I had to mail it to them, so I decided just to mail my return with that form.”

“It would not let me e-file because I have a certain type of income that required certain types for forms and schedules.”

“I couldn't use it because I use the long form. I do a 1040 form and then I itemize expenses and you cannot use e-file when you itemize.”

“I have a complicated return because I have a lot of paper I need to file.”

“I have a business and I would have to file my business income as well as my personal income so it is very difficult to e-file or do them myself so someone else does them for me.”

“There are always extra documents that I need to send that the software does not allow you to use.”

Perceived Benefits (Speed)

The perceived benefits of *e-file* focus primarily on speed — how quickly the return gets to the IRS and how soon the taxpayer receives any refund due.

Holdouts rated both the importance and the performance high for getting the return to the IRS quickly and getting a quicker refund. Whether or not they used *e-file*, taxpayers indicated overall satisfaction with *e-file*'s performance on both of these characteristics.³²³

Ease and Convenience

Ease and convenience includes how easy it is to use *e-file* and the ability to pay any money owed up to the April 15 deadline.

There was no significant expectation gap noted in all Holdouts' ratings of ease and convenience, nor in the Holdout subgroups.³²⁴ However, all Holdouts rated *e-file* performance on the ability to pay any money owed up to the deadline higher than they rated its importance, as did the Holdout subgroups.³²⁵

Holdouts also rated *e-file* performance high on the convenience of having the ability to pay any money owed up to the April 15 deadline.³²⁶

The taxpayer survey asked respondents "What, if anything, would make you *e-file* more?"³²⁷ The results indicate that improving the ease and convenience of *e-file* is a motivator for 25% of all Holdouts. Studying the verbatim responses to this question yields interesting insights. Besides unspecified requests to make *e-file* easier or simpler to understand and use, taxpayers specifically requested better support for forms, schedules, and attachments as well as clearer instructions on how to use *e-file*.

The IRS may not be able to address some aspects of taxpayers' desire for ease and convenience. As seen by selected verbatim responses, some taxpayers may never change the way they file. Figure 2-3, presented in chapter 2, reveals that taxpayers with simple returns tend to prepare and submit their returns on paper. For these taxpayers, using even the simplest tax preparation software may be perceived as more complicated than preparing and submitting a return on paper.

The verbatim responses for ease and convenience differ enough between Self Paper Filers and Paid V-Coders on the one hand and Self V-Coders on the other that it is best to review them separately.

Select verbatim responses from Self Paper Filers and Paid V-Coders about lack of ease and convenience being a barrier to *e-filing*:

"[Submitting on paper] is habitual. It is the way I do it and I am comfortable using paper."

"I feel more comfortable and trust my own numbers and math more than someone else's."

³²³ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

³²⁴ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

³²⁵ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

³²⁶ IRS (2009) *AES2 Taxpayer Survey*, Questions 17 and 18

³²⁷ IRS (2009) *AES2 Taxpayer Survey*, Question 20

“I want to have everything out in front of me so I can see what is going to the IRS.”

“The program seems too complicated and I didn’t want to bother to learn another program.”

“I just do mine on paper because it is not that complex.”

“It only takes me 15 minutes to do my return on paper because it is very easy to do.”

Select verbatim responses from Self V-Coders about lack of ease and convenience being a barrier to *e-filing*:

“I am more comfortable with sending my return in the mail and having paper copies.”

“I prefer to mail in my taxes by certified mail so that I get that little green card back and that I know the IRS received my forms.”

“I’m set in my ways. I have a program that I use and I want a paper trail.”

“I am old fashioned. I like a hard copy in my hand.”

From the verbatim responses, it is apparent that Self V-Coders do not mind computers but prefer having a paper copy of their returns for various reasons.

Cost

Selected verbatim responses from taxpayers who cited cost as a barrier to *e-filing*:

“I did not want to spend the extra money to e-file.”

“It cost about \$16 to send my taxes electronically when I can mail it for \$0.42. So why would I do it electronically?”

“It costs money to e-file and I didn’t know that until the end.”

“It costs money and I already paid enough for the software.”

Accuracy

Among Holdouts, 12% of Self Paper Filers, 8% of Paid V-Coders, and 8% of Self V-Coders chose “Didn’t know that, with *e-file*, errors are caught earlier and the return is more accurate” as a barrier to *e-filing*.³²⁸

E-file increases the accuracy of returns by virtue of the quick acknowledgment from the IRS that the return was accepted or rejected. If there are simple errors in the return, such as mistyped names, SSNs, or addresses, taxpayers who *e-file* their returns are notified more quickly than taxpayers who submit their returns on paper; therefore, taxpayers who use *e-file* are able to fix errors and resubmit their returns sooner. Tax preparation software may also make necessary calculations automatically, further increasing the accuracy of the return.³²⁹

With the introduction in the 2009 filing season of bundled (“free”) e-file costs for self-installed commercial tax preparation software, the prevalence of e-file cost as a barrier to e-filing may decrease.

³²⁸ IRS (2009) AES2 Taxpayer Survey, Questions 5 and 8

³²⁹ *E-file* also increases accuracy of returns in an indirect way by getting around the need for error-prone manual transcription of paper returns.

E-filers rated the accuracy of *e-file* high on both importance and performance.³³⁰ This indicates that taxpayers' perceptions of *e-file* accuracy may increase with their familiarity of the product through use.

Select verbatim responses from taxpayers who did not know about *e-file's* increased accuracy over paper filing:

"Because of forms I use, I do a double check which I don't think I can do there."

"I had errors in the past and I feel more comfortable on paper, this way I can check it before I send it."

Third Party Involvement

Given stakeholders' interest in the effect of third party involvement on *e-filing*, AES2 research (e.g., the taxpayer survey and conjoint survey) included questions about third party transmitters. Third party transmitters are partners with commercial firms and the IRS in submitting income tax returns electronically to the IRS from the software used to prepare them. Respondents' answers to the surveys, as well as focus group feedback, indicated that taxpayers are confused about third party involvement, including, for example, what is meant by a third party and the significance or relevance of third party involvement to their situations.³³¹

Third parties are involved in many aspects of online and real world (including paper-based) transactions. The public may not be aware of the existence, extent, or role of third parties in facilitating their interactions with commercial and government organizations. Examples of third party involvement in common transactions include:

- Check clearinghouses, which scan and process paper checks on behalf of banks.
- Credit card payment processors, which receive and authorize payments on behalf of retailers.
- Internet service providers, which provide the connectivity between customers' computers and the web sites they use.
- The use of consultants — versus employees — or outsourcing by government and commercial organizations.
- The use of tax preparation software or services (i.e., a preparer) in filing a return.

How third parties protect security and privacy varies and may be driven by law, regulation, contractual stipulation, and/or business practice. It is important to note that the IRS evaluates all authorized *e-file* providers — including software providers, Electronic Return Originators (ERO), and transmitters — to ensure that their products meet the security and privacy standards for all IRS communications.

The complexity and lack of awareness of third party involvement in common transactions pose significant challenges for survey research on the effect of third party involvement on *e-filing*. The validity and usefulness of findings are affected by participants' familiarity with the topic being researched, the complexity of the topic, and the clarity of survey wording, among other issues.

³³⁰ IRS (2009) *AES2 Taxpayer Survey*, Question 18

³³¹ IRS (2009) *AES2 Taxpayer Survey*, Questions 14, 15, and 16; IRS (2009) *AES2 Conjoint Survey*, Question 33

Most taxpayers believe their e-filed returns are submitted directly to the IRS (without third party transmitters).

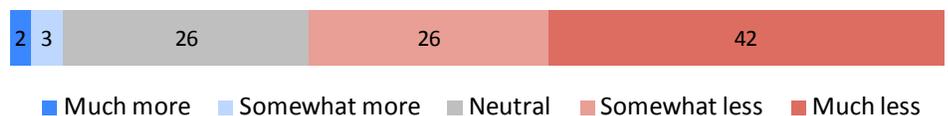
The taxpayer survey indicates that most taxpayers are not aware of the involvement of third parties in submitting their returns to the IRS. The majority mistakenly believe that their returns go directly to the IRS when they click “submit” or “send” in the commercial tax preparation software they use.³³²

Respondents to the taxpayer survey were asked about how they felt about third party involvement in the submission of their tax returns. When reviewing the results, it is important to note that the manner in which the question was asked may have had an effect on the respondents’ answers. The question asked in the taxpayer survey read:

Regardless of how an *e-filed* return is prepared, it may be sent from the software used to prepare it to another company that takes your *e-file* return and sends it to the IRS for processing. Does the fact that there may be a third party company involved make you: Much More Likely To Use *e-file*, Somewhat More Likely To Use *e-file*, Neither More Nor Less Likely To Use *e-file*, Somewhat Less Likely To Use *e-file*, or Much Less Likely To Use *e-file*?³³³

For many taxpayer respondents, the taxpayer survey was the first time they had heard of third party transmitters. The question did not make clear to taxpayers that, as of the date they took the survey (January–March 2009), third party involvement was the current norm for all tax preparation software. Because the wording of the question may have given taxpayers the false impression that these third parties were handling taxpayer data in an unsanctioned way, the results were skewed heavily toward a general reluctance to *e-file*, as shown in Figure A-6.

Figure A-6: Taxpayer Survey Results on Effect of Third Party Submission on Taxpayer Likelihood to *E-file* (Percent)



Source: IRS (2009) *AES2 Taxpayer Survey*, Question 15

A revised version of the question, asked as a separate question at the end of the conjoint survey, read:

Currently, all *e-filed* returns are submitted through a commercial transmitter who provides customer support for any transmission issues. The transmitter is often the same company that provided the tax preparation software. An alternative would be to submit the return from the software used to prepare it directly to the IRS, who would provide customer support for any transmission issues.

Considering each of these options [Commercial Transmitter, Direct to IRS] independently, how would the manner in which your return is transmitted affect your decision to *e-file*: Very Willing to *E-file*, Somewhat Willing to *E-file*, Neutral, Somewhat Unwilling to *E-file*, or Very Unwilling to *E-file*.³³⁴

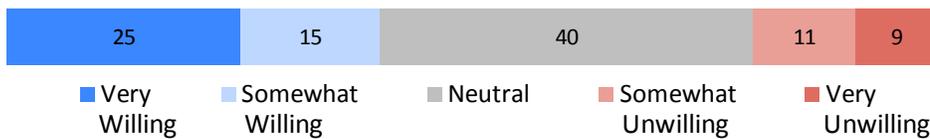
³³² IRS (2009) *AES2 Taxpayer Survey*, Question 14

³³³ IRS (2009) *AES2 Taxpayer Survey*, Question 15

³³⁴ IRS (2009) *AES2 Conjoint Survey*, Question 33

The results of the conjoint survey version of the question were markedly different, as shown in Figure A-7. It is important to note that this is due in part to the taxpayer and conjoint surveys' differing methodologies and respondent demographics.

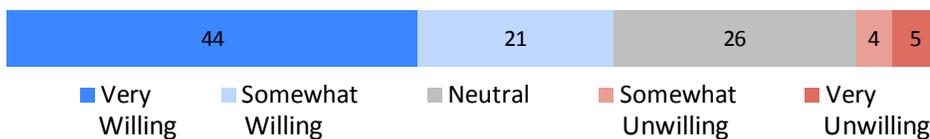
Figure A-7: Conjoint Survey Results on Effect of Third Party Submission on Taxpayer Willingness to *E-file* (Percent)



Source: IRS (2009) *AES2 Conjoint Survey*, Question 33

The conjoint survey indicates that while taxpayers prefer to submit their returns directly to the IRS, they are not as apprehensive about third party involvement as the taxpayer survey indicates. However, the reversal of preference does not necessarily mean that taxpayers are not interested in submitting their returns directly to the IRS. In the context of third party involvement, the conjoint survey also asked taxpayers about their willingness to submit their returns directly to the IRS (presuming such an alternative existed), with the results shown in Figure A-8.³³⁵

Figure A-8: Conjoint Survey Results on Effect of Direct Submission of Returns to IRS on Taxpayer Willingness to *E-file* (Percent)



Source: IRS (2009) *AES2 Conjoint Survey*, Question 33

Viewing these conjoint results together, approximately 20% of taxpayers would not be willing to use *e-file* if third parties were involved in submitting their returns to the IRS, compared with 9% of taxpayers who would not be willing to use *e-file* if they could submit their own returns directly to the IRS.³³⁶ The survey results indicate that approximately 65% of taxpayers would be willing to use *e-file* if they could submit their own returns directly to the IRS, and approximately 40% of taxpayers would be willing to use *e-file* if third parties were involved.

Private industry has an important role in the current tax landscape. The survey results may indicate that taxpayers want some level of choice on how involved private industry is with their tax returns. Taxpayers who purchase software presumably appreciate professional assistance with tax preparation. Some taxpayers may take advantage of the “professional review” offerings of tax preparation software vendors, which would

³³⁵ IRS (2009) *AES2 Conjoint Survey*, Question 33

³³⁶ Conjoint survey respondents were permitted to answer both questions separately, i.e., they did not have to choose between commercial filing and direct filing, they could have chosen to express willingness to use both, to use one but not the other, or to use neither filing method.

necessitate further third party handling of their returns. Other taxpayers may appreciate the security and privacy offered by the option of submitting their returns directly to the IRS from the software they use to prepare their returns.

Technology Usage

Taxpayer survey results shown in Table A-2 appear to correspond to US population trends.

Table A-2: Technology Usage Among Taxpayers, by Taxpayer Subgroup (Percent)

Technology Taxpayers Owned/Had Access To	Self Paper Filers		Paid V-Coders		Self V-Coders		E-filers	
	Own	Access	Own	Access	Own	Access	Own	Access
Mobile phone	75	76	84	84	88	91	88	90
Basic mobile phone	64	66	70	71	71	75	68	72
Mobile phone with texting	42	44	47	51	53	58	58	62
Mobile phone with texting and [Internet] browsing	24	31	33	39	36	46	46	53
Landline telephone	95	94	95	93	95	95	94	93
Computer	79	85	78	82	91	93	83	86
Internet access	73	80	73	76	91	91	80	84
Internet access — dial up	21	29	14	24	12	24	12	29
Internet access — high speed	57	67	63	67	84	85	72	78

Source: IRS (2009) *AES2 Taxpayer Survey*, Question 21

Free File

A small portion of the taxpayer survey was dedicated to discovering more about taxpayers' thoughts on Free File.

The IRS summed up the Free File research as follows:

Awareness and likelihood of [using] Free File by eligible non-users is approximately the same as those by [other] subgroups.... Eligible non-users are more likely to choose a paid preparer or software over other current electronic filing methods.³³⁷

Among eligible non-users of Free File, 31% were familiar with Free File, and an estimated 32% of all taxpayers were familiar with Free File.³³⁸ Table A-3 summarizes why eligible non-users of Free File (excluding responses of those who already have software or a preparer they are comfortable with) did not use Free File.

³³⁷ IRS (2009) *AES2 Taxpayer Survey*, p. 19

³³⁸ IRS (2009) *AES2 Taxpayer Survey*, Question 3

Table A-3: Reasons Eligible Non-Users of Free File (N = 483) Did Not Use Free File (Percent)

Reasons for Not Using Free File	Response
Did not know about Free File when they filed	33
Did not know they qualified to use Free File	24
Did not know where to Free File	21

Source: IRS (2009) AES2 Taxpayer Survey, Question 10

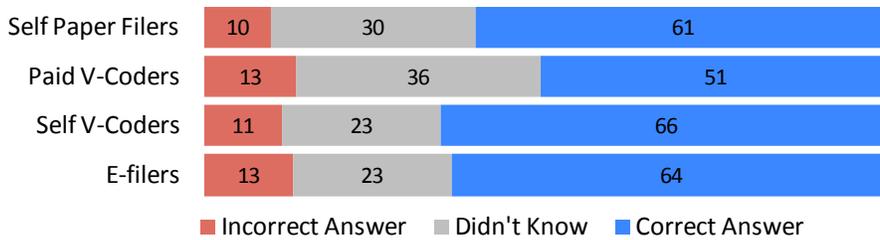
Taxpayer Misconceptions

The following figures present other taxpayer survey findings about *e-file* misconceptions.³³⁹

Statement Presented: You cannot use *e-file* if you owe money for your taxes.

Reality: This statement is false. Taxpayers can e-file if they owe money and have the option of paying by EFTPS, credit card, direct debit, or check. Figure A-9 shows the responses for this statement.

Figure A-9: Taxpayer Responses to “Cannot E-file if Money Owed” Misconception (Percent)



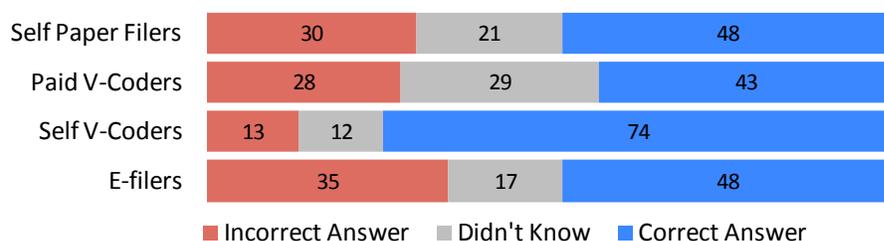
Source: IRS (2009) AES2 Taxpayer Survey, Question 14

³³⁹ IRS (2009) AES2 Taxpayer Survey, Question 14

Statement Presented: Preparing your Federal return on a computer means that you are using *e-file*.

Reality: This statement is false. While computer preparation is necessary for using *e-file*, the act of electronically submitting the completed return is what constitutes *e-filing*. Many taxpayers do not separate preparation from submission; instead they lump these two steps together as “filing.” Figure A-10 shows the responses for this statement.

Figure A-10: Taxpayer Responses to “Computer Preparation is *E-filing*” Misconception (Percent)

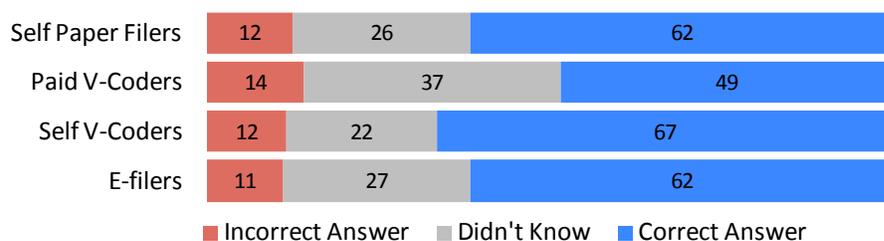


Source: IRS (2009) *AES2 Taxpayer Survey*, Question 14

Statement Presented: You can only use *e-file* if you have a high-speed Internet connection such as broadband, DSL, or cable modem — not with a dial-up connection.

Reality: This statement is false. While users with high-speed Internet connections may have a better online experience, *e-filing* can be done on any Internet connection. Figure A-11 shows the responses for this statement.

Figure A-11: Taxpayer Responses to “*E-file* Requires High-Speed Internet” Misconception (Percent)

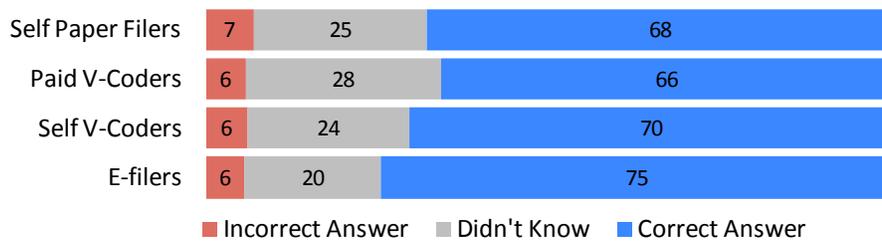


Source: IRS (2009) *AES2 Taxpayer Survey*, Question 14

Statement Presented: You can get tax return preparation help and *e-file* your Federal return at local IRS-administered help centers.

Reality: This statement is true. The IRS and its partners provide a number of local resources to help taxpayers prepare and submit their returns. A majority of taxpayers are aware of these resources. Figure A-12 shows the responses for this statement.

Figure A-12: Taxpayer Responses to Existence of “Local Tax Preparation Help,” %



Source: IRS (2009) *AES2 Taxpayer Survey*, Question 14

A.3. Additional Preparer Survey Findings

Because they encounter so many filing situations, paid preparers were not as neatly divided into the categories of “users” and “Holdouts” as the taxpayer subgroups were. Even Heavy User Preparers, who *e-filed* at least 95% of their clients’ returns, may not have *e-filed* all of their clients’ returns. Preparers’ use of *e-file* ranged along a continuum from true non-users to almost exclusive users of *e-file*.

A.3.1. Preparers’ Ratings of Filing Method Characteristics

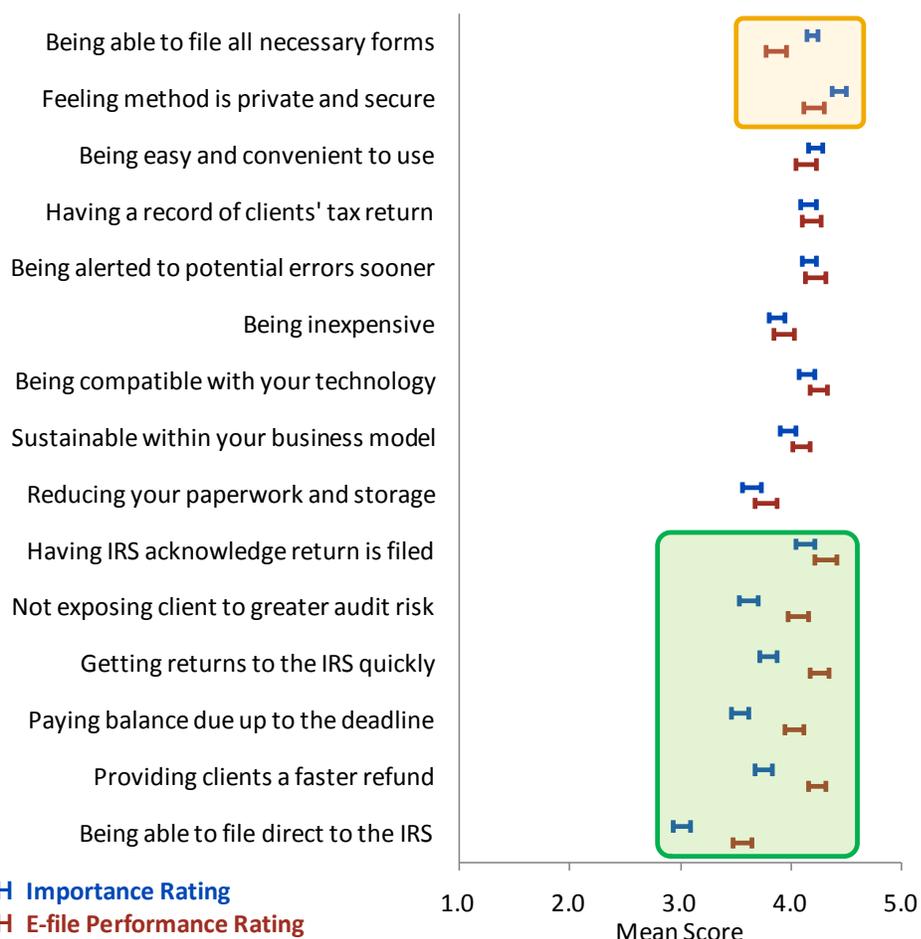
Just as in the taxpayer survey, preparers were asked to rate the importance of filing method characteristics and then rate *e-file* performance pertaining to those same characteristics.³⁴⁰

³⁴⁰ IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

All Preparers

Figure A-13 presents the filing method characteristics as rated by all preparers, ordered from greatest negative to greatest positive expectation gap.

Figure A-13: Ratings of Filing Method Characteristics by All Preparers



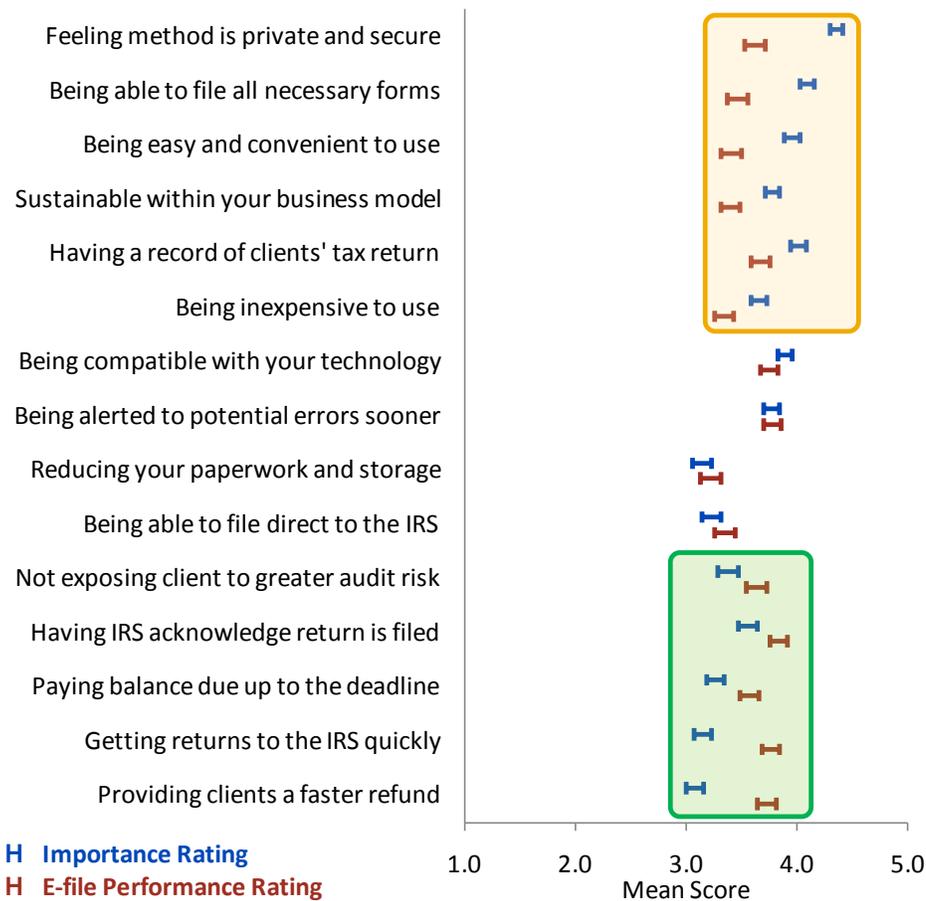
Source: IRS (2009) AES2 Preparer Survey, Questions 14 and 15

These results show that preparers believe that *e-file* has room for improvement in the characteristic of being able to file all necessary forms, schedules, and attachments. Like taxpayers, preparers rate privacy and security as the most important characteristic. Preparers rated *e-file* performance highest on electronic confirmation that the IRS received their returns and acknowledgment that the IRS accepted or rejected their returns. Preparers generally rated *e-file* performance high on being compatible with the technology they owned or had access to.

Non-Users

Figure A-14 presents the filing method characteristics as rated by Non-Users, ordered from greatest negative to greatest positive expectation gap. Non-Users are preparers who did not use *e-file* at all in TY2007.³⁴¹

Figure A-14: Ratings of Filing Method Characteristics by Non-Users



Source: IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

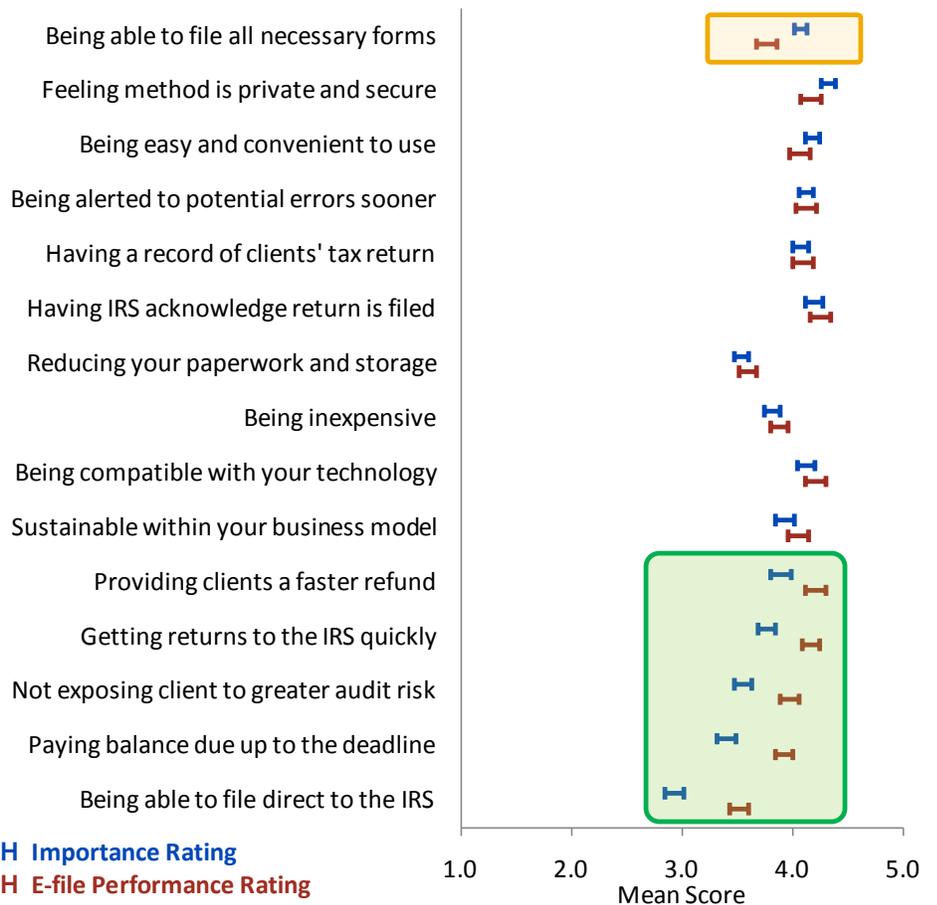
The Non-Users' results indicate that, once again, privacy and security is at the top of the list of important filing method characteristics. Non-Users indicated that *e-file* has room for improvement in terms of privacy and security. Like taxpayer Holdouts, Non-Users generally rated *e-file* performance lower than Light Users and Heavy Users. Non-Users rated *e-file* performance lowest on reducing their paperwork and paper storage.

³⁴¹ The preparer survey was conducted from February to April 2009.

Light Users

Figure A-15 presents the filing method characteristics as rated by Light Users, ordered from greatest negative to greatest positive expectation gap. Light Users are preparers who *e-filed* less than 50% of their clients' returns.

Figure A-15: Ratings of Filing Method Characteristics by Light Users



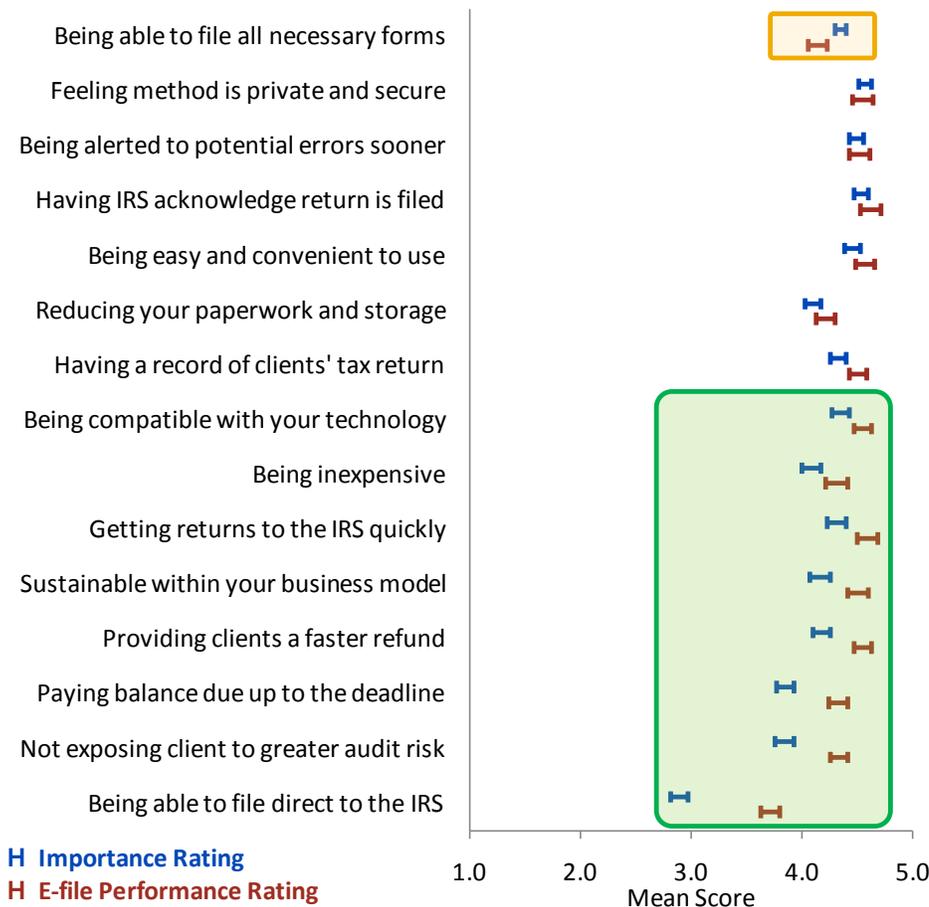
Source: IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

According to Light Users, *e-file* has a negative expectation gap for the characteristic of being able to file all necessary forms, schedules, and attachments. Light Users indicated that security and privacy is the most important filing characteristic and that there is still room for *e-file* to improve in terms of security and privacy.

Heavy Users

Figure A-16 presents the filing method characteristics as rated by Heavy Users, ordered from greatest negative to greatest positive expectation gap. Heavy Users are preparers who *e-filed* at least 95% of their clients' returns.

Figure A-16: Ratings of Filing Method Characteristics by Heavy Users



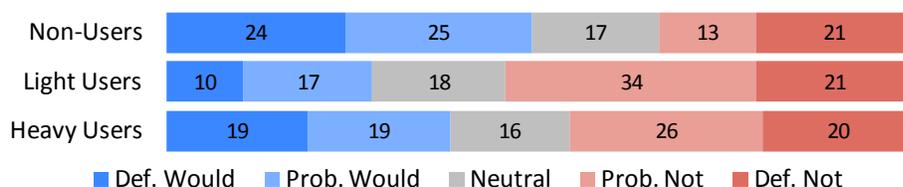
Source: IRS (2009) AES2 Preparer Survey, Questions 14 and 15

Like Light Users, Heavy Users indicated that *e-file* has a negative expectation gap for the characteristic of being able to file all necessary forms, schedules, and attachments. This is the only characteristic in which Heavy Users indicated that *e-file* had a significant negative expectation gap. Heavy Users indicated that security and privacy is the most important filing method characteristic, and that *e-file* is very good on this characteristic.

A.3.2. Preparers' Motivators to *E-file*

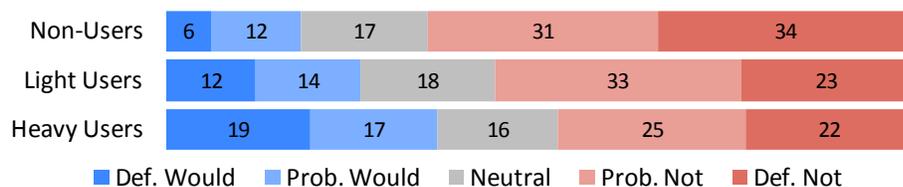
Preparers were asked to indicate their inclination to use *e-file* more often when presented with different motivators.³⁴² Figures A-17, A-18, A-19, A-20, A-21, A-22, and A-23 summarize preparer responses to specific motivators that might convince more preparers to *e-file*. As shown in Figure A-19, *e-file* support of all tax forms, schedules, and attachments would sway the largest percentage of preparers.

Figure A-17: Preparer Response to More *E-file* Training Motivator (Percent)



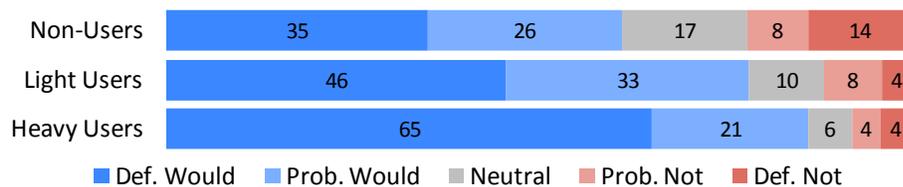
Source: IRS (2009) *AES2 Preparer Survey*, Question 18

Figure A-18: Preparer Response to More *E-file* Marketing Motivator (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 18

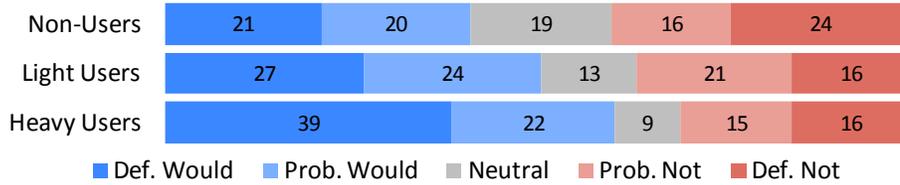
Figure A-19: Preparer Response to *E-file* Supporting All Forms, Schedules, and Attachments Motivator (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 18

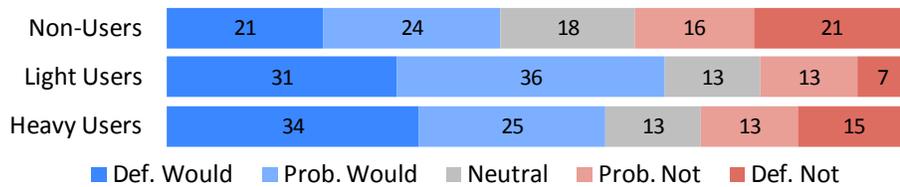
³⁴² IRS (2009) *AES2 Preparer Survey*, Question 18

Figure A-20: Preparer Response to Extended Deadline for *E-filed* Returns Motivator (Percent)



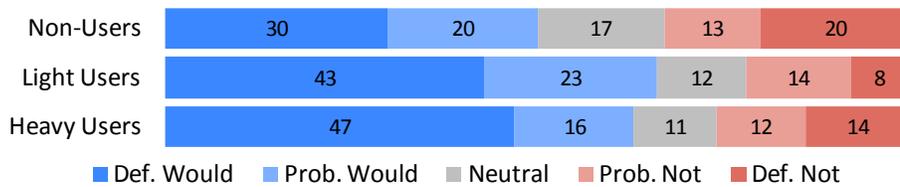
Source: IRS (2009) *AES2 Preparer Survey*, Question 18

Figure A-21: Preparer Response to Taxpayer Incentives to *E-file* Motivator (Percent)



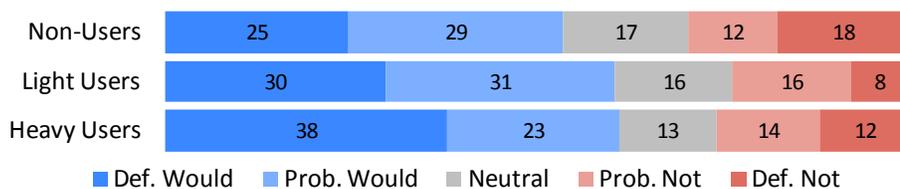
Source: IRS (2009) *AES2 Preparer Survey*, Question 18

Figure A-22: Preparer Response to Preparer Incentives to *E-file* Motivator (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 18

Figure A-23: Preparer Response to Customer Service Incentives to *E-file* Motivator (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 18

Preparers' Training Preferences

Preparers who responded that they would like more *e-file* training were given the opportunity to select how they would like to receive training. Preparers' responses did not differ significantly across the subgroups and are presented in Figure A-24.

Figure A-24: Preparers' Preferred Methods for *E-file* Training



Source: IRS (2009) *AES2 Preparer Survey*, Question 19

A.3.3. Other Preparer Survey Findings

Other findings not presented in chapter 3 are presented below.

Security and Privacy

There are no other findings not reported in chapter 3.

Awareness

There are no other findings not reported in chapter 3.

Availability

There are no other findings not reported in chapter 3.

Ease and Convenience

There are no other findings not reported in chapter 3.

Recordkeeping and Acknowledgment

There are no other findings not reported in chapter 3.

Cost

There are no other findings not reported in chapter 3.

Accuracy

The survey results indicate that preparers were generally aware that *e-file* increases the accuracy of returns. Even among Non-User and Light User Preparers, very few (5% of Non-Users and 4% of Light Users) were not aware of how *e-file* can help improve filing accuracy.³⁴³

Third Parties

Preparers were asked how they felt about third party transmitters being involved in the tax return process.³⁴⁴ All preparers rated being able to file without using third parties

Preparers were generally aware of the accuracy benefit of e-filing a return.

Preparers were not troubled by the involvement of third party transmitters.

³⁴³ IRS (2009) *AES2 Preparer Survey*, Questions 5 and 6

³⁴⁴ IRS (2009) *AES2 Preparer Survey*, Questions 5, 6, 14, and 15

low in importance and generally rated *e-file* performance as it pertains to this characteristic higher than they rated importance.³⁴⁵

Fear of Audit

There are no other findings not reported in chapter 3.

Perceived Benefits

Preparers were asked to rate characteristics regarding the perceived *e-file* benefit of speed — getting returns to the IRS quickly and providing taxpayers with faster refunds. Non-Users indicated that *e-file* performance was significantly positive for both these characteristics.³⁴⁶

Technology Usage

The preparer survey provides estimates that 97% of preparers used a computer for tax preparation and submission; 96% had access to the Internet; 91% who had Internet access had high-speed access, while 7% had dial-up access; and 97% used tax preparation software. Table A-4 summarizes preparers' access to technology.

Table A-4: Technology Preparers Used for Tax Preparation and Submission, By Preparer Subgroup (Percent)

Technology Used in Tax Preparation and Submission	Non-Users	Light Users	Heavy Users
Computer	95	98	99
Internet access	92	98	98
Internet access — dial up	11	6	5
Internet access — high speed	84	95	95
Tax preparation software	91	99	99
Tax preparation software with <i>e-file</i> feature	68	79	75
Tax preparation software with <i>e-file</i> feature and special forms support	29	39	50
None of the above	4	0	0

Source: IRS (2009) *AES2 Preparer Survey*, Question 26

Preparer Demographics

In their summary of preparer survey results, the IRS provides the following key findings about preparer demographics:³⁴⁷

- Similar to the total US workforce demographics, most preparers have been in business for a number of years.
- Most preparers work independently.

³⁴⁵ IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

³⁴⁶ IRS (2009) *AES2 Preparer Survey*, Questions 14 and 15

³⁴⁷ IRS (2009) *AES2 Preparer Survey*, p. 46

- Heavy Users are more likely to be paid preparers, offering tax preparation and submission as their only service.
- Non-Users and Light Users are more likely to be accountants or Certified Public Accountants (CPA), providing other services besides tax preparation and submission.
- On average, Heavy Users prepare twice as many returns as Non-Users.

Preparer Misconceptions

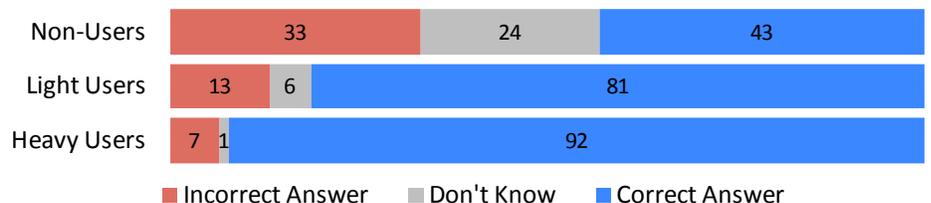
Preparer survey results indicate that the heavier the use of *e-file* among preparers, the greater their awareness of how *e-file* works. The responses to the question about *e-file* support for forms, schedules, and attachments can be explained by the fact that the aggregate profile of any given preparer’s typical client base determines the preparer’s experience with forms, schedules, and attachments that can or cannot be *e-filed*.

The following figures present other preparer survey findings about *e-file* misconceptions.

Statement Presented: With *e-file*, when you finish preparing a Federal return on a computer and press “submit” or “send,” your return goes directly to the IRS.

Reality: This statement is false. Returns prepared on a computer using commercial tax preparation software may be sent to the commercial tax preparation software vendor for error checking and then sent to a transmitter for submission to the IRS. Figure A-25 shows the responses for this statement.

Figure A-25: Preparer Responses to “Direct Return Submission to the IRS with *E-file*” Misconception (Percent)

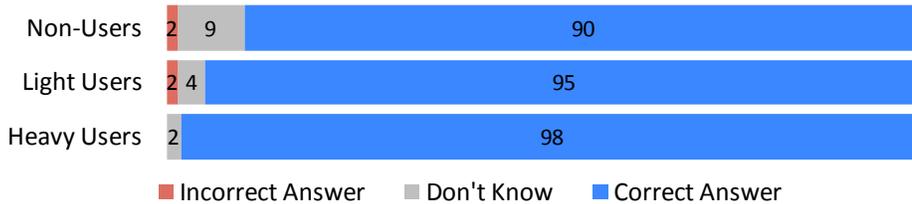


Source: IRS (2009) *AES2 Preparer Survey, Question 7*

Statement Presented: *E-file* increases the chance that a client’s return will be audited by the IRS.

Reality: This statement is false. Examination of actual return data shows that *e-filing* does not increase the risk of being audited. Figure A-26 shows the responses for this statement.

Figure A-26: Preparer Responses to “E-file Audit Risk” Misconception (Percent)

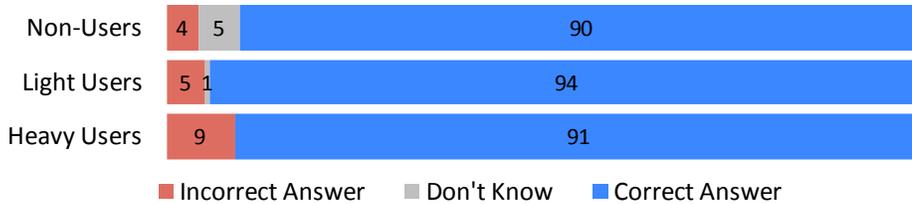


Source: IRS (2009) AES2 Preparer Survey, Question 7

Statement Presented: Preparing Federal returns on a computer means that you are using *e-file*.

Reality: This statement is false. While computer preparation is necessary for using *e-file*, the act of electronically submitting the completed return is what constitutes *e-filing*. Figure A-27 shows the responses for this statement.

Figure A-27: Preparer Responses to “Computer Preparation is E-filing” Misconception (Percent)

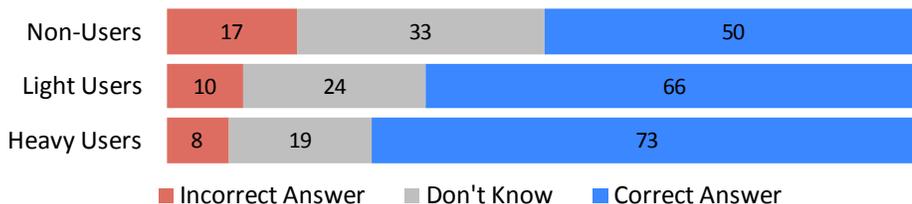


Source: IRS (2009) AES2 Preparer Survey, Question 7

Statement Presented: You can only use *e-file* if you have a high-speed Internet connection such as broadband, DSL, or cable modem — not with a dial-up connection.

Reality: This statement is false. While users with high-speed Internet connections may have a better online experience, *e-filing* can be done on any Internet connection. Figure A-28 shows the responses for this statement.

Figure A-28: Preparer Responses to “E-file Requires High-Speed Internet” Misconception (Percent)

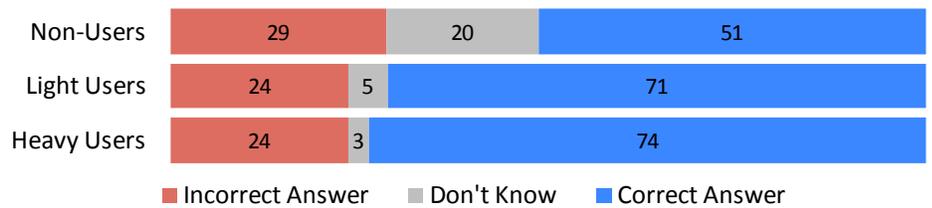


Source: IRS (2009) AES2 Preparer Survey, Question 7

Statement Presented: *E-file* supports all IRS forms, schedules, and attachments.

Reality: This statement is false. *E-file* currently supports most — but not all — forms, schedules, and attachments. In turn, commercial tax preparation software varies in which forms, schedules, and attachments the software itself supports. Figure A-29 shows the responses for this statement.

Figure A-29: Preparer Responses to “*E-file* Supports all Forms” Misconception (Percent)

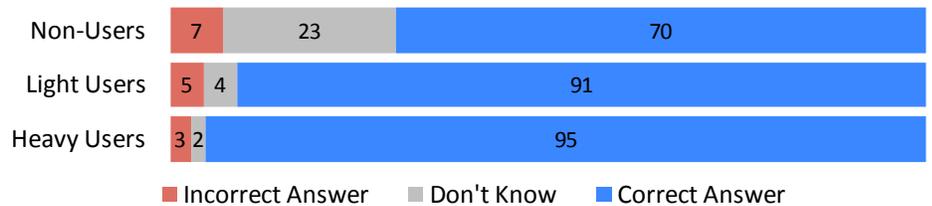


Source: IRS (2009) *AES2 Preparer Survey*, Question 7

Statement Presented: You cannot use *e-file* when submitting a client return past the April 15 filing deadline.

Reality: This statement is false. The IRS supports *e-filing* of returns past April 15 through the end of the filing season in October. Figure A-30 shows the responses for this statement.

Figure A-30: Preparer Responses to “Cannot *E-file* Past April 15” Misconception (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 7

A.4. Preparer Influence and Taxpayer Demand

Taxpayer survey results indicate that preparers drive taxpayers' filing method decisions.³⁴⁸ Taxpayers who indicated a lack of awareness of *e-file* chose *e-filing* when their preparers recommended it.³⁴⁹ Taxpayers who never discussed *e-file* with their preparers generally V-Coded their tax returns.³⁵⁰

About half of Light User Preparers paid *e-filing* fees on a per-return basis.³⁵¹ When choosing filing methods for their clients, Light User Preparers were driven to choose paper filing primarily because of resource constraints. The results depicted in Figure A-31 indicate that even though Heavy Users *e-filed* 95% or more of their clients' returns, not all of their clients asked for *e-file*. The majority of Light Users reported that their clients asked for *e-file*, indicating that Light Users had other reasons for not *e-filing* more returns — lack of client demand was not a significant inhibitor of Light Users' use of *e-file*. Interestingly, 42% of Non-Users reported that their clients generally asked for *e-file*.³⁵²

Figure A-31: Client Demand for *E-file*, by Preparer Subgroup (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 3

Table A-5 presents the reasons Light Users did not *e-file* more returns and divides the results by whether or not the their clients requested *e-file*.

³⁴⁸ IRS (2009) *AES2 Taxpayer Survey*, Questions 6 and 11

³⁴⁹ IRS (2009) *AES2 Taxpayer Survey*, Questions 3 and 11

³⁵⁰ IRS (2009) *AES2 Taxpayer Survey*, Question 6

³⁵¹ IRS (2009) *AES2 Preparer Survey*, Question 10

³⁵² IRS (2009) *AES2 Preparer Survey*, Question 3

Table A-5: Reasons Light Users Did Not *E-file* More Returns (Percent)

Reasons Light User Preparers Did Not <i>E-file</i> More Returns	Clients Requested <i>E-file</i>	Clients Never Requested <i>E-file</i>	Overall
Clients did not need a quick refund or owed money	46	33	45
Could not use certain forms, schedules, or attachments with <i>e-file</i>	24	19	23
Thought it would cost more to <i>e-file</i>	13	16	13
Was worried about privacy and security of Internet	12	17	12
Was worried about privacy and security of <i>e-filing</i> clients' returns	10	19	10
Was not aware that, with <i>e-file</i> , errors are caught earlier and clients' returns are more accurate	4	2	4
Did not know enough about <i>e-file</i> to use it	4	7	4
Did not have the technology or Internet access required to <i>e-file</i>	3	5	3
Did not see value in <i>e-file's</i> electronic confirmation of receipt of returns and acknowledgment of acceptance or rejection of returns	3	9	3
Was concerned about recordkeeping for clients' <i>e-filed</i> returns	3	7	3
Was worried that <i>e-file</i> would increase clients' chances of being audited	1	0	1

Source: IRS (2009) *AES2 Preparer Survey*, Questions 3 and 6

The primary reason Light User preparers gave for not *e-filing* more returns is that their clients did not need a quick refund or clients owed money. Light Users whose clients requested *e-file* also cited lack of support for forms, schedules, and attachments; cost; and security and privacy as barriers to *e-filing* more returns.

Table A-6 presents the reasons Non-Users did not *e-file* more returns and divides the results by whether or not the their clients requested *e-file*.

Table A-6: Reasons Non-Users Did Not *E-file* More Returns (Percent)

Reasons Non-Users Did Not <i>E-file</i> More Returns	Clients Requested <i>E-file</i>	Clients Never Requested <i>E-file</i>	Overall
Did not know enough about <i>e-file</i> to use it	36	29	32
Clients did not need a quick refund or owed money	29	36	33
Thought it would cost more to <i>e-file</i>	25	25	25
Did not have the technology or Internet access required to <i>e-file</i>	25	23	24
Was worried about privacy and security of the Internet	22	33	28
Was worried about privacy and security of <i>e-filing</i> clients' returns	19	27	24
Could not use certain forms, schedules, or attachments with <i>e-file</i>	15	18	17
Was concerned about recordkeeping for clients' <i>e-filed</i> returns	12	12	12
Did not see value in <i>e-file's</i> electronic confirmation of receipt of returns and acknowledgment of acceptance or rejection of returns	9	12	11
Was not aware that, with <i>e-file</i> , errors are caught earlier and clients' returns are more accurate	6	4	5
Was worried that <i>e-file</i> would increase clients' chances of being audited	2	1	2

Source: IRS (2009) *AES2 Preparer Survey*, Questions 3 and 5

As shown in Table A-6, Non-Users whose clients requested *e-file* cited lack of resources and lack of knowledge about *e-file* as their primary reasons for not *e-filing* more returns, with lack of knowledge the top reason.

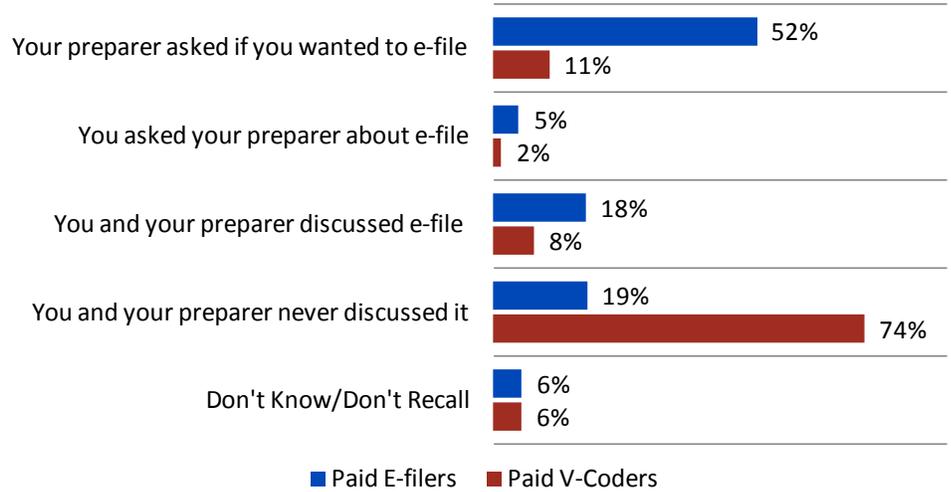
Non-Users also cited concerns about cost and privacy/security and, like Light Users, cited clients' lack of need for *e-file* as their reasons for not *e-filing* more returns. However, the reasons given by preparers whose clients never requested *e-file* differed little from the reasons given by preparers whose clients requested *e-file*. The reasons cited for not *e-filing* more returns also do not differ significantly from the overall responses, indicating that client demand for *e-file* is not a determinant of preparer filing method choice. In short, client demand has little or no influence on preparers' *e-filing* decisions.

Indeed, the influence is the other way around. The evidence points to a strong correlation between preparer recommendations and taxpayer filing method choice.

Lack of taxpayer awareness of *e-file* is a barrier to *e-file* adoption. Preparers can play an important role in influencing their clients to *e-file*. Figure A-32 shows the results of correlating taxpayer responses to questions about filing discussions they had with their preparers and their eventual filing choices. The results give an indication of the level of initiative taxpayers take in making their filing method decisions — that is, that taxpayers generally do as their preparers advise them.

The data indicate that an increase in client demand does little to sway preparers' filing method choices.

Figure A-32: Correlation of Taxpayer Discussions with Preparers and Eventual Filing Method Choice, for Taxpayers Not Aware of *E-filing*



Source: IRS (2009) *AES2 Taxpayer Survey*, Questions 6 and 11

Figure A-32 shows that taxpayers chose *e-filing* when their preparers recommended it. Those taxpayers whose preparers never discussed *e-file* with them showed a propensity to choose V-Coding when using preparers. The data indicate that when preparers get involved, taxpayers choose *e-file*.³⁵³

When correlating the discussions and eventual filing methods to the awareness of electronic filing, the data indicate that most Paid *E-filers* (98%) and most Paid V-Coders (91%) are aware of at least one electronic filing method.³⁵⁴ There was a minority of Paid V-Coders (9.5%) who were not aware of at least one electronic filing method; most of these Paid V-Coders (84%) reported never discussing *e-file* with their preparers.³⁵⁵

In light of this preparer influence, it is important to look beyond whether preparers merely offered *e-filing*. Preparers were asked whether or not they recommended *e-file* to their clients. Overall, an estimated 71% of preparers recommended *e-file* to their clients; an estimated 29% of preparers did not recommend *e-file* to their clients.³⁵⁶ Figure A-33 presents these results.

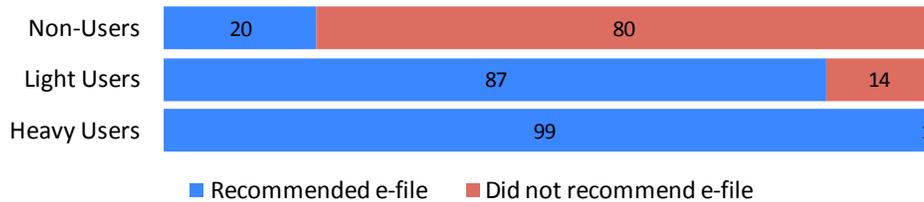
³⁵³ IRS (2009) *AES2 Taxpayer Survey*, Questions 3, 6, and 11

³⁵⁴ IRS (2009) *AES2 Taxpayer Survey*, Questions 3, 6, and 11

³⁵⁵ IRS (2009) *AES2 Taxpayer Survey*, Questions 3 and 6

³⁵⁶ IRS (2009) *AES2 Preparer Survey*, Question 2

Figure A-33: Preparers Who Recommended *E-file* to Their Clients, By Preparer Subgroup (Percent)



Source: IRS (2009) AES2 Preparer Survey, Question 4

As shown in Figure A-33, the more exposure to and experience with *e-file* preparers get, the more they recommend *e-file*. About 87% of Light Users recommended *e-file* to their clients, even though these preparers *e-filed* less than 50% of their clients’ returns. Thus even *e-file* exposure on a Light User level (i.e., less than half of returns *e-filed*), increases preparer tendencies to recommend *e-file*.

Client demand can be a convenient reason for some preparers not to *e-file* more returns. Among Non-Users, 33% said that they did not *e-file* because their clients did not need a quick refund or their clients owed money.³⁵⁷ This is the most prevalent reason for Non-Users not to *e-file* more returns. Among Light Users, 45% said they did not *e-file* because their clients did not need a quick refund or their clients owed money.³⁵⁸ This is the most prevalent reason for Light Users not to *e-file* more returns. Light Users may have been recommending *e-file* to their clients, but the data indicates that Light Users ultimately followed their clients’ wishes. Consider again that about half of Light Users pay *e-filing* fees on a per return basis and the picture becomes clearer for Light Users: a lot of what persuades them not to *e-file* more returns concerns simply not being set up appropriately — for example, in terms of resources — to handle high volumes of *e-filed* returns.

A.5. Mandate Opt-Out

One Option to increase *e-file* adoption is to enact a Federal mandate that would make *e-file* use compulsory for some preparers. Preparers fitting a certain profile (e.g., “preparers filing greater than 100 returns”) would be required to *e-file* their clients’ returns. As the Federal *E-file* Mandate on Paid Preparers Option is currently defined, if preparers cannot comply, they could opt out either by citing clients’ requests not to *e-file* or demonstrating hardship such as the inability to set up *e-filing* because of resource constraints.

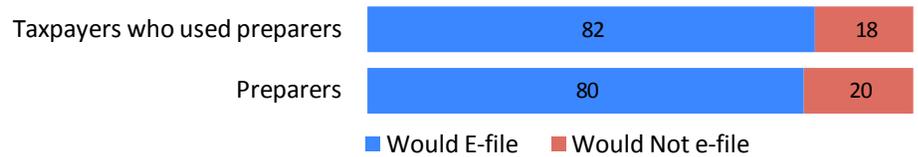
In both the taxpayer and preparer surveys, participants were asked how they would file their (or their clients’) returns if there were a Federal mandate on preparers to *e-file*. The results are shown in Figure A-34.

For more information on the Federal *E-file* Mandate on Paid Preparers Option, see chapter 10.

³⁵⁷ IRS (2009) AES2 Preparer Survey, Question 5

³⁵⁸ IRS (2009) AES2 Preparer Survey, Question 6

Figure A-34: Taxpayer and Preparer Stated Filing Behavior if Faced with an *E-file* Mandate (Percent)

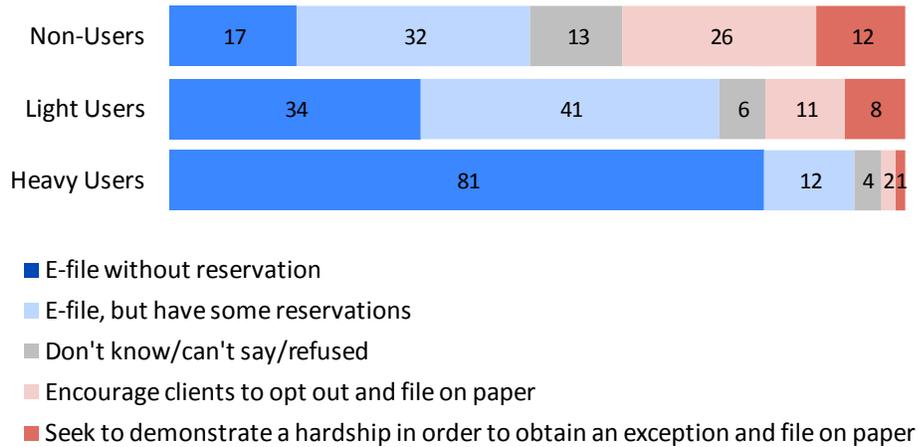


Source: IRS (2009) *AES2 Taxpayer Survey*, Questions 7 and 11; IRS (2009) *AES2 Preparer Survey*, Question 25

Most preparers would e-file if mandated, and most taxpayers would continue to use their preparers even if the preparers were subject to the mandate.

Looking at the preparers' responses shown in Figure A-35, 26% of Non-Users would encourage their clients to opt out of *e-file* and submit their returns on paper.

Figure A-35: Preparer Stated Filing Behavior if Faced with an *E-file* Mandate, by Preparer Subgroup (Percent)



Source: IRS (2009) *AES2 Preparer Survey*, Question 25

Overall, the data indicate that the majority of taxpayers and preparers would *e-file* in the face of a Federal mandate to do so. Non-Users would still need to be convinced to *e-file* more returns.

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Appendix B. Cost Estimation Methodology

Contents of Appendix B:

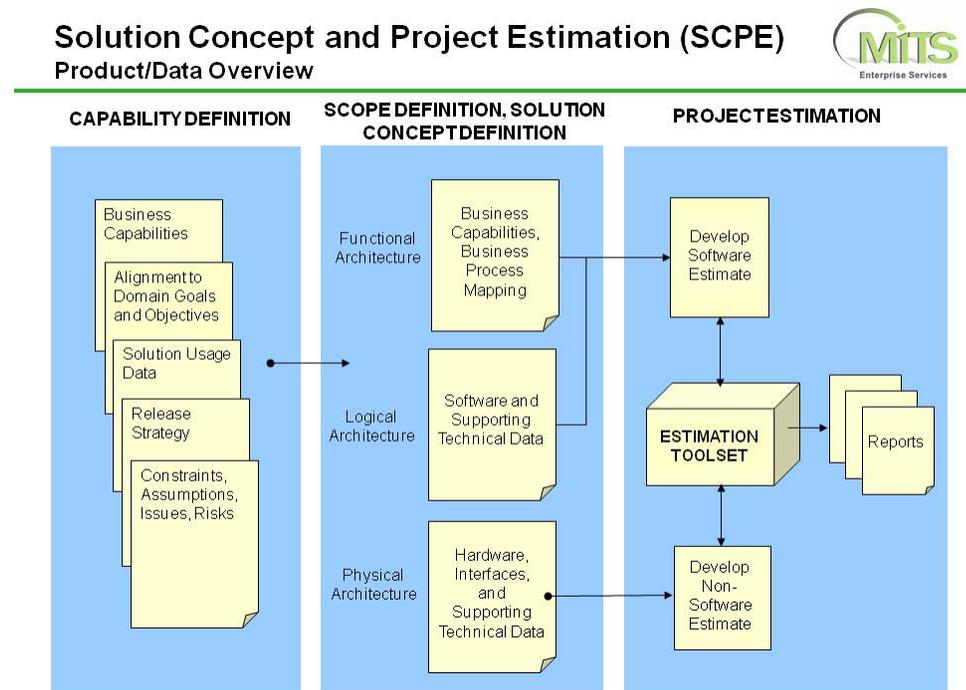
- B.1. Technology Options
- B.2. Policy Options
- B.3. Areas for Further Investigation

AES2 provides very rough order of magnitude (VROM) estimates of the one-time cost for the IRS to implement each Option and the annual recurring cost for the IRS to operate and maintain the Option based on the early stage conceptual description (high-level definition) of the Option. The methodology employed to arrive at the VROM cost estimates is described in more detail in this appendix. The appendix also presents the findings from an independent validation and verification (IV&V) of the cost estimates.

B.1. Technology Options

For the Technology Options, which are described in chapters 6 through 9, the IRS developed software and non-software parametric models and cost estimating relationships to estimate the one-time cost for the IRS to implement each Option and the annual recurring cost for the IRS to operate and maintain each Option. Figure B-1 provides an overview of the Solution Concept and Project Estimation; details of this are described below.

Figure B-1: IRS Solution Concept and Project Estimation



Source: IRS (2008) *Solution Concept and Project Estimation: Investment Proposal Team Kickoff Training*, version 1.2, p. 6

Scope and Definition

The AES2 team gathered justification information, the problem statement, and the functional solution and technical solution for achieving the desired business functionality of each Option, including the hardware, software, and infrastructure for

the Option. This information collectively identified the functional, non-functional, and technical requirements for each Option, which, along with software size (i.e., software lines of code [SLOC] and function points), largely defined the scope of the Option.

The scope of each Option is also represented by the Estimation Breakdown Structure (EBS). The EBS separates each estimate into smaller components within four categories across the software and non-software (IT) models:

1. Software Development
2. Project Management Office (PMO) Support
3. Project Infrastructure
4. Deployment and Implementation

This decomposition ensured that the material EBS elements of each estimate were captured, including the appropriate PMO for managing the each Option through implementation and operations and maintenance (O&M), hardware requirements, facilities build-out needs, and help desk support.

Each Option's software components were derived from the Functional Architecture Diagram and Application Architecture Diagram, which detail business capabilities, Enterprise Architecture business processes, and software and supporting technical data. Non-software but IT-related components (e.g., hardware, external/internal interfaces) were derived from the Technical Architecture Diagram. These diagrams are components of the key estimation artifacts of the Modernization Vision and Strategy (MV&S) processes known as the Business Capabilities Definition and the Solution Concept.

Cost Estimation Methodology

IRS Portfolio Planning, Estimation, and Delivery Services (PEDS) uses Software Evaluation and Estimation of Resources (SEER)³⁵⁹ models to estimate the full cost or total life-cycle cost of projects. The primary SEER models used by PEDS for estimation activities are the SEER–Software Estimation Model (SEER-SEM) and SEER–Information Technology (SEER-IT) model.

SEER-SEM is a parametric estimation tool for software development portions of projects (e.g., project sizing, complexity, staffing and schedule). SEER-SEM provides estimates of software development costs, level of effort, and schedule.

SEER-IT is a parametric estimation tool for IT portions of projects other than software. SEER-IT concentrates on the total cost of IT systems and support (e.g., hardware and commercial off-the-shelf [COTS] software, help desk support). SEER-IT estimates include labor hours and labor and material costs.

Another tool used for estimation activities is the SEER Knowledge Base. This data source allows development of a project-specific baseline that describes the project's software development environment.

Parametric modeling — via SEER estimation models — was the primary method used for estimating costs, level of effort, and schedule and staffing and for assessing risk. This engineering build-up estimation method uses statistically valid estimating relationships of one or more independent measures to estimate project resources. Parametric

³⁵⁹ Galorath (2009) *SEER Project Management Tool Overview*

modeling allows software and IT elements to be characterized by a series of inputs and parameters applicable to an EBS element. It relates the knowns — project descriptions, inputs, parameters — to the unknowns, such as project cost and required resources.

To increase the accuracy of the parametric models, IRS PEDS included three calibration stages in the cost estimation methodology. First, the software development environment was specified using industry data from the SEER Knowledge Base. This technique assigns default values to inputs and parameters based on the selected operating environment, overall software function, method in which the software is to be acquired, method to be used for development, and the standards to be used in development. Second, default values — inputs and parameters — were refined to customize software and non-software models to reflect the IRS environment. Finally, project-specific calibration was conducted. Software and IT models were further refined to each Option based on the Option's definition.

Also, several IT model elements of AES2 estimates were built using IRS historical data from cost catalogs. This approach added consistency and ensured completeness of costing across the Options. Cost catalog data was designed for the IRS portfolio planning process and was collected directly from or verified by service provider subject matter experts (SME). However, due to the nature and uniqueness of the AES2 Options (compared with the components considered during a more mainstream IRS portfolio planning process), estimates of some EBS elements (e.g., Project Infrastructure), normally built using data from cost catalogs, required supplemental SME guidance.

Software Size and Risk

Cost estimates for the Technology Options incorporate software size and risk:

- **Software Size** — The single most significant contributor to a project estimate is software size, which is a direct measure of the product to be built. Since more variation exists in the size of a project than in any other factor, cost and other resource estimates become more realistic as more is learned about the volume of work entailed in developing the software components of a project. For AES2, to ensure that software inputs and parameters were reliable, the IRS consulted and collaborated with SMEs on all aspects of software development. SMEs also reviewed and validated size estimating assumptions and level of effort, cost, schedule, and staffing estimates. This collaboration included decomposing required modifications to existing IRS systems, identifying additional functionality for existing IRS systems, and detailing the development of new IRS systems. For each AES2 Option, software size was expressed in SLOC and function point metrics — the amount of code to be written and the amount of functionality to be developed and delivered, respectively. See below for additional discussion of the function point analysis performed as part of the software development cost estimate for the Free IRS Tax Preparation Software Option.

- **Risk** — Risk is present in any project and is driven by uncertainty about project outcomes. AES2 cost estimates were risk adjusted by establishing a confidence level for each EBS element pertaining to software (e.g., software development, use of common business services) and IT (e.g., Office of Management and Budget Exhibit 300 [E300] support, hardware purchases, engineering support) based on the relative cost risk of the EBS element.
- Higher risk EBS elements such as software development received a higher confidence level setting than lower-risk EBS elements such as purchasing hardware and developing training. Confidence level settings are:
 - Non-software development labor: 60%
 - Software development labor: 80%
 - Hardware: 60%
 - Overall project (composite confidence level): approximately 70%
- Uncertainty is expressed for an EBS element using a three-point (i.e., least, likely, greatest) range of values. A three-point input parameter range allows risk to be reflected in the estimate. The wider an input parameter range, the greater the risk to the project.
- To gauge risk, the cost estimators collaborated with SMEs and engineers who are most knowledgeable about and responsible for a particular EBS element. To validate inputs and projected resources, multiple briefings and conferences were held with SMEs, study representatives, and IRS executives.

Function Point Analysis for Free IRS Tax Preparation Software Option

Cost estimates for developing the Free IRS Tax Preparation Software Option followed the following steps:

- Determine type of effort (new development or enhancement to existing application).
- Identify functional and technical capabilities to be delivered within scope of project.
- Count data and transactional functions.
- Calculate unadjusted function point count.
- Determine value adjustment factor.
- Calculate adjusted function point count.

The team used TurboTax 2008 Home & Business as the primary reference tax preparation software. The team reviewed each form, schedule, and worksheet as well as the “step by step” guidance. Because data entry for each form and schedule is an elementary process, a typical form included 3 input functions (add, change, delete), a query function (view), and an Internal Logical File (ILF) (save) function. The estimators grouped the functions according to TurboTax functional areas, which included Personal Info, Business Income, Deductions & Credits, Other Tax Situations, Filing, and Review/Plan. The team reviewed the sizing to ensure that the same functions were not counted in both the forms/schedules and the step-by-step reviews.

Because the scope of the Free IRS Tax Preparation Software Option will not include support for State tax returns or the value-added services offered by commercial tax preparation software vendors, the Option’s estimate does not mirror the full complexity

of TurboTax software. The IRS cost estimate for its tax preparation software accounts for the capabilities described in the definition of the Option.

The team used International Software Benchmarking Standards Group (ISBSG) weights to transform the data/transaction functions to unadjusted function point counts. The ISBSG factors are similar to International Function Point Users' Group (IFPUG) average weights, and both appear in Table B-1.

Table B-1: International Software Benchmarking Standards Group Weights and International Function Point Users' Group Average Weights

	ISBSG	IPFUG		
		Low	Average	High
Inputs	4.3	3	4	6
Outputs	5.4	4	5	7
Inquiries	3.8	3	4	6
Files	7.4	7	10	15
XFiles	5.5	5	7	10

A nominal Value Adjustment Factor (VAF) of 1.12 (also from ISBSG) was assumed to transform the unadjusted function point count to an adjusted function point count. Some organizations use unadjusted function points as their sizing metric.

The team developed a risk-adjusted estimate via Monte Carlo analysis (Crystal Ball). To model risk, the low value was based on IFPUG low weighting factors, the average value most likely was based on the IRS estimate, and the high value was based on IFPUG high weighting factors. Table B-2 shows the function points for the Free IRS Tax Preparation Software Option.

Table B-2: Function Point Counts for Free IRS Tax Preparation Software

Name	Function Points (Unit Counts)				Total
	Inputs	Outputs	Inquiries	Files	
Personal Info	39 (8)	6 (1)	51 (12)	17 (2)	112
Business Income	154 (32)	0 (0)	55 (13)	99 (12)	309
Personal Income	477 (99)	6 (1)	136 (32)	249 (30)	868
Other Tax Situations	193 (40)	6 (1)	55 (13)	116 (14)	370
Deductions and Credits	525 (109)	12 (2)	153 (36)	298 (36)	989
Filing	5 (1)	0 (0)	4 (1)	8 (1)	17
Review & Plan	0 (0)	36 (6)	0 (0)	0 (0)	36
Forms	2,933 (609)	79 (13)	864 (203)	1,682 (203)	5,558
TOTAL	4,286 (890)	139 (23)	1,268 (298)	2,453 (296)	8,147

Cost Estimate Assumptions and Constraints

Cost estimates for the Technology Options also were built on the following assumptions and constraints:

- **Life-Cycle Estimation** — The IRS system development life cycle covers costs from the initial concept phase (Milestone 0) to deployment (Milestone 5) and includes O&M for a 10-year period.
 - Development phase estimates assume no software code growth.
 - O&M phase estimates do not include software modifications resulting from tax law changes, legislative mandates, and moderate to large functional enhancements.
- **Option Initiation Dates** — Estimates assume hypothetical start dates of January 2, 2012, for each Option. Implementation dates will depend on the availability of Taxpayer E-Authentication and Modernized e-File (MeF) 1040, which are assumed to be available for each Option.
- **Labor** — The IRS applies uniform cost rates for labor based on estimated labor distribution (which assumes 30% IRS labor/70% contractor labor). Labor costs assume FY2011 rates, and estimates are provided in current year (2009) dollars with no cost escalation factors.
- **Hardware** — Per IRS policy, all hardware is replaced every 4 years. Each estimate accumulates one-quarter of the hardware cost per year.
- **Help Desk** — Cost estimates for customer support are based on expansion of current toll-free phone-based customer service. Estimates for increased customer support are based on a standard factor equal to assisting 10% of all taxpayers in the target population and taking into account:
 - Number of taxpayers expected to use each Option and call in for assistance (response rate)
 - Level of service and the services provided by Customer Service Representatives (complexity of calls and number of taxpayers assisted)
 - Mean handling time per call and direct time in hours (including availability and slippage rates)

In addition, cost estimates for the Technology Options were built on the following IRS Enterprise Operations Standard Requirements:

- All agency servers shall use Storage Area Networks (SAN).
- All project SAN storage requirements shall be usable disk space values expressed in Terabytes (TB).
- Production environments shall use high- or mid-performance storage.
- Test and development shall use the same storage type as production but with a 50% to 75% reduction in storage requirements unless otherwise specified by the project.
- Disaster recovery storage shall use the same storage requirement and type as the production environment, unless otherwise specified by the project.

B.2. Policy Options

AES2 looked at five Policy Options to expand services, provide incentives, increase marketing, and adopt new legislation to advance *e-filing*. The approach used to define the Policy Options was based on the MV&S process. The cost estimation processes for these Options, which are described in chapters 10 through 14, are presented below.

Cost Estimate Scope

The cost estimate scope of the Policy Options includes the labor, material, and program costs associated with implementation. The cost estimates exclude hardware, software, and infrastructure costs.

Cost Estimation Methodology

The team gathered Option justification information, the problem statement, and information on internal and external impact areas for achieving the desired business functionality of each Option. The process included collaboration, through multiple briefings and conferences, with SMEs, analysts, and IRS executives who are most knowledgeable about and responsible for a particular EBS element. The process outputs were cost drivers and assumptions and constraints for developing the cost estimates. The estimates are based on standard rates and factors supplied by the IRS for cost components such as help desk support and labor rates. Each Option was analyzed using analogous programs. Due to the nature of each Option, several estimating approaches were used.

Cost Estimate Assumptions and Constraints

Cost estimates for the Policy Options also were built on the following assumptions and constraints:

- **Option Duration** — Durations varied for each Option, and cost estimates include the one-time cost for the IRS to implement each Option and the annual recurring cost for the IRS to operate and maintain the Option.
- **Option Initiation Dates** — Cost estimates assume hypothetical start dates not earlier than 2010 for each Option. Implementation dates will depend on the Federal budget process and, for the Federal *E-file* Mandate on Paid Preparers Option, legislative decisions.
- **Labor** — Cost estimates are based on fully burdened Federal General Services (GS) labor category rates for FY2008, with an annual cost escalation factor of 3%.
- **Hardware, Software, Infrastructure** — It is assumed that existing IRS infrastructure will be able to support each Option.
- **Help Desk** — Cost estimates for customer support are based on expansion of current toll-free phone-based customer service. Estimates for increased customer support are based on a standard factor equal to assisting a percentage of all taxpayers or preparers in the target population and taking into account:
 - Number of taxpayers and preparers expected to use each Option and call in for assistance (response rate)
 - Level of service and the services provided by Customer Service Representatives (complexity of calls and number of taxpayers and preparers assisted)

- Mean handling time per call and direct time in hours (including availability and slippage rates)

Proposed incentive amounts applied to a target population were used to estimate the costs of the Monetary Incentive Option. Cost estimates for the Targeted Marketing of *E-file* Option include the costs of targeted marketing campaigns, including segment analysis, media outlets, and communication channels. Because Free File is an existing program, the Expanded Free File Option focused on the primary cost drivers of an expanded program as determined by Free File Program SMEs. Time Value of Money (TVM) calculations were employed for the More Time for *E-filers* Option and, for the Federal *E-file* Mandate on Paid Preparers Option, estimates are based on input from the impacted process areas such as the processes used by Electronic Return Originators (ERO) to *e-file* tax returns.

B.3. Areas for Further Investigation

If the Options are considered for implementation, the following areas merit further investigation.

A team of MITRE cost experts were asked to perform an IV&V (both of the IRS and the core MITRE team) of the IRS cost estimates for the three Technology Options. The same IV&V team also reviewed the cost estimates for the five Policy Options. Findings from their report are provided below.

Overall Assumptions and Cost Modeling Techniques

The MITRE IV&V report noted:

Taken as a whole, the assumptions and cost modeling techniques used for the various cost elements that were included in the [IRS] life cycle estimates are reasonable and appropriate for the given level of program definition (MV&S pre-Milestone Zero), and provide an adequate basis for the VROM estimates.³⁶⁰

IRS Call Center and Help Desk Cost Estimates

According to results of a sensitivity analysis performed as a part of the MITRE IV&V, “the cost estimates for all three [web-based *e-file*] Options are very sensitive to light changes in the key metrics used to calculate the on-going costs of the call center operations.”³⁶¹ In large part, the help desk costs were driven by the number of taxpayer phone calls, the nature of the phone calls, the average number of calls per hour per CSR, and the resulting number of required CSRs: “More specifically, the number of calls per CSR per hour, and the number of taxpayer phone calls were found to be major cost drivers; whereas the fixed cost per new CSR, had relatively small impact on the overall estimate.”³⁶² Developing reasonable assumptions for these key metrics poses a significant challenge given the IRS’s lack of direct experience with handling calls related to more complex web-based user applications.

³⁶⁰ The MITRE Corporation (2009) *AES2 Independent Verification & Validation of the Life Cycle Cost Estimates for: Free IRS Direct E-file, Free IRS Online Forms, Free IRS Tax Preparation Software*, p. 2

³⁶¹ The MITRE Corporation (2009) *AES2 Independent Verification & Validation of the Life Cycle Cost Estimates for: Free IRS Direct E-file, Free IRS Online Forms, Free IRS Tax Preparation Software*, p. 2

³⁶² The MITRE Corporation (2009) *AES2 Independent Verification & Validation of the Life Cycle Cost Estimates for: Free IRS Direct E-file, Free IRS Online Forms, Free IRS Tax Preparation Software*, p. 16

The following recommendations appear in the MITRE IV&V report:

Develop a Call Center Simulation Model — Due to the impact of the call center costs on the estimates, MITRE recommends that a cost simulation model, using a “Monte Carlo” or similar type algorithm, be developed and used to create a call center cost distribution. A cost distribution is essentially a probability distribution that enables you to quantify variations in cost and develop statement[s] such as: “There is a P% chance that the cost will be between \$X and \$Y.” This would help to provide bounds around the call center costs and would enable a “plus or minus” range to be developed for the overall estimates. This model could be developed within a fairly short period of time, and would likely provide greater insights into this significant cost driver.³⁶³

Research External Call Center Metrics — Working with its various partners, the IRS should invest the time, effort, and resources to research the cost associated with providing call center support. This should include reaching out to industry organizations, consultants, and other enterprises that have experience providing help desk support for financial web based applications with similar technical and functional attributes. The findings can be used to improve and refine the call center simulation model.³⁶⁴

Revisit the Level of Effort for Web Interface Development — MITRE review of the estimate for the Free IRS Tax Preparation Software suggests that the effort, and therefore cost, to develop a highly effective, user-friendly, and intuitive web interface may be low. To date, the IRS has not developed and supported web based applications with the same degree of functionality and size of user base that would be required for the Options considered in the AES2. This fact, combined with MITRE’s review of the level of effort for the initial delivery of the web presentation component, suggests that the initial estimate may be low. The level of human factors engineering, usability design, and implementation requirements to achieve acceptable ease of use, will likely require significantly more design/development effort, and therefore greater cost, than proposed. Therefore, MITRE suggests that the IRS revisit this area of the application development cost estimate, should any of the Options go forward for further consideration. Doing so also provides benefits by helping to reduce the on-going support costs for the program. The viability of the Free IRS Tax Preparation Software Option is highly dependent on the usability of the solution. Moreover, ease of use and user acceptance has a direct relationship with the level of required Customer Service Representative (CSR) help desk support and the cost of delivering this call center support. The more time and effort that is spent developing a highly effective and intuitive user interface, the less time that CSRs will be needed to field calls from taxpayers. This would help to drive down call center costs.³⁶⁵

³⁶³ The MITRE Corporation (2009) *AES2 Independent Verification & Validation of the Life Cycle Cost Estimates for: Free IRS Direct E-file, Free IRS Online Forms, Free IRS Tax Preparation Software*, p. 4

³⁶⁴ The MITRE Corporation (2009) *AES2 Independent Verification & Validation of the Life Cycle Cost Estimates for: Free IRS Direct E-file, Free IRS Online Forms, Free IRS Tax Preparation Software*, p. 4

³⁶⁵ The MITRE Corporation (2009) *AES2 Independent Verification & Validation of the Life Cycle Cost Estimates for: Free IRS Direct E-file, Free IRS Online Forms, Free IRS Tax Preparation Software*, p. 5

Design Assumptions Related to Interface Between Free IRS Direct E-file Option and Commercial Tax Preparation Software

The definition of the Free IRS Direct *E-file* Option does not specify a design for submission of taxpayer returns between commercial tax preparation software and the IRS web portal. IRS cost estimates rely on experience with offering Internet Filing Application (IFA) and Application-to-Application (A2A) submission options to authorized *e-file* providers submitting corporate returns through MeF. The Free IRS Direct *E-file* Option may have very different support requirements than can be drawn from authorized *e-file* providers' experience with MeF and from implementation of MeF 1040. The Free IRS Direct *E-file* Option cost estimate may need to be significantly revised once Option design is specified in close coordination and partnership with commercial tax preparation software vendors. Design specifications will permit better estimation of the level of taxpayer e-authentication needed and will allow the IRS to refine estimates for the expected level of IRS call center support, as opposed to online or call center support that will be offered by commercial software vendors.

Cost Impacts of Out-of-Scope Option Capabilities

- **Authentication** — Systems to provide secure web-based data exchange are outside the scope of the Options examined in AES2. In addition, costs for offering Taxpayer E-Authentication and costs related to Registered User Authentication Services and enhancements to Preparer E-Services are not part of the cost estimates for these Options. Therefore, the VROM cost estimates do not provide a complete picture of the implementation costs for each Option.
- **Ongoing Update and Enhancement of Online Forms and Tax Preparation Software** — The cost estimates exclude costs related to ongoing software updates and enhancements resulting from tax law, legislative, and IRS policy changes. Excluding these costs results in an understatement of the likely O&M costs for the Free IRS Online Forms Option and the Free IRS Tax Preparation Software Option. Commercial tax preparation software vendors typically deliver a number of updates each filing season. The impact of updates and enhancements — and their frequency of occurrence — on stakeholders is expected to be unlike any impacts resulting from current IRS operations.
- **Integration with IRS.gov Portal** — Advances in programs and languages that support web-based applications can necessitate significant changes and improvements to meet user expectations regarding functionality and usability. The AES2 Options may not reflect complete cost estimates for ongoing O&M of Options, which must be integrated with the IRS.gov portal. It is also unclear how the Options and IRS portal infrastructure will support rapid development, testing, and service provisioning to taxpayers and registered users. This could lead to a significantly higher estimate for the O&M costs of Options.
- **Usability Testing** — Offering web-based services to *e-filers* (individual taxpayers and authorized *e-file* providers) requires enhanced IRS capacity to conduct research on user experience with the services provided and make adjustments in service levels, features, and capabilities. The cost estimates do not reflect the fundamental and pervasive organizational-level business process changes needed to deliver usable web-based services.

AES2 does not examine alternative approaches for acquiring Option capabilities. Table B-3 is intended to help put the VROM cost estimates for the Technology Options in perspective. Any Technology Option selected for implementation will require the IRS to develop a capital investment plan as part of its Federal budget request to OMB.

Alternative Approaches for Acquiring Option Capabilities

The purpose of AES2 was to conduct preliminary assessments of specific Options. Investigating alternate approaches for acquiring capabilities associated with specific Options, therefore, is outside of the scope of AES2. This is important and consistent with the focus of AES2, because the IRS must follow principles and guidelines for Federal workforce and acquisition management and determine whether to use commercial or government resources. Any Federal budgetary expenditure will be subject to the principles that:

- Categorize agency activities as commercial or inherently governmental and preclude contractors from performing inherently governmental work.
- Maximize the use of commercial sources to acquire goods and services for the government.

Even if the Federal government makes a policy determination that the IRS will offer a Technology Option — Free IRS Direct *E-file*, Free IRS Online Forms, and Free IRS Tax Preparation Software — to taxpayers, the technology required to implement the Options will likely be acquired from commercial sources since there is nothing inherently governmental about tax preparation software and electronic filing services.

If Congress and the IRS were to advance *e-file* through the Technology Options, the business cases for each Option will have to explore and present alternative approaches for acquiring each Option's capabilities.³⁶⁶

If the IRS pursues implementation of the Technology Options, it will be required to develop a capital investment plan as part of its Federal budget request to OMB.³⁶⁷

Federal capital investment plans require full business cases. This includes an analysis of alternative approaches for acquiring desired capabilities, a necessary step in justifying the budget request to OMB.

Table B-3 provides a preliminary, high-level overview of alternative approaches for acquiring capabilities associated with the three Technology Options. The approaches detailed in the table are described below:

³⁶⁶ Several key Federal requirements that guide IRS investment strategy planning include:

- **The Information Technology Management Reform Act of 1996 (Clinger-Cohen Act)** requires agencies to use a disciplined capital planning and investment control process to acquire, use, maintain and dispose of information technology.
- **The Federal Information Security Management Act (FISMA) 2002** requires agencies to integrate information technology (IT) security into their capital planning and enterprise architecture processes, conduct annual IT security reviews of all programs and systems, and report the results of those reviews to the Office of Management and Budget (OMB).
- **The E-Government Act of 2002 (P.L. 107-347)**, requires agencies to make it easier for citizens and businesses to access government information and services by encouraging interagency IT initiatives that, while improving customer service, also consolidate redundant systems, decrease paperwork, increase productivity and save money. It further requires agencies to develop performance measures for implementing e-government.

³⁶⁷ In accordance with the Clinger Cohen Act and OMB Circular A-11 Part 7, Section 300 - Planning, Budgeting, Acquisition, and Management of Capital Assets, the information technology (IT) capital planning process to support IT investment decisions requires evaluation and analysis of at least three viable alternatives to deliver the proposed capability including justification for selection, in terms of benefits and cost, for the selected investment plan.

- **Build and Deploy Custom Software on IRS Infrastructure** — Also referred to as the Government Owned Government Operated (GOGO) operating model. The IRS is responsible for software development to meet IRS business requirements; software ownership rights are held by the government.
- **Build and Deploy Custom Software on Commercial Infrastructure** — Also referred to as the Contractor Owned Contractor Operated (COCO) operating model. The contractor (commercial vendor) is responsible for software development to meet IRS business requirements; software ownership rights may be negotiated as being held by the commercial vendor with the government retaining ownership rights to permit future modification and re-use of the software.
- **License Commercial Off-the-Shelf (COTS) Software from Vendor and Deploy It on IRS Infrastructure** — Through a license agreement, the government acquires software usage rights as defined by the commercial vendor with software ownership rights retained by the vendor. In this operating model, the government offers taxpayers the use of commercial software on government infrastructure; the government accepts commercial software as being developed and sold (licensed) in the market without being granted ownership rights.
- **License COTS Software from Vendor and Deploy It on Commercial Infrastructure** — Through a license agreement, the government acquires software usage rights as defined by the commercial vendor with software ownership rights retained by the vendor. In this operating model, the government offers taxpayers the use of commercial software on commercial infrastructure; the government accepts commercial software as being developed and sold (licensed) in the market without being granted ownership rights.
- **Acquire Intellectual Property Rights to Commercial Software and Customize It to IRS Needs** — In this operating model, the commercial vendor transfers software ownership rights to the government by selling the software outright to the government. The government acquires all software ownership rights to permit future modification or re-use of the software.
- **Acquire Commercial Software as a Service (SaaS)** — In this software application delivery model, the commercial vendor develops software and hosts and operates the software (either independently or through a third party) for use by its customers over a general use network (e.g., the Internet). Customers do not pay for owning the software but rather for using it.

Table B-3: Alternative Approaches for Acquiring Capabilities Associated with Technology Options

Approach	Pros	Cons	Risks
Build and Deploy Custom Software on IRS Infrastructure	<ul style="list-style-type: none"> The IRS is responsible for software development to meet IRS business requirements. Software ownership rights are held by the government. 	<ul style="list-style-type: none"> The IRS is responsible for ongoing software development. This approach requires significant investment in IT infrastructure, which will be underutilized most of the year. 	<ul style="list-style-type: none"> The IRS is responsible for the costly and lengthy process of software development, including design and testing.
Build and Deploy Custom Software on Commercial Infrastructure	<ul style="list-style-type: none"> The IRS is responsible for software development to meet IRS business requirements. Software ownership rights are retained by the government. 	<ul style="list-style-type: none"> The IRS is responsible for ongoing software development. This approach requires significant investment in IT infrastructure, which will be underutilized most of the year. A more complex relationship will develop between the IRS and the commercial vendor as a result of integrating the commercial vendor into IRS business processes. Software must be certified to securely transmit taxpayer's personally identifiable information between the IRS and the commercial vendor. 	<ul style="list-style-type: none"> The IRS is responsible for the costly and lengthy process of software development, including design and testing. Operating software on commercial infrastructure introduces higher IT security risk than operating software on government infrastructure.

Approach	Pros	Cons	Risks
License Commercial Off-the-Shelf (COTS) Software from Vendor and Deploy It on IRS Infrastructure	<ul style="list-style-type: none"> The commercial vendor is responsible for software development to meet IRS business requirements; therefore, the IRS avoids the costly and lengthy process of software development, including design and testing. The IRS acquires best-value software for taxpayer use as a result of the government allowing commercial vendors to compete for Federal contracts. 	<ul style="list-style-type: none"> This approach requires significant investment in IT infrastructure, which will be underutilized most of the year. The government pays high costs to the commercial vendor for software development to meet IRS business requirements. 	<ul style="list-style-type: none"> The IRS is likely to require changes in software to comply with Federal and IRS security standards, IRS infrastructure standards, and Federal usability standards (e.g., Section 508). Industry resistance could result because of the perception that the IRS is competing with the commercial sector. Industry resistance could result because of public perception that the IRS is endorsing one software brand over others.
License COTS Software from Vendor and Deploy It on Commercial Infrastructure	<ul style="list-style-type: none"> The commercial vendor is responsible for software development to meet IRS business requirements; therefore, the IRS avoids the costly and lengthy process of software development, including design and testing. The IRS acquires best-value software for taxpayer use as a result of the government allowing commercial vendors to compete for Federal contracts. 	<ul style="list-style-type: none"> Software must be certified to securely transmit taxpayer's personally identifiable information between the IRS and the commercial vendor. A more complex relationship will develop between the IRS and the commercial vendor as a result of integrating the commercial vendor into IRS business processes. Commercial software and infrastructure must comply with Federal and IRS security standards, IRS infrastructure standards, and Federal usability standards (e.g., Section 508). 	<ul style="list-style-type: none"> Operating software on commercial infrastructure introduces higher IT security risk than operating software on government infrastructure. Industry resistance could result because of public perception that the IRS is endorsing one software brand over others.

Approach	Pros	Cons	Risks
Acquire Intellectual Property Rights to Commercial Software and Customize It to IRS Needs	<ul style="list-style-type: none"> The IRS avoids the front-end cost of software development, including design and testing. 	<ul style="list-style-type: none"> The IRS is responsible for ongoing software development. 	<ul style="list-style-type: none"> A costly and complex legal process is associated with acquisition of intellectual property rights to commercial software. To preserve the core value of its investment, the IRS will need to recruit high-value commercial vendor employees who were responsible for the software's development.
Acquire Commercial Software as a Service (SaaS)	<ul style="list-style-type: none"> Commercial vendors are responsible for software development to meet IRS business requirements; therefore, the IRS avoids the costly and lengthy process of software development, including design and testing. This approach offers rapid scale-up and flexibility to meet user demand. 	<ul style="list-style-type: none"> SaaS is sold on a per-use basis; therefore, costs depend on actual usage. This introduces budget risk from cost growth if the service is highly popular. As-is software is difficult to customize "on the fly" to meet changing user needs and is not easily integrated with IRS business processes. Software must be certified to securely transmit taxpayer's personally identifiable information between the IRS and the commercial vendor. 	<ul style="list-style-type: none"> Acceptance of commercial vendor software as-is may pose security or compliance issues that can introduce operational risks to IRS. Potentially complex legal issues are related to data ownership. Any failure of the commercial vendor will be seen as a failure of the IRS to meet customer needs.

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Appendix C. Alternative Adoption Scenarios

This appendix provides projected net *e-file* adoption estimates for several Options based on earlier implementation dates than the dates presented in the Option chapters. In some cases, earlier implementation of an Option may result from a different method of acquiring the Option (e.g., buy versus build). Note, however, that the impact of shifting implementation dates on projected net adoption is slight and well within the margin of error.

Free IRS Direct E-file

In the earlier implementation scenario, the IRS projects that this Option will help the IRS achieve the 80% *e-file* goal in 2016, given a 2012 implementation date. Table C-1 shows the Option's projected net adoption for the years 2012 through 2016. Other than changing the implementation year, all prior assumptions still hold.

Table C-1: Projected Net Adoption for Free IRS Direct E-file Option, 2012–2016

Adoption	2012	2013	2014	2015	2016
Baseline	74.99%	76.78%	78.29%	79.58%	80.70%
Net Projected	0.21%	0.22%	0.24%	0.25%	0.25%
<i>Baseline + Net</i>	<i>75.20%</i>	<i>77.00%</i>	<i>78.52%</i>	<i>79.83%</i>	<i>80.96%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

Free IRS Online Forms

In the earlier implementation scenario, the IRS projects that this Option will help the IRS achieve the 80% *e-file* goal in 2015, given a 2012 implementation date. Table C-2 shows the Option's projected net adoption for the years 2012 through 2016. Other than changing the implementation year, all prior assumptions still hold.

Table C-2: Projected Net Adoption for Free IRS Online Forms Option, 2012–2016

Adoption	2012	2013	2014	2015	2016
Baseline	74.99%	76.78%	78.29%	79.58%	80.70%
Net Projected	0.56%	0.62%	0.70%	0.78%	0.88%
<i>Baseline + Net</i>	<i>75.55%</i>	<i>77.40%</i>	<i>78.99%</i>	<i>80.36%</i>	<i>81.58%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

Free IRS Tax Preparation Software

In the earlier implementation scenario, the IRS projects that this Option will help the IRS achieve the 80% *e-file* goal in 2014, given a 2012 implementation date. Table C-3 shows the Option's projected net adoption for the years 2012 through 2016. Other than changing the implementation year, all prior assumptions still hold.

Table C-3: Projected Net Adoption for Free IRS Tax Preparation Software Option, 2012–2016

Adoption	2012	2013	2014	2015	2016
Baseline	74.99%	76.78%	78.29%	79.58%	80.70%
Net Projected	1.80%	1.89%	1.98%	2.06%	2.14%
<i>Baseline + Net</i>	<i>76.79%</i>	<i>78.67%</i>	<i>80.27%</i>	<i>81.64%</i>	<i>82.84%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

More Filing Time for E-filers

The other alternative adoption scenarios presented in this Appendix provide a time-shifted view of an Option's adoption (based on an earlier implementation date of the same Option, as defined in its chapter). However, this alternative scenario is for a fundamentally different definition of the More Filing Time for *E-filers* Option. This scenario defines this Option as extending the filing and payment deadline for *e-filers* to April 30 (instead of making the deadline for paper filers sooner, as in chapter 13).

The IRS projects that this Option will help the IRS achieve the 80% *e-file* goal in 2015, given a 2011 implementation date. Table C-7 shows the Option's projected net adoption for the years 2011 through 2016.

Table C-7: Projected Net Adoption for More Filing Time for *E-filers* Option (2011–2016)

Adoption	2011	2012	2013	2014	2015	2016
Baseline	72.89%	74.99%	76.78%	78.29%	79.58%	80.70%
Net Projected	0.76%	0.80%	0.83%	0.87%	0.90%	0.93%
<i>Baseline + Net</i>	<i>73.65%</i>	<i>75.79%</i>	<i>77.61%</i>	<i>79.16%</i>	<i>80.48%</i>	<i>81.63%</i>

Source: IRS (2009) *Advancing e-File Study Phase II Final Net Adoption Estimates*

Appendix D. Contributors

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Acronyms

Acronym	Expansion
2D	Two-Dimensional
A2A	Application-to-Application
AES1	Advancing E-file Study Phase 1
AES2	Advancing E-file Study Phase 2
AGI	Adjusted Gross Income
AICPA	American Institute of Certified Public Accountants
AMT	Alternative Minimum Tax
ATM	Automated Teller Machine
BMF	Business Master File
BSM	Business Systems Modernization
CADE	Customer Account Data Engine
CDW	Compliance Data Warehouse
CEM	Center for Enterprise Modernization
CERCA	Council for Electronic Revenue Communication Advancement
CMD	Converged Mobile Device
CMS	Centers for Medicare and Medicaid Services
COCO	Contractor Owned Contractor Operated
COTS	Commercial Off-the-Shelf
CPA	Certified Public Accountant
CR	Character Recognition
CY	Calendar Year
DSL	Digital Subscriber Line
E300	Exhibit 300
EBS	Estimation Breakdown Structure
ECM	Enterprise Content Management
EFT	Electronic Funds Transfer
EFTPS	Electronic Federal Tax Payment System
EIC	Earned Income Credit (synonym of EITC)
EITC	Earned Income Tax Credit
EIN	Employer Identification Number
EMS	Electronic Management System
ERO	Electronic Return Originator
ESP	Economic Stimulus Payment
ETA	Electronic Tax Administration
ETAAC	Electronic Tax Administration Advisory Committee
ETARC	[Office of] Electronic Tax Administration and Refundable Credits (formerly ETA)

Acronym	Expansion
Fed/State	Federal/State
FFA	Free File Alliance
FFFF	Free File Fillable Forms
FFRDC	Federally Funded Research and Development Center
FMS	Financial Management Service
FTA	Federation of Tax Administrators
FY	Fiscal Year
GAO	Government Accountability Office
GOGO	Government Owned Government Operated
GS	General Services
HHS	Department of Health and Human Services
I-File	Internet Filing (States)
ICAS	Internet Customer Account Services
ICR	Intelligent Character Recognition
ID	Identification
IFA	Internet Filing Application
IFPUG	International Function Point Users' Group
ILF	Internal Logical File
IMF	Individual Master File
IPT	Integrated Project Team
IRM	Internal Revenue Manual
IRP	Information Return Processing
IRS	Internal Revenue Service
ISBSG	International Software Benchmarking Standards Group
ISRP	Integrated Submission and Remittance Processing
IT	Information Technology
IV&V	Independent Validation and Verification
IVR	Interactive Voice Response
JCWA	Job Creation and Worker Assistance Act of 2002
JGTRRA	Jobs and Growth Tax Relief Reconciliation Act of 2003
LITC	Low Income Taxpayer Clinic
MeF	Modernized e-File
MITS	Modernization and Information Technology Services
MOU	Memorandum of Understanding
MP3	Modernized Paper Pipeline Processing
Msp	Modernized Submission Processing
MTRDB	Modernized Tax Return Database
MV&S	Modernization Vision and Strategy

Acronym	Expansion
NACTP	National Association for Computerized Tax Processors
NAEA	National Association of Enrolled Agents
NATP	National Association of Tax Professionals
NHIN	National Health Information Network
NPL	National Public Liaison
NTA	National Taxpayer Advocate
O&M	Operations and Maintenance
OCR	Optical Character Recognition
OECD	Organisation for Economic Co-operation and Development
OMB	Office of Management and Budget
PC	Personal Computer
PDA	Personal Digital Assistant
PDF	Portable Document Format
PEDS	Portfolio Planning, Estimation, and Delivery Services
PIN	Personal Identification Number
PMO	Project Management Office
PSA	Public Service Announcement
PTIN	Preparer Tax Identification Number
PY	Processing Year
RAS	Research, Analysis, and Statistics
RUP	Registered User Portal
RRA98	Internal Revenue Service Restructuring and Reform Act of 1998
SAN	Storage Area Network
SCRIPS	Service Center Recognition Image Processing System
SEER	Software Evaluation and Estimation of Resources
SEER-IT	SEER–Information Technology
SEER-SEM	SEER–Software Estimation Model
SL	Stakeholder Liaison
SLOC	Software Lines of Code
SME	Subject Matter Expert
SMS	Short Message Service
SP	Submission Processing
SP ESC	Submission Processing Executive Steering Committee
SPEC	Stakeholder Partnerships, Education and Communication
SSL	Secure Sockets Layer
SSN	Social Security Number
TAB	Taxpayer Assistance Blueprint
TB	Terabyte

Acronym	Expansion
TCE	Tax Counseling for the Elderly
TETR	Telephone Excise Tax Refund
TFF	Traditional Free File
TFOP	Tax Forms Outlet Program
TIGTA	Treasury Inspector General for Tax Administration
TIN	Taxpayer Identification Number
TIRNO	Treasury Internal Revenue National Office (a contract identifier)
TY	Tax Year
VAF	Value Adjustment Factor
VITA	Volunteer Income Tax Assistance
VROM	Very Rough Order of Magnitude
W&I	Wage and Investment
WDA	Wearable Digital Assistant
XML	eXtensible Markup Language

Glossary

Term	Definition
2D barcode	A machine-readable representation of information encoded in a pattern of two dimensions (in contrast, for example, with a product UPC barcode consisting of parallel lines encoding the data in one dimension).
80% <i>e-file</i> goal	A goal established in the Internal Revenue Service (IRS) Restructuring and Reform Act of 1998 (RRA98) to increase <i>e-file</i> adoption. For purposes of AES2, the goal will be realized when 80% of individual Federal income tax returns are submitted electronically.
American Institute of Certified Public Accountants (AICPA)	Professional organization for all Certified Public Accountants, which provides resources, information, and leadership to members to enable them to provide valuable services in the highest professional manner to benefit the public as well as employers and clients.
Calendar Year (CY)	The year ending December 31 (e.g., CY2008 ends December 31, 2008).
Character Recognition (CR)	The application of specialized algorithms to recognize characters in a document and correlate them with letters, words, and numbers. Involves digitally scanning an original document into an equivalent electronic image. Once a document is scanned, CR analyzes (reads) the electronic image and translates the characters into their equivalent letters, words, and numbers.
Circular 230	Treasury Department regulations governing the practice of attorneys, Certified Public Accountants, enrolled agents, enrolled actuaries, enrolled retirement plan agents, and appraisers before the IRS.
Commercial Preparer	An individual who is paid by a taxpayer to prepare (and file) their return but is not a practitioner. Like practitioners they may be members of corporations or partnerships, or self-employed individuals. Preparers are not Electronic Return Originators (ERO) but may be a member of an ERO firm.
Commercial Tax Return Preparation Software	Produced by tax preparation software vendors, software used for preparing and submitting Federal and State income tax returns.
Community-Based Preparer	An individual who provides free tax preparation and submission services to taxpayers at designated locations through IRS-sponsored programs, such as Volunteer Income Tax Assistance (VITA), Tax Counseling for the Elderly (TCE), Tax Forms Outlet Program (TFOP), and Low Income Taxpayer Clinics (LITC).
Converged Mobile Device (CMD)	Mobile phones whose wide range of features target a broader consumer marketplace than smartphones. CMDs are designed for web surfing and support an extensive range of downloadable applications. CMDs typically offer a larger display than what is available on smartphones; however, the displays are still less than a quarter of the size of laptop displays. CMDs also offer a variety of input mechanisms.
Council for Electronic Revenue Communication Advancement (CERCA)	Trade association representing a broad cross-section of the electronic tax filing, IRS systems modernization, and State electronic revenue communities.

Term	Definition
Department of the Treasury	Executive branch agency that serves the American people and strengthens national security by managing the Federal government's finances effectively, promoting economic growth and stability, and ensuring the safety, soundness, and security of US and international financial systems.
Direct <i>e-Filing</i>	Electronic submission of a tax return directly from the computer it was prepared on to the tax authority (e.g., IRS).
Early Adopters	Approximately 13.5% of the population, this segment consists of those who adopt new technology early — usually educated opinion leaders.
Early Majority	Approximately 34% of the population, this segment consists of early technology adopters — usually careful consumers who tend to avoid risk.
Earned Income Tax Credit (EITC)	Inaugurated in 1975, the EITC is a refundable Federal income tax credit for low- to moderate-income working individuals. The income maximum for TY2008 ranged from \$12,880 for families with no qualifying children to \$41,646 for families with two or more qualifying children. The corresponding tax credit maximums ranged from \$438 for families with no qualifying children to \$4,824 for families with two or more qualifying children.
<i>e-file</i> (also <i>e-filing</i> , <i>e-filed</i>)	Refers to IRS-branded electronic tax return submission.
<i>E-file</i> Mandate	A directive requiring taxpayers and/or preparers to submit Federal tax returns electronically.
<i>E-filers</i>	Individual taxpayers who prepare their returns on a computer, or who hire preparers who prepare their returns on a computer, and submit their returns electronically (subgroup used in 2009 AES2 Taxpayer Survey).
Electronic Filing	The process of submitting a tax return in digital form (i.e., over the Internet) to a tax-collecting entity.
Electronic Return Originator (ERO)	These entities originate the electronic submission of income tax returns to the IRS. EROs may originate the electronic submission of returns that are either prepared by the ERO firm or collected from taxpayers. EROs may also apply to become registered transmitters and submit tax returns themselves, or they may contract with registered transmitters to submit the returns for them.
Electronic Tax Administration Advisory Committee (ETAAC)	Committee authorized under public law that provides input into the development and implementation of the IRS strategy for electronic tax administration.
End-to-End Encryption	Encrypts data before it is transmitted, allowing the data to travel safely through vulnerable channels such as public networks to its recipient, where it is decrypted. End-to-end encryption enables an application to offer a level of security equivalent to that provided by a PC-based web application. End-to-end encryption can be implemented in both embedded applications and mobile web applications.

Term	Definition
Expectation Gap	Used in reference to the taxpayer and preparer surveys, an expectation gap is where the average rating of <i>e-file</i> performance for a given filing method characteristic is lower (negative expectation gap) or higher (positive expectation gap) than the average importance rating for the same characteristic.
Fed/State Program	A program that allows <i>e-file</i> providers to electronically submit both Federal and State returns to the IRS in a single transmission. The IRS separates State tax return information and makes it available for downloading by States. In the Fed/State program, the IRS effectively acts as the third party in the taxpayer–State tax administrator relationship. Of the 42 States that collect personal income taxes, 37 participate in the Fed/State program.
Federation of Tax Administrators (FTA)	Organization for improving the quality of State tax administration by providing services to State tax authorities and administrators.
Filing Season	The period of time during which taxpayers file their income tax returns with the government. Tax season begins with distribution of information returns to taxpayers and the IRS and culminates with a filing deadline (sometimes known as “Tax Day”) after which penalties and interest will accrue for any income tax returns not received, unless an extension was filed for and approved.
Fiscal Year	An accounting year ending on a date other than December 31. For example, the Federal government fiscal year begins October 1 and ends September 30.
Free File Alliance (FFA)	A consortium of private sector tax preparation software vendors that voluntarily participate in the Free File Program. The Free File Program provides free Federal income tax return preparation and <i>e-filing</i> to eligible taxpayers through a partnership between the IRS and FFA. At present, 18 commercial vendors and one non-profit vendor participate in FFA. IRS-FFA partnership operational guidelines and improvements are outlined in a Memorandum of Understanding (MOU), which is renegotiated every 3 years. The most recent MOU expired in October 2009.
Free File Fillable Forms (FFFF)	Provides free electronic equivalents of paper tax forms and schedules for <i>e-filing</i> . Users enter information directly into the fields of the electronic forms and schedules.
Government Accountability Office (GAO)	Independent, nonpartisan agency that supports Congress in meeting its constitutional responsibilities and helps improve the performance and accountability of the Federal government.
Hardship Exceptions	Intended for paid preparers who are not able to switch from paper filing to <i>e-filing</i> in the time prescribed by a mandate. This is a temporary exemption that allows preparers to switch to <i>e-file</i> gradually and acknowledges the potential hardship they may face in switching to <i>e-file</i> (e.g., equipment costs, learning to use tax preparation software, modifying business processes).
Heavy Users	Preparers who submit greater than 95% of their clients’ returns electronically (subgroup used in 2009 AES2 Preparer Survey).
High-Opportunity Preparers	Preparers with the greatest possibility of <i>e-file</i> adoption.

Term	Definition
High-Opportunity Taxpayers	Taxpayers with the greatest possibility of <i>e-file</i> adoption.
Holdouts [capitalized, used in context of survey research]	A roll-up category that includes all individual taxpayers who file on paper, whether they self prepare or use a preparer, or use tax software or not. Includes Self V-Coder, Paid V-Coder, and Self Paper Filer subgroups of 2009 AES2 Taxpayer Survey.
holdouts [lowercase]	Individuals or preparers who have yet to adopt electronic filing. They are generally unconvinced of the marketed and/or studied benefits of <i>e-file</i> .
I-File	State programs that allow individual taxpayers to prepare and electronically submit State income tax returns directly to States through State-administered web sites.
Information Return	A form used to provide information to the IRS about income, receipts, and other matters that affect tax liability. Information returns do not compute tax liability. Examples include W-2 (wages and taxes), 1099-INT (interest income), 1099-DIV (dividends and distributions), and 1098 (mortgage interest).
Innovators	Approximately 2.5% of the population, this segment consists of well-informed risk-takers who are willing to try an unproven product.
Integrated Project Team (IPT)	A multi-disciplinary team established for the purpose of accomplishing project objectives. Within the context of AES2, IPT membership includes IRS subject matter experts representing IRS Business Domains, Service Domains, Business Operating Divisions, and Functional Operating Divisions and MITRE subject matter experts.
Intermediate Service Provider	An entity that receives tax return information from EROs or from taxpayers who <i>e-file</i> . Intermediate service providers process tax return information and either forward the information to a transmitter or send the information back to the EROs or taxpayers.
Internal Revenue Service (IRS)	Agency within the Department of the Treasury whose mission is to serve US taxpayers by helping them understand and meet their tax responsibilities and by applying the tax law with integrity and fairness to all.
IRS Oversight Board	Independent body charged with overseeing the IRS in its administration, management, conduct, direction, and supervision of the execution and application of internal revenue laws.
Laggards	Approximately 16% of the population, this segment consists of those who avoid change and may not adopt a new product until traditional alternatives are no longer available.
Late Majority	Approximately 34% of the population, this segment consists of late technology adopters — somewhat skeptical consumers who acquire a new product after it has become commonplace.
Light Users	Preparers who submit less than 50% of their clients' returns electronically (subgroup used in 2009 AES2 Preparer Survey).

Term	Definition
Milestone 0	The initial (Vision and Strategy) phase in the IRS portfolio analysis process. New projects must prepare documentation (e.g., of high-level requirements) for Milestone 0 initial approval. Milestones are points at which management requires updated cost, progress, and risk information to make decisions on whether to fund a new project or continue funding an existing project. All AES2 Options are pre-Milestone 0 preliminary project concepts that do not meet requirements for Milestone 0 review and approval.
Mobile <i>E-File</i>	Allows taxpayers to <i>e-file</i> their individual Federal income tax returns to the IRS (and possibly prepare their returns) using a mobile phone.
Modernization Vision and Strategy (MV&S)	The portfolio selection process used by the IRS to examine proposals for the introduction of new business and technology solutions. First implemented in 1999 as a result of RRA98, MV&S evaluates each proposal to ensure alignment with IRS business priorities and technology investments. MV&S most likely will be used to evaluate Technology Options (i.e., those that involve a technology investment) and recommend them for implementation.
Modernized e-File (MeF) 1040	MeF 1040 will provide registered Electronic Return Originators (ERO) — in particular paid preparers — with a secure, web-based platform for submitting tax and information returns electronically. MeF 1040 will improve submission and processing efficiency by using a standard XML, provide acknowledgments in only minutes (with user-friendly error explanations), and support <i>e-filing</i> attachments.
Monetary Incentive	A tax credit to encourage paper filers to switch to <i>e-file</i> .
National Association of Enrolled Agents (NAEA)	Association of independent, licensed tax professionals called enrolled agents. An enrolled agent is a federally authorized tax practitioner who has technical expertise in the field of taxation and who is empowered by the U.S. Department of the Treasury to represent taxpayers before all administrative levels of the IRS for audits, collections, and appeals. NAEA is dedicated to helping its members maintain the highest level of knowledge, skills, and professionalism in all areas of taxation.
National Association of Tax Professionals (NATP)	Nonprofit professional association serving professionals who work in all areas of tax practice, including individual practitioners, enrolled agents, accountants, Certified Public Accountants, attorneys, and financial planners.
Non-Users	Preparers who do not submit any of their clients' returns electronically (subgroup used in 2009 AES2 Preparer Survey).
Office of Management and Budget (OMB)	Office within of the Executive Office of the President that oversees preparation of the Federal budget and supervises its administration in Executive Branch agencies.
Open Access	A "protocol" in which mobile phone service providers share their broadband infrastructure with competing providers. For example, in 2007, Verizon announced a plan for open access, in which phones not sold by Verizon can be used on its network.
Opt-Out Provision	Provision enabling individual taxpayers who do not want their preparers to <i>e-file</i> their returns to opt-out of <i>e-file</i> . Unless otherwise indicated by an opt-out mechanism, preparers subject to an <i>e-file</i> mandate will be required to <i>e-file</i> their clients' returns.

Term	Definition
Paid Preparer	A subset of Preparer that excludes community-based preparers. Includes paid practitioners and commercial preparers.
Paid V-Coders	Individual taxpayers who hire paid preparers who prepare their returns on a computer but submit their returns on paper (subgroup used in 2009 AES2 Taxpayer Survey).
Phishing	In computing, phishing is an attempt to criminally and fraudulently acquire sensitive information, such as user names, passwords, and credit card details, by masquerading as a trustworthy entity in an electronic communication.
Practitioner	An individual who is paid by taxpayers to prepare and submit their returns, is governed by Circular 230, and is authorized to represent taxpayers legally before the IRS. Practitioners include attorneys, Certified Public Accountants, enrolled agents, and enrolled actuaries. (Also called Paid Practitioner.)
Pre-filing System	A technology that provides a repository for storing and managing in-process tax return preparation data (i.e., data entered by taxpayers during online preparation but not yet accepted by them as complete, accurate data to be submitted as part of their final returns).
Preparer	A third party (to the taxpayer-IRS relationship) who assists taxpayers in preparing and submitting their tax returns. Includes practitioners, commercial preparers, and community-based partners.
Preparer Paper Filers	Preparers who manually prepare their clients' returns and submit them on paper (population used in Adoption projections).
Preparer V-Coders	Preparers who prepare their clients' returns on a computer but submit them on paper (population used in Adoption projections).
Processing Year (PY)	The calendar year (CY) in which a return is processed. For example, in PY2008, TY2007 returns (along with prior year returns) were processed.
Project Management Office (PMO)	A governing body that functions as the primary source of project management and execution and oversees related Integrated Project Teams (IPT). The PMO sets project direction, establishes project goals and schedule, monitors progress toward meeting goals and schedule, and serves as the overall authority for project issue resolution.
Return of Record	The official government record of a tax return.
Self Paper Filers	Individual taxpayers who prepare their returns manually and submit their returns on paper (subgroup used in 2009 AES2 Taxpayer Survey and population used in Adoption projections).
Self V-Coders	Individual taxpayers who prepare their returns on a computer but submit their returns on paper (subgroup used in 2009 AES2 Taxpayer Survey and population used in Adoption projections).
Short Message Service (SMS)	SMS, the most basic data service typically available on mobile phones, is the technical basis for text messaging. As implied by its name, SMS supports short messages. Message length depends on the language used; the maximum message length in English is 140 characters.
Smartphone	Smartphones evolved by adding mobile phone capabilities to personal digital assistants (PDA). BlackBerry phones exemplify the smartphone class. Smartphones typically offer e-mail, calendaring, other business applications, and more usable web browsing than basic phones. They offer larger displays and more capable keyboards (usually QWERTY style).

Term	Definition
Stakeholder	A professional, commercial, or government entity that interacts with the IRS and plays an important role in the IRS's delivery of services such as <i>e-filing</i> .
Stakeholder Partnerships, Education and Communication (SPEC)	The IRS's communication and outreach office, which is responsible for developing educational materials for IRS customers, developing marketing products, and working with local and national media to ensure that IRS customers are aware of tax law changes and IRS services.
Tax Gap	The annual tax gap is the difference between the amount of tax that taxpayers should pay and the amount that is paid voluntarily and on time.
Tax Preparation Software	Software that enables taxpayers and preparers to electronically prepare and submit tax returns. This software is browser- or client-based, and typically guides the user through a series of questions with the goal of simplifying the process of preparing their tax return.
Tax Preparation Software Vendor	An entity that sells tax preparation software to taxpayers and/or preparers.
Tax Return	A formal tax statement, typically on an official form, submitted to a tax-collecting entity that reports taxable income, deductions, exemptions, money owed or refund due, and tax payments (including withholding). The term "tax returns," which encompasses "information returns," is colloquially used to refer to income tax returns. Examples include Forms 1040, 1040A, and 1040EZ (Individual Income Tax Return); Form 1065 (Return of Partnership Income); and Form 1120 (Corporation Income Tax Return).
Tax Year (TY)	For individual taxpayer returns, the TY is 1 year behind the Calendar Year (CY). For example, during the 2009 filing season (i.e., January 1 to April 15, 2009), individuals filed their tax returns for TY2008.
Taxpayer	The individual or head of household responsible for meeting their tax filing obligations through preparing and filing an individual tax return as required. The taxpayer is also the constituent representative of public opinion and perception.
Taxpayer Advocate Service	An independent organization within the IRS that assists taxpayers who are experiencing economic harm, who are seeking help in resolving tax problems, or who believe that an IRS system or procedure is not working as it should.
Taxpayer Assistance Center	A source for personal tax help when taxpayers believe a tax issue cannot be handled online or by phone and want to talk with the IRS in person. IRS representatives in these centers can help with inquiries or adjustments to tax accounts, payment plans for those who owe tax and cannot pay the full amount, questions about IRS letters and notices, and levies on wages or bank accounts.

Term	Definition
Taxpayer E-Authentication	A secure web-based platform for authenticating individual taxpayers before permitting them to use IRS electronic tax return preparation and submission services. Taxpayer E-Authentication is an essential component for the implementation of the Free IRS Direct <i>E-file</i> , Free IRS Online Forms, and Free IRS Tax Preparation Software Options. With Taxpayer E-Authentication, individual taxpayers register directly with the IRS, are authenticated, receive credentials (e.g., user ID, password), and then use those credentials to sign in and become authorized to use IRS tax return preparation and submission services. Taxpayer E-Authentication is in the concept stage with no planned implementation timeline.
TeleFile	A defunct IRS program based on the use of landline phones and operated from 1997 to 2005. At its peak in 1998, 6 million returns were <i>e-filed</i> through TeleFile, representing 4.9% of all individual taxpayer returns.
Third Party	An entity external to the taxpayer-IRS relationship that helps taxpayers prepare and/or submit their tax returns. Includes preparers, tax preparation software vendors, and transmitters.
Transmitter	A third party that partners with commercial firms and the IRS in electronically submitting income tax returns from the software used to prepare them to the IRS. Transmitters must have software and hardware that allow them to directly connect with IRS computers.
Treasury Inspector General for Tax Administration (TIGTA)	Position established by RRA98 to provide independent oversight of IRS activities.
Two-Factor Authentication	A process used to authenticate or verify the identity of a person or other entity requesting access to IRS online services. In two-factor authentication, two factors — typically something the user has plus something they know — are used to authenticate the person or entity. For example, two-factor authentication for Mobile <i>E-file</i> works by requiring the user to identify the phone itself (“something I have”) and requiring the user to enter a password or personal identification number (PIN) (“something I know”). Using two factors as opposed to one factor generally delivers a higher level of authentication assurance.
V-Coder	Taxpayers and preparers who prepare returns on a computer but submit the returns on paper.
Walled Garden	An exclusive set of information services made available by a provider to their customers. Many service providers use walled gardens to limit the web sites, content, and applications that customers can access from phones on their networks.

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