Using Tax Data to Create a Population Estimate of Retirement Income

Peter Brady and Steven Bass

Views presented are those of the authors and do not necessarily represent the views of the Internal Revenue Service, or the views of the Investment Company Institute of its members.

NTA Annual Conference
Goals of the Research

» Use data from Form 1040 and Form 1099-R to measure incidence and amount of retirement distributions
  » IRA distributions
  » Pensions and annuities

» Use information returns to create estimates for the total population

» Use text fields from Form 1099-R to categorize source of the pensions and annuities
Relates to Literature on Discrepancy between Household Surveys and Tax Data

» Discrepancy between tax data and household surveys
  » Scheiber (1995); Woods (1996) ("not all pension income")
  » Brady, et al. (2012); Brady et al. (2017); Bee and Mitchell (2017)

» Builds on work we did with 2010 data
  » Reconciling Form 1040 and Form 1099-R
  » Analysis of detailed codes
  » Comparison of tax data to CPS
RESULTS PRELIMINARY
Key Findings (for 2015)

» Most older taxpayers have retirement distributions
  » Adding in nonfilers reduces incidence, but not substantially
» Incidence of IRA distributions increases at 70
  » Most 70 or older with non-rollovers have IRA distributions
  » Account for over 30 percent of non-rollovers for the age group
» Easier to identify category of payer than distinguish DB vs DC
  » Government pensions account for half of non-rollover pensions and annuities paid to those 59 or older
Outline

» Results from filers
» Adding in nonfilers
» What is in “pensions and annuities”?
Results for Filers
Sample

» 0.1 percent sample (10/10,000) if individuals on returns

» Sample both primary and secondary taxpayers for joint returns

» Unit of analysis is the taxpayer
  » Primary taxpayer on non-joint return
  » Primary and secondary taxpayer on joint return

» Examine incidence on both individual and return basis
Use Both Tax Returns and Information Returns

» Focus of this work is on retirement distributions
  » Form 1040
    » Line 15: “IRA distributions”
    » Line 16: “Pension and annuities”
  » Form 1099-R

» Larger project will look at income more broadly
Taxpayers Report Distributions on Form 1040

Lines 7 to 22 of 2017 Form 1040

<table>
<thead>
<tr>
<th>Line</th>
<th>Description</th>
<th>Code</th>
<th>Taxable Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Wages, salaries, tips, etc. Attach Form(s) W-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8a</td>
<td>Taxable interest. Attach Schedule B if required</td>
<td>8a</td>
<td></td>
</tr>
<tr>
<td>8b</td>
<td>Tax-exempt interest. <strong>Do not</strong> include on line 8a</td>
<td>8b</td>
<td></td>
</tr>
<tr>
<td>9a</td>
<td>Ordinary dividends. Attach Schedule B if required</td>
<td>9a</td>
<td></td>
</tr>
<tr>
<td>9b</td>
<td>Qualified dividends</td>
<td>9b</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Taxable refunds, credits, or offsets of state and local income taxes</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Alimony received</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Business income or (loss). Attach Schedule C or C-EZ</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Capital gain or (loss). Attach Schedule D if required. If not required, check here</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Other gains or (losses). Attach Form 4797</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15a</td>
<td>IRA distributions</td>
<td>15a</td>
<td></td>
</tr>
<tr>
<td>15b</td>
<td></td>
<td>15b</td>
<td></td>
</tr>
<tr>
<td>16a</td>
<td>Pensions and annuities</td>
<td>16a</td>
<td></td>
</tr>
<tr>
<td>16b</td>
<td></td>
<td>16b</td>
<td></td>
</tr>
</tbody>
</table>

**Retirement Distributions**
Payers Report Distributons on Form 1099-R

2010 Form 1099-R

- Gross Distributions
- Taxable Distributions
- Detailed Codes & IRA Checkbox
Reconciling Form 1040 with Form 1099-R

» Allocate Form 1040 amounts for filers
  » Allocate taxable and nontaxable by detailed code
  » Identify “Rollover-type” distributions and non-rollovers
  » Split between primary & secondary for joint returns
Results Presented by Age

» Younger than age 50
» Age 50 to 58
» Age 59 to 69
» Age 70 or older
Incidence of Gross Distributions Increases with Age

Share of all taxpayers in age group (percent), 2015

- Younger than 50: 6.8%
- 50 to 58: 16%
- 59 to 69: 44%
- 70 or older: 79%
Most Have Non-Rollover Distributions

Share of all taxpayers in age group (percent)

- Rollover type only
- Both
- Non–rollover type only

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rollover type only</th>
<th>Both</th>
<th>Non–rollover type only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 50</td>
<td>6.8</td>
<td>4.7</td>
<td>1.6</td>
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<tr>
<td>50 to 58</td>
<td>1.1</td>
<td>12</td>
<td>2.1</td>
</tr>
<tr>
<td>59 to 69</td>
<td>3.1</td>
<td>39</td>
<td>1.6</td>
</tr>
<tr>
<td>70 or older</td>
<td>1.8</td>
<td>77</td>
<td>0.1</td>
</tr>
</tbody>
</table>

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Using 1099-R Detailed Codes
Younger Taxpayers Preserve Over Half of Distributions

Billions of dollars

- Rollover type
- Non–rollover type

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rollover Type</th>
<th>Non–rollover Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 50</td>
<td>160</td>
<td>71</td>
</tr>
<tr>
<td>50 to 58</td>
<td>90</td>
<td>102</td>
</tr>
<tr>
<td>59 to 69</td>
<td>626</td>
<td>390</td>
</tr>
<tr>
<td>70 or older</td>
<td>539</td>
<td>481</td>
</tr>
</tbody>
</table>

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Using 1099-R Detailed Codes
Turning to Non-Rollover Distributions ...

*Share of all taxpayers in age group (percent)*

- Younger than 50: 5.2%
- 50 to 58: 14%
- 59 to 69: 42%
- 70 or older: 79%
Most Have Pensions and Annuities, but Many Older Taxpayers Have IRA Distributions

Share of all taxpayers in age group with non-rollover distributions by source (percent)

- IRA distributions only
- Both
- Pensions and annuities only

<table>
<thead>
<tr>
<th>Age Group</th>
<th>IRA only</th>
<th>Both</th>
<th>Pensions and annuities only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 50</td>
<td>5.2</td>
<td>1.4</td>
<td>3.6</td>
</tr>
<tr>
<td>50 to 58</td>
<td>3.6</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>59 to 69</td>
<td>6.5</td>
<td>6.0</td>
<td>6.0</td>
</tr>
<tr>
<td>70 or older</td>
<td>30</td>
<td>30</td>
<td>33</td>
</tr>
</tbody>
</table>

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Using 1099-R Detailed Codes
Most of the Dollars from Pensions and Annuities

Billions of dollars

- IRA distributions
- Pensions and annuities

<table>
<thead>
<tr>
<th>Age Group</th>
<th>IRA</th>
<th>Pensions and Annuities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 50</td>
<td>71</td>
<td>23</td>
</tr>
<tr>
<td>50 to 58</td>
<td>102</td>
<td>26</td>
</tr>
<tr>
<td>59 to 69</td>
<td>303</td>
<td>88</td>
</tr>
<tr>
<td>70 or older</td>
<td>481</td>
<td>153</td>
</tr>
</tbody>
</table>

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Many More Are on Returns with Non-Rollovers

Share of all taxpayers in age group with non-rollover distributions reported on return (percent)

- Only spouse has non-rollover type distribution

<table>
<thead>
<tr>
<th>Age Group</th>
<th>70 or older</th>
<th>70 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 50</td>
<td>7.5</td>
<td>88</td>
</tr>
<tr>
<td>50 to 58</td>
<td>7.7</td>
<td>9.0</td>
</tr>
<tr>
<td>59 to 69</td>
<td>13.0</td>
<td>79.0</td>
</tr>
</tbody>
</table>
Summary

» Most taxpayers 59 or older receive non-rollover distributions
  » 55 percent 59 to 69
  » 88 percent 70 or older
» Most non-rollovers from pensions and annuities
» But, half of taxpayers 70 or older with non-rollovers receive IRA distributions
Adding in Nonfilers
First Cut at Adding Nonfilers

» 0.1 percent sample (10/10,000)

» Sample five information returns for nonfilers
  » Form W-2 (wages and tips)
  » Form SSA-1099 (Social Security benefits)
  » Form 1099-R (retirement distributions)
  » Form 1099-INT (interest income)
  » Form 1099-DIV (dividends)

» Compare to CPS population estimates
We Identify More Nonfilers Among Older Individuals

Share of sample by filing status; and comparison with CPS population estimates (percent)

- Share of CPS population with nonzero income
- Nonfilers with information returns
- Filers

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Share of CPS population</th>
<th>Nonfilers with information returns</th>
<th>Filers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 50</td>
<td>93</td>
<td>7</td>
<td>104</td>
</tr>
<tr>
<td>50 to 58</td>
<td>94</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>59 to 69</td>
<td>91</td>
<td>9</td>
<td>95</td>
</tr>
<tr>
<td>70 or older</td>
<td>80</td>
<td>20</td>
<td>86</td>
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</tbody>
</table>

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Using 1099-R Detailed Codes
Most 70 or Older Receive Non-Rollover Distributions

Incidence for different populations (percent)

- Filers
- Filers and nonfilers with information returns

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Filers (percent)</th>
<th>Nonfilers (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 50</td>
<td>7.5</td>
<td>7.2</td>
</tr>
<tr>
<td>50 to 58</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>59 to 69</td>
<td>55</td>
<td>52</td>
</tr>
<tr>
<td>70 or older</td>
<td>88</td>
<td>79</td>
</tr>
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</table>
Incidence High Across the Income Distribution

Non-rollover incidence for filers by per capita AGI and for nonfilers (percent)

<table>
<thead>
<tr>
<th>Nonfilers</th>
<th>Lowest</th>
<th>Second</th>
<th>Middle</th>
<th>Fourth</th>
<th>Highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>59 to 69</td>
<td>20</td>
<td>46</td>
<td>53</td>
<td>59</td>
<td>63</td>
</tr>
<tr>
<td>70 or older</td>
<td>40</td>
<td>78</td>
<td>90</td>
<td>93</td>
<td>94</td>
</tr>
</tbody>
</table>

Nonfilers

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Using 1099-R Detailed Codes
Average Size of Distribution Increases with Income

Average non-rollover amounts for filers by per capita AGI and for nonfilers (thousands of dollars)

<table>
<thead>
<tr>
<th>Nonfilers</th>
<th>Lowest</th>
<th>Second</th>
<th>Middle</th>
<th>Fourth</th>
<th>Highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>59 to 69</td>
<td>11</td>
<td>8.2</td>
<td>13</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>70 or older</td>
<td>7.1</td>
<td>6.4</td>
<td>12</td>
<td>18</td>
<td>29</td>
</tr>
</tbody>
</table>

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Using 1099-R Detailed Codes
What Is in “Pensions and Annuities”? 
Others Have Tried to Identify DB vs DC

» Brady, et al. (2017)
  » Consistency of payments

» Bee and Mitchell (2017)
  » EIN, pattern of federal government DB & DC

» Goodman, et al. (2019)
  » EIN, name fields, Bee and Mitchell (2017), cluster analysis

EIN, name fields
Payers Report Distributons on Form 1099-R

2010 Form 1099-R

PAYER'S name, street address, city, state, and ZIP code

PAYER'S federal identification number

RECIPIENT'S identification number

RECIPIENT'S name

Street address (including apt. no.)

City, state, and ZIP code

Form 1099-R

Department of the Treasury - Internal Revenue Service
Payer Type of 1099-R Distributions

Percentage of gross and non-rollover 1099-R distributions, 2015

- Federal government
- State and local governments
- Union
- Financial services
- Other/unknown payer

Gross distributions: $1,322 billion
Non-rollover distributions: $804 billion
Outside of the Federal Government, Few Payers Identifiable by Source

Billions of dollars

- Other/unknown payer: 150
- Financial services: 140
- Union: 40
- State and local governments: 17
- Federal government: 46

DB pension

DC pension

Nonqualified annuity

Using 1099-R Detailed Codes
Outside of Government, Most Unidentified Distributions Paid by Financial Services Companies

*Billions of dollars*

- Other/unknown payer: 1,081
- Financial services: 708
- Union: 83
- State and local governments: 708
- Federal government: 263
- DB pension: 150
- DC pension: 40
- Nonqualified annuity: 52

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Using 1099-R Detailed Codes
Share of Non-Rollovers Unidentified Is Lower

Billions of dollars

- Unidentified
- Financial services
- Union
- State and local governments
- Federal government

<table>
<thead>
<tr>
<th>Category</th>
<th>Billions of dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB pension</td>
<td>146</td>
</tr>
<tr>
<td>DC pension</td>
<td>13</td>
</tr>
<tr>
<td>Nonqualified annuity</td>
<td>52</td>
</tr>
<tr>
<td>Unidentified</td>
<td>594</td>
</tr>
</tbody>
</table>

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Using 1099-R Detailed Codes
Government DB Distributions Differ from Financial Service DB Distributions

Percentage of distributions by source and payer type, 2015
Government Plans Half of Pensions for 59 or Older

Percentage of non-rollover distributions, 2015

- Other/unknown payer
- Nonqualified annuity
- Financial services
- Union
- State and local
- Federal

- Younger than 50: 64% Other/unknown payer, 10% Union, 14% State and local, 10% Financial services, 2% Nonqualified annuity, 1% Federal
- 50 to 58: 76% Other/unknown payer, 2% Union, 27% State and local, 22% Financial services, 6% Nonqualified annuity, 2% Federal
- 59 to 69: 80% Other/unknown payer, 3% Union, 37% State and local, 18% Financial services, 5% Nonqualified annuity, 2% Federal
- 70 or older: 90% Other/unknown payer, 2% Union, 29% State and local, 32% Financial services, 8% Nonqualified annuity, 2% Federal

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Using 1099-R Detailed Codes
Key Findings (for 2015) *Preliminary*

» Most older taxpayers have retirement distributions
  » Adding in nonfilers reduces incidence, but not substantially
» Incidence of IRA distributions increases at 70
  » Most 70 or older with non-rollovers have IRA distributions
  » Account for over 30 percent of non-rollovers for the age group
» Easier to identify category of payer than distinguish DB vs DC
  » Government pensions account for half of non-rollover pensions and annuities paid to those 59 or older