Which employers sponsor defined contribution retirement plans? Evidence from linked employer-employee administrative records

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Motivation: Limitations of existing data sources on DC sponsorship in U.S.

• Form 5500 plan-level data
  – No information on employees, information on firms possible through linkages; does not include public sector plans

• BLS National Compensation Survey (NCS)
  – Establishment survey with limited info about workers; sample sizes and restricted use;

• Household survey data (CPS, SIPP, HRS)
  – Sample sizes, concerns about data quality
Overview

• Develop new approach to measuring employer sponsorship of defined contribution (DC) plans using the universe of W-2 records

• Evaluate quality of new measure
  – using plan-level measures from Form 5500
  – self-reported coverage and participation from CPS ASEC

• Illustrative usefulness of new measure for studying DC coverage and take-up
Data (Part I): Tax Records

- Universe of W-2 records
- U.S. Census Bureau’s Business Register
- Focus on tax year 2012, unless stated otherwise

Units of analysis:
- Firms: identified by unique Employer Identification Number (EIN) in W-2 records—6.2 million
- Workers: identified by unique Personal Identification Key (PIK)—154.8 million
- Jobs: unique pairings of PIK and EIN—218.9 million
Measuring employer DC plan sponsorship

- Use all W-2s associated with EIN to infer sponsorship

- EIN offers DC if any PIK attached to EIN has positive elective deferrals (W-2, box 12)

- Estimates of take-up are based on assumption that all employees are eligible
Summary of results

- Firms offering DC: 13.7%
- Jobs at firms with DC: 71.2%
- Average take-up at firms with DC coverage: 45.1%
- Take-up among jobs at firms with DC: 33.6%
Percent of all EINs offering DC plans

<table>
<thead>
<tr>
<th>EIN size (from W-2)</th>
<th>13.7</th>
<th>3.4</th>
<th>7.3</th>
<th>20.2</th>
<th>32.6</th>
<th>46.5</th>
<th>68.5</th>
<th>83.5</th>
<th>88.4</th>
<th>92.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>
Comparing sponsorship rates (in percent) in 2012 using W-2s and NCS

<table>
<thead>
<tr>
<th>Number of workers</th>
<th>All firms</th>
<th>1 to 99</th>
<th>100 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>W-2s: All EINs</td>
<td>14</td>
<td>12</td>
<td>72</td>
</tr>
<tr>
<td>NCS: Private sector establishments</td>
<td>43</td>
<td>42</td>
<td>74</td>
</tr>
</tbody>
</table>
Higher offer rates, lower participation rates and take-up than in previous studies

<table>
<thead>
<tr>
<th>Source</th>
<th>Coverage</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCS (2012): all workers</td>
<td>55</td>
<td>37</td>
</tr>
<tr>
<td>SIPP (2006) [Dushi et al. (2011)]: main job or business</td>
<td>57</td>
<td>39</td>
</tr>
<tr>
<td>W-2s: jobs</td>
<td>71</td>
<td>24</td>
</tr>
<tr>
<td>W-2s: individuals</td>
<td>79</td>
<td>32</td>
</tr>
<tr>
<td>W-2s: individuals with over $3,770 total earnings</td>
<td>81</td>
<td>37</td>
</tr>
</tbody>
</table>
Data (Part II): Linked Form 5500

- Only way to get DB sponsorship

- Assign DC plan characteristics (e.g., autoenrollment, match rates) to individuals

- Population of EINs that match to the Business Register, and are classified as private sector
  - Public sector plans exempt from 5500 filing requirements
  - Form 5500 filings for single-employer plans
Use BR to better match W-2s to Form 5500

Business Register (BR) → Firm

EIN (W-2, F5500) → EIN1, EIN2

Plans (F5500) → DC1, DB1, DC2
Jobs at private sector employers with DC plans (percent)

Using EIN-level measures
- In W-2 & F5500: 35.9%
- F5500 only: 1.6%
- W-2 only: 30.9%
- Not covered by DC: 31.6%

Using Firm-level measures
- In W-2 & F5500: 56.6%
- F5500 only: 1.6%
- W-2 only: 11.6%
- Not covered by DC: 30.2%
Jobs at private sector employers with DB vs. DC plans (percent), DC identified in W-2s and 5500)

Using EIN-level measures
- DC & DB: 8.2%
- DB only: 60.1%
- DC only: 31.6%
- None: 30.1%

Using Firm-level measures
- DC & DB: 18.8%
- DB only: 51.0%
- DC only: 30.1%
- None
Jobs at private sector employers with DC autoenrollment (percent)

<table>
<thead>
<tr>
<th></th>
<th>Using EIN-level measures</th>
<th>Using Firm-level measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoenrollment</td>
<td>6.3</td>
<td>13.4</td>
</tr>
<tr>
<td>No autoenrollment</td>
<td>29.5</td>
<td>41.8</td>
</tr>
<tr>
<td>Unknown autoenrollment</td>
<td>30.9</td>
<td>11.5</td>
</tr>
<tr>
<td>No DC coverage</td>
<td>33.2</td>
<td>33.2</td>
</tr>
</tbody>
</table>
Summary of results using Form 5500

- BR helps improve linkage of W-2s to 5500s

- DC coverage rates closely approximates overall retirement (DC & DB) plan coverage

- Over 13 percent of jobs are at firms with at least one DC plan with autoenrollment
Data (Part III): Linked Survey-Admin

  – Sample: Age 25-64, wage and salary workers in private sector
  – Use self-reported retirement plan coverage to validate new measure

• American Community Survey (ACS), 2012
  – Sample: Age 25-64, private sector
  – Examine coverage and take-up across demographic characteristics
  – More than 1.3 million observations

• Linked to admin records via unique identifiers
Comparing W-2 measures with self-reported coverage in CPS ASEC 2013

Question in CPS ASEC 2013 (about TY 2012): *Other than Social Security did (ANY) employer or union that (name/you) worked for in the previous calendar year) have a pension or other type of retirement plan for any of its employees?*

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>W-2: yes; CPS: yes</td>
<td>0.469</td>
</tr>
<tr>
<td>W-2: yes; CPS: no</td>
<td>0.277</td>
</tr>
<tr>
<td>W-2: no; CPS: yes</td>
<td>0.057</td>
</tr>
<tr>
<td>W-2: no; CPS: no</td>
<td>0.196</td>
</tr>
</tbody>
</table>
Take-up rates by income and education, using ACS characteristics

Takeup rates in 2012
Across total earnings, by education

SOURCE: PIK-linked 2012 ACS person records and TY 2012 Form W-2
Limitations of our measure

• Our W-2 data does not have information about
  – Employer contributions to DC plans
  – Worker contributions to Roth-designated accounts

• Measures of take-up and coverage assume all workers
  are eligible

• This leads to underestimation of individuals’ DC
  participation and take-up
Conclusion

• Construct new measure of DC plan sponsorship for universe of U.S. employers

• Estimates using this measure diverge from previous studies
  – Lower employer sponsorship rates, particularly among smaller firms
  – Higher coverage rates, because of large firms
  – Lower take-up rates than are estimated using self-reported coverage

• Highlights concerns about existing data – introduces new opportunities to study individuals and firms