The Impact of Employer Matching on Savings Plan Participation Under Automatic Enrollment

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Common ways to increase savings plan participation

- Matching contributions
  - Modest effects estimated
- Automatic enrollment
  - Large effects

Automatic enrollment without a match

- Automatic IRA proposal
- To date
  - All automatic enrollment companies studied have also offered a match
- High participation without a match?
  - Yes: Inertia
  - No: Decreased incentive to contribute

Our empirical methodology

- **Approach 1:** Regime change at 1 automatic enrollment firm
  - Before: Match
  - After: No match + non-contingent employer contributions
- **Approach 2:** 9 firms with automatic enrollment
  - Identification: match variation within and across firms

Results summary

- Modest effect
- 50% match up to 6% of pay → no match
  - 5 - 11 percentage point decrease in participation

Regime change at one AE firm

- Large company in information sector
- Default: 3% of pay into money market
- 1 year service requirement to get match

Until 12/31/03
■ 25% match on contrib. up to 4% of salary ■ Max employee contrib: 25% of salary

Starting 1/1/04
■ No match ■ Non-contingent employer contrib: 4% of salary ■ Non-guaranteed profit-sharing contribution □ 5% of salary in ’04, ’05 ■ Max employee contrib: 15% of salary

Sample selection

- Full-time employees
- Not “highly compensated”
- “Match cohort”
  - Hired 1/1/02 – 6/30/03
- “Non-match cohort”
  - Hired 1/1/04 – 6/30/05
- Employed at least 6 months at firm

Summary statistics (Table 1)

	Match cohort	Non-match cohort	*t*-stat
% female	51.5%	45.7%	1.47
Average age	33.21	31.83	2.07
Annual salary (2004 $)	$49,167	$40,343	2.93
Sample size	293	352	

First-pass results, 6 months of tenure

	Match cohort	Non-match cohort	*t*-stat
Participation rate	89.1%	80.7%	2.95
Avg. employee contribution rate	3.60%	2.89%	3.01
Avg. employee contribution rate (participants only)	4.04%	3.58%	1.86

Regression results (Table 2)

	Participation (OLS)	Participation (OLS)	Employee contrib. (tobit)	Employee contrib. (tobit)
Match cohort	**0.0670* (0.0284)**	**0.0603* (0.0271)**	**0.6769* (0.2725)**	**0.6394* (0.2679)**
Female	0.0750** (0.0284)	0.0353 (0.0275)	0.5159* (0.2738)	0.3860 (0.2720)
Age				
Years	0.0003 (0.0019)		0.0056 (0.0181)	
Linear spline	No	Yes	No	Yes
Income (2004 $)				
$1000s	0.0014** (0.0004)		0.0214** (0.0040)	
Linear spline	No	Yes	No	Yes

* Significant at 5% level

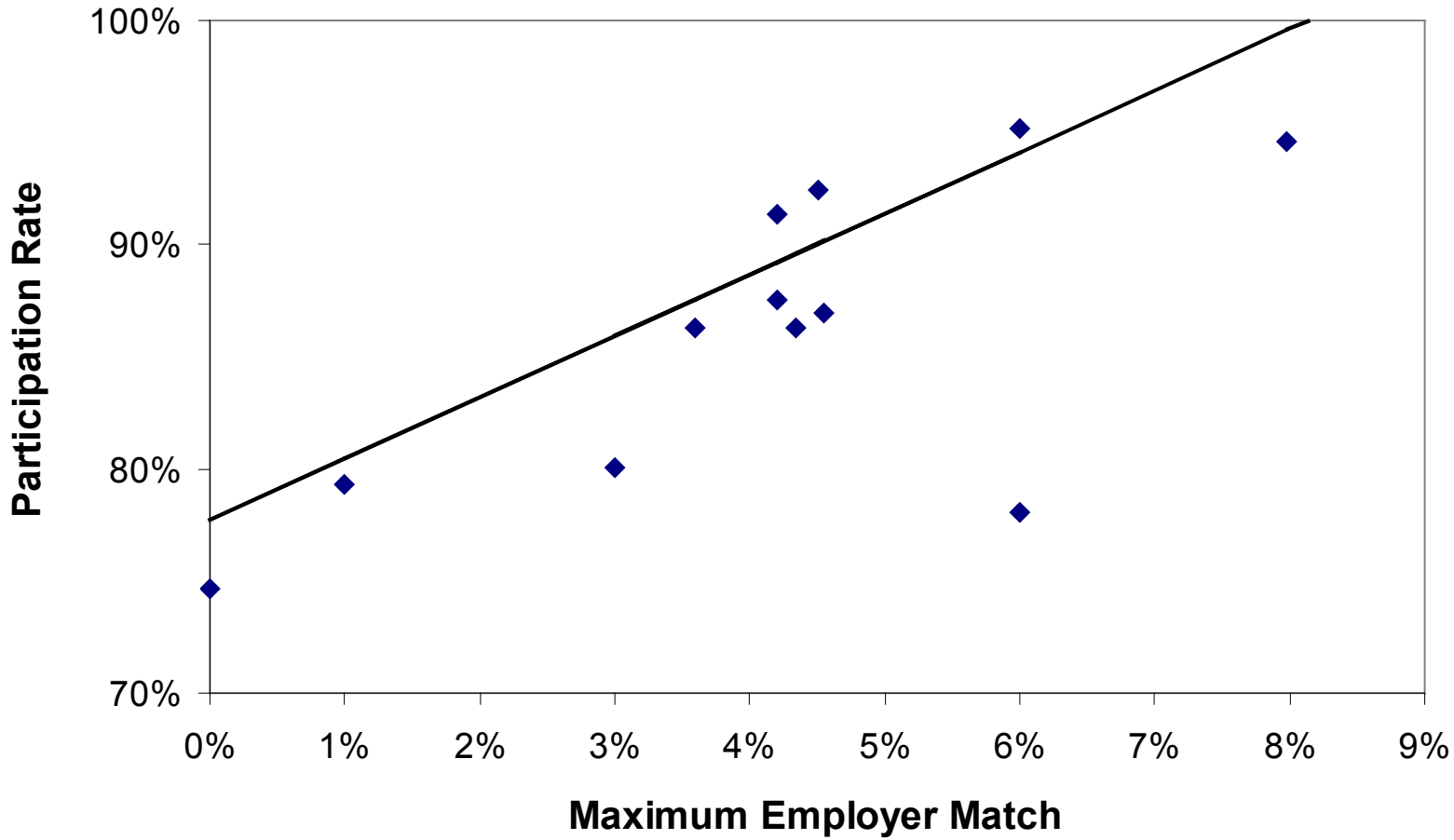
Discussion

- Total drop = match removal effect + non-contingent contribution addition effect
- Non-contingent effect > 0
- Therefore, total effect is **upper bound** on match removal effect
- Also probably upper bound on non-contingent participation effect

Automatic enrollment and matching at 9 companies

- Sample: 2002-2005
- Match rate range
  - No match
  - 133% match on first 6% of pay contributed
- 2 companies changed match rate in sample
  - 25% match on first 4% of pay contributed
    → 0% match (previously analyzed)
  - 60% → 62% → 65% on first 7% of pay contributed

Participation rate vs. maximum employer match amount



Calibration

- Common matching structure: 50% on first 6% of pay contributed
- Participation drop from eliminating this match under automatic enrollment

Full sample, no controls	8.35%
Full sample, with demographic controls	6.60%
Sample with demographic data, no controls	11.26%
Sample with control data, with demographic controls	5.34%

Conclusion

- Dropping match from automatic enrollment → only modest drop in participation
- Crowd-out effect from non-contingent contributions is modest
- Automatic enrollment can be successful in contexts where match is not feasible