

Internet Appendix
**Mutual Fund Revenue Sharing in 401(k)
Plans**

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Table IA.1: Example of Plan Menu: Protective Life Corp. 401(k) Plan (2012)

The table shows the menu options of the 401(k) Plan of Protective Life Corp. in 2012. It also lists the current value (in \$), the expense ratio (in %), and the revenue share (in %) for each of the options.

Option	Current Value	Expense Ratio	Revenue Share
Open Architecture Options:			
Columbia Mid Cap Index Fund	11,233,894	0.20	0.10
Dodge & Cox International Stock Fund	11,698,068	0.64	0.10
Dodge & Cox Stock Fund	18,436,885	0.52	0.10
Legg Mason Batterymarch Emerging Markets Fund	1,126,377	1.27	0.10
Neuberger Berman Genesis Fund	15,648,724	1.12	0.40
PIMCO Real Return Fund	4,408,954	0.47	0.02
T. Rowe Price Growth Stock Fund	15,089,112	0.70	0.15
T. Rowe Price Retirement 2015 Fund	3,263,493	0.65	0.15
T. Rowe Price Retirement 2025 Fund	5,392,003	0.73	0.15
T. Rowe Price Retirement 2035 Fund	3,267,995	0.77	0.15
T. Rowe Price Retirement 2045 Fund	2,841,702	0.78	0.15
Vanguard Total Bond Market Index Fund	6,442,237	0.22	0
Options from Recordkeeper (Fidelity):			
Spartan 500 Index Fund	14,487,232	0.05	-
Fidelity Managed Income II-1 Collective Trust Fund	24,679,252		
Other Options:			
Protective Life Corp. Common Stock	49,272,779		
Participant Loans	5,456,741		
Total	192,745,448		

Table IA.2: Service Codes.

This table provides a description of service codes as provided in the instructions to Form 5500.

Service Codes	
10	Accounting (including auditing)
11	Actuarial
12	Claims processing
13	Contract Administrator
14	Plan Administrator
15	Recordkeeping and information management (computing, tabulating, data processing, etc)
16	Consulting (general)
17	Consulting (pension)
18	Custodial (other than securities)
19	Custodial (securities)
20	Trustee (individual)
21	Trustee (bank, trust company, or similar financial institution)
22	Insurance agents and brokers
23	Insurance services
24	Trustee (discretionary)
25	Trustee (directed)
26	Investment advisory (participants)
27	Investment advisory (plan)
28	Investment management
29	Legal
30	Employee (plan)
31	Named fiduciary
32	Real estate brokerage
33	Securities brokerage
34	Valuation (appraisals, etc.)
35	Employee (plan sponsor)
36	Copying and duplicating
37	Participant loan processing
38	Participant communication
40	Foreign entity (e.g., an agent or broker, bank, insurance company, etc. not operating within jurisdiction of the U.S.)
49	Other services
50	Direct payment from the plan
51	Investment management fees paid directly by plan
52	Investment management fees paid indirectly by plan
53	Insurance brokerage commissions and fees
54	Sales loads (front end and deferred)
55	Other commissions
56	Non-monetary compensation
57	Redemption fees
58	Product termination fees (surrender charges, etc.)
59	Shareholder servicing fees
60	Sub-transfer agency fees
61	Finders fees/placement fees
62	Float revenue

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Service Codes

63	Distribution (12b-1) fees
64	Recordkeeping fees
65	Account maintenance fees
66	Insurance mortality and expense charge
67	Other insurance wrap fees
68	Soft dollars commissions
70	Consulting fees
71	Securities brokerage commissions and fees
72	Other investment fees and expenses
73	Other insurance fees and expenses
99	Other fees

Table IA.3: Indirect Compensation.

This table summarizes the indirect compensation information for the universe of 401(k) fillers with DOL for which the identity of the recordkeeper is disclosed on Form 5500. Schedule C, Part 1/2 of the form asks whether the plan has an indirect compensation arrangement. If it does, the plan may disclose indirect payments by 1) reporting the total dollar amount paid to the recordkeeper or 2) indicating that it has received a formula from the recordkeeper. In both cases, indirect payment arrangements are used in the plan, but plans in the first group are not ‘itemizing’ these payments, while plans that receive a formula provide additional details at the payor-payee level on Part 1/3. The number of filers is shown in column 1. Column 2 reports the proportion of plans that report having indirect compensation arrangements, which is broken down by disclosure type in columns 3-4. Some plans disclose the total dollar amount but also indicate that they received a formula. Finally, column 5 reports indirect compensation scaled by total plan assets for the subsample of filers that report indirect compensation as a dollar amount. Panel A includes all filers for which the identity of the recordkeeper is disclosed on Form 5500. In Panel B we repeat these analyses for a balanced panel, which includes the 13,999 plans that are in the DOL dataset for the entire time period.

Panel A: All Plan Filers

Year	N	Proportion of Plans with Indirect Compensation Schemes			Rebate (in bps) (non-itemizers)
		Any Disclosed	\$ Amt Disclosed (non-itemizers)	Formula Disclosed (itemizers)	
	(1)	(2)	(3)	(4)	(5)
2010	42,480	65.5%	20.9%	53.1%	36
2011	43,607	66.9%	21.1%	54.5%	40
2012	44,622	66.1%	16.4%	54.3%	47
2013	45,230	62.4%	12.8%	53.8%	30
2014	46,492	60.5%	12.3%	52.3%	27
2015	47,742	59.2%	11.5%	51.5%	24
2016	48,242	59.7%	10.9%	52.4%	22
2017	49,869	58.6%	10.1%	52.0%	20
2018	51,264	56.4%	9.1%	50.3%	18
2019	53,126	54.0%	8.4%	48.3%	16
2020	54,527	52.1%	7.2%	47.2%	13
2021	55,452	51.7%	6.7%	46.7%	12
2022	57,455	51.5%	6.8%	46.3%	11

Panel B: Plans that File Continuously During 2010-2022

Year	N	Proportion of Plans with Indirect Compensation Schemes			Rebate (in bps) (non-itemizers)
		Any Disclosed	\$ Amt Disclosed (non-itemizers)	Formula Disclosed (itemizers)	
	(1)	(2)	(3)	(4)	(5)
2010	14,619	64.5%	16.9%	55.3%	30
2011	14,619	66.2%	17.2%	57.0%	27
2012	14,619	66.0%	13.4%	57.1%	31
2013	14,619	64.4%	12.2%	56.4%	27
2014	14,619	63.2%	11.7%	55.4%	23
2015	14,619	62.2%	11.2%	54.8%	20
2016	14,619	62.2%	10.2%	55.4%	19
2017	14,619	62.1%	9.7%	55.9%	18
2018	14,619	61.0%	8.4%	55.5%	16
2019	14,619	59.2%	7.4%	54.5%	15
2020	14,619	58.8%	6.8%	54.3%	11
2021	14,619	59.0%	6.6%	54.2%	11
2022	14,619	58.0%	6.1%	53.7%	9

Table IA.4: American Funds Fundamental Investors Expense Structure in 2013.

Panel A of the table reports annual fund reporting expenses as a percentage of the value of the investment, as provided in the prospectus of these funds as of [March 1, 2013](#). “Other expenses” include custodial, legal and transfer agent (and, if applicable, sub-transfer agent/recordkeeping) payments and various other expenses applicable to all share classes. For employer-sponsored retirement plans, the amount paid for sub-transfer agent/ recordkeeping services varies depending on the share class selected. Panel B shows the maximum payments to entities providing these services to retirement plans (from page 33 of the prospectus), which are part of ‘other expenses’ in Panel A.

Panel A: Annual Fund Reporting Expenses

	R-1	R-2	R-3	R-4	R-5	R-6
Management fees	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
Distribution/service (12b-1) fees	1.00%	0.74%	0.50%	0.25%	none	none
Other expenses	0.17%	0.41%	0.21%	0.16%	0.11%	0.06%
Total fund operating expenses	1.42%	1.40%	0.96%	0.66%	0.36%	0.31%

Panel B: Payments to Unaffiliated Entities

Class A	0.05% of assets or \$12 per participant position
Class R-1	0.10% of assets
Class R-2	0.25% of assets
Class R-3	0.15% of assets
Class R-4	0.10% of assets
Class R-5	0.05% of assets
Class R-6	none

Table IA.5: Fund Deletions, Linear Probability Model.

The table reports coefficient estimates for a linear probability model $DEL_{p,f,t} = \beta RevenueShare_{p,f,t-1} + \Gamma' Controls_{p,f,t-1} + \epsilon_{p,f,t}$, where $DEL_{p,f,t}$ is an indicator variable that takes the value of one if mutual fund f is deleted from plan p at time t . In columns 1-3, $RevenueShare_{p,f,t-1}$ *Fund* is an indicator variable that takes the value of one if fund f revenue shares in plan p at the end of year $t - 1$. In columns 4-6 of the table, $RevenueShare_{p,f,t-1}$ *Percentage* is the amount of rebate that fund f pays to plan p 's recordkeeper at the end of year $t - 1$. **Controls** $_{f,p,t-1}$ is the vector of control variables. In addition to those listed, the model includes fund controls, which are fund style and type dummies as well as fund age, size, and turnover. All variables are described in Table A.1. Standard errors are clustered at the fund level. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Revenue Sharing Fund	-0.035*** (0.008)	-0.032*** (0.009)	-0.023*** (0.008)			
Revenue Sharing Percentage				-0.099*** (0.029)	-0.085** (0.033)	-0.044 (0.032)
Prior 3-year Performance	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001** (0.000)	-0.001*** (0.000)
Expense Ratio	0.092*** (0.025)	0.151 (0.109)	0.073*** (0.025)	0.085*** (0.023)	0.129 (0.111)	0.065*** (0.023)
Log(Option Size)	-0.009*** (0.002)	-0.008*** (0.003)	-0.012*** (0.003)	-0.009*** (0.002)	-0.008*** (0.003)	-0.012*** (0.003)
Log(Plan Assets)	0.009** (0.004)	0.012*** (0.004)	-0.044 (0.041)	0.009** (0.005)	0.011** (0.005)	-0.051 (0.042)
Log(Average Account Size)	-0.006 (0.004)	-0.010** (0.004)	-0.029 (0.026)	-0.007 (0.005)	-0.011** (0.005)	-0.033 (0.026)
Perc of Affiliated Funds	-0.049*** (0.012)	-0.036*** (0.011)	0.122** (0.050)	-0.049*** (0.012)	-0.035*** (0.011)	0.145*** (0.051)
Employer Match	0.014** (0.006)	0.011* (0.006)	-0.070*** (0.020)	0.021*** (0.007)	0.018** (0.008)	-0.072*** (0.020)
Perc in Employer Securities	-0.086*** (0.026)	-0.081*** (0.027)	-0.222 (0.157)	-0.090*** (0.027)	-0.086*** (0.027)	-0.241 (0.157)
Unionization	-0.018*** (0.006)	-0.017*** (0.006)	0.079*** (0.021)	-0.016*** (0.006)	-0.015** (0.006)	0.075*** (0.019)
Plan Age	0.029*** (0.004)	0.022*** (0.004)	-0.016 (0.021)	0.031*** (0.004)	0.023*** (0.004)	-0.013 (0.021)
MFoptions	0.003*** (0.000)	0.002*** (0.000)	0.008*** (0.001)	0.003*** (0.000)	0.002*** (0.000)	0.008*** (0.001)
Bundled Services	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.007)	-0.001 (0.001)	-0.001 (0.001)	0.003 (0.007)
Flow Volatility	0.249*** (0.022)	0.241*** (0.024)		0.252*** (0.023)	0.242*** (0.025)	
Plan Complexity	0.008*** (0.001)	0.006*** (0.001)	0.007* (0.004)	0.008*** (0.001)	0.006*** (0.001)	0.008* (0.004)
Participant Loans	0.784*** (0.244)	0.504** (0.245)	-1.504 (1.391)	0.845*** (0.252)	0.619** (0.247)	-1.252 (1.409)
Eligible Compensation	0.003 (0.008)	0.007 (0.008)	-0.033** (0.015)	0.008 (0.008)	0.010 (0.008)	-0.023 (0.016)
Fund Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Fund FE	NO	YES	NO	NO	YES	NO
Plan FE	NO	NO	YES	NO	NO	YES
Observations	14,892	14,552	14,888	14,471	14,130	14,465
R-squared	0.117	0.242	0.254	0.119	0.243	0.257

Table IA.6: Fund Deletions, Linear Probability Model, Other Specifications.

The table reports coefficient estimates for a linear probability model $DEL_{p,f,t} = \beta RevenueShare_{p,f,t-1} + \Gamma' Controls_{p,f,t-1} + \epsilon_{p,f,t}$, where $DEL_{p,f,t}$ is an indicator variable that takes the value of one if mutual fund f is deleted from plan p at time t . In columns 1-3, $RevenueShare_{p,f,t-1}$ $Fund$ is an indicator variable that takes the value of one if fund f revenue shares in plan p at the end of year $t - 1$. In columns 4-6 of the table, $RevenueShare_{p,f,t-1}$ $Percentage$ is the amount of rebate that fund f pays to plan p 's recordkeeper at the end of year $t - 1$. **Controls** $_{f,p,t-1}$ is the vector of control variables. In addition to those listed, the model includes fund controls, which are fund style and type dummies as well as fund age, size, and turnover. All variables are described in Table A.1. Standard errors are clustered at the fund level. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Revenue Sharing Fund	-0.027*** (0.008)	-0.025** (0.010)	-0.016* (0.009)	-0.036*** (0.010)				
Revenue Sharing Percentage					-0.061** (0.031)	-0.061* (0.035)	-0.025 (0.034)	-0.095*** (0.033)
Prior 3-year Performance	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)		-0.001*** (0.000)	-0.001** (0.000)	-0.001** (0.000)	
Expense Ratio	0.081*** (0.025)	0.146 (0.111)	0.099 (0.105)		0.072*** (0.023)	0.128 (0.112)	0.084 (0.105)	
Log(Option Size)	-0.009*** (0.002)	-0.008*** (0.003)	-0.017*** (0.003)	-0.004* (0.003)	-0.009*** (0.002)	-0.008*** (0.003)	-0.017*** (0.003)	-0.004 (0.003)
Log(Plan Assets)	0.012*** (0.004)	0.013*** (0.005)	-0.048 (0.039)	0.011** (0.004)	0.011** (0.005)	0.011** (0.005)	-0.054 (0.039)	0.009* (0.005)
Log(Average Account Size)	-0.002 (0.005)	-0.008* (0.005)	-0.026 (0.023)	-0.015*** (0.004)	-0.003 (0.005)	-0.007 (0.005)	-0.024 (0.023)	-0.014*** (0.004)
Perc of Affiliated Funds	-0.027* (0.015)	-0.028* (0.014)	0.070 (0.048)	-0.044*** (0.011)	-0.026* (0.015)	-0.025* (0.014)	0.079 (0.050)	-0.043*** (0.011)
Employer Match	0.015** (0.007)	0.011 (0.007)	-0.066*** (0.018)	0.010 (0.006)	0.023*** (0.008)	0.017** (0.008)	-0.065*** (0.018)	0.017** (0.007)
Perc in Employer Securities	-0.104*** (0.027)	-0.103*** (0.028)	-0.359** (0.149)	-0.085*** (0.026)	-0.107*** (0.027)	-0.105*** (0.029)	-0.380** (0.148)	-0.088*** (0.026)
Unionization	-0.015** (0.006)	-0.014** (0.006)	0.076** (0.020)	-0.018*** (0.006)	-0.013** (0.006)	-0.013** (0.006)	0.067*** (0.018)	-0.016*** (0.006)
Plan Age	0.029*** (0.004)	0.022*** (0.004)	-0.028 (0.020)	0.022*** (0.004)	0.030*** (0.004)	0.023*** (0.004)	-0.023 (0.020)	0.023*** (0.004)
MFoptions	0.003*** (0.000)	0.002*** (0.000)	0.007*** (0.001)	0.002*** (0.000)	0.003*** (0.000)	0.003*** (0.000)	0.007*** (0.001)	0.002*** (0.000)
Bundled Services	-0.016*** (0.003)	-0.014*** (0.003)	0.008 (0.007)	-0.002 (0.001)	-0.017*** (0.003)	-0.015*** (0.003)	0.012* (0.007)	-0.002 (0.001)
Flow Volatility	0.235*** (0.022)	0.239*** (0.025)		0.233*** (0.024)	0.237*** (0.023)	0.239*** (0.026)		0.236*** (0.024)
Plan Complexity	0.008*** (0.001)	0.006*** (0.001)	0.011*** (0.004)	0.003*** (0.001)	0.008*** (0.001)	0.006*** (0.001)	0.011*** (0.004)	0.003*** (0.001)
Participant Loans	0.984*** (0.262)	0.531* (0.272)	-2.107* (1.266)	0.642*** (0.234)	0.977*** (0.270)	0.589** (0.275)	-2.048 (1.284)	0.699*** (0.236)
Eligible Compensation	0.052*** (0.011)	0.037*** (0.011)	-0.031** (0.013)	0.005 (0.008)	0.059*** (0.012)	0.043*** (0.012)	-0.023 (0.015)	0.007 (0.008)
Fund Controls	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
RK FE	YES	YES	NO	NO	YES	YES	NO	NO
Fund FE	NO	YES	YES	NO	NO	YES	YES	NO
Plan FE	NO	NO	YES	NO	NO	NO	YES	NO
Fund-year FE	NO	NO	NO	YES	NO	NO	NO	YES
Observations	14,892	14,552	14,546	13,270	14,471	14,130	14,123	12,867
R-squared	0.129	0.250	0.360	0.356	0.131	0.252	0.363	0.355

Table IA.7: Fund Deletions, Plans Below- and Above-Median Total Assets.

The table re-estimates the baseline logit model described in Table 4 for the subsample of plans with below- and above-median total assets, respectively. The empirical specifications and controls are identical to those in Table 4. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

Panel A: Using the Revenue Sharing Indicator						
	(1)		(2)		(3)	
	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE
Revenue Sharing Fund	-0.505*** (0.102)	-0.089 (0.106)	-0.791*** (0.150)	-0.225 (0.159)	-0.496*** (0.136)	0.062 (0.141)
Prior 3-year Performance	-0.013*** (0.003)	-0.016*** (0.003)	-0.006 (0.006)	-0.016*** (0.005)	-0.018*** (0.003)	-0.017*** (0.003)
Expense Ratio	0.881*** (0.289)	0.889*** (0.277)	1.753 (2.027)	2.050 (1.303)	0.681* (0.361)	0.826** (0.332)
Log(Option Size)	-0.118*** (0.025)	-0.033 (0.024)	-0.124*** (0.042)	-0.048 (0.048)	-0.170*** (0.033)	-0.090** (0.035)
Log(Plan Assets)	0.280*** (0.097)	0.091 (0.077)	0.266* (0.144)	0.241* (0.130)	-0.465 (0.635)	-0.665 (0.759)
Log(Average Account Size)	0.006 (0.075)	-0.143** (0.069)	-0.133 (0.112)	-0.310*** (0.102)	-0.038 (0.447)	-2.642*** (0.892)
Perc of Affiliated Funds	-0.439** (0.182)	-0.331* (0.192)	-0.578** (0.262)	-0.380 (0.302)	2.834*** (0.766)	0.086 (1.067)
Employer Match	-0.130 (0.125)	0.114 (0.100)	0.167 (0.210)	-0.083 (0.145)	-1.485*** (0.430)	-1.586*** (0.582)
Perc in Employer Securities	-1.867*** (0.473)	-0.300 (0.461)	-2.480*** (0.693)	-0.203 (0.755)	-2.511 (3.054)	-8.257** (3.887)
Unionization	-0.419*** (0.123)	-0.090 (0.104)	-0.528*** (0.167)	-0.164 (0.158)	0.423 (0.579)	1.703*** (0.484)
Plan Age	0.439*** (0.076)	0.298*** (0.080)	0.442*** (0.133)	0.534*** (0.140)	-1.715** (0.692)	0.293 (0.726)
MFoptions	0.028*** (0.004)	0.021*** (0.002)	0.024*** (0.007)	0.027*** (0.005)	0.039*** (0.009)	0.115*** (0.027)
Bundled Services	-0.034 (0.028)	0.055** (0.022)	-0.016 (0.039)	0.073** (0.033)	-0.087 (0.107)	0.204 (0.130)
Flow Volatility	1.927*** (0.264)	2.693*** (0.213)	3.101*** (0.473)	3.298*** (0.390)	-6.330 (5.175)	-80.214 (71.656)
Plan Complexity	0.055** (0.026)	0.081*** (0.019)	0.001 (0.037)	0.072*** (0.028)	-0.438*** (0.114)	0.261*** (0.086)
Participant Loans	17.553*** (3.686)	-4.595 (4.255)	18.119*** (5.332)	-8.448 (5.769)	-28.618 (29.026)	-132.038*** (48.825)
Eligible Compensation	0.184 (0.145)	-0.317** (0.125)	0.302 (0.211)	-0.345* (0.202)	-0.425 (0.276)	-0.112 (0.240)
Fund Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Fund FE	NO	NO	YES	YES	NO	NO
Plan FE	NO	NO	NO	NO	YES	YES
Observations	7,171	7,721	5,732	5,985	6,057	6,514

Panel B: Using the Revenue Sharing Percentage

	(1)		(2)		(3)	
	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE
Revenue Sharing Percentage	-0.838*** (0.324)	-0.567 (0.408)	-1.488*** (0.541)	-0.542 (0.650)	-0.535 (0.457)	0.054 (0.524)
Prior 3-year Performance	-0.013*** (0.003)	-0.015*** (0.003)	-0.004 (0.006)	-0.015*** (0.005)	-0.017*** (0.003)	-0.017*** (0.003)
Expense Ratio	0.723*** (0.277)	0.918*** (0.270)	1.409 (2.065)	1.761 (1.352)	0.540 (0.343)	0.799** (0.321)
Log(Option Size)	-0.131*** (0.025)	-0.028 (0.025)	-0.127*** (0.042)	-0.062 (0.052)	-0.187*** (0.032)	-0.075** (0.037)
Log(Plan Assets)	0.250** (0.103)	0.072 (0.080)	0.131 (0.155)	0.305** (0.138)	-0.598 (0.645)	-0.857 (0.764)
Log(Average Account Size)	0.023 (0.078)	-0.148** (0.070)	-0.111 (0.112)	-0.280** (0.110)	0.020 (0.461)	-2.726*** (0.899)
Perc of Affiliated Funds	-0.509*** (0.189)	-0.272 (0.190)	-0.725*** (0.271)	-0.191 (0.303)	3.553*** (0.734)	0.007 (1.394)
Employer Match	-0.095 (0.126)	0.262** (0.112)	0.318 (0.205)	0.135 (0.175)	-1.531*** (0.450)	-1.447** (0.585)
Perc in Employer Securities	-1.882*** (0.489)	-0.420 (0.475)	-2.698*** (0.746)	-0.568 (0.773)	-2.961 (3.066)	-9.884** (3.987)
Unionization	-0.348*** (0.119)	-0.070 (0.111)	-0.507*** (0.168)	-0.137 (0.168)	1.287** (0.621)	1.487*** (0.461)
Plan Age	0.454*** (0.078)	0.343*** (0.082)	0.441*** (0.132)	0.560*** (0.139)	-1.772** (0.709)	0.442 (0.764)
MFoptions	0.029*** (0.004)	0.022*** (0.002)	0.025*** (0.007)	0.029*** (0.005)	0.037*** (0.008)	0.122*** (0.029)
Bundled Services	-0.030 (0.031)	0.042* (0.022)	-0.013 (0.044)	0.060* (0.036)	-0.082 (0.107)	0.261* (0.135)
Flow Volatility	1.873*** (0.265)	2.787*** (0.227)	3.219*** (0.489)	3.382*** (0.370)	-5.783 (5.216)	-88.763 (73.817)
Plan Complexity	0.046* (0.027)	0.076*** (0.020)	0.005 (0.039)	0.077** (0.030)	-0.495*** (0.122)	0.258*** (0.086)
Participant Loans	17.085*** (3.571)	-3.575 (4.553)	16.889*** (5.260)	-6.030 (6.246)	-23.630 (29.369)	-151.773*** (51.090)
Eligible Compensation	0.271* (0.156)	-0.312** (0.127)	0.451** (0.223)	-0.376* (0.204)	-0.196 (0.324)	0.016 (0.242)
Fund Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Fund FE	NO	NO	YES	YES	NO	NO
Plan FE	NO	NO	NO	NO	YES	YES
Observations	6,992	7,479	5,549	5,784	5,796	6,235

Table IA.8: Fund Additions, Plans Below- and Above-Median Total Assets.

The table re-estimates the baseline logit model described in Table 5 for the subsample of plans with below- and above-median total assets, respectively. The empirical specifications and controls are identical to those in Table 5. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

Panel A: Using the Probability of Revenue Sharing				
	(1)		(2)	
	SMALL	LARGE	SMALL	LARGE
Probability of Revenue Sharing	0.919*** (0.183)	0.172 (0.225)	0.946*** (0.185)	0.150 (0.226)
Prior 3-year Performance	0.014*** (0.003)	0.008** (0.004)	0.015*** (0.003)	0.008** (0.004)
Expense Ratio	-1.162*** (0.307)	-2.213*** (0.349)	-1.135*** (0.307)	-2.243*** (0.355)
Log(Plan Assets)	-0.295*** (0.059)	-0.086 (0.070)	-2.251*** (0.366)	-1.762*** (0.675)
Log(Average Account Size)	-0.020 (0.045)	-0.157*** (0.055)	-0.057 (0.182)	0.478 (0.365)
Perc of Affiliated Funds	-2.271*** (0.174)	-1.496*** (0.158)	-4.816*** (0.465)	-6.764*** (0.903)
No. of Funds in the Same Style	-0.302*** (0.047)	-0.222*** (0.037)	-0.204*** (0.042)	-0.197*** (0.039)
Employer Match	-0.115 (0.099)	-0.120 (0.095)	-0.780*** (0.284)	-0.134 (0.210)
Perc in Employer Securities	-1.421*** (0.323)	-0.984*** (0.293)	-5.585*** (1.540)	-0.450 (2.161)
Unionization	-0.087 (0.075)	0.055 (0.075)	-0.383 (0.263)	0.268 (0.257)
Plan Age	0.058 (0.044)	-0.015 (0.057)	0.259 (0.359)	1.583*** (0.398)
MFoptions	0.054*** (0.002)	0.037*** (0.002)	0.069*** (0.007)	0.052*** (0.008)
Bundled Services	-0.093*** (0.021)	-0.026 (0.020)	0.163** (0.081)	0.097 (0.091)
Flow Volatility	1.191*** (0.144)	0.498** (0.202)	-4.542*** (1.109)	2.259 (3.624)
Plan Complexity	0.064*** (0.017)	0.035** (0.016)	0.236*** (0.063)	0.225*** (0.054)
Participant Loans	10.341*** (2.286)	-0.532 (3.547)	-17.242 (12.305)	6.490 (16.301)
Eligible Compensation	0.291*** (0.092)	0.032 (0.086)	-0.214 (0.184)	-0.052 (0.194)
Fund Controls	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Plan FE	NO	NO	YES	YES
Observations	950,443	954,435	845,775	767,069

Panel B: Using the Revenue Sharing Percentage

	(1)		(2)	
	SMALL	LARGE	SMALL	LARGE
Average Revenue Sharing	2.789*** (0.664)	0.269 (0.982)	2.829*** (0.667)	0.235 (0.986)
Prior 3-year Performance	0.014*** (0.003)	0.008** (0.004)	0.014*** (0.003)	0.008** (0.004)
Expense Ratio	-1.127*** (0.301)	-2.177*** (0.348)	-1.100*** (0.301)	-2.213*** (0.356)
Log(Plan Assets)	-0.293*** (0.059)	-0.086 (0.070)	-2.276*** (0.368)	-1.767*** (0.676)
Log(Average Account Size)	-0.021 (0.045)	-0.157*** (0.055)	-0.070 (0.183)	0.472 (0.365)
Perc of Affiliated Funds	-2.263*** (0.174)	-1.495*** (0.158)	-4.811*** (0.464)	-6.766*** (0.904)
No. of Funds in the Same Style	-0.307*** (0.047)	-0.223*** (0.037)	-0.208*** (0.042)	-0.197*** (0.039)
Employer Match	-0.114 (0.099)	-0.120 (0.095)	-0.793*** (0.286)	-0.135 (0.210)
Perc in Employer Securities	-1.428*** (0.323)	-0.986*** (0.293)	-5.540*** (1.541)	-0.434 (2.163)
Unionization	-0.085 (0.075)	0.055 (0.075)	-0.381 (0.263)	0.267 (0.257)
Plan Age	0.058 (0.044)	-0.015 (0.057)	0.212 (0.365)	1.582*** (0.398)
MFoptions	0.054*** (0.002)	0.037*** (0.002)	0.068*** (0.007)	0.052*** (0.008)
Bundled Services	-0.095*** (0.021)	-0.026 (0.020)	0.167** (0.080)	0.097 (0.091)
Flow Volatility	1.187*** (0.144)	0.497** (0.202)	-4.749*** (1.100)	2.269 (3.634)
Plan Complexity	0.064*** (0.017)	0.035** (0.016)	0.242*** (0.063)	0.225*** (0.054)
Participant Loans	10.317*** (2.285)	-0.522 (3.547)	-19.399 (12.564)	6.758 (16.303)
Eligible Compensation	0.291*** (0.092)	0.032 (0.086)	-0.208 (0.184)	-0.052 (0.194)
Fund Controls	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Plan FE	NO	NO	YES	YES
Observations	950,443	954,435	845,775	767,069

Table IA.9: Fund Deletions with Affiliated Funds.

The table re-estimates the baseline logit model described in Table 4 using an augmented sample that includes affiliated funds. Since revenue sharing is not available for affiliated funds, ‘*Revenue Sharing Fund*’ and ‘*Revenue Sharing Percentage*’ are set to zero and the regression includes an indicator variable for affiliated funds. The empirical specifications and controls are otherwise identical to those in Table 4. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Revenue Sharing Fund	-0.353*** (0.080)	-0.396*** (0.091)	-0.367*** (0.103)			
Revenue Sharing Percentage				-1.080*** (0.284)	-1.042*** (0.329)	-1.101*** (0.346)
Affiliated Fund	0.124 (0.109)	-0.694*** (0.107)	0.217 (0.136)	0.178 (0.113)	-0.637*** (0.104)	0.295** (0.147)
Prior 3-year Performance	-0.013*** (0.002)	-0.005** (0.002)	-0.012*** (0.002)	-0.012*** (0.002)	-0.004** (0.002)	-0.012*** (0.002)
Expense Ratio	1.821*** (0.287)	0.325 (0.740)	2.044*** (0.353)	1.828*** (0.279)	0.166 (0.740)	2.065*** (0.344)
Log(Option Size)	-0.059*** (0.015)	-0.074*** (0.016)	-0.130*** (0.023)	-0.060*** (0.015)	-0.076*** (0.016)	-0.131*** (0.022)
Log(Plan Assets)	-0.008 (0.033)	0.068** (0.034)	0.590* (0.305)	-0.009 (0.034)	0.061* (0.035)	0.535* (0.305)
Log(Average Account Size)	-0.060 (0.038)	0.027 (0.050)	-0.695*** (0.238)	-0.068* (0.038)	0.029 (0.050)	-0.718*** (0.243)
Perc of Affiliated Funds	-0.575*** (0.111)	-0.503*** (0.136)	3.262*** (0.389)	-0.567*** (0.112)	-0.485*** (0.138)	3.708*** (0.384)
Employer Match	0.009 (0.047)	0.006 (0.058)	-0.572*** (0.190)	0.049 (0.050)	0.043 (0.060)	-0.603*** (0.192)
Perc in Employer Securities	-0.347* (0.182)	-0.504** (0.218)	0.365 (1.240)	-0.344* (0.188)	-0.495** (0.223)	0.278 (1.224)
Unionization	-0.066 (0.041)	-0.177*** (0.049)	1.063*** (0.143)	-0.053 (0.041)	-0.165*** (0.049)	1.111*** (0.135)
Plan Age	0.188*** (0.028)	0.105*** (0.037)	0.847** (0.376)	0.194*** (0.028)	0.108*** (0.037)	0.844** (0.376)
MFoptions	0.019*** (0.001)	0.019*** (0.002)	0.047*** (0.005)	0.020*** (0.001)	0.019*** (0.002)	0.047*** (0.005)
Bundled Services	-0.123*** (0.023)	0.019 (0.017)	-0.154*** (0.051)	-0.128*** (0.023)	0.016 (0.018)	-0.136*** (0.051)
Flow Volatility	1.373*** (0.124)	1.725*** (0.162)	2.194 (2.017)	1.357*** (0.124)	1.716*** (0.161)	2.260 (1.987)
Plan Complexity	0.060*** (0.011)	0.062*** (0.011)	0.158*** (0.042)	0.058*** (0.011)	0.062*** (0.012)	0.167*** (0.042)
Participant Loans	0.400 (1.627)	-1.650 (1.948)	-12.853 (14.769)	0.554 (1.646)	-1.130 (1.967)	-10.238 (14.886)
Eligible Compensation	-0.019 (0.071)	0.051 (0.094)	-0.059 (0.135)	0.018 (0.072)	0.085 (0.097)	0.054 (0.147)
Fund Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Fund FE	NO	YES	NO	NO	YES	NO
Plan FE	NO	NO	YES	NO	NO	YES
Observations	28,864	26,642	26,763	28,443	26,232	26,236

Table IA.10: Fund Additions with Affiliated Funds.

The table re-estimates the baseline logit model described in Table 5 using an augmented sample that includes affiliated funds. As in Table IA.9, ‘Probability of Revenue Sharing’ and ‘Average Revenue Sharing’ are set to zero and the regression includes an indicator variable for affiliated funds. The empirical specifications and controls are otherwise identical to those in Table 5. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Probability of Revenue Sharing	0.867*** (0.185)	0.835*** (0.187)		
Average Revenue Sharing			3.135*** (0.728)	2.922*** (0.725)
Affiliated Fund	1.682*** (0.123)	1.631*** (0.124)	1.632*** (0.121)	1.579*** (0.120)
Prior 3-year Performance	0.008*** (0.003)	0.009*** (0.003)	0.008*** (0.003)	0.009*** (0.003)
Expense Ratio	-2.151*** (0.307)	-2.081*** (0.293)	-2.131*** (0.303)	-2.058*** (0.290)
Log(Plan Assets)	-0.279*** (0.031)	-1.901*** (0.236)	-0.279*** (0.031)	-1.898*** (0.236)
Log(Average Account Size)	-0.045 (0.029)	0.195* (0.117)	-0.044 (0.029)	0.195* (0.117)
Perc of Affiliated Funds	-1.069*** (0.089)	-3.384*** (0.296)	-1.063*** (0.089)	-3.382*** (0.297)
No. of Funds in the Same Style	-0.228*** (0.029)	-0.174*** (0.028)	-0.230*** (0.029)	-0.177*** (0.029)
Employer Match	-0.098 (0.066)	-0.404*** (0.144)	-0.099 (0.066)	-0.403*** (0.144)
Perc in Employer Securities	-0.670*** (0.199)	-2.799** (1.092)	-0.677*** (0.199)	-2.791** (1.092)
Unionization	-0.048 (0.044)	-0.217 (0.132)	-0.048 (0.044)	-0.219* (0.132)
Plan Age	0.082*** (0.028)	0.195 (0.202)	0.082*** (0.028)	0.195 (0.202)
MFoptions	0.043*** (0.001)	0.057*** (0.005)	0.043*** (0.001)	0.057*** (0.005)
Bundled Services	0.024 (0.015)	0.142*** (0.045)	0.022 (0.015)	0.141*** (0.045)
Flow Volatility	0.977*** (0.092)	82.816*** (30.113)	0.972*** (0.091)	82.672*** (30.119)
Plan Complexity	0.039*** (0.010)	0.170*** (0.032)	0.039*** (0.010)	0.170*** (0.032)
Participant Loans	0.906 (1.655)	-1.607 (8.336)	0.912 (1.655)	-1.639 (8.342)
Eligible Compensation	0.097 (0.072)	-0.184 (0.123)	0.098 (0.072)	-0.183 (0.123)
Fund Controls	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Plan FE	NO	YES	NO	YES
Observations	2,058,719	1,876,890	2,058,719	1,876,890

Table IA.11: Fund Deletions, Revenue Sharing, and 12b1 Fees.

The table re-estimates the baseline logit model described in Table 4 by adding 12b1 fees as an additional control. The empirical specifications and controls are identical to those in Table 4. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Revenue Sharing Fund	-0.295*** (0.079)			-0.384*** (0.105)			-0.250** (0.106)		
Revenue Sharing Percentage		-0.812*** (0.284)			-1.046*** (0.377)			-0.552 (0.385)	
12b1 Fee	1.647*** (0.593)	1.669*** (0.564)	1.500** (0.595)	-2.695 (2.597)	-2.712 (2.619)	-3.180 (2.511)	2.407*** (0.720)	2.313*** (0.697)	2.320*** (0.725)
Prior 3-year Performance	-0.013*** (0.002)	-0.012*** (0.002)	-0.013*** (0.002)	-0.013*** (0.004)	-0.012*** (0.004)	-0.013*** (0.004)	-0.016*** (0.003)	-0.015*** (0.003)	-0.015*** (0.003)
Expense Ratio	0.796*** (0.249)	0.755*** (0.236)	0.607** (0.250)	2.053* (1.119)	1.752 (1.119)	2.256** (1.081)	0.729** (0.286)	0.686** (0.270)	0.609** (0.289)
Log(Option Size)	-0.053*** (0.018)	-0.058*** (0.018)	-0.061*** (0.018)	-0.081*** (0.028)	-0.086*** (0.028)	-0.081*** (0.027)	-0.121*** (0.026)	-0.121*** (0.026)	-0.129*** (0.025)
Log(Plan Assets)	0.011 (0.044)	0.014 (0.046)	0.018 (0.046)	0.065 (0.065)	0.048 (0.073)	0.059 (0.069)	-0.513 (0.465)	-0.619 (0.470)	-0.529 (0.455)
Log(Average Account Size)	-0.017 (0.047)	-0.024 (0.048)	-0.013 (0.047)	-0.135** (0.063)	-0.125* (0.065)	-0.116* (0.063)	-0.415 (0.406)	-0.445 (0.420)	-0.415 (0.396)
Perc of Affiliated Funds	-0.334** (0.130)	-0.337*** (0.129)	-0.355*** (0.128)	-0.405** (0.172)	-0.359** (0.174)	-0.413** (0.167)	2.093*** (0.613)	2.693*** (0.618)	0.945 (0.626)
Employer Match	0.119 (0.074)	0.207** (0.081)	0.151** (0.074)	0.093 (0.107)	0.189* (0.115)	0.121 (0.108)	-1.521*** (0.342)	-1.520*** (0.344)	-1.556*** (0.344)
Perc in Employer Securities	-0.923*** (0.351)	-0.937*** (0.361)	-0.756** (0.334)	-1.214** (0.487)	-1.265** (0.501)	-0.920** (0.456)	-3.912* (2.330)	-4.510* (2.417)	-4.786** (2.372)
Unionization	-0.178** (0.074)	-0.147* (0.076)	-0.175** (0.073)	-0.231** (0.101)	-0.207** (0.103)	-0.231** (0.099)	1.414*** (0.387)	1.491*** (0.371)	1.334*** (0.360)
Plan Age	0.369*** (0.055)	0.395*** (0.057)	0.402*** (0.055)	0.409*** (0.083)	0.437*** (0.084)	0.442*** (0.084)	-0.520 (0.496)	-0.451 (0.495)	-0.633 (0.492)
MFoptions	0.021*** (0.002)	0.022*** (0.002)	0.019*** (0.002)	0.020*** (0.003)	0.021*** (0.003)	0.018*** (0.003)	0.078*** (0.013)	0.078*** (0.013)	0.073*** (0.011)
Bundled Services	-0.004 (0.017)	-0.009 (0.018)	0.012 (0.017)	0.003 (0.022)	-0.003 (0.023)	0.025 (0.022)	0.012 (0.077)	0.051 (0.079)	0.033 (0.074)
Flow Volatility	2.346*** (0.187)	2.392*** (0.191)	2.475*** (0.192)	3.025*** (0.301)	3.085*** (0.291)	3.291*** (0.307)	-1.778 (7.734)	-2.005 (7.812)	-1.501 (7.738)
Plan Complexity	0.086*** (0.015)	0.079*** (0.016)	0.093*** (0.015)	0.083*** (0.021)	0.082*** (0.023)	0.088*** (0.021)	0.054 (0.061)	0.070 (0.062)	0.081 (0.059)
Participant Loans	7.994*** (2.745)	8.535*** (2.799)	7.931*** (2.681)	6.874* (3.680)	8.789** (3.690)	6.847* (3.621)	-38.253 (23.298)	-37.848 (23.877)	-49.754** (23.022)
Eligible Compensation	-0.038 (0.088)	0.009 (0.092)	-0.004 (0.084)	0.032 (0.114)	0.054 (0.119)	0.082 (0.109)	-0.440** (0.176)	-0.315 (0.198)	-0.467*** (0.170)
Fund Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fund FE	NO	NO	NO	YES	YES	YES	NO	NO	NO
Plan FE	NO	NO	NO	NO	NO	NO	YES	YES	YES
Observations	14,362	13,949	14,598	12,443	12,041	12,683	12,156	11,620	12,411

Table IA.12: Fund Additions, Revenue Sharing, and 12b1 fees.

The table re-estimates the baseline logit model described in Table 5 by adding 12b1 fees as an additional control. The empirical specifications and controls are identical to those in Table 5. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Probability of Revenue Sharing	0.582*** (0.178)	0.589*** (0.178)				
Average Revenue Sharing			1.873*** (0.679)	1.878*** (0.680)		
12b1 Fee	-1.364*** (0.376)	-1.367*** (0.375)	-1.387*** (0.375)	-1.389*** (0.374)	-1.386*** (0.377)	-1.389*** (0.376)
Prior 3-year Performance	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.010*** (0.003)	0.011*** (0.003)
Expense Ratio	-1.446*** (0.316)	-1.443*** (0.318)	-1.409*** (0.311)	-1.407*** (0.315)	-1.255*** (0.304)	-1.253*** (0.307)
Log(Plan Assets)	-0.255*** (0.035)	-2.309*** (0.287)	-0.254*** (0.035)	-2.305*** (0.287)	-0.254*** (0.035)	-2.303*** (0.286)
Log(Average Account Size)	-0.049 (0.035)	0.134 (0.153)	-0.049 (0.035)	0.135 (0.153)	-0.049 (0.035)	0.134 (0.153)
Perc of Affiliated Funds	-1.874*** (0.140)	-4.791*** (0.383)	-1.869*** (0.140)	-4.789*** (0.383)	-1.867*** (0.140)	-4.786*** (0.383)
No. of Funds in the Same Style	-0.271*** (0.038)	-0.209*** (0.037)	-0.273*** (0.038)	-0.212*** (0.037)	-0.274*** (0.038)	-0.212*** (0.037)
Employer Match	-0.045 (0.075)	-0.521*** (0.196)	-0.046 (0.075)	-0.520*** (0.196)	-0.046 (0.075)	-0.520*** (0.196)
Perc in Employer Securities	-1.171*** (0.245)	-2.946** (1.194)	-1.176*** (0.245)	-2.938** (1.194)	-1.176*** (0.245)	-2.940** (1.194)
Unionization	-0.053 (0.049)	0.074 (0.174)	-0.053 (0.049)	0.074 (0.174)	-0.053 (0.049)	0.073 (0.174)
Plan Age	0.024 (0.031)	0.657** (0.280)	0.024 (0.031)	0.657** (0.280)	0.024 (0.031)	0.657** (0.280)
MFOptions	0.045*** (0.002)	0.056*** (0.005)	0.045*** (0.002)	0.056*** (0.005)	0.045*** (0.002)	0.056*** (0.005)
Bundled Services	-0.065*** (0.015)	0.111* (0.061)	-0.066*** (0.015)	0.110* (0.061)	-0.065*** (0.015)	0.111* (0.061)
Flow Volatility	0.887*** (0.100)	100.818*** (29.999)	0.884*** (0.100)	100.643*** (30.010)	0.884*** (0.100)	100.562*** (30.016)
Plan Complexity	0.057*** (0.012)	0.256*** (0.040)	0.057*** (0.012)	0.256*** (0.040)	0.057*** (0.012)	0.256*** (0.040)
Participant Loans	7.021*** (2.085)	-2.721 (10.888)	7.028*** (2.085)	-2.741 (10.891)	7.014*** (2.087)	-2.762 (10.896)
Eligible Compensation	0.173*** (0.065)	-0.254* (0.132)	0.173*** (0.065)	-0.252* (0.132)	0.173*** (0.065)	-0.252* (0.132)
Fund Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Plan FE	NO	YES	NO	YES	NO	YES
Observations	1,882,651	1,622,561	1,882,651	1,622,561	1,882,651	1,622,561

Table IA.13: Subsample Analysis Excluding Large Recordkeepers.

This table reports the coefficient estimates for our explanatory variables of interest following our baseline deletion and additions models from Tables 4 and 5 in the paper, respectively. The estimation excludes each of the 5 largest recordkeepers (based on the total 401(k) assets they administer in our sample) one by one, starting with the largest being excluded in the first column. Panel A contains the coefficient estimates for the no fixed effects model, while Panels B and C tabulate coefficient estimates from the fund and plan fixed effects specifications.

Panel A: No Fund FEs					
	FID	VAN	JPM	PRI	MGI
Revenue Sharing Fund					
Deletions	-0.199** (0.093)	-0.219*** (0.080)	-0.322*** (0.077)	-0.219*** (0.076)	-0.193** (0.088)
	7,420	14,030	13,541	13,899	12,874
Additions	0.751*** (0.220)	0.613*** (0.178)	0.564*** (0.180)	0.625*** (0.177)	0.628*** (0.179)
	972,244	1,678,825	1,737,590	1,692,535	1,748,445
Revenue Sharing Percentage					
Deletions	-0.645* (0.370)	-0.508* (0.292)	-0.791*** (0.277)	-0.568** (0.285)	-0.363 (0.297)
	7,011	13,609	13,255	13,479	12,454
Additions	1.463 (0.925)	1.916*** (0.675)	1.785*** (0.691)	1.966*** (0.680)	2.186*** (0.693)
	972,244	1,678,825	1,737,590	1,692,535	1,748,445
Panel B: Fund FEs					
Revenue Sharing Fund					
Deletions	-0.170 (0.142)	-0.331*** (0.116)	-0.461*** (0.105)	-0.340*** (0.105)	-0.235* (0.129)
	5,987	11,991	11,662	11,906	10,924
Revenue Sharing Percentage					
Deletions	-0.080 (0.584)	-0.770* (0.408)	-1.109*** (0.381)	-0.838** (0.395)	-0.300 (0.423)
	5,622	11,588	11,389	11,500	10,531
Panel C: Plan FEs					
Revenue Sharing Fund					
Deletions	-0.180 (0.124)	-0.167 (0.103)	-0.244** (0.103)	-0.153 (0.101)	-0.309*** (0.103)
	6,502	12,082	11,477	11,961	10,778
Additions	0.730*** (0.221)	0.627*** (0.179)	0.570*** (0.181)	0.637*** (0.177)	0.647*** (0.178)
	811,104	1,478,685	1,503,237	1,471,527	1,497,502
Revenue Sharing Percentage					
Deletions	-0.655 (0.541)	-0.202 (0.377)	-0.451 (0.361)	-0.248 (0.387)	-0.519 (0.380)
	5,988	11,538	11,109	11,412	10,235
Additions	1.379 (0.934)	1.941*** (0.673)	1.792*** (0.693)	1.983*** (0.679)	2.212*** (0.689)
	811,104	1,478,685	1,503,237	1,471,527	1,497,502

Table IA.14: Revenue Sharing and Plan Costs Paid by Participants, Other Specifications.

The table reports coefficient estimates for the following OLS model: $PlanCost_{p,t} = \beta RSplan_{p,t} + \Gamma'Controls_{p,t} + \epsilon_{p,t}$. In columns 1,2,5, and 6, $PlanCost_{p,t}$ is the asset weighted average expense ratio in plan p in year t . In columns 3,4,7, and 8, $PlanCost_{p,t}$ is the all-in fee of plan participants, calculated as the sum of administrative fees (expressed as a percent of plan assets) and the average expense ratio of the plan's mutual fund options. $Controls_{p,t}$ is the vector of control variables. In addition to those listed, the model includes fund controls, which are plan-level value-weighted average fund characteristics such as fund style and type, as well as fund performance, age, size, and turnover. All variables are described in Table A.1. Standard errors are clustered at the plan level. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively

	Avg Expense Ratio		All-in Fees		Avg Expense Ratio		All-in Fees	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Revenue Sharing Plan	0.029*** (0.007)	0.015** (0.006)	0.024*** (0.009)	0.014** (0.006)				
Average Revenue Sharing					0.271*** (0.033)	0.160*** (0.033)	0.232*** (0.043)	0.186*** (0.034)
Log(Average Option Size)	-0.001 (0.003)	0.001 (0.002)	-0.005 (0.004)	0.002 (0.003)	-0.000 (0.003)	0.001 (0.002)	-0.005 (0.004)	0.002 (0.003)
Log(Plan Assets)	-0.013*** (0.005)	-0.039** (0.016)	-0.014** (0.006)	-0.065*** (0.017)	-0.011** (0.005)	-0.038** (0.016)	-0.012** (0.006)	-0.064*** (0.017)
Log(Average Account Size)	-0.028*** (0.006)	0.006 (0.011)	-0.057*** (0.008)	0.003 (0.013)	-0.025*** (0.006)	0.008 (0.011)	-0.054*** (0.008)	0.005 (0.012)
Perc of Affiliated Funds	0.067*** (0.019)	0.105** (0.046)	0.013 (0.022)	0.089** (0.045)	0.049*** (0.019)	0.078* (0.045)	-0.004 (0.021)	0.059 (0.044)
Employer Match	-0.003 (0.008)	0.002 (0.009)	0.016 (0.012)	0.010 (0.010)	-0.003 (0.008)	0.003 (0.009)	0.017 (0.012)	0.011 (0.010)
Perc in Employer Securities	0.024 (0.031)	-0.008 (0.065)	-0.007 (0.039)	-0.069 (0.073)	0.018 (0.031)	-0.007 (0.065)	-0.011 (0.039)	-0.066 (0.072)
Unionization	-0.001 (0.008)	-0.005 (0.009)	0.015 (0.010)	0.005 (0.009)	-0.002 (0.007)	-0.006 (0.009)	0.014 (0.010)	0.004 (0.009)
Plan Age	-0.000 (0.006)	-0.013 (0.015)	-0.002 (0.007)	-0.000 (0.017)	0.001 (0.006)	-0.016 (0.016)	-0.001 (0.007)	-0.004 (0.017)
MFoptions	0.000 (0.000)	-0.000 (0.001)	0.000 (0.000)	-0.001 (0.001)	0.000 (0.000)	-0.000 (0.001)	0.000 (0.000)	-0.001 (0.001)
Bundled Services	0.001 (0.002)	0.005** (0.002)	0.003 (0.003)	0.006** (0.003)	0.001 (0.002)	0.005** (0.002)	0.004 (0.003)	0.005* (0.002)
Flow Volatility	0.019 (0.019)		0.012 (0.021)		0.023 (0.019)		0.016 (0.021)	
Plan Complexity	-0.000 (0.002)	0.001 (0.002)	0.008*** (0.002)	-0.000 (0.002)	-0.000 (0.002)	0.001 (0.002)	0.008*** (0.002)	-0.000 (0.002)
Participant Loans	-0.353 (0.267)	0.325 (0.613)	0.061 (0.319)	0.537 (0.595)	-0.375 (0.264)	0.364 (0.602)	0.044 (0.317)	0.570 (0.597)
Eligible Compensation	0.001 (0.009)	0.026*** (0.009)	-0.023* (0.013)	0.018* (0.010)	0.002 (0.009)	0.024*** (0.009)	-0.023* (0.013)	0.015 (0.009)
Average Fund Controls	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
RK FE	YES	YES	YES	YES	YES	YES	YES	YES
Plan FE	NO	YES	NO	YES	NO	YES	NO	YES
Observations	3,147	3,107	3,147	3,107	3,140	3,100	3,140	3,100
R-squared	0.744	0.923	0.709	0.923	0.750	0.925	0.713	0.924

Table IA.15: Revenue Sharing and Administrative Costs Paid by Participants.

The table reports coefficient estimates for the following OLS model: $PlanCost_{p,t} = \beta RSplan_{p,t} + \mathbf{\Gamma}'\mathbf{Controls}_{p,t} + \epsilon_{p,t}$. $PlanCost_{p,t}$ is the administrative direct cost in plan p in year t . $\mathbf{Controls}_{f,p,t-1}$ is the vector of control variables. In addition to those listed, the model includes fund controls, which are plan-level value-weighted average fund characteristics such as fund style and type, as well as fund performance, age, size, and turnover. All variables are described in Table A.1. Standard errors are clustered at the plan level. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Revenue Sharing Plan	-0.009*	-0.000	-0.006	-0.000				
	(0.005)	(0.003)	(0.005)	(0.003)				
Average Revenue Sharing					-0.049**	0.023	-0.039	0.026*
					(0.024)	(0.016)	(0.025)	(0.014)
Log(Average Option Size)	-0.004*	0.001	-0.004**	0.001	-0.004*	0.001	-0.004**	0.001
	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)
Log(Plan Assets)	0.000	-0.025*	-0.001	-0.026*	-0.000	-0.025*	-0.001	-0.026*
	(0.003)	(0.014)	(0.003)	(0.014)	(0.004)	(0.014)	(0.004)	(0.014)
Log(Average Account Size)	-0.031***	-0.005	-0.029***	-0.003	-0.032***	-0.005	-0.030***	-0.003
	(0.005)	(0.007)	(0.005)	(0.007)	(0.005)	(0.007)	(0.005)	(0.007)
Perc of Affiliated Funds	-0.059***	-0.019*	-0.055***	-0.016	-0.058***	-0.021*	-0.053***	-0.019
	(0.008)	(0.011)	(0.010)	(0.012)	(0.008)	(0.011)	(0.010)	(0.012)
Employer Match	0.018***	0.009	0.019***	0.008	0.018***	0.009	0.019***	0.008
	(0.006)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)
Perc in Employer Securities	-0.045**	-0.062*	-0.030	-0.061	-0.043**	-0.061	-0.029	-0.059
	(0.021)	(0.038)	(0.021)	(0.038)	(0.021)	(0.037)	(0.021)	(0.038)
Unionization	0.014**	0.009*	0.016***	0.010**	0.014**	0.008	0.016***	0.009**
	(0.006)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
Plan Age	-0.002	0.011	-0.002	0.012	-0.002	0.011	-0.002	0.012
	(0.004)	(0.008)	(0.004)	(0.008)	(0.004)	(0.008)	(0.004)	(0.008)
MFOptions	-0.000	-0.001*	-0.000	-0.001	-0.000	-0.001*	-0.000	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bundled Services	0.001	0.001	0.003*	0.001	0.001	0.001	0.003*	0.000
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
Flow Volatility	-0.011		-0.007		-0.010		-0.007	
	(0.012)		(0.011)		(0.012)		(0.011)	
Plan Complexity	0.008***	-0.001	0.008***	-0.001	0.008***	-0.001	0.008***	-0.001
	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)
Participant Loans	0.352*	0.120	0.414**	0.212	0.363*	0.109	0.420**	0.207
	(0.206)	(0.516)	(0.191)	(0.517)	(0.207)	(0.517)	(0.192)	(0.519)
Eligible Compensation	-0.024***	-0.011**	-0.024***	-0.008	-0.024***	-0.011**	-0.024***	-0.009*
	(0.007)	(0.005)	(0.009)	(0.005)	(0.007)	(0.005)	(0.009)	(0.005)
Average Fund Controls	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
RK FE	NO	YES	NO	YES	NO	YES	NO	YES
Plan FE	NO	NO	YES	YES	NO	NO	YES	YES
Observations	3,150	3,111	3,147	3,107	3,143	3,104	3,140	3,100
R-squared	0.319	0.866	0.400	0.871	0.318	0.866	0.400	0.871

Table IA.16: Revenue Sharing and Share Class Level Expense Ratios, Other Specifications.

The table reestimates the model $ExpenseRatio_{p,f,t} = \beta RevenueShare_{p,f,t} + \mathbf{\Gamma}' \mathbf{Controls}_{p,f,t-1} + \epsilon_{p,f,t}$ from Table 9 using alternative fixed effects specifications. In columns 1-4, $RevenueShare_{p,f,t}$ *Fund* is an indicator variable that takes the value of one if fund f revenue shares in plan p at the end of year t . In columns 5-8 of the table, $RevenueShare_{p,f,t}$ *Percentage* is the amount of rebate that fund f pays to plan p 's recordkeeper at the end of year t . $\mathbf{Controls}_{p,t}$ is the vector of control variables. In addition to those listed, the model includes fund controls, which are fund style and type dummies as well as fund age, size, and turnover. All variables are described in Table A.1. Standard errors are clustered at the fund level. Significance levels are denoted by *, **, ***, which correspond to 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Revenue Sharing Fund	0.192*** (0.022)	0.036*** (0.008)	0.026*** (0.007)	0.028*** (0.008)				
Revenue Sharing Percentage					0.866*** (0.057)	0.459*** (0.032)	0.413*** (0.030)	0.438*** (0.035)
Prior 3-year Performance	0.000 (0.000)	0.000* (0.000)	0.000** (0.000)		0.000 (0.000)	0.000** (0.000)	0.000** (0.000)	
Style Expense Ratio	0.598*** (0.085)	0.238** (0.098)	0.235** (0.096)		0.553*** (0.079)	0.236*** (0.090)	0.216** (0.088)	
Log(Option Size)	-0.004 (0.003)	-0.004*** (0.001)	-0.002* (0.001)	-0.005*** (0.001)	-0.001 (0.003)	-0.005*** (0.001)	-0.004*** (0.001)	-0.006*** (0.001)
Log(Plan Assets)	-0.009* (0.005)	-0.008*** (0.003)	-0.036*** (0.012)	-0.005** (0.003)	-0.008* (0.005)	-0.002 (0.002)	-0.028** (0.012)	0.001 (0.002)
Log(Average Account Size)	-0.009 (0.006)	-0.014*** (0.004)	0.004 (0.010)	-0.016*** (0.004)	0.001 (0.006)	-0.008*** (0.003)	-0.002 (0.010)	-0.009*** (0.003)
Perc of Affiliated Funds	0.002 (0.015)	-0.032*** (0.010)	0.007 (0.015)	-0.021*** (0.007)	0.007 (0.015)	-0.029*** (0.009)	0.013 (0.015)	-0.015** (0.006)
Employer Match	-0.002 (0.010)	-0.004 (0.004)	-0.005 (0.010)	-0.005 (0.003)	0.011 (0.011)	0.003 (0.004)	-0.006 (0.009)	-0.002 (0.004)
Perc in Employer Securities	-0.011 (0.032)	0.024 (0.015)	-0.002 (0.055)	0.027* (0.014)	-0.003 (0.028)	0.021 (0.013)	0.030 (0.054)	0.023* (0.013)
Unionization	0.000 (0.007)	-0.008** (0.003)	-0.016** (0.006)	-0.009*** (0.003)	0.001 (0.007)	-0.008*** (0.003)	-0.018*** (0.006)	-0.009*** (0.003)
Plan Age	0.006 (0.005)	0.002 (0.002)	0.005 (0.007)	0.002 (0.002)	0.006 (0.004)	0.001 (0.002)	0.005 (0.005)	-0.000 (0.002)
MFoptions	0.002*** (0.000)	0.001*** (0.000)	-0.000 (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	-0.000 (0.000)	0.000** (0.000)
Bundled Services	0.001 (0.004)	0.003 (0.002)	0.006** (0.002)	0.001 (0.001)	0.000 (0.004)	0.003* (0.002)	0.004** (0.002)	0.004*** (0.001)
Flow Volatility	-0.006 (0.019)	-0.010 (0.010)		-0.015 (0.010)	0.017 (0.017)	-0.008 (0.008)		-0.014* (0.008)
Plan Complexity	-0.001 (0.001)	-0.002** (0.001)	0.004*** (0.001)	-0.002*** (0.001)	-0.000 (0.001)	-0.001** (0.001)	0.004*** (0.001)	-0.002*** (0.001)
Participant Loans	0.473* (0.284)	0.120 (0.151)	-0.776 (0.657)	0.143 (0.151)	0.170 (0.275)	0.062 (0.139)	-0.429 (0.584)	0.009 (0.119)
Eligible Compensation	-0.027*** (0.010)	-0.004 (0.006)	-0.004 (0.007)	0.004 (0.005)	-0.004 (0.011)	-0.002 (0.006)	-0.008 (0.007)	0.003 (0.004)
Fund Controls	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	NO	YES	YES	YES	NO
Fund FE	NO	YES	YES	NO	NO	YES	YES	NO
Plan FE	NO	NO	YES	NO	NO	NO	YES	NO
Fund-Year FE	NO	NO	NO	YES	NO	NO	NO	YES
RK FE	YES	YES	NO	NO	YES	YES	NO	NO
Observations	9,921	9,664	9,656	8,632	9,672	9,410	9,402	8,409
R-squared	0.743	0.942	0.953	0.945	0.771	0.953	0.961	0.956