#### ANALYSIS ASSUMPTIONS

- \* Simulate 3.0% sample of PENSIM 1985 birth cohort assuming current-law pension policy, 2005TR intermediate-cost demographic and economic assumptions, and stochastic equity returns (lognormal distribution with mean 9.48 percent and volatility of 16.54 percent; company stock is more volatile)
- \* Estimate regulatory impact on defined-contribution savings and thrift (DC/ST) plans (as defined by BLS NCS) sponsored by private-sector employers who match employee contributions
- \* Use calibration of the Choi etal (June 2004) eligibility to participation waiting time distribution when plan has standard-enrollment arrangements; no waiting time between participation and active-participation events under standard enrollment
- \* Use calibration of the Choi etal (June 2004) participation to active-participation waiting time distribution when plan has automatic-enrollment arrangements; no waiting time between eligibility and participation events under automatic enrollment
- \* Assume an increase in the average probability of eventual participation (measured at the eligibility event) from 69.4 percent under universal standard enrollment to 90.0 percent under universal automatic enrollment
- \* Assume following about the prevalence of automatic-enrollment arrangements (measured as % of employees) and their default contribution rate and default investment, which can be either a money-market fund (MMF) or a life-cycle fund (LCF):
  - PENSIM run 00411: prevalence 25%; contrib 3%; invest MMF
  - PENSIM run 00412: prevalence 35%; contrib 3%; invest LCF
  - PENSIM run 00413: prevalence 35%; contrib 3%; invest MMF
  - PENSIM run 00414: prevalence 45%; contrib 3%; invest LCF
  - PENSIM run 00415: prevalence 45%; contrib 3%; invest MMF
  - PENSIM run 00413: prevalence 45%; contrib 5%; invest MMF
  - PENSIM run 00432: prevalence 35%; contrib 5%; invest LCF
  - PENSIM run 00434: prevalence 45%; contrib 5%; invest LCF
- \* Results shown in this document:
  - pages 1- 5: statistics for shift from 00411 to 00412
  - pages  $\,$  6-10: statistics for shift from 00411 to 00413
  - pages 11-15: statistics for shift from 00411 to 00414
  - pages 16-20: statistics for shift from 00411 to 00415  $\,$
  - pages 21-25: statistics for shift from 00431 to 00432
  - pages 26-30: statistics for shift from 00431 to 00434

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

ggragata Statistics for Whole Penulation (where 'whole'

Aggregate Statistics for Whole Population (where 'whole' means everyone alive at the time of the random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                39.3
                                       39.3 (unweighted 26806)
employees w/ auto-enroll [%]
                                25.0
                                       35.0
eligible employees
                          [M]
                                36.8
                                       36.8 (unweighted 25093)
                                       27.5
participants on job
                          [M]
                                26.7
'active' participants
                          [M]
                                25.3
                                       25.5
                                       76.7 (% of eligibles)
average part prob at elig [%]
                               74.6
                                       74.8 (% of eligibles)
participation rate
                          ۲%٦
                               72.6
active particip rate
                          [%]
                                68.6
                                       69.2 (% of eligibles)
active particip rate
                          [%]
                                94.5
                                       92.5 (% of participants)
                               78.1
employee contributions
                         [$B]
                                       79.3 (impact
                                                      2.3)
employer contributions
                         [$B]
                                38.0
                                       38.7 (impact
                                                      1.1)
                         [$B] 947.4 964.1 (impact
                                                     39.3)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             888.9 915.8 (impact
                                                     40.7)
company-stock balance
                         [$B]
                                85.0
                                       86.5 (impact
                                                      4.8)
total account balance
                         [$B] 1921.4 1966.4 (impact
                                                    75.8)
cumulative inv returns
                         [$B] 973.0 999.9 (impact 46.0)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   1.8
                                         ni
                                              0.6
                         [$B] pi
                                   0.9
                                         ni
                                              0.2
employer contributions
                         [$B] pi 28.0
                                        ni 11.3
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 33.7
                                         ni
                                              6.9
company-stock balance
                         [$B] pi
                                   3.2
                                         ni
                                              1.7
total account balance
                         [$B] pi 60.4
                                        ni 15.4
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00412.xss (post-regulation)

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Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Affected Population (where 'affected' means eligible for auto-enroll plan on current job post-regulation)

```
PRE
                                      POST
all employees w/ ST plan [M]
                               12.9
                                      12.9 (unweighted 8780)
employees w/ auto-enroll [%]
                               71.7 100.0
eligible employees
                         [M]
                               12.9
                                      12.9 (unweighted 8780)
                               10.8
participants on job
                         [M]
                                      11.6
'active' participants
                         [M]
                               9.3
                                       9.5
average part prob at elig [%]
                                      89.9 (% of eligibles)
                               84.1
                                      90.0 (% of eligibles)
participation rate
                         ۲%٦
                               83.8
active particip rate
                         [%]
                               72.3
                                      74.1 (% of eligibles)
active particip rate
                         [%]
                               86.3
                                      82.3 (% of participants)
employee contributions
                               29.4
                                      30.6 (impact
                                                     2.0)
                         [$B]
employer contributions
                         [$B]
                              14.3
                                      14.9 (impact
                                                     0.9)
                         [$B] 356.7 373.6 (impact
                                                    35.6)
treasury-bond balance
corporate-bond balance
                         [$B]
                                0.0
                                       0.0 (impact
                                                     0.0)
corporate-equity balance [$B] 335.3 362.4 (impact 37.1)
company-stock balance
                         [$B]
                               39.5
                                      41.0 (impact
                                                     4.5)
total account balance
                         [$B]
                              731.5 777.0 (impact
                                                    68.2)
                         [$B] 370.7 397.7 (impact 42.5)
cumulative inv returns
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                  1.6
                                        ni
                                             0.4
employer contributions
                         [$B] pi
                                 0.8
                                        ni
                                             0.1
                         [$B] pi 26.2 ni
                                             9.4
treasury-bond balance
                                  0.0
corporate-bond balance
                         [$B] pi
                                       ni
                                             0.0
corporate-equity balance [$B] pi 32.1
                                        ni
                                             5.0
company-stock balance
                         [$B] pi
                                  3.0
                                        ni
                                             1.5
total account balance
                         [$B] pi 56.8 ni 11.4
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00412.xss (post-regulation)

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Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Small-Firm Population (where 'small-firm' means working at small firm (1-99 employees) at time of random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                 8.4
                                        8.4 (unweighted 5722)
employees w/ auto-enroll [%]
                                25.6
                                       35.5
eligible employees
                          [M]
                                 7.9
                                       7.9 (unweighted 5361)
                                       5.8
participants on job
                          [M]
                                 5.6
'active' participants
                          [M]
                                5.3
                                       5.3
average part prob at elig [%]
                                       76.0 (% of eligibles)
                               73.9
                                       73.6 (% of eligibles)
participation rate
                          ۲%٦
                                71.5
active particip rate
                          [%]
                                66.9
                                       67.3 (% of eligibles)
active particip rate
                          [%]
                                93.6
                                       91.4 (% of participants)
                                16.1
                                       16.3 (impact
                                                      0.5)
employee contributions
                         [$B]
employer contributions
                         [$B]
                                7.7
                                       7.8 (impact
                                                      0.2)
                         [$B] 177.1 180.3 (impact
                                                      7.0)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             167.7 172.9 (impact
                                                      7.6)
company-stock balance
                         [$B]
                               13.8
                                       13.8 (impact
                                                      0.7)
total account balance
                         [$B] 358.5 367.0 (impact
                                                     13.6)
cumulative inv returns
                         [$B]
                              169.4 174.5 (impact
                                                      8.0)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   0.3
                                         ni
                                              0.1
employer contributions
                                   0.2
                                         ni
                                              0.1
                         [$B] pi
                                   5.1
                                              1.9
treasury-bond balance
                         [$B] pi
corporate-bond balance
                         [$B] pi
                                   0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi
                                   6.4
                                         ni
                                              1.2
company-stock balance
                         [$B] pi
                                   0.4
                                         ni
                                              0.3
total account balance
                         [$B] pi 11.1
                                        ni
                                              2.6
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00412.xss (post-regulation)

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Distributional Statistics on Pension Income of 1985 Birth Cohort with income calculated for all those alive at age 67 and expressed in thousands of 2005 dollars per annum

- mean annual pension difference (mean\_p\_dif) is defined as total real pension income at age 67 post-regulation minus total real pension income pre-regulation (mean\_p\_pre)
- present value of earnings (PVE) is defined as present value of lifetime earnings calculated at age 65 and and expressed in millions of 2005 dollars

# Distribution by size of impact:

```
TOTAL num 122183 (100.0%) mean_p_pre 14.01 mean_p_dif 0.15 LOSS: num 5490 ( 4.5%) mean_p_pre 23.32 mean_p_dif -1.12 SAME: num 104578 ( 85.6%) mean_p_pre 12.71 mean_p_dif 0.00 GAIN: num 12115 ( 9.9%) mean_p_pre 20.99 mean_p_dif 2.01
```

# Percentile distribution of loss and gain magnitudes:

Pctile	LOSS	GAIN
5	-5.145	0.002
10	-2.618	0.007
15	-1.618	0.015
20	-1.044	0.026
25	-0.688	0.041
30	-0.462	0.063
35	-0.329	0.093
40	-0.227	0.133
45	-0.164	0.190
50	-0.115	0.265
55	-0.083	0.369
60	-0.058	0.514
65	-0.040	0.725
70	-0.028	1.047
75	-0.018	1.501
80	-0.012	2.112
85	-0.006	3.142
90	-0.003	5.255
95	-0.001	10.081

. . . Distributional Statistics continued on next page

Distributional Statistics on Pension Income (continued)

## Distribution by PVE quartile:

TOTAL	mean_PVE 3.579	mean_p_pre	14.01	mean_p_dif	0.15
PVE Q1:	mean_PVE 0.756	mean_p_pre	2.81	mean_p_dif	0.05
PVE Q2:	mean_PVE 1.919	mean_p_pre	8.34	mean_p_dif	0.13
PVE Q3:	mean_PVE 3.373	mean_p_pre	16.15	mean_p_dif	0.16
PVE Q4:	mean_PVE 8.270	mean_p_pre	28.73	mean_p_dif	0.25
	with mean	with mean			
	LOSS LOSS	GAIN GAIN			
PVE Q1:	2.5% -0.49	5.6% 1.03			
PVE Q2:	4.3% -0.68	10.0% 1.63			
	- , ,	• •			
PVE Q3:	5.4% -1.20	11.6% 1.96			

## Note on tables below:

the term 'affected' means individual is eligible for at least one pension plan that has auto-enrollment post-regulation

```
. . . . considering only 'affected' cohort individuals:
```

TOTAL	pct_aff	22.8	mean_p_pre	19.75	mean_p_dif	0.62
PVE Q1:	pct_aff	14.0	mean_p_pre	4.29	$mean_p_dif$	0.25
PVE Q2:	pct_aff	22.7	mean_p_pre	10.82	mean_p_dif	0.54
PVE Q3:	pct_aff	26.2	mean_p_pre	19.85	mean_p_dif	0.60
PVE Q4:	pct_aff	28.5	mean_p_pre	34.37	mean_p_dif	0.87

. . . . considering only 'affected' cohort individuals:

		with	mean	with	mean
		LOSS	LOSS	GAIN	GAIN
PVE	Q1:	14.2%	-0.47	33.6%	0.93
PVE	Q2:	17.0%	-0.69	39.9%	1.65
PVE	Q3:	19.0%	-1.23	40.9%	2.03
PVE	Q4:	19.4%	-1.60	41.2%	2.87

Source: PENSIM output files run00411.pen (pre-regulation) and run00412.pen (post-regulation)

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Whole Population (where 'whole' means

everyone alive at the time of the random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                39.3
                                       39.3 (unweighted 26806)
employees w/ auto-enroll [%]
                                25.0
                                       35.0
eligible employees
                          [M]
                                36.8
                                       36.8 (unweighted 25093)
                                       27.5
participants on job
                          [M]
                                26.7
'active' participants
                          [M]
                                25.3
                                       25.5
                                       76.7 (% of eligibles)
average part prob at elig [%]
                              74.6
                                       74.8 (% of eligibles)
participation rate
                          ۲%٦
                               72.6
active particip rate
                          [%]
                                68.6
                                       69.2 (% of eligibles)
active particip rate
                          [%]
                                94.5
                                       92.5 (% of participants)
                               78.1
                                                      2.3)
employee contributions
                         [$B]
                                       79.3 (impact
employer contributions
                         [$B]
                                38.0
                                       38.7 (impact
                                                      1.1)
                         [$B] 947.4 967.8 (impact
                                                     33.3)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 888.9 905.0 (impact
                                                     33.4)
company-stock balance
                         [$B]
                                85.0
                                       86.5 (impact
                                                      4.8)
total account balance
                         [$B] 1921.4 1959.3 (impact
                                                     69.4)
cumulative inv returns
                         [$B] 973.0 992.8 (impact 39.8)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   1.8
                                        ni
                                              0.6
employer contributions
                         [$B] pi
                                  0.9
                                        ni
                                              0.2
                         [$B] pi 26.9
                                              6.5
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                              0.0
                                        ni
corporate-equity balance [$B] pi 24.7
                                        ni
                                              8.7
company-stock balance
                         [$B] pi
                                   3.2
                                        ni
                                              1.7
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00413.xss (post-regulation)

[\$B] pi 53.7

total account balance

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ni 15.7

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Affected Population (where 'affected' means eligible for auto-enroll plan on current job post-regulation)

```
PRE
                                       POST
all employees w/ ST plan
                         [M]
                                12.9
                                       12.9 (unweighted 8780)
employees w/ auto-enroll [%]
                               71.7 100.0
eligible employees
                          [M]
                               12.9
                                       12.9 (unweighted 8780)
                                10.8
participants on job
                          [M]
                                       11.6
'active' participants
                          [M]
                                9.3
                                       9.5
average part prob at elig [%]
                                       89.9 (% of eligibles)
                                84.1
                                       90.0 (% of eligibles)
participation rate
                          ۲%٦
                                83.8
active particip rate
                          [%]
                                72.3
                                       74.1 (% of eligibles)
active particip rate
                         [%]
                                86.3
                                       82.3 (% of participants)
employee contributions
                                29.4
                                       30.6 (impact
                                                      2.0)
                         [$B]
employer contributions
                         [$B]
                              14.3
                                       14.9 (impact
                                                      0.9)
                         [$B] 356.7 377.3 (impact
                                                     29.6)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 335.3 351.6 (impact 29.9)
company-stock balance
                         [$B]
                               39.5
                                       41.0 (impact
                                                     4.5)
                                                    61.8)
total account balance
                         [$B]
                              731.5 770.0 (impact
                         [$B] 370.7 390.6 (impact 36.2)
cumulative inv returns
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   1.6
                                        ni
                                              0.4
employer contributions
                         [$B] pi
                                   0.8
                                        ni
                                              0.1
treasury-bond balance
                         [$B] pi 25.1
                                              4.5
                                       ni
corporate-bond balance
                         [$B] pi
                                  0.0
                                       ni
                                              0.0
corporate-equity balance [$B] pi 23.1
                                        ni
                                              6.8
company-stock balance
                         [$B] pi
                                   3.0
                                        \mathtt{ni}
                                              1.5
total account balance
                         [$B] pi 50.1
                                       ni 11.7
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00413.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Small-Firm Population (where 'small-firm' means working at small firm (1-99 employees) at time of random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                 8.4
                                        8.4 (unweighted 5722)
employees w/ auto-enroll [%]
                                25.6
                                       35.5
eligible employees
                          [M]
                                 7.9
                                        7.9 (unweighted 5361)
                                       5.8
participants on job
                          [M]
                                 5.6
'active' participants
                          [M]
                                5.3
                                       5.3
average part prob at elig [%]
                                       76.0 (% of eligibles)
                               73.9
                                       73.6 (% of eligibles)
participation rate
                          ۲%٦
                                71.5
active particip rate
                          [%]
                                66.9
                                       67.3 (% of eligibles)
active particip rate
                          [%]
                                93.6
                                       91.4 (% of participants)
                                16.1
                                       16.3 (impact
                                                      0.5)
employee contributions
                         [$B]
employer contributions
                         [$B]
                                7.7
                                       7.8 (impact
                                                      0.2)
                         [$B] 177.1 181.1 (impact
                                                      6.0)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             167.7 170.6 (impact
                                                      6.4)
company-stock balance
                         [$B]
                               13.8
                                       13.8 (impact
                                                      0.7)
total account balance
                         [$B] 358.5 365.4 (impact 12.5)
cumulative inv returns
                         [$B]
                              169.4 172.9 (impact
                                                      6.9)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   0.3
                                         ni
                                              0.1
employer contributions
                                   0.2
                                         ni
                                              0.1
                         [$B] pi
                                   5.0
                                              1.0
treasury-bond balance
                         [$B] pi
corporate-bond balance
                         [$B] pi
                                   0.0
                                         ni
                                              0.0
corporate-equity balance [$B] pi
                                   4.6
                                         ni
                                              1.7
company-stock balance
                         [$B] pi
                                   0.4
                                         ni
                                              0.3
total account balance
                         [$B] pi
                                   9.7
                                         ni
                                              2.8
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00413.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Distributional Statistics on Pension Income of 1985 Birth Cohort with income calculated for all those alive at age 67 and expressed in thousands of 2005 dollars per annum

- mean annual pension difference (mean\_p\_dif) is defined as total real pension income at age 67 post-regulation minus total real pension income pre-regulation (mean\_p\_pre)
- present value of earnings (PVE) is defined as present value of lifetime earnings calculated at age 65 and and expressed in millions of 2005 dollars

### Distribution by size of impact:

```
TOTAL num 122183 (100.0%)
                          mean_p_pre 14.01
                                             mean_p_dif
                                                         0.12
LOSS: num
           2356 ( 1.9%)
                         mean_p_pre 24.82
                                             mean_p_dif
                                                       -2.73
                          mean_p_pre 13.50
                                                         0.00
SAME: num 114153 ( 93.4%)
                                            mean_p_dif
                          mean_p_pre 19.64
GAIN: num 5674 ( 4.6%)
                                            mean_p_dif
                                                         3.77
```

# Percentile distribution of loss and gain magnitudes:

```
Pctile
        LOSS
                 GAIN
  5 -10.863
                0.027
 10
      -6.567
              0.067
 15
      -4.638
               0.113
 20
       -3.517
                0.174
 25
       -2.665
               0.261
 30
      -2.152
              0.366
 35
       -1.768
               0.515
 40
       -1.430
                0.688
 45
       -1.197
                0.913
 50
      -0.968
               1.224
 55
       -0.784
                1.551
 60
       -0.635
                1.934
 65
      -0.500
               2.368
 70
      -0.387
               3.030
 75
       -0.298
                3.968
 80
       -0.208
                5.225
 85
       -0.144
                7.226
 90
       -0.087
               10.091
 95
       -0.037 16.028
```

. . . Distributional Statistics continued on next page

Distributional Statistics on Pension Income (continued)

## Distribution by PVE quartile:

TOTAL	mean_PVE 3.579	mean_p_pre	14.01	mean_p_dif	0.12
PVE Q1:	mean_PVE 0.756	mean_p_pre	2.81	mean_p_dif	0.04
PVE Q2:	mean_PVE 1.919	mean_p_pre	8.34	mean_p_dif	0.11
PVE Q3:	mean_PVE 3.373	mean_p_pre	16.15	mean_p_dif	0.13
PVE Q4:	mean_PVE 8.270	mean_p_pre	28.73	mean_p_dif	0.21
	with mean	with mean			
	LOSS LOSS	GAIN GAIN			
PVE Q1:	1.0% -1.32	2.5% 1.89			
PVE Q2:	1.8% -1.70	4.6% 3.12			
PVE Q3:	2.4% -2.81	5.4% 3.75			
PVE Q4:	2.5% -3.95	6.1% 5.05			

#### Note on tables below:

the term 'affected' means individual is eligible for at least one pension plan that has auto-enrollment post-regulation

```
. . . . considering only 'affected' cohort individuals:
```

TOTAL	<pre>pct_aff</pre>	22.8	mean_p_pre	19.75	mean_p_dif	0.51
PVE Q1:	pct_aff	14.0	mean_p_pre	4.29	mean_p_dif	0.18
PVE Q2:	pct_aff	22.7	mean_p_pre	10.82	mean_p_dif	0.45
PVE Q3:	pct_aff	26.2	mean_p_pre	19.85	mean_p_dif	0.49
PVE Q4:	pct_aff	28.5	mean_p_pre	34.37	mean_p_dif	0.72

. . . . considering only 'affected' cohort individuals:

		with	mean	with	mean
		LOSS	LOSS	GAIN	GAIN
PVE	Q1:	5.4%	-1.30	14.7%	1.73
PVE	Q2:	7.0%	-1.77	18.1%	3.19
PVE	Q3:	8.5%	-2.90	19.0%	3.89
PVE	Q4:	8.2%	-3.94	20.0%	5.22

Source: PENSIM output files run00411.pen (pre-regulation) and run00413.pen (post-regulation)

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Whole Population (where 'whole' means everyone alive at the time of the random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                39.3
                                       39.3 (unweighted 26806)
employees w/ auto-enroll [%]
                                25.0
                                       45.0
eligible employees
                          [M]
                                36.8
                                       36.8 (unweighted 25093)
                                       28.4
participants on job
                          [M]
                                26.7
'active' participants
                          [M]
                                25.3
                                       25.8
                                       78.7 (% of eligibles)
average part prob at elig [%]
                               74.6
                                       77.1 (% of eligibles)
participation rate
                          ۲%٦
                               72.6
active particip rate
                          [%]
                                68.6
                                       70.0 (% of eligibles)
active particip rate
                          [%]
                                94.5
                                       90.7 (% of participants)
                                78.1
                                                      4.4)
employee contributions
                         [$B]
                                       80.6 (impact
employer contributions
                         [$B]
                                38.0
                                       39.3 (impact
                                                      2.0)
                         [$B] 947.4 984.0 (impact
                                                     69.8)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             888.9 937.2 (impact 72.8)
company-stock balance
                         [$B]
                                85.0
                                       89.4 (impact
                                                      9.0)
total account balance
                         [$B] 1921.4 2010.5 (impact 142.4)
cumulative inv returns
                         [$B] 973.0 1025.0 (impact 84.5)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   3.5
                                         ni
                                              1.0
                         [$B] pi
                                   1.7
                                         ni
                                              0.4
employer contributions
                         [$B] pi 53.2
                                        ni 16.6
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                   0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 60.5
                                         ni 12.3
company-stock balance
                         [$B] pi
                                   6.7
                                         ni
                                              2.3
total account balance
                         [$B] pi 115.8
                                         ni 26.6
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00414.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Affected Population (where 'affected' means eligible for auto-enroll plan on current job post-regulation)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                16.6
                                       16.6 (unweighted 11293)
employees w/ auto-enroll [%]
                                55.7 100.0
eligible employees
                          [M]
                                16.6
                                       16.6 (unweighted 11293)
                                       14.9
participants on job
                          [M]
                                13.3
'active' participants
                          [M]
                               11.8
                                       12.3
                                       89.9 (% of eligibles)
average part prob at elig [%]
                               80.8
                                80.2
                                       90.0 (% of eligibles)
participation rate
                          ۲%٦
active particip rate
                          [%]
                                71.2
                                       74.1 (% of eligibles)
active particip rate
                         [%]
                                88.9
                                       82.3 (% of participants)
                                36.9
                                                      4.0)
employee contributions
                         [$B]
                                       39.4 (impact
employer contributions
                         [$B]
                               17.8
                                       19.2 (impact
                                                      1.8)
                         [$B] 464.7 502.0 (impact
                                                     63.7)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 431.2 480.0 (impact
                                                     66.9)
company-stock balance
                         [$B]
                               47.5
                                       51.3 (impact
                                                     7.9)
total account balance
                         [$B] 943.3 1033.3 (impact 129.3)
cumulative inv returns
                         [$B] 492.8 545.4 (impact 77.5)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   3.2
                                        ni
                                              0.7
                         [$B] pi
                                   1.6
                                        ni
                                              0.3
employer contributions
                         [$B] pi 50.5
                                        ni 13.2
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                              0.0
                                        ni
corporate-equity balance [$B] pi 57.9
                                        ni
                                              9.1
company-stock balance
                         [$B] pi
                                   5.9
                                        ni
                                              2.0
total account balance
                         [$B] pi 109.6
                                        ni 19.7
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00414.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Small-Firm Population (where 'small-firm' means working at small firm (1-99 employees) at time of random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                 8.4
                                        8.4 (unweighted 5722)
employees w/ auto-enroll [%]
                                25.6
                                       45.5
eligible employees
                          [M]
                                7.9
                                       7.9 (unweighted 5361)
                                       6.0
participants on job
                          [M]
                                 5.6
'active' participants
                          [M]
                                5.3
                                       5.4
                                       78.0 (% of eligibles)
average part prob at elig [%]
                               73.9
                                       76.0 (% of eligibles)
participation rate
                          ۲%٦
                               71.5
active particip rate
                          [%]
                                66.9
                                       68.2 (% of eligibles)
active particip rate
                          [%]
                                93.6
                                       89.7 (% of participants)
employee contributions
                         [$B]
                               16.1
                                       16.6 (impact
                                                      1.0)
employer contributions
                         [$B]
                                7.7
                                        8.0 (impact
                                                      0.5)
                         [$B] 177.1 184.4 (impact 13.3)
treasury-bond balance
corporate-bond balance
                         [$B]
                                0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             167.7 177.3 (impact 14.4)
company-stock balance
                         [$B]
                               13.8
                                       14.4 (impact
                                                     1.3)
total account balance
                         [$B] 358.5 376.1 (impact
                                                     27.3)
cumulative inv returns
                         [$B]
                              169.4 179.8 (impact 15.7)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   0.7
                                         ni
                                              0.2
                         [$B] pi
                                   0.4
                                         ni
                                              0.1
employer contributions
                         [$B] pi 10.3
                                              3.0
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 12.0
                                        ni
                                              2.4
company-stock balance
                         [$B] pi
                                   1.0
                                        ni
                                              0.4
total account balance
                         [$B] pi 22.4
                                        ni
                                              4.8
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00414.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Distributional Statistics on Pension Income of 1985 Birth Cohort with income calculated for all those alive at age 67 and expressed in thousands of 2005 dollars per annum

- mean annual pension difference (mean\_p\_dif) is defined as total real pension income at age 67 post-regulation minus total real pension income pre-regulation (mean\_p\_pre)
- present value of earnings (PVE) is defined as present value of lifetime earnings calculated at age 65 and and expressed in millions of 2005 dollars

# Distribution by size of impact:

```
TOTAL num 122183 (100.0%) mean_p_pre 14.01 mean_p_dif 0.29 LOSS: num 7220 ( 5.9%) mean_p_pre 23.44 mean_p_dif -1.46 SAME: num 98230 ( 80.4%) mean_p_pre 12.20 mean_p_dif 0.00 GAIN: num 16733 ( 13.7%) mean_p_pre 20.55 mean_p_dif 2.74
```

## Percentile distribution of loss and gain magnitudes:

Pctile	LOSS	GAIN
5	-6.417	0.004
10	-3.669	0.013
15	-2.448	0.028
20	-1.718	0.048
25	-1.235	0.078
30	-0.905	0.119
35	-0.653	0.174
40	-0.465	0.251
45	-0.340	0.348
50	-0.241	0.489
55	-0.172	0.675
60	-0.121	0.944
65	-0.084	1.312
70	-0.056	1.803
75	-0.036	2.405
80	-0.022	3.359
85	-0.012	4.857
90	-0.005	7.390
95	-0.002	12.716

. . . Distributional Statistics continued on next page

Distributional Statistics on Pension Income (continued)

# Distribution by PVE quartile:

TOTAL	mean_PVE 3.579	mean_p_pre	14.01	mean_p_dif	0.29
PVE Q1:	mean_PVE 0.756	mean_p_pre	2.81	mean_p_dif	0.09
PVE Q2:	mean_PVE 1.919	mean_p_pre	8.34	mean_p_dif	0.25
PVE Q3:	mean_PVE 3.373	mean_p_pre	16.15	mean_p_dif	0.34
PVE Q4:	mean_PVE 8.270	mean_p_pre	28.73	mean_p_dif	0.47
	with mean	with mean			
	LOSS LOSS	GAIN GAIN			
PVE Q1:	3.3% -0.60	7.9% 1.42			
PVE Q2:	5.7% -0.95	13.6% 2.25			
PVE Q3:	7.0% -1.50	16.1% 2.78			
PVE Q4:	7.7% -2.18	17.2% 3.69			

#### Note on tables below:

the term 'affected' means individual is eligible for at least one pension plan that has auto-enrollment post-regulation

```
. . . . considering only 'affected' cohort individuals:
```

TOTAL	<pre>pct_aff</pre>	28.1	mean_p_pre	19.42	mean_p_dif	0.98
PVE Q1:	pct_aff	17.4	mean_p_pre	4.20	mean_p_dif	0.43
PVE Q2:	pct_aff	28.0	mean_p_pre	10.81	mean_p_dif	0.84
PVE Q3:	pct_aff	32.1	mean_p_pre	19.53	mean_p_dif	1.03
PVE Q4:	pct_aff	34.6	mean_p_pre	33.95	mean_p_dif	1.32

. . . . considering only 'affected' cohort individuals:

		with	mean	with	mean
		LOSS	LOSS	GAIN	GAIN
PVE	Q1:	15.5%	-0.58	38.4%	1.34
PVE	Q2:	18.5%	-0.96	44.2%	2.29
PVE	Q3:	20.2%	-1.49	46.4%	2.87
PVE	Q4:	20.9%	-2.19	47.0%	3.78

Source: PENSIM output files run00411.pen (pre-regulation) and run00414.pen (post-regulation)

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Whole Population (where 'whole' means everyone alive at the time of the random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                39.3
                                       39.3 (unweighted 26806)
employees w/ auto-enroll [%]
                                25.0
                                       45.0
eligible employees
                          [M]
                                36.8
                                       36.8 (unweighted 25093)
                                       28.4
participants on job
                          [M]
                                26.7
'active' participants
                          [M]
                                25.3
                                       25.8
                                       78.7 (% of eligibles)
average part prob at elig [%]
                               74.6
                                       77.1 (% of eligibles)
participation rate
                          ۲%٦
                               72.6
active particip rate
                          [%]
                                68.6
                                       70.0 (% of eligibles)
active particip rate
                          [%]
                                94.5
                                       90.7 (% of participants)
                                78.1
                                                      4.4)
employee contributions
                         [$B]
                                       80.6 (impact
employer contributions
                         [$B]
                                38.0
                                       39.3 (impact
                                                      2.0)
                         [$B] 947.4 988.7 (impact
                                                     64.9)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 888.9 923.6 (impact
                                                     66.6)
company-stock balance
                         [$B]
                                85.0
                                       89.4 (impact
                                                      9.0)
total account balance
                         [$B] 1921.4 2001.7 (impact 136.2)
cumulative inv returns
                         [$B] 973.0 1016.2 (impact 78.6)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   3.5
                                         ni
                                              1.0
                         [$B] pi
                                   1.7
                                         ni
                                              0.4
employer contributions
                         [$B] pi 53.1
                                        ni 11.8
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 50.6
                                         ni 16.0
company-stock balance
                         [$B] pi
                                   6.7
                                         ni
                                              2.3
total account balance
                         [$B] pi 108.3
                                        ni 28.0
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00415.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Affected Population (where 'affected' means eligible for auto-enroll plan on current job post-regulation)

```
PRE
                                      POST
all employees w/ ST plan
                          [M]
                                16.6
                                      16.6 (unweighted 11293)
employees w/ auto-enroll [%]
                               55.7 100.0
eligible employees
                          [M]
                               16.6
                                      16.6 (unweighted 11293)
                                      14.9
participants on job
                          [M]
                               13.3
'active' participants
                          [M]
                               11.8
                                      12.3
                                      89.9 (% of eligibles)
average part prob at elig [%]
                               80.8
                               80.2
                                      90.0 (% of eligibles)
participation rate
                          ۲%٦
active particip rate
                          [%]
                               71.2
                                      74.1 (% of eligibles)
active particip rate
                         [%]
                               88.9
                                      82.3 (% of participants)
                               36.9
                                                      4.0)
employee contributions
                         [$B]
                                      39.4 (impact
employer contributions
                         [$B]
                               17.8
                                      19.2 (impact
                                                      1.8)
                         [$B] 464.7 506.7 (impact
                                                    58.8)
treasury-bond balance
corporate-bond balance
                         [$B]
                                0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 431.2 466.4 (impact
                                                     60.7)
company-stock balance
                         [$B]
                               47.5
                                      51.3 (impact
                                                     7.9)
total account balance
                         [$B] 943.3 1024.5 (impact 123.1)
cumulative inv returns
                         [$B] 492.8 536.6 (impact 71.6)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                  3.2
                                        ni
                                              0.7
employer contributions
                         [$B] pi
                                  1.6
                                        ni
                                              0.3
                         [$B] pi 50.4
                                              8.4
treasury-bond balance
                                        ni
corporate-bond balance
                         [$B] pi
                                  0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 48.0
                                        ni 12.7
company-stock balance
                         [$B] pi
                                  5.9
                                        ni
                                              2.0
total account balance
                         [$B] pi 102.1
                                        ni 21.0
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00415.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Small-Firm Population (where 'small-firm' means working at small firm (1-99 employees) at time of random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                 8.4
                                        8.4 (unweighted 5722)
employees w/ auto-enroll [%]
                                25.6
                                       45.5
eligible employees
                          [M]
                                7.9
                                       7.9 (unweighted 5361)
                                       6.0
participants on job
                          [M]
                                 5.6
'active' participants
                          [M]
                                5.3
                                       5.4
                                       78.0 (% of eligibles)
average part prob at elig [%]
                               73.9
                                       76.0 (% of eligibles)
participation rate
                          ۲%٦
                               71.5
active particip rate
                          [%]
                                66.9
                                       68.2 (% of eligibles)
active particip rate
                          [%]
                                93.6
                                       89.7 (% of participants)
employee contributions
                         [$B]
                               16.1
                                       16.6 (impact
                                                      1.0)
employer contributions
                         [$B]
                                7.7
                                        8.0 (impact
                                                      0.5)
                         [$B] 177.1 185.3 (impact 12.6)
treasury-bond balance
corporate-bond balance
                         [$B]
                                0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             167.7 174.4 (impact 13.3)
company-stock balance
                         [$B]
                               13.8
                                       14.4 (impact
                                                     1.3)
total account balance
                         [$B] 358.5 374.1 (impact
                                                     26.3)
cumulative inv returns
                         [$B] 169.4 177.7 (impact 14.8)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   0.7
                                         ni
                                              0.2
                         [$B] pi
                                  0.4
                                         ni
                                              0.1
employer contributions
                         [$B] pi 10.4
                                              2.2
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 10.0
                                        ni
                                              3.2
company-stock balance
                         [$B] pi
                                   1.0
                                         ni
                                              0.4
total account balance
                         [$B] pi 20.9
                                        ni
                                              5.4
```

Source: PENSIM output files run00411.xss (pre-regulation) and run00415.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Distributional Statistics on Pension Income of 1985 Birth Cohort with income calculated for all those alive at age 67 and expressed in thousands of 2005 dollars per annum

- mean annual pension difference (mean\_p\_dif) is defined as total real pension income at age 67 post-regulation minus total real pension income pre-regulation (mean\_p\_pre)
- present value of earnings (PVE) is defined as present value of lifetime earnings calculated at age 65 and and expressed in millions of 2005 dollars

### Distribution by size of impact:

```
TOTAL num 122183 (100.0%)
                          mean_p_pre 14.01
                                             mean_p_dif
                                                          0.26
LOSS: num
          4344 ( 3.6%)
                          mean_p_pre 24.57
                                             mean_p_dif
                                                        -2.60
                          mean_p_pre 13.00
                                                         0.00
SAME: num 107094 (87.7%)
                                             mean_p_dif
GAIN: num 10745 ( 8.8%)
                          mean_p_pre 19.80
                                             mean_p_dif
                                                          3.96
```

# Percentile distribution of loss and gain magnitudes:

```
Pctile
        LOSS
                GAIN
  5 -10.267
                0.029
      -6.184
 10
              0.071
 15
      -4.342
               0.123
 20
       -3.344
                0.191
       -2.598
 25
               0.275
 30
      -2.148
              0.393
       -1.776
 35
               0.537
 40
       -1.428
                0.723
 45
       -1.183
                0.981
 50
      -0.967
               1.278
 55
       -0.778
                1.661
 60
       -0.632
                2.061
 65
      -0.506
               2.567
 70
      -0.391
               3.274
 75
       -0.295
               4.192
 80
       -0.211
                5.436
 85
       -0.146
                7.384
 90
       -0.086
              10.428
 95
       -0.039 16.511
```

. . . Distributional Statistics continued on next page

Distributional Statistics on Pension Income (continued)

## Distribution by PVE quartile:

TOTAL	mean_PVE 3.579	mean_p_pre	14.01	mean_p_dif	0.26
PVE Q1:	mean_PVE 0.756	mean_p_pre	2.81	mean_p_dif	0.08
PVE Q2:	mean_PVE 1.919	mean_p_pre	8.34	mean_p_dif	0.22
PVE Q3:	mean_PVE 3.373	mean_p_pre	16.15	mean_p_dif	0.31
PVE Q4:	mean_PVE 8.270	mean_p_pre	28.73	mean_p_dif	0.41
	with mean	with mean	L		
	LOSS LOSS	GAIN GAIN			
PVE Q1:	1.9% -1.15	4.9% 2.03	}		
PVE Q2:	3.4% -1.72	8.5% 3.34	:		
PVE Q3:	4.3% -2.60	10.4% 4.04	:		
PVE Q4:	4.7% -3.83	11.4% 5.19	)		

#### Note on tables below:

the term 'affected' means individual is eligible for at least one pension plan that has auto-enrollment post-regulation

```
. . . . considering only 'affected' cohort individuals:
```

TOTAL	<pre>pct_aff</pre>	28.1	mean_p_pre	19.42	mean_p_dif	0.87
PVE Q1:	pct_aff	17.4	mean_p_pre	4.20	mean_p_dif	0.36
PVE Q2:	pct_aff	28.0	mean_p_pre	10.81	mean_p_dif	0.75
PVE Q3:	pct_aff	32.1	mean_p_pre	19.53	mean_p_dif	0.93
PVE Q4:	pct_aff	34.6	mean_p_pre	33.95	mean_p_dif	1.16

. . . . considering only 'affected' cohort individuals:

		with	mean	with	mean
		LOSS	LOSS	GAIN	GAIN
PVE	Q1:	8.7%	-1.14	23.9%	1.92
PVE	Q2:	10.8%	-1.77	27.4%	3.43
PVE	Q3:	12.4%	-2.61	30.0%	4.17
PVE	Q4:	12.6%	-3.90	30.8%	5.35

Source: PENSIM output files run00411.pen (pre-regulation) and run00415.pen (post-regulation)

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Whole Population (where 'whole' means everyone alive at the time of the random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                39.3
                                       39.3 (unweighted 26806)
employees w/ auto-enroll [%]
                                25.0
                                       35.0
eligible employees
                          [M]
                                36.8
                                       36.8 (unweighted 25093)
                                       27.5
participants on job
                          [M]
                                26.7
'active' participants
                          [M]
                                25.3
                                       25.5
                                       76.7 (% of eligibles)
average part prob at elig [%]
                               74.6
                                       74.8 (% of eligibles)
participation rate
                          ۲%٦
                               72.6
active particip rate
                          [%]
                                68.6
                                       69.2 (% of eligibles)
active particip rate
                          [%]
                                94.5
                                       92.5 (% of participants)
                               78.9
                                       80.6 (impact
employee contributions
                         [$B]
                                                      2.2)
employer contributions
                         [$B]
                                38.4
                                       39.2 (impact
                                                      1.1)
                         [$B] 961.5 982.1 (impact 43.2)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 898.9 935.7 (impact
                                                     45.3)
company-stock balance
                         [$B]
                                86.7
                                       88.7 (impact
                                                      4.9)
total account balance
                         [$B] 1947.1 2006.5 (impact
                                                    79.5)
cumulative inv returns
                         [$B] 987.0 1023.3 (impact 50.2)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   1.9
                                         ni
                                              0.3
employer contributions
                         [$B] pi
                                   1.0
                                         ni
                                              0.1
                         [$B] pi 31.9
                                        ni 11.3
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 41.0
                                        ni
                                              4.3
company-stock balance
                         [$B] pi
                                   3.5
                                         ni
                                              1.5
total account balance
                         [$B] pi 69.4
                                        ni 10.0
```

Source: PENSIM output files run00431.xss (pre-regulation) and run00432.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Affected Population (where 'affected' means eligible for auto-enroll plan on current job post-regulation)

```
PRE
                                      POST
all employees w/ ST plan [M]
                               12.9
                                      12.9 (unweighted 8780)
employees w/ auto-enroll [%]
                               71.7 100.0
eligible employees
                          [M]
                               12.9
                                      12.9 (unweighted 8780)
                               10.8
participants on job
                          [M]
                                      11.6
'active' participants
                          [M]
                                9.3
                                       9.5
average part prob at elig [%]
                                      89.9 (% of eligibles)
                               84.1
                               83.8
                                      90.0 (% of eligibles)
participation rate
                          ۲%٦
active particip rate
                          [%]
                               72.3
                                      74.1 (% of eligibles)
active particip rate
                         [%]
                               86.3
                                      82.3 (% of participants)
                               30.2
                                      31.9 (impact
                                                     1.9)
employee contributions
                         [$B]
employer contributions
                         [$B]
                              14.7
                                      15.5 (impact
                                                     0.9)
                         [$B] 370.8 391.6 (impact
                                                    39.5)
treasury-bond balance
corporate-bond balance
                         [$B]
                                0.0
                                       0.0 (impact
                                                     0.0)
corporate-equity balance [$B] 345.3 382.3 (impact 41.7)
company-stock balance
                         [$B]
                               41.1
                                      43.2 (impact
                                                     4.6)
total account balance
                         [$B]
                              757.2 817.1 (impact 71.9)
                         [$B] 384.7 421.1 (impact 46.6)
cumulative inv returns
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                  1.8
                                        ni
                                             0.1
employer contributions
                         [$B] pi
                                  0.9
                                        ni
                                             0.0
                         [$B] pi 30.2
                                             9.4
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                       ni
                                             0.0
corporate-equity balance [$B] pi 39.3
                                        ni
                                             2.4
company-stock balance
                         [$B] pi
                                  3.3
                                        ni
                                             1.2
total account balance
                         [$B] pi 65.9
                                        ni
                                             6.0
```

Source: PENSIM output files run00431.xss (pre-regulation) and run00432.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Small-Firm Population (where 'small-firm' means working at small firm (1-99 employees) at time of random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                 8.4
                                        8.4 (unweighted 5722)
employees w/ auto-enroll [%]
                                25.6
                                       35.5
eligible employees
                          [M]
                                 7.9
                                       7.9 (unweighted 5361)
                                       5.8
participants on job
                          [M]
                                 5.6
'active' participants
                          [M]
                                5.3
                                       5.3
average part prob at elig [%]
                                       76.0 (% of eligibles)
                               73.9
                                       73.6 (% of eligibles)
participation rate
                          ۲%٦
                                71.5
active particip rate
                          [%]
                                66.9
                                       67.3 (% of eligibles)
active particip rate
                          [%]
                                93.6
                                       91.4 (% of participants)
                                16.3
                                       16.5 (impact
                                                      0.5)
employee contributions
                         [$B]
employer contributions
                         [$B]
                                7.8
                                       8.0 (impact
                                                      0.2)
                         [$B] 180.0 184.0 (impact
                                                      7.7)
treasury-bond balance
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             169.7 176.9 (impact
                                                      8.5)
company-stock balance
                         [$B]
                               14.0
                                       14.1 (impact
                                                      0.7)
total account balance
                         [$B] 363.7 375.0 (impact 14.3)
                         [$B] 172.2 179.0 (impact
cumulative inv returns
                                                      8.8)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   0.4
                                         ni
                                              0.1
employer contributions
                         [$B] pi
                                   0.2
                                         ni
                                              0.0
                                   5.9
                                              1.9
treasury-bond balance
                         [$B] pi
corporate-bond balance
                         [$B] pi
                                   0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi
                                   7.8
                                        ni
                                              0.6
company-stock balance
                         [$B] pi
                                   0.4
                                         ni
                                              0.3
total account balance
                         [$B] pi 12.8
                                        ni
                                              1.5
```

Source: PENSIM output files run00431.xss (pre-regulation) and run00432.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Distributional Statistics on Pension Income of 1985 Birth Cohort with income calculated for all those alive at age 67 and expressed in thousands of 2005 dollars per annum

- mean annual pension difference (mean\_p\_dif) is defined as total real pension income at age 67 post-regulation minus total real pension income pre-regulation (mean\_p\_pre)
- present value of earnings (PVE) is defined as present value of lifetime earnings calculated at age 65 and and expressed in millions of 2005 dollars

# Distribution by size of impact:

```
TOTAL num 122183 (100.0%) mean_p_pre 14.10 mean_p_dif 0.20 LOSS: num 4729 ( 3.9%) mean_p_pre 23.73 mean_p_dif -0.81 SAME: num 104433 ( 85.5%) mean_p_pre 12.72 mean_p_dif 0.00 GAIN: num 13021 ( 10.7%) mean_p_pre 21.69 mean_p_dif 2.20
```

# Percentile distribution of loss and gain magnitudes:

Pctile	LOSS	GAIN
5	-3.360	0.004
10	-1.432	0.012
15	-0.853	0.025
20	-0.572	0.042
25	-0.397	0.064
30	-0.289	0.093
35	-0.213	0.136
40	-0.160	0.190
45	-0.121	0.262
50	-0.093	0.363
55	-0.069	0.498
60	-0.052	0.682
65	-0.039	0.940
70	-0.027	1.326
75	-0.019	1.798
80	-0.012	2.512
85	-0.007	3.577
90	-0.004	5.891
95	-0.001	10.533

. . . Distributional Statistics continued on next page

Distributional Statistics on Pension Income (continued)

# Distribution by PVE quartile:

TOTAL	mean_PVE 3.579	mean_p_pre	14.10	mean_p_dif	0.20
PVE Q1:	mean_PVE 0.756	mean_p_pre	2.84	mean_p_dif	0.06
PVE Q2:	mean_PVE 1.919	mean_p_pre	8.41	mean_p_dif	0.17
PVE Q3:	mean_PVE 3.373	mean_p_pre	16.26	mean_p_dif	0.23
PVE Q4:	mean_PVE 8.270	mean_p_pre	28.89	mean_p_dif	0.35
	with mean	with mean			
	LOSS LOSS	GAIN GAIN			
PVE Q1:	2.1% -0.36	6.0% 1.18			
PVE Q2:	3.7% -0.49	10.7% 1.80			
PVE Q3:	4.6% -0.86	12.5% 2.13			
PVE Q4:	5.0% -1.18	13.4% 3.04	:		

#### Note on tables below:

the term 'affected' means individual is eligible for at least one pension plan that has auto-enrollment post-regulation

```
. . . . considering only 'affected' cohort individuals:
```

		_				
TOTAL	pct_aff	22.8	mean_p_pre	20.12	mean_p_dif	0.84
PVE Q1:	pct_aff	14.0	mean_p_pre	4.45	mean_p_dif	0.35
PVE Q2:	pct_aff	22.7	mean_p_pre	11.10	mean_p_dif	0.70
PVE Q3:	pct_aff	26.2	mean_p_pre	20.24	mean_p_dif	0.83
PVE Q4:	pct_aff	28.5	mean_p_pre	34.91	mean_p_dif	1.19

 $\ldots$  . . . considering only 'affected' cohort individuals:

		consid	lering only	'affec	ted' col
		with	mean	with	mean
		LOSS	LOSS	GAIN	GAIN
PVE	Q1:	12.5%	-0.33	36.0%	1.08
PVE	Q2:	14.9%	-0.50	42.6%	1.82
PVE	Q3:	16.1%	-0.89	44.3%	2.20
PVE	Q4:	16.6%	-1.14	44.3%	3.11

Source: PENSIM output files run00431.pen (pre-regulation) and run00432.pen (post-regulation)

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Whole Population (where 'whole' means everyone alive at the time of the random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                39.3
                                       39.3 (unweighted 26806)
employees w/ auto-enroll [%]
                                25.0
                                       45.0
eligible employees
                          [M]
                                36.8
                                       36.8 (unweighted 25093)
                                       28.4
participants on job
                          [M]
                                26.7
'active' participants
                          [M]
                                25.3
                                       25.8
                                       78.7 (% of eligibles)
average part prob at elig [%]
                               74.6
                                       77.1 (% of eligibles)
participation rate
                          ۲%٦
                               72.6
active particip rate
                          [%]
                                68.6
                                       70.0 (% of eligibles)
active particip rate
                          [%]
                                94.5
                                       90.7 (% of participants)
                                78.9
                                                      4.3)
employee contributions
                         [$B]
                                       82.2 (impact
employer contributions
                         [$B]
                                38.4
                                       40.0 (impact
                                                      2.0)
                         [$B] 961.5 1006.9 (impact
treasury-bond balance
                                                     73.6)
corporate-bond balance
                         [$B]
                                 0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 898.9 962.5 (impact 77.5)
company-stock balance
                         [$B]
                                86.7
                                       92.0 (impact
                                                      9.1)
total account balance
                         [$B] 1947.1 2061.4 (impact 146.1)
cumulative inv returns
                         [$B] 987.0 1054.4 (impact 89.0)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                   3.8
                                         ni
                                              0.5
employer contributions
                         [$B] pi
                                   1.8
                                         ni
                                              0.2
                         [$B] pi 59.5
                                        ni 14.1
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                   0.0
                                        ni
                                              0.0
corporate-equity balance [$B] pi 70.6
                                         ni
                                              7.0
company-stock balance
                         [$B] pi
                                   7.2
                                         ni
                                              1.9
total account balance
                         [$B] pi 130.2
                                        ni 15.9
```

Source: PENSIM output files run00431.xss (pre-regulation) and run00434.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Affected Population (where 'affected' means eligible for auto-enroll plan on current job post-regulation)

```
PRE
                                      POST
all employees w/ ST plan
                          [M]
                                16.6
                                      16.6 (unweighted 11293)
employees w/ auto-enroll [%]
                               55.7 100.0
eligible employees
                          [M]
                               16.6
                                      16.6 (unweighted 11293)
                                      14.9
participants on job
                          [M]
                               13.3
'active' participants
                          [M]
                               11.8
                                      12.3
average part prob at elig [%]
                                      89.9 (% of eligibles)
                               80.8
                               80.2
                                      90.0 (% of eligibles)
participation rate
                          Γ%]
active particip rate
                          [%]
                               71.2
                                      74.1 (% of eligibles)
active particip rate
                         [%]
                               88.9
                                      82.3 (% of participants)
                               37.8
                                      41.0 (impact
                                                      3.8)
employee contributions
                         [$B]
employer contributions
                         [$B]
                               18.2
                                      19.9 (impact
                                                      1.8)
                         [$B] 478.8 524.9 (impact
                                                     67.5)
treasury-bond balance
corporate-bond balance
                         [$B]
                                0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B] 441.1 505.3 (impact 71.6)
company-stock balance
                         [$B]
                               49.2
                                      53.9 (impact
                                                     8.0)
total account balance
                         [$B] 969.0 1084.2 (impact 133.0)
cumulative inv returns
                         [$B] 506.7 574.8 (impact 82.0)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                  3.5
                                        ni
                                              0.3
employer contributions
                         [$B] pi
                                  1.7
                                        ni
                                              0.1
                         [$B] pi 56.8
                                        ni 10.7
treasury-bond balance
                                              0.0
corporate-bond balance
                         [$B] pi
                                  0.0
                                        ni
corporate-equity balance [$B] pi 67.9
                                        ni
                                              3.7
company-stock balance
                         [$B] pi
                                  6.4
                                        ni
                                              1.6
total account balance
                         [$B] pi 124.1
                                        ni
                                              8.9
```

Source: PENSIM output files run00431.xss (pre-regulation) and run00434.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Aggregate Statistics for Private-Sector Employees Age 21-64 with special reference to those employees with an employer sponsoring a DC savings-thrift (ST) plan - estimates from 3.00% sample of 1985 birth cohort, where every sample member is surveyed at a random age between 21.0 and 65.0, and the results are weighted by (65-21)\*100/3.00 to produce population estimates - money amounts expressed in 2005 dollars

Aggregate Statistics for Small-Firm Population (where 'small-firm' means working at small firm (1-99 employees) at time of random-age survey)

```
PRE
                                       POST
all employees w/ ST plan
                          [M]
                                8.4
                                       8.4 (unweighted 5722)
employees w/ auto-enroll [%]
                               25.6
                                       45.5
eligible employees
                          [M]
                                7.9
                                       7.9 (unweighted 5361)
                                       6.0
participants on job
                          [M]
                                5.6
'active' participants
                          [M]
                                5.3
                                       5.4
average part prob at elig [%]
                                       78.0 (% of eligibles)
                               73.9
                                       76.0 (% of eligibles)
participation rate
                          ۲%٦
                               71.5
active particip rate
                          [%]
                               66.9
                                       68.2 (% of eligibles)
active particip rate
                          [%]
                               93.6
                                       89.7 (% of participants)
                               16.3
                                                      0.9)
employee contributions
                         [$B]
                                       16.9 (impact
employer contributions
                         [$B]
                               7.8
                                       8.1 (impact
                                                      0.4)
                         [$B] 180.0 189.0 (impact 14.1)
treasury-bond balance
corporate-bond balance
                         [$B]
                                0.0
                                        0.0 (impact
                                                      0.0)
corporate-equity balance [$B]
                             169.7 182.5 (impact 15.4)
company-stock balance
                         [$B]
                               14.0
                                       14.8 (impact
                                                     1.4)
total account balance
                         [$B] 363.7 386.4 (impact
                                                     28.1)
cumulative inv returns
                         [$B] 172.2 185.6 (impact 16.8)
Positive impact (pi) and negative impact (ni) components:
employee contributions
                         [$B] pi
                                  0.8
                                        ni
                                              0.1
employer contributions
                         [$B] pi
                                  0.4
                                        ni
                                              0.0
                         [$B] pi 11.6
                                              2.5
treasury-bond balance
corporate-bond balance
                         [$B] pi
                                  0.0
                                       ni
                                              0.0
corporate-equity balance [$B] pi 14.1
                                        ni
                                              1.3
company-stock balance
                         [$B] pi
                                  1.1
                                        ni
                                              0.3
total account balance
                         [$B] pi 25.4
                                        ni
                                              2.8
```

Source: PENSIM output files run00431.xss (pre-regulation) and run00434.xss (post-regulation)

Martin R. Holmer, Policy Simulation Group, 31-Jan-2006

Distributional Statistics on Pension Income of 1985 Birth Cohort with income calculated for all those alive at age 67 and expressed in thousands of 2005 dollars per annum

- mean annual pension difference (mean\_p\_dif) is defined as total real pension income at age 67 post-regulation minus total real pension income pre-regulation (mean\_p\_pre)
- present value of earnings (PVE) is defined as present value of lifetime earnings calculated at age 65 and and expressed in millions of 2005 dollars

# Distribution by size of impact:

```
TOTAL num 122183 (100.0%) mean_p_pre 14.10 mean_p_dif 0.38 LOSS: num 5755 ( 4.7%) mean_p_pre 23.68 mean_p_dif -1.04 SAME: num 98090 ( 80.3%) mean_p_pre 12.21 mean_p_dif 0.00 GAIN: num 18338 ( 15.0%) mean_p_pre 21.22 mean_p_dif 2.88
```

# Percentile distribution of loss and gain magnitudes:

Pctile	LOSS	GAIN
5	-4.371	0.007
10	-2.151	0.020
15	-1.239	0.040
20	-0.849	0.068
25	-0.590	0.104
30	-0.422	0.155
35	-0.310	0.221
40	-0.232	0.307
45	-0.173	0.433
50	-0.131	0.583
55	-0.099	0.806
60	-0.075	1.090
65	-0.055	1.499
70	-0.040	1.996
75	-0.026	2.687
80	-0.017	3.613
85	-0.010	5.110
90	-0.005	7.745
95	-0.002	13.039

. . . Distributional Statistics continued on next page

Distributional Statistics on Pension Income (continued)

# Distribution by PVE quartile:

TOTAL	mean_PVE 3.579	mean_p_pre	14.10	mean_p_dif	0.38
PVE Q1:	mean_PVE 0.756	mean_p_pre	2.84	mean_p_dif	0.12
PVE Q2:	mean_PVE 1.919	mean_p_pre	8.41	mean_p_dif	0.32
PVE Q3:	mean_PVE 3.373	mean_p_pre	16.26	mean_p_dif	0.46
PVE Q4:	mean_PVE 8.270	mean_p_pre	28.89	mean_p_dif	0.63
	with mean	with mean			
	LOSS LOSS	GAIN GAIN			
PVE Q1:	2.7% -0.41	8.6% 1.57			
PVE Q2:	4.6% -0.72	14.8% 2.37			
PVE Q3:	5.5% -1.03	17.7% 2.92			
PVE Q4:	6.1% -1.59	18.9% 3.83			

#### Note on tables below:

the term 'affected' means individual is eligible for at least one pension plan that has auto-enrollment post-regulation

```
. . . . considering only 'affected' cohort individuals:
TOTAL pct_aff 28.1 mean_p_pre 19.73 mean_p_dif 1.29
PVE Q1: pct_aff 17.4 mean_p_pre 4.33 mean_p_dif 0.58
PVE Q2: pct_aff 28.0 mean_p_pre 11.04 mean_p_dif 1.06
PVE Q3: pct_aff 32.1 mean_p_pre 19.85 mean_p_dif 1.38
PVE Q4: pct_aff 34.6 mean_p_pre 34.39 mean_p_dif 1.77
```

. . . . considering only 'affected' cohort individuals:

```
with
             mean
                     with
                             mean
        LOSS LOSS
                      GAIN
                             GAIN
PVE Q1:
      12.7% -0.38 41.8%
                            1.50
        14.9% -0.71 48.3%
PVE Q2:
                            2.42
PVE Q3:
        15.9% -1.01
                    51.2%
                            3.01
        16.4% -1.57
PVE Q4:
                      51.6%
                            3.92
```

Source: PENSIM output files run00431.pen (pre-regulation) and run00434.pen (post-regulation)