



NEW ENGLAND 100 EXECUTIVE COMPENSATION PRACTICES

Summary Findings

2009 Analysis of Top 5 Pay Practices at the 100 Largest Technology and Life Sciences Companies in New England

Overview

In the fall of 2009, Radford analyzed proxy data for the 48 largest technology and 52 largest life sciences companies (by revenue) headquartered in New England to examine executive pay practices. This summary covers the highlights of those findings, as well as comparisons to previous fiscal year pay practices. In order to present a pure comparison for year-over-year data, we performed incumbent-level analysis, eliminating cases where data did not exist for the same incumbent in the same position over both time periods. Data are reported separately for the two industry groups. All data represent the median value unless otherwise indicated.

Figure 1: Company Data (Last Fiscal Year Data)

	Technology			Life Sciences		
	# of Employees	Revenue (MM)	Market Cap (MM)	# of Employees	Revenue (MM)	Market Cap (MM)
75th Percentile	3,425	\$936.3	\$1,911.8	2,783	\$529.6	\$1,976.1
50th Percentile	1,123	\$293.1	\$651.8	253	\$87.8	\$318.9
25th Percentile	642	\$165.5	\$373.3	132	\$14.5	\$106.2

It is worth noting that the data for most companies in the analyses reflect “pre-crash” pay decisions and long-term incentive values. That said, top executive compensation levels within the largest New England technology companies remained relatively flat to down, depending on the level of executive (see Figure 2). Technology company CEO base pay rose 4.4% and target total cash rose 5.3%. CEO long-term incentive value rose by 11.0%, and overall total direct pay for CEOs rose 3.7%.

Figure 2: New England Technology Company Executive Pay

Position	Market Median							
	Base Salary		Target Total Cash		LTI Value		Total Direct Pay	
	Last Fiscal Year (\$000)	Percent Change	Last Fiscal Year (\$000)	Percent Change	Last Fiscal Year (\$000)	Percent Change	Last Fiscal Year (\$000)	Percent Change
CEO	\$438.8	4.4%	\$837.2	5.3%	\$1,445.4	11.0%	\$2,148.9	3.7%
CFO	\$295.0	3.8%	\$457.1	5.5%	\$422.1	-2.5%	\$973.5	-9.0%
Other NEOs	\$288.5	4.9%	\$509.6	6.1%	\$397.5	-5.3%	\$902.7	-0.9%

Below the CEO, compensation levels declined on an overall basis. Though base pay and target total cash rose for CFOs and Other Named Executive Officers (NEOs), long-term incentive values and total direct pay dropped for both, 9.0% in the case of CFOs and 0.9% for the Other NEOs.

Figure 3: New England Life Sciences Company Executive Pay

Position	Market Median							
	Base Salary		Target Total Cash		LTI Value		Total Direct Pay	
	Last Fiscal Year (\$000)	Percent Change	Last Fiscal Year (\$000)	Percent Change	Last Fiscal Year (\$000)	Percent Change	Last Fiscal Year (\$000)	Percent Change
CEO	\$492.7	5.5%	\$819.7	5.5%	\$888.7	5.7%	\$1,569.6	10.6%
CFO	\$315.0	5.3%	\$471.4	5.8%	\$393.0	1.8%	\$769.5	7.8%
Other NEOs	\$298.7	5.9%	\$418.9	5.5%	\$312.2	6.7%	\$751.1	8.6%

Meanwhile, compensation for top-level executives was up across the board at life sciences companies (see Figure 3). CEO, CFO and Other NEO total direct pay rose 10.6%, 7.8% and 8.6%, respectively.

Incentive Pay and Pay Mix

About three-quarters of the largest 50 New England-based technology companies paid a bonus to their Top 5 executives. Where bonuses were paid, the payouts ranged between 68%-90% of target. The same percentage of life sciences companies paid out a bonus (about 75%); however, the payouts were significantly higher, ranging from 89%-122% of target. Pay mix for both the technology companies and life sciences companies was little changed from the prior year, with time-based, long-term incentives largely dominating the mix in both industries. However, there are stark differences between the two when it comes to the use of performance-based, long-term incentives. Between 13% and 15% of technology Top 5 pay mix value is in the form of performance-based, long-term incentives; those percentages drop to 2%-6% for life sciences companies.

Equity Vehicle Mix

When looking solely at the mix of equity vehicle use, we have seen a move within technology companies. The percent of equity accounted for by performance shares rose from 24% to 28% for CFOs during the year, and from 21% to 27% for Other NEOs (and was flat for CEOs). The percent of equity represented by performance shares rose from 3%-6% for both CEOs and Other NEOs at life sciences companies. To the extent life sciences companies move away from stock options, we expect to see increased use of restricted stock. Life sciences companies have historically struggled with getting past the exploration phase of performance shares, given that their value drivers tend to center around the achievement of new drug or development milestones, which are subject to uncontrollable external influences (e.g., FDA approval), more than on achievement of internal operational metrics like revenue and profit growth.

Looking Forward

The economic problems that unfolded over past year have affected technology and life sciences companies in different ways. Technology companies had to quickly transition from expansion mode to cash conservation mode, and layoffs and pay cuts were the result. Life sciences companies, by contrast, saw their access to capital dry up, resulting in employee contraction and salary freezes, enacted to preserve cash. While the markets and the economy have enjoyed relative stability in the closing months of 2009, we expect that companies will continue to be cautious where pay is concerned in 2010. Notwithstanding further economic turmoil, we expect to see pay return to pre-cut/freeze levels at many companies. However, base salary increases, where they occur at all, are likely be modest (2%-3% for technology and 2.5%-3.5% for life sciences). We do not anticipate “make up” pay for the salary lost to pay cuts.

We expect most companies will reexamine their bonus structure and targets as a way of tying pay to performance, controlling cash during the rebuilding period, and augmenting the lack of base pay growth. Companies will continue to find the environment challenging with respect to their long-term incentive strategies. About 18% of technology companies and 6% of the life sciences companies undertook an underwater stock option exchange during the period. Assuming the market turnaround holds, we expect many companies will monitor the retention value of current grants, but do not anticipate an increased level of exchange activity. In lieu of an underwater exchange, some companies will continue to pursue “above-typical” grants; or introduce a performance-based overlay component to align above-market pay with above-market performance, while managing to their macro-level equity constraints.

Appendices

Pay Component Details

The appendices of this report provide detailed analysis and commentary on:

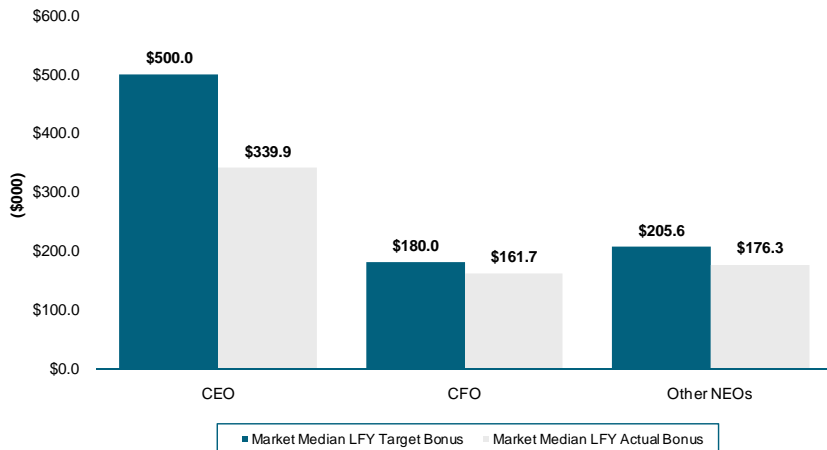
- > Target vs. actual incentives
- > Changes in pay mix
- > Changes in equity vehicle mix
- > Total ownership and ownership guidelines
- > Total direct pay compared to total shareholder return

Appendix 1: Technology companies and life sciences had markedly different experiences with respect to annual incentive payouts.

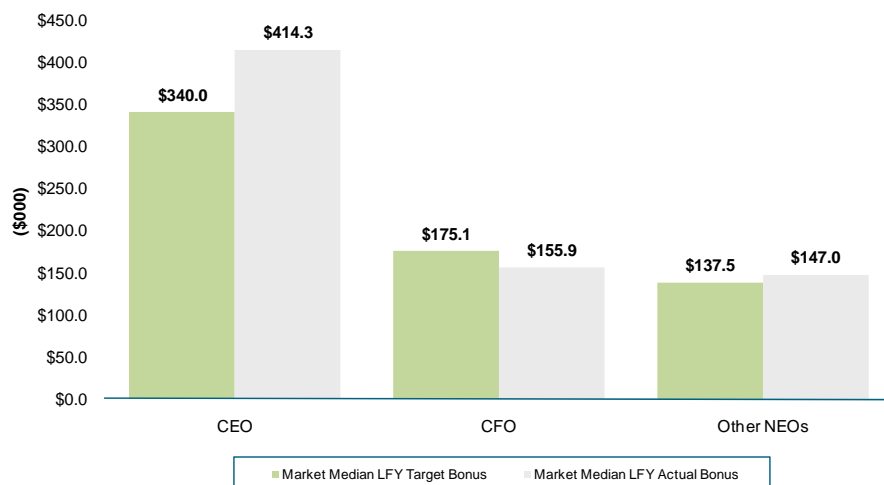
CEOs at the 50 largest technology companies in New England received an average of 68% of their target bonus. This is considerably lower than the 90% received by CFOs at those companies and the 86% received by Other NEOs.

The Top 5 executives at New England's 50 largest life sciences companies recognized bonuses near or above their target levels. CEOs of those companies received an average of 122% of target, while CFOs received 89% of target. Other NEOs received 107% of target.

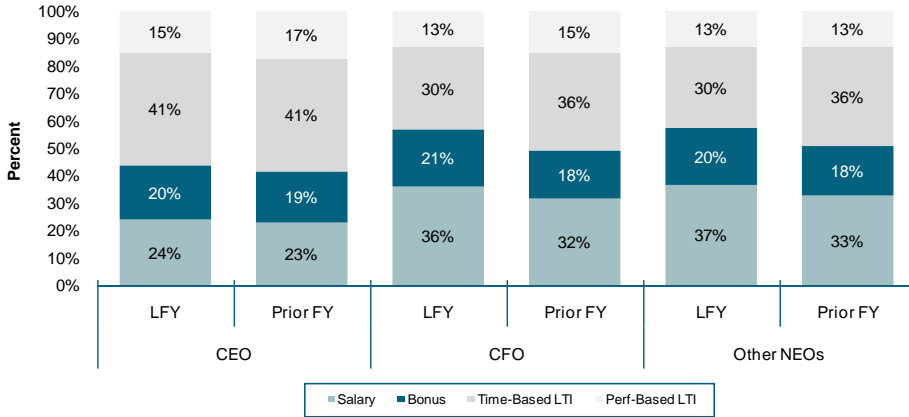
Appendix 1a- Target vs. Actual Incentives (Technology)



Appendix 1b- Target vs. Actual Incentives (Life Sciences)



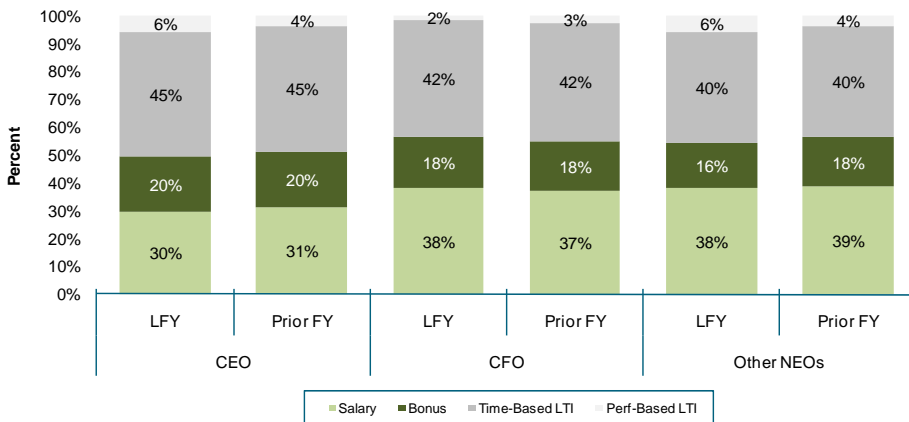
Appendix 2a - Pay Mix Change (Technology)



Appendix 2: Companies continue to feel shareholder pressure to find the right balance for fixed and variable compensation, a balance made more difficult by the shifting economic tides of the past two years. (Note: percentages may add to greater than 100% due to rounding).

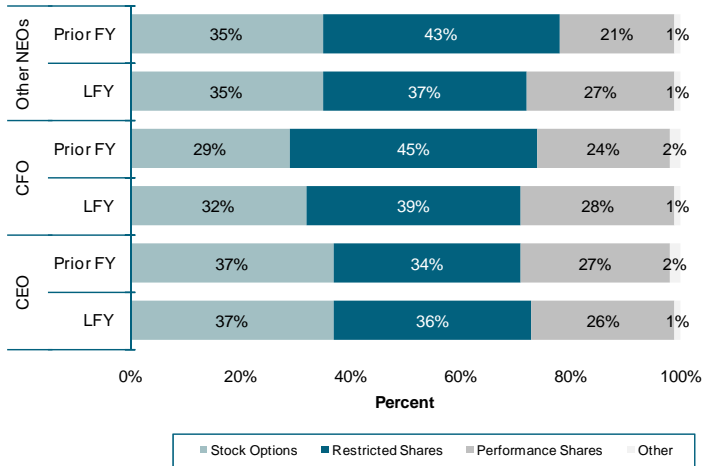
The relative mix of pay elements did not change markedly during the period, with a couple of isolated exceptions. The proportion of base pay for Other NEOs rose from 33% to 37%, while time-based, long-term incentive percentages fell about the same amount, changes that were mirrored in the CFO mix. This is largely attributed to a smaller overall total pay pie, with base salary representing a larger “slice.”

Appendix 2b- Pay Mix Change (Life Sciences)



Life sciences companies have not traditionally used an appreciable amount of performance-based, long-term incentives, and that continues to be the case. However, the percentage of equity mix represented by performance-based LTI rose slightly for both the CEO and Other NEOs during the period.

Appendix 3a - Equity Vehicle Mix Change (Technology)

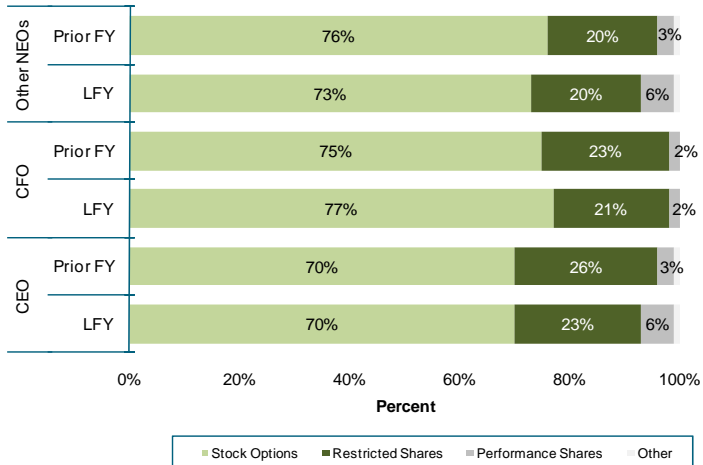


Appendix 3: Technology companies and life sciences companies have different models for the optimal mix of equity vehicles, a contrast which is mirrored in their business models. 'Other' represents long-term incentive cash plans. (Note: percentages may add to greater than 100% due to rounding).

In terms of equity vehicle prevalence, about 54% of technology companies use stock options, 48% use restricted stock and 38% use performance shares.

The percent of equity represented by performance shares rose for both Other NEOs and CFOs at New England technology companies, by 6% and 4% respectively. These increases were largely offset by decreases in the use of restricted shares.

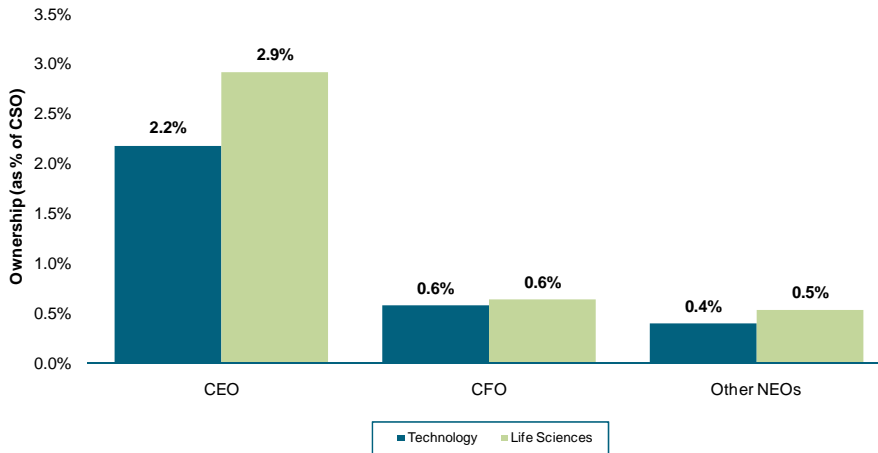
Appendix 3b - Equity Vehicle Mix Change (Life Sciences)



The prevalence of equity vehicles is evenly spread at Life Sciences companies with 81% offering stock options, 40% offering restricted stock and 12% offering performance shares.

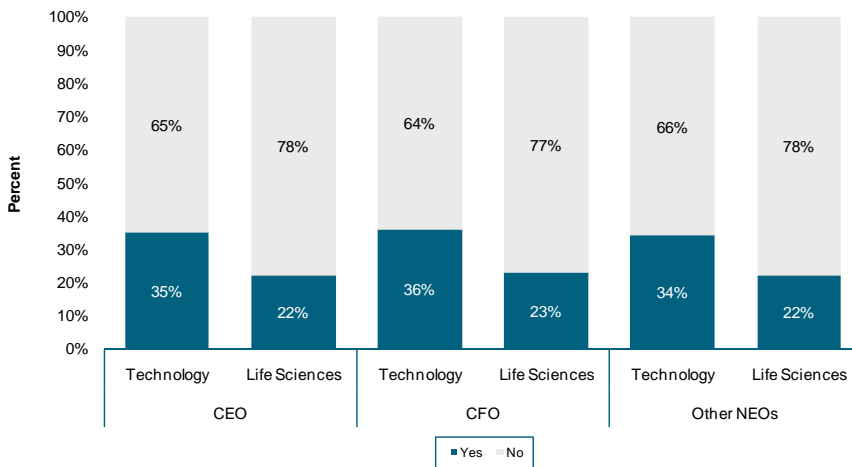
However, as discussed earlier, life sciences companies have traditionally relied very heavily on stock options, to the exclusion of performance shares. That said, we did see an increase from 3% to 6% in the use of performance shares for Other NEOs and CEOs during the period.

**Appendix 4 - Total Potential Ownership
(Technology & Life Sciences)**



Appendix 4: Total Potential Ownership is defined as the options held (both vested and unvested) along with the unvested restricted stock held and shares owned outright. Ownership among life sciences CEOs exceeds that of their technology counterparts. However, ownership levels are roughly the same among the other NEOs in the two industries.

**Appendix 5 - Ownership Guidelines
(Technology & Life Sciences)**

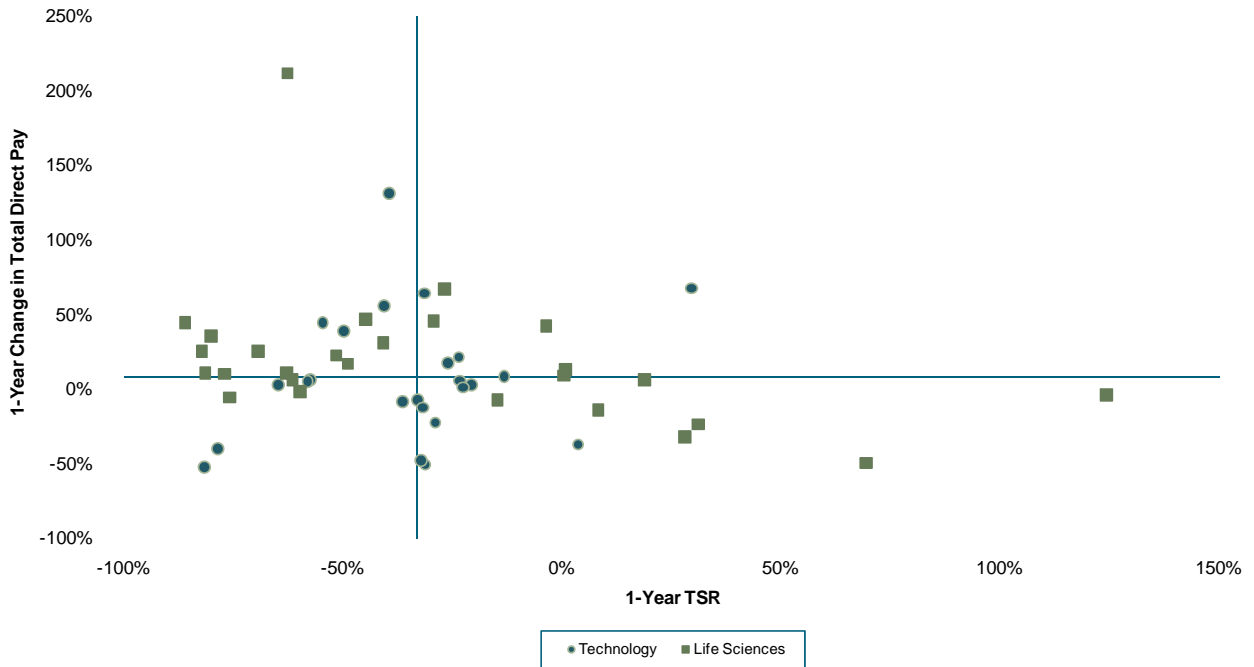


Appendix 5: Ownership guidelines continue to be a subject watched by shareholder groups and compensation committees alike. New England technology companies are somewhat more likely to have stock ownership guidelines in place than is the case with the life sciences companies in the region.

The median value for CEO ownership is about 3.0x of base salary at both technology and life sciences companies.

Also of note, about 67% of both technology and life sciences companies with guidelines used full value shares in their annual programs, which facilitates the ownership guideline process for executives.

Appendix 6 - Total Direct Pay vs. Total Shareholder Return



Appendix 6: This graph illustrates the relationship between pay and performance, where the median 1-year total direct pay change is plotted on the vertical axis and the median 1-year total shareholder return (TSR) is plotted on the horizontal axis. TSR performance was measured over a one-year period looking back from each company's most recent fiscal year end. While the LTI values reported total direct compensation tend to reflect pre-crash values, the actual TSR performance reflects post-crash numbers for most companies. Companies with the tightest alignment between pay and performance will be either in the upper right or lower left quadrants. The difficult economic climate during the period resulted in 1-year TSR figures of -32% for technology and -45% for life sciences.

Appendix 7: List of Companies

Radford gathered executive compensation data from public SEC filings between 06/30/08 to 06/30/09 for the following 100 New England technology and life sciences companies.

Company	Employees	Revenue (MM)	Market Data as of 10/29/2009			Market Value to Revenue Multiple
			Stock Price	Total Common Shares Outstanding	Market Cap (MM)	
3Com	6,309	\$1,280.0	\$5.44	392,168,600	\$2,133.4	1.7 x
Acme Packet	381	\$116.4	\$9.86	58,093,400	\$572.8	4.9 x
Airvana	560	\$305.0	\$6.46	62,161,780	\$401.6	1.3 x
Akamai Technologies	1,300	\$636.4	\$22.79	172,401,200	\$3,929.0	6.2 x
American Science & Engineering	346	\$166.7	\$66.72	8,856,630	\$590.9	3.5 x
American Tower	1,198	\$1,593.5	\$38.24	394,632,800	\$15,090.8	9.5 x
Analog Devices	9,000	\$2,582.9	\$26.36	291,549,100	\$7,685.2	3.0 x
Avid Technology	2,728	\$929.6	\$13.21	37,383,770	\$493.8	0.5 x
Axcelis Technologies	1,154	\$250.2	\$0.99	103,856,500	\$102.8	0.4 x
Bottomline Technologies	679	\$131.2	\$15.06	25,694,890	\$387.0	2.9 x
Brooks Automation	1,658	\$526.4	\$7.30	64,391,570	\$470.1	0.9 x
Cognex	832	\$242.7	\$16.58	39,661,520	\$657.6	2.7 x
Double-Take Software	354	\$82.8	\$9.48	22,057,780	\$209.1	2.5 x
Dynamics Research	1,400	\$229.6	\$12.88	9,820,080	\$126.5	0.6 x
EMC	42,100	\$14,876.2	\$16.92	2,039,822,000	\$34,513.8	2.3 x
Evergreen Solar	801	\$112.0	\$1.51	208,300,400	\$314.5	2.8 x
Fairchild Semiconductor	9,771	\$1,574.2	\$7.85	123,909,900	\$972.7	0.6 x
Hittite Microwave	315	\$156.4	\$37.72	29,903,240	\$1,128.0	7.2 x
Interactive Data	2,304	\$689.6	\$25.90	93,902,280	\$2,432.1	3.5 x
IPG Photonics	1,300	\$188.7	\$14.19	45,523,700	\$646.0	3.4 x
Irobot	479	\$307.6	\$13.84	25,008,370	\$346.1	1.1 x
Iron Mountain	21,000	\$3,055.1	\$25.37	202,913,700	\$5,147.9	1.7 x
Kopin	302	\$114.8	\$4.51	66,214,420	\$298.6	2.6 x
KVH Industries	314	\$80.9	\$10.56	13,964,550	\$147.5	1.8 x
Mercury Computer Systems	670	\$209.9	\$11.06	23,504,180	\$260.0	1.2 x
MKS Instruments	2,924	\$780.5	\$16.40	49,456,130	\$811.1	1.0 x
ModusLink Global Solutions	4,700	\$1,068.2	\$8.38	45,631,780	\$382.4	0.4 x
Navisite	694	\$154.6	\$1.95	35,612,540	\$69.4	0.4 x
Netezza	276	\$126.7	\$9.33	60,566,750	\$565.1	4.5 x
Netscout Systems	790	\$169.0	\$12.81	40,357,530	\$517.0	3.1 x
Novell	4,000	\$956.5	\$4.26	346,797,000	\$1,477.4	1.5 x
Nuance Communications	6,100	\$868.5	\$13.73	269,025,100	\$3,693.7	4.3 x
Parametric Technology	5,087	\$1,070.3	\$15.82	116,180,500	\$1,838.0	1.7 x
Pegasystems	657	\$161.9	\$29.30	36,344,620	\$1,064.9	6.6 x
Phase Forward	718	\$170.2	\$13.03	43,255,000	\$563.6	3.3 x
Progress Software	1,662	\$493.5	\$23.52	40,164,000	\$944.7	1.9 x
Raytheon Co.	73,000	\$1,672.0	\$45.87	389,389,000	\$17,861.3	10.7 x
SEA CHANGE	1,046	\$201.8	\$6.97	30,859,960	\$215.1	1.1 x
Skillssoft	597	\$281.2	\$9.81	95,362,590	\$935.5	3.3 x
Skyworks Solutions	3,300	\$860.0	\$10.45	171,161,400	\$1,788.6	2.1 x
Sonus Networks	991	\$313.3	\$1.93	273,697,400	\$528.2	1.7 x
Starent Networks	774	\$254.1	\$33.77	71,550,520	\$2,416.3	9.5 x
Sycamore Networks	492	\$115.5	\$2.88	284,461,900	\$819.3	7.1 x
Teradyne	3,800	\$1,107.0	\$9.10	174,574,200	\$1,588.6	1.4 x
Textron	43,000	\$14,246.0	\$19.01	270,237,000	\$5,137.2	0.4 x
Unica	519	\$121.1	\$7.05	20,656,000	\$145.6	1.2 x
Varian Semiconductor Equipment	1,545	\$834.1	\$30.68	73,322,820	\$2,249.5	2.7 x
Vicor	1,092	\$205.4	\$6.97	41,664,560	\$290.4	1.4 x
Abiomed	386	\$73.2	\$9.67	37,351,730	\$361.2	4.9 x

Appendix 7: List of Companies (cont'd)

Company	Employees	Revenue (MM)	Stock Price	Market Data as of 10/29/2009		Market Value to Revenue Multiple
				Total Common Shares Outstanding	Market Cap (MM)	
Alkermes	610	\$240.7	\$8.19	94,774,270	\$776.2	3.2 x
Alnylam Pharmaceuticals	170	\$96.2	\$17.42	41,728,060	\$726.9	7.6 x
Altus Pharmaceuticals	145	\$2.2	\$0.19	31,131,060	\$5.9	2.7 x
AMAG Pharmaceuticals	259	\$1.9	\$38.32	17,120,250	\$656.0	338.5 x
Analogic	1,700	\$413.5	\$38.70	12,808,730	\$495.7	1.2 x
Anika Therapeutics	84	\$35.8	\$7.79	11,437,980	\$89.1	2.5 x
Antigenics	80	\$2.7	\$1.01	89,197,100	\$90.1	34.0 x
Ariad Pharmaceuticals	150	\$7.1	\$1.93	108,807,900	\$210.0	29.7 x
Arque	107	\$14.1	\$3.58	44,675,360	\$159.9	11.3 x
Aspect Medical Systems	322	\$99.3	\$11.99	17,440,670	\$209.1	2.1 x
Biogen Idec	4,700	\$4,097.5	\$43.08	289,198,500	\$12,458.7	3.0 x
Biosphere Medical	84	\$29.3	\$3.18	18,391,580	\$58.5	2.0 x
Boston Scientific	27,500	\$8,357.0	\$8.33	1,510,250,000	\$12,580.4	1.5 x
Bruker	4,400	\$1,107.1	\$11.56	164,087,900	\$1,896.9	1.7 x
Caliper Life Sciences	489	\$134.1	\$2.12	48,998,470	\$103.9	0.8 x
Candela Laser	144	\$148.2	\$3.07	22,913,040	\$70.3	0.5 x
Celldex Therapeutics	81	\$7.5	\$4.47	32,509,460	\$145.3	19.4 x
Charles River Laboratories	8,500	\$1,230.6	\$37.30	65,893,790	\$2,457.8	2.0 x
Clinical Data	176	\$10.4	\$16.30	23,568,280	\$384.2	36.9 x
CombinatoRx	57	\$14.0	\$1.28	35,063,880	\$44.9	3.2 x
Cubist Pharmaceuticals	554	\$433.6	\$17.64	57,946,860	\$1,022.2	2.4 x
Cynosure	288	\$139.7	\$10.00	12,747,440	\$127.5	0.9 x
Dusa Pharmaceuticals	83	\$27.7	\$1.22	24,108,910	\$29.4	1.1 x
Dyax	164	\$43.4	\$3.30	72,471,320	\$239.2	5.5 x
Epix Pharmaceuticals	119	\$15.0	\$0.02	74,775,860	\$1.5	0.1 x
Genzyme	11,000	\$4,605.0	\$51.58	270,308,400	\$13,942.5	3.0 x
GTC Biotherapeutics	159	\$16.7	\$1.09	10,488,980	\$11.4	0.7 x
Haemonetics	20	\$0.1	\$51.92	25,688,380	\$1,333.7	13337.4 x
Harvard Bioscience	300	\$88.0	\$3.63	29,465,820	\$107.0	1.2 x
Hologic	3,933	\$1,674.5	\$15.33	256,632,600	\$3,934.2	2.3 x
Idenix Pharmaceuticals	173	\$10.0	\$2.50	59,079,000	\$147.7	14.8 x
Idera Pharmaceuticals	37	\$26.4	\$5.56	23,455,000	\$130.4	4.9 x
Idexx Laboratories	4,700	\$922.6	\$52.78	58,592,100	\$3,092.5	3.4 x
ImmunoGen	210	\$40.2	\$7.55	57,057,600	\$430.8	10.7 x
Inverness Medical Innovations	5,153	\$817.6	\$39.01	80,445,830	\$3,138.2	3.8 x
Metabolix	98	\$1.6	\$12.02	23,011,140	\$276.6	172.9 x
Millipore	5,900	\$106.2	\$68.75	55,545,730	\$3,818.8	36.0 x
Molecular Insight Pharmaceuticals	81	\$0.5	\$4.67	25,241,410	\$117.9	235.8 x
Momenta Pharmaceuticals	167	\$14.6	\$9.59	39,895,640	\$382.6	26.2 x
NUCRYS T Pharmaceuticals	133	\$30.1	\$0.93	18,325,370	\$17.0	0.6 x
NxStage Medical	1,268	\$128.8	\$5.63	46,662,950	\$262.7	2.0 x
Palomar Medical Technologies	246	\$87.6	\$10.91	18,064,790	\$197.1	2.2 x
Parexel International	6,485	\$1,163.0	\$12.85	57,781,750	\$742.5	0.6 x
Perkin Elmer	7,900	\$1,937.5	\$18.97	116,703,400	\$2,213.9	1.1 x
Sepracor	2,400	\$1,292.3	\$22.98	110,988,100	\$2,550.5	2.0 x
Seracare Life Sciences	212	\$49.0	\$2.30	18,652,980	\$42.9	0.9 x
Synta Pharmaceuticals	129	\$2.6	\$2.85	33,953,300	\$96.8	36.9 x
Thermo Fisher Scientific	33,000	\$9,746.4	\$45.90	408,152,500	\$18,734.2	1.9 x
Vertex Pharmaceuticals	1,333	\$175.5	\$33.85	180,659,200	\$6,115.3	34.8 x
Waters	5,000	\$1,473.0	\$57.89	95,518,480	\$5,529.6	3.8 x
Zoll Medical	1,431	\$398.0	\$19.90	21,098,360	\$419.9	1.1 x

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About Radford

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