The Evolving Board of Director Landscape: Trends and Practices in Life Sciences Board Compensation

By Edward J. Speidel and Robert Surdel

AS THE LIFE SCIENCES INDUSTRY (LSI) HAS MATURED AND GROWN MORE COMPLEX, SO TOO HAVE THE BUSINESS issues facing the industry, manifesting in an ever-changing – and even more challenging – regulatory environment; a heightened war for top talent; and increased focus on governance issues. There is no question that public company Boards of Directors in general have been negotiating a host of difficult transitions in recent years, and the same holds for Boards of LSI companies. The challenges have been numerous, taking the form of expanding Board responsibility and accountability, increased enterprise oversight and a strong focus on compliance. These challenges have impacted Board composition and member skill set requirements.

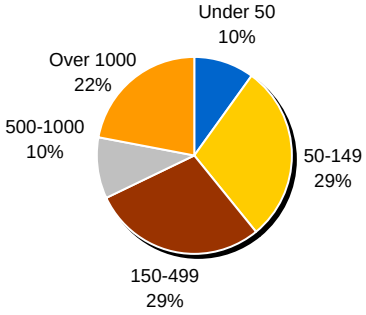
Board membership and participation has grown increasingly demanding, a shift that is making its presence known in both how Boards conduct their responsibilities and how members are compensated. According to a recent study, Directors sit on an average of 2.5 Boards, continuing a downward trend seen over recent years and reinforcing the reality that Board membership is simply a more demanding job today than it was five years ago.[1]

In 2005, Directors spent more than 200 hours fulfilling Board-related duties, up from between 100 to 150 hours pre-Sarbanes-Oxley, according to the National Association of Corporate Directors. Multiplied by the 2.5 Boards that Directors typically serve, the typical Director spends about three months out of the year working on Board-related issues. Further, while the number of meetings Boards and committees hold on an annual basis has remained relatively constant, Directors serve increasingly on an "as-needed" basis, meaning they face increased challenges in simply planning the time they devote to Board duties not to mention an increased focus on face-to-face meeting requirements.

The time commitment for Board service today is typically more significant in life sciences companies

Though Boards have at times struggled to keep pace with the changes, best practices have emerged. This latest white paper from our Radford Review series examines the evolution of trends and practices of Boards of Directors in the life sciences industry. The report will examine governance best practices, and current trends in outside Director compensation. Our analyses are based on publicly filed data from 252 life sciences companies, representing a broad cross-section of the industry subsectors and company size. The pie chart and table below represent an industry and financial breakdown of the 252 aforementioned companies.

Note: "n", or "n count" refers to the number of companies within a given data set.



Percentiles	All Life Sciences		
	LFY Revenue (MM)	LFYE Market Cap (MM)	LFYE Headcount
75th	$238.3	$1,481.2	732
50th	$32.4	$361.3	195
25th	$7.4	$152.2	95

Source: Radford proprietary database

Emerging Best Practices

As discussed above, the time commitment for Board service today has increased significantly based on numerous factors. With the increased external scrutiny from the media, shareholders and regulators, Boards have instituted more internal reviews and controls on their practices. Whereas, for example in the past, committee recommendations may have been approved by the Board with minimal review, today recommendations are more highly scrutinized, increasing both the cycle time and number of iterations needed to gain full approval. In addition, work once handled by management is now being performed at the committee level.

At the median, LSI companies have an average of eight Directors, six of which are independent, compared to nearly 11 members on an average S&P 500 Board.[2] Further, there are typically

three members on each of three committees: audit, compensation and nominating/governance, meaning Directors typically serve on two or more committees.

Within LSI firms, Boards typically met eight times last year, while the audit committee met seven times, and the compensation committee met five times. This compares closely with the S&P average of 9.5 audit committee and six compensation committee meetings.[3]

Categories	All Life Sciences		
	25th	50th	75th
Number of Directors			
Total Directors	7	8	9
Independent Directors	6	6	7
Number of Meetings			
Full Board	7	8	9
Audit Committee	5	7	9
Comp. Committee	3	5	7
Nominating/Governance Committee	1	2	4

Source: Radford proprietary database

The increased use of Lead Directors and Presiding Directors is the relevant trend

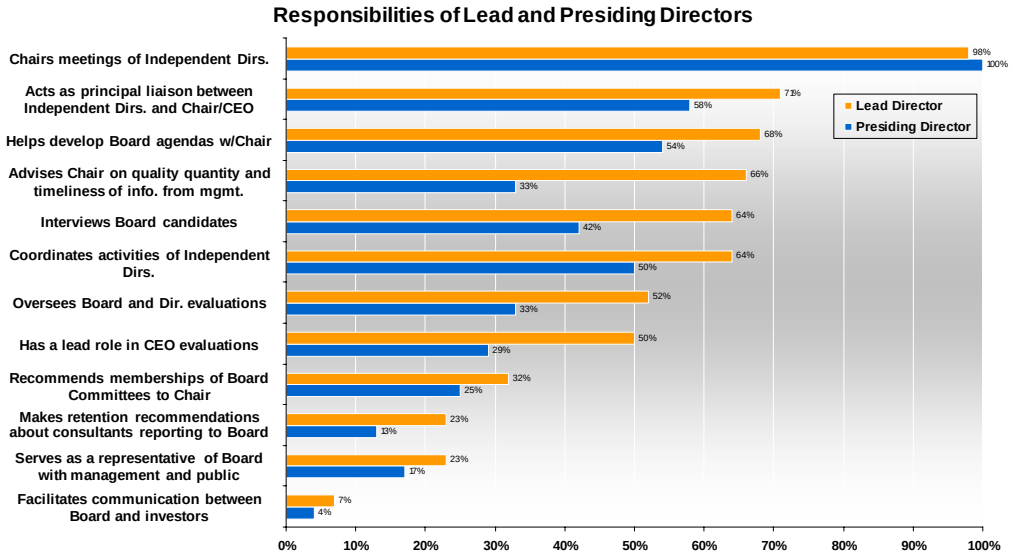
Lead Directors vs. Presiding Directors

One of the ways Boards have responded to increased demands for tighter governance standards is to more clearly define and articulate leadership responsibilities. In previous Radford Reviews, we've focused on the increasing importance of the independent, non-executive Chair. Although the use of non-executive chairman is an important aspect of Board composition, the increased use of Lead Directors and Presiding Directors is the relevant trend.

Most S&P companies, for example, now have either a Lead Director (30 percent) or Presiding Director (64 percent). About 26 percent of LSI Boards currently have a Lead Director, and we expect that trend will continue as more companies move to increase the independence of the Board. The advantages of such a role have become clear. Both Lead and Presiding Directors:

- Serve as an ongoing point of contact for Directors, thereby enhancing the Board's independence from management
- Drive agendas and evaluate results of the Board
- Convene and chair executive sessions for Independent Directors
- Fill in gaps during organizational transitions, such as a CEO departure

While the particular roles played by either the Lead or Presiding Director vary by company, there are some typical differentiators – see the graph on the next page.



Source: Spencer Stuart, A Closer Look at Lead and Presiding Directors, The New Governance Committee, Volume 1, Issue 4, 2007

Lead Directors and Outside Chairs have increasingly become the company's lead contact for shareholder concerns

Navigating Shifting Landscapes

The balance of power in the Board/management/shareholder relationship has evolved significantly in the past decade. Shareholders are today far more vocal – and far more likely to voice discontent – with Boards than has perhaps ever been the case. In response to this shift, Boards are taking on a greater responsibility for communicating with shareholders, a role that has long been the purview of management. Lead Directors and Outside Chairs have increasingly become the company's lead contact for shareholder concerns, in response to increasing shareholder demands.

Shareholders are likely to become more vocal before they become less so. For example, shareholder "say-on-pay" resolutions, in which shareholder groups have sought proxy votes for the right to voice an opinion on executive pay levels, are gaining traction. While such proxy resolutions were virtually unheard of three years ago, they regularly received around 45 percent of the votes required for passage in the past year. The merits of such resolutions aside, what is clear is that the demand for more effective shareholder communication on compensation issues is growing significantly.

To a large extent, the practices Boards are adopting to enhance their governance processes have been prompted by Risk Metrics/Institutional Shareholder Services (ISS), which has played a large role in defining governance standards. ISS recommends that shareholders either "withhold" or issue "no" votes to Boards in cases where Boards are not composed of more than two-thirds independent Directors. ISS also stipulates that Directors should hold ownership of a minimum of 3x their annual retainer in company stock; such a holding must vest over a minimum of three years or be subject to a mandatory holding period (through retirement, for example). Additionally, ISS looks for Board compensation that is composed of a balanced mix of cash and equity, and excludes retirement benefits and other perquisites. Outside the areas of Board compensation, ISS also rates Board performance based on Compensation Committee practices;

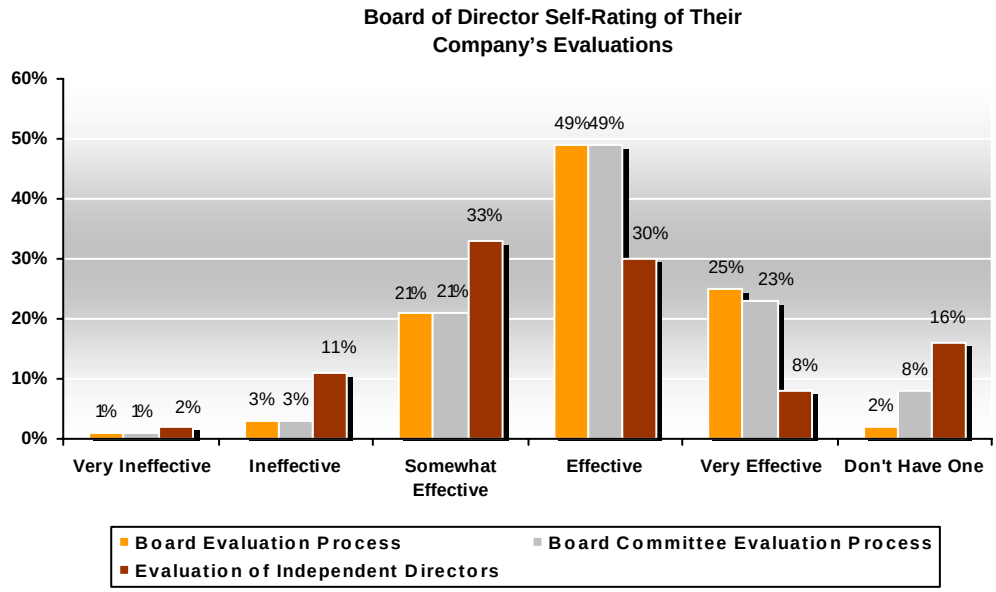
succession planning; the frequent use of executive session meetings of independent Directors; and whether the CEO and individual Director performance reviews are conducted annually.

Performance Management

Boards are growing more disciplined and sophisticated in how they monitor, evaluate and communicate Director performance. Whereas at the turn of the century performance management was virtually unheard of at the Board level, today Boards are increasingly evaluating Directors both at the overall and committee levels. Procedures vary considerably; however, often the governance/nominating committee lead and/or an external advisor is responsible for spearheading the process.

Today Boards are increasingly evaluating Directors both at the overall and committee levels

In its 2006-2007 Corporate Board Effectiveness Study, Heidrick & Struggles polled Directors to get their perspectives on the effectiveness of evaluations. The results were mixed. Interestingly, about 75 percent of Directors believed that the evaluation processes for the Board as a whole and for committees was effective or very effective, while fewer than half (48 percent) viewed the processes for individual Director evaluation as similarly effective. Moreover, the overall "somewhat effective" to "very ineffective" figures were surprisingly high. We believe this reflects the relative novelty of the practice; Directors have had to learn how to evaluate one another, and how to communicate productive feedback. Further, we expect that Boards will increasingly look to independent third-parties to conduct the performance evaluation and feedback process in order to obtain more candid feedback from Directors.



The evaluation process has been valuable in helping the Board identify critical skill gaps, and understanding the steps needed to fill those gaps, spurring a small industry in Board education and certification. ISS offers education and certification through its National Leadership Institute, NYSE Euronext holds annually a Board Room Summit, and ongoing services are offered through such organizations as the National Association of Corporate Directors, Corporate Board

Member, various universities and the listing agencies.

Skill set assessment and education is certain to become more prevalent in the coming years, and we believe requisite certification is not a far-off proposition. In the meantime, the table below illustrates how dynamic the needs for specific Board member skills, experiences and perspectives have grown over the past year. The data highlight a shift from a preference for active CEOs or COOs to one of their retired counterparts, indicative of the need for experienced executives with time to available to address the company's issues. There is also a clear growing preference for diversity among Board members, with respondents reporting that women and minorities rank higher on the 2007 "wish list" than was the case in 2006. However, skill set and available time to dedicate to the increasing duties of a directorship remain the primary criteria for selection.

There is now a clear growing preference for diversity among Board members, specifically, women and minorities

Wish List for New Director		
Backgrounds	**2006****	**2007*****
Financial expertise	75%	77%
Minorities	62%	73%
Women	54%	70%
Active CEO/COO	71%	68%
International expertise	52%	52%
Retired CEO	35%	49%
Technology expertise	40%	36%
Marketing expertise	27%	35%
Regulatory/gov't expertise	n/a	28%
Other (e.g., industry expertise)	29%	22%
Legal expertise	n/a	8%
Human resources expertise	5%	7%

** Percent ages add up to more than 100% as respondent could select more than one category*
*** n=92*
**** n=88*

Source: Stuart Spencer Board Index 2007

Impact on Board Compensation

Radford Advisory Services undertook a review of Board compensation trends as disclosed in the public proxy statements of approximately 250 LSI companies to see how the changing governance and shareholder landscape is impacting the way Board members are compensated for service.

The study looked at Board and member compensation; the premiums paid for Board and committee leadership service as well as equity grants for initial appointment and ongoing annual service; total retainers and fees; total direct compensation; and aggregate compensation.

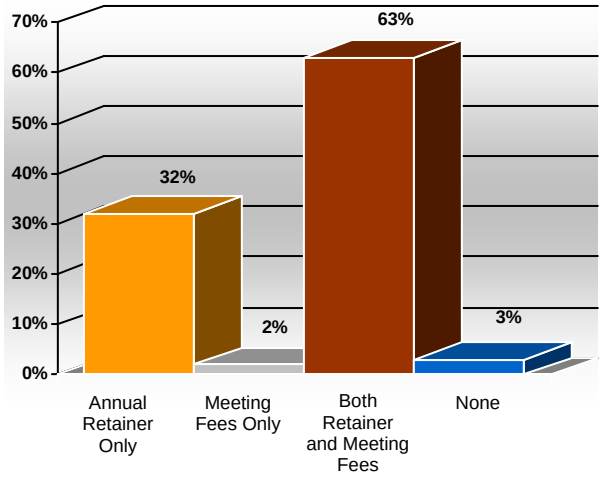
Based on our results, LSI Boards are reviewing the way they think about Director cash compensation, leaning away from a traditional activity-based pay toward role-based pay. Activity-based pay is typically delivered in the form of meetings fees and supports a philosophy

of compensating Directors for their formal Board involvement (generally determined by the number of meetings attended).

As the days when Director responsibilities are executed solely within the confines of a meeting rapidly fade, role-based pay has gained more attention. Role-based pay typically takes the form of higher Board and committee retainers and better reflects the new demands on – and contributions from – Directors; it better mirrors the virtual "on-call" nature of the job of today's Director as well as the new demands and risks of their specific roles. About 32 percent of LSI companies currently use only an annual retainer, or role-based compensation, while just two percent rely on meeting fees only.

As the days when Director responsibilities are executed solely within the confines of a meeting rapidly fade, role-based pay has gained more attention

Board Compensation Delivery
n=252



Source: Radford proprietary database

A majority (63 percent) of companies provide a mix of retainer and fees; however, much of the total compensation is delivered through retainers. At the median, Board members receive $25,000 in retainers and $2,000 in meeting fees. The growth in retainer values at LSI companies mirrors the broad industry. However, while the pace of growth in retainer values is similar, the level of pay is less so, with about one-third of all S&P companies paying retainers in excess of $70,000.

Method of Compensation	All Life Sciences			
	25th Percentile	50th Percentile	75th Percentile	n=
Retainer	$15,000	$25,000	$30,000	239
Meeting Fees	$1,500	$2,000	$2,000	163

Source: Radford proprietary database

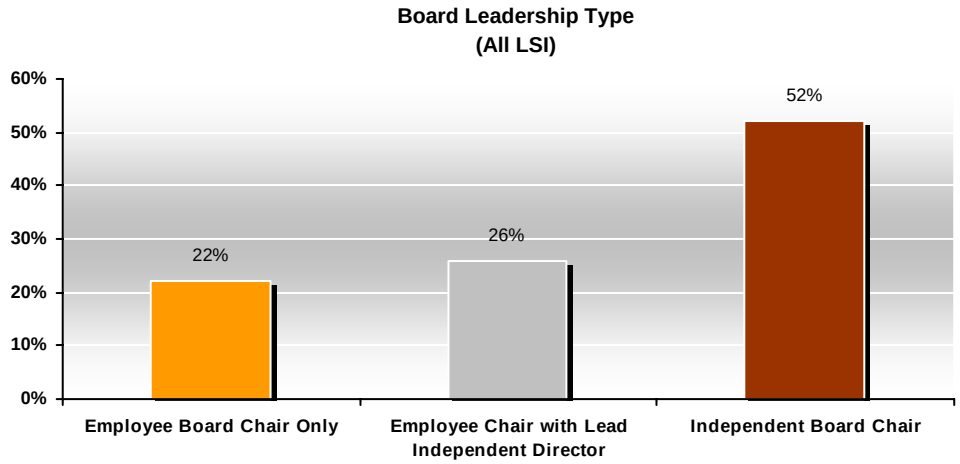
While it is reasonable to expect companies will continue to use both retainers and fees, over time we expect to see a steadily increasing reliance on retainers only, and an increasing proportion of total pay delivered in the form of retainers where both forms are used. In the case of both retainers and fees, payments are typically in the form of cash. When fees and retainers

are paid in equity, it is often done so by smaller companies as a means of preserving cash.

Board Leadership Compensation

As discussed above, Board leadership has been undergoing transition over the past few years. More than three-quarters of LSI Boards are headed by either a Lead Director or non-employee Chair.

More than 3/4 of LSI company Boards are headed by either a Lead Director or non-employee Chair



N=252

Source: Radford proprietary database

Compensation at this level is notably different, depending on whether the Board leadership is an Independent Chairman or an Independent Director. For example, Independent Chairs receive a 2.0x premium on the Board member retainer, at the median, in recognition of their role. ($50,000 vs. $25,000). By contrast, Lead Directors receive, at the median, a 1.5x premium, or $37,500 (although it is a much less prevalent practice), which reflects the narrower nature of the role and time commitment. In either case, companies are more likely to provide a premium in the form of a retainer, rather than a meeting fee, to reflect the increased liability and time commitments of the role.

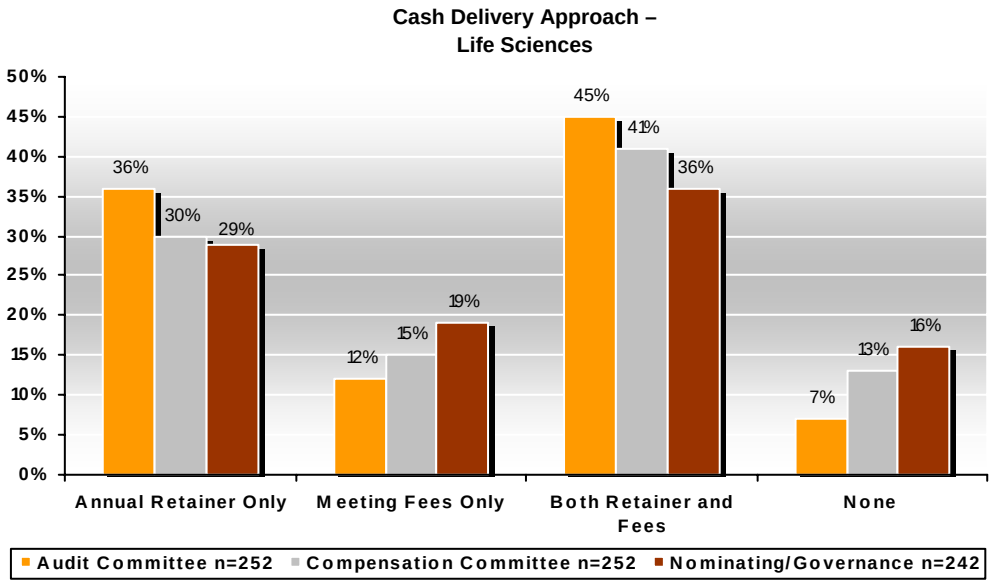
Retainer Premiums	Life Sciences	
Percent of companies with an Independent Chairman that provide member retainers	78%	n=124
Median Independent Chairman premium as a multiple of member retainer	2.0x	n=97
Percent of companies with a Lead Independent Director that provide member retainers	39%	n=62
Median Lead Independent Director premium as a multiple of member retainer	1.5x	n=24
Meeting Fee Premiums	**Life Sciences**	
Percent of companies with an Independent Chairman that provide member fees	11%	n=87
Median Independent Chairman premium as a multiple of member fees	1.8x	n=10
Percent of companies with a Lead Independent Director that provide member fees	0%	n=40

Source: Radford proprietary database

Committee Member Compensation

Differentiation of compensation based on a Director's role in one or more committees is common, with the majority of LSI companies paying some form of additional compensation for committee membership. About 85-90 percent of LSI firms provide additional fees, retainer, or both for committee membership.

About 85-90% of LSI firms provide additional fees, a retainer, or both for committee membership



Source: Radford proprietary database

Most typically, if there is additional compensation for membership in one committee, there is additional compensation for all committees; however, audit committee members are the most likely to receive additional compensation, reflecting the increased financial expertise and risk associated with this membership. As the table below shows, audit committee members received retainers of $7,000; members of the compensation committee received $5,000; and nominating/governance committee members received about $3,000 in retainers. Meeting fees were the same across all committees at $1,000. However, audit committee members receiving both meeting fees and retainers were awarded $6,750, compared to $4,000 and $2,375 for the compensation and nominating/governance committees, respectively. (Please note: Figures in the table below are influenced by the presence of $0s in the dataset, as well as variations in pay delivery models among companies in the dataset.)

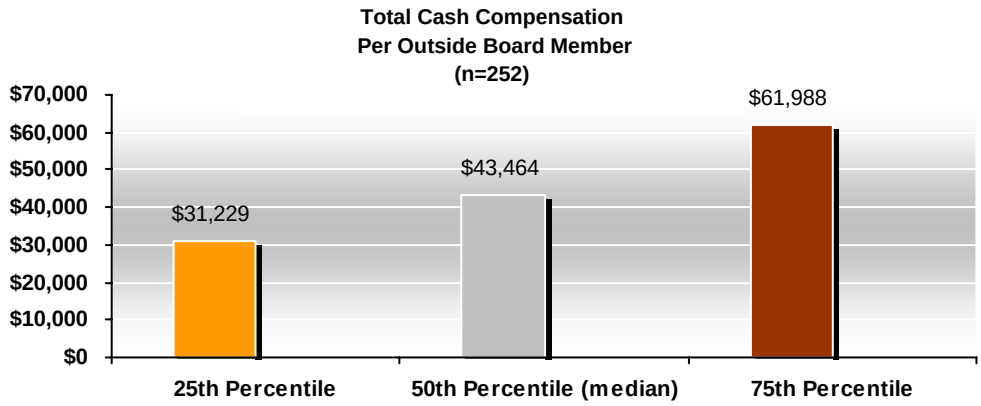
	All Life Sciences (Median)		
Category	**Audit**	**Compensation**	**Nominating/Governance**
Retainer	$7,000	$5,000	$4,000
Retainer n=	*97*	*87*	*73*
Meeting Fees	$1,000	$1,000	$1,000
Meeting Fees n=	*144*	*142*	*133*
Retainer & Fees	$6,750	$4,000	$2,375
Retainer & Fees n=	*252*	*252*	*242*

Source: Radford proprietary database

We expect compensation committee chairman and member retainers to increase more quickly over the next few years as their responsibilities and risks continue to increase.

Total Cash Compensation

Total cash compensation is a measure of all cash compensation delivered via retainers and/or fees during the year for both general Board service and committee service. In LSI companies last year, the median total cash compensation was $43,464. However, the range from high-to-low, about 2.0x, was significant.



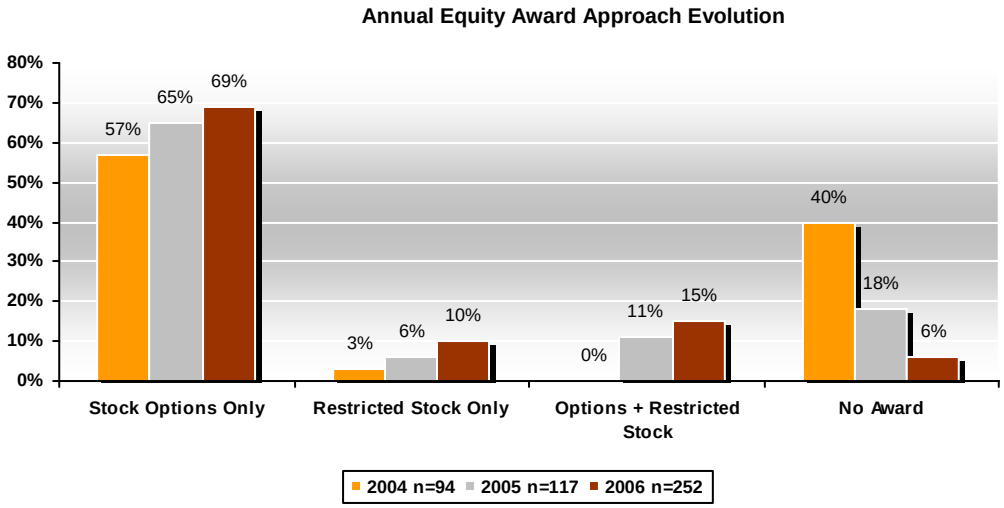
Source: Radford proprietary database

While the high-tech sector has begun to adopt the use of full-value shares for annual grants, LSI companies have continued their reliance on stock options

Equity, Total Direct Compensation and Aggregate Cost

Nearly 70 percent of all LSI companies provide equity grants to new Board members, and more than 90 percent provide annual grants. Stock options have long been the favored vehicle for delivering equity compensation, and that continues to be the case, particularly with respect to initial equity grants upon appointment to the Board. At a time when companies in the high-technology sector have begun to adopt the use of full-value shares for annual grants, LSI companies have continued their reliance on stock options. About one-quarter of LSI companies use some form of restricted stock (restricted stock only, or in combination with stock options).

However, use of full-value shares has grown over the past several years, particularly at the larger, revenue-producing companies, principally in reaction to changes in stock option expensing regulations that were enacted in 2003. Beyond expensing, companies are reacting to increased scrutiny from institutional investors around dilution and ownership guidelines, making full-value shares an attractive alternative on both fronts. Additionally, while 35 percent of LSI companies use restricted stock, the prevalence increases to 49 percent within those companies that have ownership requirements, indicating that some companies are using restricted stock to help Directors meet those requirements.

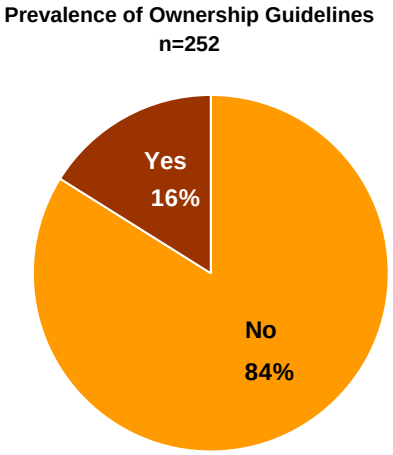


Source: Radford proprietary database

The value of annual equity grants to Directors last year was $66,000 at the median, with initial awards typically ranging from 1.5x -2.0x of the annual grant value. Slightly less than 40 percent of companies provide additional equity compensation for non-employee Board Chairs, for a median additional value of $30,000. Fewer companies (about 11 percent) provide additional equity compensation to Lead Directors, for a median additional value of $25,000.

A slim minority of LSI companies, 16%, have ownership guidelines in place

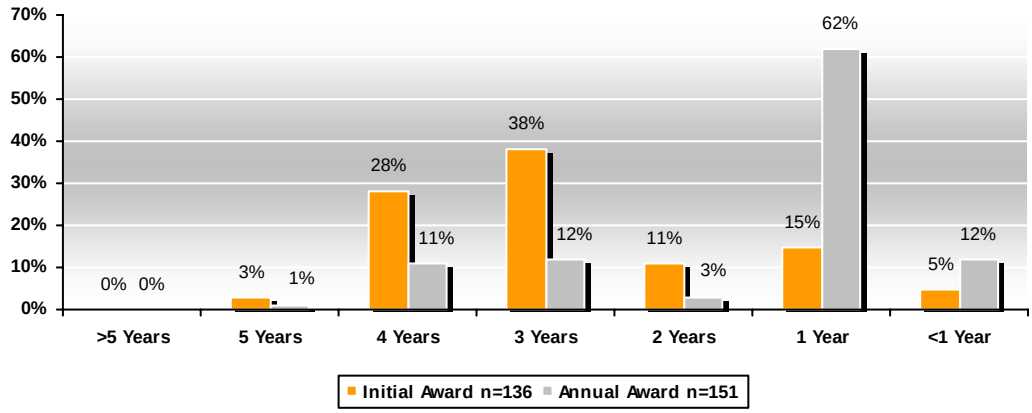
With respect to ownership guidelines (the requirement to invest personally in the company's stock), Boards are responding, though slowly and unevenly. A slim minority of LSI companies, 16 percent, have ownership guidelines in place, with the practice more prevalent at larger companies than at smaller ones. While the LSI companies are beginning to respond to shareholder group recommendations for ownership guidelines, there is considerable disparity in how or whether the policies are enacted and/or enforced. In other words, some companies enforce the guidelines by articulating penalties for non-compliance, and others do not.



Source: Radford proprietary database

The picture is similarly mixed with respect to vesting practices. For initial appointment grants, most companies adhere to the ISS guidelines of at least a three-year vesting schedule; however, the same is not true for annual awards, 84 percent of which vest in one year or less, which would align to a standard one-year term of service for directors.

Years to Vest, Initial and Annual Awards



Source: Radford proprietary database

Companies and investors are looking at the aggregate cost of Director compensation relative to revenue, market capitalization and other key metrics

Total direct compensation is a measure of all cash compensation (retainers and fees) plus all annual equity compensation for the past fiscal year. Median total direct compensation was $108,700 last year for LSI Board members. For comparison, the total direct compensation for S&P Board members was $211,200, about 60 percent of which came in the form of equity.

Increasingly, companies and investors are looking at the aggregate cost of Director compensation (as well as the aggregate cost of executive compensation) relative to revenue, market capitalization and other key metrics. The range of aggregate Board costs is more than 3x between the 25th and 75th percentile, with a median aggregate cost of $716,000. This represented 1.44 percent of last fiscal year revenue and 0.19 percent of last fiscal year end market capitalization. Generally, aggregate Board expense grows with company size, not only due to more Board members but an increase in the per Board member cost. We expect companies to draw comparison of their aggregate Board cost to their peers in the future as another benchmark to determine program reasonableness.

Percentiles	All Life Sciences		
	Aggregate Board Cost	Aggregate Board Cost as Percent of LFY Revenue	Aggregate Board Cost as Percent of LFYE Market Cap
75th	$1,295,095	4.57%	0.32%
50th (median)	$716,287	1.44%	0.19%
25th	$425,082	0.41%	0.09%
n=	**235**	**222**	**235**

Source: Radford proprietary database

Summary

Board membership has become an increasingly demanding job, and the demands are likely to increase in the coming years. Overall, Director compensation at LSI companies is increasing in reaction to these demands. Moreover, as more companies have come to rely on Directors to meet the "on demand" responsibilities of the role, they are adopting role-based compensation models that deliver compensation in the form of retainers, as opposed to meeting fees. We expect these trends to continue as the call for increased governance and oversight by the Board requires greater risk, liability and time from Board members.

Common Terms and Definitions

Terminology	Definition
Board Member Compensation	Retainers and fees paid to Outside Directors for Board membership and full Board meeting attendance
Committee Member Compensation	Retainers and fees paid to members of audit, compensation and nominating (governance) committee for being on the committee and for committee meeting attendance
Initial Appointment Equity Awards	One-time awards made to newly appointed outside Directors. Does not include voluntary deferrals denominated in equity
Ongoing/Annual Equity Awards	Equity awards made every year to continuing Outside Directors
Total Retainers and Fees	Sum of all retainers and fees multiplied by number of meetings
Total Direct Compensation	Sum of all retainers/fees and the value of annual equity awards

Footnotes

[1] "10th Annual Corporate Board Effectiveness Study," Heidrick & Struggles & USC/Center for Effective Organizations, 2006-2007

[2] "Spencer Stuart Board Index," Spencer Stuart, 2007

[3] ibid

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Edward J. Speidel has nearly 30 years of experience in executive and equity compensation, corporate governance and employee benefits consulting. His clientele consists of companies of varying sizes and complexity, in a wide array of industries. He maintains a strong focus on the high technology communities, with emphasis in e-commerce, semiconductors, software, and life sciences firms.

Prior to joining Radford Surveys + Consulting, Ed was principal and national executive compensation practice leader for Mellon Human Resources & Investor Solutions (Buck Consultants). Before Mellon, Ed was managing director of the Northeast compensation practice for PricewaterhouseCoopers.

Ed earned a bachelor of arts degree in economics/government from University of Delaware, a master of business administration from Lehigh University, a juris doctorate from New England School of Law, and a master of laws in taxation from Boston University School of Law. In addition, he is a certified compensation; benefits; and equity professional, respectively. Ed writes and speaks frequently on executive and equity compensation issues. He is based in Boston.

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Prior to joining Radford Surveys + Consulting, Rob held consulting positions at Pearl Meyer & Partners, Buck Consultants and iQuantic.

Rob earned a bachelor of arts in economics and environment sciences from Bowdoin College, graduating cum laude. He is currently pursuing a master of business administration from Babson College. Rob holds the Certified Compensation Professional (CCP) and Global Remuneration Professional (GRP) designations. He is periodically published in *Workspan* magazine. Rob is based in Boston.

About Radford

For more than 30 years, Radford has provided compensation market intelligence to the technology and life sciences industries. Global survey databases, which include three million incumbents, offer current, reliable data to 2,000+ clients. Leveraging Radford survey data, our thought-leading global Radford Consulting team creates tailored solutions for the toughest global business and compensation challenges facing companies at all stages of development. In addition to our consulting team, we also offer equity valuation assistance via Radford Valuation Services, and leading-edge market analyses and survey services with Radford Advisory Services. For more information on Radford, please visit www.radford.com.

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