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# Valuation & Litigation

BRIEFING

## **Before and after**

*Court paints picture of  
lost profits and other calculations*

## **What are the options when valuing share-based compensation?**

## **Occupational hazards: An internal fraud update**

**No time like the present**  
*Discounting future damages*

# Before and after

## Court paints picture of lost profits and other calculations

In *Floorgraphics Inc. v. News America Marketing In-Store Services Inc.*, the U.S. District Court for the District of New Jersey sketched guidelines concerning several lost profit and valuation issues.

In rejecting a *Daubert* challenge against the plaintiff's damages and valuation experts, the court provided valuable insight into the "before-and-after" method, guideline company use, and marketability discount availability.

### Framing the issues

The plaintiff, Floorgraphics, a closely held company, and the defendants, News America et al., competed in the "in-store marketing" industry. Floorgraphics sued the defendants, alleging the defendants had engaged in illegal and tortious acts designed to disrupt Floorgraphic's retail contracts, "poison" its relationships with advertising customers and otherwise "run it out of business." Among other things, Floorgraphics accused the defendants of disseminating false and misleading information about its business and products to its customers.

Floorgraphics offered six expert witnesses to support its liability and damages claims. The defendants moved to exclude the testimony of every one of them as unreliable under the *Daubert* standard. This article focuses on the plaintiff's damages and valuation experts, both of whom were permitted to testify.

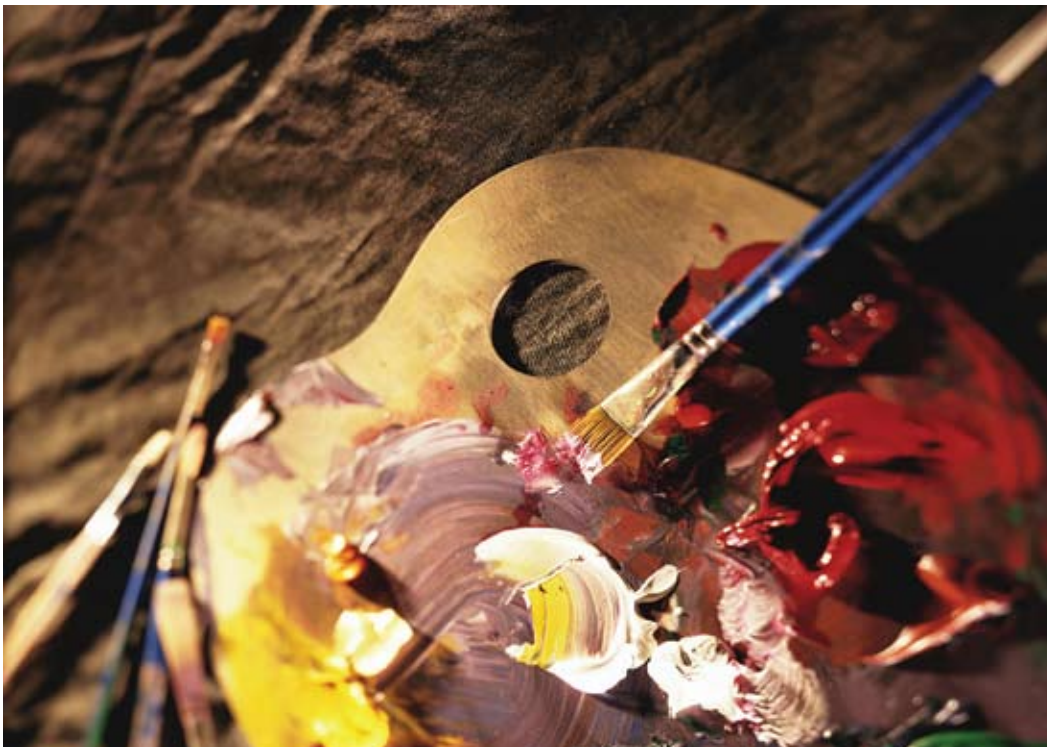
### Broad brushstrokes

The first expert calculated Floorgraphic's damages under the assumption that News America would be found liable on every count in the complaint. Using a before-and-after method, he concluded that the defendants' conduct "negatively impacted" Floorgraphic's sales between 2003 and 2007 by \$180.2 million. After accounting for interest, he placed lost profits at \$55.64 million.

The defendants maintained the expert's testimony was flawed and failed to fit the facts of the case. The before-and-after method estimates damages by comparing a plaintiff's profits both before and after a defendant's alleged misconduct. But in this case, the defendants argued, at least a significant portion of the

decline in Floorgraphic's profits was attributable either to the defendants' lawful conduct or to other parties or events.

According to the defendants, the expert made only two minor adjustments to his findings to reflect the impact of several Kmart store closings. Other than that, they said, his "stubborn insistence that all of the losses were caused solely by defendants' alleged conduct" and his failure to consider "real-world conditions" rendered his testimony inadmissible.



The court disagreed. For one thing, the expert went beyond “minor adjustments” to account for other factors responsible for the plaintiff’s losses. For example, he “assumed flat economic growth during the damages period relative to the benchmark year of 2002” without even considering inflation. And he assumed that Floorgraphics would not have won any new customers after that year. These and other assumptions resulted in “a restrained damage estimate as opposed to an inflated one,” the court said.

### *The before-and-after method estimates damages by comparing a plaintiff’s profits both before and after a defendant’s alleged misconduct.*

More important, however, even if the plaintiff’s expert had failed to consider real-world conditions, it was incumbent on the defendants to show that “those factors mattered.” When challenging expert testimony, the court went on, “a party must move beyond empty criticisms and demonstrate that a proposed alternative approach would yield different results.”

Finally, even assuming that all the defendants’ objections were valid, they went to the *weight* of the testimony, not admissibility. When an expert using the before-and-after method projects future earnings growth based on the plaintiff’s previous growth rate, the court explained, a defendant “may dispute this with their own study that projects that earnings would have declined even without a breach.”

In this case, the expert’s methodology was sound and his calculations, to the extent that his assumptions were “wrong,” could be adjusted. “[M]aking adjustments,” the court explained, “is not analogous to unreliable.”

#### **Painting by numbers**

Floorgraphics retained its second expert to provide an opinion on whether the defendants’ alleged wrongdoing caused the company to lose business value. He, also

relying on a before-and-after methodology, concluded that it had.

In calculating damages for lost value, the expert relied on the previous expert’s estimates of lost revenues and earnings, using valuation multiples derived from two guideline companies. He selected these companies because an investment banker had used them to value Floorgraphics for possible sale in 2001. The investment banker had actually relied on three companies, but the expert felt the third was not sufficiently comparable to Floorgraphics.

The defendants sought to exclude this expert’s testimony on several grounds. They argued that his opinions were inadmissible because he “blindly accepted” the previous expert’s work. They argued that, if the first expert’s calculations require revision, the second expert’s calculations must also be revised. As before, however, the court found that the need to adjust calculations doesn’t demand that evidence be excluded.

The defendants also claimed the guideline companies the expert used were insufficient. The court acknowledged that an expert should conduct an “exhaustive search” for comparable companies, but also recognized that a company may be so unique that good guideline companies are difficult to find.

In such cases, a valuator may find a group of companies that shed light on the subject company’s value, focusing on “one or a few” companies that are more directly comparable than the others.

In *Floorgraphics*, it was appropriate for the expert to give the greatest weight to the two companies he relied on. The defendants asserted that those companies were not sufficiently similar to Floorgraphics to support the expert’s conclusions. Although the defendants would have an opportunity to raise their objections on cross-examination, the objections were not grounds for exclusion.

#### **The art of appraisal**

In addition, the defendants attacked the plaintiff’s valuation expert for relying on guideline companies selected by others rather than conducting his own analysis. The court pointed out, however, that the expert merely used the investment banker’s selection as a starting point,

making his own determination of comparability — and even rejecting one of the selections.

Finally, the defendants found fault with the expert for failing to apply a discount for lack of marketability. But, as the court explained, while valuers commonly use such discounts when valuing a minority interest in a closely held company, the discounts may or may not be appropriate when valuing a controlling interest, as in this case.

### Expert defense

In addition to demonstrating that your expert's methods are reliable, it's important to emphasize how he or she contributes to the process. *Daubert* challenges are becoming almost routine in cases involving complex expert analysis. Fortunately, the *Floorgraphics* case provides valuable guidance for defending your experts against attacks on their reliability. ♦

## What are the options when valuing share-based compensation?

Recently, employee stock options (ESOs) have lost some of their allure as a compensation tool. Accounting rules now require companies to report ESO values on their financial statements as compensation expense, eliminating a key advantage ESOs previously enjoyed over other forms of equity-based compensation.

Mandatory expensing of ESOs highlights the importance of choosing an appropriate option-pricing model as well as the challenge of valuing ESOs — especially in closely held companies. Selecting the wrong model, or applying a model incorrectly, can significantly distort stock option value and, therefore, the company's reported net income.

### No longer optional

A few years ago, the Financial Accounting Standards Board (FASB) adopted new accounting rules for ESOs and other "share-based payments." Statement of Financial Accounting Standards (SFAS) No. 123R requires a company to report the grant-date fair value of an ESO as compensation expense on its financial statements.

SFAS 123R represents a significant departure from the old rules, which encouraged, but didn't require, a company to report the fair value of an ESO on its financial statements. Most companies elected to measure compensation expense based on the "intrinsic value" of the ESO, which is the excess of the stock's value on the grant date over an option's exercise price.

By setting an exercise price equal to the stock's grant-date value, a company could ensure that the intrinsic option value was zero. This enabled it to provide employees with a valuable benefit at no cost (at least on paper). SFAS 123R now requires a company to place a value on an ESO, which presents an interesting challenge for business valuers.



## Model behavior

Valuators traditionally have valued stock options using one or more option-pricing models, including the widely used Black-Scholes Option Pricing Model. SFAS 123R doesn't change that practice but the FASB has emphasized that pricing models should be "adjusted for the unique characteristics of [ESOs]."

The FASB recognized that Black-Scholes was originally designed to value publicly traded options — thus, the method may not be appropriate for valuing ESOs, particularly in closely held companies. The Black-Scholes model estimates option price using a formula that inputs:

- ◆ Current stock price,
- ◆ Option exercise price,
- ◆ Estimated price volatility of the company's stock,
- ◆ Risk-free rate of return, and
- ◆ The option's term.

The popularity of Black-Scholes is no surprise: It's a relatively easy, inexpensive and accurate method for pricing publicly traded stock options. Unfortunately, it's not as well equipped to handle the specific features of ESOs.

For example, a publicly traded option's term is typically a few months, but an ESO's term may be several years. Black-Scholes assumes that the risk-free rate of return remains constant during the term. This assumption, though reasonable for a publicly traded option, is likely to distort the value of an ESO.

## Tracking ups and downs

Volatility also has a big impact on a stock option's value. Generally, as volatility increases, an option's value increases, because there's a greater likelihood that the stock's price will exceed the exercise price at some point in time. In the past, because estimating volatility in closely held companies was difficult, many appraisers assumed zero volatility for purposes of Black-Scholes. But SFAS 123R makes clear that this practice is no longer acceptable.

Now, appraisers of closely held companies' ESOs must estimate volatility from the perspective of a hypothetical

## THE DILUTION SOLUTION

A major challenge when valuing ESOs in closely held companies is accounting for their dilutive effect on the company's stock values. Each time an ESO is exercised, the company issues new shares, which reduces the value of all the company's equity interests, including the ESOs.

Unlike with publicly traded options, a valuator can't simply plug the value of a closely held company's stock into a formula that spits out the value of ESOs. That's because the stock and ESO values are so closely intertwined. Because of the dilutive effect, the appraiser can't value the stock until he or she determines ESO value. At the same time, ESO value depends on the underlying stock's value.

The solution is to value the company's stock, ESOs and other equity interests (such as nonemployee options or warrants) as a whole. The Black-Scholes model and other formulas can't do this, because they require the appraiser to input the stock's value to arrive at an option value.

A valuator can, on the other hand, design a binomial lattice model to yield simultaneous values for ESOs and other equity interests at any given point in time, based on a wide range of variables.

investor. This means analyzing historical price movements of both their own stock and that of comparable public companies, making adjustments for current conditions. Because volatility tends to fluctuate over time, however, the Black-Scholes formula may not provide an accurate picture of volatility over an ESO's term.

Another important characteristic of ESOs is that most contain special features, such as vesting schedules and forfeiture provisions, not found in publicly traded options. Black-Scholes assumes that an option can be exercised only at maturity, but with an ESO there are a variety of possibilities.

Because Black-Scholes fails to account for potential forfeitures, "suboptimal" exercise behavior by employees and other factors that reduce option value, the formula tends to overvalue ESOs.

Finally, unlike a publicly traded option, when an employee exercises an ESO, the company usually issues new shares, thus diluting the per-share value of all company stock. Black-Scholes doesn't account for this dilutive effect.

## Lattice works

Although they lack Black-Scholes' simplicity and ease of use, binomial lattice models often produce more accurate results. These models use a "decision-tree" methodology that reflects the relative probabilities of multiple potential outcomes at various points in time. These outcomes include stock price changes, volatility and risk-free rates of return over time, as well as forfeitures, early exercise and other events that affect an option's value.

Lattice models also more accurately reflect dilution's impact on the value of both the company's common stock and the ESOs themselves. (See "The dilution solution" on page 5.)

## Making the adjustment

Outstanding ESOs can significantly affect a closely held company's value, which the traditional Black-Scholes approach may not reflect. Lattice models typically produce more accurate results because they have the flexibility to account for a variety of factors that affect option values. Appraisers also may achieve a good result with a modified Black-Scholes method.

Whichever method your valuator uses, it's critical to make adjustments to reflect the specific characteristics of ESOs. ♦

## OCCUPATIONAL HAZARDS: AN INTERNAL FRAUD UPDATE

Once every two years, the Association of Certified Fraud Examiners (ACFE) publishes its *Report to the Nation on Occupational Fraud & Abuse*. The 2008 report, released in July, reveals several interesting trends and insights. Here are some highlights:

**Extent of losses.** The ACFE estimates that U.S. organizations lose 7% of their annual revenues to occupational fraud, up from 5% in the 2006 report. This translates to approximately \$994 billion in total fraud losses, compared to \$652 billion two years ago. The median loss also increased from \$159,000 to \$175,000.

**Detection.** Despite the Sarbanes-Oxley Act (SOX) and other antifraud laws and regulations, occupational fraud remains difficult to detect. A typical fraud continues for two years before it's caught, up from 18 months in 2006.

Also, as in the previous three reports, fraud is more likely to be detected by a tip than as a result of an audit, through internal controls or via some other means. In the 2008 report, 46% of frauds were caught due to tips from employees, customers, vendors or other sources (compared to 34% in 2006).

On the other hand, antifraud controls did have an impact on fraud exposure. The ACFE notes that organizations conducting surprise audits suffered median fraud losses of \$70,000, compared to \$207,000 in organizations that didn't conduct such audits.



**Occupational fraud.** Small businesses continue to be more vulnerable to occupational fraud. The median loss for businesses with fewer than 100 employees was \$200,000, compared to \$116,000 for businesses with 1,000 to 9,999 employees. The most common fraud schemes in small businesses are fraudulent billing and check tampering.

The industries most often hit by fraud were banking and financial services, government and health care. Among industries that reported at least 50 cases, the ones with the largest median losses were manufacturing (\$441,000), banking (\$250,000) and insurance (\$216,000).

**Fraud perpetrators.** Most people who commit fraud aren't career criminals. Only 7% had previous convictions and only 12% had previously lost their jobs for fraud-related conduct. Although perpetrators acted alone in nearly two-thirds of the cases, median losses were more than four times higher when more than one employee was involved. This seems to reflect that collusion generally makes it easier to circumvent antifraud controls.

These are just a few examples of ACFE's findings. You can obtain the entire 68-page report at [www.acfe.com/documents/2008-rtnn.pdf](http://www.acfe.com/documents/2008-rtnn.pdf).

# No time like the present

## Discounting future damages

In commercial cases, plaintiffs often recover lost profits they would have earned in the future but for the defendant's wrongful conduct. In those contexts, experts typically discount future damages to present value. It's important, therefore, to recognize the impact discounting can have on a damage award — and the dangers of overlooking it.

### Present and accounted for

The difference between discounted and undiscounted damage awards can be substantial, and a defendant who fails to object to an undiscounted award may end up overpaying. Suppose that a plaintiff recovers damages for lost profits of \$300,000 per year for five years. Without discounting, damages would total \$1.5 million. But discounting those damages to present value (using a 10% discount rate) would reduce the award by more than \$350,000.



If an award is discounted, parties on both sides must ensure the discount rate is reasonable. Even small rate variations can significantly affect the damage amount. Using the previous example, a 10% discount rate results in a damage

award of \$1,137,235. Increase the rate to 12% and the amount drops to \$1,081,432 — a difference of almost \$56,000. Boost the rate to 20% and damages fall to less than \$900,000.

### Risk factors

Essentially, the discount rate is the rate of return a hypothetical investor would demand, given the level of risk or uncertainty associated with the plaintiff's "but for" profits and, specifically, with the probability those profits would materialize.

If the plaintiff's company has a track record of consistent earnings and its risk of falling short of projected future earnings is low, a modest rate of return may be appropriate. But if the plaintiff's company is in a high-risk industry or has volatile earnings, an investor would require a higher return to compensate for the risk.

Valuation experts can choose from several methods of calculating a discount rate. Each method, however, involves a risk factor analysis. The "build-up" method, for example, begins with a "risk-free" rate of return (typically the yield on long-term government bonds). The expert methodically increases that rate to reflect various systematic risks (such as general equity risk and company size risk) and unsystematic risks (such as general economic conditions and company-specific risk factors).

### 2 approaches

Financial experts can use two distinct approaches to calculate lost profits damages:

1. Determine the plaintiff's expected future income stream and then discount it to present value using a risk-adjusted discount rate.
2. Incorporate risk considerations into the future income projection, and then reduce projected income to present value using a low-risk discount rate.

The first approach seems to offer greater simplicity, but in practice the second approach may be easier for a judge or jury to grasp. Triers of fact may have trouble understanding how risk factors are used to modify the discount rate but more readily comprehend the impact of risk on a plaintiff's future earnings potential.

### Don't underestimate the impact

Discounting future losses to present value can have a significant impact on the size of a damage award. As such, valuation experts should put as much effort into calculating present value and adjusting for risk as they put into projecting the lost profits themselves. ♦

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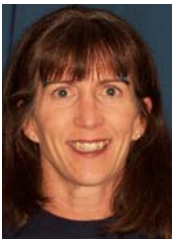
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