



# **Master Analyst in Financial Forensics™ (MAFF™) Workshop**

## **Day 1 - Elements of Lost Profits and Introduction to Lost Profits**



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# Welcome!

- ▶ Make as interactive as possible in a webinar setting
- ▶ Use comment area to address questions and concerns
- ▶ During breaks, etc. we can try and address any particular challenges you are facing



# Housekeeping...

- ▶ We will have one 15 minute break at about the 90 minute mark
- ▶ We will have polling questions throughout session that must be answered to insure credit for webinar
- ▶ Please place cell phone in “stun” mode or shut them off
- ▶ Ask questions, they will be addressed and answered

# Financial Experts

Stu's Views

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It turns out "creative accounting"  
is a creative term for "white collar crime".



# Goal of the Financial Expert

- ▶ As it relates to financial (and non-financial) evidence....
  - Gather it
  - Interpret it
  - Tell its story in a lawsuit
- ▶ Using an accepted methodology
- ▶ Playing by applicable rules
- ▶ In a manner that the courts will view as acceptable



# Need for experts

For the 12 month period ended December 31, 2012

- ▶ 278,00 Civil claims commenced (290k in 2011)
  - 28,200 Contract
  - 51,900 Tort
- ▶ 677 Judgeships
- ▶ 428 cases average per judge
- ▶ 25 months to trial
- ▶ Wide variation by jurisdiction

=Need for competent financial experts



# Financial expert

- ▶ In part
  - Carefully crafting financial models
  - “Running” the numbers
  - Numerical analysis
- ▶ As critical
  - Connecting the calculations
  - Facts of the case
  - Telling a story



# Goal of the Financial Expert

- ▶ As it relates to financial (and non-financial) evidence....
  - Gather it
  - Interpret it
  - Tell its story in a lawsuit
- ▶ Using an accepted methodology
- ▶ Playing by applicable rules
- ▶ In a manner that the courts will view as acceptable

# Professional standards for CPA financial experts





# CPAs

- ▶ Statements on Standards for Consulting Services No. 1 (SSCS No. 1)
  - Professional competence
  - Exercise due professional care
  - Plan and supervise the services
  - Obtain sufficient relevant data
  - Service the client interest by seeking to accomplish the engagement objective while maintaining objectivity and independence
  - Establish an understanding w/client on service
  - Communicate on findings, reservations, and conflicts



# CPAs

- ▶ Code of Professional Conduct
  - Rule 102 , Integrity and Objectivity
  - Rule 201, General Standards
  - Rule 202, Compliance with Standards
  - Rule 203, Accounting Principles
  - Rule 301, Confidential Client Information
  - Rule 302, Contingent Fees
  - Rule 501, Acts Discreditable
- ▶ Note: Rule 101 (*independence*) if for attest client
  - Interpretation 101-3 of the *Code of Professional Conduct may be applicable.*
    - nonattest services that a CPA provides to an existing attest client



# Objectives

- ▶ Overall goal today:
  - Learn how to calculate damages!
- ▶ How?
  - Methodologies for calculating lost profits
  - Elements of lost profits analysis
  - Business valuation and lost profit approaches
  - Treatment of specific issues

# Context of the lost profits damages claim



# Lost Profits

- ▶ Is a measure of damages
- ▶ Is not an independent cause of action
- ▶ Is a remedy that a business can recover
- ▶ Types of cases
  - Torts
  - Breach of contract
  - IP infringement
  - Catastrophes (Business interruption )
  - Maritime claims



# Common Elements

1. Lost profits were caused by the conduct upon which the claim is based (*proximate cause*)
2. That the parties contemplated the possibility of lost profit damages (or that the damages were a foreseeable consequence of the conduct) (*foreseeability*)
3. Lost profit damages are capable of proof with reasonable certainty (*reasonable certainty*)
4. Mitigation
  - ❖ Either mitigating income or mitigating expenses



# Proximate Cause

- ▶ Requires plaintiff to tie damages to wrongful act
- ▶ Establishing causation is essential to the P's case
- ▶ If profits are lost as a consequence of a voluntary, independent business decision, cannot claim LP even if Defendant's actions contributed
- ▶ Even if prove proximate cause
  - Burden shifts to the defendant to prove that an intervening cause (e.g. economic recession) contributed to damages
  - If lost profits stemming from intervening cause is too tenuous, lost profit damages are unavailable



# Foreseeability

- ▶ Foreseeable and probable
- ▶ Not that the SPECIFIC breach of conduct was foreseeable only that injury was foreseeable
- ▶ Contract actions
  - Question is whether lost profits were within the contemplation of the parties
  - Court looks to the wording of the contract as well as the liability that
    - The defendant may be supposed to have assumed consciously or
    - That the plaintiff reasonably assumed



# Reasonable Certainty Established Businesses

- ▶ Cannot be calculated with “exactness”
- ▶ Measurement based on reliable factors, without undue speculations
- ▶ Cannot be viewed as the “purchase of a winning lottery ticket”
  - Cannot transform a “humble enterprise” into “engine of commerce”
  - Use of one-year increase in sales to extrapolate a multi-year positive trend
- ▶ Where lost profits are “remote, speculative, hypothetical, and not within the realm of reasonable certainty” they cannot be recovered

# Reasonable Certainty

## New Businesses

- ▶ Significant volume of case law
- ▶ Frequently consider whether a reasonable foundation exists for proving lost profits
- ▶ Split among jurisdictions on this issue, some allow others say hypothetical/speculative
- ▶ Some jurisdictions - must meet higher evidentiary burden
  - No historical experience to rely upon
- ▶ Courts precluded recovery for lost profits when dependent upon assumptions containing uncertainty



# Mitigation

- Theory is that a 2<sup>nd</sup> contract will “cover”
  - ▶ Exceptions to duty to mitigate
    - Contract actions
    - Lost volume sellers could have made both
      - the sale that was lost due to the breach, as well as
      - a second, subsequent sale
        - the non-breaching party’s covering the contract does not mitigate the harm because the party profited from only one sale, when typically (but for the breach) it would have profited from both
  - Negligence
    - May be no duty to mitigate when aggrieved party’s financial circumstances make mitigation impossible
    - Or makes it difficult or impractical
- ▶ Not an inclusive list



# Contracts

- ▶ Breach of sales contracts, warranty agreements, and agreements that establish commercial or business relationships
- ▶ Contract damages
  - Put the non-breaching party in the same financial position without the breach
  - Contemplation of the parties at the time contract was entered into
  - Capable of measurement within reasonable certainty



# Business Interruption

- ▶ Arises from an insurance policy claim
- ▶ Terms/circumstances are dictated by the insurance policy
- ▶ Policy dictates the damage period (when coverage starts and end)
- ▶ Policy outlines the method for calculating the claim
- ▶ Rules are in the policy



# Maritime

- ▶ Lost profits may be available
- ▶ Rule established in 1897 by US Supreme Court
- ▶ Usually involves a showing that the vessel had been engaged in or was capable of a profitable commerce

# Reasonable Certainty – What it Really Means



# Reasonable certainty

- ▶ The factors the courts consider are:
  - The court's confidence that the estimate is accurate;
  - Whether the court is certain that the injured party has suffered at least some damage;
  - The degree of blameworthiness or moral fault on the part of the defendant;
  - The extent to which the plaintiff has produced the best available evidence of lost profits;
  - The amount at stake; and
  - Whether there is an alternative method of compensating the injured party

# Reasonable certainty

- ▶ The factors the courts consider are:
  - The court's confidence that the estimate is accurate;
    - “Does the court think that, given all of the circumstances, this plaintiff has presented sufficient evidence to make it fair to award it the damages in question.”
    - The extent to which the claim is supported by verifiable data
    - Whether the plaintiff has a track record
    - The number of difficult to quantify risks in the plaintiff's projections
    - The extent to which the lost profits fall within a defined range

# Reasonable certainty

- ▶ The factors the courts consider are:
  - Whether the court is certain that the injured party has suffered at least some damage;
  - US Supreme Court said: “The rule which precludes the recovery of uncertain damages applies to such as are not the certain result of the wrong, not to those damages which are definitely attributable to the wrong and only uncertain in respect of their amount.”

# Reasonable certainty

- ▶ The factors the courts consider are:
  - The degree of blameworthiness or moral fault on the part of the defendant;
    - “Wrongdoer rule,”
      - because the defendant’s conduct has made it hard to measure the lost profits, it cannot escape liability merely because the plaintiff cannot prove its loss with reasonable certainty

# Reasonable certainty

- ▶ The factors the courts consider are:
  - The extent to which the plaintiff has produced the best available evidence of lost profits;
  - Where the proof is solid, courts have been willing to hold that a plaintiff has proven its lost profits with reasonable certainty, even though the plaintiff could have (and should have) produced proof even better than that it did actually produce



# Reasonable certainty

- ▶ The factors the courts consider are:
  - The amount at stake;
    - A cursory reading of the published opinions makes it clear that the more the plaintiff is claiming in damages, the higher the standard of proof to which the court will hold it.

# Reasonable certainty

- ▶ The factors the courts consider are:
  - Whether there is an alternative method of compensating the injured party
    - One common alternative, is to allow the claimant to recover the loss in the value of its business resulting from the defendant's breach.

# Lost Profits Calculations – Methods and Procedures





# Calculating Lost Profits

- ▶ Elements of Lost Profits
- ▶ Methods for determining lost profits
- ▶ Building blocks of lost profits calculations
- ▶ Discounting damage calculations
- ▶ Presenting damage calculations
- ▶ Business Value vs. Lost Profits
- ▶ Other considerations
- ▶ Case Study

# Let's review....

- ▶ What's the purpose of the lost profits calculation?

Make the damaged party whole

Put the damaged party in the same financial position/condition it would have been in **BUT FOR** the other party's wrongful actions





# Considerations for Lost Profits Claim

- ▶ Cause of loss
- ▶ Basis for claim
- ▶ Determination of evidence supporting factual claims
- ▶ Estimation of:
  - Lost revenues
  - Incremental (saved) costs
  - Net Profits



# Starting the calculation

- ▶ Don't start the calculation with pre-conceived notions;
- ▶ Bad acts don't always equal bad outcome
- ▶ Can liability exist and there be no economic damages?
- ▶ Is it possible that the Plaintiff may be better off as a result of defendant's wrongful conduct?
  - What about ruining a company with losses?  
History of "*Lost Profits*"!



# Consideration of Lost Profits

- ▶ Economic and industry outlook
- ▶ Selection of appropriate methodology based on facts and circumstances of case
- ▶ Actual performance during historical damages period (or anticipated future performance)
- ▶ Length of damage period
- ▶ Discount rates
- ▶ Prejudgment interest

# Conceptual Types of Lost Profits

- ▶ Business suffers reduced income but continues to exist (potentially regains previous income levels)
- ▶ Business ceases or terminates some of its operations
- ▶ Business never commenced operations





# Measures of Loss

- ▶ Lost Profits  
What would have happened “but-for”  
LESS: What actually happened as a result of the breach.
  
- ▶ Lost Economic Value (Diminution of Value)
  - Reduction in value of a business or business segment

# Elements of Lost Profits





# Elements of Lost Profits

But-For Profits

– Actual (Mitigating Profits)

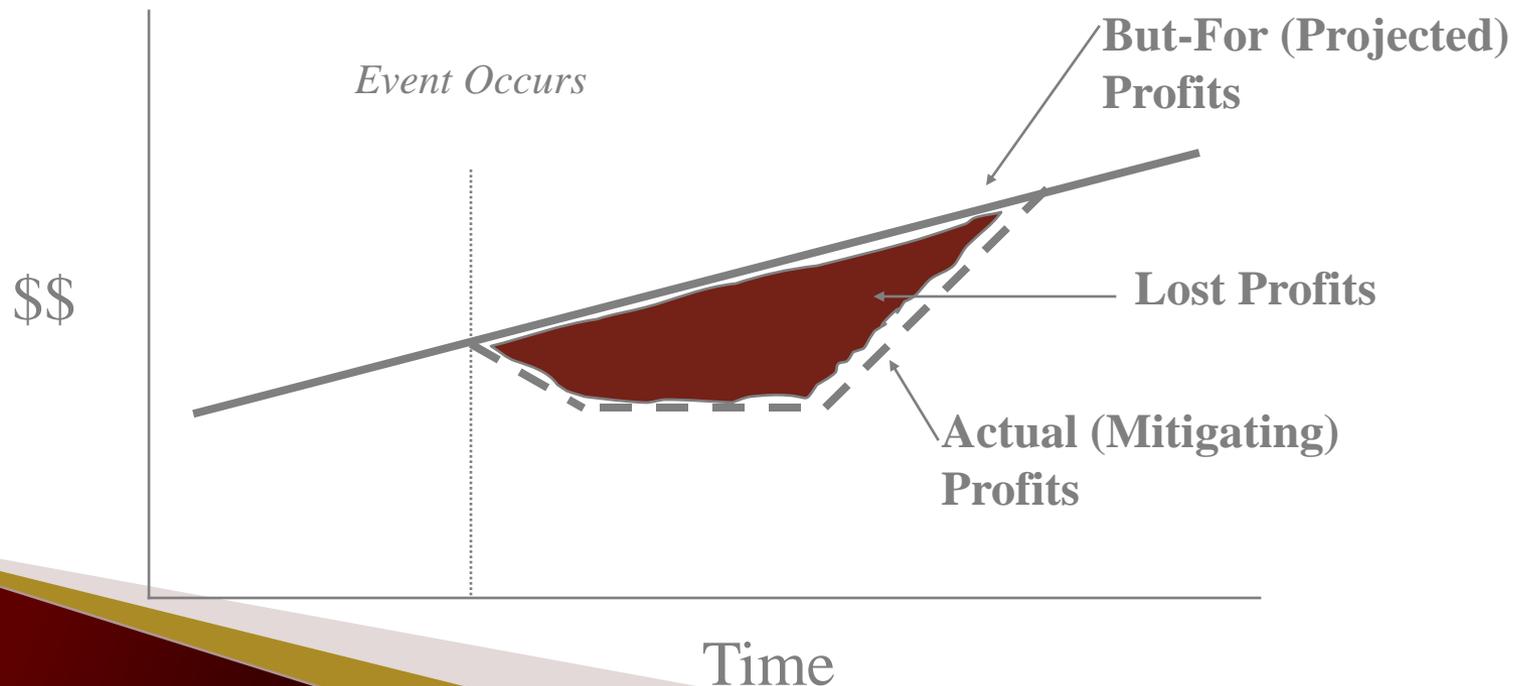
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= Lost Profits



# Methods to Calculate Lost Profits

- ▶ Regardless of methodology used, the plaintiff's loss is the difference between but-for (projected) and actual (can be projected) results.





# Elements of Lost Profits (But For and Mitigating)

- Lost Revenues
- Costs and Expenses
- Net Profits (Contribution Margin)

*Let's look at each of these 3 in detail.....*



# Elements of Lost Profits

- ▶ **Lost revenue**
  - Volume
  - Price
  - Follow-On Sales
  - Substitute products
  - Growth rates
  - Attrition rates



# Elements of Lost Profits

- ▶ **Costs and Expenses**
  - Variable costs
  - Fixed or Semi-Fixed
  - Historical Analysis
  - Determine cost and expense %

# Elements of Lost Profits

- ▶ **Net Profit** (*Contribution Margin*)
  - Sales less costs & expenses
  - Before tax (generally)
  - Present valued
    - Ex-post – PV to the date of trial
    - Ex ante – PV to the date of breach and then add pre-judgment interest



# Elements of Lost Profits

- Two ways to get there...

But for Sales – Actual Sales = Lost Sales

Lost Sales – Costs and Expenses = Lost PM/CM

But for Sales – Costs and Expenses = Lost Profit/CM

Actual Sales – Costs and Expense = Actual Profit/CM

But for P/CM – Actual P/CM = Lost P/CM



# Example

|                     | <b>But For</b> | <b>Actual</b> | <b>Lost</b>       |
|---------------------|----------------|---------------|-------------------|
| Sales               | \$ 3,750,000   | \$ 3,000,000  | \$ 750,000        |
| Costs - 65%         |                |               | 487,500           |
| <b>LOST PROFITS</b> |                |               | <u>\$ 262,500</u> |

|                     | <b>Sales</b> | <b>Costs-65%</b> | <b>PM</b>         |
|---------------------|--------------|------------------|-------------------|
| But For             | \$ 3,750,000 | \$ 2,437,500     | \$ 1,312,500      |
| Actual              | 3,000,000    | 1,950,000        | 1,050,000         |
| <b>LOST PROFITS</b> |              |                  | <u>\$ 262,500</u> |

# Methods





# Methods to Calculate Lost Profits

- Lost Profits (“But-For” Approach)
  - Before-and-After Method
  - Yardstick Method
  - Sales Projections (Hypothetical Profits) Method
  - Market Model Method
- Lost Business Value
  - Business Valuation (**Note:** *This course does not cover how to perform a valuation however, this course will discuss the differences between valuation and lost profits*)



# Different Ways to Think of Lost Profits

Method

**“Net Plus”**

$$\begin{array}{r} \text{Projected Net Profit} \\ + \text{ Continuing Expenses} \\ \hline \text{Loss} \end{array}$$



# Different Ways to Think of Lost Profits

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## Method

### “Gross Less”

$$\begin{array}{r} \text{Projected Gross Profit} \\ - \text{Saved “Incremental” Expenses} \\ \hline \text{Loss} \end{array}$$



# Different Ways to Think of Lost Profits

## Method

**“Difference” or “But For”**

$$\begin{array}{r} \text{Projected Net Profit} \\ - \text{Actual Net Profit}^{(1)} \\ \hline \text{Loss} \end{array}$$

(1) All else being equal



# Reconciliation of Discussion

|                       | Before Loss<br>(Projected) | During<br>Loss<br>(Actual) | Net Plus        | Gross<br>Less   | Difference      |
|-----------------------|----------------------------|----------------------------|-----------------|-----------------|-----------------|
| Revenue               | \$100,000                  | \$0                        |                 |                 | \$100,000       |
| <i>Less:</i>          |                            |                            |                 |                 |                 |
| Cost of Goods<br>Sold | (47,000)                   | 0                          |                 |                 | (47,000)        |
| Gross Profit          | 53,000                     | 0                          |                 | 53,000          | 53,000          |
| <i>Less:</i>          |                            |                            |                 |                 |                 |
| Variable Expenses     | (3,000)                    | 0                          |                 | (3,000)         | (3,000)         |
| Fixed Expenses        | (22,000)                   | (22,000)                   | 22,000          |                 | 0               |
| <b>Net Profit</b>     | <b>\$28,000</b>            | <b>(\$22,000)</b>          | 28,000          |                 |                 |
| <b>Total Loss</b>     |                            |                            | <b>\$50,000</b> | <b>\$50,000</b> | <b>\$50,000</b> |

# Considerations on Selection of Methodology

- ▶ Type of case
  
- ▶ Available Information
  - Historical information: quantity and quality
  - Industry and/or comparable company information
  - Ability to request additional information
  
- ▶ Case law

# Before & After Method





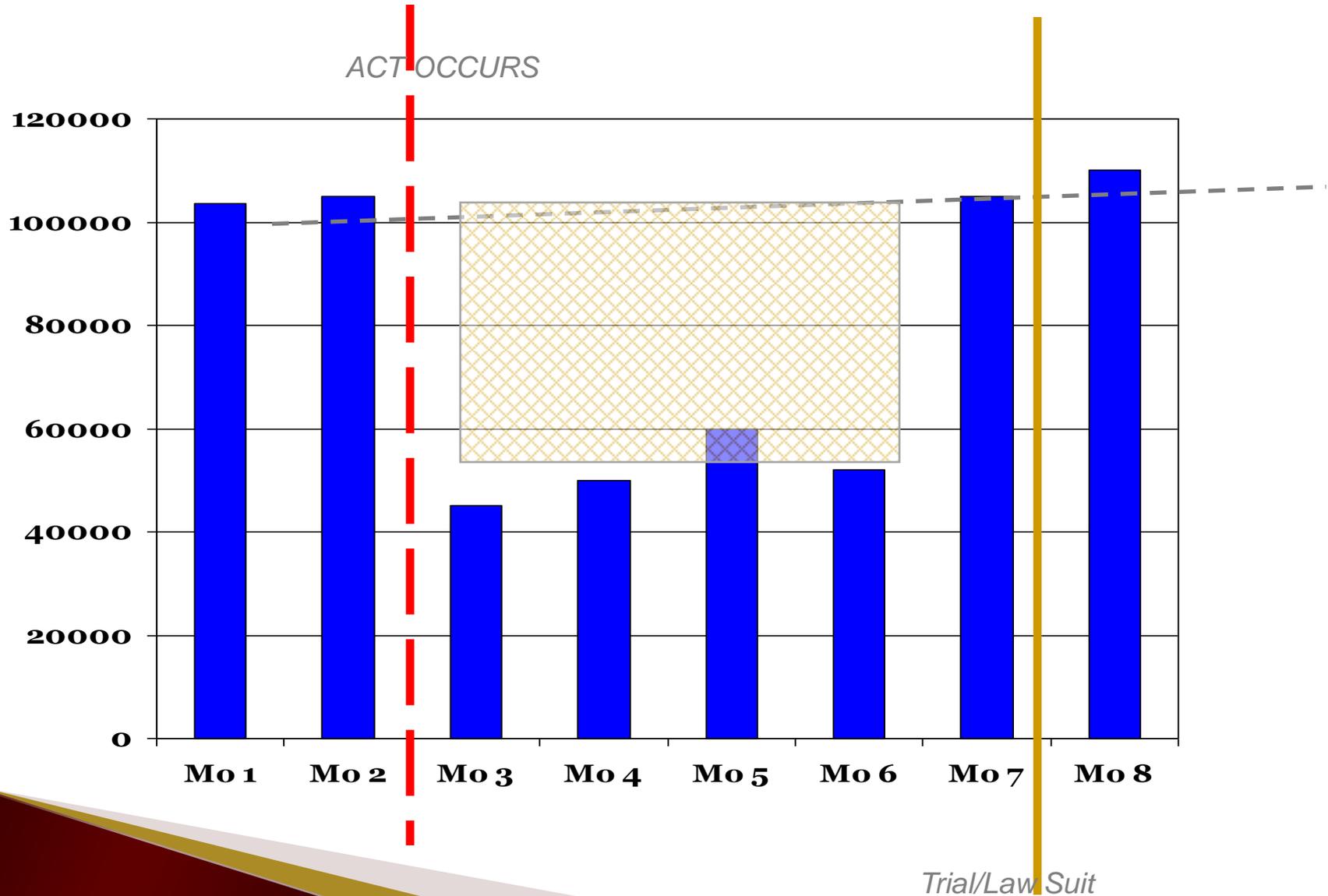
# Before and After Method

The before-and-after approach compares the actual results of operation before the defendant's actions to the results afterwards.

*“In this approach, the expert compares the plaintiff’s profits before the alleged violation with those subsequent to it. The estimate of the lost profits would be equal to the difference between two figures.”*

Robert L. Dunn, Recovery of Damages for Lost Profits,  
5th Edition, Lawpress Corporation, 1998

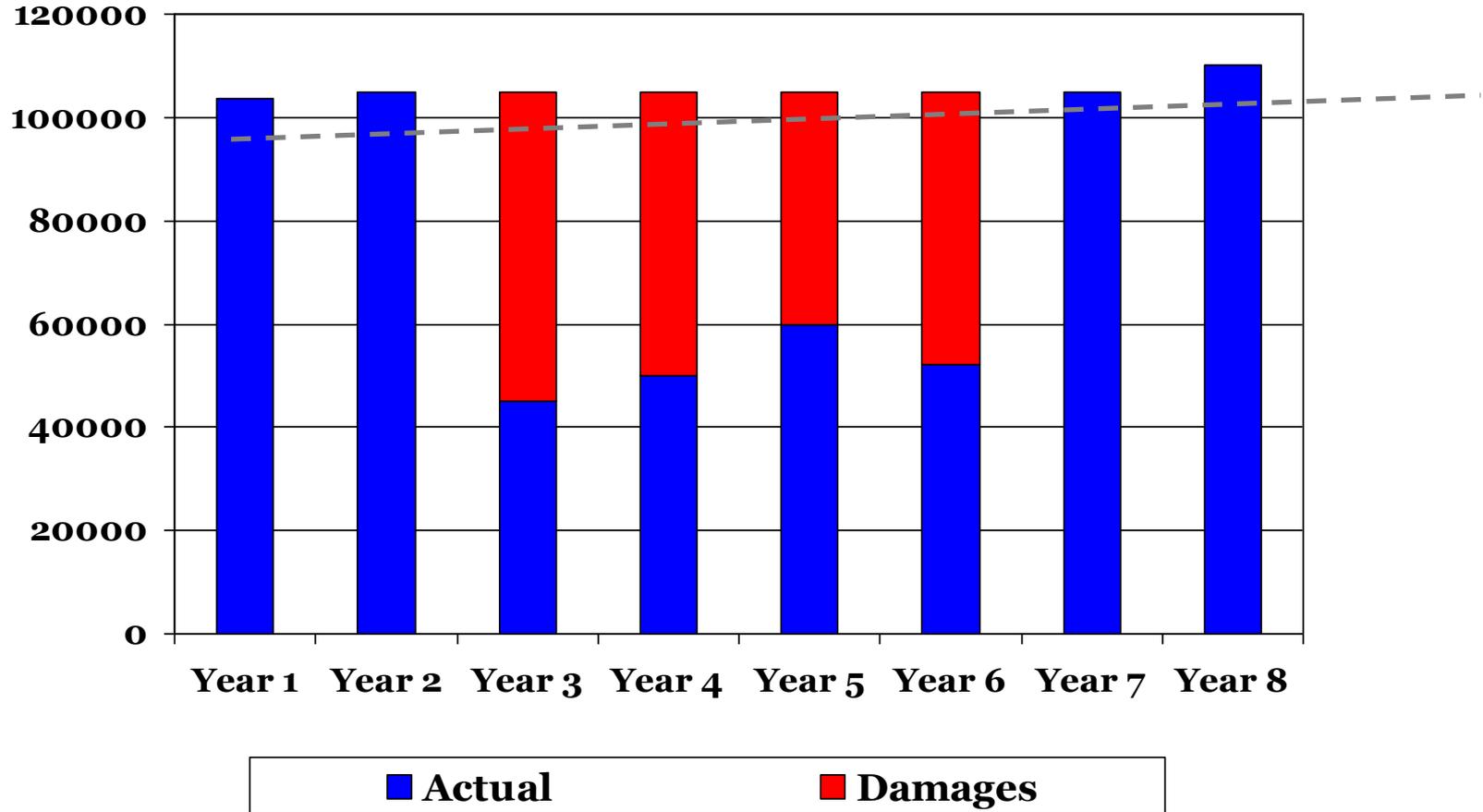
# Before and After



# Considerations Before and After Method

- ▶ Are historical operations stable?
- ▶ Is the company mature?
- ▶ Is the damage period finite?
- ▶ Has the company fully recovered?
- ▶ Are after-damage profits available?
- ▶ Were the expected profits during the damage period (and subsequent to the damage period) comparable to previous company experience?

# Before and After Method





# Example 1 - Assumptions

- The company manufactures boxes and packing supplies
- The vendor that supplies a key ingredient in one of the lines breached its contract with the business, failing to supply the company
- It takes the business 12 months to locate a new vendor and start receiving supplies
- The manufacturing plant operates a number of lines, this line accounting for 10% of the company's sales
- Overhead did not decrease as a result of the particular line being down for 12 months



# Example 1 - Assumptions

- Customers were able to purchase boxes from a competitor for 12 months at a slightly higher cost, and resumed their purchases from the business as soon as the company had inventory to fill orders.
- Sales people represented all lines on a salaried basis and there was no lay-off of sales people as a result of the line being down
- There was a lay-off of the labor associated with the manufacturing process
- The company had the line fully operational the first month as soon as it replaced the vendor



# Example 1 – Things to Consider

- ▶ Did the company have inventory on hand that it could sell?
- ▶ Did the company lose customers?
- ▶ Did it cost the company additional money to regain customers
- ▶ Were sales lost, or did the company take back orders? Will it make up any sales?
- ▶ Were there follow on sales that were lost also?

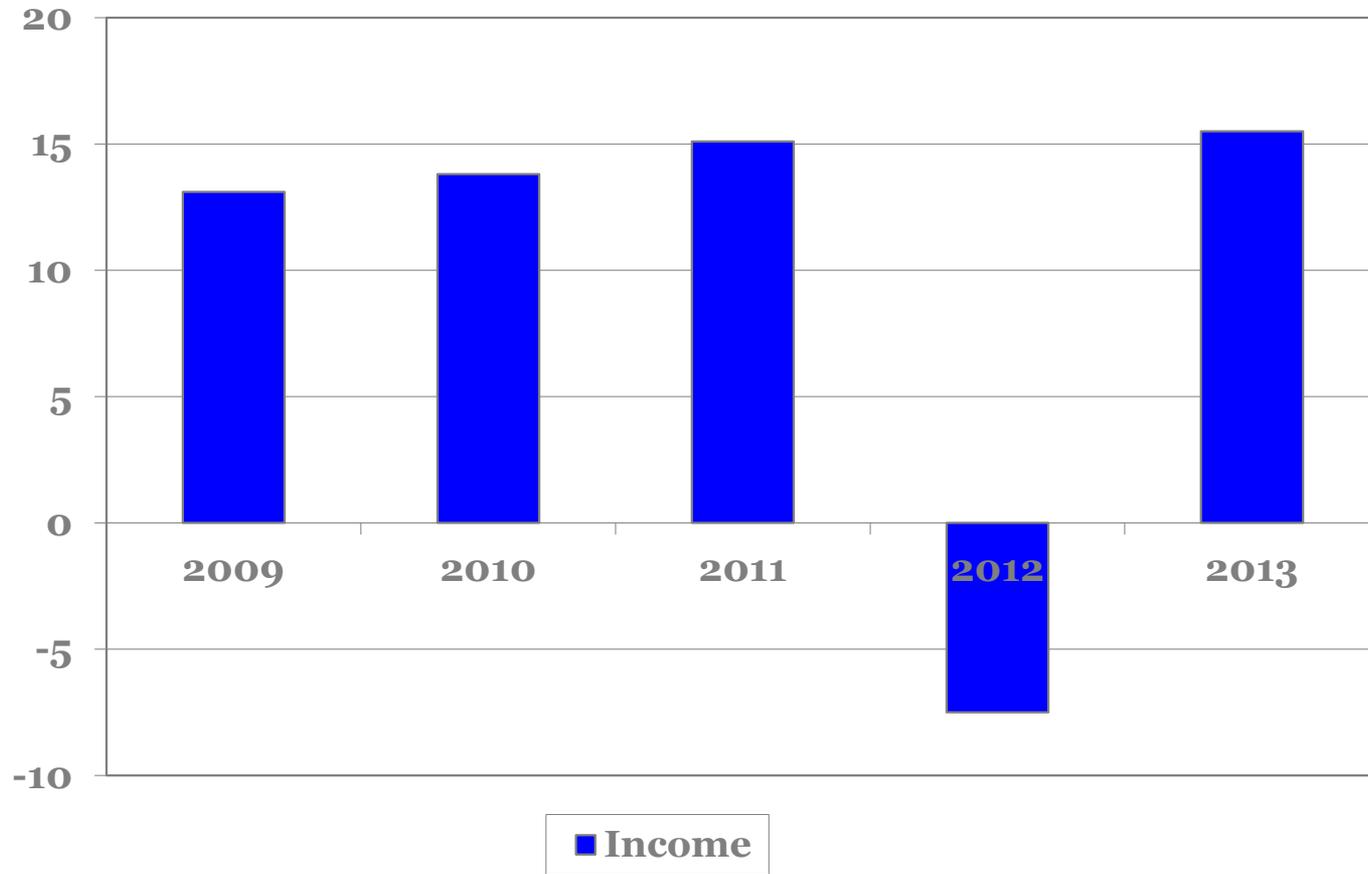


# Example 1 - Historical

|                          | 2009             | 2010             | 2011             | 2012              | 2013             |
|--------------------------|------------------|------------------|------------------|-------------------|------------------|
| Units Sold               | <u>120,000</u>   | <u>129,000</u>   | <u>132,000</u>   | -                 | <u>138,000</u>   |
| Division Sales           | <u>\$ 30,000</u> | <u>\$ 32,250</u> | <u>\$ 34,320</u> | <u>\$ -</u>       | <u>\$ 35,880</u> |
| Cost of Raw<br>Materials | 6,000            | 6,600            | 6,800            | -                 | 7,200            |
| Labor                    | <u>4,500</u>     | <u>4,900</u>     | <u>5,100</u>     | <u>-</u>          | <u>5,300</u>     |
|                          | <u>10,500</u>    | <u>11,500</u>    | <u>11,900</u>    | <u>-</u>          | <u>12,500</u>    |
| Gross Profit             | 19,500           | 20,750           | 22,420           | -                 | 23,380           |
| Selling Expenses         | 3,300            | 3,500            | 3,700            | 3,800             | 4,000            |
| Overhead                 | <u>3,100</u>     | <u>3,400</u>     | <u>3,600</u>     | <u>3,700</u>      | <u>3,800</u>     |
| Division Net Income      | <u>\$ 13,100</u> | <u>\$ 13,850</u> | <u>\$ 15,120</u> | <u>\$ (7,500)</u> | <u>\$ 15,580</u> |
| Division GP%             | 65.0%            | 64.3%            | 65.3%            |                   | 65.2%            |
| Division Net Income      | 43.7%            | 42.9%            | 44.1%            |                   | 43.4%            |



# Example 1 -Historical





# Example 1 – Before and After

| <b>Lost Units &amp; Revenue</b> | <u>Units Sold</u> | <u>Selling Price</u> |
|---------------------------------|-------------------|----------------------|
| Units Sold - 2011               | 132,000           | \$0.26               |
| Units Sold - 2013               | 138,000           | \$0.26               |
| Estimated Lost Units - 2012     | 135,000           |                      |
| Selling Price per Unit          |                   | \$0.26               |
| <b>Lost Revenue - 2012</b>      |                   | <b>\$ 35,100</b>     |

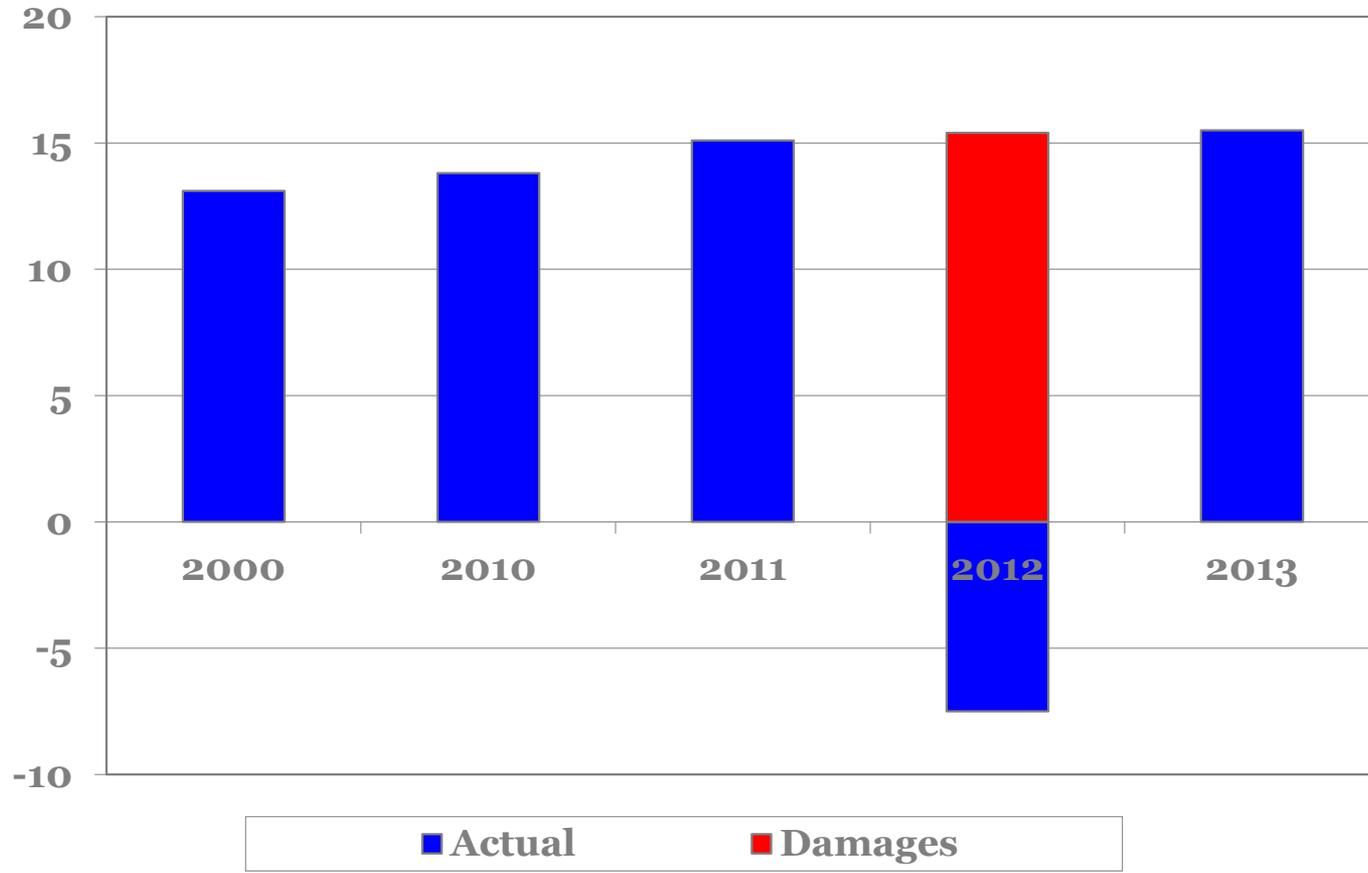


# Example 1 – Before and After

|                       | <u>Actual</u>     | <u>2012</u><br><u>But-for</u> | <u>Lost</u><br><u>Profits</u> |
|-----------------------|-------------------|-------------------------------|-------------------------------|
| Division Revenues     | <u>\$ -</u>       | <u>\$35,100</u>               | <u>\$35,100</u>               |
| Cost of Raw Materials | -                 | 7,000                         | 7,000                         |
| Labor                 | <u>-</u>          | <u>5,200</u>                  | <u>5,200</u>                  |
| Gross Profit          | -                 | <u>22,900</u>                 | <u>22,900</u>                 |
| Selling Expenses      | 3,800             | 3,800                         | -                             |
| Overhead              | <u>3,700</u>      | <u>3,700</u>                  | <u>-</u>                      |
|                       | <u>\$ (7,500)</u> | <u>\$ 15,400</u>              | <u>\$ 22,900</u>              |



# Example 1 – Before and After



# When to use Before & After

- ▶ Assumptions inherent in the method
  - Past performance = future
  - Economic & industry holds the same before and after
  - Sufficient historical data is available



# Challenges to the Method

- ▶ D try and prove that the before period is different than the after period
- ▶ D can show good reasons for the differences other than D's actions
- ▶ Any challenges take time and money for the D to analyze and prove

# Challenges to the Method

- ▶ Reasons (other than D's actions) that difference between before and action
  - Plaintiff's own mismanagement
  - Economic demand was better "before"
  - Change in management
  - Change in the industry
  - Poor decisions
- ▶ P's Expert should address up front in damage calculation to diffuse argument
- ▶ Easier to challenge if P calculation is simple

# Floorgraphics





# Background

- ▶ 2008 WL 323429 (U.S. District)
- ▶ New Jersey, February 5, 2008
- ▶ At issue: Before and after method, use of guideline companies, and marketability discounts
- ▶ Plaintiff and Defendant compete in “in-store marketing industry”
- ▶ Involved exclusive contracting with retail groceriers, drug stores, and other mass merchandisers

# Background

- ▶ Plaintiff sued defendants for destroying their retailer contracts, poisoning relationships, generally running the plaintiff out of business
- ▶ Plaintiff offered six expert witnesses – two for proof of economic damages
- ▶ Defendant challenged them all in a Daubert hearing
  - Two experts were both managing directors of Dispute Analytistics, LLC and former PWC partners
    - John Willis
    - Paul Farris



# Damages - Willis

- ▶ John Willis calculated the lost profits
- ▶ Assumed that the Defendant was liable on every charge
- ▶ Utilized the before and after method
- ▶ Plaintiff's financial situation before and after the interference
- ▶ From 2003 to 2007 = \$55.6 million damages



# Criticism of Willis

- ▶ Plaintiff's criticized Willis' calculations – flawed and did not fit the case facts
- ▶ Methodology failed to account for “real world” conditions that could have impacted the Plaintiff's revenues
  - Included both legal and illegal conduct in his assessment
  - If damages analysis includes effects not caused by Defendant, “defective analysis”



# Criticism of Willis

- ▶ Claimed that Willis only made 2 minor adjustments to account for the decline of a major retailer (K-Mart)
- ▶ “Stubborn insistence” that the Defendant’s caused all the damages
- ▶ Court found Before and After an acceptable method (Cited Pratt’s book & legal reference manual)
- ▶ Defendants can rebut Plaintiff’s study with a study of their own → Factual dispute

# Court concludes...

- ▶ Empty criticism is not enough
- ▶ IF Willis left off “real world” considerations then
  - Defendants need to demonstrate how these factors “mattered”
  - “A party must move beyond empty criticisms” and demonstrate an alternative approach would equal different results
  - Court found Willis DID account for K-Mart
    - Flat growth during the damage period
    - Unit price concessions



# Court concludes...

- ▶ Court concluded it was a “restrained” damage calculation
- ▶ Methodology was sound and calculations could be subject to adjustments
- ▶ Adjustments are not “analogous to unreliable.”
- ▶ May be taken to task on cross but meets standards of Rule 702 and Daubert



# Paul Farris

- ▶ Testified to lost business value
- ▶ Used a “Before and After” method
- ▶ Compared value before and after
- ▶ Used his partner’s analysis for the income stream
- ▶ Multiplied lost revenues by 3% and terminal year by 11.5% and selected a mid-point
- ▶ Used guidelines to determine EV/Revenue for two comparable companies and EV/EBITDA for one company

# Farris' calculation

- ▶ Selected comps from a valuation done by an investment bank
- ▶ Investment bank tried to sell the Plaintiff in 2001
- ▶ Guideline companies operated in in-store marketing or had growth prospects similar to Plaintiff
- ▶ Bank used 3 but Farris felt the one was too dissimilar to rely upon it
- ▶ Farris did not examine D/E ratios, fixed assets, number of employees or other economic or industry factors



# Criticism of Farris

- ▶ Relying on partner's analysis
- ▶ Relying on a third party valuation
- ▶ Quantity and quality of comparables are inadequate
- ▶ Failed to consider a DLDM
- ▶ If Willis' calculation requires revisions, thus so will Farris'
  - Court agreed, but report is still admissible

# Criticism of Farris

- ▶ Defendant's quoted "Valuing a Business" for the proposition that analyst must conduct an exhaustive search
- ▶ Must consider
  - Capital structure, management depth, credit structure, industry
- ▶ Court pointed out that book says consider "one or a few"
- ▶ Court found Farris could rely on some comparables more than others

# Farris

- ▶ By excluding the third guideline company Farris actually exercised sound professional judgment
- ▶ Relied on the investment bank only as a starting point
- ▶ Fodder for cross-examination
- ▶ Finally Court found applying a DLOM may or may not be appropriate
- ▶ Farris relied on sound methodology and without his testimony the jury would have a “perplexing” time measuring damages

# Before and After



**CASE EXAMPLE**



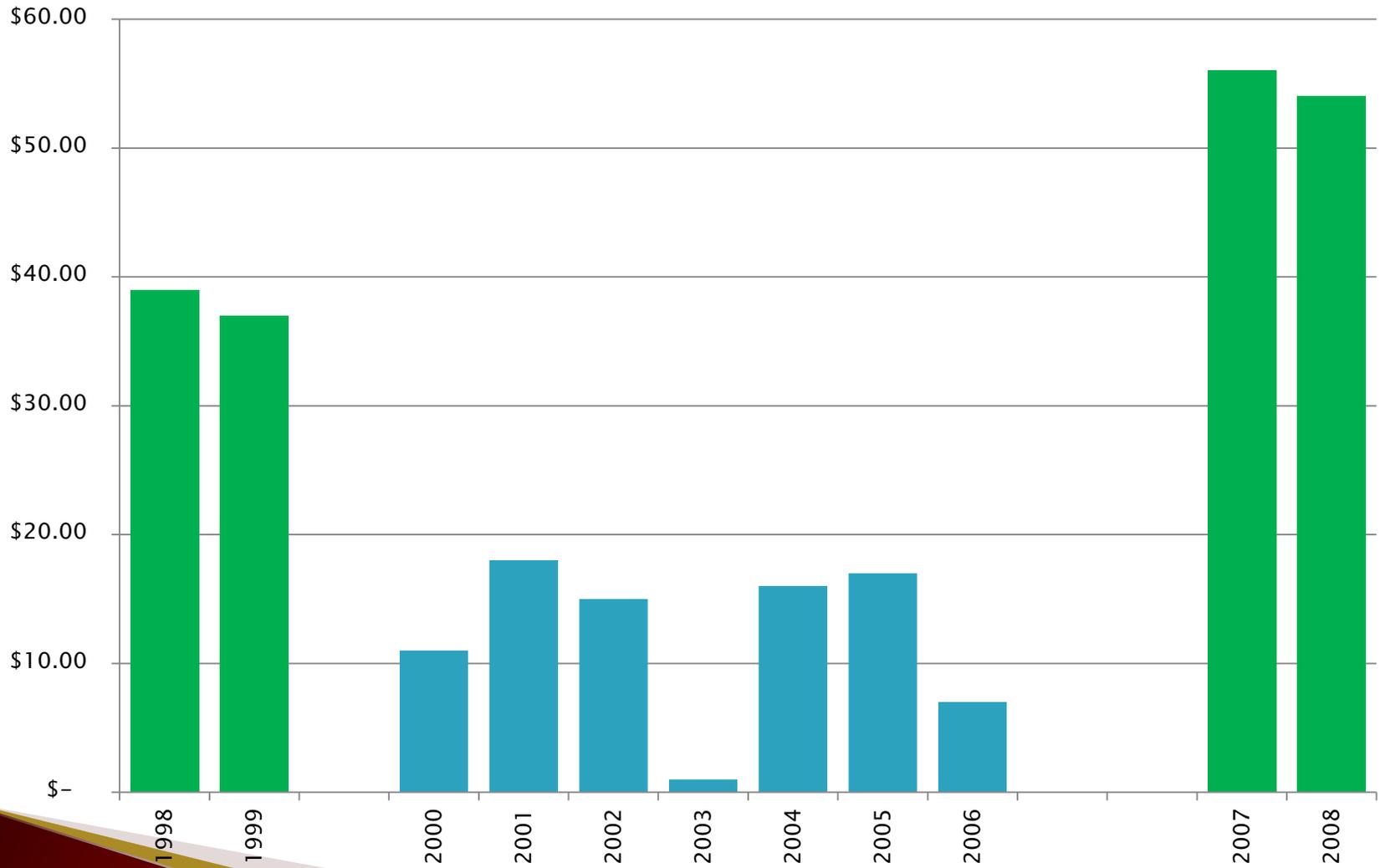
# Example

|                 | <u>Before</u> |          |
|-----------------|---------------|----------|
| Year            | 1998          | 1999     |
| Profit per unit | \$ 45.00      | \$ 52.00 |

|                 | <u>During the Contract</u> |          |         |         |          |          |         |
|-----------------|----------------------------|----------|---------|---------|----------|----------|---------|
| Year            | 2000                       | 2001     | 2002    | 2003    | 2004     | 2005     | 2006    |
| Profit per unit | \$ 11.00                   | \$ 18.00 | \$15.00 | \$ 1.00 | \$ 16.00 | \$ 17.00 | \$ 7.00 |

|                 | <u>After</u> |          |
|-----------------|--------------|----------|
| Year            | 2007         | 2008     |
| Profit per unit | \$ 56.00     | \$ 54.00 |

## Profit per unit





| <u>Damages</u> | <u>Per Unit</u> | <u>Volume</u> |
|----------------|-----------------|---------------|
| Before average | \$ 38.00        | 15,950        |
| After average  | \$ 55.00        | 17,600        |
| During average | \$ 12.14        | 15,745        |

| <u>Year</u>    | <u>2000</u>           | <u>2001</u>  | <u>2002</u>  | <u>2003</u>  | <u>2004</u>  | <u>2005</u>  | <u>2006</u>  |
|----------------|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Actual         | \$ 11.00              | \$ 18.00     | \$ 15.00     | \$ 1.00      | \$ 16.00     | \$ 17.00     | \$ 7.00      |
| Volume         | 12,695                | 19,347       | 18,264       | 12,361       | 13,495       | 15,048       | 19,007       |
|                | \$ 139,645            | \$ 348,246   | \$ 273,960   | \$ 12,361    | \$ 215,920   | \$ 255,816   | \$ 133,049   |
| Before average | \$ 38.00              | \$ 38.00     | \$ 38.00     | \$ 38.00     | \$ 38.00     | \$ 38.00     | \$ 38.00     |
| Actual volume  | 12,695                | 19,347       | 18,264       | 12,361       | 13,495       | 15,048       | 19,007       |
| But for        | \$ 482,410            | \$ 735,186   | \$ 694,032   | \$ 469,718   | \$ 512,810   | \$ 571,824   | \$ 722,266   |
| Damages        | \$ (342,765)          | \$ (386,940) | \$ (420,072) | \$ (457,357) | \$ (296,890) | \$ (316,008) | \$ (589,217) |
| Sum            | <b>\$ (2,809,249)</b> |              |              |              |              |              |              |

# The Yardstick Method

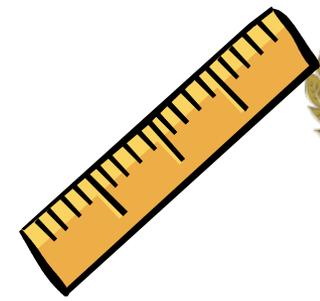




# Yardstick Method

The yardstick method compares the plaintiff's results of operations after the damaging event to a measure representing what operations would have been "but for" the damaging event

# Yardstick Method



- ▶ The plaintiff's profits can be compared to:
  - An external yardstick: Industry statistics or competitor's operations
  - An internal yardstick: Another location or division conducting similar business operations
  
- ▶ The yardstick must establish a *meaningful* relationship between the plaintiff's performance and the selected measure



## Example 2 - Assumptions

- ▶ A franchise restaurant experiences reduced foot traffic and sales due to a damaging act for a period of two years and is expected to resume normal operations in 2005
- ▶ There are other franchisees and company owned stores in the same geographical area
- ▶ Company's operations are similar to other franchises in the area and has similar capital structure and balance sheet
- ▶ All expenses *other than cost of sales* remained constant during damage period
- ▶ Franchise data is available for relevant period



# Example 2 - Historical

| <u>Year</u> | <u>Sales</u> | <u>Growth</u> | <u>Cost of Sales</u> | <u>Gross Profit</u> | <u>GP Margin</u> |
|-------------|--------------|---------------|----------------------|---------------------|------------------|
| 1999        | \$607,000    |               | \$267,000            | \$340,000           | 56%              |
| 2000        | \$650,000    | 7%            | \$273,000            | \$377,000           | 58%              |
| 2001        | \$683,000    | 5%            | \$280,000            | \$403,000           | 59%              |
| 2002        | \$725,000    | 6%            | \$276,000            | \$449,000           | 62%              |
| 2003        | \$350,000    | -52%          | \$182,000            | \$168,000           | 48%              |
| 2004        | \$450,000    | 29%           | \$225,000            | \$225,000           | 50%              |

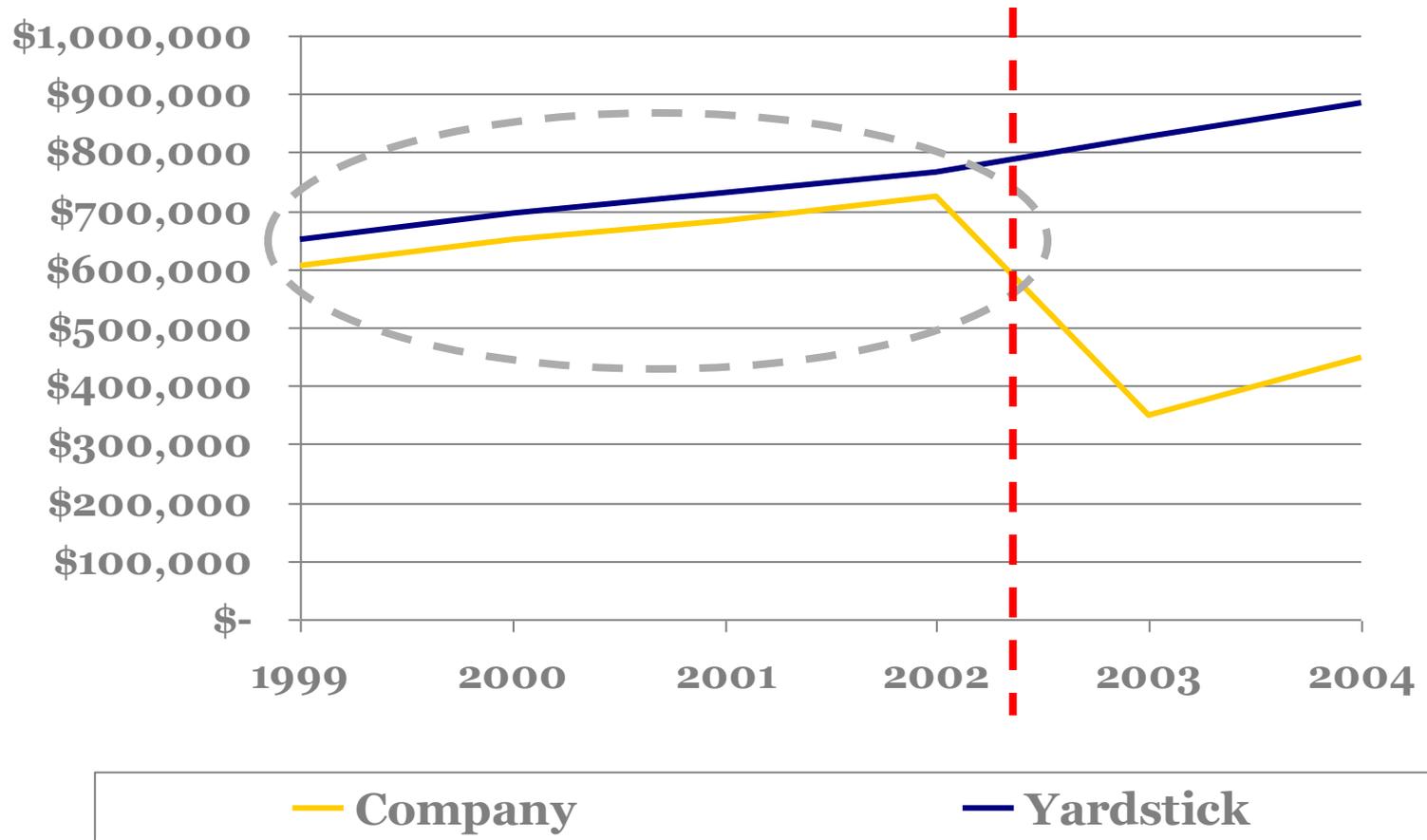


# Example 2 – Comparable (Yardstick)

| <u>Year</u> | <u>Sales</u> | <u>Growth</u> | <u>Cost of Sales</u> | <u>Gross Profit</u> | <u>GP Margin</u> |
|-------------|--------------|---------------|----------------------|---------------------|------------------|
| 1999        | \$650,045    |               | \$279,519            | \$370,526           | 57%              |
| 2000        | \$695,548    | 7%            | \$292,130            | \$403,418           | 58%              |
| 2001        | \$730,326    | 5%            | \$299,433            | \$430,892           | 59%              |
| 2002        | \$766,842    | 5%            | \$306,737            | \$460,105           | 60%              |
| 2003        | \$828,189    | 8%            | \$314,712            | \$513,477           | 62%              |
| 2004        | \$886,162    | 7%            | \$336,742            | \$549,421           | 62%              |



# Company vs. the Yardstick





# Example 2 - Yardstick

| <u>Year</u> | <u>Sales</u> | <u>Actual Growth</u> | <u>Yardstick Growth</u> |
|-------------|--------------|----------------------|-------------------------|
| 1999        | \$607,000    |                      |                         |
| 2000        | \$650,000    | 7%                   | 7%                      |
| 2001        | \$683,000    | 5%                   | 5%                      |
| 2002        | \$725,000    | 6%                   | 5%                      |
| 2003        | \$350,000    | -52%                 | 8%                      |
| 2004        | \$450,000    | 29%                  | 7%                      |



# Example 2 - Yardstick

| <u>Year</u> | <u>Sales</u> | <u>Actual Growth</u> | <u>Ydstck Growth</u> | <u>But For Sales</u>           | <u>Lost Revenues (But For less Actual)</u> |
|-------------|--------------|----------------------|----------------------|--------------------------------|--|
| 1999        | \$607,000    |                      |                      |                                |  |
| 2000        | \$650,000    | 7%                   | 7%                   |                                |  |
| 2001        | \$683,000    | 5%                   | 5%                   |                                |  |
| 2002        | \$725,000    | 6%                   | 5%                   |                                |  |
| 2003        | \$350,000    | -52%                 | <b>8%</b>            | \$783,000<br>(\$725,000 *1.08) | \$ 433,000                                 |
| 2004        | \$450,000    | 29%                  | <b>7%</b>            | \$837,800<br>(\$783,000*1.07)  | \$ 387,800                                 |



# Example 2 - Yardstick

| <u>Year</u> | <u>But For Sales</u> | <u>Yardstick</u> | <u>Recalculated COS (rounded)</u> | <u>Actual COS</u> | <u>Saved COS</u> |
|-------------|----------------------|------------------|-----------------------------------|-------------------|------------------|
| 2003        | \$ 783,000           | 38%              | \$298,000                         | \$182,000         | \$116,000        |
| 2004        | \$ 837,800           | 38%              | \$319,000                         | \$225,000         | \$94,000         |

*“Saved” COS is the COS associated with the lost sales.  
Also can be called “incremental” COS*



# Example 2 - Yardstick

| <u>Year</u> | <u>Lost Revenues</u> | <u>COS</u>        | <u>Lost Profits</u> |
|-------------|----------------------|-------------------|---------------------|
| 2003        | \$ 433,000           | \$ 116,000        | \$ 317,000          |
| 2004        | <u>\$ 388,000</u>    | <u>\$ 94,000</u>  | <u>\$ 294,000</u>   |
|             | <u>\$ 821,000</u>    | <u>\$ 210,000</u> | <u>\$ 611,000</u>   |



# Yardstick Method – When to Use

- ▶ Is **relevant industry** data available?
- ▶ Is information for **comparable companies** available?
- ▶ If relevant, is **information** available from the **defendant** that can be used as a yardstick?
- ▶ Is the **data, time** relevant?
- ▶ Can you **demonstrate** that the yardstick is a **viable measurement** for the subject company?

# Yardstick Method



- ▶ Is the data for the industry of the comparable companies similar to the damaged company considering:
  - Size
  - Equity/Debt structure
  - Lines of business
  - Legal structure
  - Geographic location
  - Economic
- ▶ What is the range of data? Where does the damaged company fall within that range?
  - DuPont Analysis



# Challenges to the Method

- ▶ COMPARABILITY
- ▶ Comparability is defined on a case by case basis
- ▶ Comparability may involve
  - Services similar industries/clients
  - Similar products
  - Markets
  - Economic drivers



# Challenges to the Method

- ▶ D can challenge by asserting that the “so called” comps are not and
- ▶ No reasonable basis for using them
  - May require D to analyze
  - May require use of Industry expert
- ▶ Lack of comparability
  - Industry definition used by P is inappropriate (subcategories)
  - Size – Which alone does not make a comp not a comp



# Example #1 Yardstick

- ▶ Fact Pattern
  - **Bennigans franchises**
    - Bank allegedly wrongfully created an overdraft on an account and called the company's loans
    - Major black eye to the credit report
    - Company could not get any further credit
    - Could not get funds to further planned expansion and operations



# Example #1 Yardstick

- ▶ Pre-litigation projections
  - Did not achieve them
- ▶ Plentiful information in the UFOC regarding performance of similar restaurants
- ▶ Used the averages from the UFOC to project “but for”

# Example #1

- ▶ In preparing the but for, had to:
  - Prove that using the average was reasonable
    - Had surveys and prelitigation projections
  - Demonstrate that the initial performance (pre-act) was on track for average performance
  - The owner had other stores with a longer operating history, used to demonstrate track records of performance.

# Celebrity Cruises Case



USE OF THE YARDSTICK METHOD





# Background

- ▶ 1994 Horizon ship was cruising from NYC to Bermuda
- ▶ In June several passengers from a cruise fell ill
- ▶ Diagnosed with Legionnaire's disease
- ▶ By the time they were diagnosed another cruise was in process
- ▶ Big mess, had to take the boat out of service
- ▶ Publicized, Time magazine
- ▶ All the result of a filter in the hot tubs

# Background

- ▶ Passengers sued Celebrity and the manufacturer of the filter, Essef
- ▶ Celebrity made a cross-claim on Essef
- ▶ Decided on a bellwether trial
  - One case tried as an example case, held to the decision for all others
- ▶ The jury was charged with deciding who was at fault and assign percentages
- ▶ John and Joyce Silivanch
- ▶ Trial started in May 2000

# Background

- ▶ Jury found for the Silivanch's
- ▶ Found that:
  - 70% Essef's fault
  - 30% Celebrity's
- ▶ Jury also found that Essef was liable to Celebrity on their crossclaim
- ▶ Silivanch's were awarded
  - \$2.66m in compensatory damages
  - \$4.2m in punitive damages from Essef
  - \$2.8m in punitive damages from Celebrity



# Background

- ▶ The issue of damages was dealt with separately
- ▶ All parties made Daubert motions against all of the experts
- ▶ Only Plaintiff's expert analysis was admitted
  - Mr. Robert P. Schweihs
    - Managing Director of Wilamette

# Damages

- ▶ Four categories of damages
  - Cost of attorneys fees and certain amounts paid to passengers
  - Other monies paid to passengers and monies paid to decontaminate the ship
  - Lost profits – from the date of incident through the date Celebrity sold to RCCL
  - Diminished value of Celebrity at the time they sold to RCCL

# Lost profits

- ▶ Based on the difference between EBITDA that would have been earned and EBITDA that was earned
- ▶ From 7/1/1994-12/31/1994
  - Calculated the but for EBITDA on management's projections
- ▶ From 1/1/1995 – date of sale (1997)
  - Employed a yardstick methodology
  - Estimated expected EBITDA based on 3 comparables (RCCL, Carnival, American Class Voyages)



# Lost Profits

- ▶ Applied the yardsticks to determined but for EBITDA
- ▶ Discounted the stream of lost profits back to the date of incident
- ▶ Concluded that Celebrity was owed lost profit of:  
**\$60.25 million**

# Damages

- Out of pocket expenses of \$10 million (which was not appealed)
- But Celebrity failed to show proof for lost profits damages in the form of surveys, lost bookings, price cuts etc.....
- Essef offered proof
  - Celebrity had quickly recovered
  - Price cuts were “rampant” in the industry and not related to the disease outbreak (speaks to causation)

# Celebrity's Testimony re: Damages

- ▶ Quantified lost profits by measuring the difference between
  - EBITDA reasonably expected vs.
  - EBITDA it actually realized after the outbreak
- ▶ Future revenues/EBITDA
  - For the 6 months following the outbreak, used projections prepared by management
  - For the years after that (1995 through 1997)
    - Based it on “yardsticks’ for Royal Caribbean, Carnival, and American Classic Voyages.

# Use of Yardstick

- ▶ The Court said that the yardstick was a valid predictor IF
  - Celebrity had paralleled the yardstick companies for a significant period
  - If the yardstick companies were materially similar enough to Celebrity to mirror its performance.



# Lost Enterprise Value

- ▶ Using the yardstick projected what cash flows in perpetuity would have been but for the outbreak
- ▶ Applied an 11% WACC
- ▶ Discounted that revenue stream to July 1997 – date of sale
- ▶ Value at the time should have been \$1.5761B versus what RCCL paid \$1.315B
  - Diminution of value of \$261.1M
  - Discounted that to the date of incident \$180.6M



# Damages - Celebrity

- ▶ Jury awarded
  - \$47,648,156 for lost profits
  - \$135 million for lost enterprise value
- ▶ Essef challenged the verdict with respect to lost profits:
  - No causation evidence
  - Lost profits methodology
    - Analysis was flawed because the yardstick chosen were too dissimilar
    - Failed to account for a variety of other factors that could have depressed sales
    - EBITDA was improper

# Damages - Celebrity

- ▶ Attacks lost enterprise value:
  - Mr. Schweihs erred in calculated WACC
    - Contrary to a formula in one of his publications
  - Mr. Schweihs' analysis is unreliable because it is not validated by comparison to any similar real world transactions
  - Loss was only to the shareholders and not the corporation and the shareholders are not party to the litigation
- ▶ Essef requests a new trial

# Judge rules...

- ▶ Mr. Schweih's model for predicting EBITDA but for
- ▶ By using the yardstick it provided a mechanism for filtering out factors that would have affected the yardstick companies also.
- ▶ The judge does not consider the admissibility of the testimony under Daubert
- ▶ Note: Essef also attacks the use of EBITDA
  - Judge rules that while not perfect Essef's objections again go to weight and not admissibility

# New trial...

- ▶ Re: causation
  - Criticizes for not providing any survey evidence
  - Criticizes contemporaneous evidence
- ▶ Yardstick analysis
  - “linchpin” is his construction of the yardstick
  - Could be validated as a predictor of Celebrity’s performance in two ways
    - IF Celebrity had paralleled the yardstick prior to the incident “it would be reasonable to infer that it would do so in the future”
    - OR Celebrity could demonstrate that the companies are similar enough that Celebrity could be expected to mirrors its performance.

# Yardstick – Prior performance

- ▶ There was enough of a record prior to the outbreak for the analysis to be admissible there was not enough to make it convincing
- ▶ First full year of operations was 1993 and in 1993 it was still a young and growing company
- ▶ Being compared to mature companies

# Yardstick - Comparability

- ▶ Carnival
  - Much larger company
  - Revenues of \$2B vs. \$236M
  - 5 times the number of berths
  - Benefited from economies of scale
  - Diversified- more than 1 brand, different markets, bus lines, tours, hotels, which were all in the data used by Mr. Schweih
  - Different itineraries
- ▶ Inclusion of Carnival “undermines the legitimacy of the yardstick”



# Yardstick - Comparability

- ▶ American Classic Voyages
  - Closer in size to Celebrity
  - Consists of operating paddle wheel riverboats on rivers and intracoastal waterways
  - Operates one cruise exclusively in the Hawaii market
  - One of Celebrity's own witnesses testified he would not consider it comparable
- ▶ Conclusion
  - Does not render the analysis inadmissible but it does diminish its value
  - **NEW TRIAL FOR DAMAGES**



# Lost Enterprise Value- Judge rules...

- ▶ To the extent the yardstick doesn't predict lost cash flows, then misestimates the lost enterprise value
- ▶ At a minimum Essef is warranted a new trial
- ▶ WACC – Flawed beta
  - *(Reader note: the judge had a very good command on some very sophisticated issues such as his discussion of WACC, levered beta and unlevered beta)*
  - Schweihs testified that he used a levered beta, Essef demonstrated that the figure he adopted was unlevered beta for the cruise industry



# Lost Enterprise Value- Judge rules...

- ▶ WACC (continued)
  - Testimony later was that Schweih's stood by the beta he used – answer “yes”
  - Judge has a thorough discussion on levering or unlevering beta based on the capital structure
  - Concludes that there was no evidence that Schweih's took the capital structure of Celebrity into consideration or appropriate adjusted beta
  - Insufficient evidence to support Mr. Schweih's' opinion
  - Judgment as a matter of law on enterprise value



# Essef's expert

- ▶ Affirmative proof via their expert witness Dr. Frederick C. Dunbar
- ▶ Recalculated all of Mr. Schweihs' calculations except he used a leveraged beta
- ▶ Demonstrated that there was no diminished enterprise value
- ▶ Goldman Sachs provided a fairness opinion when RCCL purchased Celebrity
  - The range of rates used by Goldman included the rates used by Dr. Dunbar but did not include the 11% used by Mr. Schweihs



# Trial #2 – June 2007

- ▶ Jury awards lost profits of \$15 million
  - 1994 lost profits \$2,640,899
  - 1995 lost profits \$12,514,673
- ▶ Celebrity shored up its testimony
  - Brought in more testimony regarding decreased bookings
  - Regarding lost profits
    - Demonstrated that using Carnival and American Classics didn't significantly impact damages
      - Just RCCL \$57.2
      - RCCL, Carnival \$57.8
      - All 3 yardsticks \$60.25

# What can we learn?

- ▶ Yardstick was the linchpin
  - Judge didn't take exception to the method of using EBITDA
  - Extremely critical and put a high level of scrutiny on the comparables themselves
- ▶ One misstep (i.e. levered vs. unlevered) got that portion of the testimony and damages excluded

# Let's Recap!



1. **WHAT IS THE PURPOSE OF A DAMAGE CALCULATION?**
2. **WHAT ARE THE TYPES OF CALCULATIONS (2 TYPES)?**
3. **WHAT ARE TWO ACCEPTABLE METHODS THAT WERE COVERED IN THIS LESSON?**

# End of Day One



# QUESTIONS?

