

Plan Design in the Context of FAS 123R

**NASPP Annual Meeting
October, 2006**

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Overview - Budget-Based Plan Design

- Starting from a dollar expense (either per year or in total; either awarded to an individual or a set of individuals)
- Objective: Construct a mix of equity instruments that:
 - Keeps to budget
 - Creates the right incentives and retention effects

Criteria for Analyzing an Award

- Expense to Company
 - Expense in total
 - Expense per year
- Perceived Value to Employee(s)
 - Typically different than expense to company
 - Risk aversion
 - Complexity
- Value to Company
 - Employee retention
 - Employee motivation related to specific goals
- Complexity
 - Administration

Our Budget and Assumptions

- Assume a \$10 million budget with approximately \$3M per year cap
- Assume an initial stock price of \$20
- We will analyze four different “prototypical” companies:
 - Company “A”: Large-Cap, low volatility, flat volatility term structure, moderate dividend, low turnover
 - Company “B”: Mid-Cap non-technology, moderate volatility, slightly downward sloping volatility term structure, moderate dividend, moderate turnover
 - Company “C”: Mid-Cap technology or biotech, moderate to high volatility, moderately downward-sloping term structure, no dividend, moderate to high turnover
 - Company “D”: Small-Cap technology or biotech, high volatility, steep downward-sloping term structure, no dividend, high turnover

Types of Equity Instruments

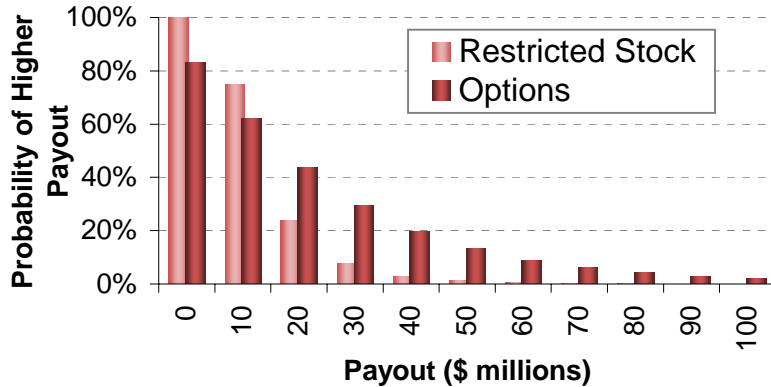
- Vanilla (Service-based) Restricted Stock Awards/Units
- Vanilla (Service Based) Options
- Performance-based instruments
- Market-based instruments
- Combinations

Options vs. Restricted Stock

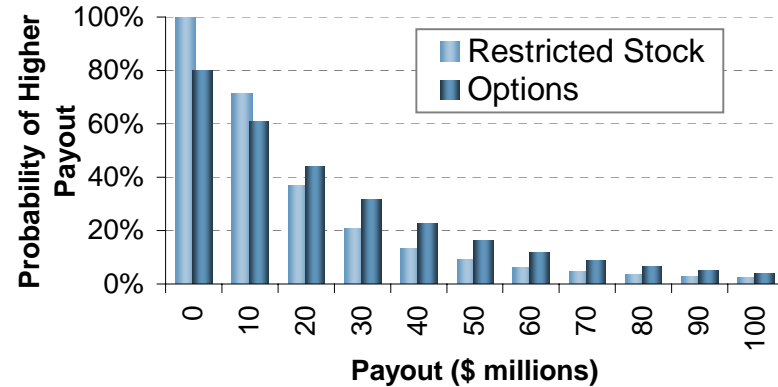
- Equivalent cost to the company (by varying number of shares)
 - But if accounting rules cause any distortion in the economic valuation, then the balance can shift. For example, the term matching principle for a company without traded options
- Different risk/reward characteristics to the employee
- Impact of dividends – taken into account by budget-based grants
- Implications about growth prospects for the company in case of non-market based restricted only

Restricted Stock vs. Option Payout (Budget-based Comparison)

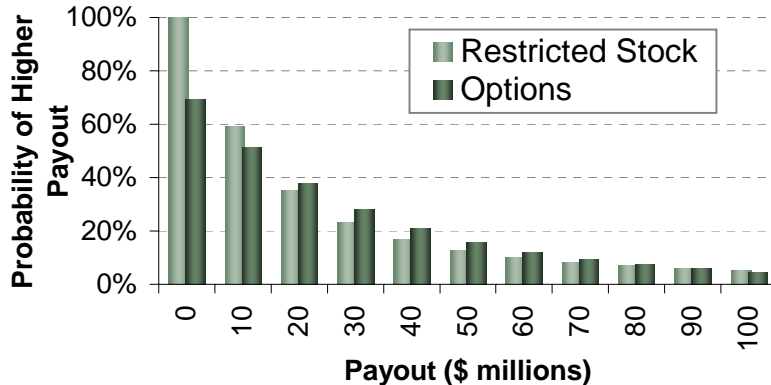
Company A



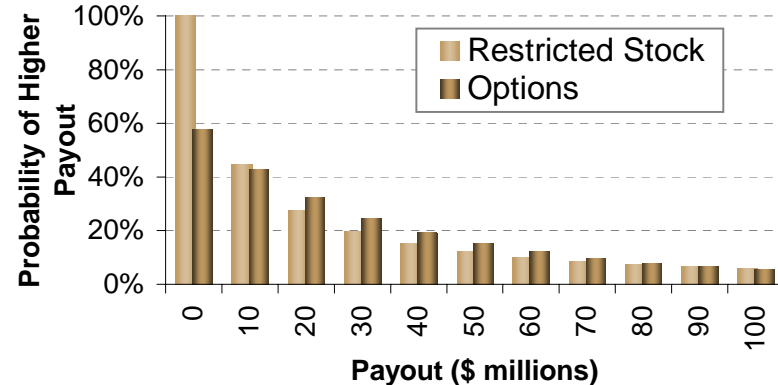
Company B



Company C



Company D



Vanilla Restricted Stock Awards

- Purely Service Based (“Pay for pulse”)
- Awards or Units
- Apply estimated forfeiture rate; true up to actual vesting
- Design Parameters:
 - Vesting Schedule
 - Treatment of Dividends on Unvested Stock

Vanilla Restricted Stock Awards

Company	Forfeiture Rate	Share Value	Shares Granted	Shares Projected To Vest	Total Expense	Expense in...			
						Year 1	Year 2	Year 3	Year 4

----- (\$ Millions) -----

4 Year Annual Vest

A	5.0%	\$20.00	567,475	500,000	\$10.00	\$2.70	\$2.56	\$2.43	\$2.31
B	10.0%	\$20.00	646,183	500,000	\$10.00	\$2.91	\$2.62	\$2.36	\$2.12
C	12.5%	\$20.00	690,434	500,000	\$10.00	\$3.02	\$2.64	\$2.31	\$2.02
D	15.0%	\$20.00	738,380	500,000	\$10.00	\$3.14	\$2.67	\$2.27	\$1.93

4 Year Cliff Vest

A	5.0%	\$20.00	613,869	500,000	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50
B	10.0%	\$20.00	762,079	500,000	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50
C	12.5%	\$20.00	852,978	500,000	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50
D	15.0%	\$20.00	957,843	500,000	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50

Vanilla (Service Based) Options

- Design Parameters:
 - Contract Term
 - Vesting Schedule
 - Strike Price (Premium Options)

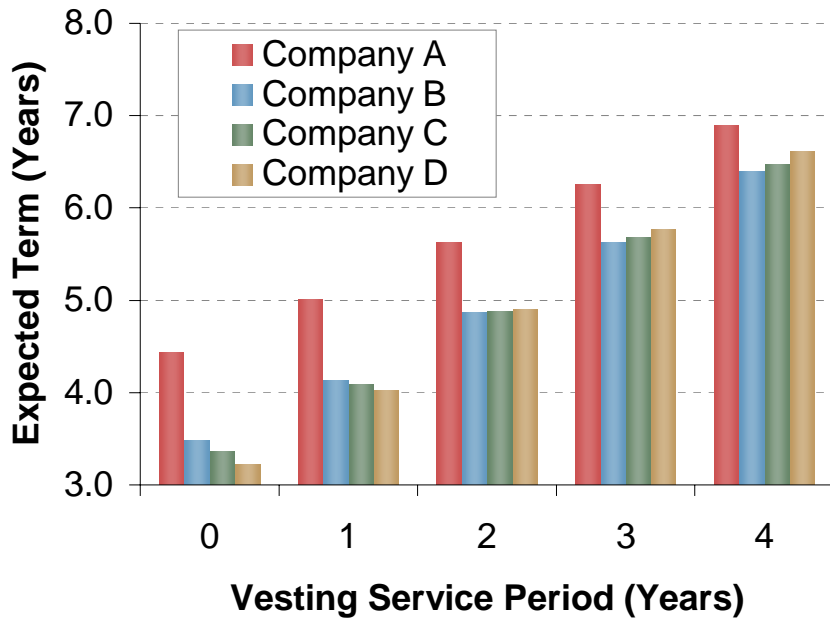
- Note Stock-Settled SARS are essentially equivalent except that settlement requires less shares in the Option Plan.

Vanilla Options - Valuation

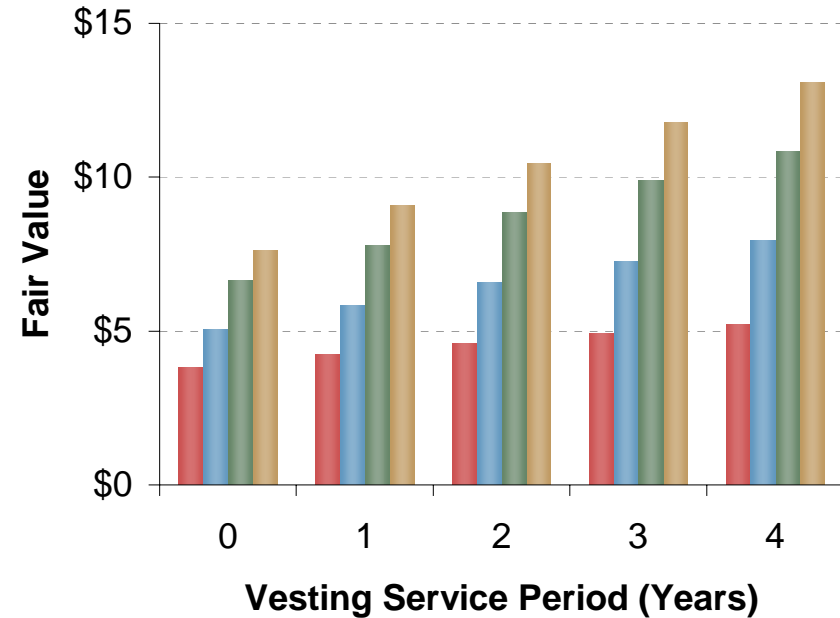
- Effect of vesting on expected term and value
- Effect of contract term on expected term and value

Vanilla Options – Valuation Effect of Vesting Period

**Option Expected Term vs.
Vesting Service Period**



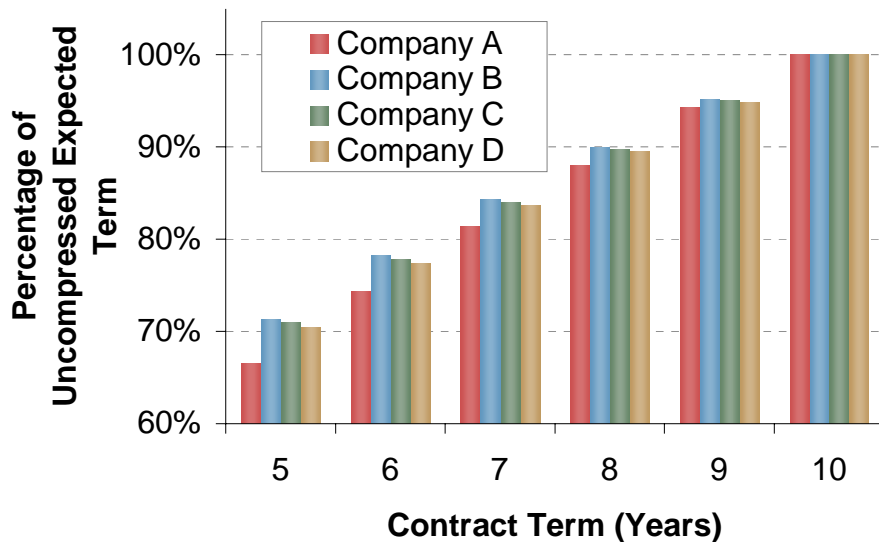
**Option Fair Value vs.
Vesting Service Period**



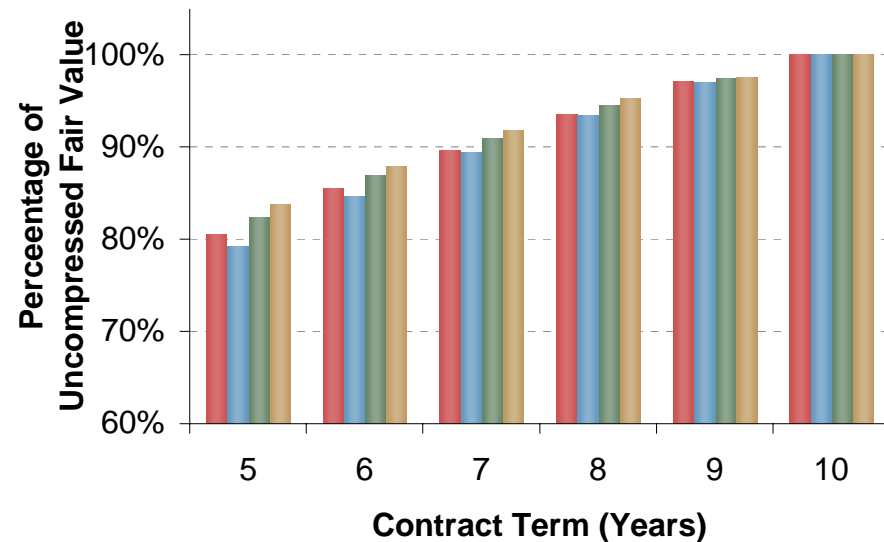
Vanilla Options – Valuation

Effect of Contract Term Compression

**Option Expected Term vs.
Contract Term**



**Option Fair Value vs.
Contract Term**



Vanilla Options – Expense

Company	Forfeiture Rate	Option Value	Options Granted	Options Projected To Vest	Total Expense	Expense in...			
						Year 1	Year 2	Year 3	Year 4

----- (\$ Millions) -----

4 Year Annual Vest

A	5.0%	\$4.77	2,380,013	2,097,018	\$10.00	\$2.70	\$2.56	\$2.43	\$2.31
B	10.0%	\$6.94	1,862,803	1,441,390	\$10.00	\$2.91	\$2.62	\$2.36	\$2.12
C	12.5%	\$9.40	1,468,785	1,063,668	\$10.00	\$3.02	\$2.64	\$2.31	\$2.02
D	15.0%	\$11.14	1,325,314	897,446	\$10.00	\$3.14	\$2.67	\$2.27	\$1.93

4 Year Cliff Vest

A	5.0%	\$5.21	2,358,626	1,921,115	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50
B	10.0%	\$7.92	1,924,263	1,262,509	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50
C	12.5%	\$10.84	1,573,345	922,266	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50
D	15.0%	\$13.07	1,466,172	765,351	\$10.00	\$2.50	\$2.50	\$2.50	\$2.50

Performance-Based Equity

- Performance conditions can be applied to restricted stock or options.
- Performance goals relate to some internal company metric, such as EPS, ROE, revenue in division or business line.
- Performance conditions differ from market conditions in that they are specifically not based on company stock price
- They are also not based on extraneous metrics such as the price of gold
- No longer need to use “performance accelerated” shares which will definitely vest based on service – those are hangover from variable accounting issues pre FAS 123R.

Valuation of Performance-Based Restricted Stock

- In valuing performance-based shares we assume that the shares will vest for certain. Therefore, the per share value is the same as for vanilla restricted stock.
- Therefore, valuation is simple, so let's move to amortization....

Amortization of Performance-Based RSA's

- FAS 123R introduces the concept of the “implicit requisite service period” corresponding to performance conditions.
- Essentially, the amortization is variable. We decide each period whether it is probable that the grant will vest; if so, we amortize the remaining expense over the updated estimate of the remainder of implicit service period.

Disadvantages of Performance RSAs

- Administration is complex
 - Determination is made each period regarding the probability of vest.
 - Decision is made each period as to the length of the implied service period.

- Volatility in expense
 - There can be big swings if estimates change.

Market-Based Performance Conditions

- Vesting is based directly or indirectly on stock price.
- Absolute conditions:
 - Shares vest if the stock price closes above \$30 for 20 consecutive days (“Knock-in”)
- Relative conditions:
 - Shares vest if the company stock price appreciation (or TSR) beats the 50th percentile in some index or peer group
 - Shares vest according to a payout schedule depending on TSR rank.

Valuation of Market-based Instruments

- Valued at the grant date once-and-for-all.
- No true-up if the condition is not met
- Also calculate a “derived service period” based on median path to vesting.

Amortization of Market-Based Instruments

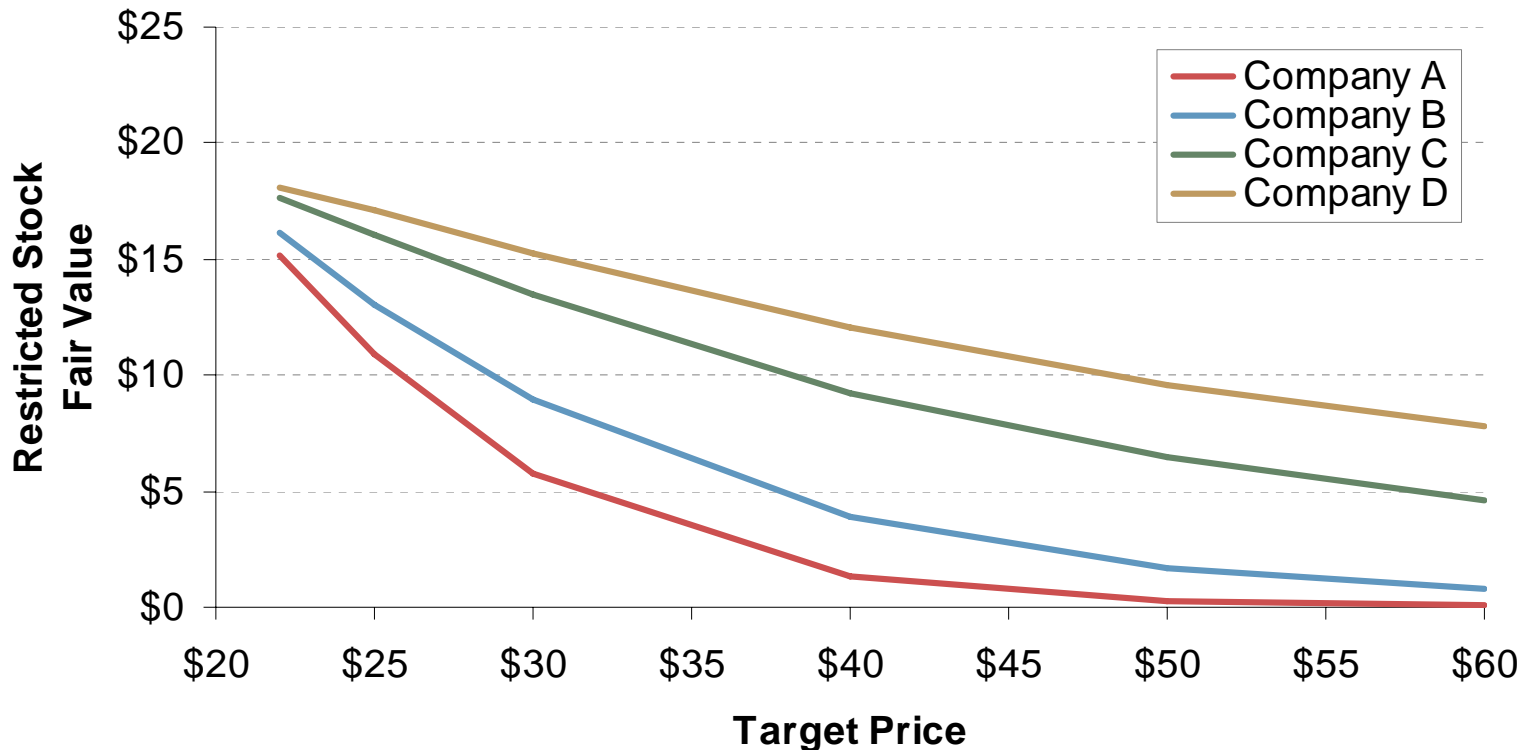
- Amortize straight-line over the derived vesting period
- No true-up, no variability, no decisions each quarter

Advantages of Relative Market-Based Instruments

- Reward grantee if stock performs better than peers, even if overall stock market or sector declines
- Simple to administer
- Valuation correctly done is objective and easy to audit

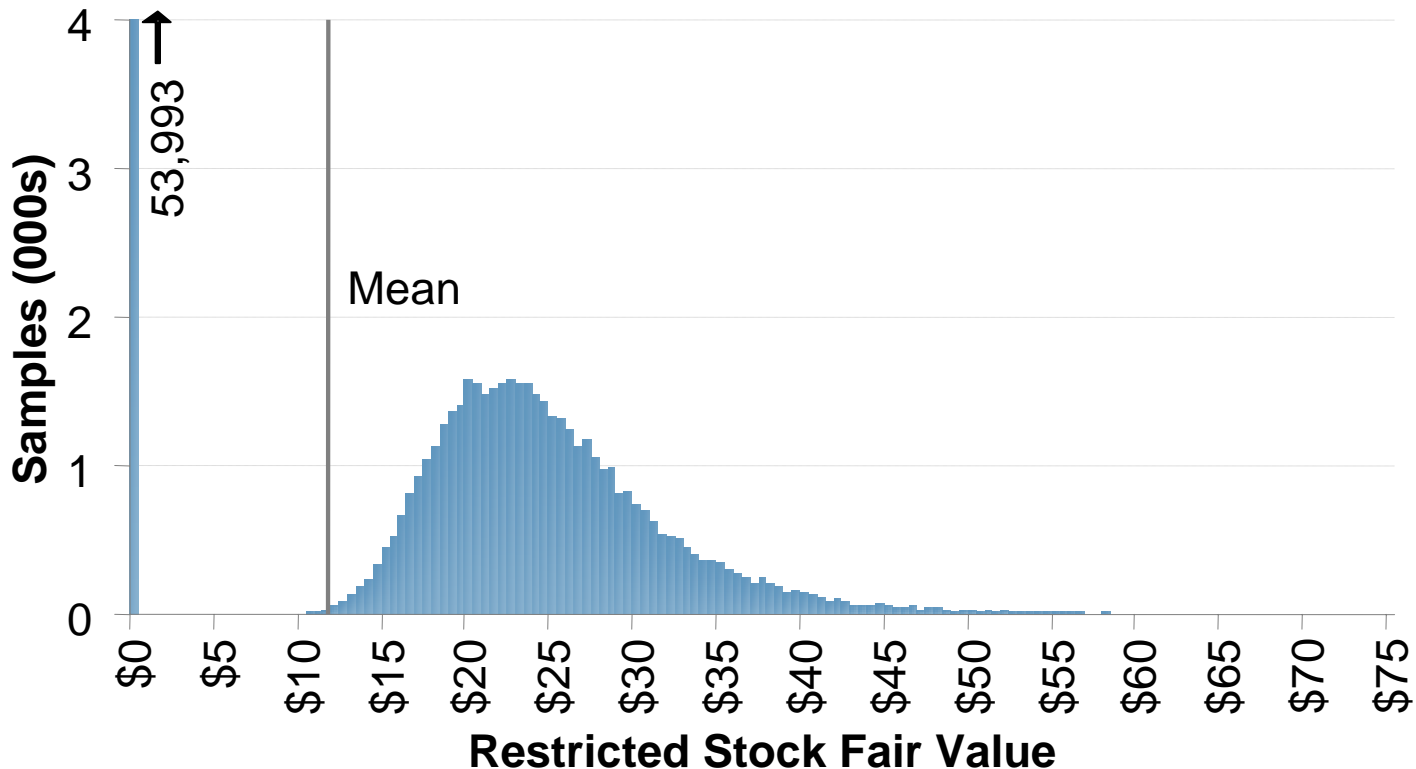
Absolute Market Based Award Valuation Effect of Target Price

**Restricted Stock Award Fair Value vs.
Target Price of "Knock-In" Award**



Relative Market Based Award Valuation Payout Distribution

Distribution of Restricted Stock Award Fair Value
Vesting Based on Rank Among Peers



Knock-Out Options

- Market-based award that disappears if the stock price drops below a certain price
- Eliminates need to reprice
- Results in modest reduction in value of award
- Logically combines with knock-in options

Combination Awards

- Frequently awards have combination of service condition, performance and/or market conditions.
- The most common combination requires that the employee be employed when performance and/or market conditions are met. This is an “AND” condition - both service and performance/market requirements must be met.

Combination Awards (continued)

- An “OR” condition requires that one condition be met. Common combination is vesting with the sooner of a performance goal and a service period...e.g., if performance goal is not met within 5 years grant vests automatically provided the grantee is still employed.
- Often hangovers from performance-accelerated grants.

Service Period for Combination Awards

- “AND” award service period (and hence amortization period) is the LONGEST of the underlying service periods.
- “OR” award service period (and hence amortization) is the SHORTEST of the underlying service periods.

Design of Combination Awards

- Amortization is more straight-forward if driven by the explicit service requirement. This will happen in an “AND” award where the explicit service period exceeds the derived/implicit period.

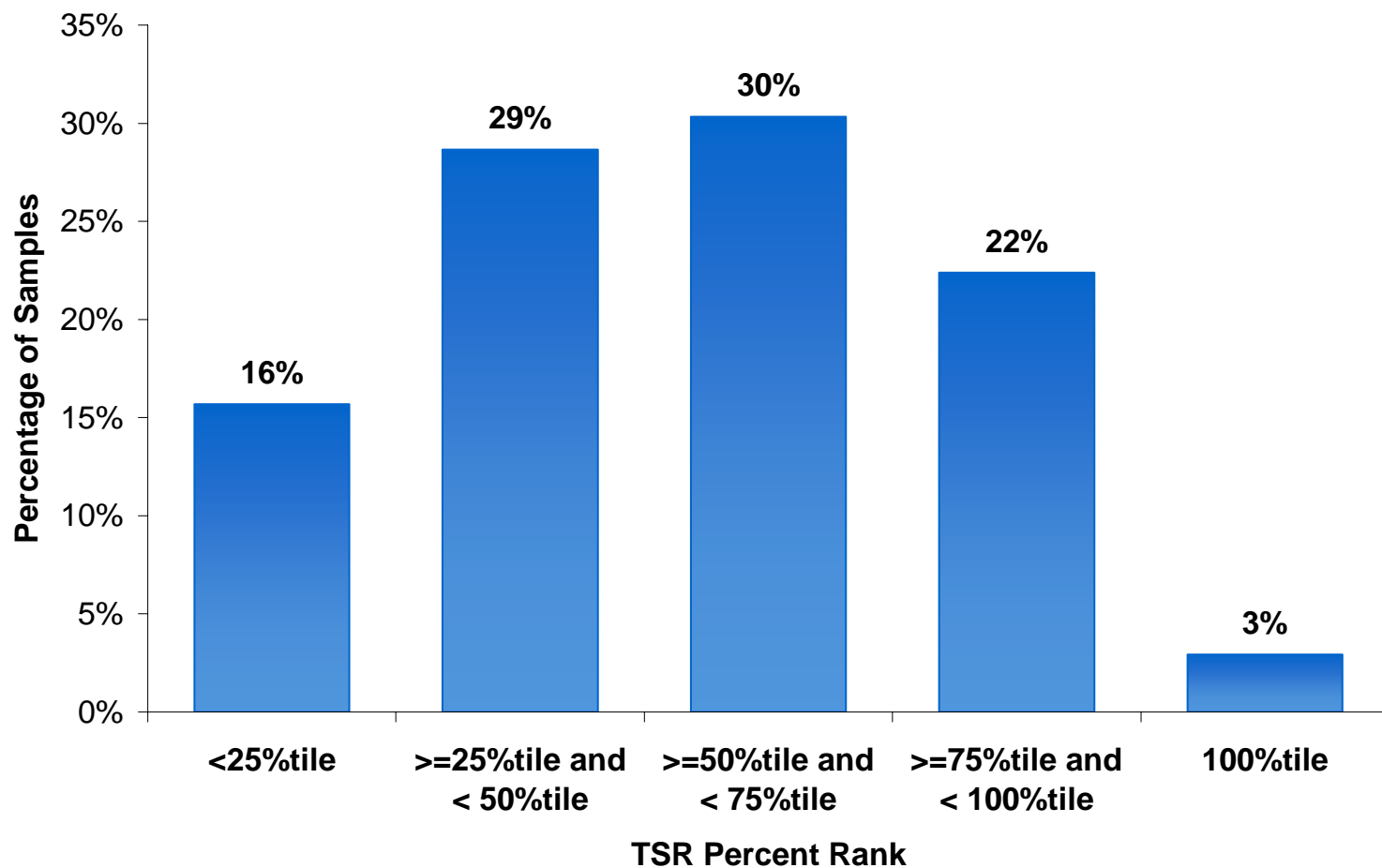
Example of Simple Combination

- Award vests in three years provided grantee still is employed and the market/service condition has been met by then.
- Amortize over three years
- Company will still estimate and apply a pre-vest forfeiture rate and true it up to actual rate

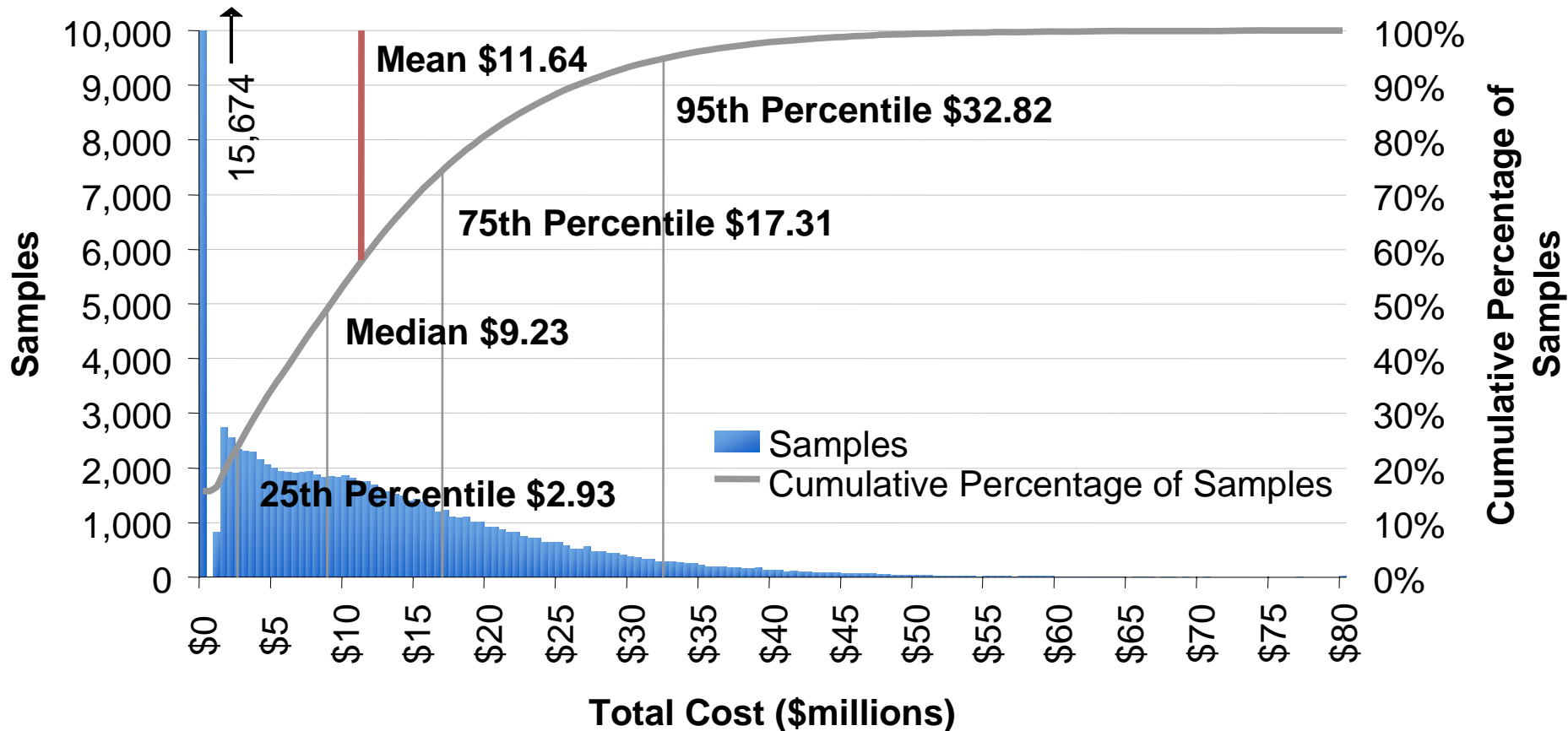
Example of Powerful Combination

- Restricted stock with market-based condition:
 - Payout is variable: varies from 0 shares to 200% of target shares based on company's TSR ranking in a peer-group index after three years
 - Safety-net: Internal performance-based hurdle mitigates effects of TSR ranking below 50% percentile
 - Continued employment required.

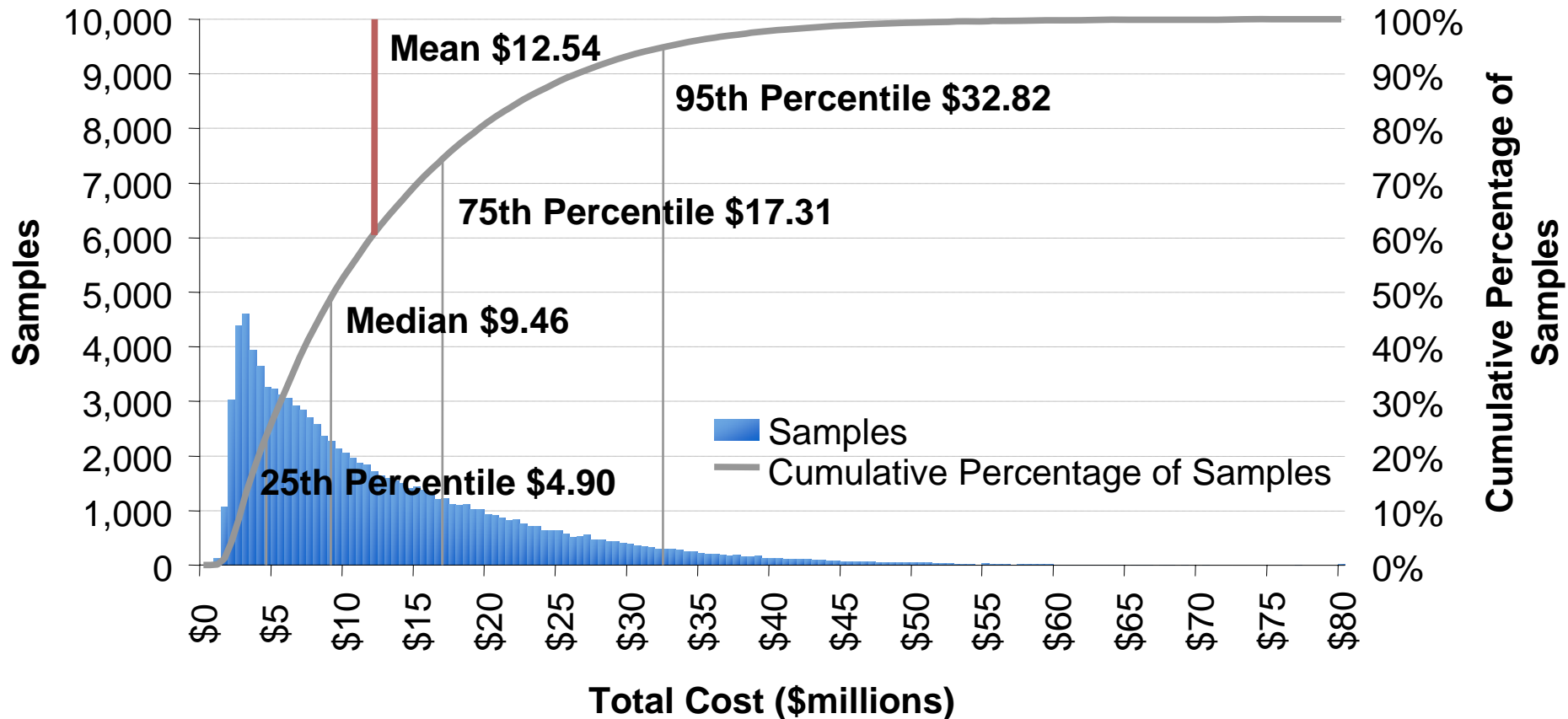
Relative Market-Based Award Peer Rank Distribution



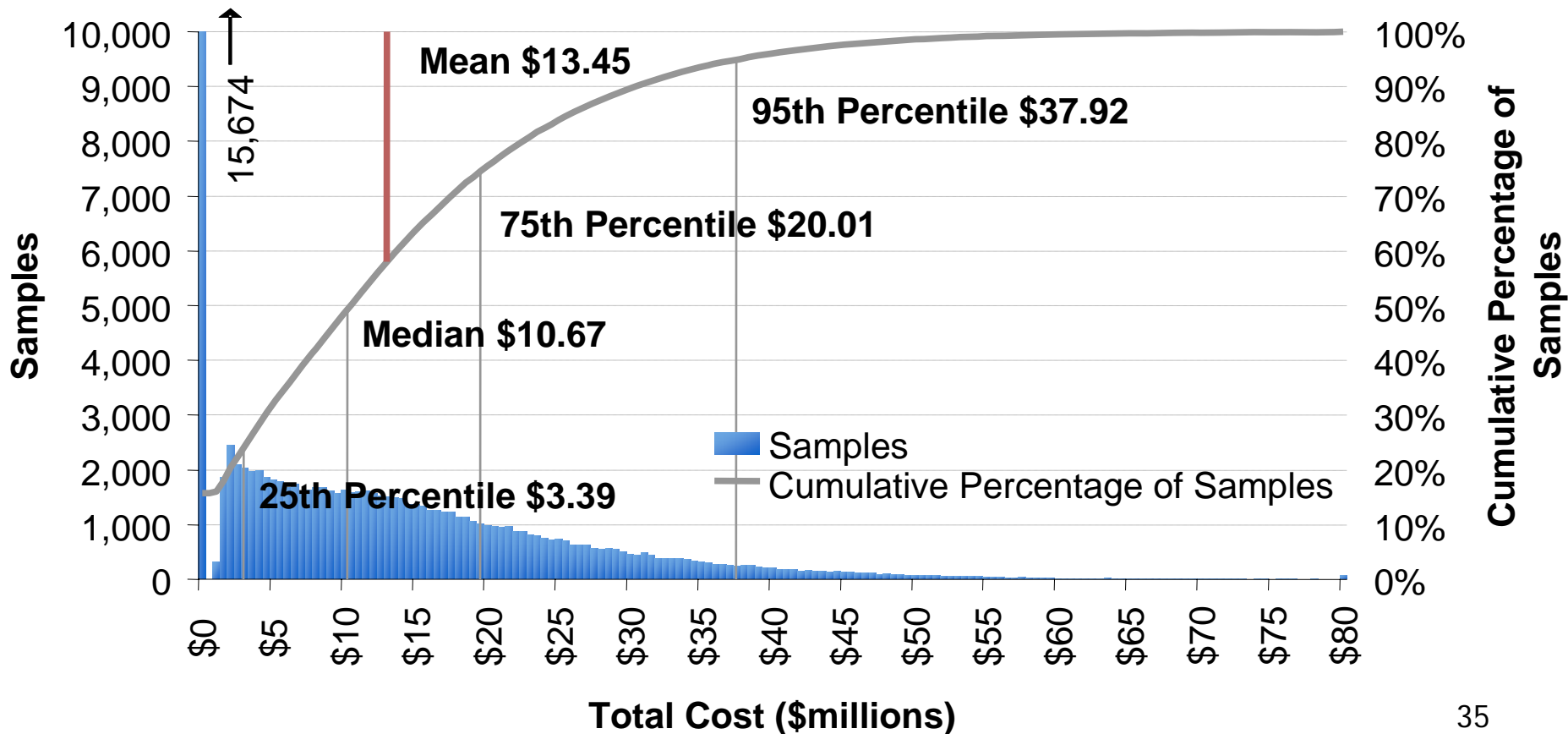
Relative Market-Based Award Cost Distribution: No Performance Safety-net



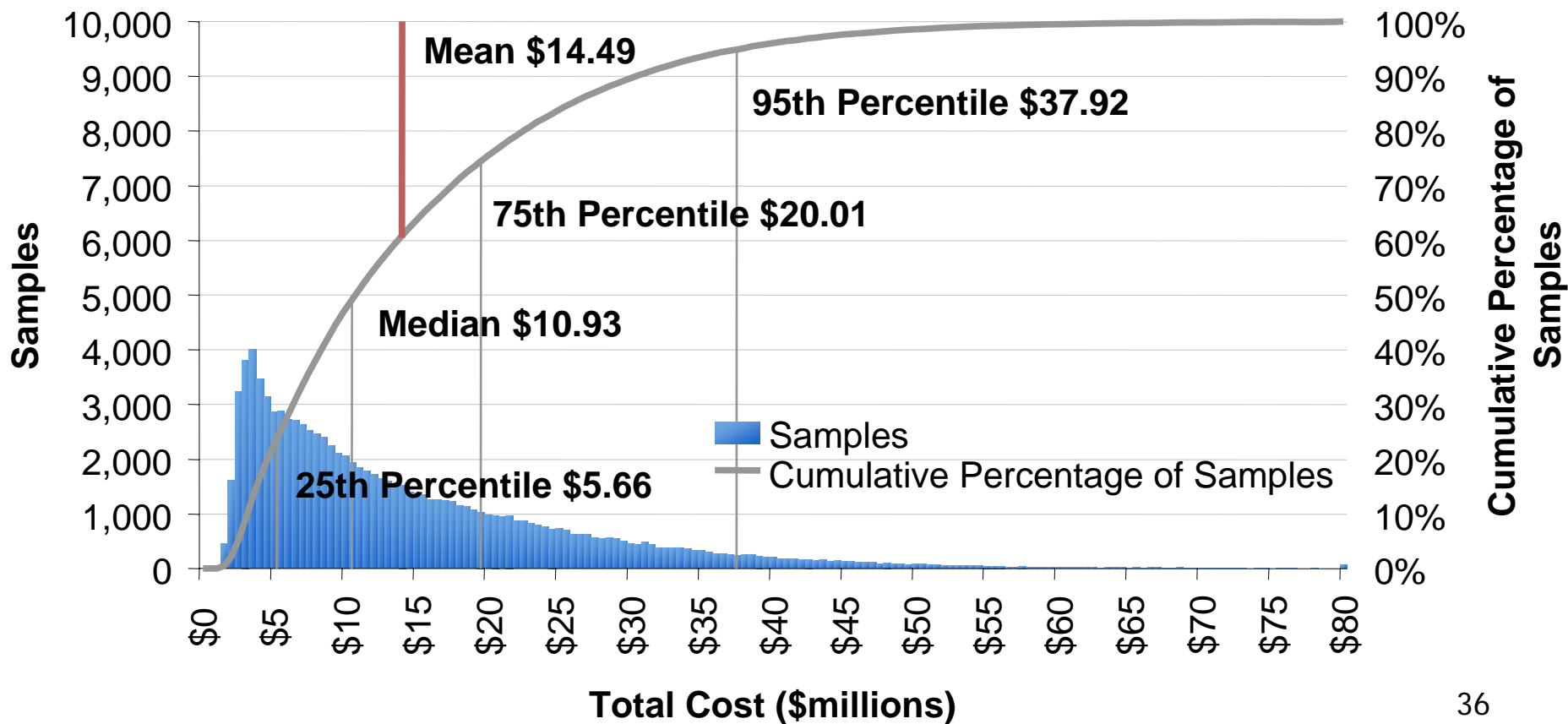
Relative Market-Based Award Cost Distribution: Performance Safety-net



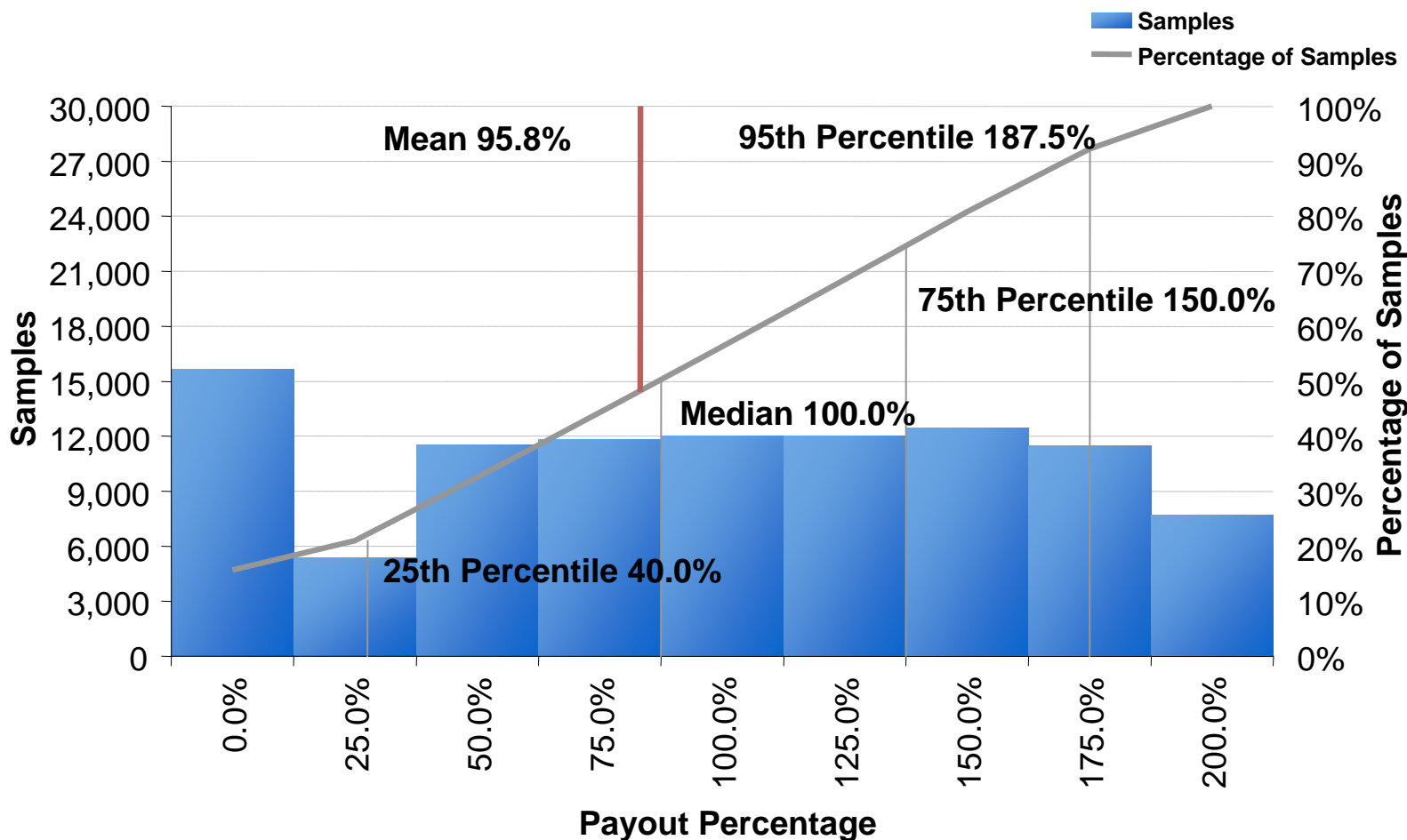
Relative Market-Based Award Payout Distribution: No Performance Safety-net



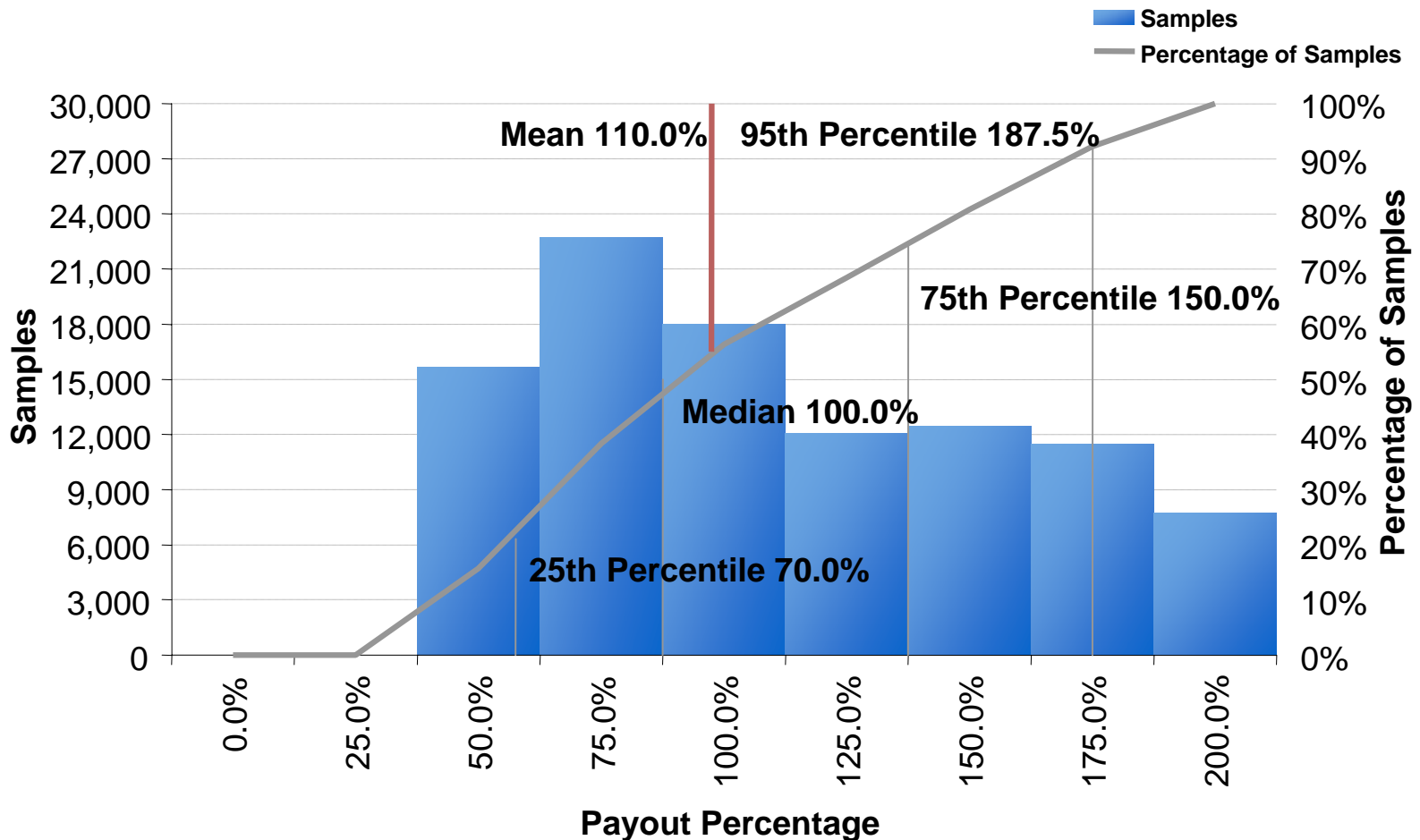
Relative Market-Based Award Payout Distribution: Performance Safety-net



Relative Market-Based Award Payout % Distribution: No Performance Safety-net



Relative Market-Based Award Payout % Distribution: Performance Safety-net



Example – Option with more bang for the buck: Knock-in, Knock-out, Market- Based Option with a Performance and Service Condition

- Consider a biotech company with a late stage drug in development
- The current stock price is \$10. If the drug fails, the stock is expected to drop below \$5. If it is approved by the FDA, the stock is expected to rise above \$20
- The company believes the fate of the drug will be known within two years

Example Continued

- The company grants an option that vests in two years provided:
 - the grantee is still employed
 - the drug has been approved by the FDA
 - the stock price is at least \$20

- If the stock price falls below \$5 at any time after two years, then the option is forfeited.

Case 1: drug is approved

- In this case, the option at the two-year mark will in all likelihood turn into a vested option. From the employee's economic perspective it behaved like a vanilla option vesting after two years
- From the company's perspective, it also acts like a vanilla option, but one with lower P&L expense because of the discount for the market-based provisions

Case 2: drug is rejected

- From the employee's perspective, the option is again quite similar to a vanilla option – the stock price is low enough so that a vanilla option would have little value
- From the company's perspective, they get to reverse all expense they took for the option, and furthermore the option itself vanishes, so no problem with overhang or need to reprice.

Questions:

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