

OVERVIEW OF FAS 123(R)



BARBARA BAKSA , Executive Director/National Association of Stock Plan Professionals

OVERVIEW OF FAS 123(R)

- Stock plans can be **compensatory** vs. **non-compensatory**
 - Compensatory plans result in an income statement expense; non-compensatory plans do not
 - Requirements for non-compensatory status:
 - Discount of 5% or less
 - No look-back
 - Plan must be offered to substantially all employees
 - Most forms of stock compensation are compensatory
 - Stock options and appreciation rights
 - Restricted stock/units
 - Most section 423 ESPPs
 - ESOPs are outside the scope of 123(R)



OVERVIEW OF FAS 123(R)

- Measurement date
 - Date on which expense is calculated for the grant
 - Typically the grant date*
- Expense
 - Fair value of the arrangement
 - Restricted stock and units: Generally equal to FMV of stock (less any amount paid by employee)
 - Stock options and SARs:
 - Trading prices of similar arrangements
 - If no similar arrangements are traded, estimated using an option pricing model



* For arrangements that are settled in stock and granted to employees.

OVERVIEW OF FAS 123(R)

- Attribution
 - Expense is recorded over the service period of the grant
 - Typically the vesting period
 - Vesting based on service or performance conditions (not related to stock price)
 - Expense is not recognized for grants that are forfeited prior to vesting
 - Expense is recorded based on percentage of grants that are expected to vest
 - Expense is **still recognized** for options that vest but expire unexercised



FAS 123(R) – EXAMPLE

- A company grants options to purchase **500,000** shares at a price of **\$10 per share**, when the FMV is equal to this amount.
- The company makes the following assumptions for valuation purposes:
 - Expected term: **5 years** Volatility: **.4**
 - Dividend yield: **0%** Interest Rate: **3%**
- The Black-Scholes value of the options is approximately **\$4** per share, resulting in a total expense of **\$2,000,000** for the options.
- Each option is subject to two-year cliff vesting.
- The company estimates that 2% of the optionees will terminate per year, forfeiting their options.



FAS 123(R) – EXAMPLE

- The total amount of expense the company expects to recognize based on the estimated forfeiture rate is calculated as follows:

$$\text{\$2,000,000} \times 98\% \times 98\% = \text{\$1,920,800}$$

- This expense is recognized evenly over the two-year vesting period

\\$960,400 of expense recorded per year



FAS 123(R) – EXAMPLE

- At the start of the second year, the company revises the forfeiture estimate to 3% per year. Based on this new forfeiture rate, the company will recognize the following amount of expense for the options:

$$\text{\$2,000,000} \times 97\% \times 97\% = \text{\$1,881,800}$$

- Based on the new estimate, the company will record the following expense during the second year of the vesting period:

$$\text{\$1,881,800} - \text{\$960,400} = \text{\$921,400}$$



FAS 123(R) – NON-EMPLOYEES

- Grants to **non-employees**
 - Applies to:
 - Consultants, independent contractors, etc.
 - Does not include outside directors
 - Measurement date is **vest date**, not grant date
 - Expense is recorded over vesting period just as for grants to employees
 - Based on estimates of fair value
 - True up to final calculation of fair value at vest



ACCOUNTING FOR TAX EFFECTS

- Must reconcile expense recorded for stock compensation to tax benefits realized
 - Track tax benefit of each arrangement to expense recognized for that arrangement
 - Expense = Fair value at grant
 - Tax Benefit
 - NQSOs and SARs: Spread at exercise
 - Restricted stock/RSUs: Spread at vest
 - » Unless 83(b) election is filed, then no reconciliation is necessary
 - ISOs: Spread at exercise or actual gain upon sale (benefit isn't realized until employee sells stock and then only if sale is a disqualify disposition)



ACCOUNTING FOR TAX EFFECTS

- Reconciling tax benefit to expense
 - Non-qualified arrangements
 - Record deferred tax asset as arrangement vests based on fair value
 - True up to actual outcome when tax benefit is realized
 - If benefit **exceeds** expense, record excess to paid-in-capital
 - If benefit is **less than** expense, short-fall is recorded to paid-in-capital or treated as additional tax expense
 - ISOs
 - No tax benefit is assumed prior to realization
 - If company realizes a tax benefit, tax expense is reduced at that that time
 - Only to extent of expense recognized, excess benefits are treated as paid-in-capital



OPTION VALUATION



WIL BECKER, Managing Director/Chartwell Capital Solutions

WHAT ARE WE VALUING?

- The option
- But we also will need the value of the underlying security or the company's equity value
- 409A vs. 123(R)



VALUATION METHODS

- **Black-Scholes**
 - Widely accepted
 - Better suited for:
 - **Limited** option activity
 - **Stable** stock
 - Option expense is **immaterial**
 - **Low** option turnover
- **Lattice Models**
 - Can be complex and difficult to audit
 - Better suited for:
 - **Significant** option activity
 - **High** level of stock **volatility**
 - Option expense is **significant**
 - **High** option turnover



BLACK-SCHOLES INPUTS

- Exercise price
- Risk free rate
- Underlying stock price
- Expected term
- Expected volatility



PRICE AND RATE

- Exercise price
 - Base exercise price at time of issuance
- Risk free rate
 - Government backed securities
 - Download from <http://federalreserve.gov/datadownload/Choose.aspx?rel=H.15>
 - Should match expected term



UNDERLYING STOCK PRICE VALUATION

- Simple capital structure
 - Defined as a one class stock
- Cost Approach
 - Adjusted book value
- Market Approach
 - Publicly-traded companies
 - Mergers and acquisitions
- Income Approach
 - Capitalized cash flow
 - Discounted cash flow



CLASSES AND METHODS

- **Complex capital structure**
 - Defined as one or more classes of:
 - Preferred stock
 - Convertible notes
 - Options
 - Warrants
 - ...and other derivatives
- **Equity Value Allocation Methods**
 - Current value method
 - Probability Weighted Expected Return Method (PWERM)
 - Option Pricing Model (OPM)



EXPECTED TERM

- Not contractual term
- Review of employee characteristics
- SAB 107, as extended by SAB 110:
 - still being used as the **standard** (Note: there is an alternative, more complicated method)
 - Calculation = **$(\text{Weighted Average Vesting} + \text{Contract Term})/2$**

Example

10 year options with 4 yr graded vesting period

$$(((1+2+3+4) / 4) + 10) / 2 = 6.25$$

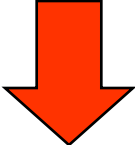






BLACK-SCHOLES EXAMPLE

- Exercise price – \$7.00
- Risk free rate – 3.0%
- Stock price – \$7.00
- Expected term – 6.25 yr
- Expected volatility – 54%
- Value of option = \$3.83



MODEL INPUTS AND VALUATION EFFECT

Exercise price		Decreases
Risk free rate		Increases
Stock price		Increases
Expected term		Increases
Expected volatility		Increases



BEST PRACTICES AND AUTOMATION



JEREMY WRIGHT, VP, Customer Services / Two Step Software, Inc.

FOUR QUESTIONS

1. What calculations do I need to run?
2. When do I run these calculations?
3. Who is involved in the process?
4. What system should I use for this?
 - Choice 1: Microsoft Excel
 - Choice 2:
Equity Management System such as Equity Focus
and others



CALCULATION 1: BLACK-SCHOLES (BSM)

- Calculation
 - Plenty of Excel calculators on the web
 - All Equity Management Systems can handle it for you
- Complexity does not come in the actual calculation, but instead:
 - In keeping track of this data overtime
 - Determining the inputs and tracking back-up information



BSM INPUT 1: EXPECTED TERM

- SAB 107 calculation can be done in Excel, but all systems will do this automatically for you
- Back-Up Details Needed
 - Justification: not having enough **historical data** to accurately do the alternative method
 - A sample of the calculation used to determine the weighted average vesting



BSM INPUT 2: INTEREST RATE

- Interest Rate

- Most systems can download these for you, **and** track over time
- If your expected term is something like 6.25, you need to **average** the 5 and 7 year terms until you get to a 6.25 result

- Back-Up Details

- A spreadsheet or **report** showing the interest rates downloaded from the Federal Reserve
- If your expected term is not a year in the spreadsheet, an **example of the calculation** being used to get to the averages



BSM INPUT 3: VOLATILITY

- Volatility

- Go to **Yahoo finance** to download their daily stock prices
- Two Step provides a spreadsheet that you can **feed your peers' daily closing prices** into for historical volatility calculations.
 - Email me at jwright@twostep.com and I'll send you a download link.

- Back-Up Details

- A list of your peer companies
- Any changes in your peers from last year
- A spreadsheet showing the auditor how you came up with your volatility



CALCULATION 2: AMORTIZATION SCHEDULE

- Total Value:
 - Number Granted * Fair Value Per Share calculated by BSM
 - The Total Value is then amortized over the service period, but this amount is haircut by your forfeiture rate
- You will need to track the following for each option grant:
 - The total fair value for that grant
 - The forfeiture rate applied to that grant
 - The expensing schedule on grant
 - The expense recognized each year for each grant



CALCULATION 2: AMORTIZATION SCHEDULE

- Forfeiture Rate

- If you have enough historical data, this can be calculated based on the **percentage of shares forfeited against grants in each year** of grant.
- Most systems have a forfeiture rate report that can pull this data for you
- Use this to:
 - (a) determine your forfeiture rate for grants going forward
 - (b) compare the forfeiture rate you used against your actual percentage of forfeitures to determine how a true-up will affect your expensing



CALCULATION 2: AMORTIZATION SCHEDULE

- True-Up Routine
 - Catch-up all the expensing you need to do within a year
 - based on actual number of forfeitures (pre-vest cancellations) and actual vesting events
 - If your forfeiture rate estimate is close to your actual forfeitures:
 - little difference in your actual expensing.
 - If not, could result in:
 - a credit or
 - taking more expense
 - At the end of the service period, you will have expensed the total value



YOUR FAS 123R RESPONSIBILITIES ... AND WHEN TO DO THEM

1. Determine your Black-Scholes Inputs
2. Determine your Forfeiture Rate
3. Run your expense
4. Report to your Auditor



YOUR FAS 123R RESPONSIBILITIES ... AND WHEN TO DO THEM

1. Determine your Black-Scholes Inputs

- If you can justify it to your auditor, determine these at the beginning of each fiscal year
 - use throughout the fiscal year
- Most accurate way is to determine these on each grant date.
 - An equity management system will help you do this
- Store documentation on how you determined each of these inputs

2. Determine your Forfeiture Rate

- Calculate at the beginning of the fiscal year
 - use for all grants in that year
- Calculate at the end of the fiscal year to determine if your estimate was good and if you:
 - (a) need to adjust the rate going forward and
 - (b) true-up your grants to ensure you are taking enough expense
 - NOTE: Some true-up every year
- Store documentation on how you calculated this rate



YOUR FAS 123R RESPONSIBILITIES ... AND WHEN TO DO THEM

3. Run your expense

- Review that all grants are in the system and are accurate
- Review that all forfeitures are correctly entered (since these will result in a credit)
- Perform a true-up if needed
- Review the expense recognition

4. Report to your Auditor

- End of each fiscal year
- Minimum disclosures are listed in section A240 of FAS 123R;
 - Next slide has a sample of a equity management system report listing these disclosures
- Provide as much back-up detail as possible on how you came to these numbers.
 - This is where keeping good documentation will come in handy



SAMPLE REPORTS - DISCLOSURE

Valuation Disclosure
Period: 1/1/2006 - 12/31/2006

Worldwide Technologies, Inc.

Report Date: 2/24/2009 4:56 PM

Plan Name: 2006 Stock Option Plan
 Fair Market Value: \$2.00 As of: 6/15/2006
 Start Date: 2/2/2006
 Termination Date: 2/2/2026

Valuation Summary:

	Range	Weighted Average
Volatility:	65.00% - 65.00%	65.00%
Risk-Free Interest Rate:	6.25% - 6.25%	6.25%
Expected Term:	6.25 - 6.50	6.43
Dividend Rate:	0.00% - 0.00%	0.00%
Fair Value Per Share on Grant Date:	\$0.99 - \$1.34	\$1.17

Option Activity:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contract Term	Aggregate Intrinsic Value
Prior Outstanding as-of 12/31/2005:	0.00	\$0.00		
Grants:	14,000.00	\$1.75		
Exercises:	0.00	\$0.00		
Forfeitures:	0.00	\$0.00		
Expirations:	0.00	\$0.00		
Total Outstanding as-of 12/31/2006:	14,000.00	\$1.75	9.28	\$3,500.00
Total Exercisable as-of 12/31/2006:	0.00	\$0.00	0.00	\$0.00
Total Unvested as-of 12/31/2006:	14,000.00	\$1.75	9.28	\$3,500.00
Total Vested or Expected to Vest as-of 12/31/2006:	9,627.60	\$1.73	9.27	\$2,562.61

Unrecognized Compensation:

Total Unrecognized Compensation as-of 12/31/2006: \$8,865.48
 Weighted Average Period to recognize unrecognized compensation: 1.81



SAMPLE REPORTS – EXPENSE RECOGNITION

Valuation Ledger - Expense Recognition Period: 1/1/2006 - 12/31/2006

Worldwide Technologies, Inc.

Report Date: 2/24/2009 5:04:23 PM

Date of Grant	Option Number	Participant	Plan	Amortization Method	End of Service Period	Number Granted	Fair Value Per Share	Vested to Date (Shares)	Vested to Date (Value)	Forfeiture Rate	Shares Forfeited	Vested or Expected to Vest	Projected Fair Value	Expense Reported Prior to Period	Projected Expense for Period	True-Up for Period	Expense to Report for Period	Total Reported Expense	Remaining Expense
2/2/2006	1	Brown, Jane	2006 Stock Option Plan	Modified Straight-Line	2/1/2011	5,000.00	\$1.01	0.00	\$0.00	20.00	0.00	3,295.54	\$3,322.62	\$0.00	\$735.86	\$166.15	\$902.01	\$902.01	\$2,420.61
2/2/2006	2	Thomas, Sawyer	2006 Stock Option Plan	Modified Straight-Line	2/1/2010	1,000.00	\$0.99	0.00	\$0.00	20.00	0.00	723.53	\$718.35	\$0.00	\$181.16	\$40.90	\$222.06	\$222.06	\$496.29
2/2/2006	3	Clark, Tanya	2006 Stock Option Plan	Modified Straight-Line	2/1/2010	1,000.00	\$0.99	0.00	\$0.00	20.00	0.00	723.53	\$718.35	\$0.00	\$181.16	\$40.90	\$222.06	\$222.06	\$496.29
6/16/2006	4	Anderson Jr., Wally	2006 Stock Option Plan	Modified Straight-Line	6/15/2011	5,000.00	\$1.34	0.00	\$0.00	20.00	0.00	3,035.89	\$4,081.11	\$0.00	\$586.33	\$75.85	\$662.18	\$662.18	\$3,418.92
6/16/2006	5	Smith, Susan	2006 Stock Option Plan	Modified Straight-Line	6/15/2010	1,000.00	\$1.32	0.00	\$0.00	20.00	0.00	666.51	\$882.32	\$0.00	\$144.35	\$18.67	\$163.02	\$163.02	\$719.30
6/16/2006	6	Toriz, Joanne	2006 Stock Option Plan	Modified Straight-Line	6/15/2010	1,000.00	\$1.32	0.00	\$0.00	20.00	0.00	666.51	\$882.32	\$0.00	\$144.35	\$18.67	\$163.02	\$163.02	\$719.30
Totals:						14,000.00		0.00	\$0.00		0.00	9,111.50	\$10,605.07	\$0.00	\$1,973.21	\$361.15	\$2,334.36	\$2,334.36	\$8,270.71

Current Period Summary

Projected Expense:	\$1,973.21
True-Up:	\$361.15
Expense to Report:	\$2,334.36



THE PLAYERS

- **Stock Administrator**

- Typical Players: HR department, Outside law firm, in-house paralegal
- Responsibilities:
Create paperwork for optionees, process grants, exercises, and cancellations
- No direct FAS 123R work, but their work feeds directly into the company's FAS 123R responsibilities

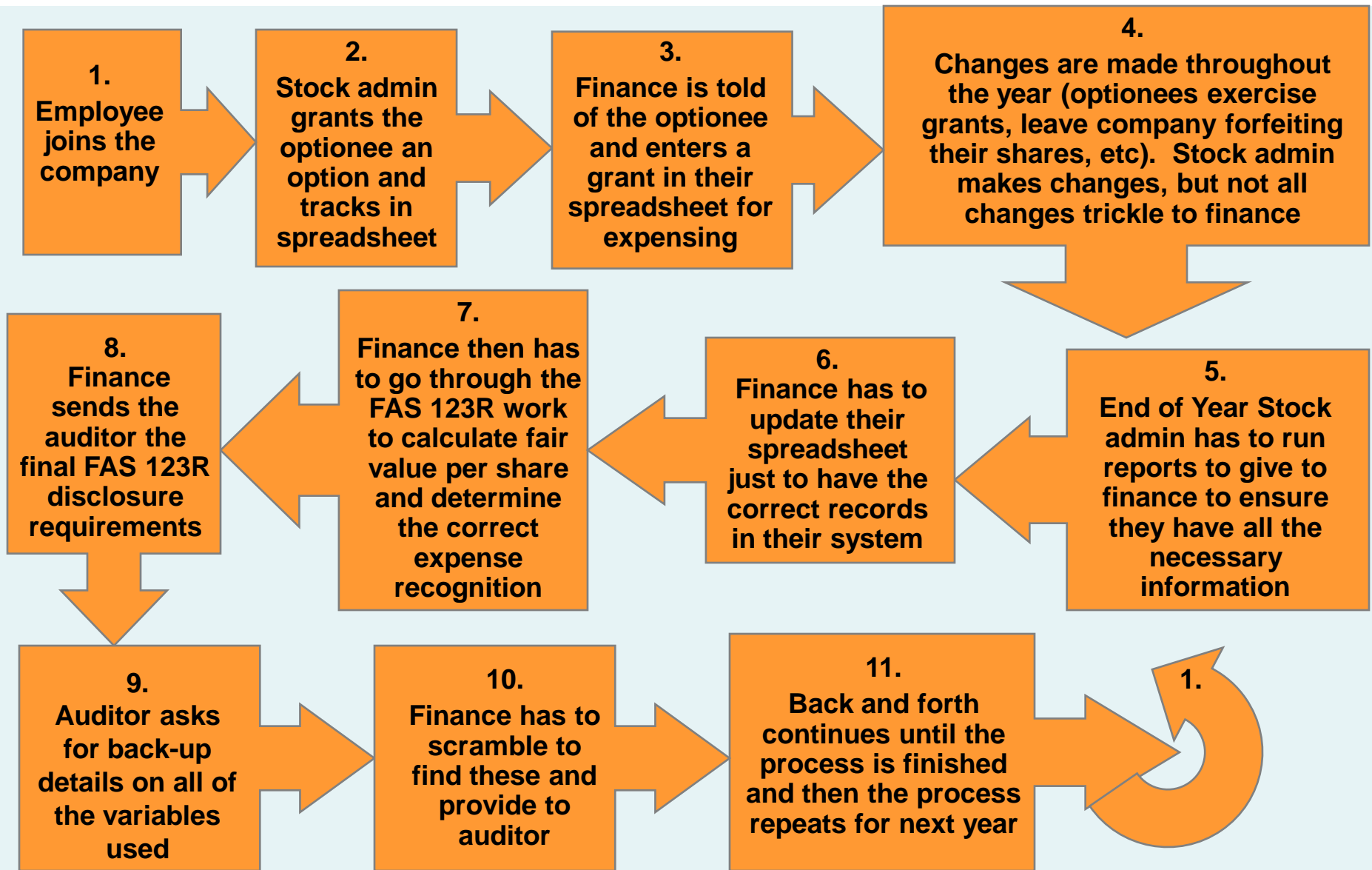
- **Finance**

- Typical Player: CFO, Controller
- Responsibilities:
Determine variables for BSM, generate fair value and expense recognition schedules for grants, run expensing reports to give to auditor

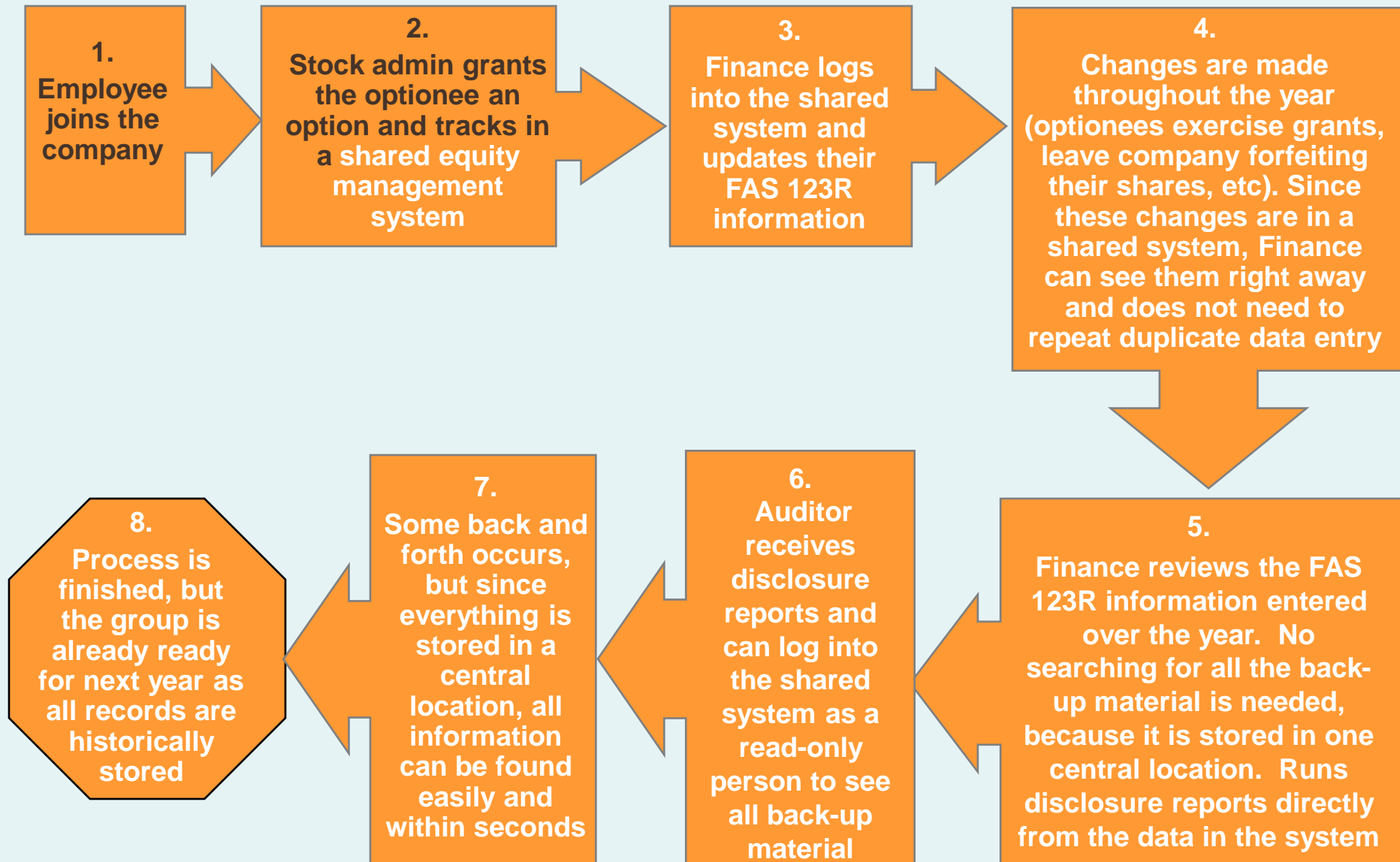
- **Auditor**



TYPICAL CURRENT PROCESS



THERE'S A BETTER WAY



WHY?

1. All work is done in **one place**
 1. duplicate data entry (and possible mistakes) avoided
2. Data changes are **audited**; you can see who made it and when
3. Historical information is **stored**; no more looking for that Excel file that existed in 2006.
 1. At the click of a button, see how information looked in 2006.
4. All **back-up detail** relating to your assumptions is in one place.
 1. No more scurrying around trying to find it.
5. **Reports** can be run at the click of a button
6. **Signed documents** can be stored
7. All information can be **shared** across all parties
8. Calculations can be run **across** all your grants
9. Only disadvantage = cost
 1. **if you have more than 50 participants**, an equity management system will make your FAS 123R work more manageable



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Thank You