



Executing Exceptional Expensing for ESPP

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Materials

www.sos-team.com/pdfs/executing_espp.pdf



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Stock & Option Solutions (SOS) is a leading stock administration staffing, consulting and outsourcing firm within the equity compensation marketplace.

SOS People/Staffing

Tactical to senior experienced consultants

- Day-to-day assistance
- Coverage for vacancies
- Vacation, medical, maternity leaves
- Project assistance
- Backing during high-volume
- Throughout United States

Flexible lengths of assignments

- Full or part-time assistance
- On-site or remote
- Temp to perm Services

Dedicated call centers

- Tender offers
- New plan implementations
- High-activity periods

Fulfillment Center

- Printing & mailing of participant communications

SOS Projects/Consulting

- Best Practice Assessment / Implementation
- SOS 6039 Full Service Outsourcing
- Equity Accounting Assistance
- Custom Reporting
- Software Upgrades
- Stock Plan Training
- Vendor Analysis & RFP

Transactions

- Mergers & Acquisitions
- Option Exchanges / Repricings
- Vendor or System Conversions
- IPO (pre and post)

Applications

- SOS Email Xpress
- SOS Participant Portal
 - Online grant agreements, ESPP Enrollment, confirmation statements, tax information, 6039 consent
- SOS 6039 Xpress
- Tender Offer Website
- Consent Website (6039, Proxy)

SOS Outsourcing

- The first complete outsourcing solution
- Manage some or all aspects of your stock plan administration
- Financial, Accounting & Tax Reporting
- Special Projects and Onsite Needs



Accounting Overview

- APB Opinion No. 25
 - Non-compensatory
- SFAS No. 123 (originally)
 - Non-compensatory if:
 - No “option-like” features
 - Discount no greater than 5%
- SFAS No. 123 (Revised) (Now ASC 718)
 - Essentially the same as SFAS No. 123

Accounting Overview

- Staff Technical Bulletin 97-1 (STB 97-1) now 718-50
 - Grant date valuation
 - Value of ESPP has three components
 - Discount: Value of discount on enrollment date
 - Look-Back: Proportionate value of call option
 - No Share Limit: Proportionate value of put option
 - Represents additional shares that participants can purchase when the price declines during the period
 - Each purchase period is treated as a separate option

Value of ESPP Components

Plan Feature	Description	Fair Value Component
Discount	% of discount	Discount
Lookback	Ability to purchase at LOWER market value between beginning of offering period market value & purchase date market value. Ability to benefit from <u>increase</u> in stock price.	Call Black-Scholes Option
No beginning price limit	Ability to purchase MORE shares if price declines (number of shares to be purchased not limited by beginning price). Ability to benefit from <u>decrease</u> in stock price.	Put Black-Scholes Option

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ESPP Fair Value Inputs

Input	Description
Market Value	Market Value on Enrollment Date
Price	Market Value * (1-Discount %)
Expected Term	Purchase period length <ul style="list-style-type: none"> • 6-months = .5 • 12 months = 1 • 18 months = 1.5 • 24 months = 2 No "guess work" like with options
Interest Rate	Treasury rates for: <ul style="list-style-type: none"> • 6 months • 1 year • (1 year + 2 year) / 2 • 2 year
Volatility	Same as for options – reflects expected term
Dividend Rate	Reflects expected term

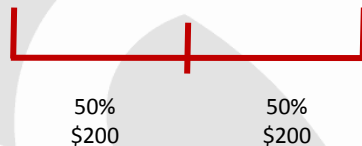
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Attribution

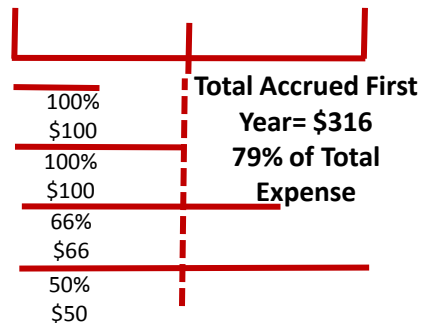
- Fair value of each purchase period is computed separately
 - Expected term is measured from beginning of offering to purchase date
- Expense is recorded over offering period
 - Straight-line attribution appears to be permissible under FAS 123(R) / ASC 718
- Total expense is estimated based on contribution levels
- Estimated forfeiture rate should be applied
 - True up at purchase (more later)

Graded Attribution Method

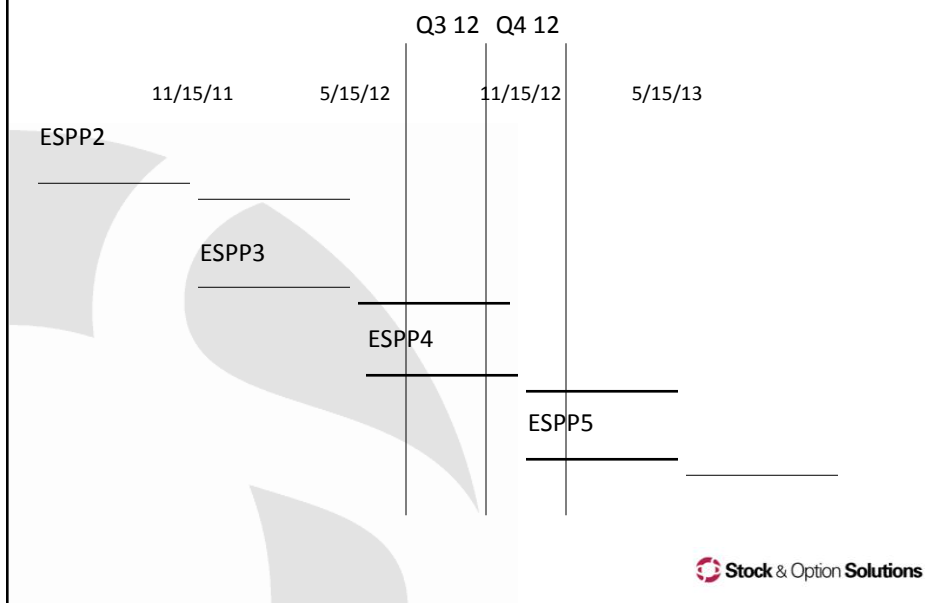
Straight-line Attribution
 \$400 Grant-date
 Fair Value
 2-year Offering Period



Graded Attribution
 \$400 Grant-date
 Fair Value per Tranche
 2-year Offering Period



Client ESPP Graphic



Accounting Treatment

- Staff Technical Bulletin 97-1 (STB 97-1)
 - Withdrawals/decreases in contribution rates
 - Voluntary withdrawal or reduction in contributions is not considered a forfeiture
 - Record expense based on original contribution rate
- True Up to “actual contributions” ONLY for:
 - Salary changes, bonuses, etc.
 - Terminations
- DO NOT True Up for:
 - Voluntary Withdrawals
 - Decreases in contribution rates
 - Hitting share limits because stock price dropped
 - This possibility reflected in the PUT component of the Fair Value

MODIFICATION ACCOUNTING

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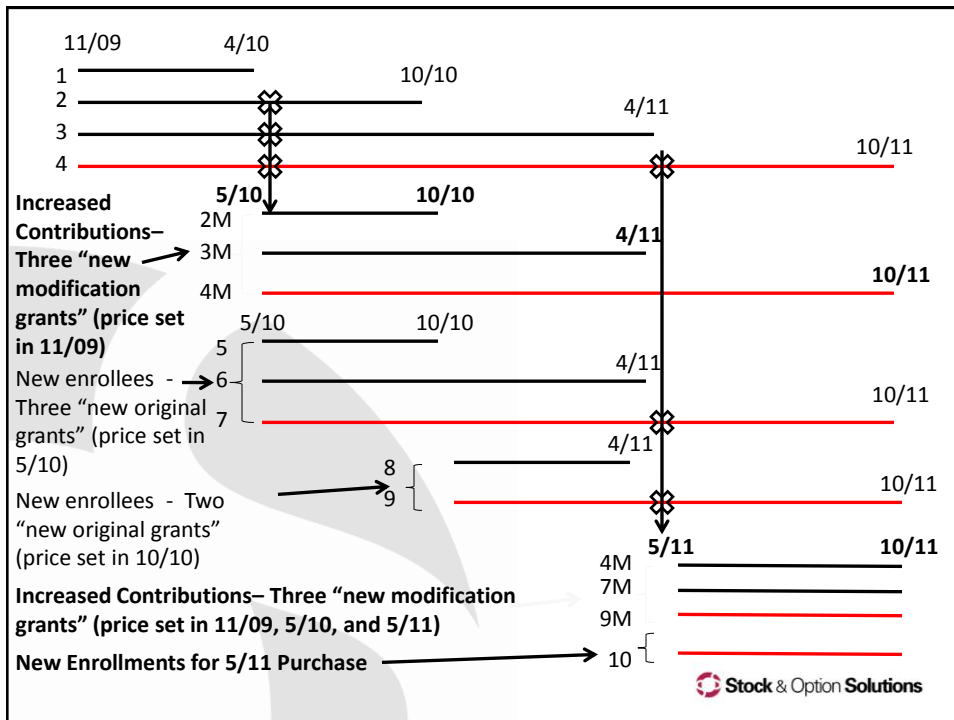
Accounting Treatment

- Staff Technical Bulletin 97-1 (STB 97-1) now 718-50
 - Modification accounting required for
 - Increases in contributions during the offering
 - New fair value for additional shares that can be purchased
 - Automatic withdrawal/re-enrollment when price declines
 - Resets / Rollovers = incremental expense
 - If modification accounting is triggered
 - Continue to accrue expense originally computed for the offering
 - Compute incremental cost associated with modification and accrue over remaining offering period

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Increases During Offering Period

- Per ASC Topic 718-50-55-28
- “...an **election by an employee to increase withholding amounts (or percentages) for future services ... is a modification to the terms of the award** to that employee, which, in substance, is similar to an exchange of the original award for a new award with different terms. Accordingly, the fair value of an award under an employee share purchase plan with variable withholdings shall be determined at the grant date... based on the estimated amounts (or percentages) that a participating employee initially elects to withhold under the terms of the plan. **After the grant date... any increases in withholding amounts (or percentages) for future services shall be accounted for as a plan modification in accordance with the guidance in paragraph 718-20-35-3.**”



Automatic Resets / Restarts

- “Exchange of the original award for a new award with different terms”
- Calculate pre-and post-modification fair values and share estimates
 - All valuation assumptions are the same except strike price
- Example: 1/1/2010 offering with two 6-month purchase periods, stock price is \$10
 - At 7/1/2010 stock price is \$8 and offering resets
 - Fair Value based on 50% volatility, 1% RFR, and 0% dividend

	Pre-Modification	Post-Modification
Fair Value	\$1.98	\$2.31
Estimated Contributions	\$100,000	\$100,000
Estimated Shares	11,765	14,706
Expense	\$23,294	\$33,971
Incremental Expense		\$10,676

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ESTIMATING CONTRIBUTIONS

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Estimating Contributions

- Participant by participant
- (Salary x contribution rate x number of pay periods in purchase period)
 - Include estimated increases to salary starting in month they typically occur
 - For \$25K limit
 - \$25K/enrollment date market value = max shares to purchase in one year
 - For 2nd purchase of year, subtract estimated shares purchase
 - Turn estimated contributions into estimated shares purchased by dividing by estimated purchase price
 - Use min() function in excel to limit purchase to lower of \$25K limit or estimated shares purchased
 - For other limits
 - Calculate # of shares to purchase (easiest if flat # per purchase)
 - Repeat process as for \$25K limit

Example of Contribution Estimates

	D	E	F	G	H	I	J	K	L	M	N	O	AA	AB	AC	AD	AE	AF	AG				
1	Company XYZ - EMPLOYEE STOCK PURCHASE PLAN																						
2	Price at 11/2/09 - \$6.00																						
3																							
4	Last Name	Rate	Rate Incr	New Hire Date	Hours	Updated Contrib	New contrib	Previous Contrib	%	New %	05/06/11	05/11	02/11	Balance at 10/31/2011	Est Share Price	Shares to Purchase	Shares to Purchase	Adjust for Share Limit	Contributions Used				
5		47.90	3.5%	49.576293	40	19.83	-	19.16	1%	No longer with company	\$	\$	331.96	4,316.54	6.00	98.13	946	946	4,314.00				
6		40.09	3.5%	41.49661434	80	33.20	331.96	32.07	1%	10%	\$	\$	331.96	4,316.54	6.00	98.13	946	946	4,314.00				
7		90.56	3.5%	93.7291975	80	74.99	74.99	72.45	1%	1%	\$	\$	74.99	974.81	6.00	191.14	191	191	974.10				
8		51.36	3.5%	53.15868366	80	42.53	42.53	41.09	1%	1%	\$	\$	42.53	552.85	6.00	108.40	108	108	550.80				
9		35.06	3.5%	36.29181753	80	29.03	29.03	28.05	1%	1%	\$	\$	29.03	29.03	6.00	74.01	74	74	377.40				
10		65.92	3.5%	69.12223912	80	942.60	942.60	910.72	20%	20%	\$	\$	942.60	12,253.74	6.00	2,402.69	2,402	2,402	12,250.20				
11		39.29	3.5%	39.63157571	80	158.53	634.11	153.17	5%	20%	\$	\$	634.11	8,243.37	6.00	1,618.35	1,616	1,616	8,241.60				
12		87.08	3.5%	90.12719401	80	144.20	1,442.04	139.33	2%	20%	\$	\$	1,442.04	18,746.46	6.00	3,675.78	3,675	3,675	18,742.50				
13		51.54	3.5%	53.34057765	80	42.67	-	41.23	1%	No longer with company	\$	\$	-	648.92	8,436.91	6.00	1,654.10	1,654	1,654	8,436.40			
14		156.74	3.5%	162.2289921	80	128.78	648.92	125.39	1%	2%	\$	\$	648.92	2,261.04	6.00	404.12	404	404	2,260.40				
15		95.74	3.5%	99.0883125	80	79.27	158.54	76.59	1%	2%	\$	\$	158.54	15,854.14	6.00	3,108.66	3,108	3,108	15,850.80				
16		73.64	3.5%	76.22193653	80	60.98	1,219.55	58.92	1%	20%	\$	\$	1,219.55	13,990.32	6.00	2,625.55	2,625	2,625	13,987.50				
17		62.20	3.5%	64.3765186	80	257.51	1,030.02	248.80	5%	20%	\$	\$	1,030.02	16,561.57	6.00	2,928.94	2,928	2,928	16,548.80				
18		49.01	3.5%	50.72871686	80	81.17	811.66	78.42	2%	20%	\$	\$	811.66	10,914.85	6.00	2,140.17	2,140	2,140	10,914.00				
19		50.70	3.5%	52.4752421	80	419.80	839.60	405.61	10%	20%	\$	\$	839.60	15,906.66	6.00	3,118.95	3,118	3,118	15,901.80				
20		73.99	3.5%	76.74242436	80	51.18	1,223.59	55.11	1%	20%	\$	\$	1,223.59	17,386.62	6.00	3,407.97	3,407	3,407	17,375.70				
21		146.79	3.5%	151.928521	80	607.71	1,336.97	587.16	5%	11%	\$	\$	1,336.97	19,219.15	6.00	2,001.99	2,001	2,001	19,205.10				
22		47.43	3.5%	49.08727879	80	392.70	785.40	379.42	10%	20%	\$	\$	785.40	910.47	6.00	2,329.81	2,329	2,329	918.20				
														298.96	16,886.48	6.00	3,311.08	3,311	3,311	16,886.10			

Another Example

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Company	Status	Dept	ID	Name	ESPP %	Annual Salary	Semi-Monthly	Q4 2012 Contribution	Q1 2013 Contribution	Q2 2013 Contribution	Total Contributions	Offering Shares	Estimated Purchase
NBP	A	21000	1		15%	\$ 94,999.92	\$ 3,958.33	\$ 1,781.25	\$ 3,562.50	\$ 1,781.25	\$ 7,124.99	3,598	
NBP	A	21000	1		7%	\$ 150,000.00	\$ 6,250.00	\$ 1,312.50	\$ 2,625.00	\$ 1,312.50	\$ 5,250.00	2,651	
NBP	A	21000	1		10%	\$ 96,000.00	\$ 4,000.00	\$ 1,200.00	\$ 2,400.00	\$ 1,200.00	\$ 4,800.00	2,424	
NBP	A	21000	1		15%	\$ 105,000.00	\$ 4,375.00	\$ 1,968.75	\$ 3,937.50	\$ 1,968.75	\$ 7,875.00	3,977	
NBP	A	21000	1		15%	\$ 162,750.24	\$ 6,781.26	\$ 3,051.57	\$ 6,103.13	\$ 3,051.57	\$ 12,206.27	6,164	
NBP	A	21000	1		15%	\$ 87,499.92	\$ 3,645.83	\$ 1,640.62	\$ 3,281.25	\$ 1,640.62	\$ 6,562.49	3,314	
NBP	A	21000	1		15%	\$ 84,000.00	\$ 3,500.00	\$ 1,675.00	\$ 3,350.00	\$ 1,675.00	\$ 6,300.00	3,181	
NBP	A	21000	1		7%	\$ 109,000.00	\$ 4,360.00	\$ 1,890.00	\$ 3,780.00	\$ 1,890.00	\$ 7,560.00	3,780	
NBP	A	21000	1		15%	\$ 94,000.00	\$ 3,760.00	\$ 1,880.00	\$ 3,760.00	\$ 1,880.00	\$ 7,520.00	3,760	
NBP	A	21000	1		15%	\$ 145,000.00	\$ 5,800.00	\$ 2,900.00	\$ 5,800.00	\$ 2,900.00	\$ 11,600.00	5,800	
NBP	A	21000	1		15%	\$ 165,000.00	\$ 6,600.00	\$ 3,300.00	\$ 6,600.00	\$ 3,300.00	\$ 13,200.00	6,600	
NBP	A	21000	1		15%	\$ 115,000.00	\$ 4,600.00	\$ 2,300.00	\$ 4,600.00	\$ 2,300.00	\$ 9,200.00	4,600	
NBP	A	21000	1		5%	\$ 87,000.00	\$ 3,480.00	\$ 1,740.00	\$ 3,480.00	\$ 1,740.00	\$ 6,960.00	3,480	
NBP	A	21000	1		15%	\$ 97,000.00	\$ 3,880.00	\$ 1,940.00	\$ 3,880.00	\$ 1,940.00	\$ 7,760.00	3,880	
NBP	A	21000	1		15%	\$ 160,000.00	\$ 6,400.00	\$ 3,200.00	\$ 6,400.00	\$ 3,200.00	\$ 12,800.00	6,400	
NBP	A	21200	1		15%	\$ 123,000.00	\$ 4,920.00	\$ 2,460.00	\$ 4,920.00	\$ 2,460.00	\$ 9,840.00	4,920	
NBP	A	21200	1		1%	\$ 40,000.00	\$ 1,600.00	\$ 800.00	\$ 1,600.00	\$ 800.00	\$ 3,200.00	1,600	
NBP	A	21200	1		5%	\$ 54,000.00	\$ 2,160.00	\$ 1,080.00	\$ 2,160.00	\$ 1,080.00	\$ 4,320.00	2,160	
NBP	A	21200	1		15%	\$ 107,000.00	\$ 4,280.00	\$ 2,140.00	\$ 4,280.00	\$ 2,140.00	\$ 8,560.00	4,280	
NBP	A	21200	1		15%	\$ 52,000.00	\$ 2,090.00	\$ 1,045.00	\$ 2,090.00	\$ 1,045.00	\$ 4,180.00	2,090	
NBP	A	21200	1		8%	\$ 55,000.00	\$ 2,200.00	\$ 1,100.00	\$ 2,200.00	\$ 1,100.00	\$ 4,400.00	2,200	

Dept	Dept	Q4 2012 Contribution	Q1 2013 Contribution	Q2 2013 Contribution	% Q4 2012	% Q1 2013	% Q2 2013	Expense	New Dept
20500	020500	\$ 1,781.25	\$ 3,562.50	\$ 1,781.25	1.04%	1.04%	1.04%	1,051	20500
21000	021000	\$ 26,840.35	\$ 53,680.69	\$ 26,840.35	15.71%	15.71%	15.71%	15,832	21000
21200	021200	\$ 16,043.83	\$ 32,087.66	\$ 16,043.83	9.39%	9.39%	9.39%	9,464	21200
21300	021300	\$ 9,812.89	\$ 19,625.79	\$ 9,812.89	5.74%	5.74%	5.74%	5,788	21300
21500	021500	\$ 1,950.00	\$ 3,900.00	\$ 1,950.00	1.14%	1.14%	1.14%	1,150	21500
31000	031000	\$ 2,968.24	\$ 5,936.48	\$ 2,968.24	1.75%	1.75%	1.75%	1,769	31000
31500	031500	\$ 5,925.00	\$ 11,850.00	\$ 5,925.00	3.47%	3.47%	3.47%	3,485	31500
32000	032000	\$ 13,834.74	\$ 27,669.48	\$ 13,834.74	8.10%	8.10%	8.10%	8,161	32000
32500	032500	\$ 1,743.75	\$ 3,487.50	\$ 1,743.75	1.02%	1.02%	1.02%	1,029	32500
33000	033000	\$ 8,062.82	\$ 16,125.63	\$ 8,062.82	4.72%	4.72%	4.72%	4,756	33000
33500	033500	\$ 1,862.97	\$ 3,725.94	\$ 1,862.97	1.09%	1.09%	1.09%	1,099	33500
34000	034000	\$ 4,674.98	\$ 9,349.97	\$ 4,674.98	2.74%	2.74%	2.74%	2,757	34000
41000	041000	\$ 11,363.50	\$ 22,727.00	\$ 11,363.50	6.65%	6.65%	6.65%	6,703	41000
42500	042500	\$ 3,000.02	\$ 6,000.04	\$ 3,000.02	1.76%	1.76%	1.76%	1,770	42500
43500	043500	\$ 7,569.75	\$ 15,139.51	\$ 7,569.75	4.43%	4.43%	4.43%	4,465	43500
51500	051500	\$ 2,193.75	\$ 4,387.50	\$ 2,193.75	1.28%	1.28%	1.28%	1,294	51500
51600	051600	\$ 7,237.50	\$ 14,475.01	\$ 7,237.50	4.24%	4.24%	4.24%	4,269	51600
51000	051000	\$ 10,697.51	\$ 21,395.02	\$ 10,697.51	5.99%	5.99%	5.99%	5,958	51000

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Forfeiture Rate Types

- Annualized Forfeiture Rates
 - Most Frequently Used
 - What % of grants forfeited annually?
 - 5% chance each year of forfeiting
 - Formula to apply:
 - Service Period = Vest Date minus Grant Date
 - $(1 - \text{Rate})^{\text{Service Period}}$
- Flat/Aggregate Forfeiture Rates
 - Haircut by set amount
 - 5% off the top
 - Problems:
 - Not very complex or flexible
 - Does not take varied vesting schedules into account
 - Tends to overstate forfeiture rate when applied

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Aggregate Rate by Year Annualized

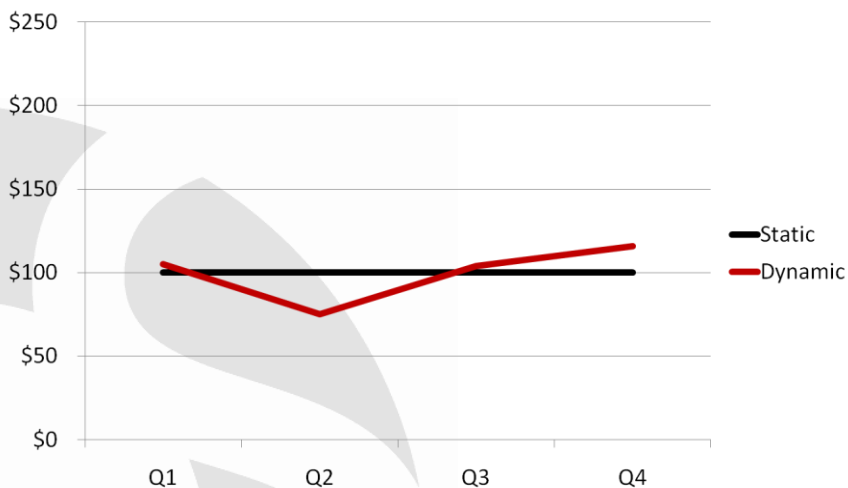
- Aggregate Forfeiture Rate Annualized by Average Vest Period / Opportunity
 - For grants granted within a given year (e.g. 2010, 2011) up through current
 - $1 - ((1 - \text{Aggregate Forfeiture Rate \%})^{1 / \text{Average Vest Period in each year}})$

Year	Agg Forf Rate % for All grants granted this year	Avg Vest Period	Annualized Forfeiture Rate
2011	7%	2.5	3%
2010	10%	2.5	4%
2009	12%	2.5	5%

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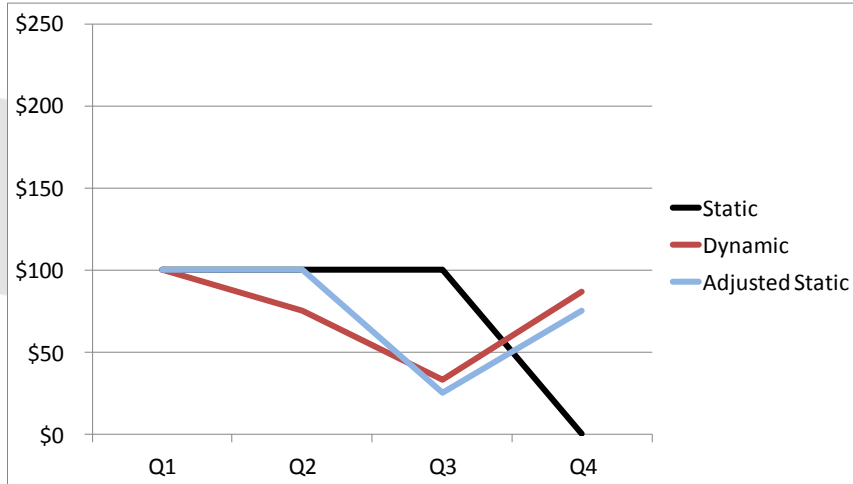
Static vs. Dynamic: Accurate Rates



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Static vs. Dynamic: Rate Too Low



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Pros & Cons

	Pros	Cons
Static	<ul style="list-style-type: none"> Perfectly even accrual if forfeiture perfectly accurate Examples in the standard use this method 	<ul style="list-style-type: none"> Not intuitive – forfeited grants remain “in pool” / on reports Large company events must be included in estimated rate (execs leaving, RIFs, etc.) – Ongoing adjustments to rate required
Dynamic	<ul style="list-style-type: none"> Less dramatic swings in expense if estimate not accurate Takes time into account More intuitive? Some Big 4 firms call “best practice” 	<ul style="list-style-type: none"> No documentation – not in standard, etc. Contradicts examples in standard Difficult to perform calculations in a spreadsheet

*Combining methods of application can result in large true ups in expense.

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TRUING UP AFTER PURCHASE

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After Purchase

- Reconcile actual contributions used to estimated
- Where there are differences, categorize them
 - **Salary increase/decrease** = True up
 - **Bonus / Leave** = True up (if included wage type)
 - **Termination** = True up to zero shares, expense reversed
 - Change in contribution %
 - Increase = modification accounting
 - Decrease = ignore
 - Withdrawal = Ignore
- If system requires entry of “actual contributions” calculate outside and enter
- DO NOT use Purchase report to true up

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TAX ACCOUNTING

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ESPP Tax Accounting Overview

- No Deferred Tax Asset (DTA) as expense recognized (as would be for NQ/RSUs)
 - No tax deduction at purchase
 - No tax deduction at all if holding period met
- Tax Accounting calculation done **ONLY** at disqualifying disposition
 - Calculate windfall (i.e. excess) or “shortfall” (i.e. deficiency)
 - Compare expense to actual tax deduction, if expense > then windfall, if expense < then “shortfall”
- Never impacts DTA balance

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ESPPs - Excess Example

- If actual tax benefit greater than “estimated tax benefit”, excess treated as additional paid-in capital and “estimated tax benefit” reduces tax expense in year of disqualifying disposition
 - If actual > estimated
 - Excess tax benefit = APIC
 - Estimated tax benefit = reduces tax expense
 - Example
 - Actual \$4,800 > estimated \$4,000
 - \$800 = APIC AND
 - \$4,000 reduction to tax expense

Actual Tax Benefit	Estimated Tax Benefit	Result
\$4,800	\$4,000	Excess = \$800 (Increase to APIC AND \$4,000 reduction to Tax Expense)

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ESPPs – “Deficiency” Example

- No DTA booked, so no real deficiency
- If actual tax benefit \leq “estimated tax benefit”, no additional paid-in capital and the actual tax benefit reduces tax expense
 - If actual < estimated
 - APIC = \$0
 - Actual tax benefit = reduces tax expense
 - Example
 - Actual \$3,000 < estimated \$4,000
 - \$0 = APIC AND
 - \$3,000 reduction to tax expense

Actual Tax Benefit	Estimated Tax Benefit	Result
\$3,000	\$4,000	“Deficiency” = \$1,000 (\$0 APIC AND \$3,000 <u>Reduction</u> to Tax Expense)

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EARNINGS PER SHARE

Basic EPS

- Only in period of purchase
- Weight shares for time they were “Common stock” during the period

Diluted EPS: Treasury Stock Method Steps in 4 Easy (?) Steps

1. Weight shares for time outstanding during period (WSO)
 - Enrollment or purchase occurred during the period
2. Calculate exercise proceeds & “buyback shares”
 - A. Exercise price: (Purchase Price * WSO)
 - B. Avg unamortized expense: (((Beg. Unamortized Expense + Ending Unamortized Expense) / 2) * (WSO / Total Shares))
 - C. Sum 3 components/Avg Market Value = total “buyback shares”
3. If buyback shares > WSO (anti-dilutive), exclude grant
4. Weighted shares minus buyback shares = dilutive shares to include in diluted EPS calc in addition to common stock

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SYSTEM LIMITATIONS

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Common System Limitations

- No ESPP Expense
- Expense in aggregate, no breakdown by dept / cost center
 - Easy solution = Calculate % of contributions for each dept, allocation expense based on %
- No straight-line
- No modification accounting
- No tax accounting
- No diluted EPS

Solutions

- The Good News:
 - All the “options” are the SAME
 - Same fair value, same vest schedule, etc.
 - Expense CAN be done in aggregate (in a spreadsheet or MS Access database) then divided into reporting entities
 - Black-Scholes calculators in Excel for ESPP (3 components) widely available
 - NASPP website, for one!
 - Can be reformatted into horizontal

Spreadsheet Example

Plan Attributes														
Type	Incremental / Total Expense Per Share	Enrollment Date	Purchase Date	Modification Date	Tranche #	Begin Expense Date	Original Estimated Contributions	Adjusted Estimated Contributions (for Salary Increase)	Original Estimated Shares Purchased	Adjusted Estimated Shares Purchased	Price Reset or Increase	Additional Shares from Contribution	Expense for Additional Shares	Total Expense
Original	\$ 0.6799	11/1/2009	5/1/2010		1	11/1/2009	\$ 71,762.36	\$ 71,762.36	44,670	44,670	-	\$ -	\$ -	\$ 30,372.17
Original	\$ 1.1373	11/1/2009	10/31/2010		2	11/1/2009	\$ 74,247.61	\$ 74,247.61	46,217	46,217	-	\$ -	\$ -	\$ 52,561.52
Original	\$ 1.3320	11/1/2009	5/1/2011		3	11/1/2009	\$ 74,247.61	\$ 74,247.61	46,217	46,217	-	\$ -	\$ -	\$ 61,562.64
Original	\$ 1.4139	11/1/2009	10/31/2011		4	11/1/2009	\$ 74,931.98	\$ 74,931.98	46,643	46,643	-	\$ -	\$ -	\$ 65,948.44
Pre	\$ 6.2333	11/1/2009	10/31/2010	5/1/2010	2	5/1/2010	\$ 201,990.06		125,733	-	-	\$ -	\$ -	\$ -
Post	\$ -	11/1/2009	10/31/2010	5/1/2010	2	5/1/2010	\$ 201,990.06		125,733	-	79,516	\$ 495,651.00	\$ -	\$ 495,651.00
Pre	\$ 6.4641	11/1/2009	5/1/2011	5/1/2010	3	5/1/2010	\$ 201,990.06		125,733	-	-	\$ -	\$ -	\$ -
Post	\$ -	11/1/2009	5/1/2011	5/1/2010	3	5/1/2010	\$ 201,990.06		125,733	-	79,516	\$ 513,995.72	\$ -	\$ 513,995.72
Pre	\$ 6.5826	11/1/2009	10/31/2011	5/1/2010	4	5/1/2010	\$ 205,460.10		127,893	-	-	\$ -	\$ -	\$ -
Post	\$ -	11/1/2009	10/31/2011	5/1/2010	4	5/1/2010	\$ 205,460.10		127,893	-	81,250	\$ 534,835.46	\$ -	\$ 534,835.46
Original	\$ 2.6311	5/3/2010	10/29/2010		1	5/3/2010	\$ 87,539.94		13,053	13,053	-	\$ -	\$ -	\$ 34,344.01
Original	\$ 3.3677	5/3/2010	4/29/2011		2	5/3/2010	\$ 73,791.62		11,003	11,003	-	\$ -	\$ -	\$ 37,054.87
Original	\$ 4.9948	5/3/2010	10/31/2011		3	5/3/2010	\$ 76,373.62		11,388	11,388	-	\$ -	\$ -	\$ 56,880.29

Spreadsheet Example Continued

Fair Value of ESPP Option									
INPUT VARIABLES								Fair Value With Look-Back	
Discount:	Current Market Value	Purchase Price	Length of Offering/ Lookback	Volatility:	Dividends:	Risk-Free Interest Rate:	FV (Beginning Price Limit does NOT apply:)	Total Expense	
15%	1.89	1.89	0.5	0.7506	0	0.38%	0.67992313	\$ 30,372.17	
15%	1.89	1.89	1	1.1993	0	0.38%	1.13727677	\$ 52,561.52	
15%	1.89	1.89	1.5	1.2455	0	0.38%	1.3320346	\$ 61,562.64	
15%	1.89	1.89	2	1.183	0	0.92%	1.41389788	\$ 65,948.44	
15%	7.59	1.89	1	1.1993	0	0.38%	6.23334931	\$ -	
15%	7.59	1.89	1	1.1993	0	0.38%	6.23334931	\$ 495,651.00	
15%	7.59	1.89	1.5	1.2455	0	0.38%	6.46405397	\$ -	
15%	7.59	1.89	1.5	1.2455	0	0.38%	6.46405397	\$ 513,995.72	
15%	7.59	1.89	2	1.183	0	0.92%	6.58259023	\$ -	
15%	7.59	1.89	2	1.183	0	0.92%	6.58259023	\$ 534,835.46	
15%	7.89	7.89	0.49	0.6609	0	0.43%	2.63112043	\$ 34,344.01	
15%	7.89	7.89	0.99	0.7096	0	0.43%	3.36770649	\$ 37,054.87	
15%	7.89	7.89	1.5	1.0541	0	1.00%	4.99475716	\$ 56,880.29	

Spreadsheet Example Continued

AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
Total Days	Days to Date	Ratio To Date	Expense To Date	Prior Days	Prior Ratio	Prior Expense	Current Period Expense	Remaining Period	Period * Shares	
181	181	100.00%	\$ 30,372.17	150	83%	\$ 25,170.30	\$ 5,201.86	0	-	
364	241	66.21%	\$ 34,800.35	150	41%	\$ 21,659.97	\$ 13,140.38	0.336755647	15,564	
546	241	44.14%	\$ 27,173.25	150	27%	\$ 16,912.81	\$ 10,260.44	0.835044449	38,593	
729	241	33.06%	\$ 21,801.88	150	21%	\$ 13,569.64	\$ 8,232.25	1.336071184	62,318	
183	60	32.79%	\$ -	-	0%	\$ -	\$ -	0.336755647	-	
183	60	32.79%	\$ 162,508.53	-	0%	\$ -	\$ 162,508.53	0.336755647	26,777.46	
365	60	16.44%	\$ -	-	0%	\$ -	\$ -	0.835044449	-	
365	60	16.44%	\$ 84,492.45	-	0%	\$ -	\$ 84,492.45	0.835044449	66,399.40	
548	60	10.95%	\$ -	-	0%	\$ -	\$ -	1.336071184	-	
548	60	10.95%	\$ 58,558.63	-	0%	\$ -	\$ 58,558.63	1.336071184	108,555.78	
179	58	32.40%	\$ 11,128.23	-	0%	\$ -	\$ 11,128.23	0.331279945	4,324.20	
361	58	16.07%	\$ 5,953.41	-	0%	\$ -	\$ 5,953.41	0.829568789	9,127.75	
546	58	10.62%	\$ 6,042.23	-	0%	\$ -	\$ 6,042.23	1.336071184	15,215.18	
									346,875	
							\$ 118,517.43	Wtd Avg Recog Period	0.754941465	

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 Stock & Option Solutions

Spreadsheet Tips

- Number your offering periods + purchases within them
 - For modifications, use the same number + M1, M2, etc.
- Simple expense calcs are very easy
 - 6 months, divide by 2 for quarterly reporting, etc.
 - But... calculate To Date Expense, then Prior Expense in case forfeiture rate changes
- See if you can “trick” your system into amortizing the expense
 - Use a dummy purchase plan
 - Enter an option with a “custom” or “override” fair value, with estimated number of shares and 1,2,4 tranches

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 Stock & Option Solutions

Tax Accounting – Disqualifying Dispositions

- Additional columns:
 - Actual tax benefit = tax deduction x applicable corporate tax rate
 - Fair value per share
 - Total expense = shares x fair value per share
 - Estimated tax benefit = total expense x applicable corporate tax rate
 - APIC
 - If Actual > Estimated, then Actual – Estimated, else 0
 - Reduction to tax expense
 - If Actual < Estimated, then Actual, else Estimated

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 Stock & Option Solutions

Tax Accounting

Applicable Corporate Tax Rate:				40%					
				Actual			Estimated		Deficiency
Enroll	Purchase	Shares	Tax	Tax	Per Share	Total	Tax	Excess	(Reduce
Date	Date	Sold	Deduction	Benefit	Fair Value	Expense	Benefit	(APIC)	Tax Exp)
1/1/2004	6/30/2005	83.1120	\$1,500.52	\$600.21	\$11.3816	\$945.95	\$378.38	\$221.83	\$ 600.21
1/1/2004	6/30/2005	45.2012	\$816.08	\$326.43	\$11.3816	\$514.46	\$205.78	\$120.65	\$ 326.43
7/1/2004	6/30/2005	67.0728	\$448.50	\$179.40	\$14.4434	\$968.76	\$387.50		\$ 387.50
7/1/2004	6/30/2005	46.6593	\$312.00	\$124.80	\$14.4434	\$673.92	\$269.57		\$ 269.57
1/1/2005	6/30/2005	56.8661	\$910.65	\$364.26	\$9.3061	\$529.20	\$211.68	\$152.58	\$ 364.26
1/1/2005	6/30/2005	32.0783	\$513.70	\$205.48	\$9.3061	\$298.52	\$119.41	\$ 86.07	\$ 205.48
1/1/2005	6/30/2005	36.4526	\$583.75	\$233.50	\$9.3061	\$339.23	\$135.69	\$ 97.81	\$ 233.50

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 Stock & Option Solutions

ESPP Under IFRS 2

- No safe harbor
 - Only impacts companies with “safe-harbor” ESPPs
 - 5% discount, no lookback
 - Not considered “non-compensatory” under IFRS 2
 - Fair value calculated and accrued over service period
 - Tranche-by-Tranche valuation & accrual
- No straight-line attribution (for multiple purchase periods in same offering)
- Different Fair Value for each tranche

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 Stock & Option Solutions

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