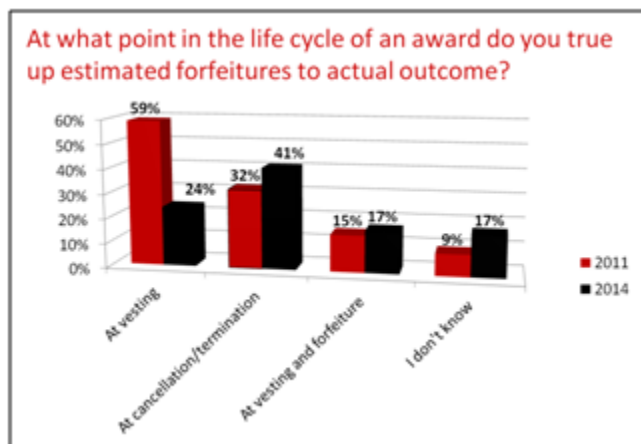


FORFEITURE RATE UPDATE: TRUE UP AT FORFEITURE (DYNAMIC) OVERTAKES TRUE UP AT VEST (STATIC) AS MOST POPULAR TRUE UP METHOD

In August of 2011, SOS conducted a survey on forfeiture rate practices, how were they being estimated, which data was used, how companies were applying them, when were they truing up, etc.

Just last month we conducted the same survey and found that not much had changed. *Except* that truing up for actual forfeitures at the time of forfeiture (also known as the "dynamic" method) has now eclipsed the once more popular method of truing up at vest (also known as the "static" method).

In 2011, 59% of all survey respondents indicated that they performed the true up at the time of vesting. In the 2014 survey, that number has dropped to 24%. Truing up at forfeiture got only 32% of respondents in 2011, but in 2014 now has 41%. So, as we suspected might be "true"(pun intended), True Up at Forfeiture is "winning", but why? What is the difference and what are the pros and cons of each approach? Read on...



Application of Forfeiture Rates:

The examples of how to apply the forfeiture rate in ASC 718 discuss a group of grants and the total expense for the grants. They apply the annualized forfeiture rate (to the power of the service period) to the total expense throughout the life of the grant and if the forfeiture rate proves inaccurate during the period, the rate is adjusted.

In the examples, the forfeiture rate is applied using the three-year service period throughout the three-year life of the grant (a 3% annual forfeiture rate is applied using $.97 \times .97 \times .97$). Adjustments are made to the forfeiture rate throughout the vest period, if the total number of grants that will be forfeited is estimated to be more or less than 14% ($1 - (.97 \times .97 \times .97)$), but any necessary true up for actual forfeitures is not performed until the final vest date for the grants is reached, at which point the final count of grants forfeited vs. vested is known.

Consider a simple example: If you had five grants, each valued at \$100, vesting over a year, and you had an estimated forfeiture rate of 20% (one of the five grants), you would recognize only \$400 instead of the full \$500 of expense. However, you must true up for actual forfeitures, so if all the grants vested, you would true up to \$500. If two of the grants were forfeited instead of one, you would ultimately recognize only \$300 of expense. The goal of applying estimated forfeiture rates is to "smooth out" expense and attempt to minimize the "peaks and valleys" of the expense recognition that we encountered under FAS 123 - when most companies recognized forfeitures only as they occurred (as they were permitted to under that standard).

The Static Method:

This method, in which the entire service period is used to apply the forfeiture rate during the entire service period is sometime called "the static method" because neither the service period used to apply the estimated rate nor the total expense is adjusted during the recognition of expense - it is static, unchanging. This method is also called "True Up at Vest" since both reversals of expense and true ups for vesting occur *on* the vest date. Forfeited grants remain within on the expense report and within "the pool of expense" even after they are forfeited. If the forfeited grants were to be removed from the total expense being recognized and the entire service period were used to apply the forfeiture rate, the forfeitures would be "double-counted" and the true up at vest date would be larger. (See the discussion on "the hybrid method", below.)

Let's consider our simple example from above: five grants, valued at \$100 each, with a one-year service period. The total pool of expense is \$500, reduced by an annualized forfeiture rate of 20%. Therefore only \$20 is accrued each quarter for each grant instead of the full \$25 for each grant. If one of the grants is forfeited in the second quarter of the year, the full \$500 is still used as the base amount of expense before the forfeiture rate is applied.

Since the forfeited grant remains on the report and in "the pool of expense", the forfeiture rate continues to be applied with the full service period, the expense for the grants that ultimately vest would be: \$20, \$20, \$20, and \$40. The expense for the grant that is forfeited would be: \$20, \$20, \$20, and -\$60. The negative \$60 for the true up for the forfeited grant exactly offsets the "catch up" for the grants that vested, for the expense by quarter would be \$100 each quarter, exactly what the standard is aiming for, even amortization over the service period.

Grant #	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Comment/Total
1	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
2	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
3	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
4	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
5	\$20	\$20	\$20	-\$60	Forfeited in 2 nd Qtr. True up to \$0 in vest quarter.
	\$100	\$100	\$100	\$100	\$400

Because the forfeiture rate is perfectly accurate, the recognition of expense is perfectly even over the service period.

The most significant issue with this approach is that it is nearly impossible to accurately predict forfeiture rates. With the static method all the true up is left until the end, so if your forfeiture rate is inaccurate and you haven't been making adjustments to the rate as the grants are expensed based on actual forfeitures, the true up impacts your expense all at once, in the quarter in which the grants vest, potentially producing large fluctuations in expense.

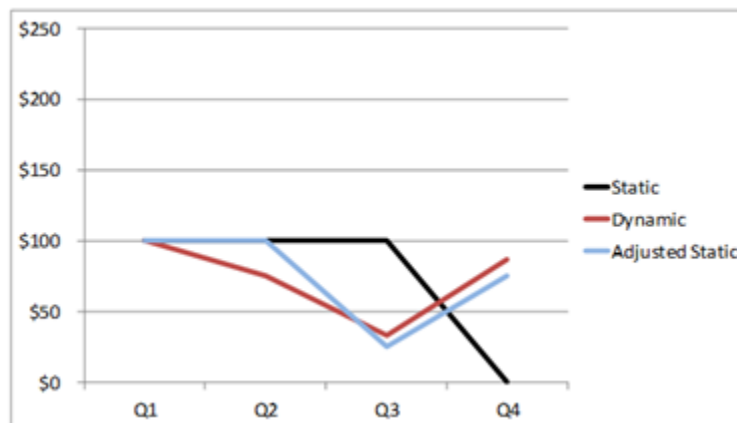
If, in the example above, no grants are forfeited (forfeiture estimate is too high), the total expense per quarter would be \$100, \$100, \$100, \$200. Since all grants vested, each grant is true up to 100% of expense in the fourth quarter on the vest date.

Grant #	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Comment/Total
1	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
2	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
3	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
4	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
5	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
	\$100	\$100	\$100	\$200	\$500

If, in the example above, two grants are forfeited instead of one (forfeiture estimate is too low), the total expense per quarter would be \$100, \$100, \$100, \$0. Since two grants forfeited all expense booked for them (\$60 each, \$120 total) is reversed in the fourth quarter and the three grants that vested are true up to 100% of expense, but that does not offset the unexpectedly high reversal.

Grant #	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Comment/Total
1	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
2	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
3	\$20	\$20	\$20	\$40	True up to \$100 in vest quarter.
4	\$20	\$20	\$20	\$-60	Forfeited in 2 nd Qtr. True up to \$0 in vest quarter.
5	\$20	\$20	\$20	\$-60	Forfeited in 3 rd Qtr. True up to \$0 in vest quarter.
	\$100	\$100	\$100	\$0	\$300

If the forfeiture rate is adjusted from 20% to 40% in the third quarter, when the second grant is forfeited, to reflect the now more accurate 40% rate, each grant would now amortize at only \$10 per grant in the third quarter and then true up for vesting and forfeiture in the fourth quarter, which would result in total expense each quarter of \$100, \$100, \$50 and \$50. This is still a significant fluctuation in expense, but less dramatic than waiting until the final quarter and taking the full adjustment then.



The Dynamic Method:

The alternative approach to the static method is sometimes called "the dynamic method" - so called because the grants comprising the "pool of expense" change (forfeited grants are removed) and the forfeiture rate is adjusted throughout the service period: only the remaining service period is used to apply the expense. (Every system that offers "dynamic" as a forfeiture method approach differs somewhat in the formula used to reduce the rate, but most systems do reduce the rate as the vesting nears.) In our example above, if the grant were granted at the beginning of the first quarter, in the first quarter the forfeiture rate would be applied "to the power of" .75, because only 3/4 of a year remains in the life of the grant. In the second quarter, .50 would be used, etc. So for each of the grants that ultimately vest, the expense would be, each quarter: \$21.15, \$23.57, \$26.21, and \$29.07. For the grant that is forfeited, the expense

would be \$21.15, -\$21.15, \$0 and \$0, resulting in total expense of \$105.75, \$68.29, \$94.56, and \$131.40. This expense is certainly not perfectly even over time, but it is more even than if the forfeiture rate were inaccurate and all of the adjustments were made in the final quarter of the year.

Grant #	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Comment/Total
1	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
2	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
3	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
4	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
5	\$21	-\$21	\$0	\$0	Forfeited in 2 nd Qtr. True up to \$0 in vest quarter.
	\$105	\$75	\$104	\$116	\$400

Though the expense is less even over time using the Dynamic method than the Static method, if the forfeiture rate is accurate, the adjustments to the forfeiture rate are "automatic" - as the grant gets closer to vesting it is more likely to vest, so more expense is recognized. Final true ups are still required for the grants that vest, but they are likely to be slightly less dramatic than under the static approach, depending on the magnitude of inaccuracy of the forfeiture rate.

And when forfeiture rates are too high, the Dynamic method results in a gradual increase to expense over time.

Grant #	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Comment/Total
1	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
2	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
3	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
4	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
5	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
	\$105	\$120	\$130	\$145	\$500

And when they are too low, there is an immediate impact to expense in the quarter in which more grants are forfeited, but then a gradual upward trend in expense.

Grant #	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Comment/Total
1	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
2	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
3	\$21	\$24	\$26	\$29	True up to \$100 in vest quarter.
4	\$21	-\$21	\$0	\$0	Forfeited in 2 nd Qtr. True up to \$0 in vest quarter.
5	\$21	\$24	-\$45	\$0	Forfeited in 3 rd Qtr. True up to \$0 in vest quarter.
	\$100	\$75	\$33	\$87	\$300

The “Hybrid” Method (True Up at Forfeiture AND Vest):

If the expense for the forfeited grant were removed from the total expense before the forfeiture rate were applied, leaving a total expense of \$400, since the full service period is used to apply the forfeiture rate, the recognition each quarter would be only \$80 ($(\$400 * .25) * (1-.20)^1$). This would result in under-recognition of expense over the one-year service period, which must be trueed up at the vest date.

If the 20% estimated forfeiture rate proves accurate, at the end of the year, the expense must be trueed up to \$400 since 4 of the 5 grants vested. So the expense per quarter for the grants that ultimately vest would be \$20 for each quarter until the final vest period in which each grant would "catch up" from the \$60 booked through the end of the third quarter to the full \$100 of fair value for the grant by booking \$40. The expense for the 5th grant that is forfeited would be \$20, -\$20, \$0 and \$0, so total expense by quarter would be \$100, \$60, \$80, and \$160, which is certainly not the even amortization over the service period that the application of estimated forfeiture rates is intended to produce.

Even though removing forfeited grants from the report in the period in which they are forfeited seems to make more sense...it results in a very uneven amortization of expense. Even so, several stock plan systems do use the hybrid method.

Static vs. Dynamic Pros & Cons:

	Pros	Cons
Static	<ul style="list-style-type: none"> • Perfectly even accrual <i>if forfeiture perfectly accurate</i> • 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 <i>if estimate not accurate</i> • 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. • Not similar to <i>examples</i> in standard • Expense less even over time, even if estimate is accurate

And, based on our survey results, it seems to be that more clients are now in favor of the "set it and forget it" method of forfeiture rate application (aka Dynamic).

Does your system offer a choice between Static and Dynamic? Considering changing from Static to Dynamic? SOS has helped a number of clients perform this analysis and change over the past few years. The process can be quick and easy and usually is fairly painless. However, the difference between the two approaches can be small (the smallest we've seen was \$8K) or quite large (millions) and you need to be prepared to book a true up for the difference to enable you to switch. Generally a grant-by-grant comparison should be performed and the reasons for the difference quantified and a memo should document the analysis.

Questions? Contact us at info@sos-team.com for more information and an estimate on helping your company switch.

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Elizabeth is the Vice President of Product Management for Stock & Option Solutions, Inc. (SOS). She also runs the Strategic Solutions and Accounting Solutions groups. Her responsibilities include monitoring new developments in the equity compensation arena, performing market research, speaking at industry events and helping SOS clients with all kinds of equity compensation challenges.

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