CPA EXPERT

AICPA Newsletter for Providers of Business Valuation, Forensic, & Litigation Services

Winter 2008

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Letters to the Editor

***CPA Expert* encourages readers to write letters on issues related to business valuation and litigation and dispute resolution services and on published articles. Please include your name and telephone and fax numbers. Send your letters by e-mail to** wmarcon@aicpa.org.

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In the KNOW

BV STANDARDS: THE POSITIVE SIDE

By James R. Hitchner, CPA/ABV, ASA

The following article is reprinted with permission from Jim Hitchner's Financial Valuation and Litigation Expert, *December 2007/January 2008. For more information about this bimonthly professional journal, visit* www.valuationproducts.com. *The author was one of four members of the AICPA Business Valuation Standards Writing Task Force, serving six years up to the June 2007 release of the standards.*

In the movie "Steel Magnolias," Oscar-winning actress Olympia Dukakis said, "If you don't have anything nice to say about anybody, come sit by me." Perfect words for what is going on in the world of business valuation (BV) standards. For the past few months, much public anxiety has been vented about the many changes in BV standards. Unfortunately, as usual, the negative side is the loudest.

Yes, there have been changes, particularly the introduction of the AICPA Business Valuation Standards and changes in the Uniform Standards of Professional Appraisal Practice (USPAP) developed by the Appraisal Foundation, and in the National Association of Certified Valuation Analysts (NACVA) standards. In addition, members of the American Society of Appraisers (ASA) and the Institute of Business Appraisers (IBA) must also comply with these organizations' standards.

We have heard how different the standards of these five U.S. valuation associations/groups are. Yes, there are differences. However, little attention has been given to how similar most of these standards really are.

Let's see if we can get the positive side to be as loud as the negative side. This article compares the standards of the AICPA, NACVA, and USPAP. In a future issue, we will compare the ASA and IBA standards to the other standards. Please note that there is also the potential for substantial impact from the standards issued by the Financial Accounting Standards Board and the International Standards Board. But, we have to start somewhere, so we'll focus here on the U.S. standards first. We hope these comparisons provide helpful guidance to assist valuation analysts to comply with whatever standards to which they are required or choose to adhere.

SSVS NO. 1 AND NACVA'S PROFESSIONAL STANDARDS

Let's begin with the easy one: AICPA's Statement on Standards for Valuation Services (SSVS No. 1) compared with NACVA's Professional Standards. Based on the fact that NACVA is primarily made up of CPAs, NACVA is in the process of adapting to the AICPA standards and currently has a draft issued of their new standards. NACVA's November 14, 2007 "Sum-

GETTING THE FACTS BEHIND THE FIGURES

By Mark Filler, CPA/ABV

When attempting to adjust a lost business income claim, the practitioner typically applies quantitative methods based on historical data. However, the practitioner also should investigate the facts behind the figures. Elements of reasonableness, informed judgment, and common sense must come into play when attempting to adjust a lost business income claim; otherwise, the results obtained will be similar to predicting the future with a ruler.

The case of ABC AutoDealer illustrates how uncovering the facts behind the figures can make a difference in the outcome. ABC Auto Dealer (a pseudonym), located in York County, Maine, suffered a fire loss in its parts department on August 17, 2003. The smoke damage affected diagnostic equipment in the service bays, causing a two-day shutdown while cleanup proceeded. The parts department was rendered inoperable from August 17 to September 16. Because of the subrogation potential, the parts department was a protected scene until representatives from other insurance carriers could investigate. Starting on September 16, the demolition and repairs began. They concluded on October 5, allowing ABC's parts department to return to its normal operating capacity. During this latter period, ABC still had a parts department, albeit a makeshift operation, deployed from the back of a box trailer on the site.

ABC AutoDealer submitted a presentation of lost business income that consisted of three elements of loss:

1. The impact on the ability of technicians to do service work
2. Lost profit on parts not sold during the period of interruptions
3. Lost profit to the retail side: Used and new vehicle retail sales were lower than projected.

THE PROBLEM

This loss presented multifaceted variables because the fire had an impact on four out of five sales departments (wholesale used vehicle sales were unaffected by the fire). The insurance carrier's intent was to afford protection for losses that could be directly attributable to the fire. Our firm was asked to determine if any economic, seasonal, industry, or personnel factors may have contributed to lower-than-expected results and then to compute ABC AutoDealer's lost business income.

The fundamental issue we had to deal with was this: How could a small fire in the parts department that shut down the showroom for less than half a day on August 17 cause a $548,000 shortfall in retail vehicle sales in the last 14 days of the month of August 2003? We uncovered the following facts, which made the loss calculation more problematic than usual:

1. The sales manager left the month before the fire.
2. The dealer was having its best year ever up until the time of the fire: Year-to-date sales through July were up 70.3 percent over the same period the year before.
3. Retail vehicle sales activity for the first 14 business days of August 2003 was low.
4. The dealership's owner submitted a pre- and postfire sales summary for August 2003 that didn't agree with that month's dealer financial statement (DFS). His submission increased the potential loss, and when the discrepancy was brought to his attention, he refused to acknowledge or correct it.
5. Prior to 2003, there was neither an upward or downward trend to either parts or new and used vehicles sales, nor was there a strong seasonality factor.

DOCUMENTS AND DATA REVIEWED

After we contacted ABC's CPA, we received copies of the 70 monthly DFSs for the period January 1998 through December 2003. We also received copies of the insured's federal income tax form 1120S for the calendar years 2000, 2001, and 2002, and a breakdown of vehicle sales in dollars and units for both new and used retail vehicles for the pre- and postfire days of August 2003. We conducted telephone interviews with the owner, the general manager of another dealership, and the controller of a third dealership to ensure that we were reading and interpreting the DFSs correctly. From the State Planning Office website, we obtained retail sales for the same 70-month period of the store-type group labeled "auto-transportation" for both the state of Maine and York County.

ANALYSIS

We then graphed the 70-month data, dividing the categories by 10,000; 1,000; and 100 for ease of comparison. We found that ABC Auto Dealer's sales somewhat loosely followed the sales patterns established by the state and the county. The same pattern was repeated when we compared the sum of sales for the latest 12 months with the sum of sales for the previous year's 12 months. The comparison revealed that the sum of monthly sales for the 12 months ending August 2003 was 22.1 percent higher than the sum of the 12 months' sales for the year ended August 2002. Up through 2002, the company generally followed the growth patterns exhibited by the state and the county. However, because a new sales manager was hired at the end of 2002, ABC had shown substantial growth in 2003 when compared with county and state growth trends.

We then analyzed sales of the insured's four major profit centers for the 70-month period in four categories: new vehicles, used vehicles,

parts, and service. Sales dipped for the month of August 2003 in three of the four categories—used retail sales actually had an upward tick. What was more compelling, however, was the restoration of sales activity to approximately normal levels in the succeeding months of September and October for new vehicles and parts and service. This was surprising because the sales manager had yet to be permanently replaced. The owner was filling that position *ad interim*.

Because of a great deal of noise in all four sales categories, a complex forecasting technique such as time-series analysis, controlling for trend, seasonality, and October 2001's abnormally high sales, and after transforming the dependent variable, can produce forecasts that have an r^2 of only about .70. Given the variability of the data, we felt that this goodness-of-fit metric was too low for us to rely on the regression output to forecast August sales. Econometric regression also failed because the coefficient of correlation between ABC's sales and either state or county auto sales was so low that the r^2 produced for both independent variables was only around .50. Even if these techniques had forecasted August 2003's sales with a greater degree of accuracy, the forecasted amounts would not have reflected the adverse impact of the loss of the sales manager: the comparatively low retail vehicle sales prior to the date of the fire. Therefore, we had to turn elsewhere for a solution.

Another way of getting an idea of what August's maximum sales for new and used vehicles could have been, but for the fire, was to calculate the average percentage of sales that August represented for each annual ten-month period from January to October, and then compare this average to the actual percentage obtained for August 2003.

Obviously, as Table 1 shows, sales are down for August when compared with the average, especially for new vehicle sales, when compared with just the prior year. Using Excel's Solver, I back-solved for the amount of sales in each category for August 2003 such that the amounts generated equaled the five-year average percentage. Table 2 shows the amounts computed and compares them to actual sales for August 2003.

Table 1. Average Percentage of August Sales, 1998–2003

Year	Retail-New	Retail-Used
1998	14.0%	11.4%
1999	12.0%	15.2%
2000	8.9%	12.9%
2001	15.4%	16.2%
2002	18.7%	13.9%
Average August	13.8%	13.9%
August '03	10.5%	12.2%

Although the amount of potential lost sales was the maximum that could be obtained, it did not reflect the effect that the loss of the sales manager had on sales. In the auto dealer world, sales managers are much like star athletes—they always want to renegotiate their contracts during a stellar season. The ABC dealership owner would not hear of this and instead fired the sales manager in July 2003, in the middle of the best year the dealership ever had. The impact on August sales was dramatic, forcing us away from relying on any conventional forecasting techniques and towards relying on an industry rule-of-thumb that the dealership's owner provided himself: Sales are not earned ratably throughout the month.

In addition to the rule-of-thumb, the owner provided data that indicated that unit sales for the pre- and postfire periods were 42 and 37 respectively. He also provided the amount of sales dollars for the two periods. Although the sales dollars totals for used retail vehicles agreed with the DFS for August 2003, the sum of new vehicle sales dollars did not. The insured would not assist us in resolving the discrepancy. We resolved it, however, by assuming the same product and price mix postfire as prefire and apportioned the sales dollars in accordance with the number of vehicles sold in each period.

During the prefire period, August 1–17, there were 14 sales days, resulting in average daily sales of $43,107 for new and $28,376 for used retail vehicle sales. Assuming no increasing trend in sales for the next six sales days, August 19–24, total sales for the first two-thirds of the month, or the first 20 sales days, would have been $1,429,654. The owner had informed us, and we verified with a tax client of our firm who is the general manager of the largest dealership in northern New Hampshire, that one-third of a typical dealer's monthly sales come in the last week of the month. Extrapolating from the first 20 days' expected sales gave us total vehicles sales of $717,720 for the last six selling days of August 2003 and total expected vehicle sales of $2,144,374 for the month. Actual vehicle sales for the month were $1,882,907, a shortfall of $261,467 or 12.2 percent of expected vehicle sales.

Table 2. Comparison of August Sales Based on Average Percentage With Actual Sales

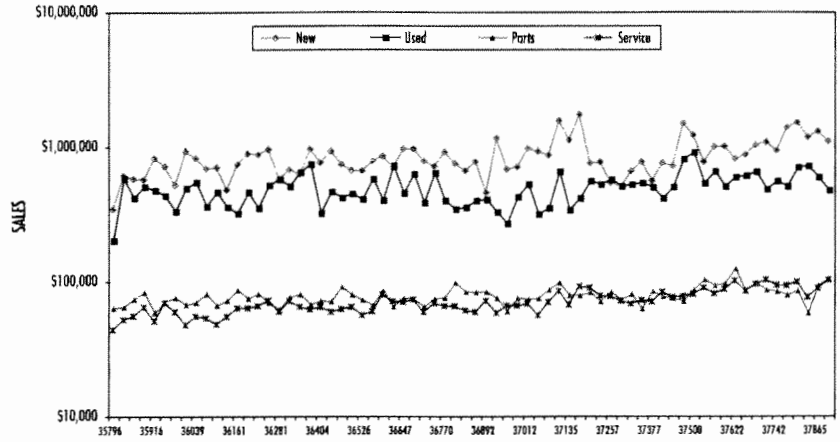
	August sales volume based on average %	Actual August	Difference
Retail-New	$1,601,087	$1,170,732	$430,355
Retail-Used	829,746	712,175	117,571
Total	$2,430,833	$1,882,907	$547,926

The owner complained that the sales projected by using this method were too low, even though he had suggested the method to us. We encouraged him to submit evidence that some or all of the months from January 2003 through July 2003 had sales activity that contravened his own rule of thumb; that is, that those months had 41 percent of their sales in the last quarter of the month, which the dealership would need to have done in August 2003 to create the $548,000 of missing sales, rather than 33.3 percent per the "rule." He never responded to the challenge, but he did try to puff up the claim by submitting a handwritten pre- and postfire sales listing for August 2003 that did not agree with the DFS as mentioned above. Total retail vehicle sales dollars were higher than the DFS, with the excess attributed to prefire sales, which had the effect of increasing the potential loss.

From the $261,467 amount of lost vehicle sales, we must subtract saved expenses that come in three varieties for this sales category. The three varieties, for which the nomenclature is taken directly from the DFS, are *direct cost of sales, variable expense,* and *semi-fixed expenses.* The percentage of sales to be deducted for cost of sales and variable expenses is computed from the DFS's year-to-date amounts through July 2003 and was done separately for both new and used retail vehicle sales, as shown in Table 3.

We calculated saved semi-fixed expenses using regression analysis to determine the variable portion for that variety of expense. We regressed 67 months (through July 2003) of semi-fixed expenses against sales for both new and used retail vehicle sales. The regression output indicated that for every dollar of increase in sales, semi-fixed expenses increase $0.0089 and $0.0157, respectively, for new and used retail vehicle sales. Both model's *p* values are less than 5 percent, and both F statistics are greater than 4 (F [1, 65, .95]), indicating that each slope value and each regression as a whole is statistically significant. The low r^2s coupled with the high t statistics merely indicated that other factors drive, or explain, semi-fixed expenses besides sales. However, this is of no matter, since we are only concerned with the impact of sales on this category of expense, which this regression equation handles quite nicely.

Exhibit 1. Retail Sales by Category—January 1998–October 2003



For parts and service, there was no industry rule of thumb to rely on, so we used a different technique. As Exhibit 1 illustrates, although service sales had been trending upward since 1998, they were relatively flat since February 2003. Parts department sales, having no appreciable trend were, therefore, also relatively flat after February 2003 onward. We calculated the coefficient of variation of the sales for both departments for February through July and for September and October 2003 and found them to be 9.3 percent for parts and 6.5 percent for service. With this little variation in the data, we tried another forecasting technique.

It is obvious from Exhibit 1 that the parts and service departments had below normal sales in August 2003. The computation of that abnormality is shown on Exhibit 2, where we have computed the average monthly sales and the standard deviation for that average for the months of February through July and September through October 2003 (January was excluded because its sales were abnormally high). Ninety-five percent of all average monthly sales will fall between the

Table 3. Sales, Cost of Sales, and Variable Expenses—January 2003–July 2003

	New	Used	Parts	Service
Sales ($)	7,611,088	4,079,270	636,544	661,646
Cost of sales ($)	7,260,148	3,700,565	449,422	46,948
Cost of sales (%)	95.39%	90.72%	70.60%	7.10%
Variable expenses ($)	67.942	127.004	—	—
Variable expenses (%)	.89%	3.11%	—	—

average and plus or minus 2.365 standard deviations, or between $69,199 and $108,037 for parts, and between $79,281 and $108,318 for service. Any monthly sales figures outside this range can be deemed abnormal, which would include the month of August for both departments.

We computed lost sales by subtracting actual monthly sales from the expected monthly sales, which was deemed to be the eight-month average monthly sales figure. Cost of sales was computed from the DFS year-to-date amounts through July 2003 as shown in Table 3. Other saved expenses were then computed using regression analysis as described previously.

We also computed the lost business income from the finance and insurance (F&I) department and the Adjustments to Income account. The monthly amount of net F&I income was regressed against monthly new and used retail vehicle sales to determine the amount of incremental net F&I income explained by changes in sales. We followed the same procedure for Adjustments to Income, except we used total sales from the four departments as the independent variable. The penultimate calculation was for the saved expense, employee bonuses, which was performed in the same manner as was used with Adjustments to Income.

The total claim for lost business income was calculated to be $29,667. The amount of lost business income does not include any amount from the used wholesale vehicle department, nor does it include any income from the manufacturer rebate for the customer satisfaction adjustment. This is because the fire should not have affected wholesale sales, and customer satisfaction adjustments are lagged responses to dealership activities in prior months. Therefore, lost revenue, if any, would be received outside the time limits afforded by the policy. In fact, through October 2003, 50 percent of the dealership's profit before taxes was generated by the customer satisfaction adjustment from the manufacturer.

Exhibit 2. Calculation of Abnormally Below Average Sales—Parts and Service Departments

		SALES	
		Parts	Service
	Feb-03	$84,195	$84,010
	Mar-03	96,404	94,483
	Apr-03	85,947	101,376
	May-03	83,634	92,268
	Jun-03	78,590	91,981
	Jul-03	84,336	97,762
	Aug-03	57,845	75,511
	Sep-03	92,091	87,610
	Oct-03	103,750	100,907
Monthly Average, Feb–Jul, Sept–Oct		88,618	93,800
Standard Deviation		8,212	6,140
Critical value of t		2.365	2.365
+/– range		19,419	14,518
95% Confidence Level from		69,199	79,281
95% Confidence Level to		108,037	108,318
August sales fall outside the 95% confidence range			

INSURED'S CLAIM SUBMISSION

The insured, through its CPA, submitted a claim with a high and a low figure, $144,368 and $110,492 respectively. The high figure was based on the logic that the rate of year-to-date growth in profits of 252 percent through July, including all departments plus other income and manufacturer's rebates, over the 2001–2002 average, would have continued into August. The low figure was based on the logic that the rate of year-to-date growth in unit vehicle sales of 35 percent through July, over the 2001–2002 average, would have continued into August. The logic was similar for the service department, but with no consideration given to other income and manufacturer's rebates. Both of these arguments are circular in that they assume what they need to prove: that 2003's rate of increase in sales over the average of the two prior years would have continued into August at the same pace exhibited from January through July, in spite of the loss of the sales manager. What is missing from the insured's claim is discussion of the unit sales count up to the date of the fire and the impact that count could have had on total unit sales for the month.

In one way, this was a typical lost business income claim. The amount claimed by the insured made no sense when measured against the facts that we knew concerning the extent of the fire and smoke damage and the amount of time each department was actually shut down after the fire. In another way, it was atypical. There was a tremendous fall-off in sales in August 2003.

These two incongruous facts had to be reconciled. By gathering as much quantitative evidence as we could through the 70 monthly DFSs, and as much qualitative information as we could by interviewing people knowledgeable about the industry, we were able to uncover the two most important facts about the loss: The firing of the sales manager the month before the fire and the concomitant poor vehicle sales during the first 17 days of August allowed us to rationalize the insured's poor performance without having to resort to the fire's consequences as an explanation.

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