

Professional License Valuation Voodoo

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Valuators beware of the “valuation voodoo” being offered by business valuation “experts” who testify that “reasonable” and “sound” methodologies can be used to determine the fair market value of a professional license for equitable distribution purposes. The courts in most states already state that a professional license is a separate asset that is not subject to distribution. Whether right or wrong, this is a public policy decision that all but a few states have adopted. This article will make no value judgment on this issue. However, some family law attorneys and their “experts” are attempting to establish case precedent to the contrary, and are contending that a professional license should and can be reliably valued for equitable distribution. Furthermore, some “experts” are even pushing the absurd proposition that a professional license can itself appreciate in value during the marriage as a result of the active efforts of the holder spouse, and that this increase in value is marital property subject to distribution.

One can *theoretically* compute the value of an assumed future earnings stream from a professional license but, not without making numerous speculative assumptions and gross oversimplifications. The resulting values are not meaningful, supported or reasonable. They fail to pass a thoughtful analysis and fail the “smell test” of common sense.

It is ultimately impossible to nail down all of the numerous external and human factors into a financial spreadsheet that would reliably compute the future compensation of both the license holder (e.g., a physician or attorney) and the same individual had he or she not obtained such license.

Example of License Valuation Witchcraft

Jones graduates from Duke University with a bachelor of science in biology (Phi Beta Kappa, 3.9 GPA), and he attends Harvard Medical School, where he finishes in the top 10% of his class. After his residency and six years of prestigious and highly sought after fellowships and training in ophthalmology, he moves to Chapel Hill, North Carolina where he becomes an employee of a private practice.

After three years he becomes a partner. Dr. Jones works an average of 60 to 70 hours per week, including many hours performing lengthy and stressful retinal surgery and other complex procedures. Dr. Jones is on call every other weekend. Eight years later, Dr. Jones, at the age of 45, and his wife separate. After two years of gathering documents, interrogatories and depositions, it is finally time for the equitable distribution hearing.

Prior to the trial, the parties have stipulated to the value of his interest in the medical practice, which a jointly retained appraiser found to be worth \$500,000. This appraiser determined the value of practice earnings using a discount rate of 27%, a rate that reflects in part the possible risk to earnings associated with managed care pressures on physician charges, malpractice risk, competition and other factors. The remaining issue, on which the parties cannot agree, is the value of Dr. Jones’ license to practice medicine. Dr. Jones’ counsel maintains that the legislature and the courts in North Carolina have clearly indicated that a license is separate property, and even if it were marital, it cannot be realistically valued. The wife’s counsel is intent on establishing a new precedent that says otherwise.

The expert for Dr. Jones’ wife, Joe Academic, Ph.D., takes the stand to testify that in his expert opinion, the value of Dr. Jones’ license to practice medicine is worth \$5.8 million, based on his analysis contained in Table 1.

Professor Academic opines that human capital theory enables him to value the worth of a license or any other educational attainment. He explains that the value is simply a matter of comparing what Dr. Jones will earn over the remainder of his professional life as an ophthalmologist (until retirement at age 65), versus what he would have earned without it by holding a B.S. degree in biology. When the difference between what he would earn as an ophthalmologist and what he could have earned with a B.S. degree are discounted back to present value and totaled, the result is the fair market value of the medical license.

Professor Academic indicates that surveys find that the average annual salary for a staff biologist in North Carolina at Dr. Jones’ age is \$47,000. Further, his research and logarithmic statistical models suggest that this biologist’s compensation

would be expected to increase 6.0% per year each year until retirement at age 65. Thus, in Table 1 (column 2), the professor “accurately” predicts what Dr. Jones would reasonably have earned as a biologist all the way to retirement had he not chosen to go to medical school, obtained a medical license and practiced as an ophthalmologist.

Next, Professor Academic explains that he then estimated what Dr. Jones would earn until age 65 as a practicing ophthalmologist, taking his present annual compensation of \$497,000, and growing it by 5% each year until retirement at age 65. He reasons that Jones’ physician compensation will grow each year due to gains in productivity as well as inflationary increases.

Subtracting the biologist compensation each year from that year’s ophthalmologist earnings, Professor Academic computes the difference in Column 4 of Table 1. For example, in the present year (2000), Dr. Jones will earn \$450,000 more than what he would have earned as an average biologist at the same age. By the year 2020 when he retires, Professor Academic projects that Dr. Jones will be earning \$1,167,953 more.

Next, the professor discounts the difference in earnings for each year back to its present value today, using his discount rate of 9.5%. The present value of the difference is shown in Column 6 (last column). Professor Academic opines that he used a 9.5% discount rate to discount the enhanced earnings

from holding the license back to present value. This rate, which is only 2% above a risk-free U.S. Treasury Bond at the time, reflects the risk associated with the predictability of the income stream.

Finally, he adds up the cumulative total of each year’s present value, which represents the license value. He explains that over the 21 years Dr. Jones has left to practice until his retirement at the end of the year 2020, the total present value of his enhanced earnings with the license is \$5,804,950. Professor Academic states that this is the value of Dr. Jones’ license to practice medicine. Dr. Academic then explains that at the time of Dr. Jones’ marriage the license had no value since he had not yet begun to use it. By subtracting the value of \$0 at marriage from the \$5,804,950 value at the date of separation, the Professor opines that the license increased in value by \$5,804,950 during the marriage as a result of the active efforts of Dr. Jones.

Why This Is “Valuation Voodoo.” The danger and appeal of this method is that it is deceptively simple and easy to understand, and it implies a precision to a reality that is fundamentally imprecise, speculative, and ultimately unknowable.

The following list of flaws, fallacies and inconsistencies only scratch the surface of the many reasons the resulting value is not a value at all:

Table 1: Estimated “Value” of Dr. Jones’ Medical License

Year	Earnings with B.S. (Biology) as a Staff Biologist	Earnings with Medical License as an Ophthalmologist (Increase 5%/Yr.)	Net Difference Ophthalmologist Versus Biologist	Times: Present Value Factor @ 9.50%	Equals: Present Value of Difference
2000	\$47,000	\$497,000	\$450,000	0.9132	\$410,940
2001	\$49,820	\$521,850	\$472,030	0.8340	\$393,673
2002	\$52,809	\$547,943	\$495,134	0.7617	\$377,144
2003	\$55,978	\$575,340	\$519,362	0.6956	\$361,268
2004	\$59,337	\$604,107	\$544,770	0.6352	\$346,038
2005	\$62,897	\$634,312	\$571,415	0.5801	\$331,478
2006	\$66,671	\$666,028	\$599,357	0.5298	\$317,539
2007	\$70,671	\$699,329	\$628,658	0.4838	\$304,145
2008	\$74,911	\$734,295	\$659,384	0.4418	\$291,316
2009	\$79,406	\$771,010	\$691,604	0.4035	\$279,062
2010	\$84,170	\$809,561	\$725,391	0.3685	\$267,307
2011	\$89,220	\$850,039	\$760,819	0.3365	\$256,016
2012	\$94,573	\$892,541	\$797,968	0.3073	\$245,216
2013	\$100,247	\$937,168	\$836,921	0.2807	\$234,924
2014	\$106,262	\$984,026	\$877,764	0.2563	\$224,971
2015	\$112,638	\$1,033,227	\$920,589	0.2341	\$215,510
2016	\$119,396	\$1,084,888	\$965,492	0.2138	\$206,422
2017	\$126,560	\$1,139,132	\$1,012,572	0.1952	\$197,654
2018	\$134,154	\$1,196,089	\$1,061,935	0.1783	\$189,343
2019	\$142,203	\$1,255,893	\$1,113,690	0.1628	\$181,309
2020	\$150,735	\$1,318,688	\$1,167,953	0.1487	\$173,675
Total Value of Medical License		\$5,804,950			

1. Failure of symmetry in the projection of earnings potential. The calculation of license value (if it could be valued, which it cannot) must be fully symmetrical. The calculation cannot consider just the prospective future for only the license holder, but also the prospective future for the graduate without the license. Therefore, the analysis must also consider the unique skills, talents, motivation, drive and other factors that will ultimately determine what each person will earn, and not just the mere existence of their undergraduate degree. In other words, to realistically determine how much more, if any, the holder might earn with a medical or law license, one must also consider and forecast the potential of *that same individual* in the alternative with a college degree, taking into account his or her individual traits.

Who knows what Dr. Jones might have earned in a field other than ophthalmology or medicine? As is the case with Dr. Jones, the typical physician or attorney is a very bright individual with above-average intelligence, is highly motivated and goal-oriented. These traits are unique to the individual and are not a trait of the license.

Proponents of license valuation witchcraft simplistically assume that, in the absence of holding the license, the individual would instead have earned a typical college graduate's salary. Thus, the very skills and traits that made this person the cream of the crop in the first place and got him or her into professional school are totally ignored.

The witchcraft comes into play when the "expert" only considers the exceptional earnings associated with the license compared to the average, ordinary-Joe earnings without the license. Professor Academic, the courts, the attorneys involved, and even Dr. Jones have no way of knowing how his life, his career, and his earnings would have turned out if he had not gone to medical school.

Additionally, the data that Professor Academic uses as average staff biologist compensation is flawed by "survivorship bias." This means that as individuals from the staff biologist population get promoted to management or move to other jobs they drop out of the sample used in the calculation of the average staff biologist compensation. The future possible income from promotions is never counted. The "survivors" that are left in the sample are only those people who are *currently* staff biologists. Therefore, to simply use staff biologist compensation as the indication of a life of future prospective earnings for a very bright individual like Dr. Jones unfairly ignores his potential.

2. A professional license, by itself, does not guarantee a high income. It is highly speculative to assume that holding a professional license guarantees a high income. The income of a professional is impacted by his or her own personal skill, reputation, level of productivity, hours worked, interest level, the impact of client pressures on what can be charged, where he or she chooses to live, and an endless variety of other variables, none of which can be reliably predicted over the future course of one's life. Or, consider the impact if

several patients of Dr. Jones were to lose their eyesight as a result of a mishap in surgery and win large malpractice claims against him. He might be totally unemployable as a physician altogether, even though he holds a license to practice medicine. What happened to that \$5.8 million value? As managed care continues to tighten its grip on American medicine, slashing the amounts it will reimburse for procedures, it may cause the physician's earnings to sharply decline.

Lawyers and other professionals are not immune from similar forces. Clients are demanding fee discounts, "value billing," and law firms are merging to meet the needs and challenges of a changing and uncertain environment. Many firms are moving to formula methods of calculating compensation, where "rainmaking" becomes a key factor in what the individual attorney earns. Compensation and job security is at risk in the professional ranks.

3. A professional license is not required to have a high income. There are many high earning individuals who do not have a license to practice law or medicine (or any other profession), and may not even have a college education. Some of these individuals have earnings that are far higher than many professionals'. Licenses do not create income; it is the individual that creates income. In the business of business valuation, appraisers have the good fortune to see many successful business owners and entrepreneurs who earn millions, while their attorneys, physicians, and even business valuers, make much less.

4. Failure to account for possible future reductions in productivity. Professor Academic assumes that physician compensation grows forever into the future at the same annual rate of increase all the way up to the day of retirement (e.g., at 65). This assumption fails to consider the very real and negative impacts on the actual compensation Dr. Jones may realize in the future as a result of any possible future reduction in his workload or productivity as he ages.

As with many physicians, Dr. Jones works long hours (60 to 70), is often on call, and deals with delicate and demanding surgical procedures each and every day. In fact, the pressure from these factors, in part, led to the break-up of his marriage. He plans to gradually reduce his hours, stop performing surgery in his early 50s (to reduce his malpractice risk as he nears retirement), and thereafter have an office-only practice. Physicians in his practice are paid based on productivity, and as his revenues decline sharply as a result of the shift in the nature of his practice, Dr. Jones will likely earn less.

This same situation is true for many other types of physicians and other types of professionals. For example, many litigators either cannot or do not want to spend every late night and weekend preparing for trials and depositions until the day they retire.

This methodology also fails to consider the possibility of disability, illness or mortality in its calculation. By not taking into account the possible impacts of these factors, the calculation does

not present an accurate reflection of probable future earnings. Unless the “license valuation expert” has a crystal ball and can take all of these impacts into account (both with and without the license), there is no way the resulting number can be valid.

5. Double counting practice value and license value. A common error made in valuing licenses is to incorrectly base the future forecasts of the professional’s earnings on what he or she is actually earning in a partner or shareholder capacity in his or her professional practice. The level of compensation that the professional earns may be due largely or entirely to the fact that he or she is an owner of the firm. If the professional’s practice is also being valued for equitable distribution purposes, the effect of using owner-level compensation to compute the license value is to double count. This double counting occurs when compensation in the license value calculation also enters into the computation of the practice interest value. This is precisely what happened in the case of Dr. Jones. The parties have already stipulated to a \$500,000 value of his interest in the practice, based on the findings of a jointly retained valuator. The appraiser determined how much he actually earned over and above a market rate for a non-owner ophthalmologist. The resulting excess, which is the return from ownership, was converted to an after-tax basis and then capitalized into an estimate of value. Professor Academic now uses Dr. Jones’ same owner-level compensation figures to compute the value of his license. Therefore, the impact of ownership has been counted twice, once in the practice value, and now again in the value of the license.

6. Incorrectly assuming that licenses are needed for specialties within a profession. Experts frequently make a key mistake that dramatically overstates the earnings of a license holder over his or her life by assuming that the license is needed to practice a high earnings specialty within the field. For example, a medical license holder does not require an additional license to practice obstetrics, anesthesiology, radiology or ophthalmology. The license itself only entitles the physician to legally practice medicine. It is the additional drive, skill, later training, desires, ambition, and other attributes of the individual that will determine whether he or she goes on to be a world-renowned and highly paid fertility specialist. These are attributes of the individual, not the license. The license gives the holder a chance to play the game, but it does not guarantee what he or she can or will do with it, any more than what holding an undergraduate degree assures what its holder can or will do with it during his or her lifetime.

7. Failure to consider income tax differences. A physician with the compensation level of Dr. Jones is in a much higher tax bracket than the hypothetical biologist. This means that focusing solely on pre-tax compensation differences between the physician and non-physician substantially overstates how much more, in real after-tax income, the physician makes than the biologist. The result is the overstatement of the license value.

8. The analysis uses low risk discount rates to determine license value. These low rates are completely at odds with reality and lead to a significant overstatement of value in the computations. On the one hand, Professor Academic uses a low 9.5% rate that is only 2% higher than a totally risk-free rate (based on a U.S. Treasury Bond). He maintains that his 9.5% rate takes into account the greater risk of Dr. Jones’ future projected earnings as a professional. But does it? The jointly retained appraiser, valuing the medical practice, might have used a discount rate of 27%, which appears completely reasonable given the many risk factors present. The use of a low discount rate of 9.5% implies there is little risk associated with the future earnings from holding the license. The result of this assumption is a highly inflated value. In fact, by using an almost risk-free rate, the professor is almost saying, by definition, that his forecasts of the physician’s (and the biologist’s) future earnings are pretty close to being guaranteed and assured. When asked about his use of a risk-free discount rate in his deposition, Professor Academic indicated that Dr. Jones’ income from having the license has a much lower risk than the income from the practice. This is nonsense. The income realized from working with a license and from owning a partnership interest are impacted by the same forces, just a few of which are noted below:

- Managed care.
- Reimbursement rates.
- Risk of malpractice claims (the holder of a bond cannot be sued for millions of dollars, while an ophthalmologist can).
- Competition and other forces.

It is completely unsupportable to use a low-risk discount rate, as did Professor Academic. A low discount rate amounts to saying that the future earnings from holding a license (as with those forecasted with a biology degree) can be predicted with close to complete certainty for each and every year to the year 2020. The discount rate must properly reflect the real risk associated with the income stream.

Furthermore, Dr. Academic ignores the following other key differences between a freely traded bond (on which he based his discount rate) and a medical license:

- The investor can quickly sell a bond if the holder becomes concerned about its safety and income as an investment. There is no market whatsoever for the sale of a medical license. Only the holder who was awarded the license can actually use it.
- Investors in bonds can and often do hold a diversified portfolio to avoid being unduly exposed to risks. The holder of a medical license cannot diversify by holding multiple licenses.

9. A professional cannot sell a license. Practically speaking, how does the professional pay an award to the spouse based on the value of a license when the license can-

not be sold and has no real value in the market? The definition of fair market value is what a willing buyer would pay a willing seller, neither being under compulsion to buy or sell, and both having all knowledge of the relevant facts.

10. Professor Academic says the license at the time of marriage has no value whatsoever. Yet, if a license could actually have value, its highest theoretical value would be when it was earned, since the value, using an income valuation approach, would be the present value of all of the future years of income to be earned. Therefore, the value would logically decline over time, since with each respective year that passes there are fewer remaining years left to practice. By assuming a \$0 value at the date of marriage, and then a \$5.8 million value at separation, Professor Academic crams all of the value onto the separation date.

Other Problems

While many problems arise in the calculation of license value, there are also numerous issues indirectly related that need to be considered. The following are a few concerns that the “expert” would need to address.

1. An award based on license value is the awarding of alimony. An award based on license value is, in effect, an awarding of alimony all the way to age 65. In effect, the awarding of the value of this future income stream (the license value) is the same as assuming the payment of alimony each and every year, all the way to age 65.

2. It is not clear that the valuation of licenses is widely and generally accepted. Only a few states, such as New York, have ruled that licenses are marital assets. Few states have given credence to potential methodologies for valuing professional licenses. The readings on the subject are limited, and the ones that exist suggest a few of the many problems noted in this article. Leading appraisal societies, such as the American Society of Appraisers, have no position on the methodologies and do not teach nor include them in their standards.

3. How does the value of Dr. Jones’ license compare to actual cases? Professor Academic’s value for the license is many times higher than actual values found in those few cases in those states where licenses were determined to be a marital asset. The CCH book, *Valuing Professional Practices* (by James L. Horvath, ASA), says the following:¹

The question of whether or not educational enhancements constitute property and, if they are property, whether or not they have value remains to be resolved in the courts. In the United States, however, the courts have been confronting this issue for some time under community property and equitable distribution laws. In general, valuers have estimated the value of degrees and licenses on the basis of their value to the owner. Although the sums suggested by these experts have ranged to as high as \$1,500,000, most

estimates have fallen between \$200,000 and \$500,000 for a professional degree and/or a license to practice. *To date, large values have been placed on degrees and licenses in only a few instances* [emphasis added].

The book then cites three awards related to medical degrees as follows:

- \$472,000 value of a medical degree (New York- *O’Brien v. O’Brien*).
- \$863,702 value of a medical degree (Ohio- *Lira v. Lira*).
- \$250,000 value of a medical degree (Oklahoma).

In summary, in only a few states and a few situations have states actually awarded value based on a professional license, and even in those very few circumstances the values have been nowhere near the \$5.8 million suggested by Professor Academic.

4. Double counting of other accumulated assets in compensation. Professor Academic’s analysis of the increase in the value of the license during the marriage fails to consider what happened to the compensation that Dr. Jones earned up to the date of separation. Dr. Jones and his former wife already had the benefit of the value of the license through using the earnings for increased consumption and the build-up of marital assets such as cars, houses, investments, etc. The value of these accumulated assets is already captured at separation by the appraisals of the couple’s other various assets. Presumably, Ms. Jones would receive her share in equitable distribution. To award these dollars again based on license value would result in double counting.

Even When Flaws Are Addressed an Unsupported Value Remains

While the example given was based on real life usage by “experts,” not all “license valuation experts” will make all of the mistakes noted in this article. The “expert’s” methodology might actually incorporate adjustments for life expectancy, future work plans and productivity, a more appropriate discount rate for risk, consider income and payroll tax differentials, and alleviate other shortcomings. Does this mean that the findings are now valid and give a reasonable and supported value for the license? No. Perhaps the single most important remaining flaw is what the individual would have actually done with his or her life in the absence of the license. This can never be known, yet what one assumes about that earnings pattern has a major impact on the finding of value. The analysis of earnings potential must be symmetrical for that specific individual, and not based on a hypothetical person. “License valuation experts” cannot satisfactorily answer this question, yet it is the most important one of all if the license value is to have any validity whatsoever. While the noted adjustments will give the appearance of greater precision and certainty, the voodoo remains.

Conclusion

It is now clear just how many speculative and simplifying assumptions one must make to be able to value a professional license. One can never know how the many factors cited would affect the license holder's earnings as a professional. It is even more difficult to project the completely unknown outcome had the professional pursued a course in life other than obtaining a professional license. To conclude that such a vastly oversimplified methodology can even begin to capture reality is naïve and unfair to both parties to the divorce. Both parties will experi-

ence substantial financial ramifications as a result of such an erroneous estimate of value. Experts who argue for this highly flawed method of appraisal are practicing “junk science” in the courtroom and do no one—the courts, the parties involved, or the public—a favor. Professional license valuation methodologies should be exposed for the witchcraft that they are. ♦

END NOTES

- ¹ James L. Horvath, *Valuing Professional Practices*, CCH International, pp. 143-145.