

Mamas Don't Let Your Babies Grow Up To Be ... Lawyers

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Is a law degree a good investment?¹ That is a question that a lot of current law students are asking themselves, and a question that many recent law school graduates are surely wishing they had asked themselves. And it is a question that all future potential law school attendees should ask themselves.

Unfortunately, it is not a question that has an easy answer, nor indeed a single answer. For any given undergraduate, the answer will depend upon a host of factors including her skill set, her opportunity set, the out-of-pocket costs she would incur in attending law school, and so on. These factors can vary widely. A different answer might well obtain for an English major from the University of Alabama who will be required to pay full freight at Notre Dame, and a mathematics major from Harvard University who is offered a full scholarship to Yale.

Since no single answer exists, I will not offer one. Rather, by undertaking some straight-forward analysis of the factors that come into play I hope to spur future generations of potential law school attendees to think about the question rationally, as one of making an investment. If your law school education were a stock or a bond, offered in the marketplace, would you buy it? Should you buy it? Why or why not?

My methodology is as follows. First, I identify the costs of attending law school. These are two: the opportunity cost of not entering the workforce immediately after graduation from college, and the

¹ A September 2009 post on Professor Larry Ribstein's blog, <http://busmovie.typepad.com/ideoblog/2009/09/the-demand-for-lawyers>, appears to conclude, based on numbers pulled out of the air, that a law degree is, as an investment, a no-brainer. Ribstein's calculation assumes \$50,000 per year of tuition plus opportunity costs, for an all-in investment of \$150,000. He also assumes a payback in the form of a \$25,000 annuity expected to grow at 0.5% per year – the wages in excess of those that could have been earned without a legal education – which he discounts at a 3% rate and thus values at \$1 million. As I disagree both with the numbers he pulled out of the air, and with what he does with them, I pulled out my own set (which are at least slightly better supported) and subjected them to my own analysis. This essay is the result.

See also a September 29, 2008 blog by Brian Hollar, <http://thinkingonthemargin.blogspot.com/2008/09/what-is-net-present-value-of-jd.html>, who anticipates both Larry Ribstein's analysis and my own. Hollar notes that crude numbers would lead one to peg the investment in law school at \$230,000 and the expected return at \$700,000 (based on an annuity with a median payout of \$60,000 discounted at an 8% rate), thus also rendering a law degree a no-brainer. But Hollar argues that this analysis is too facile, largely based on the bi-modal nature of returns and the fact that Biglaw jobs are hard to come by for students at all but the most elite law schools.

out-of-pocket costs, primarily tuition, fees and books, inherent in attending law school. Based on these costs, I calculate the annuity-like return that must be achieved to recover the costs. This process is more complicated than it might seem, as it importantly requires isolation of the true benefits in terms of compensation offered by a law degree and the identification of an appropriate discount rate for converting such incremental compensation to net present value.

Opportunity Cost. Undergraduate degrees vary considerably in terms of their immediate and longer-term market value. According to the website www.payscale.com, at the bottom of the heap are degrees in elementary education, with a starting median salary of \$33,000 and a mid-career median salary of \$42,400.² At the top of the heap are degrees in chemical engineering, with a starting median salary of \$65,700 and a mid-career median salary of \$107,000. Degrees in political science and economics, two fields which might be considered more natural or appropriate for future law school attendees, fall in between, with starting median salaries of \$41,300 and \$50,200, respectively, and mid-career median salaries of \$77,300 and \$101,000, respectively.

An alternative way to value undergraduate degrees is by granting institution. Again, according to www.payscale.com, at the bottom of this heap is the College of the Ozarks, with a starting median salary of \$31,900 and a mid-career median salary of \$54,900; at the top is the Massachusetts Institute of Technology, with a starting median salary of \$71,100 and a mid-career median salary of \$126,000. Schools like the University of Chicago (\$51,700 and \$107,000) and Vanderbilt University (\$51,800 and \$100,000) fall in between. Note that all reported figures are for employees who possess a Bachelor's degree but no higher degree; the mid-career salary figures are based on employees with a median 15 years of work experience. Note too that since all the data were gathered roughly contemporaneously, the gap between starting median salary and mid-career median salary presumably reflects solely gains in the employee's productivity (and not inflation).

Under the (I believe not unreasonable) assumption that graduates who choose to attend graduate or professional school are concentrated more at the top rather than the bottom of their classes, and hence on average should have immediate employment opportunities that are better than rather than worse than the median for graduates at their respective institutions, the reported starting median salary statistics presumably *understate*, perhaps even significantly, the median starting salaries that could have been achieved by graduates who choose instead to attend law school.³

² All figures in the text were obtained on October 15, 2009.

³ Not all persons attending law school do so directly after graduating from college. On balance, one would expect these individuals, who have spent a few years in the workforce, to have attained greater earning power than individuals who enter law school straight out of college (due to the productivity gains resulting from work experience). Whether or not this is in fact true as an empirical matter, it is surely true that law school attendees who have spent one or more years in the workforce after college and before law school will have a much better sense of their actual foregone wages, and hence will be better equipped to engage in a calculation of the type proposed in this essay.

The bottom line is that in terms of lost salary, the opportunity cost of law school attendees will vary greatly from one potential attendee to another. To reflect this variation, I will undertake an analysis for each of three very different but hopefully somewhat typical potential attendees. My first such potential law student is a college graduate whom I will name Also Ran. Also Ran achieves above average grades in a relatively nonmarketable major from a middle-of-the-pack undergraduate institution; he could have earned a mere \$40,000 in a non-legal job. Also Ran manages to claw his way into a second or third rate law school and has only a fair prospect, which I will set equal to 20% for purposes of my analysis, of landing a "Biglaw" job. My second potential law student is a college graduate whom I will name Solid Performer. Solid Performer achieves relatively good grades in a relatively marketable major from a better institution; he could have earned \$55,000 in a non-legal job. Solid Performer makes his way into a low-first or high-second rate law school and has a decent prospect (if all goes well and the stars are aligned), but far less than a certain prospect (since all does not always go well and the stars do not always align), of landing a Biglaw job. Specifically, I will assume that there is a 55% chance that Solid Performer ends up starting at Biglaw. My third potential law student is a college graduate whom I will name Hot Prospect. Hot Prospect earns stellar grades in a very marketable major from a top notch institution; she could have earned \$70,000 in a non-legal job. Hot Prospect attends a first rate law school and has a strong chance, which I will set equal to 90% for purposes of my analysis, of landing a Biglaw job.⁴ (I do not set her probability at 100% since even at the most elite law schools, some highly-touted students end up in the bottom few deciles of their class. In my experience, such students are by no means guaranteed elite Biglaw jobs.⁵)

In order to accurately compare the costs and benefits of a potential law school attendee who opts instead for non-legal employment, it is necessary to reduce the salary earned by such individual to reflect taxes paid. After all, a law school attendee does not merely forego a salary, but he also foregoes the detriment of paying taxes on such salary. Taking taxes into account is a tricky business, since taxes vary greatly depending on circumstances. Is the individual married? Does she have outside income? What state does she live in? And so on. I will not make any attempt to account for this variation. Instead, I will assume that each of my three individuals is unmarried, has no outside income, and lives in a state that imposes a flat 3% state income tax (based on a measure of income that piggybacks Federal taxable income). I assume further that each individual is entitled to a single personal exemption and

⁴ Law school is a favorite destination for undergraduates who are very bright but who do not have terribly marketable degrees. Such an undergraduate might have the current earnings power of an Also Ran, but the legal opportunities of a Hot Prospect. Clearly, for such a student, who will combine relatively low costs of attending law school with relatively outsized benefits, the likelihood that law school turns out to be a good investment will be significantly greater than for any of my three hypothetical individuals. This is why, as I have already noted, it is important that every potential student undertake his or her own analysis based on his or her own circumstances.

⁵ See Employment Trends for Law School Grads, National Law Journal, available at http://www.law.com/pdf/nlj/20080414employment_trends.pdf. Cf. How Much Will You Earn, The National Jurist, January 2008 at pg. 31, reporting average starting salaries, even for graduates of elite law schools, that are (well) below the theoretical \$160,000 maximum.

opts for the standard deduction. Finally, for ease of computation, I assume that the school year is the calendar year; that way I can ultimately replace two half-year and two full-year computations with three full-year computations. Based on 2009 tax rates, the following table presents the foregone after-all-tax income of each of my potential law school attendees during his first year of gainful employment:

	Also Ran	Solid Performer	Hot Prospect
Gross Salary	\$40,000	\$55,000	\$70,000
FICA	\$3,060	\$4,208	\$5,355
Federal Income Tax	\$4,196	\$7,756	\$11,506
State Income Tax	\$920	\$1,370	\$1,820
After Tax Opportunity Cost	\$31,824	\$41,666	\$51,319

If I assume an annual 3.5% raise to reflect productivity increases, but do not credit any interest on the prior earned after-tax amounts (thus treating the entire “investment” in legal education as being incurred during the last year of law school, a convention which effectively somewhat understates the amount of the investment), the three-year aggregate lost after-tax salary will add up to the amounts shown in the following table.⁶ The table also presents the salary-level that would have been attained by the start of the fourth year, i.e., the year in which a law graduate enters the workforce.

	Also Ran	Solid Performer	Hot Prospect
Three Year Opportunity Cost	\$98,853	\$129,424	\$159,408
Fourth Year Gross Salary	\$44,349	\$60,979	\$77,610

Tuition and Fees. State-run law schools charge widely varying amounts of tuition. Among the 13 state schools that are ranked in the top 30 (including all schools locked in a 4-way tie for 30th) in the US News & World Report rankings, in-state tuitions range from a high of \$41,500 at the University of Michigan to a low of \$12,564 at the University of Alabama, and average \$24,998.⁷ (Out-of-state tuitions are uniformly higher, and have much less variation.) Moving lower in the pecking order, in-state tuitions decline somewhat: for example, the University of Tennessee (ranked 59th) charges \$12,084, Rutgers University at Camden (ranked 80th) charges \$23,191, and the University of Louisville (ranked 98th) charges \$13,744. A small further decline in in-state tuitions is observable for schools that do not rank in

⁶ Based on the reported mid-career median salaries, a 3.5% annual productivity raise is actually somewhat too low. For the four degrees I mentioned, the average annual productivity raise would in fact amount to 3.6%; for the four granting institutions I named, the average annual productivity raise would amount to 4.4%.

⁷ These figures were all obtained from the US News and World report website.

the top 100: for example, Northern Illinois University charges \$13,984, the University of Idaho charges \$10,882, and the University of Mississippi comes in at \$9,350.

Private law schools charge considerably more, but there is somewhat less variation. For the 21 schools that are ranked in the top 30 (including all schools locked in a 4-way tie for 30th) in the US News & World Report rankings, tuitions range from a high of \$46,670 at Cornell University to a low of \$36,297 at Washington & Lee University, with an average of \$41,181. For the even more elite top 10 ranked private law schools, tuition averages \$43,935. There is a small decline in tuition at middle-of-the pack schools: for example, Pepperdine University (ranked 55th) charges \$37,590, the University of Seattle (ranked 77th) charges \$33,784, and Hofstra University (ranked 100th) charges \$39,640. Finally, there is no significant observable further decline in tuition at schools that fail to rank in the top 100. For example, Quinnipiac University charges \$38,830, John Marshall charges \$33,980, and Mercer University charges \$33,190.

There is no adequate way to take all of this variation into account in a short essay. Thus, I will focus on private law schools; the methodology would be the same (but the results would and the conclusions might be different) if I focused instead on state law schools. In keeping with my chosen focus, I will assume that Also Ran attends a middle-of-the-pack law school that charges \$35,000 of tuition per annum, that Solid Performer battles his way into a law school just outside of the true elite and is confronted with \$40,000 of tuition per annum, and that Hot Prospect makes it into a top twenty law school that charges \$44,000 of tuition per annum.

In addition to tuition, out-of-pocket costs for law school include the cost of fees and textbooks. I conservatively assume these costs total \$2,000 per year. I also throw in a final \$2,000 for Bar Review Preparation. Finally, I assume that none of the three individuals receives scholarship aid to offset tuition. Obviously, such aid, for students who receive it, will dramatically affect the calculations. And it may even be true that the “typical” student currently receives some such aid.⁸ Nonetheless, as many students do not, my baseline calculations will exclude aid. But I will briefly return to this subject later in this essay.⁹

⁸ The GAO recently published a report which shows that private law schools provide an average \$7,542 per capita in institutional aid, thereby offsetting median tuition by about 24%; public law schools provide a similar amount of aid on a percentage basis. Higher Education: Issues Related to Law School Cost and Access, GAO-10-20, page 18 (October 2009).

⁹ However, a general observation can be made at this point. To the extent that scholarship aid is merit-based, one would expect it to flow disproportionately to students like Hot Prospect and to a lesser degree Solid Performer. This may systematically improve the calculus for such students. The question remains, however, whether such improvement will be enough. (It will not. See *infra*.) To the extent that scholarship aid is need-based (I confess it is not entirely clear to me what need should mean in the context of professional school education: potential alternative earning power rather than the presence or absence of financial assets ought to be the touchstone), it will tend not to correlate with law students’ ultimate employment prospects. In essence, such aid improves the investment calculus for a “random” set of students. Over time, especially if I am correct in my ultimate conclusion

Before leaving the subject of costs of obtaining a legal education, I must add back one potentially significant offset: in past years, many law students were able to land very lucrative summer jobs. I thus assume that my three students are each able to land some sort of summer employment commensurate with their abilities and prospects. The after-tax after-expenses proceeds from such employment are an offset to the costs of obtaining a law degree. My numbers must necessarily be rough. The value of potential summer employment depends on a host of factors: does the student find employment in both summers, or just one, or none? Is the summer employment at a law firm, or in the public sector, or as a research assistant? Is the summer employment found in the same city where the student's law school is located, or are significant transportation and living expenses involved? Given this range of potential variability, I by fiat proclaim – otherwise I could not proceed with my calculations -- that Also Ran is able to garner \$10,000 of after-tax after-expense wages during his two summers, while Solid Performer is able to garner \$15,000 and Hot Prospect is able to garner \$20,000.¹⁰

I thus arrive at aggregate costs as follows¹¹:

	Also	Solid	Hot
	Ran	Performer	Prospect
Opportunity Cost	\$98,853	\$129,424	\$159,408
Tuition and Fees	\$113,000	\$128,000	\$140,000
Net Summer Wages	(\$10,000)	(\$15,000)	(\$20,000)

that private law school is currently a dubious investment at least for a wide swath of law students paying full freight, one would expect the application pool to become populated more or less exclusively by candidates demonstrating such “need.” If that happens, the officially published tuition figures will effectively cease to have relevance; everyone will simply pay a net rate. And then the question will become, whether paying at the net rate produces a good or a bad investment.

¹⁰ I have purposely treated summer employment as an item reducing the cost of a law degree. I have done this in part because it occurs prior to the receipt of the degree and in part to neatly temporally separate costs and benefits of the degree. In reality, however, summer employment is the first cash return from undertaking a legal education. And so viewed, its very high variability, especially in the current climate, serves to underscore a point that law students often miss, namely that the distribution of incremental cash flows attributable to a law degree has very great dispersion. This in turn has a consequence: when valuing the expected future cash flows attributable to a law degree, a relatively high discount rate will be required. More on this infra.

¹¹ As I did in the case of opportunity costs, I do not impose any interest charge on tuition paid during the first and second year of law school. Thus, I treat the entire investment in legal education as being made in the third year, which has the effect of somewhat understating the true cost of the education. On the other hand, I also do not incorporate any tuition increases. As I am using 2009-2010 tuition figures, but 2008-2010 compensation figures, this would generally have the effect of overstating somewhat the (relative) cost of a legal education. But that is probably not the case in the current environment, as it seems unlikely that entry-level compensation for law school graduates is likely to increase much, if at all, for the next few years. If it does not, but if law school tuition continues to rise, then my assumption will actually understate the (relative) cost of a legal education.

Total Cost	\$201,853	\$242,424	\$279,408
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Billable Hours and the Direct Benefits of a Law Degree. It is easy to be impressed with Biglaw starting salaries of up to \$160,000. But at least two considerations other than the presence of a law degree may to some extent contribute to these salaries. First, a Biglaw job typically comes with an obligation to work Biglaw hours. Second, Biglaw jobs, much more than other jobs, are concentrated in New York, Washington, Chicago, and a handful of other urban markets with higher than average costs of living.

I assume that the typical non-legal job requires 2,000 hours per year of service. I also assume that *any* law firm job comes with an expectation that the lawyer will put in a greater number of hours.¹² Legends abound as to the hours required for a successful career at Biglaw; but even law school graduates who “hang up a shingle” will tend to work long hours, pounding the pavement to try to drum up business. Logically, any compensation connected with these incremental hours is not solely compensation attributable to the law degree, but at least in part compensation attributable to the fact that the fledgling lawyer is giving up ever-more valuable hours from his ever-shrinking pool of free time. In the absence of better numbers, I think it is reasonable to assume that an associate at a small to mid-size law firm is required to work 10% more hours than he would have worked had he never entered the legal profession, while an associate at a Biglaw firm is expected to work 20% more hours. In terms of numbers, this means that associates at small to mid-size firms are expected to work -- which is *not* the same thing as being required to bill¹³ -- 2,200 hours per year, while their Biglaw brethren would be expected to work 2,400 hours per year.

Returning to my three potential law school attendees, recall that Also Ran would have attained a salary of \$44,349 after three years in the workforce. On a per hour basis, assuming 2,000 hours of work per year, this works out to a wage of \$22.17 per hour. Suppose that Also Ran, having gone to law school, obtains a position as an associate, albeit not at Biglaw, and thus is required to work an additional 200 hours per year. Under the standard assumption that overtime hours, at least when amassed in

¹² It is true that some non-legal jobs come with expectations of hours that match or exceed those of entry-level lawyers. Entry-level consultants and investment bankers certainly are subject to such expectations. But I am assuming that none of my three typical law students had such a non-legal job opportunity. If they had, I would have needed to increase (significantly) their initial non-legal job compensation (and the expected growth of such compensation), and hence their opportunity cost of attending law school. For what little it is worth, in my limited experience, people with legitimate consulting- or investment-banking-type opportunities are not terribly well represented even in elite law schools.

¹³ Required billable hours are lower than expected work hours for at least two reasons. First, significant numbers of worked hours (including those related to such matters as continuing legal education, client development, and new associate recruiting) are simply not billable. Second, and more important, associates who want to win the competition to remain at the firm and ultimately have a shot to make partner will not be content with billing the minimum required number of hours.

reasonable amounts, are worth time-and-a-half, a short-hand way of acknowledging that such hours are from the employee's vantage ever more precious, Also Ran would demand \$33.26 for the additional hours, or \$6,652 in the aggregate.¹⁴ But recall that I assumed that Also Ran had a 20% chance of landing a coveted Biglaw job. If he does, he will be expected to work not an additional 200 hours per year, but rather an additional 400 hours per year. In this case, time-and-a-half compensation for all of the overtime hours seems inadequate; Also Ran's free time, becoming ever scarcer, is ever more valuable. Thus, I assume that while time-and-a-half compensation is adequate for the loss of the first 200 hours of free time, double compensation is required for the loss of the next 200 hours of free time. Applying this rule, Also Ran would demand \$15,522, rather than just \$6,652, for the Biglaw overtime. Finally, weighing Also Ran's expected overtime pay requirement according to the likelihood of his future employment, I obtain $\$8,426 = 0.8 * \$6,652 + 0.2 * \$15,522$.

I repeat the foregoing calculation for Solid Performer and Hot Prospect, taking into account however their enhanced likelihoods – 55% in the case of Solid Performer and 90% in the case of Hot Prospect -- of landing a Biglaw job. The result is that Solid Performer will require \$15,855 of overtime, while Hot Prospect will require \$25,611.

Finally, I build in a modest cost-of-living premium. Also Ran, who can generally find his job anywhere, including in particular in all the same venues where he could have found his first non-legal employment, requires such premium only in the 20% case that he winds up at Biglaw. Solid Performer, on the other hand, requires a premium 55% of the time; Hot Prospect requires a premium 90% of the time. Conservatively assuming that Biglaw venues on average have a cost of living that is 10% higher than the average employment venue, the expected cost of living premiums for Also Ran, Solid Performer and Hot Prospect will be 2%, 5.5% and 9%, respectively.

The following table presents the initial compensation hurdle that the law degree must overcome to provide any positive value to each of my three potential law school attendees:

	Also Ran	Solid Performer	Hot Prospect
Fourth Year Gross Salary	\$44,349	\$60,979	\$77,610
Required Overtime Pay	\$8,426	\$15,855	\$25,611
Cost of Living Premium	\$1,056	\$4,226	\$9,290
Hurdle Compensation	\$53,831	\$81,060	\$112,511

¹⁴ It is true that salaried workers do not in general receive explicit overtime pay. That does not mean, however, that they are not compensated for additional work. To the extent that a salaried job has outsized hours, it will typically have higher total compensation (possibly in large part paid as a bonus), which implicitly includes a payment for overtime. I could have modeled this alternative in my chart by simply positing higher pay: if Hot Prospect is at a high-powered job prior to coming to law school, just suppose that her actual compensation is \$112,511 (without any need for an overtime or cost-of-living premium).

Discount Rates.¹⁵ The foregoing analysis has been straight forward; it requires nothing more than keeping one's eye on all the costs and benefits. These costs and benefits, while they will vary greatly from potential student to potential student, are largely knowable with a fair deal of precision. Also Ran either could have been a high school teacher, or he couldn't have been. Solid Performer either got into Emory or she got into Vanderbilt. Hot Prospect either covets, and therefore gets, a job requiring 2,300 billable hours in New York City or a job requiring 2,100 billable hours in Houston.

What is controversial is how to value the expected incremental income from a law degree: the excess of a law graduate's expected income after earning a law degree over the hurdle compensation level determined above. How would an investor value this income stream? We know something about that. One place to look for a potentially applicable discount rate is the student loan market; after all, lenders are loaning sums to law school attendees presumably at least in part because they believe that the law school attendees will earn sufficient incremental income to repay such loans, with interest. Thus, I visited Wells Fargo Bank's website (on October 27, 2009) and found some rates for graduate and professional student loans. Student loans were divided into two classes: so-called Federal loans such as the Federal PLUS Loan, which featured an 8.5% fixed interest rate (plus a hefty 3% origination fee), and so-called private loans, all of which were variable rate loans charging interest at some percentage over the Prime Rate and which were currently, given an aberrantly low prime rate, actually charging somewhat lower rates of interest than the Federal loans.

But there are at least three reasons to believe that student loan interest rates significantly understate the rate at which the expected incremental income stream generated by a law degree should be discounted. First, many student loans are to some extent guaranteed and therefore subsidized by the government (ergo the category of Federal loans on the Wells Fargo Bank website). A true market discount rate would undoubtedly be higher. Second, student loans are repaid from an income stream – namely *all* of the borrower's income – that is significantly less risky than the income stream comprised solely of the law school graduate's incremental law-school-generated earnings. Thus, once again, the discount rate for the expected incremental income stream should be higher.

Third, student loans are issued by lenders who are effectively risk-neutral; each lender issues a multitude of such loans and therefore does not much care about how any given one of such loans performs, so long as on average the principal and interest on the loans, taking the risk of default into account, provides an adequate time-value-of-money return. On the other hand, a student investing in a legal education is generally massively under-diversified and decidedly risk-averse; he will not be satisfied if his expected return on average merely compensates him for the time value of money; he will want as

¹⁵ The rest of this essay has implicitly assumed no inflation: I isolated and made use of average annual productivity raises for Bachelor's degree recipients in my calculation of opportunity cost; I assumed no annual increase in law school tuition over the course of the law students' law school tenures in determining the aggregate out-of-pocket tuition and fees. Here I continue with that assumption; the discount rates I am using are assumed to be real. I can reconcile this, in spite of obtaining nominal rates published by Wells Fargo Bank and others on the Internet, by noting that current inflation is essentially 0%, and hence the nominal rates are in fact also real rates.

close to a guarantee as he can get that his investment will pay off. But a guarantee is only possible if his investment is expected to be fully recouped over a very short time horizon. Requiring such recoupment is equivalent to applying a very high discount rate to his expected incremental income.

So perhaps a more appropriate discount rate is a rate generally charged on unsecured loans. Ignoring teaser rates, a check on the Internet on October 27,2009, revealed advertised “regular rates” that generally ranged (with a few outliers) between “as low as 11.99%” and a flat 16.90%. But even such loans are collateralized by a less risky income stream: namely all of the borrower’s income. Thus, perhaps the best way to analogize the relevant income stream is as a non-diversifiable equity income stream; like any other equity income stream, this stream represents the excess of all generated income over that amount of income required to repay all debts; here the “debts” soak up the entirety of the “hurdle compensation” set forth in the last table. This is a highly leveraged and volatile income stream¹⁶, and so puts me in mind of financial analyses in which I participated when I was advising investors in the private equity sector. For such income streams, at least in the mid-1990s, we generally applied discount rates of as high as 30%.

Conclusions. I assume that each of my law school graduates has a 35-year legal career. I also assume that the expected incremental earnings from a law degree are earned as an annuity with a 3.5% annual growth factor reflecting increased productivity.¹⁷ The question is: what must be the initial

¹⁶ Law students may not appreciate how volatile attorney income is, even in the case of established attorneys. Not all associates become partners. Not all partners become senior partners. Law firms blow up, leaving non-rain-making partners in the lurch. In-house attorneys are subject to all the usual vicissitudes of corporate down-sizing. And so on.

¹⁷ That is, I assume that lawyers on average experience productivity raises that are identical in percentage terms to those that I have assumed for non-lawyers. Thus, I assume a 3.5% annual increase in compensation both for lawyers and for non-lawyers. It follows that if a legal job initially offers compensation of \$x more than the non-legal job, it will after one year offer compensation of \$(1.035)*x more than the non-legal job, and so on. Thus, the annuity expressing the difference in compensation between the legal job and the non-legal job will reflect the same growth factor as the compensation paid by such jobs.

But is the basic assumption valid? Do lawyers on average receive greater or smaller productivity raises than non-lawyers? NALP (at <http://nalp.org/2008sepnewfindings>) provides some data that may be relevant. For lawyers in the public sector, productivity raises through mid-career (now defined as 11 to 15 years) average 3.75%, which is entirely in-line with the productivity raises reported for non-lawyers. No mid-career data are reported for private sector lawyers. But 2008 first-year and fifth-year salaries are reported, based on firm size, and these enable me to calculate at least the first few productivity raises. As the table below shows, productivity raises may be somewhat higher at very small or very large firms than I am assuming, but are comparable at mid-size firms. Given the high degree of associate attrition, at least at many large firms, my assumption that productivity raises are no greater among lawyers than non-lawyers seems to be defensible.

	less than 50	51 to 100	101 to 250	251 to 500	more than 500
First-Year	\$80,000	\$95,000	\$110,000	\$125,000	\$145,000

payment of such annuity in order to justify the investment made in the law degree? The answers are quite high, as can be seen in the following table:

	Also	Solid	Hot
	Ran	Performer	Prospect
Discount Rate is 12%	\$18,205	\$21,864	\$25,200
Discount Rate is 17%	\$27,578	\$33,121	\$38,174
Discount Rate is 22%	\$37,441	\$44,967	\$51,827
Discount Rate of 27%	\$47,465	\$57,005	\$65,702

What does this mean? Suppose we convince ourselves that 17% is the appropriate discount rate for the incremental earnings generated by a law degree. Then Solid Performer would need to expect to earn, on average, \$33,121 more in his first year of legal employment than he would have earned had he not gone to law school. Given that his hurdle compensation is \$81,060, it follows that he must expect to earn \$114,181 in his first year. Moreover, the expected \$33,121 wage differential would need to be maintained, and indeed increased at a rate of 3.5% per annum, throughout the remainder of his career. The following table sets forth the result of this same calculation of the required expected first year compensation for each of my three hypothetical individuals:

	Also	Solid	Hot
	Ran	Performer	Prospect
Discount Rate is 12%	\$72,036	\$102,924	\$137,711
Discount Rate is 17%	\$81,409	\$114,181	\$150,685
Discount Rate is 22%	\$91,272	\$126,027	\$164,338
Discount Rate of 27%	\$101,296	\$138,065	\$178,213

There is something very striking about these numbers. NALP, the Association for Legal Career Professionals, publishes a graph showing starting salaries for law school graduates.¹⁸ For the Class of 2008, the last year for which statistics were available, the median salary of a fledgling lawyer was \$72,000. That salary obviously does not stack up very well against the required salaries set forth in my table; every single required salary is greater. But that median salary tells a hopelessly deceptive story. The distribution of salaries was in fact bi-modal, with fully 42% of salaries falling between \$40,000 and \$65,000, and a smaller but still very significant number clustered at the elite Biglaw starting salary of \$160,000.

Fifth-Year	\$99,250	\$109,000	\$115,000	\$146,500	\$183,000
Raise Rate	5.54%	3.50%	1.12%	4.05%	5.99%

¹⁸ See <http://nalp.org/salarydistrib>.

Let me return to my assumption that Also Ran has a 20% likelihood of landing a Biglaw job; Solid Performer has a 55% likelihood; and Hot Prospect has a 90% likelihood. Based loosely on the NALP data, and without any pretense that the first-year compensation distribution is actually discrete, I will assume that a generic Biglaw job translates into an expected starting salary of \$155,000, while a generic non-Biglaw job translates into a job in the \$40,000-to-\$65,000 hump depicted by NALP and in turn into an expected starting salary of \$55,000.¹⁹ If so, then Also Ran's expected first-year legal compensation will be \$75,000, Solid Performer's will be \$110,000, and Hot Prospect's will be \$145,000. This in turn means that at a very modest 12% discount rate, all three individuals have made an acceptable if not earth-shattering investment. On the other hand, at arguably more realistic higher discount rates, the investments are all bad.

It is interesting at this point to turn the mode of calculation on its head, and thus directly confront the question of how much a legal education is worth.²⁰ For Also Ran, an expected starting legal salary of \$75,000 represents an expected incremental return of \$21,169 realized during his first post-law-school year of employment solely due to the presence of his law degree (since his hurdle compensation is \$53,831). If I assume 3.5% annual expected productivity growth, and use a 19.5% discount rate (the missing median discount rate in my foregoing tables), this incremental income has a net present value of \$131,573. In other words, Also Ran pays \$201,853 for something that is in fact worth \$131,573. Employing the same methodology, Solid Performer, with an expected first-year salary of \$110,000, and hence expected first-year incremental earnings of \$28,940, garners incremental income with a net present value of \$179,872. In other words, he pays \$242,424 for something that is in fact worth \$179,872. Finally, Hot Prospect, with an expected first-year salary of \$145,000, and hence expected first-year incremental earnings of \$32,489, generates incremental income with a net present value of \$201,930. Thus, she pays \$279,408 for something that is in fact worth \$201,930.²¹

	Also	Solid	Hot
	Ran	Performer	Prospect
Cost of Law Degree	\$201,853	\$242,424	\$279,408
Value of Law Degree (19.5% Discount Rate)	\$131,573	\$179,872	\$201,930

¹⁹ One NALP table shows that in 2008, firms with over 500 lawyers paid first years a median starting salary of \$145,000. Thus, Biglaw did not automatically translate, even in 2008, into a starting salary of \$160,000. Nor is it the case that non-Biglaw jobs automatically translate into \$50,000-type jobs. Indeed, there are a fair number of jobs at smallish, but not actually small, law firms that have starting salaries in the \$80,000-to-\$120,000 range. My assumption in the text is nothing more than a guess that I believe will lead to mean first-year compensation that is relatively realistic for the law students in question.

²⁰ This methodology follows that of Larry Ribstein, noted above in Note 2, but with altered numbers.

²¹ It is interesting to note that these first-year incremental earnings figures are not so very different from Larry Ribstein's posited \$25,000. See Note 2 above.

Expected Loss	\$70,280	\$62,552	\$77,478
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This alternative methodology is particularly useful for quickly calculating the effects of changes to my cost assumptions. For example, suppose all else is exactly as I have specified, and that 19.5% is indeed the appropriate discount rate, but that my typical student receives a typical annual scholarship grant. To be concrete, suppose that the chosen law schools each provide grant aid to roughly 2/3 of their students, and that the average size of each grant is \$15,000. Then the “typical” law student would receive annual grant aid of \$10,000.²² Is such typical receipt sufficient to make law school a good investment? My calculations suggest it is not. Rather, in order to ensure that law school is an ex ante fair investment, Also Ran requires \$23,427 of grant aid per year, Solid Performer requires \$20,851 of grant aid per year, and Hot Prospect requires \$25,826 of grant aid per year.

And other calculations can quickly be made from this chart as well. For example, assuming absolutely no change in ultimate job prospects (even at the margin), should a hypothetical law student prefer a slightly cheaper law school (perhaps even a state school at which he qualifies for instate tuition) to a slightly more expensive one? Phrased that way, and premised as it is on an unrealistic assumption, the answer to the question will of course be yes. But that does not mean that the cheaper law school itself will be a good investment. It may be, but the table suggests it will be only if it is in fact considerably cheaper.

Finally, with the tiniest bit of twenty-twenty hindsight, it is possible to identify, already in the third year of law school, some of the students who have made what has turned out to be not only an ex ante bad investment but an ex post losing investment. Thus, consider the 45% of hypothetical Solid Performers who do not end up with a job offer from a Biglaw firm. They begin their legal careers at a salary that is no higher, indeed is actually lower, than the one they could have obtained without having gone to law school. They are unlikely ever to dig themselves out of that hole. On the other hand, the Solid Performers who end up with Biglaw offers know pretty quickly that they are likely to have turned an ex ante bad investment into an ex post winning one.

A Final Word. How does the current state of the market for entry-level law school graduates affect the analysis? It does so in three ways, I think. First, it means that the cost of a legal education may be higher than I have calculated, and that the benefits may be lower. On the cost side, for any 2009 law school graduate whose employment is deferred until 2010, the clock on opportunity costs continues to tick (how much depends on whether and what kind of employment is obtained during the deferral period). In addition, for any 2010 or 2011 graduate who is unable to secure gainful lucrative summer employment, the opportunity costs in my calculation must be increased.²³ On the benefits side, for any

²² This average figure comports well with amount recently reported by the GAO. See Note 7.

²³ These effects will to some extent be offset by reductions in opportunity cost that result from the fact that non-legal jobs are likely to currently be less lucrative as well.

law school graduate who anticipated that an elite Biglaw offer meant an entry-level wage of \$160,000, the reduction by some firms of entry-level wages to \$145,000 means a dramatic immediate reduction in the law degree's pay-off.²⁴

Second, the current dislocations in the legal market show that the incremental income stream from a law degree is actually more risky than recent law school attendees have probably been led to believe: not every graduate from a highly-ranked and expensive private law school is guaranteed to get, *much less keep*, a Biglaw job.²⁵ And this, in turn, means that the appropriate discount rate is surely higher than the one such attendees have implicitly been using.

But there is a third effect as well, and it may be the most important of all. There is no reason to believe that the currently-experienced changes in the legal market for freshly-minted law school graduates are temporary; indeed, some legal scholars think they may well be permanent.²⁶ To be sure, it is always dangerous to predict that any changes borne of catastrophe will be permanent, and that is certainly true for the current changes. Nonetheless, if these changes do prove to be permanent, then it will not just be the current crop of law students, but all future crops as well, who will need to ratchet down their expectations not only with respect to first-year compensation, but also with respect to job security and chances for partnership. And that could easily tip the balance with respect to the investment decision, even at the lowest defensible discount rates, decidedly into negative territory.

I do not want to end on such a bleak note. As I mentioned several times throughout this essay, and is worth repeating yet again, each potential student's calculus will be based on a host of factors unique to him or her. For some, like an English major (relatively low opportunity costs) who gets some scholarship assistance (somewhat lower out-of-pocket costs) to attend Harvard Law School (relatively high pay-off), the investment in a legal education may in fact be close to a no-brainer. Moreover, even for individuals facing a more challenging calculus, it may be the case that a legal education confers benefits beyond the incremental compensation that I have used to analyze the pure investment decision. For example, a law degree opens up many more avenues of potential employment, including importantly self-employment, than does a typical undergraduate degree: lawyers are found in all parts of the workforce performing all manner of jobs. Does this imply, perhaps, that some option value should be added to a law degree's payoffs? If so, how would one measure such option value? And lastly, of course, a law degree is a professional degree; it confers considerable prestige. But alas, you cannot eat prestige.

²⁴ See generally <http://abovethelaw.com/layoffs> for tales of deferral, salary reduction, and more.

²⁵ See generally <http://abovethelaw.com/layoffs> for statistics on the proliferation of lay-offs of young associates at Biglaw firms.

²⁶ See Larry E. Ribstein, The Death of Big Law, (posted on SSRN).