

FROM: BRIAN LEITER'S LAW SCHOOL REPORTS

THE ECONOMIC VALUE OF A LAW DEGREE

CORRECTING MISCONCEPTIONS

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TOPICS:

- Ability sorting and selection
- Occupation and the versatile law degree
- Long term versus short term
- The broader labor market
- Present value and opportunity costs
- Acknowledgements

ABILITY SORTING AND SELECTION

In *The Economic Value of a Law Degree*,¹ Frank McIntyre and I estimate the increase in annual and lifetime earnings that is attributable to a law degree. To do so, we compare those with law degrees to similar individuals with less education.

Because those who matriculate at law schools may be different from the average bachelor's degree holder, we compare law degree holders to a group of *similar* bachelor's degree holders.

There is a misperception – apparently started by Brian Tamanaha ([here](#)² and [here](#)³) and [repeated by others](#)⁴ – that we simply compare

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¹ papers.ssrn.com/sol3/papers.cfm?abstract_id=2250585.

law degree holders to all bachelor's degree holders, or that we compare the 25th percentile of law degree holders to the 25th percentile of all bachelor's degree holders. *This is not true.*

At a high level, what we essentially did was to create two sub-groups of bachelor's degree holders – all bachelor's degree holders, and a subset of bachelor's degree holders who look like the law degree holders with respect to many observable characteristics that predict earnings – demographics, academic achievement, parental socio-economic status, measures of motivation and values. It is this second group of bachelor's degree holders that we compare to the law degree holders.

To check for ability sorting and selection, we use statistical techniques including:

- Ordinary Least Squares (OLS) regression (at the mean)
- Quantile Regression at the:
 - 25th percentile
 - 50th percentile
 - 75th percentile
- Propensity score matching (for our lifetime earnings premium estimates)
- Heckman Selection (in an appendix)

The observable characteristics (pretreatment covariates) that we focus on as controls in the Survey of Income and Program Participation include:

- Race
- Age
- Gender
- Number of years of high school coursework in
 - Math
 - Science
 - Foreign Language
 - English

² leiterlawschool.typepad.com/files/balkinization_-how_-the-million-dollar-law-degree_-study-systematically-overstates-value_-three-choices-that-improperly-skewed-the-results-4.pdf.

³ leiterlawschool.typepad.com/files/balkinization_-leiters-contradictory-conclusion.pdf.

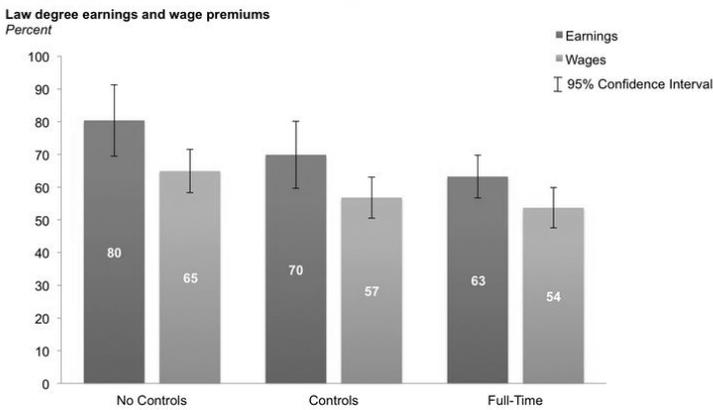
⁴ leiterlawschool.typepad.com/leiter/2013/07/repetitive-and-avoidable-mistakes.html.

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- Type of High School
 - Private vs. Public
 - College preparatory classes in high school
- College major (divided into five categories based on the International Standard Classification of Education)

These controls bring down our earnings premium estimates by around 10 percent at the mean and around 8 percent at the 25th percentile.

Law degree earnings and hourly wage premiums are substantial



Source: U.S. Census Bureau, Survey of Income and Program Participation; Authors' calculations, Tables 1 and 2

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In other words, the data and statistical techniques that we use suggest that the kinds of people who go to law school would probably earn about 10 percent more than the average bachelor's degree holder even if they hadn't gone to law school. But the law school earnings premium is much greater than that, and the earnings premiums we report are *after* controls for ability sorting.

We do an additional check for ability sorting using another data set called the National Education Longitudinal Study (NELS). NELS follows a cohort from 8th grade through their late 20s, and includes additional pretreatment control variables that are not available in SIPP.

Controls that are available in NELS include:

- college quality
- demographics
- standardized test scores
- college GPA and major
- motivation and interest in careers
- subjective expectations about future income
- Parent SES

The results of the analysis using NELS are very similar to the results of the analysis in SIPP. The bachelor's degree holders who go on to law school would probably earn about 10 percent more than the average bachelor's degree holder, even if they had not gone to law school.

Because this level of ability sorting was already taken into account in our SIPP analysis, we do not believe that any further adjustment to our SIPP results would be justified based on the analysis in NELS. Because different measures of ability that predict earnings are often correlated with each other, adding more and more control variables that measure essentially the same thing often won't substantially change the estimate of the earnings premium.

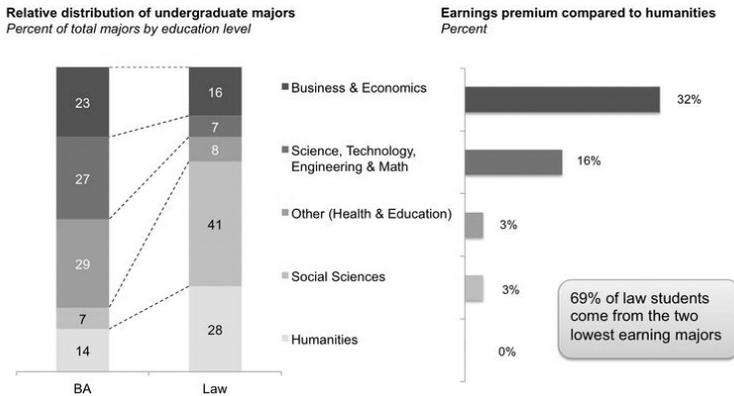
Thus we found very little to suggest that law graduates' above average undergraduate academic performance translates into higher earnings other than what we had already accounted for. This may be surprising to people for two reasons. First, law degree holder undergraduate academic performance is better but not fantastically better than the typical BA. Second, that above average performance does not actually translate into much of a boost to earnings. It turns out higher undergraduate grades, for example, do not show a strong correlation with later earnings. We find that this is especially true, by the way, in the majors preferred by law students in the humanities and social sciences.

Eric Rasmusen⁵ has an interesting blog post qualitatively describing the "typical" law student.

⁵ taxprof.typepad.com/taxprof_blog/2013/07/rasmusen.html.

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Law students disproportionately majored in humanities and social sciences fields that predict low earnings



Source: NELS 88, Table 5

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There are several other issues related to selection on unobservables and offsetting biases that are worth mentioning.

Annual vs. Lifetime and regression to the median:

Annual earnings tend to be much more varied than longer-term lifetime earnings. For one example, job losses or transitions can cause a sharp drop in one year, but tend to be resolved by the next year. People going through such temporary rough spots show up low in the earnings distribution. So the 25th percentile of one year earnings is much lower than the 25th percentile over average lifetime earnings.

Reporting Bias:

When reporting earnings, people tend to not report periods of unemployment and such. The SIPP returns to interview people every four months, so this is not as much of a problem as it could be, but it means that low income people tend to over-report their income relative to those higher up. This typically will bias down estimates of how much more one group earns than another.

Specific Ability:

People tend to pick the career they will succeed at. Thus those who are bad at some jobs but good at jobs available to law degree holders will gravitate towards law. But, in fact, had they not gone in to law they might end up doing very badly. This has several effects – it means that we will tend to underestimate the value of law school to those who choose law because that is their particular advantage but at the same time we may be overestimating it for those who are not choosing law. It is hard to know for sure if this is a large effect or not. It is very difficult to nail down statistically.

The 25th Percentile:

When we look at the 25th percentile earnings lawyer we use quantile regression to make these ability adjustments to the data before comparing them to the 25th percentile earnings BA, thus we're correcting for ability as much as possible. Though not reported in the paper we find the ability gap (that we adjust for in our lifetime value estimates) between BA and law grads is about eight percentage points at the 25th percentile. This is completely in line with what we found at the mean both in the SIPP and in our more refined estimates from the NELS survey. It is possible that the gap is larger (or smaller) at the bottom than our data show, so that would be a great place for future research, but we think this is the best currently available estimate, especially given issues (1) and (2) biasing the premium down.

OCCUPATION AND THE VERSATILE LAW DEGREE

A very large fraction of law degree holders do not end up practicing law. For some, this is a disappointment and for others it is a preferred outcome. We include all these people in our estimates of the value of a law degree. That is because the question we are interested in answering is the value of the law degree, not the earnings of the subset of individuals who practice law. Controlling for occupation would have been methodologically improper because occupation is an outcome variable, not a pretreatment covariate.

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As MIT labor economist Joshua Angrist and LSE labor economist Jörn-Steffen Pischke explain in *Mostly Harmless Econometrics*:⁶

Some variables are bad controls and should not be included in a regression model even when their inclusion might be expected to change the short regression coefficients. Bad controls are variables that are themselves outcome variables . . . That is, bad controls might just as well be dependent variables too. The essence of the bad control problem is a version of selection bias . . .

To illustrate, suppose we are interested in the effects of a college degree on earnings and that people can work in one of two occupations, white collar and blue collar. A college degree clearly opens the door to higher-paying white collar jobs. Should occupation therefore be seen as an omitted variable in a regression of wages on schooling? After all, occupation is highly correlated with both education and pay. Perhaps it's best to look at the effect of college on wages for those within an occupation, say white collar only.

The problem with this argument is that once we acknowledge the fact that college affects occupation, comparisons of wages by college degree status within an occupation are no longer apples-to-apples, even if college degree completion is randomly assigned . . . [because of selection bias].

We would do better to control only for variables that are not themselves caused by education.

In a recent article,⁷ David Neumark and co-authors also include a helpful explanation of the problems with controlling for occupation and “underemployment”,⁸ or relying on BLS occupational earnings projections⁹ when trying to measure education earnings premiums:

For nearly every occupational grouping, wage returns are higher for more highly-educated workers even if the BLS says such high levels of education are not necessary. For example . . . for management occupations, the estimated coefficients for Master's, professional,

⁶ www.amazon.com/Mostly-Harmless-Econometrics-Empiricists-Companion/dp/0691120358/ref=sr_1_1?s=books&ie=UTF8&qid=1375308260&sr=1-1.

⁷ www.socsci.uci.edu/~dneumark/Neumark%20skill%20shortages.pdf.

⁸ centerforcollegeaffordability.org/uploads/Underemployed%20Report%202.pdf.

⁹ digitalcommons.law.wustl.edu/cgi/viewcontent.cgi?article=1586&context=wujlp.

and doctoral degrees are all above the estimated coefficient for a Bachelor's degree, which is the BLS required level. . . .

If the BLS numbers are correct, we might expect to see higher unemployment and greater underemployment of more highly-educated workers in the United States. As noted earlier, we do not find evidence of this kind of underemployment based on earnings data. Similarly, labor force participation rates are higher and unemployment rates are lower for more highly educated workers.

Even economists at the BLS¹⁰ emphasize that educational earnings premiums, and not BLS employment projections, are the key measure of the value of education:

The general problem with addressing the question whether the U.S. labor market will have a shortage of workers in specific occupations over the next 10 years is the difficulty of projecting, for each detailed occupation, the dynamic labor market responses to shortage conditions. . . .

Since the late 1970s, average premiums paid by the labor markets to those with higher levels of education have increased.

It is the growing distance, on average, between those with more education, compared with those with less, that speaks to a general preference on the part of employers to hire those with skills associated with higher levels of education.

LONG TERM VERSUS SHORT TERM

We value a law degree based on the present value of a lifetime of increased earnings. The valuation literature is unambiguous about the correct time period to value the cash flows generated by an asset: the entire life of the asset. The delay and higher risks of cash flows in the distant future are already taken into account through the application of a discount rate and the present value formula.

Our approach, using the typical span of a working life and discounting back to present value, is the correct one for the majority of

¹⁰ www.bls.gov/opub/mlr/2004/02/art1full.pdf.

potential law students who obtain their degrees relatively early, in their 20s or 30s. A much shorter time period would only be appropriate for individuals who complete their law degrees later in life, closer to retirement, or who anticipated working only a few years during their lifetimes.

In a recent post,¹¹ Brian Tamanaha suggests that the difference between his approach and ours is that he focused on the short-term value of a law degree while we focused on the long-term value of a law degree.

Michael Froomkin¹² wonders if law degree holders will experience a cash crunch early in their careers when their incomes are lower and debt levels are higher.

It is unlikely that a debt financed law degree would create a cash crunch. Young bachelor's degree holders also have lower incomes early in their careers. The earnings premium associated with the law degree will typically exceed required debt service payments on law school debt, particularly in light of the availability of extended repayment, deferment, forbearance, and income based repayment plans. Graduate degrees can readily be financed entirely with federal student loans.

The costs of delayed repayment (i.e., higher interest) are already taken into account in our present value calculation, because we discount back at the weighted average interest rate on law school debt. We're pretty conservative in this respect: we ignore the (likely) possibility that students will prepay their highest interest rate debts first. Indeed, After the JD II¹³ found evidence of rapid pre-payment of law school debt.

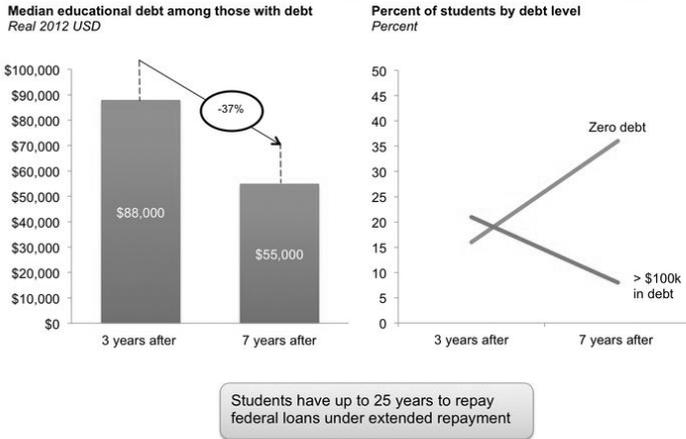
Our results suggest that most young law degree holders most of the time likely have more positive cash flow – even after debt service payments – than they would likely have had with only a bachelor's degree.

¹¹ leiterlawschool.typepad.com/files/balkinization_-sort-term-versus-long-term-perspective.pdf.

¹² www.discourse.net/2013/07/you-can-drown-in-a-river-that-is-an-average-of-six-inches-deep-part-1/.

¹³ www.law.du.edu/documents/directory/publications/sterling/AJD2.pdf.

Former law students repay their educational debts ahead of schedule



Source: Ronit Dinovitzer, et al., ABA AND NALP, *After the JD II: Second Results from a National Study of Legal Careers* (2009).
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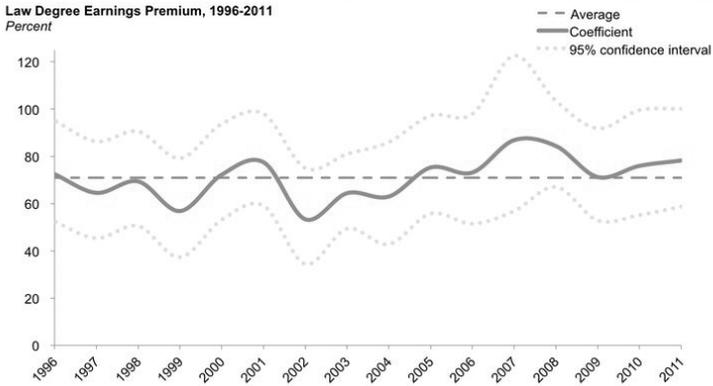
Because the economic value of a given level of education can generally be maximized by completing that level of education early – and thereby maximizing the number of years of subsequent work with the benefit of higher wages from the education earnings premium – delaying graduate school to try to time the market is a high-cost strategy. And timing the market three or four years in advance is difficult.

We recommend long-term historical data on lifetime earnings premiums as a guide rather than short-term fluctuations in starting salaries. Indeed, starting salaries tell us very little – earnings premiums are what matters, and there is no evidence that premiums have compressed, even for the young.

In a supplemental exploratory analysis using ACS data, we find some evidence that post 2008 cohorts of individuals who are probably young law degree holders (professional degree holders excluding those in medical practice) continue to have the same earnings advantage over bachelor’s as they had prior to 2008.

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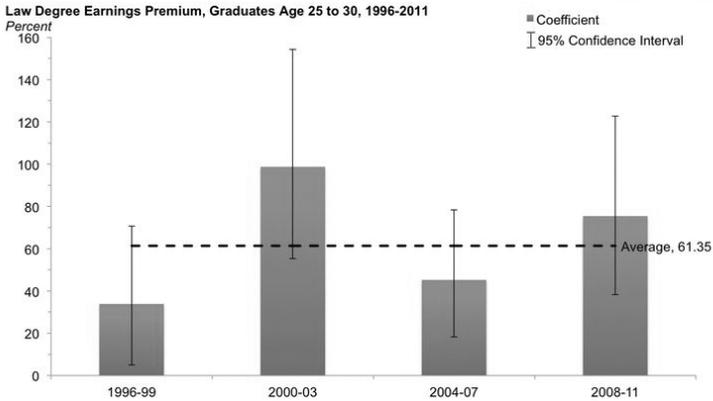
Law degree earnings premium is stable over the long term, with short term cyclical fluctuations



Source: U.S. Census Bureau, Survey of Income and Program Participation; Authors' calculations
 Note: Solid line is the coefficient. Dotted lines represent 95 percent confidence interval. Horizontal dashed line represents multi-year average with each year weighted equally

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Recent premiums for young law graduates are within historical norms



Source: U.S. Census Bureau, Survey of Income and Program Participation; Authors' calculations
 Note: Vertical lines represent the 95 percent confidence interval; horizontal line represents the multi-year average, with each four-year interval assigned equal weight.

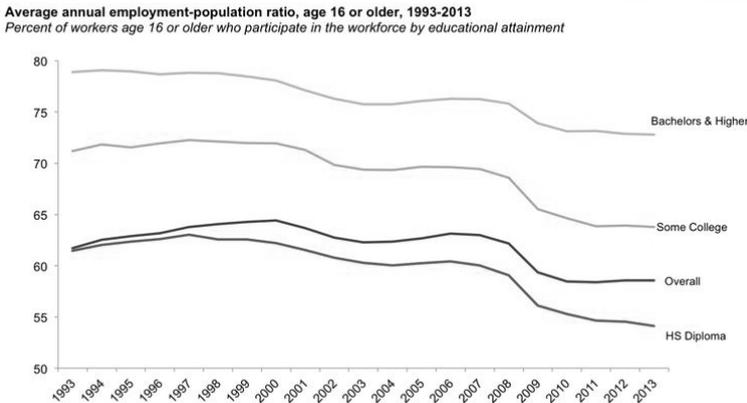
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Ben Barros¹⁴ has done some interesting work comparing outcomes 9 months after graduation to subsequent outcomes for recent graduates of Widener Law School.

THE BROADER LABOR MARKET

Tamanaha argues that law continues to be depressed while the rest of the labor market has recovered.¹⁵ The data does not support this view. As can be seen from the chart below, the broader employment population ratio remains below 2007 levels across levels of education, and the more educated continue to be more likely to work than those with less education.

The U.S. labor market has not recovered to pre-2007 levels



Source: Bureau of Labor Statistics, U.S. Department of Labor and U.S. Census Bureau, Current Population Survey, Labor Force Statistics

¹⁴ www.thefacultyounge.org/2013/04/reconsidering-the-conventional-wisdom-on-the-legal-job-market-part-i.html.

¹⁵ leiterlawschool.typepad.com/files/balkinization_-sort-term-versus-long-term-perspective-1.pdf.

PRESENT VALUE AND OPPORTUNITY COSTS

Many of our critics have made mistakes relating to net present value, opportunity costs, and direct costs of a law degree. Some general guidelines are provided below.

1. Everything has to be discounted back to the start of law school
2. Costs can't be something that is already taken into account through opportunity cost of lower in school earnings
3. Costs have to be something that the law student would only incur for law school and not matched by any other comparable expense if the student were a working BA; the cost has to be something that is a necessary expense to attend law school
4. The cost can't provide consumption benefits that justify the greater expense
5. The cost has to be what the student actually spends, and not hypothetically what a student might have spent if the student had paid full price

For example, since living expenses would be paid out of higher earnings if law students were working, we have already taken cost of living into account.

Since many students receive scholarships and grants, full-sticker tuition should not be used as a base-case.

Our estimates of in-school earnings are based on data from the SIPP and other Census Bureau Surveys. As we note in [footnote 101](#):¹⁶

Footnote 101: We assume that law students earn \$5,000 in their first year, \$7,000 in their second year and \$12,000 in their third year with part time and summer work, for a total of \$24,000 during law school. SIPP data suggests typical three-year in-school earnings between \$21,800 (median) and \$48,000 (mean) for fulltime graduate and professional school

¹⁶ papers.ssrn.com/sol3/papers.cfm?abstract_id=2250585.

students. Census data suggests substantial work hours among fulltime graduate and professional students See Jessica Davis, U.S. CENSUS BUREAU, SCHOOL ENROLLMENT AND WORK STATUS: 2011 (Oct. 2012).”

THANKS AND GOODBYE

It's been a fun couple of weeks. We'd like to thank Brian Leiter, Brian Tamanaha, and others for the wonderful opportunity they've given us to explain our research to a wider audience. And I'd like to thank Frank McIntyre for his contributions to this post and previous posts. This will hopefully be our last post about The Economic Value of a Law Degree,¹⁷ at least for a little while. //

¹⁷ papers.ssrn.com/sol3/papers.cfm?abstract_id=2250585.