

1. Introduction

Many recent college graduates contemplate attending law school each year. Tuition at private law schools is at an all-time high, and the decision on which law school to attend is not always an easy decision. The question examined in this project is what factors exhibit the largest influence on the 2012 tuition charged at NY private law schools.

For this project, only NY private law schools are analyzed. This selection was made to avoid cost of living adjustments across Law Schools in different states. NY State is home to 13 private law schools, most of them competing in the same job market (NYC), which provides a unique opportunity to analyze tuition across multiple competing schools. These private law schools are:

- Columbia Law School
- New York University School of Law
- Cornell Law School
- Fordham University School of Law
- Benjamin N. Cardozo School of Law, Yeshiva University
- Brooklyn Law School
- St. John's University School of Law
- Syracuse University College of Law
- Hofstra University School of Law
- Albany Law School, Union University
- Pace University School of Law
- New York Law School
- Touro College Jacob D. Fuchsberg Law Center

Equally as important as the law schools analyzed are the independent variables used to compare them. Data was obtained from the US News and World Report rankings: (<http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-law-schools>) and Law School Transparency score reports (<http://www.lstscoreports.com/>).

- 2012 USNews Rank (Logit Transform)
- 2012 Enrollment (# of students)
- Law School Transparency Employment Score (based on # employed in good legal jobs)
- Law School Transparency Under-Employment Score (based on # in non-legal jobs)
- LSAT 50th Percentile (law school admissions exam – selectivity)
- GPA 50th Percentile (selectivity)
- % Of Students Receiving Financial Aid

The 2012 USNews Rank was chosen as it is the traditionally chosen barometer of prestige and overall quality of the school as ranked by practicing lawyers (the only real way to capture market perception). The other statistics were chosen as they are common factors students look for when making their choice in which college to attend, and in theory should affect the tuition they are willing to pay.

2. Data

Law School	2012 Tuition	2012 USNews Rank	Rank Percentile	Logit(Rank)	2012 Enrollment	LST Employment Score	LST Under-Employment Score	LSAT 50th%	GPA 50th%	%Receiving Aid
Columbia University Law School	52,902	4	98.16%	3.976	1331	93.4%	1.9%	172	3.71	49.0%
New York University School of Law	48,950	6	97.11%	3.513	1464	91.1%	2.7%	171	3.69	46.7%
Cornell Law School	53,150	14	92.89%	2.571	612	85.3%	13.2%	167	3.68	45.2%
Fordham University School of Law	47,986	29	85.00%	1.735	1244	62.8%	26.3%	164	3.52	38.7%
Benjamin N. Cardozo School of Law, Yeshiva University	48,370	56	70.79%	0.885	1038	53.2%	28.2%	162	3.53	59.6%
Brooklyn Law School	48,416	65	66.05%	0.666	1204	48.5%	32.2%	161	3.33	81.4%
St. John's University School of Law	46,450	79	58.68%	0.351	787	49.1%	31.7%	158	3.43	47.0%
Syracuse University College of Law	45,647	96	49.74%	-0.011	640	45.4%	33.5%	153	3.27	71.5%
Hofstra University School of Law	45,600	89	53.42%	0.137	1004	51.2%	35.8%	157	3.26	53.1%
Albany Law School, Union University	41,845	113	40.79%	-0.373	670	50.2%	29.2%	152	3.31	33.9%
Pace University School of Law	40,730	142	25.53%	-1.071	644	47.8%	37.0%	153	3.36	56.5%
New York Law School	47,800	135	29.21%	-0.885	1365	39.4%	34.6%	152	3.13	42.4%
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In this regression, Touro College was omitted because it was unranked in the 2012 US News Rankings. Also, New York Law School was removed as an outlier as the tuition charged was significantly higher than similar schools over the factors analyzed (this was throwing off the regression initially). Instead of including New York Law School in the regression, tuition will be fit using the regression line as a comparison to show the extent of the deviation from the rest of the group as an exercise.

The 2012 US News rank was transformed using a logit of the percentile $((190 - rank + 0.5)) / 190$ as there are 190 law schools analyzed in the report. The Employment and Under-Employment scores were not transformed as they are not true percentiles or ratios, and are instead a calculated score based on several factors.

3. Correlation

	2012 Tuition	2012 USNews Rank	2012 Enrollment	LST Employment Score	LST Under-Employment Score	LSAT 50th%	GPA 50th%	%Receiving Aid
2012 Tuition	1.0000	0.8685	0.4690	0.7551	(0.7330)	0.8763	0.7748	0.0112
2012 USNews Rank	0.8685	1.0000	0.6650	0.9473	(0.9514)	0.9715	0.9032	(0.2506)
2012 Enrollment	0.4690	0.6650	1.0000	0.5014	(0.5446)	0.7239	0.4721	0.0230
LST Employment Score	0.7551	0.9473	0.5014	1.0000	(0.9750)	0.9049	0.9160	(0.3828)
LST Under-Employment Score	(0.7330)	(0.9514)	(0.5446)	(0.9750)	1.0000	(0.8927)	(0.9039)	0.3454
LSAT 50th%	0.8763	0.9715	0.7239	0.9049	(0.8927)	1.0000	0.9143	(0.1798)
GPA 50th%	0.7748	0.9032	0.4721	0.9160	(0.9039)	0.9143	1.0000	(0.3791)
%Receiving Aid	0.0112	(0.2506)	0.0230	(0.3828)	0.3454	(0.1798)	(0.3791)	1.0000

As demonstrated in the graph above, many of the selected variables are correlated with one-another. In particular, the LSAT 50th Percentile and Employment scores were extremely positively correlated with the number of enrolled students. In addition, the Employment Score and Under-Employment score are negatively correlated to a high degree, as should be expected. The target for fields to be removed from the regression will likely have come from the set of three factors listed for that reason.

4. Regression

The initial results of the regression using all of the factors listed is below:

<i>Regression Statistics</i>				
Adjusted R Square	0.968242841			
Standard Error	691.2194417			
F	44.5556609			
Significance F	0.00497994	Regression 1 – All Factors		
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-48049.80555	29606.38448	-1.622954183	0.203056599
Logit(Rank)	2829.852193	1171.790192	2.414981976	0.094593347
2012 Enrollment	-10.64281978	2.033611566	-5.233457542	0.013576108
LST Employment Score	-20587.73734	7963.768641	-2.585175219	0.081413633
LST Under-Employment Score	927.5470564	13231.25566	0.070102723	0.948523319
LSAT 50th%	1040.566369	357.0991449	2.913942482	0.061798702
GPA 50th%	-15257.73687	7154.889939	-2.132490786	0.122721495
%Receiving Aid	551.2899052	2527.133595	0.218148303	0.841310068

The overall fit of the model is relatively good, with a high adjusted r-squared value. Both of the fields for LST Under-Employment Score and % Receiving Aid have high p-values and low absolute value of their t-stats signifying that they can be removed from the regression. These findings are not a surprise due to the correlation matrix in section 3.

The second regression removes the LST Under-Employment score as it has the highest p-value and the lowest absolute value of the t-stat.

<i>Regression Statistics</i>				
Adjusted R Square	0.976143114			
Standard Error	599.1036991			
F	69.19436436			
Significance F	0.000539458			

Regression 2 – Without LST Under-Employment Score

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-49269.42546	20762.96932	-2.372946985	0.076574779
Logit(Rank)	2770.475396	701.8346092	3.947476172	0.016853656
2012 Enrollment	-10.73608811	1.333045668	-8.053803683	0.001290561
LST Employment Score	-21033.33779	4158.327872	-5.058123946	0.007189988
LSAT 50th%	1059.944328	195.9481082	5.409311359	0.005657047
GPA 50th%	-15601.30872	4518.079133	-3.453084433	0.025981183
%Receiving Aid	460.6606682	1882.042805	0.244766308	0.818681068

As is displayed above, the adjusted R-Squared was increased, the Standard Error decreased, and the F-statistic increased as a result of removing the LST Under-Employment score signifying a better fit of the model. The % receiving aid is the next field to remove.

<i>Regression Statistics</i>				
Adjusted R Square	0.980628635			
Standard Error	539.8526421			
F	102.2451778			
Significance F	4.96367E-05			

Regression 3 – Without LST Under-Employment Score & % Receiving Aid

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-50681.1211	17973.20693	-2.819815144	0.037116701
Logit(Rank)	2758.787881	630.9581273	4.372378708	0.007205952
2012 Enrollment	-10.85218672	1.122594466	-9.667058811	0.000201042
LST Employment Score	-21326.98787	3587.735	-5.944415591	0.001924579
LSAT 50th%	1083.857777	153.0559617	7.081447628	0.000869178
GPA 50th%	-16145.90476	3543.351014	-4.55667663	0.006075322

Once again, the adjusted R-Squared increased along with the F-statistic, and the Standard Error decreased. After reviewing the p-value and t-stats, there is no longer any obvious field to remove. The

overall fit of the model is good, and all analysis points to the 2012 US News Rank (Logit), the 2012 Enrollment number, the Law School Transparency Employment Score, and the 50th percentiles of the GPA and LSAT to being the final independent variables in this test.

5. Conclusion

The fact that private NY law school tuition depends on rankings, selectivity (LSAT and GPA scores), as well as employment ratings is not surprising. The interesting finding of this regression analysis is in regards to New York Law School (the outlier). New York Law School comparatively is the second lowest ranked, has an abysmal employment score, and has the lowest LSAT/GPA pairing of any school on the list, yet has tuition that is higher than 5 of the 11 schools used in the regression. A comparison of the tuition at each school vs. the predicted tuition using each of the regression models from section 4 is below:

Law School	2012 Tuition	Predicted Reg1	Delta1	Predicted Reg2	Delta2	Predicted Reg3	Delta3
Columbia University Law School	52,902	52,465.18	436.82	52,465.49	436.51	52,445.47	456.53
New York University School of Law	48,950	49,472.97	(522.97)	49,480.76	(530.76)	49,455.03	(505.03)
Cornell Law School	53,150	53,147.69	2.31	53,146.63	3.37	53,164.57	(14.57)
Fordham University School of Law	47,986	48,093.04	(107.04)	48,064.15	(78.15)	48,129.90	(143.90)
Benjamin N. Cardozo School of Law, Yeshiva University	48,370	47,757.28	612.72	47,762.07	607.93	47,740.29	629.71
Brooklyn Law School	48,416	48,505.19	(89.19)	48,520.95	(104.95)	48,480.86	(64.86)
St. John's University School of Law	46,450	47,087.37	(637.37)	47,101.36	(651.36)	47,143.86	(693.86)
Syracuse University College of Law	45,647	45,780.92	(133.92)	45,765.75	(118.75)	45,695.12	(48.12)
Hofstra University School of Law	45,600	45,365.23	234.77	45,357.79	242.21	45,412.00	188.00
Albany Law School, Union University	41,845	41,550.56	294.44	41,573.54	271.46	41,617.07	227.93
Pace University School of Law	40,730	40,820.59	(90.59)	40,807.51	(77.51)	40,761.84	(31.84)
New York Law School	47,800	37,770.29	10,029.71	37,811.07	9,988.93	37,870.48	9,929.52
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The actual vs. expected (Delta) is within the standard error of the model for each of the schools except for New York Law School. According to the regression analysis, New York Law School should be the least expensive of all of the schools coming in at under \$40,000 annual tuition, yet currently charges more than St. Johns downwards. One would say that the high tuition cannot be justified using the common independent variables analyzed across all of its competitor schools. This can be evidenced by the recent class-action lawsuit by former student alleging New York Law School falsified the post-graduate employment statistics to purposely mislead potential students (has since been dismissed).