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Abstract

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Keywords

lawyers, law students, labor market, salary, law school, financial aid

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Comments

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An Economic Analysis of the Market
for Law School Students

Ronald G. Ehrenberg

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Irving M. Ives, Professor of Industrial and Labor Relations and Economics, Cornell University, and Research Associate, National Bureau of Economic Research. I am most grateful to Oscar Chase, John Kramer, Jane Thieberger, and Marilyn Norton for providing me with background information, to Constance Terry for her research assistance, and to a number of colleagues at Cornell and elsewhere for their comments. An earlier version was presented at the New York University "Symposium on Law Student Debt, the 'Salary Gap' and Implications for Legal Education", April 15, 1988, and I am also grateful to participants at the Symposium for their comments. The research supported here is part of the NBER's research program in Labor Studies. Any opinions expressed are those of the authors and not those of the National Bureau of Economic Research.

NBER Working Paper #2602
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ABSTRACT

This study utilizes data from a number of sources to estimate how lawyers' starting salaries relate to their ability, the quality of law school they attended, and whether the law school was a private institution. Based upon this analysis, a benefit-cost analysis is conducted of the value of attending a high-quality private institution. Analyses are also done of how the financial attractiveness of law vis-a-vis other careers has changed in recent years and a conceptual framework discussed for law schools to use in allocating their financial aid resources.

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I. Introduction

Rapid increases in law school tuition costs and the increasingly large debt burdens incurred by law school students have led to numerous economic issues being raised relative to the "market" for law school students. Will future law school tuition increases be inhibited by potential students' ability and willingness to pay? Will increasing debt burdens skew law students' career choices towards higher paying specialties? Will enrollment in law schools and/or the quality of law school applicants decline and will any such declines be widespread or concentrated in a few lower quality law schools? Given all of the above questions, what criteria should law schools use to allocate the limited financial aid resources they have available? These are but a few of the economic issues relating to the law student market that law schools must confront.

Prior research by academic economists and lawyers provide some useful insights into the workings of the market for law students. First, studies by economists of the labor market for lawyers suggest that it is dangerous to project trends. Whether one uses a simple "cobweb model" or a more sophisticated "rational expectations model", one observes that the number of law school applicants is sensitive to earnings levels in the profession.¹ Moreover, studies that utilize both U.S. and Canadian data suggest that, other things equal (including demand), an increased supply of graduates from law schools inevitably leads to lower real earnings of new entrants in the profession.²

Second, increasing law school costs and/or decreasing real earnings of lawyers may well lead to a decline in the number and quality of applicants to law schools.³ Recent empirical evidence suggests this has

happened; since the early 1980s the quality of law school applicants (as measured by LSAT scores, grade point averages, or the fraction of applicants coming from the most prestigious undergraduate institutions) has dropped and the number of applicants fell between 1982 and 1985.⁴

Third, even after one controls for individual lawyers' personal characteristics such as age, experience, race, region of residence and sex, lawyers' earnings systematically vary with the type of law they are practicing (e.g., private practice, corporate, judicial clerkship, government, public interest).⁵ Moreover, it appears that individual lawyers' occupational decisions, in particular the decision whether to enter private or public interest law practices, depend on differences in their expected earnings in the two types of practices, as well as their underlying political and social attitudes.⁶

Fourth, there is some evidence that a law student's class rank and the quality of the law school he or she attended influence the probability that he or she will initially be employed by a large law firm.⁷ As is well known, larger law firms tend to offer higher starting salaries.⁸

Finally, recent work by economists on college student debt in general and law student debt in particular suggests that the debt is manageable, in the sense that viewed as a long-term investment that yields higher future earnings it makes sense for students to undertake the indebtedness.⁹ The real policy issues are whether annual and/or lifetime borrowing limits under federal programs will be increased often enough to permit continual increases in law schools' tuition levels and whether repayment periods will be sufficiently lengthened to reduce the impact of

high annual repayment levels on the decision to enter law school and law students' choice of careers.¹⁰

Much of the prior research, especially that done by lawyers, quite reasonably treats law schools as part of a single group and seeks cooperative solutions to the problems that the group faces. Yet it is quite clear that law schools by necessity compete with each other on a number of dimensions including the recruitment of students, the recruitment of faculty, the placement of graduates, and the attraction of gifts and endowments. As such, it makes sense when addressing some problems to view law schools as competitors and this is the approach that I take in much of what follows.

I begin in the next section by presenting an empirical analysis of how the market for law school students functions at a point in time. In particular I conduct an econometric analysis of the interrelationships between law school tuition levels, law school quality, law faculty salaries, and the starting salaries of law school graduates. The estimates I obtain suggest that the market for law school students "behaves" in a manner that economists would consider quite rational, from the perspective of the participants.

I turn in section III to an examination of recent data on law school graduates' salaries, earnings in alternative occupations and law school tuitions. These data suggest that while tuition increases have outpaced starting salaries for lawyers, law school attendance, on average, still appears to be a worthwhile investment.

Of course to say, on average, law school is a worthwhile investment does not imply it will be equally profitable for all individuals nor that

the costs will not influence career choices. High tuition and subsequent high debt levels may discourage students from low-income families from entering law school. High debt levels may also discourage law students from entering low paying fields of practice (e.g., public interest law) and many people may judge it to be socially desirable to expand employment in these areas. This leads naturally to a discussion of how law schools should allocate the limited financial aid resources they have and whether these funds should be allocated in the form of loans or scholarships. Section IV discusses these questions, borrowing heavily from earlier work of mine.¹¹ A brief final section then provides some concluding remarks.

II. The Market for Law School Students

Given the general market conditions that influence lawyers' salaries, what factors might be expected to influence the starting salaries that graduates of a law school receive? Other things equal, one would suspect that the "better" the students and the "better" the law school the higher starting salaries will be. The racial and gender mix of a school's graduates may also influence starting salaries if discrimination or affirmative action pressures are present in the legal labor market, or if the "types" of law that graduates practice are influenced by their gender and race. Finally, other things equal, starting salaries may differ for graduates from public and private law schools because of differences in the "types" of law that students from each tend to enter and/or due to differences in placement efforts and recruitment networks that exist between the two categories of schools.¹²

Table 1 presents the results of my efforts to test some of these hypotheses using data from Barron's Guide to Law Schools. Every few years Barron's surveys the Deans of Admissions at American law schools to obtain information for Barron's Guide to Law Schools. Among the questions asked is the average starting salary of graduates of the prior year's academic class. Understandably, not all law schools wish to reveal this information; however information for 99 of the 174 ABA accredited law schools was reported in Barron's seventh edition, which was published in 1986. These data, which pertain to average starting salaries for graduates of the law school class of 1985, are the salary data used in my analyses.

Since these data come from admissions offices, not necessarily from detailed records of placement offices, it is not obvious how accurate they are. The National Association for Law Placement (NALP) annually collects data on salaries of graduates of each law school, however the NALP data for each individual law school is strictly confidential and could not be used in this study.

To get a feel for the accuracy of the Barron's data, I provided a representative of NALP with the Barron's salary data for three public and three private law schools and asked her to compare them to the similar data obtained by NALP in their survey of the class of 1985.¹³ She reported that while Barron's average reported starting salary for the six schools was \$31,517, the comparable average in the NALP data was \$32,997, almost 4.7 percent, or \$1,500, larger. In one case the NALP figure was over \$3,000 higher, while in another case it was almost \$2,500 lower. Reassuringly, though, the simple correlation of the Barron's and NALP

figures across the six schools was .951. Taken together, these results suggest that the Barron's data are sufficiently accurate for my purposes and they are used in Table 1.¹⁴

In this table, average starting salaries are specified to be a function of the median LSAT score of enrolled students in the school (a measure of student ability), the "Gourman Score" of the law school in the latest ranking (a measure of one observer's perceptions of the school's "quality"), whether the school is a public institution, and the percentage of the school's students that are females and minorities (column 1).¹⁵ Equations are estimated using both the level and logarithm of average salaries as dependent variables. Finally, some specifications (column 2) include the percentage of the school's graduates placed in public sector (government, military, or judicial clerkships), public service, and public interest positions as an additional explanatory variable. While this variable helps control for the "occupational distribution" of the school's graduates, one must caution that it may well be determined by other included variables in the model.

Focusing initially on the specification that ignores this last variable (col. 1), as expected better students, as measured by LSAT scores, received higher salaries. A one point increase in the average LSAT score of students in a school was associated with about a \$750 higher average starting salary in 1985 in the level specification and a 2.5 percent higher starting salary in the logarithmic specification. Similarly, students from higher ranked (by Gourman) schools received higher salaries. So, for example, an increase in the Gourman ranking from 300 to 400 (the cutoff points for his "acceptable plus" and "strong"

categories) was associated with a \$1,500 higher 1985 average starting salary in the level specification and about a 6 percent higher starting salary in the logarithmic specification. Finally, other things equal, graduates of public law schools' starting salaries were some \$2,400, or close to 9 percent lower in 1985 than graduates of private law schools and the race and gender composition of a school's student body was unrelated to its graduates' starting salaries.

Once one controls for the percentage of the law school's graduates placed in public sector, public service or public interest positions (col. 2), the magnitude of these differentials changes somewhat. The salary increase associated with a 100 point increase in the Gourman Score falls to about \$1,100 or 4 percent, while the public/private salary differential falls to about \$1,200, or 4.3 percent. Both of these reductions occur because, other things equal, students from higher ranked law schools are less likely, and students from public law schools are more likely to be employed in public sector, public service, or public interest positions (Table 2, panel A, col. 1).¹⁶

While the above results suggest that there are obvious economic benefits (at least in terms of starting salaries) associated with attending better rated law schools and private law schools, other things equal, there are also obvious costs. These are documented in Table 3 where results are reported of estimating equations in which a law school's 1985-86 tuition and fees level for full-time students was specified to be a function only of its Gourman Score and whether it is a public institution.

Focusing on the results for all schools (the top panel) a 100 point increase in an institution's Gourman Score is associated with roughly a \$1,140 to \$1,367 increase, or about a 20 percent higher tuition. Holding school rating constant, tuition and fees average roughly \$2,900 (for out-of-state students) to \$5,600 (for in-state students) lower at public than private law schools, or 30.5 to 75.1 percent lower.¹⁷ In fact, the same percentage relationship between tuition and school rating is estimated when analyses are done separately for private and public law schools (the bottom two panels). Given this tuition/school rating relationship, it is not surprising that there is also some evidence (Table 2, panel B) that higher tuition levels reduce the proportion of students entering public sector, public service and public interest law careers.

Why do the better rated law schools charge more? While one could answer this question from the perspective of both the demand and cost sides of the market. I focus initially on the cost side here. Analyses are reported in Table 4 in which a law school's tuition and fees is specified to be a function of the median base salary and fringe benefits of its full-time faculty, the total number of volumes in its library per first year student, the student-faculty ratio, and whether the school is public. Presumably, one would expect that higher faculty salaries, a higher library volume-student ratio, and a lower student-faculty ratio should all be associated, other things equal, with higher tuition and fee levels. In fact, of these three variables, only the faculty compensation level seems to matter. In the logarithmic specification that uses out-of-state tuition levels for public law schools, this variable's estimated elasticity is not significantly different from unity. That is, across law

schools at a point in time, as faculty compensation increases by a given percentage, tuition and fees increase by roughly the same percentage.

Of course, from the perspective of the demand side of the market, there may be a limit to what any law school can charge at a point in time; raising tuition too far above one's competitors may lead to a decline in applicants and/or acceptances from admitted applicants. Some evidence to support this hypothesis, at least for private law schools is found in Table 5 which presents the results of estimating equations in which a school's accepted applicant yield (enrolled first-year students-accepted applicants) and its applicant yield (enrolled first-year students-total applicants) are specified to be functions of the Gourman Score of the school and the logarithm of its tuition and fees for full-time students. The coefficients of the latter variable can be interpreted as measuring the effect of a one percent increase in a school's tuition and fees on the two yield rates, school quality held equal.

Quite strikingly, higher tuition rates are associated with both lower accepted applicant and lower applicant yield rates. When the analyses are redone (middle panel) using only the sample of private schools, a ten percent increase in a school's tuition is seen to reduce the school's accepted applicant yield by about 2.3 percentage points and its applicant yield by 1.4 percentage points. Not surprisingly, higher rated private schools have higher accepted applicant yields (fewer accepted applicants turn them down), but lower applicant yields (they have the luxury of rejecting more applicants.)¹⁸

What emerges from these tables is a rather consistent pattern of results. There are financial benefits, in the form of higher starting

salaries to attending higher rated law schools and, other things equal, private law schools (Table 1). Because of this, higher rated law schools and private law schools are able to charge higher tuitions (Table 3). These higher tuitions allow them to pay higher faculty salaries (Table 4), which presumably are used to attract and retain higher-quality faculty. Given the rating of a law school, however, there is a limit to how high it can raise its tuition, as higher tuition levels are associated with lower accepted applicant yield rates (Table 5). Since the rating of a law school surely depends heavily on the quality of its faculty, what emerges from all this is a set of starting salary, law school rating, public/private dichotomy-tuition-faculty salary relationships across law schools that intuitively seems to make sense.¹⁹

What has not yet been shown is, given the magnitudes of these relationships, if law students appear on average to have made wise choices in the law schools they attended. If on average, for a given Gourman rating for a law school, graduates earned starting salaries that were roughly \$1,200 to \$2,400 higher in 1985 if the law school was private (Table 1), did it make sense for them to pay tuition and fees in the private sector that were some \$2,900 to \$5,600 (Table 3) higher than tuitions in public sector schools in 1985-86? If, other things equal, a 100 point increase in a law school's Gourman Score was associated with increased starting salaries of 1,100 to \$1,500, but increased tuition of \$1,140 to \$1,370, did it make sense for them to try to attend the higher-rated schools. The discussion that follows helps provide the answers.

Let T represent the tuition cost of attending a law school, C represent other law school costs (including books and additional living

costs), A represent the opportunity cost of attending law school (the earnings foregone), and S represent the earnings expected upon graduation from law school. All these figures are expressed in annual terms and, for expositional convenience I will ignore inflation, discounting, and growth in any of these variables over time or over the life cycle here (these restrictions are relaxed in section III).²⁰ If the time it takes to complete law school is L years and a law school graduate expects to practice law for N years then it is straightforward to show that under these assumptions the expected present value (PV) of the financial gain from attending law school is

$$(1) \quad PV = N(S - A) - L(T + C + A)$$

Now suppose that we consider two law schools, i and j , and that the only elements in the above expression that differ between them are their tuition levels and the expected earnings levels of their graduates. Then the difference between the expected present values of financial gains from attending the two schools is

$$(2) \quad PV_i - PV_j = N(S_i - S_j) - L(T_i - T_j)$$

Suppose law school i 's tuition is higher, as is the expected earnings levels of its graduates. If individuals choose law schools based on the expected financial gains they offer, school i will be preferred to school j as long as $PV_i \geq PV_j$, which occurs if and only if

$$(3) \quad (S_i - S_j) \geq (L/N)(T_i - T_j)$$

Typically, completion of law school for full-time students requires three years ($L = 3$) and it is not unreasonable to assume that a person who graduates from law school plans to spend at least 15 years in the profession ($N = 15$). Thus, it makes sense for the typical student to try to attend the high tuition level law school as long as the annual earnings advantage of its graduates over the graduates of the low tuition level school ($S_i - S_j$) is at least 20 percent ($3/15$) of its annual tuition cost disadvantage ($T_i - T_j$).

Given this relationship, it is clear the potential law school students had an incentive (at least in 1985) to get to the highest rated school they could. The marginal annual tuition cost of attending a higher rated school was roughly of the same order of magnitude as the marginal gain in annual earnings the higher rated school provided. Similarly, potential law school students on average had an incentive to attend private sector law schools rather than public law schools of equal rating; the lower estimate of the estimated annual salary gain from doing so (\$1,200) exceeds 20 percent of our estimate of the average tuition differential for in-state students of doing so (\$5,600).

Of course to say that it made sense on average for students to try to attend highly rated private law schools in 1985-86 doesn't imply that it made sense for all individuals to try to do so. Individuals who expected to practice law only for a relatively short period of time obviously would find the net financial advantage from public law schools higher. Individuals who expected little financial gain from attending higher rated private law schools (such as those interested in public interest law) would obviously not have sought to do so. It is thus not surprising that

I found graduates from higher rated law schools and private law schools were less likely to be employed in public sector, public service, or public interest positions (Table 2).

Given the financial incentives prospective students faced in 1985-86, it is also not surprising that the decline in the number and quality of law school applicants observed in the 1980s has been felt primarily by the lower ranked law schools.²¹ In a sense, the higher ranked private schools had a "captive" audience. One may wonder then, why these schools did not try to "confiscate" some of the benefits students received from attending them by increasing tuitions above their then-current levels. Part of the answer is that annual and/or lifetime borrowing limits that students faced under federal programs may have limited the schools' ability to do so.²² One should also note that, other things held constant, equal percentage tuition increases at higher rated and lower rated private institutions, or at private and public schools over time, would widen the absolute tuition level differential between the two groups of institutions. Unless the absolute earnings advantage the higher tuition schools provided their students also widened, they would find fewer students willing to enroll in them. Highly rated private schools are not immune to market pressures.

III. Has Law School Attendance Become Less Attractive Financially in Recent Years?

The previous section addressed issues relating to the market for law students at a point in time; here I consider what has happened to that market over time. In particular, I examine whether rising law school tuition levels, coupled with changing earnings levels in law and other

occupations, have decreased the relative financial attractiveness of law as a career.

Historical data on the salaries earned by new lawyers are hard to come by. For the last 13 years, however, Student Lawyer has published starting salaries for lawyers in law firms and corporations in a number of cities; the 1987 survey covered 18 cities.²³ The Student Lawyer salary data are easily accessible and because they go back to the mid-70s I use them in my analyses below, focusing on the salaries paid by nonpatent law firms.

Although law firms are the major employers of new lawyers, a substantial minority of lawyers enter corporate practice, government careers, judicial clerkships, public interest practices, or academic careers. Starting salaries in the latter four categories tend to be lower than those for law firms. For example, while the average starting salary of graduates of the law school class of 1986 was \$32,752 nationwide, the average starting salary for lawyers entering private practice was \$36,050, for lawyers in business and industry \$34,512, for government lawyers \$26,659, for lawyers in judicial clerkships \$24,416, for lawyers in public interest practices \$21,792, and for academic lawyers \$28,852.²⁴ Thus the use of law firm salary figures will overstate the average starting salaries of all new lawyers at a point in time. On the other hand, over the 1974-86 period, the percentage of law school graduates entering private practice has risen from 52.2 to 61.6 and the percentage entering government (including military) judicial clerkships, public interest, and academic law has fallen from 35.5 to 30.7.²⁵ Focusing on the salaries of lawyers entering private practice may thus well understate the trend

increase in the average law school graduate starting salary over the period.

Table 6 takes the Student Lawyer starting salary data for seven cities for whom data has been published continuously since 1976 and asks how these salary figures for each city compare to the tuition and fees charged by a law school in the same city. Of course, not all graduates of a law school practice law in the city in which the school is located nor do all new lawyers in a city come from law schools in that city. Nonetheless, these data provide initial suggestive evidence on the financial benefits and costs of attending law schools. In the main, the law schools I have chosen for each city are relatively high-priced private law schools, although one public institution is included.

Panel A presents the ratio of each law school's tuition in a year to the average annual starting salary of starting lawyers in nonpatent law firms in the city during the 1975-76 to 1985-86 period. Harvard's tuition is used for Boston and during the period the ratio in Boston rose from .22 to .34; a 50 percent increase. Increases of similar magnitudes were observed for NYU (New York). Georgetown (Washington) and Pennsylvania (Philadelphia). Somewhat smaller increases were recorded for Chicago (Chicago) and Marquette (Milwaukee), while nonresident law school tuition in the one public university in the sample. UCLA, actually remained relatively stable, as a fraction of starting salaries in the city (Los Angeles), during the period.

To the casual observer, the rapid rise in these ratios for the elite private law schools may suggest they are in danger of pricing themselves "out of the market". However, as should be clear from equation (1),

ratios can be deceiving. What is relevant is not the ratio of tuition and fees to starting salaries but rather the difference between the two variables in real terms. That is, after controlling for changes in the price level, what is relevant is how the difference between annual starting salaries and annual law school tuition and fees has moved.

Panel B of Table 6 presents the answer to this question. For some law schools (Chicago and UCLA), the difference has actually increased. For the others, the difference has decreased. However, save for Georgetown, the decrease was relatively small (less than 10%), so the decline in the attractiveness of attendance at law schools (if it occurred at all) was not as large as the ratio comparisons in panel A suggest.

In fact, even the comparisons in panel B are misleading and do not give the reader an accurate picture of the changes that have occurred in the financial attractiveness of pursuing a career in law. To see this, refer to equation (1), which showed the expected present value of the financial gain from attending law school. If one first differences this equation one obtains

$$(4) \quad \Delta PV = N(\Delta S - \Delta A) - L(\Delta T + \Delta C + \Delta A).$$

where the symbol Δ indicates the change that occurs between two years in a variable in real terms (holding prices constant). The change in expected present value is seen in (4) to depend on the change in lawyers' starting salaries (ΔS), the change in starting salaries in other occupations (ΔA), the change in law school tuition and fees (ΔT), and the change in other law school costs (ΔC). This equation makes clear that the calculations in Table 6 ignore what is happening to earnings in other

occupations law students might enter. It also implies that equal dollar increases in starting lawyer salaries and in law school tuition and fees actually increase the relative financial attractiveness of entering the legal profession. The latter occurs because the number of years individuals plan on practicing law (N) is considerably longer than the length of time it takes to complete law school (L).

If one is willing to assume that changes in other law school costs (books and additional living costs) have been small in real terms, one can ignore them and compute whether the financial attractiveness of attending law school has changed during a time period from

$$(5) \quad \Delta PV = N(\Delta S - \Delta A) - L(\Delta T + \Delta A) .$$

If the expression in (5) is positive, the financial attractiveness has increased during the period, while if the expression is negative, attractiveness has declined.

To make such computations requires one to have data on expected earnings in law, on expected earnings in alternative occupations, and on law school tuition costs. Some illustrative data that can be used at the national level are found in Table 7 for the 1974-75 to 1986-87 period.

For lawyers' expected earnings (LSAL), I have constructed an unweighted average (across the seven cities listed in Table 6) of the starting salaries of lawyers in nonpatent law firms from the annual Student Lawyer surveys. While the focus on lawyers in private practice (see footnote 24) and limitation to lawyers employed in large cities may cause this average to overstate the true average starting salary of

lawyers, for the two years that NALP has published average nationwide starting salary data from their annual survey, their averages and mine are not too far off.²⁶

Data on annual starting salaries in other occupations prospective law students might enter come from the College Placement Council.²⁷ One option prospective law students have is to attend business school, the relevant comparison salaries I have used to capture this option are the average annual starting salaries of MBA graduates who had nontechnical (ASAL1) and technical (ASAL5) undergraduate degrees. Another option is to find employment directly out of college; the comparison salaries I have used for this are those for college graduates who majored in the humanities (ASAL2), other social sciences (ASAL3), and economics (ASAL4). Finally, the table reports average private and public law school tuitions (TPRV, TPUB) and the Consumer Price Index (CPI). The calculations that follow all set the price index in 1975 equal to 1.00 and deflate the dollar values of all variables in each subsequent year by the relative price index in that year so that all variables are expressed in real terms.

While one cannot derive conclusions about the expected financial gain from attending law school simply by focusing on the starting salaries of lawyers relative to the salaries in the alternative occupations prospective lawyers might enter, such comparisons are instructive and are found in Table 8.²⁸ Although lawyers' starting salaries declined relative to those of MBA students between the class of 1975 and the class of 1983, from 1983 to 1987, the relative starting salary of lawyers rose by over 20 percent (R1, R5). Similarly, while substantial declines occurred in the

starting salaries of lawyers vis-a-vis college graduates with humanities (R2), other social sciences (R3) and economics (R4) degrees through 1983, by 1987, lawyers' relative starting salaries had returned to their 1975 levels. At least in recent years, lawyers' earnings have grown at higher rates than earnings in alternative occupations that prospective law students might enter.

More formal calculations about how the expected present value of a law school degree has changed relative to the expected present value of alternative degrees are presented in Table 9. These calculations use equation (5) and make use of the average private law school tuition, rather than the average public law school tuition. Since changes in the former have been much greater (in real terms), this will bias the findings against finding law school attendance increasing in attractiveness. They also assume an expected work life (N) of 15 years (to be conservative) and that law school completion (L) takes an extra three years when the comparison group is college graduates, but only an extra one year when the alternative is getting an MBA degree.²⁹

Table 9 suggests that while the financial attractiveness of a law degree fell relative to that of an MBA degree throughout most of the 1975-76 to 1982-83 period, it actually has risen in more recent years. Moreover, throughout the 1975-76 to 1986-87 period, the financial attractiveness of a law degree has risen relative to the financial attractiveness of entering the labor market directly upon college completion. Taken at face value, these results suggest that the practice of law remains, and probably is becoming increasingly, a financially attractive career and they may help to explain the slight increase in law

school applicants observed in 1986-87 and the dramatic increase observed in the 1987-88 academic year.³⁰

Of course, these conclusions all are derived from expected present value calculations that made a number of very stringent simplifying assumptions. In particular, they ignore inflation, discounting (or the costs of borrowing funds), and real growth in lawyers, earnings and the earnings in other occupations over individuals' life cycles. While it is difficult to obtain occupation specific life-cycle earnings growth figures based upon longitudinal data, the limited data that are available for lawyers suggests that lawyers' earnings grow at least initially at rates that far exceed likely rates of discount.

To illustrate this, Table 10 presents average salary data for lawyers employed in nonpatent law firms for eight cities for five years. These data, which come from Student Lawyers annual salary surveys, allow us to trace the earnings of young lawyers during the early years of their careers. So for example, the average starting salary for lawyers in Boston in 1982 was \$24,000. With a year's experience in 1983, these lawyers would be earning \$27,000 on average and a year later, with two year's experience they would be earning \$34,000 on average. More generally, to trace the earnings history of a typical lawyer employed by these firms over time, one moves diagonally downward to the right in the table.

Focusing on workers who were first employed in 1982 in each city, I have underlined in the table the salaries they earned on average each year through 1986. Quite strikingly, over the five-year period, their nominal salaries at least doubled in four of the six cities and in the other two.

Atlanta and Washington, their earnings increased by over 80 percent. For earnings in 1986 discounted back to 1982 not to be worth more in real terms than earnings in 1982, the discount rate would have to be at least 15.8 percent for the latter two cities and over 18.9 percent for all the other cities.³¹ Given the rate of inflation that prevailed during the period, it is highly unlikely that discount rates could be that high. The rates of interest charged on federal educational loans were much lower during the period.³²

Of course, not all lawyers who start in average paying firms maintain their employment in these firms for four years. Of those who do, some fail to make partnerships after six years and many of these wind up in lower paying positions or in self-employment. On the other hand, those who do reach partner status do appreciably better financially. For example, across the 18 cities that Student Lawyer surveyed in 1986 the average salaries of partners in nonpatent law firms was 465 percent of the average starting salaries of new lawyers in these same firms.³³ While in the absence of data on life-cycle earnings growth rates in other occupations one cannot draw definitive conclusions, in recent years entering law school, on average, still seems like a good investment. As emphasized by Kramer, the real issue is whether limitations on the annual and total amounts of funds prospective law students can borrow, and restrictions on the length of the period over which they must repay the loans, will constrain students borrowing and hence law schools' future ability to raise tuitions.³⁴

IV. Optimal Financial Aid Policies for Selective Law Schools

To say that on average law school is a worthwhile investment, is not to say that the investment will be equally profitable for all individuals nor is it to say that law school costs will not influence individuals' career choices. High tuition levels and subsequent high debt levels may discourage students from low-income families from entering law schools. High debt levels, along with growing differentials between high-paying (e.g., private practice) and low-paying (e.g., public interest) fields of law may discourage students from entering the latter.³⁵

Of course, both law schools and applicants to law schools behave selectively. Law schools select who they will admit; in a recent year over half of ABA-accredited law schools reported admitting less than 50 percent of their applicants, while almost one-tenth reported admitting less than 25 percent of their applicants.³⁶ Accepted applicants in turn select from the schools at which they have been admitted, and decide whether and where to enroll. Indeed, the fraction of accepted applicants who actually enroll is less than 50 percent in over three quarters of all ABA-accredited law schools.³⁷

Law schools obviously believe that targeting financial aid to bright, needy, or minority students will influence these students' decisions to enroll, as substantial resources are devoted to "merit", "needs-based", or "minority" scholarships.³⁸ Similarly, law schools obviously believe that "loan-forgiveness" programs for law students who enter "low-income" careers (such as public interest law) can either help them attract students with such interests and/or influence existing students career choices.³⁹ Do such strategies make sense? More generally, if a law

school wants to optimally allocate its financial aid resources, what strategies should it pursue?

To answer such questions requires one to be a bit more precise about what law schools are trying to accomplish and to specify the constraints that they face. Elsewhere, I have formally addressed the issue of "optimal financial aid policies" for selective undergraduate colleges and I adapt my previous discussion to law school financial aid policies below.⁴⁰ As I shall show, the design of financial aid policies is not as simple as one might think.

Suppose that a selective law school faces K different categories of applicants. These categories may depend upon applicants' minority status, their socioeconomic backgrounds, their academic abilities, whether their parents are alumni, the types of law the applicants claim to be interested in pursuing or any other attributes the law school cares about. To take an example, if the law school cares only about its applicants' minority status, whether they came from low-income families, or whether they scored above a certain threshold on the LSAT exam, there would be eight categories of applicants (yes/yes/yes, yes/yes,no, yes/no/no, ...). Let X_i denote the number of applicants from category i that a school admits.

Suppose next that the law school establishes a tuition and fees level that does not vary across categories of students but that it varies its financial aid policy so that the share of tuition and fees subsidized in the form of financial aid (a_i) varies across groups. Determining how this share should vary is our objective.

Given the school's tuition and fees level, the proportion of accepted applicants from each category that actually enroll (F_i), its accepted

applicant yield, is inversely related to the share of the category's tuition and fees that is subsidized

$$(6) F_i = F_i(a_i) \quad 0 \leq F_i \leq 1.$$

Increased financial aid increases the likelihood that accepted applicants will enroll. Quite crucially, the sensitivity of applicants, enrollment decisions to financial aid may well vary across groups. Note also that it is assumed that when aid is zero, some fraction (possibly zero) of accepted applicants from a group will enroll. This fraction, the group's propensity to enroll, may also differ across groups.

Why does a law school care about its accepted applicant yield? The product of the number of admitted applicants in a group and the group's yield is the number of students from the group who actually enroll. If the yield falls, a law school could always admit more applicants from the group to get the same number of enrolled students. The cost of doing this, however, is that the "deeper" the school dips into a group's applicant pool, the lower the average quality (as measured say by LSAT scores) of enrolled students in the group (q_i) is likely to be

$$(7) q_i = q_i(X_i).$$

Crucially, how sensitive applicant quality is to the number of applicants admitted may also differ across groups. For example, the average quality of minority applicants may fall off much more rapidly with the number admitted than does the average quality of white male applicants.

Suppose the law school values the total "quality units" of students who actually enroll in each category ($E_i = F_i(a_i)q_i(X_i)X_i$) and that the

weights it places on attracting students from different categories can be summarized by a utility or welfare function of the form

$$(8) \quad U = U(E_1, E_2, \dots, E_K).$$

Note that this formulation distinguishes between the objective academic quality of applicants and their subjective relative attractiveness to the law school. The former depends on measurable academic attributes. The latter, however, depends on the law school's subjective valuations of applicant characteristics (such as minority status and family socioeconomic background) that are summarized by equation (8). Category i applicants are defined as being relatively more attractive to the law school than category j applicants if, when the school has enrolled the same number of quality units of applicants from both categories, it would get greater marginal utility from enrolling an additional quality unit of students from category i than from category j .

Given a fixed budget that the law school wants to commit to financial aid, suppose that it seeks to maximize its utility function subject to the constraints imposed by its accepted applicant yield and average quality functions. Under suitable assumptions about the shapes of the various functions, one can show that its financial aid policies should depend upon four factors.⁴¹

First, other things equal, applicant groups that are relatively more attractive should receive more aid. Second, other things equal, groups with lower propensities to enroll if admitted should receive more aid, there is no reason to subsidize groups that would enroll even in the absence of aid. Third, other things equal, the more sensitive a group's

enrollment decisions are to financial aid, the more aid they should receive. Finally, other things equal, the more sensitive a category's average quality is to the number of applicants admitted, the greater the aid that category should receive.⁴² While the relative attractiveness of different categories of applicants must be subjectively determined by a law school, the other "parameters" it needs to know (groups' propensities to enroll, sensitivities of yield to financial aid, sensitivities of average qualities to numbers admitted) are all objectively determined and can be estimated by institutionally-based empirical studies.⁴³

These findings have a number of implications for the financial aid policies law schools should pursue. Law schools may want to attract the brightest possible students to help increase their perceived ratings.⁴⁴ They may also feel it socially desirable to increase the number of lawyers coming from low-income and minority backgrounds. Other things equal, groups that are relatively more attractive optimally should receive more aid; this seems to argue in favor of financial aid being merit-based, need-based, and more generous for minorities. However, other things are not necessarily equal, propensities to enroll, sensitivities of yield to aid, and sensitivities of enrolled student quality to the number admitted may also differ across groups. While sometimes these other factors may reinforce aid decisions based solely on the "relative attractiveness" criteria, they need not always and these other factors should enter into aid decisions.⁴⁵

Law schools may also want to influence the distribution of their graduating students across types of practices. In particular, they may want to encourage people to enter public interest law or to practice law

in low-income areas where legal representation is scarce. Other things equal, to the extent that they judge students interested in these types of practice relatively more attractive, such students should receive higher aid levels.

Of course, announced intent to pursue a certain type of legal career does not mean students will actually wind up in such a career. Hence, contingent loan forgiveness programs that are announced prior to students enrolling in law school appear to make more sense than does direct scholarship aid for these students. Decisions about allocation of resources to grant aid and to loan forgiveness programs must therefore be made together. Shifting up front scholarship money into loan forgiveness programs, as some have people have suggested, may well make sense.

Eligibility for existing loan forgiveness programs at some law schools is based on law school graduates' earnings after they leave law school, as well as on the type of law practices they enter. However, in other schools, eligibility is based solely on the graduates' earnings.⁴⁶ The latter type of programs provide a form of insurance for those people who enter types of practice that, on average, are lucrative but who fail to do well financially. It is not obvious that law schools should provide this type of insurance for their students.

V. Concluding Remarks

This paper has consisted of four interrelated sections. The first summarized the lessons we have learned from prior empirical research about the market for law students. The second conducted an empirical analysis of how this market functions at a point in time, using law schools as the

units of analysis, and concluded that it behaves in a manner that economists would consider quite rational. The third examined recent data on law school tuition levels, starting lawyers' earnings, and earnings in other occupations and concluded that, on average, law school still appears to be a worthwhile investment. The last sketched a model of how law schools should allocate their limited financial aid resources, indicated the types of information law schools need to intelligently make such decisions, and traced the implications of the model for financial aid policies.

Together, these sections should stress to the reader how useful rather simple economic models and empirical analyses can be in improving our understanding of how the market for law students operates. Moreover, empirical analyses of this market have only begun. If ways could be found to grant researchers access to the annual NALP surveys of salaries of law school graduates for individual law school's, the analyses I presented in section II could be considerably expanded and improved upon. For example, studies could be done of the determinants of starting salaries that more fully control for the race and gender composition of a school's graduates, as well as the types of practices they enter and the geographic areas in which they reside.

One could also analyze the extent to which starting salaries of graduates vary for each law school and then study whether such variability influences law school applicants' decisions. One reasonable conjecture is that potential students will be more attracted to law schools that offer them (upon graduation) high expected starting salaries and to those that offer them a greater certainty (that is low variability of starting

salaries) of what they will likely face at the end of their studies. It may well be the case that the better law schools offer potential students both higher expected starting salaries and greater certainty.⁴⁷

While we can infer something about age-earnings profiles for lawyers who remain with the same law firm over time (Table 10), we actually have very little information on the career earnings profiles of most lawyers in the United States. Serious longitudinal data collection efforts by NALP or some other organization that follow a cohort of lawyers over time, would clearly also be worthwhile. Finally, if law schools are to "optimally" allocate financial aid among categories of recipients, section IV indicates that they must conduct institutionally-based empirical studies to ascertain the magnitudes of various parameters.

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Footnotes

1. See, for example, Richard Freeman (1975), Peter Pashigian (1977) and Aloysius Siow (1984).
2. For the U.S. studies, see footnote 1. The studies that use Canadian data include David Stager and David Foot (1987a) (1987b) (forthcoming).
3. See Pashigian (1977).
4. See David Vernon and Bruce Zimmer (1987). There was a slight upturn in the number of applicants in 1986 and then a much larger increase in 1987.
5. See, for example, David Stager (forthcoming), Stager and Foot (1987a) (1987b) (forthcoming), and Burton Weisbrod (1983).
6. See Burton Weisbrod (1983). John Goddeeris (1988) has recently reanalyzed the data Weisbrod used and found that once one accounts for several statistical problems (more formally, self-selection bias and choice-based sampling), one fails to find that public interest lawyers are earning substantially less than they would have earned in alternative types of practices.
7. See Stephen Spurr (1987).
8. See Spurr (1987) and National Association for Law Placement (1987a).
9. For studies of undergraduate student debt, see Janet Hansen (1987). W. Lee Hansen and Marilyn Rhodes (1987) (forthcoming) and Michael McPherson and Mary S. Skinner (1986). For studies of law, graduate and professional student debt, see Terry Hartle and Richard Wabick (1983) and John Kramer (1987).
10. See Kramer (1987).

11. See Ronald Ehrenberg and Daniel Sherman (1984). A related piece is Stephen Hoenack (1971).

12. There are, of course, many other factors that influence a school's starting salaries, including the specific geographic areas in which the school's graduates tend to be employed. In the absence of such data, I ignore these other factors here.

13. I appreciate the assistance of Jane Thieberger, Chair of the NALP Research Committee, in making these calculations.

14. Since the NALP data contain a host of other information, including (see footnote 12) detailed area of employment information, it clearly would have been preferable to use them.

15. The Gourman Score comes from The Gourman Report which is claimed by the author to be an objective evaluation based on a wide number of criteria. No details are provided by Gourman on precisely how these scores are calculated. Many people connected with legal education have questioned Gourman's methods and consider his ratings to be unreliable. David Webster (1984) details similar concerns about Gourman's analogous rankings of undergraduate colleges.

Since other rankings do not always agree with Gourman, it would be desirable to redo the analysis below using other rankings. It is interesting to note, however, that the correlation between the rankings of the top 20 law schools ranked by Deans of law schools in a recent U.S. News and World Report article and the rankings of the same scores in the Gourman Report is about .85. Hence, the Gourman Scores may be sufficiently accurate for my purposes. (An earlier study of college graduates (Lewis Solomon (1973)) found that their earnings were

significantly related to the analogous Gourman rankings of their undergraduate institutions.)

The actual Gourman Scores of accredited law schools in the Gourman Report range from 2.10 to 4.95. I ignored the decimal points in my analyses and thus will act as if the scores range from 210 to 495.

Finally, it is worth stressing that the Gourman and other rankings of law schools would find it near impossible to get sufficient information to actually measure the quality of legal education that any law school provides. At best what they measure is the quality of inputs used in the educational process (e.g., student quality, faculty quality, library size) or subjective impressions of a law school's reputation. My goal is to see if the legal labor market appears to reward attendance at "high quality" institutions, as measured by such rankings.

16. Note that once public sector, public service, and public interest law employment is controlled for, minorities are seen to receive significantly higher job offers than nonminorities (some \$11,000 or 30 percent higher). Thus, affirmative action pressures do seem important in the legal labor market.

17. These are computed, respectively, by $((\exp(-.501))-1)*100$ and $((\exp(-1.390))-1)*100$.

18. As the bottom panel of Table 5 indicates, no such relationships are found when the analyses are restricted to public law schools.

19. What is missing from this "picture" is an explanation of why some law schools locate at the high rating-high cost end and others at the low rating-low cost end of the market. Is it due to differences in law school endowments, to the general status of the university a law school is

attached to, or to unique historical factors? An analysis of this issue is far beyond the scope of this paper.

20. Implicitly, I am assuming here that starting salary differentials across schools persist over graduates' lifetimes. If earnings of graduates from higher rated schools tend to grow at a more rapid (slower) rate, this will increase (decrease) the financial attractiveness of attendance at these schools. Some evidence suggesting that such differentials may decrease over time, as the "true ability" of individual lawyers is observed, is presented in Spurr (1987).

21. Vernon and Zimmer (1987).

22. Kramer (1987).

23. The 1987 survey, covering the class of 1987, was conducted by the Chicago-based legal placement firm David J. White and Associates (as were many of the earlier surveys) during the March to May 1987 period. The published results were based on a survey of 8,000 law firms (with a 27.5% response rate) and on salary information from positions listed with David J. White and Associates.

24. NALP (1987a).

25. NALP (1987b).

26. Average starting salaries of NALP respondents in their surveys of the classes of 1985 and 1986 were 29,124 and 32,757 respectively (see NALP (1987c) (1987a)). If we take these figures as the "true" averages, the computed LSAL variable is off by 11.4% for the class of 1985 and 4.4% for the class of 1986. Prior to 1985, NALP did not report national average salary information. While such figures could be calculated in principle from the detailed data they report, such an effort is beyond the

scope of this paper.

Typically starting lawyers in the federal government are hired at the GS-11 grade. In the fall of 1975 this grade's salary level was slightly greater than the 1975 estimated LSAL value of \$15,688. By the fall of 1987, the GS-11 salary had grown to slightly over \$27,000 but LSAL had risen to almost \$37,000. This dramatic decline in the ratio of government to private sector starting lawyers' salaries undoubtedly helps to explain the declining proportion of new lawyers entering government service.

27. College Placement Council (1985) (1986) (1987).

28. I must again caution that equations (1) and (5) indicate that the differences in salaries, not the ratios, are what determines expected financial gain.

29. A hidden assumption in the comparison of law schools and business schools is that tuition levels for given quality schools of each type are equal.

30. Vernon and Zimmer (1987), Table 1 and New York Times (1988).

31. The discount rates reported in the text are the solutions to the equations $(1.8) = (1+r)^4$ and $(2.0) = (1+r)^4$.

32. See Pyle and Kramer (1984) and Kramer (1987).

33. Law School Admission Service (1987), pp. 25-31. On the other hand, these rates did tend to increase over the period and such increases would, other things held constant, tend to decrease the financial return from investing in a legal education.

34. See Kramer (1987).

35. See Tamar Lewin (1987).

36. See Baron's (1986).

37. See Barron's (1986).

38. In academic year 1986-87 private law schools' grants to students averaged 10.5 percent of tuition and fees, while public law schools' grants averaged 17.4 percent (ABA Memorandum QS8687-37, "Overview of Scholarship Programs for 174 ABA-Approved Law Schools", March 17, 1987).

39. See Lynn Miller (1987). As of the fall of 1987, 13 of the 175 ABA-accredited law schools had some form of loan forgiveness program. Annual income eligibility cut-offs for these programs ranged from \$26,000 (at Pennsylvania) to \$40,000 (at Yale) and eligibility under these programs began as early as the first year after law school (Harvard) and as late as six years after (Cornell).

40. See Ehrenberg and Sherman (1984).

41. See Ehrenberg and Sherman (1984) for formal proofs.

42. More formally, sensitivity is defined here as the percentage decline in applicant quality that occurs in response to a given percentage increase in the number of applicants. The intuition behind this last result can be illustrated by an example. Suppose that the quality of minority applicants to a law school falls off rapidly with the number admitted but that it has a large number of fairly indistinguishable white male applicants. It should, other things equal, give more aid to the former as keeping their yield high will avoid the need to admit substantially less qualified applicants. While it is true that giving less aid to the latter will decrease their yield, admitting more of them will not substantially reduce the average quality of enrollees from the group.

43. See Ehrenberg and Sherman (1984) for details.

44. Recall from section II that higher rated schools can charge higher tuition levels.

45. Ehrenberg and Sherman (1984) examined data on undergraduates at one selective university and showed that all of the factors argued in favor of an undergraduate financial aid policy at that university that provided larger scholarships for minorities and high-ability students.

46. These statements are based on Miller (1987) and conversations with administrators at a number of law schools. Several of the latter were kind enough to provide me with copies of their school's formal program documents.

47. I am grateful to Dean Peter Martin of the Cornell Law School for suggesting this point to me.

Table 1

Average Starting Salary Equations: Law School's Class of 1985
(absolute value t statistics)

	SAL		LSAL	
	(1)	(2)	(1)	(2)
LSAT	756.289 (4.9)*	576.871 (4.4)*	.0259 (4.3)*	.0201 (3.9)*
GOR	15.027 (2.1)*	11.404 (2.0)*	.0006 (2.1)*	.0004 (1.8)
PUB	-2399.517 (3.5)*	-1178.186 (2.0)*	-.0867 (3.3)*	-.0435 (1.9)
FEM	-62.913 (0.9)	-27.879 (0.5)	-.0004 (0.2)	.0007 (0.2)
MIN	68.789 (1.6)	111.630 (3.1)*	.0014 (0.9)	.0031 (2.2)*
PS		-230.675 (6.2)*		-.0086 (5.9)*
Constant	-1895.394 (0.4)	8812.298 (2.4)*	9.1236 (59.8)*	9.5054 (66.2)

\bar{R}^2	.483	.605	.449	.572
n	99	98	99	98

*Coefficient is statistically significantly different from zero at the .05 level; two-tail test.

where SAL - average starting salary of graduates of the law school
 LSAL - logarithm of average starting salary of graduates of the law school
 LSAT - median LSAT score of enrolled students in the law school
 GOR - "Gourman Score" of law school in latest ranking multiplied by 100
 (range goes from 210 to 495)
 PUB - 1=public institution 0=private institution
 FEM - percentage of school's students that are females
 MIN - percentage of school's students that are minorities
 PS - percentage of school's graduates placed in public sector (government,
 military or judicial clerkships), public service and public
 interest positions

- Source: 1) Barron's Guide to Law Schools: Seventh Edition (Hauppauge, NY: Barron's Educational Series, Inc., 1986) - SAL, LSAL, LSAT, FEM, Min, PS.
 2) The Gourman Report: A Rating of Graduate and Professional Programs in American and International Universities, Third Edition Revised (Los Angeles, CA: National Education Standards, 1985) - GOR.
 3) American Bar Association, Memorandum QS8687-37, March 17, 1987 - PUB.

Table 2

Percentage of Students Entering Public Sector,
Public Service, and Public Interest Law
(absolute value t statistic)

A.	All Law Schools		Public	Private
	(1)	(2)	(3)	(4)
LSAT	.097 (0.3)	.186 (0.6)	.270 (0.6)	-.009 (0.0)
GOR	-.027 (1.9)	-.030 (2.0)*	-.043 (2.1)*	-.013 (0.6)
FEM	.177 (1.3)	.145 (1.0)	.116 (0.5)	.235 (1.3)
MIN	.183 (2.0)*	.193 (2.1)*	.016 (0.1)	.258 (2.2)*
PUB	3.244 (2.2)*			
Constant	21.490 (2.6)*	21.749 (2.6)*	28.226 (2.4)*	17.430 (1.5)

\bar{R}^2	.080	.055	.037	.084
n	147	147	64	83

B.	(1)	(2)	(3)	(4)
FEM	.052 (0.4)	.062 (0.4)	-.214 (1.0)	.236 (1.4)
MIN	.310 (3.9)*	.309 (3.9)*	.348 (3.0)*	.255 (2.3)
0	-.001 (1.8)	-.001 (2.9)*	-.000 (1.0)	-.001 (1.2)
PUB	1.176 (0.6)			
Constant	25.265 (0.6)	26.578 (5.3)*	36.636 (4.7)*	17.404 (2.4)*

\bar{R}^2	.137	.141	.132	.098
n	153	153	67	86

* Coefficient is statistically significantly different from zero at the .05 level, two-tail test.

where

0 - Tuition and fees for full-time students, out-of-state students' figures used for public schools.

Table 3

The Relationship Between 1985-86 Law School Tuition and Fees
and the Gourman Score of the School
(absolute value t statistics)

	Tuition and Fees		Logarithm of Tuition and Fees	
	(0)	(1)	(0)	(1)
All Schools (n=172)				
GOR	13.673 (10.5)*	11.411 (10.5)*	.002 (8.7)*	.002 (5.9)*
PUB	-2892.148 (14.0)*	-5606.822 (29.6)*	-.501 (13.0)*	-1.390 (29.0)*
Constant	2981.088 (6.4)*	3751.106 (8.8)*	8.186 (94.5)*	8.298 (77.0)*
\bar{R}^2	.643	.850	.589	.836

Private Schools (n=99)				
GOR	16.848 (10.6)*		.002 (8.6)*	
Constant	1901.042 (3.4)*		8.185 (94.8)*	
\bar{R}^2	.530		.196	

Public Schools (n=73)				
GOR	8.915 (4.3)*	3.259 (2.5)*	.002 (4.0)*	.001 (2.0)*
Constant	1701.256 (2.3)*	906.121 (2.0)*	7.868 (46.3)*	7.076 (31.5)*
\bar{R}^2	.193	.065	.206	.041

*Coefficient statistically significant from zero at .05 level, two-tail test.
where 0 - Tuition and Fees, for full-time students, out-of-state students'
figures used for public law schools

I - Tuition and Fees for full-time students, in-state students' figures
used for public law schools

Source: Barron's Guide to Law Schools: Seventh Edition (Hauppauge, NY:
Barron's Educational Series, Inc., 1986) - 0, I.

Table 4
1985-86 Law School Tuition and Fee Equations
(absolute value t statistics)

	Tuition and Fees		Logarithm of Tuition and Fees	
	(0)	(1)	(0)	(1)
All Schools (n=158)				
COMP	.086 (10.6)*	.066 (8.8)*		
LIBSTU	-218.010 (1.2)	-21.584 (0.1)	-.069 (1.9)	-.042 (0.8)
STUFAC	-34.410 (1.3)	-44.912 (1.9)	-.003 (0.6)	-.008 (1.2)
PUB	-3005.827 (14.1)*	-5758.228 (28.9)*	-.511 (12.2)*	-1.422 (25.7)*
LCOMP			1.025 (9.0)*	.647 (4.3)*
Constant	2639.019 (3.6)*	3990.174 (5.8)*	-2.347 (1.9)	1.915 (1.2)
\bar{R}^2	.689	.867	.627	.830

Private Schools (n=86)				
COMP	.108 (10.5)*			
LIBSTU	-233.298 (1.0)		-.058 (1.5)	
STUFAC	-4.057 (0.1)		.000 (0.0)	
LCOMP			.986 (8.1)*	
Constant	635.695 (0.6)		-1.984 (1.5)	
\bar{R}^2	.592		.442	

Public Schools (n=72)				
COMP	.055 (3.9)*	.007 (0.9)		
LIBSTU	-385.678 (1.4)	-139.591 (0.7)	-.076 (1.1)	-.055 (0.6)
STUFAC	-19.783 (0.4)	-.972 (0.0)	-.008 (0.8)	-.008 (0.6)
LCOMP			1.120 (5.0)*	.284 (0.9)
Constant	1713.129 (1.6)	1655.337 (2.4)	-3.833 (1.6)	4.545 (1.3)
\bar{R}^2	.178	-.023	.254	-.027

* Coefficient is statistically significantly different from zero at the .05 level; two-tail test.

where COMP - median base salary and fringe benefits of law school's full-time faculty in 1986-87

LCOMP - logarithm of COMP

LIBSTU - total number of volumes (in 000's) in the law school's library/
number of first-year students

STUFAC - student/faculty ratio in the school

Source: 1) Barron's Guide to Law School's: Seventh Edition (Hauppauge, NY: Barron's Educational Services, Inc., 1986) - LIBSTU, STUFAC.

2) American Bar Association, Memorandum Q58687-3, November 11, 1987 - COMP.

Table 5

1985-86 Law School Applicant and Accepted
Applicant Yield Equations^a
(absolute value t statistics)

	Accepted Applicant Yield (AA \bar{Y})		Applicant Yield (A \bar{Y})	
	(1)	(2)	(1)	(2)
<u>All Schools</u>	$\overline{AA\bar{Y}} = .385/n = 155$		$\overline{A\bar{Y}} = .198/n = 165$	
GOR	.0000 (0.4)	-.001 (1.1)	-.0001 (0.6)	-.0002 (1.5)
LO	-.1423 (5.2)*		-.0839 (2.5)*	
LI		-.0659 (5.2)*		-.0299 (1.9)*
Constant	1.6068 (7.3)*	.9802 (9.3)*	.9577 (3.5)*	.5173 (3.9)*
\bar{R}^2	.165	.163	.044	.029
<u>Private Schools</u>	$\overline{AA\bar{Y}} = .348/n = 86$		$\overline{A\bar{Y}} = .170/n = 95$	
GOR	.0004 (1.7)		-.0002 (2.0)*	
LO	-.2294 (3.6)*		-.1375 (4.1)*	
LI				
Constant	2.2693 (4.4)*		1.4683 (5.3)*	
\bar{R}^2	.123		.371	
<u>Public Schools</u>	$\overline{AA\bar{Y}} = .431/n = 69$		$\overline{A\bar{Y}} = .228/n = 70$	
GOR	-.0003 (1.5)	-.0004 (1.9)	.0001 (0.3)	.0000 (0.1)
LO	-.0599 (1.3)		-.0124 (0.1)	
LI		-.0632 (1.9)		.0727 (1.1)
Constant	1.0392 (2.8)*	1.031 (4.1)*	.2864 (0.4)	-.3323 (0.7)
\bar{R}^2	.064	.089	-.028	-.009

* Coefficient is statistically significantly different from zero at the .05 level; two-tail test.

^a Applicant yield equals enrolled first-year students/applicants; accepted applicant yield equals enrolled first-year students/accepted applicants.

and

LO - logarithm of tuition and fees for full-time students, out of state students figures used for public law schools.

LI - logarithm of tuition and fees for full-time students, in-state students figures used for public law schools.

Table 6

Comparison of Law School Tuition and Law School
Graduates' Starting Salaries in Seven Cities^a

<u>Year/City</u>	<u>Boston</u>	<u>Chicago</u>	<u>Los Angeles</u>	<u>Philadelphia</u>	<u>Milwaukee</u>	<u>New York</u>	<u>Washington</u>
A) <u>Ratio of Law School Tuition to Starting Salary</u>							
1976	.22	.26	.16	.27	.20	.20	.19
1977	.22	.26	.19	.29	.19	.20	.19
1978	.25	.31	.15	.32	.20	.20	.21
1979	.25	.32	.17	.32	.19	.26	.21
1980	.27	.33	.15	.32	.18	.27	.23
1981	.29	.34	.17	.33	.19	.29	.25
1982	.32	.37	.19	.35	.23	.33	.28
1983	.36	.40	.19	.39	.23	.35	.31
1984	.32	.32	.15	.37	.22	.28	.29
1985	.34	.31	.15	.37	.22	.28	.29
1986	.34	.32	-	.37	.24	.30	.32
<hr style="border-top: 1px dashed black;"/>							
B) <u>Difference Between Starting Salary and Tuition in Real Terms</u>							
1976	\$11,073	\$11,046	\$13,000	\$10,362	\$11,059	\$13,230	\$12,943
1977	11,491	10,865	13,050	9,810	11,565	13,947	13,717
1978	10,416	9,004	12,869	8,890	10,701	14,892	12,479
1979	10,143	8,987	11,958	9,036	11,663	11,810	13,137
1980	9,352	8,622	12,068	9,307	12,589	11,176	12,358
1981	8,881	8,704	11,217	8,830	11,095	10,248	11,230
1982	8,274	8,055	10,081	8,464	10,003	9,041	9,944
1983	7,532	7,393	10,314	7,441	9,880	8,787	9,293
1984	9,560	10,725	13,886	8,523	10,553	12,770	11,119
1985	9,467	11,595	14,147	8,710	10,136	13,435	10,967
1986	10,023	11,748	-	9,514	10,071	12,744	10,658

^aAverage starting salaries in the city are for the class of (year) in nonpatent law firms in the city. Tuition and fees data for full-time students are for Harvard (Boston), Chicago (Chicago), UCLA-out-of-state (Los Angeles), Pennsylvania (Philadelphia), Marquette (Milwaukee), NYU (New York City) and Georgetown (Washington, DC).

Sources: Student Lawyer's "Annual Salary Survey" (various issues, November 1976 to November 1986) - salary.

American Bar Association Memoranda QS8586-53 (July 28, 1986) and QS8687-48 (December 3, 1986) - tuition and fees.

1987 Economic Report of the President (Washington, DC: U.S. Government Printing Office, January 1987), Table B55 - consumer price index.

Table 7

Average Annual Starting Salaries of Law School Graduates in Nonpatent Law Firms,
Average Annual Starting Salaries of Individuals With Other Degrees. Average
Law School Tuitions in the Academic Year, and the Consumer Price Index

Class of	LSAL	ASAL1	ASAL2	ASAL3	ASAL4	ASAL5	TPRV	TPUB	CPI
1975	15,688	15,000	8,676	9,240	■	15,888	2,305	716	147.7
1976	16,188	15,876	9,300	9,840	■	16,420	2,500	780	161.2
1977	17,688	16,920	9,720	10,356	■	18,036	2,856	863	170.5
1978	17,813	17,976	10,452	10,716	■	19,428	3,148	883	181.5
1979	19,063	19,332	11,796	11,664	13,476	20,976	3,457	964	195.4
1980	20,875	21,540	12,888	12,864	15,024	23,652	3,805	1,030	217.4
1981	22,688	24,000	14,448	15,992	16,440	26,268	4,318	1,145	246.8
1982	23,938	25,620	15,396	15,432	18,516	27,768	4,926	1,308	272.4
1983	24,938	26,580	16,560	15,840	19,080	30,288	5,617	1,490	289.1
1984	30,688	28,500	17,724	17,424	19,980	30,492	6,266	1,668	298.4
1985	32,438	28,584	17,532	18,540	20,748	30,444	6,898	1,803	311.1
1986	34,188	30,348	19,296	19,980	22,404	32,388	7,526	2,006	322.2
1987	36,875	31,524	20,256	21,876	23,640	34,248	8,286	2,135	328.4

■ Data are not available to do the calculations.

where

LSAL - Average annual starting salary of lawyers entering nonpatent law firms across 8 cities (Atlanta, Boston, Chicago, Los Angeles, Philadelphia, Milwaukee, New York City, and Washington, DC). This average does NOT weight each city's figure by the number of lawyers employed in the city.

ASAL1 - Average annual starting salary of MBA graduates who had nontechnical undergraduate degrees.

ASAL2 - Average annual starting salary of college graduates who majored in the humanities.
(including economics until 1978-79).

ASAL3 - Average annual starting salary of college graduates who majored in the social sciences.

ASAL4 - Average annual starting salary of college graduates who majored in economics.

ASAL5 - Average annual starting salary of MBA graduates who had technical undergraduate degrees.

TPRV - Average private law school tuition in the previous academic year (e.g., 1987 figures refer to the 1986-87 academic year).

TPUB - Average public law school resident student tuition in the previous academic year.

CPI - Consumer Price Index in the previous year (1967 = 100).

Sources: The College Placement Council, Inflation and the College Graduate: An Update 1962-1985, and the College Placement Council Salary Survey (July 1986, July 1987) - ASAL1, ASAL2, ASAL3, ASAL4, ASAL5; Student Lawyer's "Annual Salary Survey" (various issues, November 1975 to November 1987) - LSAL; ABA Memoranda C8687-48 (December 3, 1986), Q86586-53 (July 23, 1986) and Q8384-42 (March 19, 1984) - TPRV, TPUB; 1987 Economic Report of the President (Washington, DC: U.S. Government Printing Office, January 1987), Table B55 - CPI.

Table 8

Ratio of the Average Starting Salaries of Lawyers in
Nonpatent Law Firms to the Average Starting Salaries
of Graduates With Other Degrees

Class of	R1	R2	R3	R4	R5
1975	1.046	1.808	1.698	a	0.987
1976	1.020	1.741	1.645	a	0.974
1977	1.045	1.820	1.708	a	0.981
1978	0.991	1.704	1.662	a	0.917
1979	0.986	1.616	1.634	1.414	0.909
1980	0.969	1.620	1.623	1.389	0.883
1981	0.945	1.570	1.621	1.388	0.863
1982	0.934	1.555	1.551	1.292	0.862
1983	0.938	1.506	1.574	1.307	0.823
1984	1.077	1.731	1.761	1.536	1.006
1985	1.135	1.850	1.750	1.563	1.065
1986	1.127	1.771	1.711	1.525	1.056
1987	1.170	1.820	1.685	1.560	1.077

^aData are not available to do the calculations

where

R1 = LSAL/ASAL1

R3 = LSAL/ASAL3

R5 = LSAL/ASAL5

R2 = LSAL/ASAL2

R4 = LSAL/ASAL4

See Table 7 for variable definitions and for sources of the data.

Table 9

Estimated Change in the Present Value of a Law School Degree Relative to the Present Value of Alternative Degrees*

Time Period	(1)	(2)	(3)	(4)	(5)
1975-76 From 1974-75	\$ -2,462	\$ 13,275	\$ 12,971	\$ -	\$ -1,398
1976-77 1975-76	10,963	30,122	28,834	-	4,295
1977-78 1976-77	-13,174	4,296	9,214	-	-20,118
1978-79 1977-78	1,856	18,925	24,913	-	-3,612
1979-80 1978-79	-2,177	45,317	43,645	34,260	-15,249
1980-81 1979-80	-8,201	50,536	59,255	48,321	-17,736
1981-82 1980-81	-4,630	48,143	38,202	19,035	-7,035
1982-83 1981-82	5,006	27,457	45,165	37,316	-41,142
1983-84 1982-83	121,733	162,067	152,429	166,563	167,000
1984-85 1983-84	59,955	87,045	54,294	60,452	61,449
1985-86 1984-85	11,770	37,506	45,079	37,433	4,316
1986-87 1985-86	58,722	81,841	56,523	72,912	36,232

Author's calculations using data from Table 7 and equation (5) in the text. TPRV and CPI are used in all columns while column

- (1) uses LSAL and ASAL1
- (2) uses LSAL and ASAL2
- (3) uses LSAL and ASAL3
- (4) uses LSAL and ASAL4
- (5) uses LSAL and ASAL5

See Table 7 for variable definitions.

* A positive number implies law degree was becoming relatively more attractive as compared to the alternative. A negative number implies the opposite.

Table 10
Average Salaries for Young Lawyers in Nonpatent
Law Firms, By Experience: 1982-1986

	<u>Atlanta</u>					<u>Boston</u>				
	<u>(S)</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(S)</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>
1982	<u>24.0</u>	25.0	26.0	28.0	29.0	<u>22.5</u>	24.0	25.5	27.0	28.5
1983	25.5	<u>27.0</u>	28.5	30.0	31.0	23.0	<u>25.0</u>	26.8	29.0	31.0
1984	29.5	32.0	<u>34.0</u>	37.0	39.5	28.5	31.0	<u>35.0</u>	37.5	40.0
1985	29.0	31.0	33.0	<u>37.5</u>	42.0	30.0	32.5	37.5	<u>39.0</u>	43.0
1986	30.5	32.0	34.5	38.0	<u>43.5</u>	33.0	34.5	39.0	41.5	<u>45.0</u>

	<u>Chicago</u>					<u>Los Angeles</u>				
	<u>(S)</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(S)</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>
1982	<u>23.5</u>	24.5	25.5	27.0	28.5	<u>23.0</u>	25.0	26.5	28.0	30.0
1983	24.0	<u>25.5</u>	27.0	28.5	29.5	25.0	<u>27.0</u>	29.5	31.0	33.0
1984	32.0	33.5	<u>36.0</u>	37.5	39.5	33.0	34.0	<u>36.0</u>	38.0	46.5
1985	35.5	36.5	38.0	<u>42.5</u>	47.0	35.0	36.5	37.0	<u>40.0</u>	47.0
1986	37.5	38.0	39.0	43.0	<u>48.0</u>	36.5	38.0	39.0	41.5	<u>47.5</u>

	<u>New York</u>					<u>Washington, DC</u>				
	<u>(S)</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(S)</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>
1982	<u>25.0</u>	27.0	29.0	31.0	32.5	<u>25.5</u>	27.0	28.5	30.0	32.0
1983	26.5	<u>29.0</u>	31.5	34.0	36.5	26.5	<u>28.0</u>	29.5	31.0	33.0
1984	36.0	37.5	<u>40.0</u>	43.5	46.0	31.5	33.0	<u>38.0</u>	41.0	45.0
1985	39.0	41.0	43.0	<u>46.0</u>	48.5	33.0	33.5	39.5	<u>43.5</u>	46.5
1986	40.0	43.0	45.0	48.0	<u>50.0</u>	34.0	34.5	40.0	45.0	<u>48.0</u>

where

- (S) - starting salary
- (1) - salary with one year's experience
- (2) - salary with two years' experience
- (3) - salary with three years' experience
- (4) - salary with four years' experience

Source: Student Lawyer's "Annual Salary Surveys" (November 1982, 1983, 1984, 1985, 1986 issues).