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POST-TENURE SCHOLARSHIP AND ITS IMPLICATIONS

*Jeffrey L. Harrison**

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I. INTRODUCTION

Periodically in the popular press¹ and even in academic circles, the question arises of whether professors should be granted lifetime employment contracts based on a sample of four to six years of a probationary period. This is a serious question because tenure is costly in two ways. The first is the obvious out-of-pocket cost of an extended commitment. Second, there is an opportunity cost. Universities typically have limited positions, and the opportunity cost of granting tenure is the lost productivity of another, possibly more productive scholar for whom that position is permanently unavailable.

The question becomes more pressing when one considers the nature of the process for reviewing a candidate's productivity. This review typically includes two components. First, a handful of pre-announced class visits by senior faculty determine whether the candidate's teaching is satisfactory. Second, three or four of the candidate's articles are sent to a very small number of reviewers. These reviewers are often selected by the candidate or by the candidate's friends and allies. The candidate is then voted on by a group of faculty, a significant portion of whom may view the candidate as a friend.

Further clouding the issue of how easily tenure should be granted is the question of what determines tenure. Is it a reward for past efforts or based on a forecast of future productivity? These concepts may seem like the same thing — we project on the basis of what we know — but they are not. What I have observed is that pre-tenure scholars tend to fall along a continuum between two types. At one end of the continuum are those who treat the production of scholarship as a sprint to the finish. As the time for their tenure decision grows near, they work hard to meet the deadline. At the other end are those who write at a steady pace and treat the last few weeks before the tenure decision no differently than any other week. Scholarship seems to come naturally to them. At least as far as lifetime employment, candidates falling near the "late writers" end of the spectrum seem riskier candidates than those who are closer to the "on-time" end.

1. See, e.g., Kyle Henley, *Colorado Case Reopens Debate About Tenure*, CHRISTIAN SCI. MONITOR, Apr. 11, 2005, at <http://www.csmonitor.com/2005/0411/p03s01-ussc.html> (last visited Mar. 19, 2006). The most recent controversy centers around Ward Churchill, a University of Colorado professor, who wrote a short essay that was generally sympathetic to those who attacked the World Trade Center on September 11, 2001. See Ward Churchill, "Some People Push Back" *On the Justice of Roosting Chickens*, 11 POCKETS OF RESISTANCE (Sept. 2001), at <http://www.darknightpress.org/index.php?i=news&c=recent&view=9> (last visited June 23, 2005).

This observation, and the huge commitment of resources that occurs when tenure is granted, inspired me to conduct an unscientific study. Having served on the faculty at my law school for a number of years, I classified individuals into categories I labeled “late writers” or “on-time writers.” Late writers were those who submitted their final articles for tenure consideration in manuscript form. On-time writers were those whose final works were already in print before the tenure decision. I then calculated the average number of post-tenure publications per year for each member of each group. I was shocked by the results. The individuals I have classified as late writers had virtually stopped writing after receiving tenure. Their publication rate was .1 articles per year in the post-tenure period. The rate for the on-time writers, on the other hand, was 2.1.

My informal study had far too many problems to draw any firm conclusions, but the differences in publication efforts were so great it was hard to believe that the outcome was simply a fluke. What seemed to follow was a general rule that those who write late in their pre-tenure years are poor risks for post-tenure scholarship. This modest study led me to undertake a more ambitious empirical effort to discover those factors that make for a productive post-tenure career.

For the empirical effort, I expanded the sample to one hundred professors from other law schools and examined a number of possible determinants of post-tenure scholarship.² At the outset, I thought this study would be a fairly straightforward endeavor resulting in some possibly useful findings that could assist in future evaluations of tenure candidates. As the study progressed, however, it took a bit of a twist. I found that nearly seventy percent of those surveyed wrote less per year in their post-tenure period than in their pre-tenure period. In other words, in an effort to determine what makes for a productive post-tenure career, I discovered that the majority of those surveyed were less productive scholars after becoming tenured than before. Thus, I found myself not simply attempting to discover the factors that distinguish highly productive post-tenure scholars from less productive post-tenure scholars, but to determine why, as a general matter, scholarship dipped so much after tenure. Could one of the costs of tenure itself be lower levels of scholarship? Perhaps more importantly, does it matter?

2. In reality, it was impossible to ascertain the exact year in which tenure was granted in most of the instances studied in this Essay. As a general matter, and subject to some exceptions noted in the text, I have assumed tenure begins in the seventh year of teaching. In any case, the comparison studied in this Essay can also be viewed as between early-career writing and mid-career writing.

My goals in this Essay are not merely to explain the empirical results and their implications but to reveal some of the reasoning used when I encountered difficulties in assembling data or dead ends in the analysis itself. By adopting this format, I hope to allow the reader to better assess where the false steps and mistakes may lie and to form his or her own views of the usefulness of tenure (and this effort). In addition, some of the results are somewhat technical. Rather than present these results in tabular form, I will describe what the numbers mean in terms that I hope most will understand. In effect, I hope to introduce the uninitiated reader to empirical analysis at a basic level.

Part II is a description of my initial efforts to find the keys to post-tenure scholarship. Among the factors I examined, only one seemed to have a significant impact on post-tenure scholarship. As already noted, the effort revealed, on average, a surprising decline in the output of scholarship after a faculty member is awarded tenure. Part III is devoted to a closer examination of this phenomenon. Finally, in Part IV, I discuss the implications of these findings in the context of a broader discussion of the costs and benefits of tenure and propose two adjustments designed to lower costs and increase benefits.

Hopefully it is unnecessary, but I want to be clear that I side with those who do not measure the value of a colleague simply by the amount of post-tenure scholarship. On the other hand, a guarantee of lifetime employment is a serious matter and, to the extent that lifetime employment involves an expectation of continued scholarship, more sophisticated methods of making projections about future productivity are essential.

II. THE EMPIRICAL STUDY: FIRST CUT

For my initial effort to identify the determinants of post-tenure productivity, I measured post-tenure scholarship by the number of printed pages per year during the post-tenure period. The variables I posited as possibly affecting post-tenure scholarship were:

1. Pages of pre-tenure scholarship
2. Rank of law school of graduation
3. Rank of law school where currently employed
4. Timing of pre-tenure writing
5. Race
6. Gender
7. Years of teaching since tenure

In the pages that follow, I explain the specifics of each variable, including the measure of post-tenure scholarship. I also discuss my expectations with respect to each variable. Ultimately, few of my expectations turned out to be correct, including the hypothesis that late writers were not likely to be productive after tenure.

A. *The Sample and Variables*

1. The Sample

Sample selection was not an easy matter, and technically, the sample was not random.³ I selected one hundred law professors from the 2003-2004 Directory of Law Teachers.⁴ Initially, in order to determine the one hundred, I divided the total number of listings by one hundred, which resulted in approximately eighty. I then selected each eightieth name. As it turns out, the eighty names were only a beginning point. The Directory includes in its listing non-teaching administrators, legal writing and clinical specialists, as well as people who started teaching too recently to have a significant post-tenure record.

What I was looking for in my sample were tenure-track professors with enough time in teaching to establish a “track record.” Upon finding the eightieth entry, I then selected the next entry that appeared to be that of a tenure-track professor who was not a legal writing teacher, clinician, or an administrator. I also excluded those who were serving or had served as law school deans. I further narrowed the selection to those who had entered teaching in the years 1980-1992. I did not go back earlier than 1980 because I believe the emphasis on scholarship has grown, and it would result in a bias to include those for whom scholarship was not regarded as a critical part of the job. In addition, since I placed great reliance on Westlaw, I knew that the farther back I went, the less reliable my database would be.⁵ By excluding those entering teaching after 1992, I was assured of including only teachers who had significant years in service since being awarded tenure.

Although any subjective element in the sample selection may result in a bias, some judgments were necessary. In particular, since I wanted only individuals who had received tenure and for whom it would be relatively

3. A random sample is one in which each member of a population has an equal probability of being selected. See WIKIPEDIA, at <http://en.wikipedia.org/wiki/Random-Sample>.

4. THE AALS DIRECTORY OF LAW TEACHERS 2003-2004, Ass’n of American Law School (2004) [hereinafter AALS].

5. I also relied on online publication records when they were available.

simple to estimate the time of receiving tenure, many entries could not be used. For example, according to the Directory (and to my enlightenment), some individuals hold a variety of visiting positions at different schools before being listed as something other than “visiting” at that school or another. One professor had been an assistant professor at a school for three years and then spent three years “visiting” the same school before becoming an associate professor. Ideally, I wanted the assistant, associate, and full professor track at the same school, but this progression is not as common as one might think. In addition, the movement from school to school may reflect scholarship difficulties (among many other things),⁶ so my selection may have created a bias toward more productive scholars. On the other hand, easy movement from school to school also suggests that a professor is marketable, which may mean significant scholarly productivity. In the end, I came up with one hundred professors who had relatively “conventional” employment records.

My inclination is to believe that the selection was random, at least with respect to scholarly output. However, there was one exception. Sometimes my initial selection was a full professor for whom I could find no indication of scholarship at any time. My inference was that this person’s institution had no scholarship requirement. Including such a professor in a study of post-tenure scholarship made little sense. When I found a school that granted tenure without scholarship, I did not include any subjects from that school, even though other people at these same schools may have written. This decision is one reason, among many others which I will identify, that this report should only be considered a “rough guide.”

2. Publication Total

The most subjective element of this effort is the measure of scholarship. Because an objective assessment of the quality of scholarship seems impossible, I elected to avoid the debate and use a quantitative measure — the number of pages published. Unfortunately, even here the controversy does not end. Law professors write articles, produce casebooks, and edit books of articles by others. In addition, I found a considerable amount of recycling in the form of articles that became books or parts of articles that became the basis for parts of different articles.

Some colleagues have suggested that not all publications are scholarship. For example, writing designed simply to advance a cause or point of view but not based on original research designed to “discover”

6. Two important factors are a desire to be close to a family member or to accommodate spousal employment.

something new might be viewed as “service” rather than scholarship. Although I am somewhat sympathetic to this view, this distinction is a fine one to make and certainly not one I felt comfortable making for the purposes of this effort.

I opted to treat pages in any form and in any publication with equal weight, with some exceptions. In the case of multiple authors, I divided the pages equally. Casebooks were treated differently. I gave an author credit for 25% of the total pages. Granted, this is highly arbitrary but, based on personal experience, it takes about a year to produce a casebook. This is also about the length of time it takes — based on an informal survey of colleagues — to write a law review article of significant length. In fact, since an 800-page casebook was treated like a 200 page article, some may argue I have been too generous. Treatises were given credit page-for-page even though an argument can be made that descriptive material is less time-consuming to produce than analytic material. Of course, some treatises are analytical and some articles doctrinal. Consequently, equal treatment of all pages seemed the safest route.

Law professors, like many other scholars, often edit books containing chapters or articles by others. These works present a risk of over-counting. Many of the contributions of the editor, as well as those of the contributors, have been published elsewhere. On the other hand, even with no original contributions, the editor typically reads, organizes, and helps shape each of the entries. One possibility here was to examine each entry in order to determine how many of the pages were actually drafted by the editor and then to add some kind of bonus to recognize the additional efforts of the author. On the other hand, a case can be made that these additional efforts are more administrative than scholarly and deserve no credit. In these cases, I have counted the number of pages contributed by the editor that were not identified as having appeared elsewhere. To this I have added a bonus of 10% of the total pages in the collection. For example, one professor in the study had co-edited a book of articles by others. The book contained 360 pages. One of the entries was an article the editor had published elsewhere. The only other original contribution by that professor was the 10-page co-authored introduction. Under the formula here, the subject was credited with 28 pages. No doubt this number will seem low to those who have edited books of readings. Again, this reflects my view that compiling the works of others, though time-consuming and valuable, cannot be equated with original work. In sum, in order to calculate pages, a number of decisions had to be made, and these decisions may have produced biases one way or another. My hunch, however, is that these decisions played little or no role in determining the results.

The dependent variable in this study — the one I initially sought to explain — was post-tenure scholarship. Specifically, it is post-tenure pages per year. One of the more difficult steps of this process was determining what should be regarded as post-tenure scholarship. Here I made estimates and relied on inferences that may or may not stand up but which I think capture the distinction I was attempting to make. First, tenure is generally granted after three to six years. My baseline assumption was that most law schools follow the pattern that the sixth year is the “up or out” year.⁷ Second, promotion to full professor before the “up or out” year typically is accompanied by the grant of tenure.

Based on these factors, I classified a person as tenured when he or she was promoted to full professor if that promotion occurred before their seventh year at a particular institution. The post-tenure period for calculating publications began two years later, based on the assumption that most of what was published in that two-year period was actually completed while untenured. In addition, I assumed that a professor who was at a university for an eighth year had, in all likelihood, *de facto* tenure at that university even if he or she had not been promoted. The post-tenure calculation period for this person also fell two years later to allow for the publication lag. All works appearing during the two year lag were treated as pre-tenure even though they may have actually appeared in print after the professor was granted tenure. They are also part of a “bubble scholarship” category discussed in the next section. It should be noted that, in the case of law review articles, “appear” is meant literally. The determination of when a publication appeared is based, whenever possible, on actual publication date as opposed to the date printed on the publication.

The information gathered about publication is presented in a variety of ways. For example, I calculated simple averages for post and pre-tenure periods. I also determined the difference in average pages for the two periods and expressed post-tenure production as a percentage of pre-tenure production.

3. The Pre-Tenure Bubble

As I noted in the Introduction, the inspiration for this exercise was an informal study I conducted of my own faculty indicating that, on average, late-writing candidates are unlikely to be productive post-tenure scholars. In that context, determining which candidates hurried to finish manuscripts

7. In some instances, I was able to verify this by examining the faculty policy manuals when they were available online.

at the last minute was simple. The timing was far more difficult to determine in this more formal context. For the purposes of this study, those publications appearing in the first and second years of the post-tenure period were regarded as “bubble scholarship” since they were likely completed at the end of the pre-tenure period. Bubble scholarship is expressed as a percentage of total pre-tenure scholarship.

4. Law School Ranking

Law school ranking is relevant with respect to two variables. One is the school from which the professor received his or her J.D. degree. The other is the professor’s principal place of employment. As it turns out, there was very little mobility in the rankings, so I used a single year of the *U.S. News and World Report* law school rankings.⁸ I selected the March 1997 rankings because they fell well within the period for which scholarship totals were calculated. I would have preferred to use the University of Texas Education Quality Rankings (EQR)⁹ because of its closer link to the actual scholarly output of faculty. It seems likely that the faculty’s environment and norms influence both pre- and post-tenure scholarship. Unfortunately, the Educational Quality Rankings, though far superior to the *U.S. News and World Report* rankings, only rank the top fifty schools. Since many of the professors in my sample do not teach at top fifty schools, using the EQR was not possible. I rejected the idea of using the EQR for the top fifty and *U.S. News and World Report* for the remainder because of concerns about consistency and the fact that some schools would fall inside the top fifty in one ranking and outside it in another.

The 1997 *U.S. News and World Report* ranked schools one through fifty individually; after fifty, schools were ranked in groups or tiers.¹⁰ I assigned every school beyond the top fifty a rank equal to the midpoint of its tier. For example, the second tier included forty schools and each school was assigned a rank of seventy. This obviously makes for some imprecision, but there was no perfect solution to the problem.

8. JoAnn Tooley et al., *Best Graduate Schools*, U.S. NEWS & WORLD REPORT, Mar. 10, 1997, at 67.

9. Brian Leiter, *Ranking of Law Faculty Quality for 2003-04*, EDUCATION QUALITY RANKINGS OF U.S. LAW SCHOOLS 2003-2004, Mar. 25, 2003, at <http://www.utexas.edu/law/faculty/bleiter/rankings/> (last visited Mar. 19, 2006).

10. Tooley et al., *supra* note 8, at 67.

5. Personal Characteristics

Both gender and minority status were taken from the AALS Directory. In the case of minority status, the appendix in the Directory does not distinguish among minority groups and is self-reported.¹¹ This reporting method results in the possibility of understatement (or even overstatement) of a group, and the mixing of minorities makes the formulation of a single hypothesis impossible. In the actual model, “dummy variables” were used to signify race and gender.¹² Non-minorities were given a value of 0 and minorities a value of 1. Similarly, men were assigned a value of 0 and women were assigned a value of 1.

B. Expectations

Obviously, the inclusion of each variable suggests a hypothesis, informal expectation, or hunch about the relation of that variable to the dependent variable — post-tenure scholarship. For the most part these expectations are obvious:

1. Those who write more in the pre-tenure period will write more during the post-tenure period.
2. Those graduating from higher-ranked law schools will be more productive post-tenure scholars.
3. Those teaching at higher-ranked schools will be more productive post-tenure scholars.
4. A higher percentage of writing during the bubble period is indicative of low post-tenure writing.

Other variables are more complicated. The minority variable is expected to show that minorities engage in less scholarship. The reason is that minorities — at least at the schools with which I am familiar — seem to be called on to do double and triple service duty at both the law school and university levels.¹³ In the case of gender, I started with no particular expectation. It was simply an easy variable to include. To some extent, married and single women with children may take more frequent leaves

11. See AALS, *supra* note 4, at 1481-93.

12. A “dummy” variable is a variable that does not contain numerical data but reserves space for an actual variable. See WEBOPEDIA, *Dummy*, at <http://www.webopedia.com/TERM/D/dummy.html>.

13. For example, minorities may have multiple committee assignments and more than average mentoring obligations.

and be required to tend to family duties more than men and would, therefore, tend to write less. Testing this hypothesis would, however, require much more information than the simple gender variable permits.

C. The Results

1. General Sample Characteristics

Having drawn my sample, some interesting results appeared simply by looking at generalized statistics. The first column of Table 1 indicates the mean values for each of the variables for the entire population of one hundred subjects. In preparing the table it became clear to me that the rank of the school at which a subject was teaching was an important variable. Thus, the remaining columns in Table 1 indicate the average of each variable by school ranking groups. The abbreviations are as follows:

- STA: Rank of school where teaching
- SGF: Rank of school of graduation
- PRET: Pages published per year pre-tenure
- PTEN: Pages published per year post-tenure
- DIFF: PRET - PTEN
- PERC: Post-tenure pages per year as a percentage of pre-tenure pages
- BUB: Percentage of pre-tenure scholarship produced during bubble period
- MIN: Minority status (If all subjects were non-minorities, this value would be zero.)
- GEN: Gender (If all subjects were men, this value would be zero.)
- PYRS: Post-tenure years
- POP: Number of schools in each column.

TABLE 1

RANK	ALL	1-10	11-20	21-30	31-40	41-50	50-100	100-150	150 +
STA	76	4.0	15	26.6	36	48.7	70	111	155
SGF	23	2.3	6.5	12.2	10.6	7.6	19.3	36	42.8
PRET	44.5	63.6	68.9	63.9	38.7	79.3	46.8	23.8	32.4
PTEN	30	60.8	44.9	39.1	22.9	46.6	34.7	17.4	16.7
DIFF	-14.5	-2.8	-24	-24.6	-15.8	-32.7	-12.1	-6.4	-15.7
PERC	87	96	65	61	59	58	74	73	68
BUB	33.8	33	30.7	25.2	45.7	7	42.2	30.4	33
MIN	.25	0	0	.08	.09	0	.3	.6	.26
GEN	.28	.5	.11	.25	.36	.33	.3	.2	.32
PYRS	10.6	11.33	12.8	10.1	11.2	10.3	9.2	11	10.5
POP	100	6	9	12	11	3	20	20	19

I found some of these statistics surprising. The most surprising was the decrease in scholarly output between pre- and post-tenure. On average for the full 100 subjects, individuals decreased the pages produced by 14 per year. In fact, negative numbers appear in every cell across the DIFF row, meaning that in every school rank grouping, publication fell off after the initial or pre-tenure period. The highly ranked law schools (1-10) seemed to be spared from a precipitous drop, but this is due to the inclusion in the sample of one especially prolific professor. Without this author's output — an "outlier" in statistical terms — the post-tenure average for top ten schools would have been 31.6 pages for a decline of 29 pages from the pre- to post-tenure period.¹⁴ This result would put the decline for top ten schools among the highest reported. The sampling procedure picked up a similarly productive scholar in the 20-30 ranked schools. Exclusion of that scholar would mean post-tenure output of 23.8 pages per year and a decline of 33 pages per year.¹⁵

There appears to be no easily discernable pattern in the amount of falloff as one goes from one law school group to another. As a percentage, the falloff does decline as one goes to lower-ranked schools. This is possibly accounted for by the fact that professors at lower ranking schools tend to publish less during the pre-tenure period. All of this is in the context of what was almost certainly over-counting of post-tenure work and under-counting of pre-tenure work. Post-tenure work often builds on previous work. Books are often extensions of ideas first expressed in articles. On the other hand, some earlier publications probably were not picked up by my research. For example, in many instances, I found more publications for the subjects on their web-posted vitae than on Westlaw. I was not, however, able to engage in this type of double-checking in all cases.¹⁶

Less surprising, and perhaps surprising only to me, was the upward bias in the ranking of schools supplying law teachers. The mean ranking is 23, but this number is highly misleading. In fact, 46 of the 100 subjects graduated from schools ranking fourth or higher. Yale and Harvard, respectively one and two, contributed 29 subjects. The reason the average rank is as low as 23 is the presence of 8 professors who graduated from

14. In order to get this difference, both the pre-tenure and post-tenure production of this scholar was dropped.

15. In order to get this difference, both the pre-tenure and post-tenure production of this scholar was dropped.

16. No doubt some will feel that post-tenure authors have been disadvantaged by my treatment of casebooks. It is important to remember that even an average-sized casebook, say 800 pages, was entered as 200 pages of publication.

schools in the third tier in the *U.S. News and World Report* and, therefore, contributed rankings of 110. As school rankings decline, the rankings of the schools from which professors graduated declines at a similar rate.

2. Regression Analysis: A First Cut

My initial effort to determine the relationship of my dependent variable (post-tenure pages) to all the remaining variables involved the use of a multiple regression model. The model I used was linear, which means it assumes that the relationship between the two variables does not vary over the range of the variables. For example, if I were to discover that a one-position increase in law school ranking means ten more pages are published, the model assumes that a five-position increase will mean a fifty-page increase in productivity. A multiple regression model permits a simultaneous estimate of the relationship between a number of variables and the dependent variable. The outcome might take the following form:

$$\text{Dependent Variable} = 8 + .2X + .3Y + .01Z$$

In the example, eight would be a constant and .2, .3, and .01 would be coefficients that actually describe the relationship between the dependent variable and independent variables X, Y, and Z, respectively. Thus, suppose the dependent variable is the number of games a basketball team wins in a season. Variable X might be the average height of the players in inches, Y the strength of the opposing teams' schedules, and Z the number of home games. This hypothetical model reveals that with each one-inch increase in average player height, the school wins .2 additional games. In effect, the model explains the relationships using historical data. Therefore, the model can be used to make forecasts by substituting the height of next year's team for X, schedule strength for Y, and home games for Z. One can then compute the expected number of victories.

This is hardly the end of the pertinent information about the regression equation, but first, here is the result of my initial effort to find the relationship between post-tenure scholarship and my list of variables:

$$\text{PTEN} = 20.5 - .109\text{STA} - .026\text{SGF} + .352\text{PTEN} + .194\text{PYRS} + .097\text{BUB} \\ - 2.003\text{MIN} - 8.1\text{GEN}$$

This model suggests that post-tenure scholarship is positively related to the rank of the law school from which the subject graduated,¹⁷ the school at which the subject teaches, the amount of pre-tenure production, the number of post-tenure years, and the amount of scholarship completed in the bubble years. The negative signs on STA and SGF may seem inconsistent with this, but a lower number denotes a higher ranking. Minority status and gender seem to be negatively related to post-tenure scholarship.

Upon closer examination, the first cut actually indicates almost the opposite of what initially appears. First, the model has an R² of .251. R² is a measure of the percentage in the variation of the dependent variable — post-tenure scholarship — explained by the independent variables included in the model. In effect, of all the variation in post-tenure scholarship of my subjects, 25% is explained by the variables I included. Seventy-five percent is explained by other variables. In all likelihood, among those other factors are personal characteristics ranging from a taste for research to a sense of institutional obligation. Ultimately, one would be better served by examining these factors than by examining the factors I identified. Unfortunately, those factors are difficult to identify and even more difficult to quantify.

Of far greater concern is the reliability of each coefficient. For example, the coefficient on post-tenure years is .194, which suggests that with each year after tenure one can expect a .19 increase in pages published. A critical feature of multiple regression analysis is the process of determining how much confidence one can place on each coefficient. The coefficient represents an average relationship and, as with all averages, it is important to know the distribution around the average. After all, a basketball team with an average height of six feet can consist of five six-foot players or two five footers, one six-footer and two seven-footers.

The general practice in evaluating the coefficients is to construct a range around the coefficient that is two standard errors (or standard deviations) higher and two standard errors lower than the coefficient. This is a 95% confidence interval. The standard deviation on PYRS was .889. Consequently, the 95% confidence interval is from -1.57 to +1.96. In effect, even though the model suggests a positive relationship, I cannot be 95% sure that the influence actually is positive. Years since tenure may or may not have a positive impact. The coefficient is simply not statistically significant. This may suggest that somehow the exercise has “failed,” but that is not a proper interpretation. Instead, the model permits the rejection

17. The coefficients on SGR and STA are negative because a lower number indicates a higher ranking.

of the hypothesis that there is a consistently predictable relationship between number of post-tenure years and output per year.

The same conclusion followed in the cases of all but one of the independent variables. For example, even though gender seems to be powerfully related in a negative way with post-tenure output, the standard error is so large that even this large coefficient is not statistically significant.¹⁸ Notably, one of the hypotheses that fell by the wayside was my own belief that late writers are less likely to be productive scholars in the future. Although the model suggests that bubble production is positively related to post-tenure production (counter to my hypothesis), the results were not statistically significant. Of course, of the data collected, “bubble” writing was easily the most speculative and it may be that a more precise measure of late writing — similar to that which I was able to collect at my own school — would perform better.

The only independent variable that was statistically significant was pre-tenure pages. As the model suggests, pre-tenure production has a powerful impact (+.352) on post-tenure production. With a standard error of only .097, the 95% confidence interval is from .159 to .544, indicating that pre-tenure output is probably an excellent indicator of post-tenure behavior.

A factor that needs further discussion is the rank of the school at which a person teaches. Most would agree that higher-ranked schools stress scholarship more than lower-ranked schools. On the other hand, in the regression the coefficient on STA is only -.109. The sign is certainly as expected in that individuals at higher-ranked schools do tend to write more in their post-tenure years than individuals at lower-ranked schools. However, this positive correlation did not survive the 95%¹⁹ confidence test either. Given the summary table above showing a sizeable drop-off in post-tenure scholarship at lower-ranked schools, this was surprising.

Another variable that did not perform as expected was the rank of the law school from which a subject graduated. As already noted, heavy emphasis is placed on hiring those who attended highly-ranked schools. This study suggests that this variable does not make much of a difference in terms of post-tenure scholarship. Again, the sign on the coefficient was as expected – candidates from higher-ranked schools did publish more in the post-tenure period. The impact was very slight (.026) and a standard error of .109 rendered the coefficient unreliable. The failure of SGF to behave as one might expect may itself be a function of law school hiring

18. The sample sizes for gender and minority status were small, leading to a strong possibility that they are not representative.

19. The correlation between factors was significant at about an 80% level. Additional discussion of this variable is found *infra*.

policies. For the most part, the range of schools from which law teachers graduate is relatively narrow. When the range of the independent variable is narrow, it is difficult to discern a relationship between that variable and the dependent variable.

III. THE EMPIRICAL STUDY: TENURE AS A VARIABLE

No one conducting empirical research is pleased to find that his or her hypotheses or hunches are disproved. As a scientific matter, these rejections are, however, as important as acceptances. What my research appeared to show was that there is little connection between post-tenure production and many of the characteristics one would know about before making the critical tenure decision. As I considered my result, I became increasingly aware of what is often referred to as the “elephant in the room.”²⁰ All but one of my variables seemed to have little to do with a huge dropoff in production, but the dropoff undoubtedly existed. Of course, the factor missing was tenure itself. Initially, I had not paid attention to tenure because my effort was designed to address the question of when tenure should be granted. To investigate the impact of tenure itself would lead to different policy implications.

In order to determine whether tenure itself was the reason for the dropoff in production, I reconfigured the data. Now each subject was actually entered twice. In effect, the sample was doubled in size. For example, professor A would now be listed with his or her production for the first six years and with his or her production after the first six years. What it amounted to was a “before tenure” and “after tenure” comparison. This seemed superior to me to finding one hundred new professors because by entering each professor once as a pre-tenure subject and once as a post-tenure subject, the model really would be assessing how the same people reacted to tenure. The dependent variable was simply pages per year (PPY). Added to the independent variables was a dummy variable for tenure (TEN).

The result was as follows:²¹

$$PPY = 58 - .054SGF - .159STA - 15.8TEN - 2.76MIN - 5.7GEN + .038YRS$$

20. The big factor that may be overlooked.

21. R2 in this case was .200.

Where TEN takes the value of 0 if the subject does not have tenure and 1 if he or she does and YRS is the number of years in teaching for that level of production. In other words, the value of YRS was 6 for the pre-tenure pages and the number of post-tenure years for the post-tenure pages.²²

As before, the direction of influence by school from which the subject graduated was as anticipated but was not statistically significant. Minority status, gender, and years in teaching were also not statistically significant. The two variables that were highly significant in determining pages published were the rank of the school at which the subject was teaching and whether or not the subject had tenure. The first factor — school rank — is probably not controversial. It seems to be common knowledge that some schools support research through financial means more than others. In addition, institutional norms may result in formal and informal sanctions against nonproducers.²³

Because of the “roughness” in my own methodology, this study should not be taken as proof that, on average, all people are more productive as the rank of the school increases. This study focused on individuals who almost certainly have tenure. To the extent highly-ranked schools may hire candidates who leave after a relatively unproductive period, they are not found in this study. If those people exist, then they would dampen the impact between school rank and scholarly production.

On the matter of tenure, little room exists for dispute.²⁴ The relationship is strong and highly significant. On average, tenure is associated with nearly 16 pages fewer per year.²⁵ As the averages indicated in Table 1, post-tenure production is lower than pre-tenure production in every school rank grouping.²⁶ The same relationship has also been discovered in the context of economists, but the drop-off in production was not nearly as pronounced.²⁷ Oddly, this modest effort to discover variables that faculty

22. In this instance, all pre-tenure subjects were entered as six years.

23. Robert T. Blackburn et al., *Research Note: Correlates of Faculty Publication*, 51 SOC. OF EDUC. 132, 140 (1978).

24. In these calculations, the production of the two “outliers” was left in. Had these two professors been excluded, the impact of tenure would have been even more pronounced.

25. The standard error was 4.8.

26. The sample size is small enough within each ranking group to make these results subject to change but the uniformity across all grouping suggests this is unlikely.

27. See E. Bruce Hutchinson & Terry L. Zivney, *The Publication Profiles of Economists*, 26 J. ECON. EDUC. 59, 74 (1995); Thomas H. Goodwin & Raymond D. Sauer, *Life Cycle Productivity in Academic Research: Evidence from Cumulative Publication Histories of Academic Economists*, 61 SO. ECON. J. 728, 742 (1995). In this instance, the decline appeared to start a few years after tenure. *Id.* at 733.

may rely on to determine whether to grant tenure had evolved into the question of whether tenure should exist in its present form.

IV. DECLINING PRODUCTIVITY: THE IMPLICATIONS FOR TENURE

A. *Some Qualifications*

If, as this study suggests, professors write less after receiving lifetime contracts, does this mean that the institution of tenure involves not only out-of-pocket costs and opportunity costs but a third cost in terms of reducing motivation? It is possible, but some qualifications are in order. First, and perhaps most important, “correlation” is not the same as causation. It may be that tenure does not *cause* lower levels of production but *coincides* with a natural productivity cycle that begins to taper off after six years. In fact, a study of economists determined that the productivity cycle is typically hump-shaped, rising rapidly when one begins the profession and slowly tapering off.²⁸ Whether tenure causes the tapering off or whether it reflects a natural productivity cycle is undetermined. A corollary to the life cycle explanation is that it may make sense to view law faculty as underpaid during their early years. After all, they are uniformly paid less than their older and less productive colleagues. In the years after tenure, they are conceivably “overpaid” but are, in fact, simply receiving delayed compensation. This is, of course, an academic application of “life cycle earnings”²⁹ in which tenure ensures that faculty receive what they have already earned.

Second, this study involves a quantitative assessment of scholarship only. While tenure may mean fewer pages published, it may also mean that scholars are willing to take on more difficult and risky projects once employment is assured. Ironically, from this perspective, the problem is not tenure but the lack of job security in the pre-tenure years. During this time, candidates for tenure may be risk-averse with respect to topic selection and rushed to publish before allowing good ideas to germinate. In fact, a post-tenure/pre-tenure comparison carries with it the implication that the pre-tenure period represents a normal period that should be expected to persist. From this point of view, a decrease in pages is a loss.

28. See *supra* note 27.

29. See generally Samuel Issacharoff, *Reconstructing Employment*, 104 HARV. L. REV. 607, 619-20 (1990) (reviewing PAUL C. WEILER, *GOVERNING THE WORKPLACE: THE FUTURE OF LABOR AND EMPLOYMENT LAW* (1990)).

On the other hand, pre-tenure can be viewed as a highly artificial, pressure-packed time that could not possibly persist.

Another complicating factor is the duties faculty are expected to perform. At about the time a productive faculty member is granted tenure, he or she is often called upon to engage in new responsibilities ranging from counseling students and mentoring younger colleagues to chairing law school and university committees. Perhaps these added responsibilities, rather than tenure, lead to less scholarship. In fact, it is certainly possible that only by granting a faculty member tenure will he or she be willing to take on the types of duties that result in no publicity, do not increase the likelihood of moving to a higher-ranked school, and can be stressful and ultimately thankless. In other words, tenure may not mean that faculty members begin a period of early retirement but a period in which it is relatively riskless to begin substituting other duties for publication.

B. The Costs and Benefits of Tenure

Having noted the limited implications of decreased scholarship for a decision about the usefulness of tenure, it is important to note that no evidence exists that declining scholarship is offset by higher quality scholarship, more effective teaching, or better service. These factors *could* explain lower production, but guaranteed employment requires more than speculation about possible explanations. Ironically, the granting of tenure means that year-to-year evaluations of all the factors that could offset lower levels of scholarship become less pressing.

Additionally, it would be a mistake to count those improvements in performance that are the result of experience as also resulting from tenure. Tenured or untenured, a professor with fifteen years of experience is likely to be more adept than one with three or four years of experience. Finally, the process of determining who is granted tenure is imperfect both because it deals with factors that require subjective assessments and because it is often colored by social and political considerations. In fact, if the procedures are designed to grant tenure only to those people who will continue to be productive scholars, this study indicates that these procedures consistently miss the mark.

In this context of huge irreversible financial commitments, opportunity costs, evidence of decreased productivity, and an imperfect process, assessing the return on this investment makes sense. It is also important to think of what a system without tenure would look like. There appear to be three principle benefits of tenure that would be lost.

The most commonly cited benefit to tenure is academic freedom.³⁰ Tenured professors can be controversial, present ideas that cut against the grain, and even irritate others. Often the most provocative suggestions are ultimately the most useful. Therefore, given the propensity of people to be threatened by and resistant to change, these mavericks must be protected.

Personally, I would like to believe this argument, but I find three problems with it. First, law school faculties are often very homogeneous.³¹ If there is a threat to academic freedom, it is from faculty members themselves; members may use the tenure process to weed out those with provocative ideas.³² Unfortunately, the protections associated with academic freedom, afforded to tenured professors, are not equally applicable to those without tenure.

Second, along with others,³³ I am no longer convinced that faculty members use the academic freedom they earn with tenure. More specifically, it is not clear what the linkage is between tenure and a willingness to speak out.³⁴ Note that this is not the same as saying that university professors are never provocative and are never at the forefront of important social change. Instead, it seems they are motivated more by principle and passion than by job security.

Finally, the fact that those with tenure protection may be more likely to express controversial views does not mean those views are important. For example, in the well-publicized case of Ward Churchill,³⁵ the views expressed offended many people but were hardly important as a matter of scholarly debate. Thus, the question is not just whether tenure protects those with unpopular views but whether the expression of those views is ultimately of any consequence.

Of course, academic freedom potentially can be very important. Witch hunts may occur and the threat of Ward Churchill-type cases could be

30. Ironically, the Ward Churchill case also involves the rigor of the process through which tenure was granted. See Berny Morson & Charlie Brennan, *Churchill Tenure Questioned*, ROCKY MOUNTAIN NEWS, Feb. 16, 2005, at http://www.rockymountainnews.com/drmn/local/article/0,1299,DRMN_15_3551573,00.html (last visited Mar. 19, 2006).

31. Jon Wiener, *Is Princeton's Faculty too Liberal?*, History News Network, available at <http://hnn.us/articles/10863.html>; Christopher Chow, *New Study Reveals Extreme Partisan Bias Among Faculty*, ACCURACY IN ACADEMIA (Oct. 2002), at http://www.academia.org/campus_reports/2002/october_2002_5.html (last visited Mar. 19, 2006).

32. See John Henry Schlegel, *From High in the Paper Tower, an Essay on Von Humboldt's University*, 52 BUFF. L. REV. 865, 872 (2004).

33. See Lionel S. Lewis, *Academic Tenure: Its Recipients and Its Effects*, 448 ANNALS AM. ACAD. POL. & SOC. SCI. 86, 101 (1980).

34. In reality most tenured law professors rarely say anything controversial.

35. See *supra* note 1.

chilling in the absence of tenure. In addition, perhaps the most important impact of tenure is the protection it offers whistle-blowing and provocative faculty from other faculty and administrators. Still, the academic freedom rationale rings hollow as the “but for”³⁶ factor in determining whether faculty will speak out.

A second benefit of tenure is another type of freedom that it permits. For example, untenured faculty are wise to pick relatively “safe” topics for research in the sense of being assured a publishable final product. The most promising research, however, may involve inquiries in which the researcher cannot know in advance whether anything notable will be discovered. Tenure allows faculty to pursue these riskier topics. Freedom also means increased selflessness. The reputations of law professors and law schools are primarily a result of publication. The environment of the institution, however, is deeply dependent on teaching excellence and service. Tenure provides safety to the professor who takes the more selfless track and works to improve teaching or takes on the burden of faculty governance and other service. Obviously, this particular benefit makes a cost-benefit analysis extremely difficult. On the one hand, the survey results indicate a fall-off in scholarly productivity. On the other hand, lower pressure to publish may be essential in order to allow faculty to turn to less self-promoting and institution-promoting activities.

Perhaps the most important benefit of tenure is that it acts as a form of compensation. When one opts for a career in law teaching, it is a decision to remove the opportunity for the very high salaries earned by partners at prestigious law firms.³⁷ Professors are compensated for this opportunity by an assurance of rock-solid job security. In fact, it seems likely that a university without tenure would find itself at a disadvantage in recruiting in competition with law firms, the government, and schools that maintain a system of tenure. At least in theory, a school without tenure would be required to pay candidates more to attract them. In essence, maybe the key benefit of tenure is that it lowers out-of-pocket staffing costs to universities.³⁸

36. It is also important to note that those professors who are state employees are afforded First Amendment protections.

37. *See, e.g., Keyishian v. Bd. of Regents of Univ. of New York*, 385 U.S. 589, 603 (1967). This is not to say that all professors would be in the highest-income brackets had they chosen to practice. That is, however, an opportunity that an academic career largely forecloses.

38. A productive scholar at a tenure-free school would likely be constantly on the lookout for a position that included tenure or significant compensation. In essence, it is hard to see discontinuing tenure as leading to a better faculty unless all law schools acted simultaneously. Aside from whatever antitrust concerns this might raise, it would likely be only a short time before

C. Responses to a Possible Cost-Benefit Imbalance

The competing effects of tenure make for a difficult assessment. The complexity stems in part from the impossibility of quantifying the effects. It also stems from the fact that the traditional focus on academic freedom may miss much of what is important. For example, tenure does afford academic freedom for some, but it is far from clear that most professors do anything that results in scrutiny. On the other hand, the institution of tenure allows tenured faculty to deny academic freedom to untenured faculty and to assure that they are unlikely to pose an ideological threat to the incumbents. Similarly, tenure does seem connected to lower levels of scholarship, but the pre-tenure period is an artificial one. Less pressure to publish after receiving tenure allows for greater efforts in areas that are not as noticeable. Finally, tenure should be considered in light of the alternatives and their costs and benefits.

These complexities mean that extreme alternatives like eliminating tenure cannot be supported with what is now known. On the other hand, whatever the costs and benefits, measures that would lower these costs and raise the benefits are obviously useful. Two aspects of tenure stand out as areas ripe for improvement. First is the process itself. Second is post-tenure accountability.

1. The Process

As noted at the outset of this Essay, tenure is based on a small sample of work at the beginning of a professor's career. Moreover, evaluations can be politicized and insufficiently rigorous. All of these factors can account for higher costs in terms of commitments to poor candidates and denials to good candidates. Two changes in the process would make for significant improvements. First, extending the pre-tenure period to ten years would have three beneficial effects. One outcome would be to increase the size of the sample of work in all areas — teaching, research, and service. An additional benefit would be to encourage candidates to address riskier topics and ones requiring more extensive analysis. These topics are more likely to reveal the true quality of a candidate's work over the long run. In addition, a longer probationary period would allow the candidate's work to be viewed by the scholarly community more generally. Citations by courts and other scholars — only available after a

a school or schools found it necessary to offer some form of job security, such as long-term contracts, to maintain the most productive faculty.

significant lag — would be a valuable component of the eventual review process. Finally, the extended period permits a focus on the work ethic of the candidate as opposed to the tangible results alone.

Second, there should be greater involvement of disinterested parties in the tenure decision. Objective assessments of scholarship by experts in the field who have no personal connection with the candidates would be a huge step forward in lowering the likelihood of bias. This type of change should be encouraged for two reasons. First, faculty members may find it difficult to vote “no” on candidates whom they have known for 10 years. Social entanglements and political compatibility are likely to interfere with objectivity. Second, a candidate benefits by understanding that the audience is larger than his or her own faculty.

2. Post-Tenure Accountability

Just as important as process changes are changes in post-tenure accountability. As discussed above, less scholarship does not detract from and actually may advance the mission of the law school if faculty are offsetting a decline in publication with better teaching and service. Most law schools already have various forms of post-tenure review, but they tend to be superficial since tenure is usually not revoked, regardless of a lack of productivity by the faculty member. Overall, as it stands now, when the expectations formed at the time of a tenure decision do not pan out, little is done besides minor salary adjustments.³⁹

A meaningful post-tenure review would take place after a set number of years and involve faculty, administration, former students, and disinterested parties. In effect, the review would be an overall assessment of a professor’s career path and influence both inside and outside the institution at that time. In some cases, those who have decreased their scholarly output will be discovered not to have offset that loss by increased teaching and service contribution. In these instances, the job of the professor needs to be restructured.⁴⁰ Thus, in order to lower the costs of

39. A different kind of accountability is a response to faculty ideology. House Bill 837, introduced in the Florida Legislature in 2005, provides that students and faculty have a right not to be evaluated on the basis of whether they are compatible with the prevailing ideology. *See* HB 877, 2005 Leg., Reg. Sess. (Fla. 2005). It also provided that students have a right to be free of classroom prothetizing. Although the Bill failed, it would have likely faced challenge under the First Amendment if it were implemented. The accountability in the Bill did not address the issues raised in this Article except possible protection of pre-tenure professors from senior faculty at the time of a tenure vote. *See id.*

40. In many instances, this restructuring takes place informally through the application of social norms whereby those not contributing in one area add to their duties in others.

tenure, professors who have fallen below the levels of scholarly performance expected of them at the time of tenure and who have not made significant contributions in teaching and service should be assigned tasks that are important to the school, but less dependent on self-discipline. Easy adjustments involve higher teaching loads and assignment of increased administrative duties.

V. FINAL THOUGHTS

Research conducted to find answers as opposed to prove a point sometimes yields surprising results. The empirical study reported here resulted in two surprises. First, based on the data available, I was unable to find only one specific measure that could be applied at the time of tenure eligibility to accurately predict post-tenure productivity. Second, the sample revealed a pervasive and significant decrease in scholarly output in the post-tenure period.

These findings led to the obvious question of whether a policy of granting lifetime employment contracts is worth the cost. The issue is complicated. Tenure can make it easy not to be productive. It also provides opportunities for highly desirable contributions. In addition, tenure almost certainly works as a form of compensation that allows universities to operate at lower out-of-pocket costs.

This study and the complexities of a cost-benefit analysis suggest that a proper response to the shortcomings of tenure is to raise the benefits that it gives rise to while lowering the costs. Two specific approaches are suggested. The first is to change the tenure evaluation process by both delaying it and asking for the assistance of disinterested parties. The second is to increase post-tenure accountability with specific period assessments. These assessments should be broad-ranging and hold the possibility of restructuring the assignments for those whose tenure evaluation turned out to be inaccurate.

