A Study of the Relationship Between Law School Coursework and Bar Exam Outcomes

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I. Introduction

For decades before 2014, nationwide bar examination passage rates for first-time takers were in the upper seventy percent to lower eighty percent range.[1] Then, in July 2014, pass rates for first-time takers declined five percent from the prior year,[2] dropping to seventy-four percent for all of 2014.[3] This drop sparked a lively debate about the cause of the decline. The National Conference of Bar Examiners (NCBE) argued that the group that took the July 2014 Multistate Bar Exam (MBE) appeared to be "less able" than those who sat for prior tests, noting that an increasing number of law schools were reporting declining bottom-quartile Law School Admission Test (LSAT) scores and median scores below 150.[4] Law deans and others questioned the NCBE's administration of the exam.[5]

1.   *See* National Conference of Bar Examiners, *Ten-Year Summary of Bar Passage Rates, 2004-2013*, The Bar Examiner, March 2014, at 22, 25; Susan M. Case, *The Testing Column: Interpreting Pass Rates*, The Bar Examiner, May 2004, at 51, 52.

2.   *See* National Conference of Bar Examiners, *First-Time Exam Takers and Repeaters in 2013*, The Bar Examiner, March 2014, at 12, 15; National Conference of Bar Examiners, *First-Time Exam Takers and Repeaters in 2014*, The Bar Examiner, March 2015, at 14, 17. The decline in mean score on the July 2014 Multistate Bar Examination was the largest drop in thirty-four years.

3.   *See* National Conference of Bar Examiners, *Ten-Year Summary of Bar Passage Rates, 2007-2016*, The Bar Examiner, March 2017, at 30, 33.

4.   Erica Moeser, *President's Page,* The Bar Examiner, Dec. 2014, at 4, 5; *see also* Mark A. Albanese, *The Testing Column: The July 2014 MBE: Rogue Wave or Storm Surge?,* The Bar Examiner, June 2015, at 35, 43.

5.   *See* Jacob Gershman, *Decline in Bar Exam Scores Sparks War of Words*, Wall Street J. Law Blog (Nov. 20, 2014, 6:45 PM), https://blogs.wsj.com/law/2014/11/10/decline-in-bar-exam-scores-

Bar passage rates continued to fall in 2015 and 2016, dropping to seventy percent and sixty-nine percent, respectively.[6] This continued decline prompted some bar exam officials and law faculties to speculate that rising enrollment in experiential courses, such as law clinics, externships, and simulations, and the trend in legal education of students taking fewer bar-subject courses might also be factors in the decline.[7] They surmised that experiential and other "non-core courses" might be taking students away from doctrinal courses that teach the black-letter law tested on the bar exam.[8]

Conjecture that enrollment in experiential courses might be harming students' chances of passing the bar exam took place in the absence of any reported empirical study associating experiential coursework with bar failure.[9] Similarly, while many law schools advised or required students to enroll in bar-subject courses to improve their chances of passing the bar,[10] there was scant empirical evidence to support the belief that additional bar-subject courses would improve exam performance, or improve it meaningfully, and no evidence to suggest it was appropriate advice for all law students.[11]

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sparks-war-of-words (quoting statements by Erica Moser, President, NCBE, and Nicholas W. Allard, Dean, Brooklyn Law School).

6.   *See* National Conference of Bar Examiners, *Ten-Year Summary of Bar Passage Rates, 2007-2016*, THE BAR EXAMINER, March 2017, at 30, 33.

7.   Moeser, *supra* note 4, at 6; Albanese, *supra* note 4, at 46; e-mail from Elizabeth McCormick, University of Tulsa College of Law, to Robert R. Kuehn (May 13, 2015, 09:27 CST) (on file with authors) (recounting faculty discussion on requiring additional bar-subject courses).

8.   Moeser, *supra* note 4, at 6; Albanese, *supra* note 4, at 46.

9.   Robert Kuehn, *Whither Clinical Courses and Bar Exam Passage?*, BEST PRACTICES FOR LEGAL EDUCATION BLOG (Jan. 18, 2016), https://bestpracticeslegaled.albanylawblogs. org/2016/01/18/whither-clinical-courses-and-bar-passage-by-prof-robert-kuehn (noting unsuccessful efforts to find an empirical basis for the assertion that students with more experiential coursework perform, on average, worse on the bar exam).

10. *See, e.g.*, Christian C. Day, *Law Schools Can Solve the "Bar Pass Problem"—"Do the Work!"*, 40 CAL. W. L. REV. 321, 343 (2004) ("Boldly put, if students have not taken these [bar] courses or have done poorly in them, they will not pass the examination."); Denise Riebe, *A Bar Review for Law Schools: Getting Students on Board to Pass Their Bar Exams*, 45 BRANDEIS L.J. 269, 308 (2006-07) ("Students should take most bar-tested courses during law school."); Donald H. Zeigler et al., *Curriculum Design and Bar Passage: New York Law School's Experience*, 59 J. LEGAL EDUC. 393, 401-02 (2010) (reporting that school required additional bar-subject courses for students in the bottom quarter of the class); Comm. on Bar Admissions and Lawyer Performance & Richard A. White, *AALS Survey of Law Schools on Programs and Courses Designed to Enhance Bar Examination Performance*, 52 J. LEGAL EDUC. 453, 461 (2002) (reporting that schools in survey believed their practice of steering students toward bar-subject courses improved bar passage). Newly accredited law schools, in particular, appear to believe there is a correlation between enrollment in bar-subject courses and bar passage. *See* AM. BAR ASS'N, A SURVEY OF LAW SCHOOL CURRICULA: 2002-2010, at 36 (2012) (finding a correlation between the required curriculum at newly accredited law schools and state bar exam subjects).

11. "Although law school professionals routinely advise students to take bar-tested courses, there does not appear to be any statistically verifiable support for the practice." Riebe, *supra* note 10, at 308 n.307; *see also* Derek Alphran et al., *Yes We Can, Pass the Bar. University of the District of Columbia, David A. Clarke School of Law Bar Passage Initiatives and Bar Pass Rates—From the*

This article provides the missing empirical evidence regarding the relationship between law school experiential and bar-subject coursework and bar exam outcomes. It reports the results of a study of ten years of bar exam performance by J.D. graduates of two law schools and the associations between the courses those graduates took in law school and their performance on the bar exam. Section II of the article reviews the limited prior studies on the relationship between experiential and bar-subject coursework and performance on the bar exam. Section III explains the methodology used in the two-school study and describes the study populations. Section IV describes the lack of relationships at both schools between experiential coursework and bar outcomes using various statistical tests. Section V describes the slight association between bar courses and exam outcomes for a limited group of students. Section VI concludes with thoughts on the limits of the study and how schools should approach requiring or advising students on upper-level courses.

II. Prior Studies

In spite of great interest in whether law school coursework affects bar exam outcomes, few published studies have examined the relationship between enrollment in experiential or bar-subject courses and exam passage.[12]

A. Experiential Coursework

Three studies since the 2014 decline in bar passage rates have sought to determine whether participation in a law clinic or externship during law school is associated with bar exam performance.

The first study examined the factors that might predict success by Texas Tech University School of Law graduates on the bar examination, focusing on the performance of graduates on their first attempt on the Texas exam between February 2008 and July 2014.[13] The authors were able to access a graduate's actual score on the Texas bar exam, including its subcomponents. Most states do not release scores but simply report whether a test taker passed or failed the exam. With actual scores, the Texas Tech study characterized a variable as predictive of bar exam "success" if it was associated with an increased mean bar exam score, not with actual passage.[14]

Titanic to the Queen Mary!, 14 UDC/DCSL L. Rev. 9, 20 (2011) ("Few studies, if any, however, have found any significant statistical relationship between bar examination subject course selection and bar passage.").

12. A number of schools have reportedly performed internal studies of whether enrollment or performance in their bar-related courses is related to success on the exam. *See* Riebe, *supra* note 10, at 308-09 n.309 (reporting group email messages about internal studies). Because the methods and results of those studies have not been made available for analysis, they are not discussed below.

13. Katherine A. Austin et al., *Will I Pass the Bar Exam?: Predicting Student Success Using LSAT Scores and Law School Performance*, 45 Hofstra L. Rev. 753, 761 (2017).

14. *Id*. at 760-83 (explaining study methodology).

On the role of experiential coursework, the study examined whether participation in a law clinic was associated with a higher or lower mean bar exam score. After noting that students who participated in a clinic had slightly higher mean law GPAs than those who did not (by .03), the study revealed that the mean bar score for law clinic participants (723) was lower than for nonparticipants by five points, but still well above the passing score of 675.[15] However, the study did not report whether differences in mean bar scores were related to bar passage rates, as a lower score may not result in a lower overall passage rate. Thus, the study did not provide evidence of whether law clinic participation was associated with success in passing the bar exam, but only that it correlated with a lower mean raw score.

Scott Johns examined whether participation in an externship by graduates of the University of Denver's Sturm College of Law was associated with improved performance on the 2008-2010 Colorado bar exams.[16] Comparing first-time pass rates between those who took an externship and those who did not, the study found that students in each law school GPA quartile who took an externship passed at higher rates.[17] The difference was most pronounced among students in the bottom quartile, where the pass rate of those with externship participation was sixteen percent higher than those without.[18]

When analyzing for the possible influence of non-externship variables and focusing on exam scores, the study found that a Denver law graduate's LSAT score and final law GPA were statistically significant predictors of bar exam scores.[19] But externship participation—either the experience of having taken an externship course or the number of externship courses taken—was not predictive of bar scores when LSAT scores and law GPA were controlled.[20] Johns suggested that it was not participation in the externship course that was influencing bar exam scores but some other variable. He concluded that students "are not compromising their abilities to pass the bar exam by taking externship courses."[21]

Most recently, the California State Bar commissioned a study to determine if declines in bar scores and passage rates could be attributed to law school

15.   *Id*. at 781. The study did not control for the possible effect of law school GPA within the group of students who participated in a law clinic.

16.   Scott Johns, *A Statistical Exploration: Analyzing the Relationship (If Any) Between Externship Participation and Bar Exam Scores*, 42 Okla. City U. L. Rev. 281 (2018). Johns focused on the 2008-2010 July exams because actual bar exam scores, not just passage rates, were available for those years. *Id*. at 291.

17.   *Id*. at 294-96 and fig.2. Sixty-two percent of first-time July bar exam takers had participated in at least one externship course. *Id*. at 291.

18.   *Id*. at 295.

19.   *Id*. at 303 and tbl.7.

20.   *Id*. at 303.

21.   *Id*. at 306.

experiences, including the impact of curricular offerings.[22] The study reviewed data from the 2013, 2016, and 2017 July bar exams for over 7500 applicants from eleven California law schools.[23] It found the number of academic credits from law clinic courses had no relationship with bar exam performance when examined across all schools or at each school separately, both before and after controlling for law school GPA.[24] The study also found that the number of externship or internship credits "had no independent relationship" with bar exam performance, again both across and within schools.[25]

B. Bar-Subject Coursework

It may seem logical that taking more law school courses on subjects that are tested on the bar exam should improve a graduate's chances of passing on the first attempt. Published studies, however, do not support broad claims about the benefit of bar courses.

The Indiana Supreme Court's adoption in 1973 of a new rule conditioning eligibility to take the bar exam on successful completion of courses in fourteen bar-subject areas prompted an assessment by Indiana University of whether its law school graduates who had taken a greater number of bar-related courses were more likely to pass the exam.[26] Reviewing two years of bar exam outcomes, the study's authors found that while "there is a powerful relationship between academic performance in law school and success on the bar examination,"[27] the number of bar-related courses a graduate took did not consistently predict bar success.[28] Even when focusing on students with lower GPAs who might benefit most from additional exposure to the subjects tested on the bar exam, the authors could not find consistent, statistically significant,

22. Roger Bolus, Performance Changes on the California Bar Examination: Part 2 (2018).

23. *Id*. at iii.

24. *Id*. at 53. The study explained that it also found no statistically significant impact on bar exam performance from participation in specialized courses by students with lower GPAs. *Id*. at ix.

25. *Id*. at 53-54. The study's listing of coding variables used the phrases "judicial externship" and "professional internship," but schools were not given guidance on how to categorize their "field placement" courses, the term used by the ABA for accreditation matters. *See id*. at 71-72; e-mail from Gina Barnett, UC Hastings College of Law, to Robert R. Kuehn (Feb. 20, 2019, 15:14 CST) (on file with authors) (recounting lack of guidance and explaining that her school categorized all nongovernmental field placements as internships); e-mail from Kimberley Grennan, Univ. of San Diego School of Law, to Robert R. Kuehn (Feb. 26, 2019, 16:30 CST) (on file with authors) (explaining that her school designated all internship or externship courses into the "professional internship" category with the exception of its judicial externships).

26. Phillips Cutright et al., *Course Selection, Student Characteristics and Bar Examination Performance: The Indiana University Law School Experience*, 27 J. Legal Educ. 127 (1975).

27. *Id*. at 131.

28. *Id*. at 133.

positive relationships between taking specific bar-related courses and exam pass rates.[29] They concluded that "requiring these [bar-related] courses will not increase the likelihood that law school graduates, at risk of failure, will pass rather than fail the exam."[30]

Douglas Rush and Hisako Matsuo studied the relationship between law school bar-subject coursework and bar exam passage for graduates of Saint Louis University (SLU) and Hofstra University.[31] For SLU graduates, the study found only one-third of a course difference (8.85 vs. 8.51) in the mean number of bar-subject courses between those who passed the Missouri bar from 2001 to 2005 and those who failed.[32] After noting the strong relationship between law school class rank and bar exam passage, the authors examined bar outcomes by law GPA quartiles. They reported no statistically significant relationship between the number of upper-level bar courses an SLU graduate took and bar passage for students graduating in the first (top), second, or fourth (bottom) GPA quartiles or in the bottom ten percent of their class.[33] There was a statistically significant relationship for graduates ranked in the third quartile, but the number of bar courses a student took explained only four percent of the difference in that group's passage rate, with the remaining ninety-six percent due to other factors.[34] The authors concluded that simply forcing lower-performing students to take more upper division bar-subject courses "will not solve the bar examination failure problem."[35]

The SLU study was replicated at Hofstra using data from the July 2006 New York bar exam. Among all graduates, there was no statistically significant difference in the number of upper-level elective bar courses taken by those who passed (4.88) and those who failed (4.84) the exam.[36] When analyzing

29.   *Id.* at 134-36. The analysis focused on graduates with final law school GPAs in the bottom sixty percent after concluding that those in the upper forty percent passed at such high rates that they could not benefit from taking additional bar-subject courses. *Id.* at 133-34.

30.   *Id.* at 136.

31.   Douglas K. Rush & Hisako Matsuo, *Does Law School Curriculum Affect Bar Examination Passage? An Empirical Analysis of Factors Related to Bar Examination Passage During the Years 2001 Through 2006 at a Midwestern Law School*, 57 J. Legal Educ. 224 (2007).

32.   *Id.* at 232 and tbl.1.

33.   *Id.* at 233-34 and tbl.2 (reporting statistically significant results at the $p < .05$ level). A later report on the study indicated that students in the bottom quartile (but not the bottom 10%) also had a statistically significant relationship, but only at the $p < .10$ significance level, and it accounted for little (2.7%) of the variance in pass rates. Douglas K. Rush, *If You Think Law Schools Teach Students to Think Like a Lawyer...Think Again!*, 1 Accord, Phoenix L. Rev. Online 27, 41 (2011), https://summitlawreview.org/accord_1_1.pdf. The mean number of bar courses taken by Quartile 4 students who passed the bar was 0.51 greater than those who failed. Rush & Matsuo, *supra* note 31, at 234.

34.   Rush & Matsuo, *supra* note 31, at 235. The mean number of bar courses taken by Quartile 3 students who passed the bar was 0.86 greater than those who failed.

35.   *Id.* at 236.

36.   Douglas K. Rush, Does Law School Curriculum Affect Bar Examination Passage? An

outcomes by law GPA, there also was no relationship between the number of bar courses and passage rates except for graduates whose final GPA was in the third quartile, for whom there was a weak positive relationship.[37]

The Texas Tech study, noted above, also analyzed the relationship between non-law-clinic courses and bar exam scores. Performance in the required civil procedure and first-year legal research and writing class, though not addressing subject matter tested on the bar exam at the time, strongly predicted bar exam scores.[38] The study also examined courses related to specific subcomponents of the bar and whether performance in those courses was related to a graduate's score on those subcomponents. The findings were mixed—higher performance in some courses was related to a higher score on that subcomponent of the bar exam, while a higher grade in other courses did not correspond to a higher score on that portion of the exam.[39] The authors warned that they did not test to determine the contribution of the courses to a student's overall success, either in terms of the overall bar exam mean score or actual bar passage.[40]

A study of University of Cincinnati College of Law graduates examined what prelaw and law school attributes predicted passage on the Ohio bar examination.[41] The study, like others, found that final law GPA was the strongest predictor of bar success and noted that graduates who passed the bar took approximately one bar course more than those who failed.[42] After controlling for the possible influence of GPA, the number of bar courses significantly predicted bar passage among the group of all graduates.[43] It is not clear, though, whether the increased odds of passing the bar was significant for students regardless of how many bar courses they took or primarily for those who had taken none or very few courses.

Empirical Analysis of the Factors Which Were Related to Bar Examination Passage Between 2001 and 2006 at a Midwestern Law School 146 (2008) (unpublished Ph.D. dissertation, Saint Louis University) [hereinafter *Rush Dissertation*], https://pqdtopen.proquest.com/doc/304457485.html?FMT=AI.

37.   Rush & Matsuo, *supra* note 31, at 234; Rush, *supra* note 33, at 43-44. The mean number of bar courses taken by Quartile 3 Hofstra students who passed the bar was .80 greater than those who failed. *Rush Dissertation*, *supra* note 36, at 148 tbl.13. As with other studies, final law GPA was the strongest predictor of bar passage for Hofstra graduates.

38.   Austin, *supra* note 13, at 768-70.

39.   *Id.* at 777; *see also* Stephen P. Klein, Research on the California Bar Examination 2 (Sept. 1987) (unpublished study) (on file with authors) (finding from review of twelve years of bar exam data that differences in bar applicants' grades in particular courses do not necessarily coincide with differences in applicants' scores on the related part of exam).

40.   Austin, *supra* note 13, at 770-70.

41.   Amy N. Farley et al., Law Student Success and Supports: Examining Bar Passage and Factors that Contribute to Student Performance (May 2018) (unpublished study), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3237546.

42.   *Id.* at 15-17.

43.   *Id.* at 17. On average, students who passed the bar took one more bar course than those who did not pass.

The recent California State Bar study evaluated whether performance in specific law school courses was related to bar exam performance on questions covering the content of those courses. The study concluded that "performance in any given course is not uniquely related to performance on the [bar exam as a whole]."[44] It also found "performance (or attendance) in a given law school course covering any of the 13 bar related topics <u>was</u> <u>not</u> uniquely related to performance on a [California bar exam] question or [Multistate Bar Exam] subtest covering the same content."[45] The study noted it was possible, however, that a student's aggregate GPA in all bar-subject courses may indicate the overall bar exam score, suggesting there may be a positive cumulative effect from taking multiple courses.[46]

In sum, prior studies provide a limited and muddied picture of the relationship between law school coursework and bar exam passage. On the issue of clinical coursework, the Texas Tech study did not provide outcome results on the relationship between law clinic participation and bar passage. The University of Denver study found higher passage rates in each law GPA quartile for those who took an externship, but it could not find any relationship, positive or negative, with actual bar exam scores when non-externship attributes of the students were controlled. The California bar exam study found no relationship between law clinic, externship, or internship courses and bar performance.

The bar-subject course studies by SLU and Hofstra found modest relationships between taking more courses and bar passage, but only among third-quartile graduates and small in possible effect. The Texas Tech and California results did not show any consistent relationship between higher performance in a course and a higher grade on the related portion of the bar exam.[47] The Cincinnati study did not specify the students who might benefit from taking additional bar courses. Thus, prior studies have not clearly shown the efficacy of taking or avoiding certain courses or the applicability of any conclusion to all or only some groups of students.

III. Study Methodology

Given the competing claims and limited research on the role of law school coursework in bar exam outcomes, our study sought to test two hypotheses by examining ten years of data on J.D. graduates of Washington University School of Law (WashU) and Wayne State University Law School (Wayne

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44.	Bolus, *supra* note 22, at 50.

45.	*Id.* at ix (emphasis in original).

46.	*Id.* at ix, 50-51.

47.	A 1976 study by the Law School Admissions Council and NCBE also found little support for the relationship between law school bar-subject course grades and bar exam scores on the same subject matter. Alfred B. Carlson & Charles E. Werts, Relationships Among Law School Predictors, Law School Performance, and Bar Examination Results 40-48 (1976).

State). We first sought to determine whether a graduate's enrollment during law school in elective experiential courses was related to later success on their first bar examination attempt. We then similarly asked whether enrollment in elective courses that cover subject matter tested on the bar exam was related to bar success.

Both WashU and Wayne State require J.D. students to successfully complete typical first-year law school courses in legal writing and substantive and procedural law tested on the bar exam. Neither school requires any particular course beyond the required first-year curriculum, except for the professional responsibility and upper-level writing courses mandated by American Bar Association ("ABA") accreditation standards.[48] This lack of required experiential or bar-subject courses provides an ideal setting for determining if enrollment in elective coursework is related to bar exam outcomes.

A. Data Collection

The first step in analyzing any relationship was to determine the appropriate study period. When the study was first designed, the most recent available bar examination data were through 2015. To ensure a robust study population and account for possible changes over time in course enrollment or bar exam outcomes, the study collected data on ten years of law school graduates—from 2006 to 2015.

Bar outcomes for graduates were determined by reviewing law school records and, where data appeared to be missing, by contacting state bar officials for additional examination results. At both schools, care was taken to ensure the bar result entered for each graduate reflected the first attempt on any bar exam after completing the J.D. degree.[49] Because over eighty-five percent of Wayne State graduates take the Michigan bar exam, only Michigan results were used for that school. As data were not available on examinee scores, graduates were simply coded by whether they passed or failed the exam.

WashU graduates do not predominantly take one state's bar exam. While Missouri is the school's most popular state bar, less than thirty percent of graduates took the Missouri bar during the study period, while approximately twenty percent took the New York bar and fifteen percent the Illinois bar. The WashU portion of the study, therefore, was expanded to cover graduates regardless of where they took the exam. However, results were missing for a number of graduates. Over the years, the school had not sought bar results from all states and, even when sought, not all states supply bar results to the

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48. Students also must successfully complete one or more courses that meet the ABA's experiential course requirement, previously referred to as a "professional skills" requirement. *See infra* notes 69-71 and accompanying text. During the study period, however, students could choose which and how many skills or experiential courses to take. Neither school offered academic support or bar-preparation courses during the study period.

49. If it was uncertain whether or not the result represented the graduate's first bar exam attempt, the exam outcome was not coded.

graduate's school.[50] In addition, a number of WashU graduates took the bar exam as eligible LL.M. graduates before receiving their J.D. degree and were excluded from the study.[51] Missing graduates on average had slightly lower final law school GPAs and obtained fewer experiential credits than graduates for whom bar exam outcomes were available, but did not differ significantly in the number of bar courses taken.[52] Bar results were ultimately obtained for eighty-eight percent of all WashU J.D. graduates during the study period and coded pass or fail on their first post-J.D. attempt.

The next step was determining which courses offered during the graduate's time of enrollment were "experiential" or "bar-subject matter." During the ten-year study period, ABA accreditation standards mandated that schools require each J.D. student to receive substantial instruction in "professional skills."[53] Each school had designated courses that met the professional skills requirement. Within that group, courses were categorized for the study as a law clinic, externship/field placement, or simulation based on the school's description of the course and definitions in ABA accreditation standards.[54]

Law school transcripts were then reviewed to determine whether the graduate took a specific law clinic, externship, or simulation course and, if so, the number of academic credits received for each course. The study did not examine performance in those courses as measured by grades, because most experiential courses were graded pass-fail and because the focus of the study was the possible influence of taking a course, not of performance in the course.

Identification of bar-subject courses reflected the difference in state bar exam prevalence at the two schools. At Wayne State, bar courses were defined as nonrequired courses that covered subjects tested during that period on the Michigan bar exam, which included the Multistate Bar Examination and a state essay portion. Nineteen elective courses were coded as bar-subject courses.

50.	To demonstrate compliance with bar passage standards, schools are required only to report bar results to account for at least seventy percent of its graduates each year. Am. Bar Ass'n, Standards and Rules of Procedure for Approval of Law Schools 2017-2018 Std. 316(a) (2017).

51.	Graduates of WashU's residential LL.M. program may apply to transfer to the J.D. program and be admitted as second-year students. *Washington University in St. Louis LLM*, LLMinfo.com, https://llminfo.com/llm-programs/washington-university-in-st-louis-llm (last visited Aug. 18, 2019). One hundred sixty-nine of WashU's 2006-2015 J.D. graduates had a prior LL.M. and were eligible to take the bar exam before completing their J.D. degree.

52.	The missing graduates' mean GPAs were .06 less than those for graduates for whom bar results were available ($p < .01$) and they graduated with 1.7 fewer credits in experiential courses ($p < .01$). There was no statistically significant difference between the two groups in the mean number of bar courses.

53.	*See* Am. Bar Ass'n, *Standard 302: Curriculum*, in Standards and Rules of Procedure for Approval of Law Schools 2005-2006 18 (2005).

54.	Am. Bar Ass'n, *Standard 303: Curriculum*, in Standards and Rules of Procedure for Approval of Law Schools 2017-2018 16 (2017) [hereinafter ABA Standards 2017-2018]; Am. Bar Ass'n, *Standard 304: Simulation Courses, Law Clinics and Field Placements*, *supra*, at 18.

Because WashU graduates did not predominately take one state bar exam, the subjects tested on the exams of the most popular states were reviewed. As they reasonably matched the subjects tested on the Multistate Bar Examination and Multistate Essay Examination, fourteen elective courses at WashU were identified as focusing on the subjects taught on those two uniform tests and coded as bar courses. At both schools, transcripts were used to determine if the graduate took a specific bar-subject course and the number of credits received for the course.

To control for other possible influences on bar exam outcomes, transcripts and other admission records were reviewed to collect each graduate's LSAT score, undergraduate GPA (UGPA), law school GPA after completion of the first year of study (1L GPA), and final law school GPA (LGPA).[55]

B. Study Population

The study period from 2006 to 2015 was a period of great variability in bar passage rates, not just across the nation but also at WashU and Wayne State. Although the mean LSAT score each year for WashU graduates was within an approximately 1.5-point range, the passage rate varied between a high of ninety-five percent in 2006 and low of eighty-five percent in 2015, yet the mean LSAT for both years' graduates was the same. Similarly, at Wayne State the mean LSAT fluctuated around 155-156 over the ten-year period, yet the pass rate was ninety-six percent in 2006 and eighty percent in 2015, with the mean LSAT for both years steady at 156. A profile of the study populations at the two schools is shown in Table 1.

Table 1: Study Population—2006-2015 J.D. Graduates

	Number Graduates	UGPA Median	LSAT 25th	LSAT Median	LSAT 75th	Bar Pass Rate
WashU	2,401	3.55	160	165	167	88.7%
Wayne State	1,490	3.48	153	156	159	86.1%

To determine whether bar passage rates at the schools may have been related to enrollment in certain types of courses, the study first sought to determine what non-coursework variables among graduates might be related to bar passage (the dependent variable in the analysis). Studies on the relationship of undergraduate grades to bar exam performance are mixed. A nationwide study by the Law School Admission Council found a statistically significant correlation between undergraduate GPA and bar passage.[56] But most other

55. If a transcript revealed more than one LSAT score, the highest score was entered. Undergraduate GPAs from non-U.S. colleges or universities were not coded.

56. Linda F. Wightman, Law Sch. Admission Council, LSAC National Longitudinal Bar Passage Study 37 (1998) (finding correlation coefficient of 0.18 for undergraduate GPA,

studies have not found undergraduate performance to be a reliable predictor of bar exam success.[57]

Studies have found that a first-time bar exam taker's LSAT score does predict to a moderate degree a graduate's performance on the bar exam.[58] In contrast to the modest correlation between an individual graduate's LSAT score and bar performance,

> there is a nearly perfect relationship between a law school's mean total bar exam score and its mean LSAT score (the correlation is .98 out of a possible 1.00). Many of a law school's graduates do better or worse on the bar exam than would be expected on the basis of their own LSAT scores, but these differences almost entirely balance out when the data are analyzed by school.[59]

Empirical studies agree that final law school GPA is the strongest predictor of bar exam scores or passage.[60] Yet even when both explanatory variables of

but higher correlation for LSAT score and law school cumulative GPA); *see also* Scott Johns, *Empirical Reflections: A Statistical Evaluation of Bar Exam Program Interventions*, 54 LOUISVILLE L. REV. 35, 70-71 (2016) (finding undergraduate GPA explained nine percent of variance in exam scores); MICHAEL KANE ET AL., IMPACT OF THE INCREASE IN THE PASSING SCORE ON THE NEW YORK BAR EXAMINATION 124 (2006), https://www.nybarexam.org/press/ncberep.pdf (reporting correlation of 0.36 between undergraduate GPA and total bar exam score).

57. *See, e.g.*, Alphran et al., *supra* note 11, at 39 (reporting no statistically significant impact on passage rates); Austin et al., *supra* note 13, at 765-66 (finding undergraduate GPA did not predict bar exam scores); Lorenzo A. Trujillo, *The Relationship Between Law School and the Bar Exam: A Look at Assessment and Student Success*, 78 COLORADO L. REV. 69, 107 (2007) (concluding undergraduate GPA was not an effective predictor of passage); Stephen P. Klein & Roger Bolus, *The Size and Source of Differences in Bar Exam Passing Rates Among Racial and Ethnic Groups*, THE BAR EXAMINER, Nov. 1997, at 8, 15 n.1 (finding undergraduate grades explained only one percent of variance in exam scores); Nicholas L. Georgakopoulos, *Bar Passage: GPA and LSAT, Not Bar Reviews* 7 (Robert H. McKinney School of Law Legal Studies Research Paper No. 2013 - 30), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2308341&download=yes. ("[u]ndergraduate GPA has no predictive value for bar passage").

58. *See, e.g.*, WIGHTMAN, *supra* note 56, at 37 (reporting LSAT score were positively correlated with bar outcome); KANE ET AL., *supra* note 56, at 124 (finding LSAT scores predicted twenty-four percent of variance in total bar score); Austin, et al., *supra* note 13, at 766 (finding LSAT score explained thirteen percent of variance in bar score); Alphran et al., *supra* note 11, at 39 (reporting LSAT score was statistically significant variable in explaining odds of passage); Johns, *supra* note 56, at 70-71 (finding LSAT score predicted twenty percent of variance in exam scores); Klein & Bolus, *supra* note 57, at 13 (finding LSAT scores explained fifteen percent of bar exam scores); Trujillo, *supra* note 57, at 107 (finding correlation between LSAT score and bar passage); Georgakopoulos, *supra* note 57, at 10 (characterizing LSAT score as having mild influence on bar passage).

59. Stephen P. Klein & Roger Bolus, Analysis of July 2004 Texas Bar Exam Results by Gender and Racial/Ethnic Group 7 (Nov. 2005) (on file with authors) (discussing results of report published for the Texas Board of Law Examiners); *see also* Day, *supra* note 10, at 328-29 (reporting a correlation of 0.91 between a school's mean LSAT score and bar pass rate).

60. *See, e.g.*, KANE ET AL., *supra* note 56, at 124 (finding correlation of 0.63 between LGPA and bar score); WIGHTMAN, *supra* note 56, at 37 (reporting correlation of 0.41 between LGPA and bar outcome); Alphran et al., *supra* note 11, at 34, 39 (finding a thirty-seven percent difference in passage rates between students graduating in the upper and bottom halves

LSAT score and LGPA were included in a predictive model, a nationwide study found that over two-thirds of the variability in bar exam outcomes remained unexplained.[61]

WashU and Wayne State results agree with prior studies on predictors of bar passage. Table 2 shows the results of correlation analysis using the UGPA, LSAT score, 1L GPA, and LGPA of 2006-2015 graduates. Correlation coefficients measure the strength of the association between two variables,[62] in this case between characteristics of law graduates and bar passage.

Table 2: Correlations of Graduate Characteristics with Bar Exam Passage

	WashU	Wayne State
UGPA	0.18**	0.11**
LSAT	0.20**	0.23**
1L GPA	0.45**	0.39**
LGPA	0.47**	0.42**

*: $p < 0.05$; **: $p < 0.01$

Similar to other studies, performance in law school, measured by LGPA, bears the strongest relationship to bar exam outcomes at both schools. Yet LGPA explains only approximately twenty percent of the variability in bar passage rates among graduates.[63] One notable finding at both schools was the correlation coefficient between first-year and final law school grades—above 0.92.[64] This high correlation strongly signals at the end of the first year which group of students is most likely to fail the bar exam and therefore might merit additional assistance over the next two years.

of the class); Austin, et al., *supra* note 11, at 766 (finding LGPA was the strongest predictor of bar performance, explaining approximately half the variable in bar exam scores); Johns, *supra* note 56, at 70-71 (reporting LGPA predicted approximately fifty percent of variance in bar scores); Trujillo, *supra* note 57, at 107 ("[I]t is apparent that class rank is the strongest predictor of performance on the bar exam."); Michael T. Kane et al., *Pass Rates and Persistence on the New York Bar Examination Including Breakdowns for Racial/Ethnic Groups*, The Bar Examiner, Nov. 2007, at 6, 15 (finding LGPA accounted for forty percent to forty-seven percent of variance in exam scores); Klein & Bolus, *supra* note 57, at 13 (reporting LGPA explained fifty percent of variance in bar scores, three times better than LSAT score); Georgakopoulos, *supra* note 57, at 7-9 (characterizing LGPA as having extraordinary power to predict bar passage).

61. Wightman, *supra* note 56, at 77.

62. Lee Epstein & Andrew D. Martin, An Introduction to Empirical Legal Research 191 (2014); Peter Kennedy, Guide to Econometrics 505 (6th ed. 2008).

63. "[T]he square of the correlation coefficient indicates the percentage of variance in one test that can be accounted for by another test." Klein & Bolus, *supra* note 57, at 13.

64. At WashU the correlation between 1L GPA and cumulative law GPA was 0.93 ($p < 0.01$); at Wayne State it was 0.92 ($p < 0.01$).

At both schools the likelihood of passing the bar exam on the first attempt decreases with declining class rank.[65] Because so few students in the top quartile of the graduating classes fail the bar exam,[66] further analysis of the coursework taken by those students is not reported.

Another notable finding on the influence of law school performance is the significant decline in bar passage rates from third- to bottom-quartile students. A similar dramatic decline in pass rates from the third to fourth quartiles was observed in prior studies of Cincinnati, Denver, Hofstra, Indiana, SLU, and Texas Tech graduates.[67] Our two-school study, as well as the results from other studies, also showed very low pass rates among the bottom ten percent of graduates.[68] Thus, in spite of variations among schools in the entering credentials of their students, there were significant bar passage problems with graduates in the bottom quartile and especially the bottom ten percent.

The strong correlation between law school GPA and bar outcomes indicates that any effort to measure the relationship between courses and bar exam success could be confounded by the influence of the grades of students enrolling in those courses. That is, a finding that students who enrolled in a course have greater bar success than students who did not take the course could be the result of students with, on average, higher GPAs having taken that course. Accordingly, the statistical models in our study sought to account for the potential influence of grades on bar outcomes.

IV. Relationship Between Experiential Coursework and Bar Exam Outcomes

In addition to variability in bar passage rates, the ten-year study period was a time of increased national interest in experiential courses, defined as

65. WashU bar passage rates by LGPA quartile from first to fourth were 99.7%, 97.3%, 92.8%, and 65.3%. Wayne State rates by quartile were 99.2%, 95.7%, 87.6%, and 63.6%.

66. At WashU, only two top-quartile LGPA graduates over the ten-year period failed the bar exam; at Wayne State, only three top-quartile graduates failed. Students graduating in Quartile 2 also rarely failed the bar exam, averaging less than two failures per year at both schools.

67. *See* Johns, *supra* note 16, at 296 (reporting approximately thirty percent difference in pass rates between third- and fourth-quartile Denver graduates); Cutright et al., *supra* note 26, at 130 (reporting pass rate of thirty-seven percent for bottom-quartile Indiana students compared with eighty-two percent for other graduates); Rush & Matsuo, *supra* note 31, at 234 (reporting a thirty-three percent decline in bar pass rate between third- and fourth-quartile SLU graduates); Austin et al., *supra* note 13, at 762, tbl.3 (reporting three times as many Texas Tech students failed in the bottom quartile than in the third); Farley et al., *supra* note 41, at 16 (reporting passing rates for bottom-quartile Cincinnati graduates twenty percent below rates for quartile just above); *Rush Dissertation*, *supra* note 36, at 148 (reporting forty-one percent decline in passage rate between third- and fourth-quartile Hofstra graduates).

68. On average, pass rates for students ranked in the bottom ten percent at the schools were approximately twenty percent lower than the overall pass rate for fourth-quartile graduates. *See* Georgakopoulos, *supra* note 57, at 8 (reporting pass rate of fifteen percent for the fifteen percent of graduates with GPAs below 2.7).

law clinic, externship/field placement, and simulation courses. Although ABA accreditation standards were first adopted almost 100 years ago, it was not until 2005 that the ABA required that each graduate receive instruction in professional skills.[69] Even then, the ABA determined that "one solid credit" of skills training in law school could be sufficient under its standards.[70] In 2014, the ABA revisited its one-credit requirement and adopted a new six-credit experiential coursework requirement beginning with 2019 J.D. graduates.[71]

Perhaps related to these actions, both schools experienced significant growth in experiential course enrollment from 2006 to 2015. At WashU, the mean number of experiential courses taken by 2013-2015 graduates was seventeen percent higher than for 2006-2008 graduates, and the mean number of experiential credits was twenty-seven percent higher. At Wayne State, 2013-2015 graduates took thirty-two percent more experiential courses for forty-three percent more credits than 2006-2008 graduates.

Correlation coefficients were generated to examine the relationship between experiential course enrollment and bar exam outcomes during the study period. Table 3 demonstrates that the correlation between the total number of experiential credits and bar passage was substantively small for all groups and failed to attain statistical significance, except for the full population of all Wayne State graduates.[72]

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69.   Peter A. Joy, *The Uneasy History of Experiential Education in U.S. Law Schools*, 122 Dickinson L. Rev. 551, 573 (2018).

70.   Am. Bar Ass'n Consultant on Legal Education, Consultant's Memo 3 (Revised): Standard 302(a)(4), Standard 304, Standard 504, Standard 509 (Aug. 2013), https://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/governancedocuments/2013_consultants_memo_s302a4_304_504_509.pdf.

71.   Joy, *supra* note 69, at 576.

72.   In contrast to the small correlation for all Wayne State graduates, LGPA subgroup correlations all had significance level *p*-values above 0.23. The smaller size of the subgroups may explain their lack of statistical significance. In addition, Simpson's paradox explains that it is possible for a relationship between two variables to manifest differently when considering the full population than when examining the subgroups of the population separately, such as here with the statistically significant larger association for all Wayne State graduates than for any of the subgroups. *See* Alan Agresti, Statistical Methods for the Social Sciences 299 (5th ed. 2018); *see also* Clifford H. Wagner, *Simpson's Paradox in Real Life*, 36 Am. Statistician no. 1, 1982, at 46, 46 (noting the paradox that a population with a higher overall incidence rate may exhibit a lower rate within each subgroup).

Table 3: Correlation of Total Experiential Credits with Bar Passage

	WashU	Wayne State
All Graduates	-0.01	-0.07*
Quartile 2 LGPA	-0.07	-0.05
Quartile 3 LGPA	0.03	-0.03
Quartile 4 LGPA	-0.01	-0.06
Bottom 10% LGPA	0.02	-0.04

*: $p < 0.05$; **: $p < 0.01$

Further analysis using independent samples t-tests revealed that although those who failed the bar on average graduated with more credits from experiential coursework than those who passed, the difference in credits between the two groups was relatively small and not consistently in one direction when sorted by LGPA (see Appendix Table 1).[73] The ABA requires a minimum of eighty-three academic credits for J.D. graduates.[74] Yet the difference in experiential credits between those who passed and those who failed was, with the exception of one LGPA group, less than one credit and not statistically significant for any quartile or the bottom ten percent.

Some speculate that students, particularly low-performing students, might gravitate toward experiential courses because those courses are judged to be easier or graded more leniently than other law courses.[75] However, the data suggest that students who graduated with lower LGPAs did not migrate disproportionately toward experiential courses and away from other courses.[76] At WashU, students in the bottom quarter of the class graduated with the same number of experiential credits as the school average. At Wayne State, students in the bottom half graduated with less than one-third of an experiential credit more than the school's average (8.83 vs. 8.54).

Because of the strong influence of law school performance on bar exam outcomes, logistic regression tests were performed to control for the possible effect of law school grades when analyzing the relationship between

73.   A t-test measures whether there is a statistically significant difference between the means of two groups—between the mean number of experiential credits earned by those who passed the bar exam on their first attempt compared to those who did not pass on their first attempt. *See* Epstein & Martin, *supra* note 62, at 162; Rebecca M. Warner, Applied Statistics 181-82 (2008).

74.   Am. Bar Ass'n, *Standard 311: Academic Program and Academic Calendar*, in ABA Standards 2017-2018, *supra* note 54, at 21.

75.   *See* Austin et al., *supra* note 13, at 781 ("Some faculty speculate that students take the clinic courses to augment their GPA."); Robert J. Condlin, *Assessing Experiential Learning, Jobs and All: A Response to the Three Professors*, 2015 Wisc. L. Rev. Forward 65, 71 n.23 (surmising that clinical grades are higher than other law school grades).

76.   Linear regression modeling of the total number of experiential course credits by LGPA was not statistically significant at either school even at the $p < 0.10$ level.

experiential credits and bar passage.[77] Regression analysis provides a means for predicting the change in an outcome or dependent variable (bar passage) from a change in the input or independent variable (experiential coursework) while controlling for the possible influence of other variables.[78] When controlling for LGPA, there is no evidence that the odds of passing the bar were related to the number of experiential credits, as the odds of passing the bar were essentially unchanged by a one-unit increase in experiential credits at WashU (OR = 0.99; p = 0.50) and Wayne State (OR = 0.96; p < 0.01).[79] This lack of a relationship at either school also held when applying regression analysis by LGPA quartiles and bottom ten percent.[80]

Unlike some studies of law clinic and externship courses,[81] our analysis focused on the graduate's total number of experiential *credits* rather than mere enrollment in an experiential course. At both WashU and Wayne State, a wide range of credits is possible in experiential courses, with law clinics offered from three to eight credits and externships from two to twelve. Therefore, simply measuring whether a graduate took a course fails to account for the intensity of that experience. In addition, concerns raised about the increase in experiential coursework have focused on the magnitude of involvement in those courses and impact on a student's willingness or ability to enroll in doctrinal or bar-subject courses, not on the possible influence of mere enrollment in a single course for a few academic credits.

Even when examining the number of experiential *courses*, not total credits, taken by graduates, the results were the same. Among all WashU graduates, those who passed the bar took slightly more experiential courses on average than those who failed (4.24 vs. 4.09), but the results lack the statistical significance to conclude that such courses are positively related to bar passage. In addition, when controlled for class rank, there was no statistically significant difference in the mean number of experiential courses between those who passed and failed the bar exam. At Wayne State, among all graduates there

77. A logistic regression model is used when the dependent variable (bar passage) is not linear but binary (pass/fail). Epstein & Martin, *supra* note 62, at 213-14; Shirley Dowdy et al., Statistics for Research 495 (3rd ed. 2004).

78. *See* Steven M. Crafton & Margaret F. Brinig, Quantitative Methods for Lawyers 541 (1994).

79. "The OR [odds ratio] represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure." Magdalena Szumilas, *Explaining Odds Ratios*, J. Can. Acad. Childhood Adolescent Psychiatry, Aug. 2010, at 227, 227. An odds ratio greater than 1 indicates a positive relationship between experiential credits and bar passage (i.e., the odds are improved by an additional experiential credit); a ratio less than 1 indicates a negative relationship; a ratio of 1 means taking an additional experiential credit does not change the odds of passing the bar exam.

80. Though not reported here, logistic regression odds ratios for LGPA quartiles 2, 3, and 4 and bottom ten percent at both schools were between 0.93 and 1.02 and lacked statistical significance.

81. *See infra* notes 13-21 and accompanying text.

was a small difference in the mean number of experiential courses between those who passed and those who failed (2.79 vs 3.05). But the practical effect on bar passage of one-quarter of a course is questionable, and no statistically significant differences were found when controlled for the possible influence of LGPA.

Data also were analyzed to determine if mere participation in a law clinic or externship course, the independent variable in two prior studies, was associated with bar exam passage. Enrollment in a law clinic or externship course at WashU or Wayne State did not have a statistically significant relationship with bar passage for any LGPA group of graduates.[82]

Therefore, the claim that enrollment in experiential courses is related, either positively or negatively, to bar exam passage lacks empirical support in our sample, as does the claim that lower-performing students disproportionately gravitate toward those non-bar courses. Measured differences in bar outcomes among graduates based on the number of experiential credits or courses are confounded by the possible effect of law school performance and lack statistical significance when LGPA is controlled or analyzed for different class ranks.

Nationwide data on experiential course enrollment and bar passage also belie any claim that the two are related. ABA Accreditation Standard 509 required until recently that each school report annually on the number of positions filled the prior academic year by its students in law clinic, field placement, and simulation courses. The dotted line in Figure 1 illustrates enrollment in these experiential courses from academic years 2005-2006 to 2015-2016 when controlled for yearly fluctuations in upper-level J.D. populations.[83] Upper-level students enrolled in an average of 2.06 experiential courses in 2015-2016, a fifty-seven percent increase in enrollment per student from ten years earlier.[84] Enrollment in law clinic courses over the ten years increased by fifty-seven percent, externships by seventy-four percent, and simulation courses by fifty-three percent.[85] Enrollment in externships always exceeded law

82. Logistic regression results for law clinic participation by all WashU and Wayne State graduates was significant. But results for LGPA quartile 2, 3, or 4 or bottom ten percent graduates were not significant at even $p < 0.10$.

83. Data on enrollment in experiential courses for academic years 2010-2015 are from the compilation of Standard 509 Information Reports at http://www.abarequireddisclosures. org/Disclosure509.aspx (last visited July 5, 2018). Data on enrollment before academic year 2010 are from information provided by schools in Am. Bar Ass'n & Law Sch. Admission Council, Official Guide to ABA-Approved Law Schools (2006-2012).

84. The average number of experiential courses upper-level J.D. students enrolled in each academic year was calculated by summing the number of positions filled in experiential courses at all ABA-approved schools. This nationwide total was then divided by the total number of upper-level students at schools to yield the number of experiential courses enrolled per student for each academic year.

85. The ABA stopped requiring schools to report law clinic and simulation positions "filled" after 2016. Schools now have to disclose to the ABA and prospective students only the total number of positions "available" in clinic and simulation courses, regardless of actual

clinic enrollment but was particularly strong beginning in 2011, a time when graduate employment rates dropped significantly.[86]

Figure 1: National Bar Pass Rate Percentage by Average Number of Experiential Courses Enrolled Per Upper-Level Student

The NCBE tracks annual bar exam passage percentages for all first-time takers.[87] The solid line in Figure 1 reveals that average bar passage percentages were fairly steady from 2006-2013, a time when experiential course enrollment increased by over fifty percent. In contrast, the recent decline in bar passage coincided with decreased, not increased, experiential enrollment. Were increased enrollment in experiential courses causing a decline in bar passage, passage rates would be expected to decrease during periods of increased experiential course enrollment. Yet during the significant rise in experiential enrollment, bar passage percentages were largely steady. Therefore, efforts to link declining nationwide bar passage rates to the rise in experiential course enrollment are not supported by national statistics.

A more likely contributing cause for the bar passage decline since 2014 is the weaker credentials of entering J.D. students, an association seen in Figure 2 below in which the downward direction of the reported median LSAT scores of entering law students mirrors the decline in national bar exam results three

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enrollment. *See* Am. Bar Ass'n, Questionnaires & Applications, *available at* https://www.americanbar.org/groups/legal_education/resources/questionnaire (providing instructions to law schools for filling out the annual questionnaire).

86. Robert R. Kuehn, *Mandatory Professional Skills Training: What a Long Strange Trip It's Been*, Clinical Legal Educ. Ass'n Newsletter (Spring 2018), *available at* https://ssrn.com/abstract=3176079.

87. *See* National Conference of Bar Examiners, *Ten-Year Summary of Bar Passage Rates, 2007-2016*, *supra* note 3, at 30; National Conference of Bar Examiners, *Ten-Year Summary of Bar Passage Rates, 2006-2015*, The Bar Examiner, Mar. 2016, at 30.

years later.[88] But as reported above, unlike the national trend, declines in bar passage rates at WashU and Wayne State over the ten-year study period were not associated with declines in LSAT scores.

Figure 2: National Bar Pass Rate Percentages by
Average Median School LSAT Score (3 Years Prior)
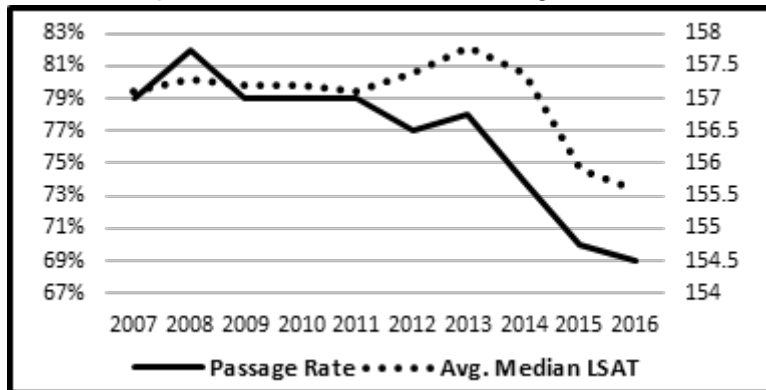
V. Relationship Between Bar-Subject Coursework and Bar Exam Outcomes

Enrollment in bar-subject courses, as with experiential courses, varied between the two schools and over the ten-year study period. At WashU, graduates took an average of four bar courses, with seven percent of graduates taking one or none and three percent seven or more. With more subjects on the Michigan bar exam, Wayne State graduates took an average of six bar courses; seven percent took three or fewer and seven percent nine or more.

Between the beginning and end of the study period, students at both schools graduated with fewer bar-subject courses. At WashU, 2013-2015 graduates took nineteen percent fewer bar courses than 2006-2008 graduates. At Wayne State, graduates at the end of the ten-year period took fourteen percent fewer bar courses than graduates from the beginning three-year period.

The decline in bar-subject course enrollment at WashU coincided with a six percent drop in the school's average bar passage rate over the same ten-year period. At Wayne State, there was an almost twelve percent decline in average bar passage from 2006-2008 to 2013-2015.[89] These declines were in spite of

88. The graph assumes students graduated after the typical three-year academic period following their matriculation. Data in the graph are from *Ten-Year Summary of Bar Passage Rates, 2007-2016*, *supra* note 87, at 33; Standard 509 Information Reports *at* http://www.abarequireddisclosures.org/Disclosure509.aspx., *supra* note 83, and Am. Bar Ass'n & Law Sch. Admission Council, *supra* note 83.

89. The 2006 and 2007 bar exam results were the highest of the ten-year period for both schools. WashU's pass rate on bar exams across the country averaged ninety-five percent in 2006 and

largely indistinguishable, and in some cases improved, average LSAT and UGPA credentials between 2006-2008 and 2013-2015 graduates.

To examine whether the declines in bar passage and bar-subject course enrollment might be related, the authors first calculated correlation coefficients, reported in Table 4 below. At both schools there were small positive correlations, driven by students graduating in the bottom of the class, between the number of bar-subject courses graduates took and bar passage. At WashU, the positive relationship between courses and bar passage was only statistically significant for bottom-quartile LGPA graduates. At Wayne State, there was a positive relationship for students graduating in the bottom half of the class but, interestingly, not in the bottom ten percent. Statistically significant correlation coefficients never exceeded 0.20, indicating that four percent or less of the total variance in bar outcomes among graduates is accounted for by differences in the number of bar-subject courses they took.

Table 4: Correlation of Number of Bar-Subject Courses
with Bar Passage by LGPA

	WashU	Wayne State
All Graduates	0.12**	0.09**
Quartile 2 LGPA	0.05	-0.04
Quartile 3 LGPA	0.06	0.11*
Quartile 4 LGPA	0.16**	0.20**
Bottom 10% LGPA	0.18**	0.12

*: $p < 0.05$; **: $p < 0.01$

Independent samples t-tests on the mean number of bar-subject *courses* taken by graduates indicated on average an approximately a half-course difference in the number of bar-subject courses between those who passed and those who failed the bar exam (see Appendix Table 2). Analysis not reported here showed similar correlation and t-test results when measuring the relationship between the average number of bar-subject *credits* and bar outcomes—small but statistically significant positive relationships between credits and bar passage for WashU graduates in the bottom quartile LGPA and for Wayne State graduates in the bottom two LGPA quartiles, but most pronounced in the bottom quartile.[90]

ninety-one percent in 2007; Wayne State graduates taking the bar for the first time passed the Michigan bar at rates of ninety-six percent in July 2007 and ninety-four percent in July 2006. State Board of Law Examiners, Bar Exam Statistics after appeals February 2000 - February 2019, Michigan Courts, https://courts.michigan.gov/Courts/MichiganSupremeCourt/BLE/Documents/ExamStatistics2000-February2019.pdf (last visited July 2, 2019).

90. On average, there was an approximately 1.5-credit difference between those who passed the bar and those who failed.

To better understand how an average half-course difference (approximately 1.5 academic credits out of the minimum eighty-six required for a J.D. degree at both schools) in a student's legal education might be related to bar passage for some groups of graduates, the authors further analyzed bar-subject course enrollment for graduates in the bottom LGPA quartiles that had yielded statistically significant results. WashU bottom-quartile graduates were grouped into those who took fewer than the school average of four bar courses, those who took four, and those who took more than four. Logistic regression results indicated that those who took fewer than the school average had statistically significant reduced odds of passing the bar compared with those taking the average of four.[91]

In contrast, regression analysis of WashU graduates in the bottom quartile who took more than the school's average of four bar courses showed no statistically significant improvement in the passage rate associated with enrollment in those additional courses beyond the average.[92] Thus, while taking up to at least the WashU average number of bar courses is associated with an increased likelihood of passing the bar, there was no statistically significant increase in bar passage associated with bottom-quartile LGPA graduates who took more than the school's four-course average.

There was a similar phenomenon with graduates in the bottom half at Wayne State.[93] While no pattern emerged between those taking more or less than the school average of six bar courses, graduates who took fewer than seven had a statistically significant reduced likelihood of passing than those who took seven.[94] This pattern was particularly noticeable with bottom-quartile LGPA graduates, whose mean pass rate when taking fewer than seven courses was seventeen percent lower than the rate for graduates taking the approximate school average. Graduates in the bottom quartile who took three or fewer

91. Logistic regression analysis on bottom-quartile WashU graduates who took fewer than four courses generated an odds ratio of 0.65 with p = 0.04. Further analysis using linear regression indicated that the mean pass rate for students who took fewer than four bar courses was 9.7% less than the rate of bar passage for those who took the school average of four. On the use of marginal-effects estimates from linear regression models with binary dependent variables, see Joshua D. Angrist & Jorn-Steffen Pischke, Mostly Harmless Econometrics 107 (2009) (showing that although a nonlinear model may be more appropriate for limited dependent variables than a linear regression model, "when it comes to marginal effects, this probably matters little."); Matt Bogard, Comparing Odds Ratios and Marginal Effects from Logistic Regression and Linear Probability Models (Mar. 11, 2016) (unpublished paper), https://works.bepress.com/matt_bogard/30 (reporting that estimates from linear probability models give marginal effects almost identical to estimates derived from logistic regression).

92. Results for WashU graduates who took more than four bar courses were OR = 1.23, p = 0.44.

93. The analysis focuses on the bottom two LGPA quartiles at Wayne State, rather than just the bottom quartile, because Table 4 correlation results showed statistically significant positive correlations between the number of bar courses and exam passage for those two groups, although strongest for bottom-quartile students.

94. Logistic regression results on bottom-half Wayne State graduates who took fewer than seven courses were OR = 0.53 with p < 0.01.

bar courses were associated with a particularly high rate of failure, passing at rates less than half the average for the quartile as a whole. But like WashU graduates, taking more than seven bar-subject courses did not demonstrate a statistically significant increase in bar passage over those taking just seven.[95]

Results, therefore, for both WashU and Wayne State indicate that graduates in the bottom quartile who take fewer bar-subject courses than the approximate average at their school were associated with a significantly increased risk of bar failure. On the other hand, for students most at risk of bar failure based on their law school academic performance, enrollment in bar courses beyond the approximate average for the school is not associated with increased success on the bar exam.

As a final consideration of the possible role of bar-subject courses, our study examined whether any association between the number of bar-subject courses and bar passage might be related to a student's entering LSAT score. As shown above in Table 2, WashU and Wayne State LSAT scores correlate with bar passage. At WashU, graduates with LSAT scores of 160 or above passed the bar at a rate of ninety-three percent, those with scores in the 150s at eighty percent, and those below 150 at sixty-two percent.[96] Wayne State graduates showed a similar pattern—those with LSATs above 160 passed at a rate of ninety-five percent, those with scores in the 150s at eighty-seven percent, and those below 150 at sixty-two percent. Thus, at both schools, students entering with LSAT scores below 150 are associated with pass rates significantly below the school's average.

Some have claimed that taking bar-subject courses is particularly important for entering students most at risk of failing the bar, such as those with lower LSAT scores.[97] The relationship of the number of bar-subject courses to bar passage by LSAT score at the two schools is reported in Table 5 below. There is a small positive correlation between the number of bar courses and bar passage rate for graduates with LSAT scores in the 150s. For students with LSATs below 150, additional courses showed a strong association with bar passage at WashU but none at Wayne State. Note, however, that the number

95.   Logistic regression results were OR = 0.92, *p* = 0.80. Although the size of the cohort was small (seventeen graduates), every Wayne State graduate in the bottom half of the class who took ten or more bar courses passed the bar exam. But there was no clear pattern for those taking more than seven courses—graduates who took nine courses passed at only the average rate for the entire bottom half of graduates, and those who took eight courses passed at a lower rate than those who took seven.

96.   Among the 2006-2015 WashU graduates in the study, seventy-seven percent had LSAT scores above 160, twenty-one percent had scores in the 150s, and less than two percent below 150. Among Wayne State graduates, twenty percent had LSAT scores above 160, seventy percent had scores in the 150s, and ten percent had scores below 150.

97.   *See* Riebe, *supra* note 10, at 308 (arguing that the recommendation that students take more bar-tested courses "is especially crucial for at-risk students"); Alphran et al., *supra* note 11, at 20 (stating that although few, if any, studies show any relationship between bar-subject courses and bar passage, "[W]e believe it is important for students who are particularly at risk to take bar related courses. . . .").

of students at WashU over the ten-year study period with LSATs below 150 was quite small—only thirty-seven out of 2,401 graduates. A larger group of 149 Wayne State graduates with LSATs below 150 did not show any statistically significant relationship between more bar courses and bar passage.

Table 5: Correlation of Number Bar-Subject Courses
with Bar Passage by LSAT Score

Graduate's LSAT	WashU	Wayne State
LSAT ≥ 160	0.05*	0.02
160 > LSAT ≥ 150	0.14**	0.11**
150 > LSAT	0.48**	0.04

*: $p < 0.05$; **: $p < 0.01$

Logistic regression analysis mirrored these correlation results. The odds of passing the bar increased significantly (OR = 2.54, $p < 0.01$) with additional bar courses for the very small number of WashU students with LSAT scores below 150. But at Wayne State, the relationship was very slight (OR = 1.05) and not statistically significant.[98] Therefore, for students most at risk of failing the bar based on their entering LSAT credentials, it is not clear from the limited and conflicting results at the two schools whether taking additional bar-subject courses is associated with an increased likelihood of bar passage.

VI. Conclusion

The impetus for this study was the suggestion that the dramatic decline in bar passage rates that began in the middle of this decade might be attributable to law students taking more experiential courses or fewer bar-related courses than in the past. The study's results do not support such claims.

Neither the number of experiential courses nor the number of experiential credits taken by a student correlates with bar passage, positively or negatively. This finding is consistent with national trends from 2006-2013 when enrollment in experiential courses rose dramatically while bar passage rates remained fairly stable.

Although enrollment in bar-subject courses correlates positively with bar passage, the correlation is modest and significant only for students whose LGPAs place them at heightened risk of bar failure. Even for those students, the marginal benefit of additional bar-related courses is not statistically

98. For students with LSAT scores in the 160s (who pass at rates above ninety-three percent), there was a small increase in the odds of passing the bar with additional bar courses at both WashU (OR = 1.31) and Wayne State (OR = 1.22). Odds ratios of 1.5 or less are considered "weak" with small possible effects. James A. Rosenthal, *Qualitative Descriptors of Strength of Association and Effect Size,* 21 J. Soc. Serv. Res. no. 4, 1996, at 37, 51 tbl.4. Further analysis using linear regression indicated that each additional bar-subject course for this cohort was associated with a two percent to four percent increase in the rate of bar passage.

significant once the student has taken approximately the average number of bar courses at that school.

The conclusions to be drawn from these results are necessarily limited in scope. Because this was not a randomized study, self-selection bias could have influenced the results—at-risk students who took more bar courses may have other attributes (e.g., organization, motivation) that also positively correlate with bar success. Moreover, those who passed the bar on average took a half an additional bar-subject course, or one and one-half additional credits, more than those who failed. This very small additional exposure to bar-subject matter cautions against attributing causation to the modest correlations found in the study, which recede with additional courses above the school average.

In addition, this study, as well as most earlier-reported studies, is based on data from schools with median LSATs in the mid-150s or higher, where the vast majority of students pass the bar on their first attempt and even students in the bottom quartile are more likely to pass than fail. Yet notably, the large-scale California State Bar study, which included schools with a wide range of LSAT scores, also found no relationship between clinic or externship courses and bar passage, and no correlation between enrollment or performance in bar courses and subsequent performance on the bar exam. Additional research from schools with lower median LSATs where fewer students pass the bar would help determine whether the findings from WashU and Wayne State are generalizable to all schools.[99] But the consistent bar passage problem with students in the bottom LGPA quartile, and especially in the bottom ten percent, across our study and studies of other schools suggests that almost all schools have low-performing students who are at significantly heightened risk of bar failure.

Notwithstanding these limitations, the study's results inform ongoing debates about capping the number of experiential credits students are allowed to earn while in law school or requiring students to take additional bar-related courses after the first year. The findings suggest that efforts to improve bar passage rates by capping experiential credits are misguided, as there was no correlation between experiential credits and bar passage at either school and no evidence that students most at risk of failing the bar were gravitating toward those courses and away from bar-related courses. Efforts to improve bar exam passage rates by requiring bar courses would appear justified, if at all, only when targeted to students whose LGPAs place them at heightened risk of bar failure. Even then, schools should not expect mere exposure to additional bar courses to significantly improve the likelihood of bar passage and should look elsewhere for alternative ways to address bar passage problems.

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99.   The schools that participated in the California State Bar study were: Golden Gate; Loyola-Los Angeles; Pepperdine; Southwestern; UC Davis; UC Hastings; UC Irvine; UCLA; San Diego; McGeorge; and Western State. Bolus, *supra* note 22, at 78.

Appendix Table 1: T-Test Results for Mean Total Experiential Credits

	Graduates	Bar Result	Mean Credits	Standard Deviation	t-Test
WashU	**All**	Pass	13.00	5.99	0.39
		Fail	13.15	7.20	
	Quartile 2 LGPA	Pass	13.11	5.80	1.68
		Fail	15.63	9.18	
	Quartile 3 LGPA	Pass	13.21	6.24	-0.66
		Fail	12.56	5.82	
	Quartile 4 LGPA	Pass	12.96	6.50	0.29
		Fail	13.13	7.30	
	Bottom 10% LGPA	Pass	13.31	6.99	-0.38
		Fail	12.96	7.31	
Wayne State	**All**	Pass	8.41	4.76	2.55*
		Fail	9.33	5.29	
	Quartile 2 LGPA	Pass	8.53	4.91	0.97
		Fail	9.75	5.09	
	Quartile 3 LGPA	Pass	9.05	4.97	0.66
		Fail	9.57	5.06	
	Quartile 4 LGPA	Pass	8.59	4.84	1.19
		Fail	9.23	5.39	
	Bottom 10% LGPA	Pass	8.71	4.77	0.45
		Fail	9.10	5.60	

*: $p < 0.05$; **: $p < 0.01$

Appendix Table 2: T-Test Results for Mean Number Bar-Subject Courses

	Graduates	Bar Result	Number Courses	Standard Error	t-Test
WashU	**All**	Pass	3.70	1.41	-5.90**
		Fail	3.16	1.51	
	Quartile 2 LGPA	Pass	3.68	1.43	-1.18
		Fail	3.25	1.81	
	Quartile 3 LGPA	Pass	3.66	1.44	-1.37
		Fail	3.35	1.53	
	Quartile 4 LGPA	Pass	3.59	1.45	-3.88**
		Fail	3.11	1.49	
	Bottom 10% LGPA	Pass	3.55	1.56	-2.89**
		Fail	2.99	1.45	
Wayne State	**All**	Pass	6.01	1.71	-3.62**
		Fail	5.56	1.68	
	Quartile 2 LGPA	Pass	5.91	1.63	0.82
		Fail	6.25	1.39	
	Quartile 3 LGPA	Pass	6.02	1.80	-2.15*
		Fail	5.41	1.63	
	Quartile 4 LGPA	Pass	6.24	1.65	-3.90**
		Fail	5.55	1.72	
	Bottom 10% LGPA	Pass	6.05	1.51	-1.53
		Fail	5.65	1.70	

*: $p < 0.05$; **: $p < 0.01$