Quantifying the Impact of Matriculant Credentials & Academic Attrition Rates on Bar Exam Success at Individual Schools

RORY BAHADUR * & KEVIN RUTH **

A scatterplot displaying bar passage rates versus academic attrition, across all law schools, suggests that bar passage rates and academic attrition rates are not positively correlated, and may even be slightly negatively correlated. This means that according to the data in the scatterplot, there appears to be a slight trend where the higher an institution's academic attrition rate, the lower the bar passage rate. Such global statistical observations obfuscate the true relationship between attrition and bar passage at individual schools. Academic attrition rates have a significant positive impact on an individual school's bar passage rate. There are confounding variables which prevent us from seeing the true relationship between academic attrition and bar passage rates in the global scatterplot. This brief article quantifies the impact of academic attrition on bar passage for individual schools. We tangibly demonstrate the impact of academic attrition and matriculant credentials on bar passage at individual schools.

INTRODUCTION

In a 2020 article, I presented publicly available attrition and transfer numbers that demonstrated how much the incoming classes at various Florida law schools were being modified between matriculation and the bar examination and asked whether this modification had an impact on bar pass rates. This article definitively answers the questions asked in that initial article.

In a subsequent coauthored article, we compared the extent to which schools identified as high-performing bar schools were changing the student composition by high academic attrition and high transfer in numbers.² In that same article, we also demonstrated that nationally, across all law schools collectively, academic attrition rates were not positively correlated with bar

^{*} James R. Ahrens Chair in Tort Law, Washburn University School of Law.

^{**} Dr. Kevin Ruth completed his PhD in mathematics at the University of Miami in 1999. His doctoral thesis was titled, "Favorable Red and Black on the Integers with a Minimum Bet." After two decades in academia, he now travels the world playing blackjack in casinos that his predictive modeling identifies as odds favorable.

^{1.} Rory Bahadur, Blinded by Science? A Reexamination of the Bar Ninja and Silver Bullet Bar Program Cryptids, 49 J. L. Educ. 241, 248 (2020) [hereinafter Blinded].

^{2.} See generally Rory Bahadur, Kevin Ruth & Katie Tolliver Jones, Reexamining Relative Bar Performance as a Function of Non-Linearity, Heteroscedasticity, and a New Independent Variable, 52 N.M. L. REV. (forthcoming 2021) [hereinafter Reexamining].

passage rates.³ We explained the apparent anomaly between this lack of a positive correlation and our suggestion that academic attrition improves bar passage rates at individual schools as an "irrelevant distractor."⁴

What we do in this article is quantitatively demonstrate the impact of academic attrition on bar results at individual schools. To do this, we examine the relationship between academic attrition and bar passage rates in Florida for the 2015–2021 July bar examinations. This comparison is possible for Florida schools because the Supreme Court of Florida publishes the results of every bar examination going back to 2009. The published results detail how many bar-takers from each school took each bar exam and how many passed.

What makes this article unique to previous articles is that here, we examine matriculating class data for Florida schools for five years (2006–2010) before the ABA first mandated that schools publish 509 forms in 2011.⁷

Matriculant credentials, and especially, undergraduate GPA, significantly impact bar passage rates. A recent study by Raul Ruiz concluded that:

The odds ratio for Undergraduate GPA is significantly higher than that for LSAT. While LSAT has some predictive value, the Undergraduate GPA has a much more significant impact on predicting bar exam success utilizing only incoming 1L predictors. The marginal effect of LSAT is a 6.7% increased probability of bar passage for each additional point, while every tenth of a point for undergraduate GPA provides about a 15% increased probability of bar passage.⁸

- 3. *Id*.
- 4. See id. (explaining the apparent anomaly between the reality that academic attrition improved bar passage at an individual school while bar passage and academic attrition rates and bar passage were negatively correlated on a national level when analyzed for a data set including all law schools).
- 5. Bar Scores: Florida Bar Exam Results Comparison, FLORIDA SUPREME COURT (Sep. 20, 2021), https://www.floridasupremecourt.org/Bar-Scores/Florida-Bar-Exam-Results-Comparisons.
- 6. See id; see also July 2009 General Bar Examination Overall Method, FLORIDA SUPREME COURT (Sep. 21, 2009), https://www.floridabarexam.org/__85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/18b01b77c888224285257c0b006d46ee (comparing schools for the July 2009 Florida bar examination).
- 7. Jerome M. Organ of The University of St. Thomas School of Law (pers. comm.) (explaining that before 2011, the data now contained on the ABA 509 forms was published annually in the ABA-LSAC Official Guide to ABA Approved Law Schools, *hereinafter* "Official Guide." The authors would like to thank Professor Jerome M. Organ, Bakken Professor of Law and Co-Director of the Holloran Center for Ethical Leadership at The University of St. Thomas School of Law (Jerry Organ) for bringing the existence of this data to our attention).
- 8. See Raul Ruiz, Leveraging NonCognitive Skills to Foster Bar Exam Success: An Analysis of the Efficacy of the Bar Passage Program at FIU, 99 NEB. L. REV. 141, 194 (2020) [hereinafter NonCognitive]

When that data is combined with available academic attrition data for the classes matriculating since 2012, it explains the paradigm shift in relative bar performance in Florida, first observed three years later when the 2012 matriculants wrote the bar exam in 2015.

For the purposes of this article, we make the ethically normative assumption that a school would not academically dismiss and deny a student the opportunity to sit for the bar examination, after taking money from that student for a semester or a year, unless the school believed the student would not pass the bar. ¹⁰

Our results clearly illustrate how bar passage rates are affected by academic attrition rates. 11 An understanding of the effects of attrition at an

- 9. This paradigm shift is the established dominance of FIU law on the Florida bar examination since 2015. *See, e.g.*, NonCognitive, *supra* note 8, at 204 (displaying tabular information about FIUs bar passage efficacy since 2015).
- 10. Jerry Organ of the University of St. Thomas School of Law (pers. comm.) (reading a draft of this article, he asked an interesting question we do not have the answer to. But we feel it is an important question for legal education in general and thought we would ask them in a rhetorical fashion here. "Why do we attrit students in the first place? What is the reason for saying a student should not go further and be given the chance to become a lawyer? What is the ultimate justification for drawing the line the way it is drawn at any law school?").
- 11. Unfortunately, because our study involved the state of Florida, our results unavoidably collide with a compelling and established narrative about bar passage in the state of Florida involving Florida International University School of Law. That established narrative is summarized as follows:

See Morgan Hughes, FIU Law Earns Highest Scores on Florida Bar Exam for the Seventh Consecutive Year, FIU NEWS (Sep. 20, 2021, 3:00 PM), https://news.fiu.edu/2021/fiu-law-earns-highest-scores-on-florida-bar-exam-for-the-seventh-consecutive-year, (explaining FIU has once again ranked as the top-performing Florida law school on the Florida bar exam. FIU Law graduates earned an 88.8% passing rate on the Florida bar exam in July. This is the highest of any Florida law school, and 17.2 percentage points above the state average. The exam was administered remotely. FIU Law has finished first on the Florida Bar Exam on seven consecutive mid-year bar exams. "Our graduates consistently earn top scores on the Florida bar exam," said FIU Law Dean Antony Page. "We remain impressed by our graduates' resilience, dedication and skill. They will become great new lawyers.").

See also Jimena Tavel, Want to Attend Law School in Florida? These Have the Highest Bar Passage Rates, MIAMI HERALD (Sep. 21, 2021, 6:34 PM), https://www.miamiherald.com/news/local/education/article254387529.html.

(attributing the bar passage rates at FIU to its Academic Excellence Program, which offers students optional courses about cognitive learning science. For instance, students who take a class called "Introduction to the Study of Law" in their first semester learn about the value of contextualization and quality feedback. About 85% of all FIU law students tend to take that class, Page said, which helps them develop the habits needed to succeed in law school, the Bar exam and later on in their careers. "The key is it's not about memorization or Bar preparation; it's about teaching students how to teach themselves or how to more effectively learn," Dean Page said. "We're teaching people how to be better learners, which frankly, will make them better lawyers).

See also NonCognitive, supra note 9,

(concluding from these results, that the bar exam preparation program as designed and implemented at the FIU College of Law has been successful. As more of our

individual school level is important because impressionable and relatively powerless law school applicants must currently rely on media proclamations about bar passage, which do not provide a complete picture.

I. FLORIDA BAR PERFORMANCE FROM 2015–2021

An effective way to capture bar performance is to compare bar differentials. The bar differential is the comparison of the pass rate for a particular school compared to the state average pass rate. In the calculation of the state average pass rate, each school's pass rate is weighted according to the number of students from that school taking the exam. For example, if a school's pass rate is 90% and the state average pass rate is 80%, then the school's differential is 10%. Examining these numbers contextualizes the impact of academic attrition on bar performance at individual schools.

While the Supreme Court of Florida releases bar examination data for all people taking every Florida Bar Examination including people who did not graduate from Florida law schools, we recalculated the state bar pass average and exam pass rate average for schools from 2011 matriculating/2014 bar testing to 2018 matriculating/2021 bar testing students using only students who attended Florida schools.

We made the following assumption for all schools: students matriculating in a particular year take the bar examination three years later. We chose to streamline the analysis by using only the July Florida bar exam and not the February exam because most bar examinees take the July bar.

The results of those calculations are in tabular form below. The columns are arranged as matriculating year/bar exam year for every Florida school with schools presented in any given year by descending pass rate.

students take the course and attempt their first bar exam, the dataset will be updated and regressions rerun to identify issues with the course that need attention and modification. For now, it seems as though Advanced Legal Analysis and Law & Procedure will not be fundamentally changed unless and until data begins to dictate otherwise, and the bottom 20% of the class will continue to be required to take the courses. It is the result of data such as this that has encouraged students in all GPA ranges to take Law & Procedure at FIU despite it only being required for the bottom 20% of the graduating class. Even with a small number of students not taking Law & Procedure, the contrast was so stark as to be statistically significant.

The same holds true for Advanced Legal Analysis. This course has been shown to help our students maximize their odds of passing their bar exam on the first attempt. Unlike Law & Procedure, however, I have plans to develop this class further based on data trends I have noticed on the bar exam over the past several administrations. I am therefore comfortable in concluding that my bar exam preparation program at the FIU College of Law is statistically significant in helping our students pass their bar exam on their first attempt, particularly for those students in the bottom 20% of their class).

See infra Section III (we do not directly address the validity of this narrative in this article. We merely demonstrate that once academic attrition rates are factored in, the performance of the Florida law schools on the bar examination relative to each other from 2015–2021 changes significantly).

	2011 Matriculant / 2014 Bar Examinee 12							
SCHOOL NAME	# of Bar Examinees			Differential				
UF	266	241	90.6	16.4				
FSU	198	162	81.8	7.6				
Miami	287	233	81.2	6.9				
Stetson	202	158	78.2	4.0				
FIU	110	86	78.2	3.9				
FAMU	121	89	73.6	-0.7				
Nova	231	161	69.7	-4.6				
St. Thomas	146	101	69.2	-5.1				
Barry	137	85	62.0	-12.2				
Fla Coastal	257	149	58.0	-16.3				
Ave Maria	76	43	56.6	-17.7				
Total	2031	1508	74.2					

 $^{12. \} FLORIDA BOARD \ OF BAR EXAMINERS, \ JULY \ 2014 \ GENERAL \ BAR EXAMINATION \ OVERALL \ METHOD \ (2014), \ https://www.floridabarexam.org/_85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/6218b265c9a9302b85257d5e0051dff4.$

	2012 Matriculant / 2015 Bar Examinee 13							
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential				
FIU	109	97	89.0	18.5				
UF	268	234	87.3	16.9				
FSU	188	151	80.3	9.9				
Stetson	185	139	75.1	4.7				
Miami	273	190	69.6	-0.8				
FAMU	84	57	67.9	-2.6				
Nova	228	152	66.7	-3.8				
Fla Coastal	236	140	59.3	-11.1				
St. Thomas	108	62	57.4	-13.0				
Barry	146	74	50.7	-19.8				
Ave Maria	46	22	47.8	-22.6				
Total	1871	1318	70.4					

^{13.} FLORIDA BOARD OF BAR EXAMINERS, JULY 2014 GENERAL BAR EXAMINATION OVERALL METHOD (2015), https://www.floridabarexam.org/_85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/ecae5e5b478cbdfb85257ec8 004e2917.

	2013 Matriculant / 2016 Bar Examinee 14							
SCHOOL NAME	# of Bar Examinees	# of Bar Passers Pass Rate		Differential				
FIU	112	98	87.5	18.7				
Miami	247 199	80.6	11.8					
Stetson	205	165	80.5	11.7				
FSU	151	119	78.8	10.1				
UF	266	209	78.6	9.8				
Ave Maria	36	24	66.7	-2.1				
Nova	189	119	63.0	-5.8				
FAMU	68	36	52.9	-15.8				
Fla Coastal	160	83	51.9	-16.9				
Barry	153	75	49.0	-19.7				
St. Thomas	154	70	45.5	-23.3				
Total	1741	1197	68.8					

 $^{14. \ \} FLORIDA \ BOARD \ OF \ BAR \ EXAMINERS, \ JULY \ 2014 \ GENERAL \ BAR \ EXAMINATION \ OVERALL \ METHOD \ (2016), \ https://www.floridabarexam.org/_85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/95960882122575be852580 \ 34004be367.$

	2014 Matriculant / 2017 Bar Examinee 15							
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential				
FIU	123	108	87.8	15.7				
Miami	196	165	84.2	12.1				
FSU	174	146	83.9	11.8				
UF	270	208	77.0	4.9				
Stetson	181	139	76.8	4.7				
Nova	188	132	70.2	-1.9				
St. Thomas	129	82	63.6	-8.5				
Barry	107	63	58.9	-13.2				
Ave Maria	39	20	51.3	-20.8				
FAMU	78	40	51.3	-20.8				
Fla Coastal	132	63	47.7	-24.4				
Total	1617	1166	72.1					

^{15.} FLORIDA BOARD OF BAR EXAMINERS, JULY 2014 GENERAL BAR EXAMINATION OVERALL METHOD (2017), https://www.floridabarexam.org/_85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/2125aa14d5da8eb78525819 f005056e5.

	2015 Matriculant / 2018 Bar Examinee ¹⁶							
SCHOOL NAME	# of Bar Examinees	# of Bar Passers Pass Rate		Differential				
FIU	118	104	88.1	20.2				
FSU	132	112	84.8	16.9				
Miami	244	203	83.2	15.2				
UF	258	183	70.9	3.0				
St. Thomas	131	92	70.2	2.3				
Stetson	177	119	67.2	-0.7				
Fla Coastal	104	65	62.5	-5.5				
Ave Maria	41	24	58.5	-9.4				
FAMU	77	39	50.6	-17.3				
Barry	121	55	45.5	-22.5				
Nova	170	73	42.9	-25.0				
Total	1573	1069	68.0					

^{16.} FLORIDA BOARD OF BAR EXAMINERS, JULY 2014 GENERAL BAR EXAMINATION OVERALL METHOD (2018), https://www.floridabarexam.org/_85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/387df34d3ba80cbd8525830b004f8b1d.

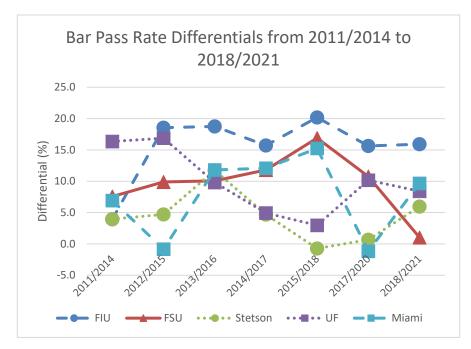
	2017 Matriculant / 2020 Bar Examinee ¹⁷							
SCHOOL NAME	Take	Pass	Pass Rate	Differential				
FIU	103	92	89.3	15.6				
FSU	135	114	84.4	10.7				
UF	248	208	83.9	10.2				
Stetson	203	151	74.4	0.7				
Miami	244	177	72.5	-1.2				
Nova	138	93	67.4	-6.3				
St. Thomas	130	87	66.9	-6.8				
Ave Maria	45	29	64.4	-9.3				
FAMU	107	66	61.7	-12.0				
Barry	116	71	61.2	-12.5				
Fla Coastal	33	19	57.6	-16.1				
Total	1502	1107	73.7					

^{17.} FLORIDA BOARD OF BAR EXAMINERS, JULY 2014 GENERAL BAR EXAMINATION OVERALL METHOD (2020), https://www.floridasupremecourt.org/content/download/690132/file/11-20-2020-Florida-Bar-Score-Comparisons.pdf, (noting that the July Exam was pushed back to November because of COVID in 2020).

	2018 Matriculant / 2021 Bar Examinee ¹⁸							
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential				
FIU	116	103	88.8	15.9				
Miami	246	203	82.5	9.6				
UF	203	165	81.3	8.4				
Stetson	203	160	78.8	5.9				
FSU	184	136	73.9	1.0				
Ave Maria	34	23	67.6	-5.2				
Nova	138	92	66.7	-6.2				
Barry	120	71	59.2	-13.7				
FAMU	95	54	56.8	-16.0				
Fla Coastal	15	8	53.3	-19.5				
St. Thomas	128	65	50.8	-22.1				
Total	1482	1080	72.9					

^{18.} FLORIDA BOARD OF BAR EXAMINERS, JULY 2014 GENERAL BAR EXAMINATION OVERALL METHOD (2021), https://www.floridasupremecourt.org/content/download/788827/file/09-20-2021-FBBE-Full-Press-Release.pdf.

The results are represented graphically as follows:



On its face, the excellence of the FIU bar passage record is patent; they are first in every July bar examination between 2015 and 2021. However, when academic attrition rates are considered, the performance of these law schools on the Florida bar exam relative to each other changes significantly.

II. SETTING THE ANALYTICAL TABLE: MATRICULATING METRICS

To contextualize the bar results, we need to examine the credentials of the matriculant pool three years before the bar examination. This is because according to a BARBRI statistical analysis, the five factors that account for 79% of the variance on bar passage *by school* are:

- 1. 75th percentile UGPA
- 2. 25th percentile LSAT score
- 3. Section Size
- 4. Cost of Living
- 5. Minority enrollment levels. 19

^{19.} See Reexamining, supra note 2, at 33 (explaining the findings of the BARBRI statistical study).

UGPA is also important in predicting an individual student's chance of passing the bar examination. *See* NonCognitive, *supra* note 9, at 204 (explaining the significance of UGPA in terms of predicting individual students' bar passage:

The BARBRI statistician explained that if we could think of the things that affect bar passage *at a law school* as a 100-piece puzzle, then these things account for 79 of those puzzle pieces at the admission stage,²⁰ with the 75th percentile UGPA being the strongest indicator.²¹ Here is a chart of the 75th percentile UGPA matriculating metrics for the five highest performing Florida schools on the bar examination in each matriculating year from 2006–2018.

75TH PERCENTILE MATRICULANT UGPA FOR RELEVANT FLORIDA SCHOOLS

2006	-201	1^{22}
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	2006	2007	2008	2009	2010	2011	AVG		
FIU	3.59	3.58	3.58	3.62	3.79	3.77	3.65		
UF	3.83	3.83	3.78	3.85	3.84	3.82	3.83		
FSU	3.74	3.77	3.72	3.74	3.70	3.68	3.73		
STETSON	3.60	3.70	3.59	3.65	3.66	3.57	3.63		
U. MIAMI	3.66	3.63	3.68	3.66	3.60	3.57	3.63		
State Avg.	3.57	3.55	3.54	3.52	3.51	3.48			

[O]nly LSAT and Undergraduate GPA were statistically significant at the $p \le 0.05$ level. Thus, we reject the null hypothesis for LSAT and Undergraduate GPA and conclude that both of these independent variables have an effect on the odds of first-time bar passage and that effect is positive.

The odds ratio for Undergraduate GPA is significantly higher than that for LSAT. While LSAT has some predictive value, the Undergraduate GPA has a much more significant impact on predicting bar exam success utilizing only incoming 1L predictors. The marginal effect of LSAT is a 6.7% increased probability of bar passage for each additional point, while every tenth of a point for undergraduate GPA provides about a 15% increased probability of bar passage.).

- 20. Id. at 34.
- 21. *Id*.

^{22.} Data obtained from ABA Books on Statistics 2008–2012 (containing data parallel to the 509 forms for the years 2006–2010).

75TH PERCENTILE MATRICULANT UGPA FOR RELEVANT FLORIDA SCHOOLS

2012–2018²³

	2012	2013	2014	2015	2017	2018	AVG
FIU	3.74	3.73	3.76	3.76	3.77	3.76	3.75
UF	3.73	3.76	3.68	3.68	3.81	3.84	3.75
FSU	3.72	3.72	3.64	3.67	3.73	3.79	3.71
STETSON	3.52	3.58	3.53	3.59	3.55	3.59	3.56
U. MIAMI	3.57	3.60	3.63	3.60	3.59	3.65	3.61
State Avg.	3.46	3.46	3.45	3.46	3.53	3.56	

The years in the chart above are matriculating years, which means that these students generally would be writing the bar exam three years later than the years in the chart. The students matriculating in the years 2006–2018 would have taken the bar examination three years later in 2009–2021.

Between 2006 and 2011, FIU, Stetson, and Miami matriculants have average 75th percentile UGPAs that are significantly lower than Florida and Florida State and Florida had significantly higher scores than all the schools including FSU. The bar passage comparisons from 2009–2014 reflect these matriculating credentials as follows:

- 1. On the July 2009 bar FSU was first and UF was second.
- 2. On the July 2010 bar UF was first and FSU was second.
- 3. On the July 2011 bar UF was second and FSU was third.
- 4. On the July 2012 bar UF was first and FSU was second.
- 5. On the July 2013 bar UF was second and FSU was third.
- 6. On the July 2014 bar UF was first and FSU was second.

However, that changed beginning in 2012.

Between 2012 and 2015 there was an economic downturn that devastated law school recruitment and the sizes of entering law school classes. ²⁴ Schools were desperate to recruit students and entering credentials

^{23.} See ABA Section of Legal Educ. and Admis. to the Bar, 509 Required Disclosures, ABA (Oct. 14, 2021, 11:15:21 AM), https://www.abarequireddisclosures.org/Disclosure509.aspx (data obtained from 2011–2018 ABA 509 forms).

^{24.} See Eric Goldman, An Existential Crisis for Law Schools, The New York Times (July 14, 2012), https://www.nytimes.com/2012/07/15/opinion/sunday/an-existential-crisis-for-law-schools.html, (explaining that in 2012, the number of people taking law school admissions tests fell 24 percent in the last two years, to the lowest level in a decade. Law schools will be crushed if they don't remake themselves, said Frank Wu, dean of Hastings College of the Law at the University of California in San Francisco. "This is Detroit in the 1970s: change or die.").

dropped at many law schools.²⁵ In the above chart this is reflected, for example, by the notable decline in 75th percentile UGPA for the University of Florida between 2012 and 2015.

The first year that FIU had a higher 75th UGPA matriculating class than the University of Florida and the highest in the State of Florida was 2012. Unsurprisingly, three years later, in 2015, its bar passage dominance began. ²⁶ The FIU 75th percentile matriculating UGPA scores remain virtually identical to the University of Florida's scores until matriculant year 2017, when the University of Florida once again began enrolling classes with higher 75th percentile UGPAs.

Additionally, in terms of the years 2012–2018 (bar examination 2015–2021), FIU had the highest average score (tied with UF) in 75th percentile UGPA, the single most important variable for predicting school bar passage rates. Its 75th percentile UGPA numbers remained largely unchanged during the downturn.²⁷

The significance of this increase in the 75th percentile UGPA scores for FIU matriculants from 3.59 in 2006 to 3.74 in 2012 (the highest in the state) for incoming matriculants cannot be overstated. Remember, according to Ruiz, every tenth of a point increase in an individual matriculant's UGPA results in a 15% increased probability of passing the bar.²⁸

While the Ruiz variable in his study refers to individual students,²⁹ the variable is not irrelevant when we consider the impact of matriculant UGPA on institutional bar passage rates. For example, FIU went from matriculating a class of individual students, such that the institutional matriculant UGPA was 3.59 in 2006, to a matriculant pool of individual students, who collectively resulted in a statewide high institutional matriculant UGPA of 3.74 in 2012. That *alone* could have resulted, at a minimum, in the increased

^{25.} See Bernie Burk, How the Legal Academy Has Changed Since the Great recession (Hint-It's Probably a Lot More Than You Think), THE FACULTY LOUNGE (September 16, 2018), https://www.thefacultylounge.org/2018/09/how-the-legal-academy-has-changed-since-the-great-recession-hint-its-probably-a-lot-more-than-you-th.html, (noting that from 2010–11 through 2016–17 the number of unique applicants to accredited

⁽noting that from 2010–11 through 2016–17, the number of unique applicants to accredited law schools fell 36%, and the number of applications fell a little less than 44%. The conventional metrics by which most admissions decisions are made—Law School Admissions Test ("LSAT") scores and undergraduate grade-point average ("UGPA")—declined even more, as more highly credentialed applicants disproportionately stayed away. For example, while the number of applicants overall fell 36%, the number of applicants with LSAT scores greater than 160 (roughly the 80th percentile of all test-takers) fell 46%, while those with scores under 150 (roughly the 44th percentile) fell only 27%).

^{26.} See table cited, supra note 22.

^{27.} See id.

^{28.} See Noncognitive, supra note 8, at 194. We are using Ruiz's calculations here, but it is important to note that while Ruiz is correct that UGPA is an important pre-enrollment indicator of bar passage, he misinterprets odds ratios for both the LSAT and UGPA predictors, resulting in an overstatement of the estimated effect of a 1-point increase in LSAT or a 0.1 point increase in the UGPA, on the probability of passing the bar.

^{29.} Id.

bar passage rates observed, even without bar passage programs, academic support, or any other institutional changes.

Part of the reason for the bar passage string of firsts in the years 2015–2021 is therefore due to excellent recruiting by the admissions professionals at FIU. Because of demographics and geography, FIU was able to maintain the excellent credentials of its matriculants even during the economic downturn. FIU is the only public Florida law school south of Orlando, and the only one effectively south of Gainesville for students who want to attend a higher LSAT school than FAMU.

This significant impact on bar passage caused by the increase in UGPA that Ruiz describes is separate from, and overshadows, transfer rates and attrition rates from the years before 2012. Academic attrition certainly affects bar passage rates, especially if a school's academic attrition rate is significantly higher than schools with similar matriculant LSAT and UGPAs. Therefore, even though academic attrition rates were high at FIU pre-2012, they are not relevant to the post-2012 bar performance. This is because before 2012, FIU generally had much lower UGPA matriculants and did not have matriculants with the highest average 75th percentile UGPA in the state as in the post-2012 era.³¹

Nevertheless, as we document in the following section, academic attrition rates are directly tied to relative bar performance in the state of Florida between 2015 and 2021.

If information exists, demonstrating the school's unprecedented transfer/attrition rates, and other broader institutional policies did not contribute to the improvement in bar passage, I think we all should be able to see that data in an unrestricted fashion and not depend on conclusions about the data. For example, provide the public with data, documenting transfer and attrition rates for the period before 2011, the first year the ABA 509 forms were required. The school only opened in 2000 so this should not be an onerous task and my personal recollection is that the transfer/attrition rates observed in 2012 and beyond are higher than those observed until the time I left South Florida in 2007.

As previously described, pre-2012 attrition and transfer information are of little utility because of the change in the matriculant UGPA and the documented impact of matriculant UGPA on bar passage rates.

^{30.} See Blinded, supra note 1, at 33 (explaining that FIU is in Miami-Dade County, only one street away from the city of Sweetwater, and the annual in-state tuition at the law school is \$21,806. Just twenty miles away, also in Miami-Dade County, is St. Thomas University School of Law with a tuition of \$42,190 per year. Additionally, thirty-six miles from FIU, in the adjacent county (Broward), is another private law school, NOVA Southeastern University with a tuition of \$43,070 per year).

^{31.} This is important because it demonstrates that the pre-2012 academic attrition rates at FIU are not as important as I initially thought in explaining the post-2012 bar results. Pre-2012 attrition at FIU occurred with a different matriculant pool relative to the rest of the state compared to post-2012 attrition. The massive impact of UGPA previously documented would confound any single correlation of attrition rates and bar passage. Attrition and transfer data before 2012 are of limited utility in allocating causality to pedagogy. *See Blinded*, *supra* note 1, at 282 (overstating the significance of discerning pre-2012 attrition rates).

III. ACADEMIC ATTRITION

In terms of predicting bar success, *student specific variables are more predictive than school wide variables.* ³² If we view all the predictive factors for whether an individual student will pass the bar as a 100-piece puzzle, 1L GPA accounts for 34 puzzle pieces. ³³ 1L GPA is a strong predictor of whether a student will pass the bar examination. ³⁴

According to established statistical studies then, a law school would have phenomenal bar passage rates if it could recruit and structure its class on the basis of 75th percentile UGPA; it also could see into the future, and recruit based on what the 1L GPA of the student would be at the end of the first year. That way you would be using the best *school wide* indicator of bar passage and the best *individual student* indicator of bar passage.³⁵

While law schools can only predict first-year grades using LSAT scores (along with UGPA), the surest way to remove lower GPA students who are least likely to pass the bar is to academically attrit them. Once you attrit your

- 32. See Reexamining, supra note 2, at 34–35.
- 33. Id.
- 34. Katherine Austin, Catherine Christopher & Darby Dickerson, *Will I Pass the Bar Exam?: Predicting Student Success Using LSAT Scores And Law School Performance*, 45 HOFSTRA L. REV. 753 (2017) (explaining that 1L and final law school GPA present statistically as the same indicator that strongly predicts bar exam performance, but both cannot be included in the analysis).

Our analysis revealed that 1L and final law school GPA overlap so strongly that they respond mathematically as one variable. Adding both in the analysis does not add to our knowledge of the relationship between law course performance and bar exam performance. From a law school administration perspective, 1L GPA can be used to predict bar exam performance just as strongly as using final law school GPA. Clearly, examining 1L performance provides opportunity for positive educational intervention strategies to aid the student in future bar performance.

35. When statements are made that the bar preparation program at FIU is improving bar passage for the bottom 20% and bottom 40% of the class, those statements need to be read in the context that the lowest performing students have already been attrited. The bottom 20% referred to is not really the "bottom 20%," of the original class, but the bottom 20% of the class remaining after the true lowest performing or bottom students have been academically attrited. Thus, arguing that high academic attrition rates improve bar passage at FIU is not specious. *See e.g.*, NonCognitive, *supra* note 9, at n. 203 (2020) (ignoring the reality of the high academic attrition rates at FIU Law).

This argument is categorically specious given what I know about my students. The reason we are doing well on the bar exam is because we have increased the passage rate of the bottom 20% and 40% of our students. For example, on the July 2019 bar exam, only one of my students in the bottom 20% of the class failed a bar exam. The other students that failed were from the upper 80% of the class, and the reasons for failure were varied, ranging from deaths of immediate family members to flat-out disengaging with the program.

Additionally, regarding NonCognitive, the professor from "another law school" did not argue "vigorously that the only reason FIU was doing well on the bar exam was because of the number of transfer students FIU was accepting from other law schools." That professor argued "vigorously that the reasons FIU was doing well on the bar exam was because of the number of transfer students FIU was accepting from other law schools" and the observed academic attrition rates.

weakest 1Ls you remove the students, who based on 1L GPA, are least likely to pass the bar.³⁶

Here is a chart comparing first year academic attrition rates at Florida law schools for 1Ls matriculating in the years 2011–2018 and taking the bar in 2014–2021. It is not possible to obtain academic attrition data for the matriculant year 2016 because the 2017 ABA 509 forms do not list academic attrition rates. As a result, our analysis cannot include the 2019 bar examination results.

FIRST-YEAR ACADEMIC ATTRITION NUMBERS FOR HIGHEST BAR PERFORMING FLORIDA LAW SCHOOLS

Here are the first-year academic attrition numbers for all Florida schools:³⁷

37. See ABA Section of Legal Educ. and Admis. to the Bar, 509 Required Disclosures, ABA (Oct. 21, 2021, 1:15:33 AM), http://www.abarequireddisclosures.org/Disclosure509.aspx (data obtained from 2012–2019 ABA 509 forms).

When statements are made that the bar preparation program at FIU is improving bar passage for the bottom 20% and bottom 40% of the class, those statements need to be read in the context that the lowest performing students have already been attrited. The bottom 20% referred to is not really the "bottom 20%," of the original class, but the bottom 20% of the class remaining after the true lowest performing or bottom students have been academically attrited. Thus, arguing that high academic attrition rates improve bar passage at FIU is not specious. *See. e.g.*, NonCognitive, *supra* note 9, at n. 203 (2020) (ignoring the reality of the high academic attrition rates at FIU Law).

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Additionally, regarding *Noncognitive*, *supra* note 8, at n. 203, it is untrue that "a professor from another law school argued vigorously that the only reason FIU was doing well on the bar exam was because of the number of transfer students FIU was accepting from other law schools." The truth is that the professor argued vigorously that part of the *reasons* FIU was doing well on the bar exam was because of the number of transfer students FIU was accepting from other law schools *and the observed academic attrition rates*; these had to be considered as part of the causality even if the academic support and bar prep pedagogy was stellar. *See Blinded*, *supra* note 1, at 241–42, (explaining a detailed review of the oftoverlooked, but publicly available data provided by FIU in its annual ABA Standard Information Reports reveals two such variables: (1) significantly higher than average 1L attrition rates and (2) extensive incoming high GPA 2L transfer rates accounting for a substantial percentage of the class cohort. FIU's geographic proximity to more expensive private law schools in combination with the State of Florida's mere 1-year residency requirement for in-state tuition make transferring to FIU as a 2L uniquely appealing).

Making claims about the efficacy of their academic support program without acknowledging the uniquely high attrition and transfer rates is detrimental to legal pedagogy not only in its oversimplification but in its implication that Academic Support Professionals at other schools utilizing similar scientifically based academic support pedagogy with less spectacular results must be less competent. Misrepresentations do not facilitate the iterative process of academic discourse.

^{36.} Id.

SCHOOL NAME	2011 Matric./ 2014 Bar Exam	2012 Matric./ 2015 Bar Exam	2013 Matric./ 2016 Bar Exam	2014 Matric./ 2017 Bar Exam	2015 Matric./ 2018 Bar Exam	2017 Matric./ 2020 Bar Exam	2018 Matric./ 2021 Bar Exam
	Academic Attrition						
FIU	9	10	13	11	7	17	13
Stetson	0	0	0	2	4	2	4
Miami	2	4	3	4	2	3	4
FSU	3	3	1	3	1	2	2
UF	0	0	2	0	0	0	0

FIRST YEAR ACADEMIC ATTRITION RATES FOR HIGHEST BAR PERFORMING FLORIDA LAW SCHOOLS (%)

Here are the academic attrition rates as a percentage of the number of students matriculated in the years listed above and taking the bar three years later at the top 5 performing Florida law schools on the bar examination:³⁸

SCHOOL NAME	1L Acad. Attr. Rate 2012/ 2015	1L Acad. Attr. Rate 2013/ 2016	1L Acad. Attr. Rate 2014/ 2017	1L Acad. Attr. Rate 2015/ 2018	1L Acad. Attr. Rate 2017/ 2020	1L Acad. Attr. Rate 2018/ 2021	AVG
FIU	6.37	8.18	7.53	5.15	11.41	8.07	7.82
FSU	1.60	0.59	1.60	0.57	1.12	0.94	1.08
Miami	0.86	0.95	1.60	0.65	0.93	1.18	1.0
Stetson	0.00	0.00	0.81	1.60	0.75	1.41	0.74
Florida	0.00	0.64	0.00	0.00	0.00	0.00	0.11

To summarize, for students taking the bar examination between 2015 and 2021, FIU failed out or academically attrited some of the most highly credentialed matriculating students in the state of Florida at the end of the first year:

^{38.} For those who wish to confirm our arithmetic, here is how we arrived at these averages. For each school, we added the total number of attrited students during the period 2012/2015 to 2018/2012 (excluding 2016/2019) and we added the total number of matriculants for the same period. We then divided the total number of attrited students by the total number of matriculants (and multiplied by 100). We did this calculation using Excel where many decimal places are automatically used in the calculation, but we chose to display only two decimal places in this table.

- a. At 68.97 times the rate the University of Florida did;
- b. At 10.61 times the rate Stetson did;
- c. At 7.25 times the rate Florida State did; and
- d. At 7.82 times the rate Miami did.³⁹

If we were to adjust these numbers and assume that all the students who were academically dismissed during their first year would have failed the bar if they had not been attrited, ⁴⁰ then *FIU does not come first on the Florida* bar examination in any of the years between 2015–2021. ⁴¹

Here are the bar differentials with attrited first-years reintegrated into the calculations (with the assumption that attrited first-years should be excluded from the group of bar passers) for the matriculant years 2011–2018.⁴² We have bolded and italicized the FIU differentials in the tables because they finished first on every July bar examination from 2015–2021.

^{39.} The numbers displayed in the table are rounded to 2 decimal places. These comparative rate calculations use numbers with 14 decimal places and as a result the actual comparative rates calculated differ slightly from are more precise than the two decimal places used in the table.

^{40.} Again, we assume an ethical norm that a school would not take money from a student for a semester or a year and then fail them out unless the school believes that student is incapable of passing the bar, especially students with FIU's matriculating credentials.

^{41.} We have no way to separate part-time from full-time attrition at any school but to contextualize the impact of attrition and for consistency we make the assumption in the previous footnote for every Florida law school.

^{42.} We deliberately added back all attrited students into the numbers for the July bar examinations. We did this for all Florida schools. We understand that some of the attrited students may have taken the February bar examination, but we are confident given the relatively low number of February takers, that by standardizing the analysis for all schools using only the July bar examination we convey the impact of attrition on bar pass rates.

	2011 Matriculant / 2014 Bar Examinee					
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential		
UF	266	241	90.6	23.9		
Miami	289	233	80.6	13.9		
FSU	201	162	80.6	13.9		
Stetson	202	158	78.2	11.5		
FIU	119	86	72.3	5.5		
Nova	258	161	62.4	-4.3		
St. Thomas	174	101	58.0	-8.7		
FAMU	163	89	54.6	-12.1		
Barry	157	85	54.1	-12.6		
Ave Maria	90	43	47.8	-18.9		
Fla Coastal	341	149	43.7	-23.0		
Total	2260	1508	66.7			

SCHOOL NAME	2012 Matriculant / 2015 Bar Examinee					
	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential		
UF	268	234	87.3	24.0		
FIU	119	97	81.5	18.2		
FSU	191	151	79.1	15.8		
Stetson	185	139	75.1	11.8		
Miami	277	190	68.6	5.3		
Nova	272	152	55.9	-7.4		
FAMU	113	57	50.4	-12.9		
Fla Coastal	295	140	47.5	-15.8		
Barry	165	74	44.8	-18.5		
Ave Maria	51	22	43.1	-20.2		
St. Thomas	146	62	42.5	-20.8		
Total	2082	1318	63.3			

	2013 Matriculant / 2016 Bar Examinee				
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential	
Stetson	205	165	80.5	17.2	
Miami	250	199	79.6	16.3	
FIU	125	98	78.4	15.1	
FSU	152	119	78.3	15.0	
UF	268	209	78.0	14.7	
Nova	216	119	55.1	-8.2	
Barry	161	75	46.6	-16.7	
Ave Maria	53	24	45.3	-18.0	
Fla Coastal	185	83	44.9	-18.4	
FAMU	84	36	42.9	-20.4	
St. Thomas	193	70	36.3	-27.0	
Total	1892	1197	63.3		

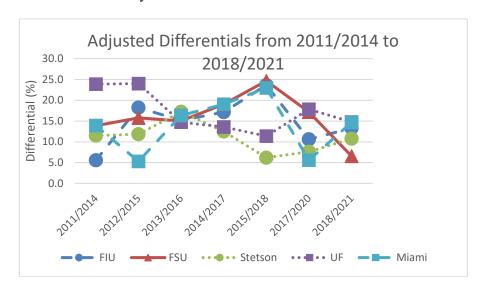
	2014 Matriculant / 2017 Bar Examinee				
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential	
Miami	200	165	82.5	19.0	
FSU	177	146	82.5	19.0	
FIU	134	108	80.6	17.1	
UF	270	208	77.0	13.6	
Stetson	183	139	76.0	12.5	
Nova	212	132	62.3	-1.2	
Barry	128	63	49.2	-14.3	
St. Thomas	174	82	47.1	-16.3	
Ave Maria	50	20	40.0	-23.5	
FAMU	101	40	39.6	-23.9	
Fla Coastal	208	63	30.3	-33.2	
Total	1837	1166	63.5		

	2015 Matriculant / 2018 Bar Examinee				
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential	
FSU	133	112	84.2	24.7	
FIU	125	104	83.2	23.6	
Miami	246	203	82.5	23.0	
UF	258	183	70.9	11.4	
Stetson	181	119	65.7	6.2	
St. Thomas	165	92	55.8	-3.8	
Nova	189	73	38.6	-20.9	
Barry	146	55	37.7	-21.9	
Ave Maria	65	24	36.9	-22.6	
FAMU	106	39	36.8	-22.8	
Fla Coastal	181	65	35.9	-23.6	
Total	1795	1069	59.6		

	2017 Matriculant / 2020 Bar Examinee				
SCHOOL NAME	Take	Pass	Pass Rate	Diff	
UF	248	208	83.9	17.8	
FSU	137	114	83.2	17.2	
FIU	120	92	76.7	10.6	
Stetson	205	151	73.7	7.6	
Miami	247	177	71.7	5.6	
St. Thomas	151	87	57.6	-8.4	
Nova	171	93	54.4	-11.7	
Ave Maria	54	29	53.7	-12.3	
Barry	135	71	52.6	-13.5	
FAMU	142	66	46.5	-19.6	
Fla Coastal	66	19	28.8	-37.3	
Total	1676	1107	66.1		

	2018 Matriculant / 2021 Bar Examinee			
SCHOOL NAME	# of Bar Examinees	# of Bar Passers	Pass Rate	Differential
UF	203	165	81.3	14.7
Miami	250	203	81.2	14.7
FIU	129	103	79.8	13.3
Stetson	207	160	77.3	10.8
FSU	186	136	73.1	6.6
Nova	160	92	57.5	-9.0
Barry	143	71	49.7	-16.9
Ave Maria	48	23	47.9	-18.6
St. Thomas	147	65	44.2	-22.3
FAMU	128	54	42.2	-24.4
Fla Coastal	22	8	36.4	-30.2
Total	1623	1080	66.5	

Here is a graphical representation of how the schools performed relative to each other if first-year academic attrition is factored in:



Here is a tabular summary of how the schools performed relative to each other on the Florida Bar between 2015 and 2021 when first-year academic attrition is factored in:

Matriculate/ Bar Exam	1st	2 nd	3 rd	4th	5th
2012/2015	UF	FIU	FSU	Stetson	Miami
2013/2016	Stetson	Miami	FIU	FSU	UF
2014/2017	FSU/Miami	FSU/Miami	FIU	UF	Stetson
2015/2018	FSU	FIU	Miami	UF	Stetson
2017/2020	UF	FSU	FIU	Stetson	Miami
2018/2021	<i>UF</i> /Miami	UF/Miami	FIU	Stetson	FSU

When academic attrition is factored into bar passage differentials, the University of Florida is first on three of the six July bar examinations (2015, 2020 and 2021) and FIU is first on none of the July bar exams since 2015. Interestingly, the University of Florida would have been first on both the 2020 and 2021 bar examinations. Interestingly because, these are the first years when the matriculating 75th percentile UGPA of its incoming class is significantly higher than the other Florida schools since 2011.⁴³

Without academically attriting students at the rates previously described, FIU would have been 2nd on the 2015 bar exam, 3rd on the 2016 bar exam, 3rd on the 2017 bar exam, 2nd on the 2018 bar exam, 3rd on the 2020 bar exam, and 3rd on the 2021 bar examination.

CONCLUSION

The bar examination has many moving parts. Several things play a role in bar success, including matriculant credentials, systemic racism, privilege, academic attrition, transfer rates and pedagogy. The lack of statistical significance between attrition and bar passage on a national scale is, as we have mentioned previously, an irrelevant distractor from the massive impact that academic attrition has on the bar passage rates at individual schools.

UGPA is one example of a variable that is most likely confounding with regard to the relationship between academic attrition and bar passage rates. Incoming matriculants with higher average UGPAs would have a higher likelihood of being successful in law school, and *also* being successful on the bar exam. Thus, higher UGPA drives *both* law school grades and bar passage upwards.

We would, therefore, expect academic attrition rates to be lower for matriculating classes with higher UGPAs. Because higher UGPA

^{43.} See supra notes 22–23 and accompanying text (documenting the 75th percentile UGPA of the matriculating classes at Florida law schools from 2006–2018); See also supra Section II (explaining the relationship between the 75th percentile UGPA of law school matriculating classes and institutional bar performance).

matriculants have a higher chance of passing the bar, in a broad statistical evaluation of all law schools, it would likely appear that academic attrition and bar passage are negatively correlated even though, as we have shown here, academic attrition at individual schools is strongly related to bar passage rates.⁴⁴

Additionally, because the vast majority of academic support and bar preparation faculty are untenured, even accidental narratives that bar pedagogy alone is responsible for improvements in bar performance at a particular school are unjustifiably harmful to these faculty members. Also, these narratives are being reinforced with statements implying that simply transposing one school's pedagogy will produce similar results at other schools.⁴⁵ This only exacerbates the harm.

The bottom line is that when a school, because of its unique demographics, is able to recruit students such that the matriculant UGPA of the school increases significantly while other schools in the state experience a decrease in the UGPA of their matriculants, this alone would result in that school "Rais[ing] its Bar Passage Rates in an Era of Decline." Additionally, if that school has higher academic attrition relative to other schools with similar incoming UGPA metrics, this would also boost relative bar passage.

There are those with the responsibility and power in academia and media to ensure that relatively powerless law school applicants are provided

Based on having served over 8,000 students, we know that SpacedRepetition.com users have a major advantage. For example, FIU College of Law graduates have repeatedly earned the highest bar passage rate of any of Florida's 11 law schools on the February 2018 Florida Bar Exam. This accomplishment follows first place finishes on the July 2017, July 2016, February 2016, and July 2015 bar exams. With a passage rate of 85 percent, FIU Law's alumni also well surpassed the statewide average passage rate by 27 percentage points. One reason FIU College of Law has been so successful when it comes to bar pass rates is that they subscribe to SpacedRepetition.com for all of their students. FIU's . . . Assistant Dean & Professor of Academic Support has written more about FIU's approach to using spaced repetition in a recent law review article)

In 2020, a similar email was sent, providing in part:

So how are they doing it?

In short, they are doing it by putting the science of spaced repetition at the core of their program . . .

If you're wondering whether the approach would work at your school, consider this quote from the program's architect, [an Asst. Dean at FIU] comments "this would work at any law school."

Let us help you help you achieve outstanding bar pass rates, improve classroom learning, and change the way your students approach law school for the better.

46. Louis N. Schulze, Using Science to Build Better Learners: One School's Successful Efforts to Raise its Bar Passage Rates in an Era of Decline, 68 J. LEGAL EDUC. 230 (2019).

^{44.} In a subsequent article, we plan to address the impact of transfer students on individual school performance even though these relationships are likely hidden in broader statistical analyses that ignore the existence of confounding variables.

^{45.} E-mail from Gabriel Teninbaum, Assistant Dean of Innovation, Strategic Initiatives, & Distance Educ. at Suffolk Univ. L. Sch., to author (2019) (on file with author) (offering to sell the FIU method to other schools first in 2019:

with all the information needed to make informed decisions about the schools to which they seek entry. This is especially so when the attrition is particularly harmful to matriculants of color.⁴⁷ This article demonstrates that more must be done in this regard.

^{47.} See e.g., ABA Section of Legal Educ. and Admis. to the Bar, 509 Required Disclosures FIU 2018, ABA (Oct. 20, 2021, 1:40:11 AM), https://www.abarequireddisclosures.org/Disclosure509.aspx, (indicating that 26.7% of the African American students matriculated in 2017 were academically attrited by the end of their 1L year).