# 2020-2021 AccessLex Institute/AIR Dissertation Grant Proposal

Submittal ID: 2766

**Proposal Title:** Barriers to access at highly-selective MBA programs

## **Principal Investigator**

Name: Chad Losee

Affiliation: University of Pennsylvania

Unit/Department: Graduate School of Education

Title: Ed.D. Candidate

Email: chadlosee@gmail.com

## **Financial Representative**

Name: Helen Mitchell-Sears

Affiliation: University of Pennsylvania

Department: Graduate School of Education

Title: Grants Manager

## **Faculty Dissertation Advisor**

Name: Laura Perna

Affiliation: University of Pennsylvania

Department: Graduate School of Education

Title: GSE Centennial Presidential Professor of Education

## 1. Project Description

**1a**. Statement of the research problem and national importance (limit 1,000 words). 796 words

#### **Research Problem**

College graduates enjoy a significant lifetime earnings premium over those with a high school degree, and those with a graduate or professional degree earn an even larger premium (Carnevale et al., 2011). In addition to elevated earnings, those with graduate and professional degrees are overrepresented among the wealthiest Americans (Gross, 2019; Wai, 2013; Wai & Lincoln, 2016) and hold many of the nation's most influential positions as CEOs, politicians, journalists, and board members (Brint & Yoshikawa, 2017).

This is especially true for the most selective graduate schools—especially top law schools, business schools, and medical schools—which despite their relatively small enrollment produce a remarkable share of the nation's wealthy and elite. For example, out of 400 billionaires listed by Forbes, 78 hold a business degree and 39 have a law degree, with the top five institutions represented as Harvard, Stanford, Columbia, University of Pennsylvania, and Northwestern (Gross, 2019). There is also evidence that the concentration of power and wealth among graduates of top graduate schools has increased over time (Cappelli et al., 2014; Cappelli & Hamori, 2004).

Despite their influence on society and on social mobility, we know relatively little about access to elite graduate law, medicine, and business schools (Posselt & Grodsky, 2017). In particular, business schools continue to lag other professional schools in terms of socioeconomic, gender, and racial diversity. What are the barriers that keep individuals from underrepresented backgrounds from applying and enrolling in greater numbers?

#### Access, affordability and value of graduate/professional or legal education

Graduate schools have taken important strides in diversifying their classes of enrolled students. Top medical schools and law schools have made greater strides than top business schools on this front, however. For example, in looking at five top universities, there are meaningful differences in the percent of women and minorities enrolled at these universities across their medical, law, and business schools. See Table 1.

For business schools, part of the challenge is that women and underrepresented minorities are applying in lower numbers than the underlying population. Women represent less than 40 percent of the global business school applicant pool in 2016 (Colby et al., 2017). Additionally, African Americans and Hispanic Americans are doubly underrepresented—bachelor's degree holders relative to the underlying population *and* GMAT test takers relative to the underlying population of bachelor's degree holders (Hazenbush, 2018).

Data on socioeconomic diversity for top professional schools is hard to come by. However, we know that graduate medical, law, and business school students at any institution are more likely to come from higher income households in the U.S. (*Legal education data deck: Key trends on access, affordability, and value,* 2019, p. 12).

What is known is that the cost of elite graduate schools has increased dramatically. Several law schools and every top business school now exceed \$100,000 per year in cost of attendance (Anderson, 2019). Also see Table 1. In addition, students at top professional schools are required to enroll full-time, forgoing their jobs and salaries. Not surprisingly, student debt has continued to climb, especially at the graduate level (Baum & Steele, 2018). My hypothesis is that these rising costs and the prospect of debt are likely to have a larger deterrent effect on women, underrepresented minorities, and those from low SES backgrounds.

#### A topic of national importance

Top-ranked business and other professional schools can represent the meritocratic ideal of higher education in the U.S.—helping launch talented students into positions of influence and motivating the next generation of strivers to follow in their footsteps. In addition to these direct effects, by enrolling a diverse student body, top professional schools can help all students build understanding with those from different backgrounds, preparing them to guide the institutions they lead in the future for more inclusive growth.

If, however, elite graduate schools enroll students disproportionately from privileged backgrounds, they can perpetuate the power and wealth inequities in society. Given these institutions' prominence, this would have the effect of further eroding trust in higher education, already quite low (Brown, 2018).

#### **Timeliness of study**

In summary, elite professional schools play an outsized role in social mobility and influence in our society. However, little is known about access to these institutions in the literature to date. While strides have been made to increase the gender, race/ethnic, and socioeconomic diversity of the students, there are also concerns that these institutions continue to perpetuate privilege. One increasingly important factor is the cost of these programs which is out of reach for many or at least discourages those from certain backgrounds from applying. At a time when student debt is climbing, trust in higher education is low, and society is divided over issues such as inequality, better understanding access to elite professional schools—and graduate business schools in particular—is more important than ever.

Table 1
2019-2020 Statistics for professional schools at five top universities

	USNWR		Percent	Percent	Annual	Annual Cost of
University	Rank 2019	Class size	women	minority	Tuition (\$)	Attendance (\$)
Columbia						
Business	6	754	38	33	77,376	114,309
Law	5	363	46	45	69,896	101,345
Medical	6	138	49	46	62,980	94,012
Harvard						
Business	3	938	43	27	73,440	110,740
Law	3	561	50	45	65,875	99,200
Medical	1	165	51	49	63,400	95,055
Penn						
Business	1	856	47	36	81,378	114,896
Law	7	249	49	40	63,610	94,338
Medical	3	153	49	48	59,910	91,759
Stanford						
Business	2	417	47	27	73,062	115,917
Law	2 2 3	180	50	42	62,175	101,016
Medical	3	90	49	63	60,234	95,863
Yale						
Business	9	345	42	29	74,700	104,660
Law	1	227	53	49	63,878	88,593
Medical	13	104	50	53	62,970	92,329

*Note*: Data for classes of 2019-2020. Business schools also enroll significant numbers of international students *Source*: School websites, U.S. News and World Report Grad Compass

**1b**. Review the literature and establish the theoretical grounding for the research (limit 1,000 words). 949 words

## **Prior Research**

A Master of Business Administration (MBA) is the most popular graduate degree with over 191,000 awarded in the 2011-2012 academic year, up from 78,000 in 1990-1991 and 26,000 in 1970-1971 (National Center for Education Statistics, 2013). In studies focused on MBA access and choice, key motivators to pursue an MBA program are program reputation and quality, career opportunities, and building an influential network (Blackburn, 2011; Daniel et al., 2019; Sasson, 2017). Others have found that stratification goals such as maintaining social class from the prior generation was a primary motivator for students at elite business schools (Dela Cruz, 2012; Edgington & Garcia, 2005) and elite law schools (Schleef, 2000).

African Americans and Hispanics are more likely to cite financial resources as a barrier to admission to an MBA program than Whites and Asian Americans (Edgington & Garcia, 2005). When it comes to barriers identified, women in the U.S. and Europe tend to view financial challenges as a stronger deterrent than men (Colby et al., 2017). Part of the reason why finances are more salient for women is that they anticipate being in the workforce for fewer years, reducing lifetime earnings (Clune et al., 2001; Hersch, 2013).

There is considerable disagreement in the literature about the effect of parent SES on graduate school enrollment. In longitudinal studies which disaggregate MBA from other graduate degrees, some have found no link between SES and a child's enrollment in an MBA program (Mullen et al., 2003), while others found a significant and positive link (Perna, 2004a; Torche, 2011).

Unlike many other graduate degrees, business schools require a few years of full-time work experience before matriculating in an MBA program. This has the effect of raising the opportunity cost for business school (Perna, 2004a; Tienda & Zhao, 2017), but has been little explored in the literature (Posselt & Grodsky, 2017). Expectations about graduate school are typically measured in high school or in college (Reynolds & Johnson, 2011) and so may miss those who develop aspirations for an MBA after graduating from college (Seibert et al., 2013).

## Theoretical/conceptual grounding

Scholars studying graduate school access and choice have relied on frameworks from the more deeply developed literature on college access and choice. For example, English and Umbach (2016) adopt the conceptual framework from Perna's (2006) to study graduate school choice as reproduced in Figure 1. This conceptual framework forms the basis for this study as well.

At the heart of the model is a human capital calculus: a prospective graduate student weighs the expected benefits of a program against the expected costs (Belasco et al., 2014; English & Umbach, 2016; Perna, 2004a). Benefits of education are typically conceived as increased earnings and career opportunities, better health and longer life, enhanced social status, or education as a consumption good. Costs, on the other hand, include the application fees, entrance exams, tuition itself, and opportunity cost of foregone income (Millett, 2003; Perna, 2006).

Cultural and social capital, sometimes considered together to encompass beliefs, norms, and worldview (Bourdieu & Passeron, 1990; Perna, 2006; Schleef, 2000), help explain aspirations for graduate school (Perna, 2004a). Scholars commonly conceive parent SES to be a measure of social/cultural capital, however their studies have disagreed empirically about its effect on graduate school. Earlier studies found that parent SES had no effect on graduate school (Mare, 1980; Stolzenberg, 1994) while more recent studies have found that parent SES is negatively associated with access to graduate school (Millett, 2003; Perna, 2004a; Torche, 2011, 2018). Sociologists have conceptualized both vertical and horizontal educational strategies used by well off parents to maximally maintain inequality (MMI) or effectively maintain inequality (EMI) for their children (Torche, 2011, 2018; Wakeling & Laurison, 2017).

In the next layer of the model, attending a higher quality college has been found to be positively associated with enrolling in graduate school because it provides resources and role models for graduate school (Bielby et al., 2014; Millett, 2003; Zhang, 2013). Earning a higher grade point average in college has been widely found to be associated with higher rates of graduate school enrollment (Clune et al., 2001; Eide et al., 1998; English & Umbach, 2016; Millett, 2003; Tienda & Zhao, 2017; Zhang, 2013). College majors that provide direct employability, such as business, are negatively associated with graduate school (English & Umbach, 2016), while majors such as education, social science, history, psychology, or biology tend to be associated with higher rates of graduate school (Clune et al., 2001; Hanson et al., 2016; Zhang, 2013).

Undergraduate borrowing is uneven, skewing more toward first generation, low SES students (Lee & Mueller, 2014; Millett, 2003) and underrepresented minorities (Edgington & Garcia, 2005). Empirical studies are mixed on whether undergraduate debt deters people from considering graduate school. Some studies have found that undergraduate debt is a deterrent (Malcom & Dowd, 2012; Millett, 2003; Weiler, 1994) while others have found no relationship (English & Umbach, 2016; Wakeling & Laurison, 2017).

In summary, the literature on graduate school access and choice is still nascent and relies on concepts and insights from the college access literature. While our understanding is increasing, there is still considerable disagreement on the effect of various individual and institutional factors that influence graduate school aspiration, application, and enrollment. The literature on MBA programs to date is even thinner and not as well-grounded theoretically. Major areas for future research include segmenting MBA programs by reputation and selectivity, studying geographic effects for international candidates and institutions, and better understanding the motivators and barriers faced by those who have opted out of an MBA. Given the outsized influence that graduates of top MBA programs garner in wealth and influence in society, better understanding access and choice for these institutions is important.

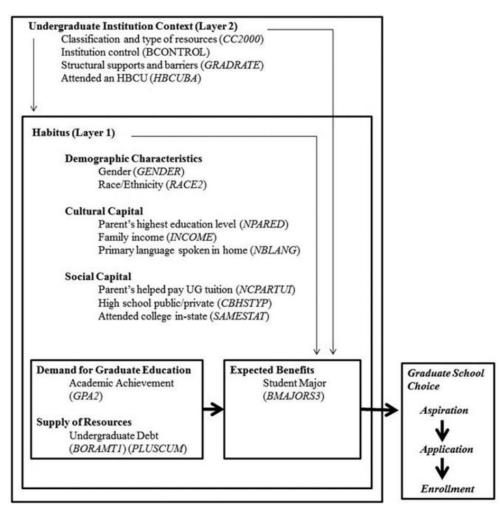


Figure 1, English and Umbach (2016) conceptual model of graduate student choice, adapted from Perna (2006) undergraduate student college choice conceptual model

#### **Research Questions**

- 1. Who aspires to a top-ranked, full-time MBA program?
  - a. How do aspirations vary by demographics (age, gender, and race/ethnicity)?
  - b. How do aspirations vary by measures of social/cultural capital (parent education, home region, and work industry)?
  - c. How do aspirations vary by human capital factors of demand (undergraduate GPA), supply (undergraduate debt), and opportunity costs (personal income)?
  - d. How do aspirations vary by undergraduate institution context (control, classification, selectivity)?
- 2. Which self-identified barriers to applying to a full-time MBA are most salient?
  - a. How do barriers vary by demographic, social/cultural capital, human capital, and undergraduate institution factors?
  - b. How do perceptions of cost and ability to pay for a full-time MBA vary?

### Proposed methodology and statistical model

The data for this quantitative study come from a survey conducted in May 2019 of 4,082 individuals screened as potentially qualified applicants for a "top ten MBA" program who had, as yet, decided not to apply.

RQ 1. Who aspires to a top-ranked, full-time MBA program? To analyze this set of research questions, I employ a logistic regression model with reported interest in a top-ranked, full-time MBA coded as a dichotomous dependent variable. I plan to run several models with this dependent variable, first testing the relationship between interest in a full-time, top-ranked MBA for demographic measures of age, gender, and race/ethnicity. In subsequent models, I will add variables into the model in blocks—social/cultural capital factors, human capital factors, and finally undergraduate institution context variables. The set of variables included in the full model is listed in Table 2

The goal of adding in these variables in blocks will be to understand their statistical significance and crucially to understand if any relationships observed for demographic variables remain once we control for other variables. For example, if I find a statistical association between gender and interest in a top-ranked, full-time MBA program, will that relationship hold once I control for measures of social/cultural capital, human capital, or undergraduate institutional context? In this way, the full model aims to identify the key areas where school administrators and policy makers can address lower levels of aspiration and application to top-ranked MBA programs by women, people of color, and lower SES individuals.

A respondent is coded as interested in a top-ranked, full-time MBA if she or he selects "full-time MBA, two years" or "full-time MBA, less than two years" to question 1, indicates "very" or "somewhat interested" in a full-time MBA program in Question 2, and indicates an interest in one of the top 17 global programs listed in Question 4.

Demographic characteristics were collected in four questions in the survey. Age is a simple continuous variable, gender is recoded as a dichotomous female variable, and race is recoded as a series of dichotomous variables.

Measures of social/cultural capital here include parent education (English & Umbach, 2016; Millett, 2003; Perna, 2006) region, and work industry. I argue that home region is a measure of social/cultural capital as one's location shapes her/his worldview and beliefs about what is valued and what is expected. Here I operationalize this as a series of dichotomous variables, one each for Brazil, China, Germany, South Africa, and the U.S. which will be the omitted variable in the model. In an appendix, I will further break down U.S. respondents by Census Division (nine regional state groupings) to determine if there is any significant regional variation within the U.S. Finally, I argue that work industry can be another important source and measure of social/cultural capital. This categorical variable will be converted to dichotomous individual variables for each industry.

Human capital factors include college GPA, undergraduate debt, and personal income. College GPA and undergraduate debt are both included in the English (2012) model for human capital factors. Personal income is a direct measure of the opportunity cost or income that one would need to forego in order to pursue a full-time MBA program.

Undergraduate institutional context is theorized to influence aspirations for graduate school as a measure of support, resources for graduate school, and role modeling. Following English and Umbach (2016), I include measures of control (public vs. private), Carnegie classification (doctoral, master's, baccalaureate, and other), HBCU and MSI variables. These variables are proxies for the quality of the undergraduate experience and may also be proxies for social capital (Perna, 2004b).

RQ 2. Which self-identified barriers to applying to a full-time MBA are most salient? The survey asked respondents to indicate reasons that might deter them from applying to a full-time MBA program and presented them with 19 potential deterrents, grouped into four categories: financial considerations, personal considerations, career considerations or process/qualification considerations. See Table 3Error! Reference source not found. To address this research question, I will utilize descriptive statistics to highlight which deterrents—financial, personal, process, career, or process—are most salient for certain groups of potential applicants. For example, are women more deterred by the admissions process or by financial considerations? Are underrepresented minorities kept from applying because of career considerations? What keeps low SES students from applying?

Given the growing costs of higher education, including graduate education, I hypothesize that financial concerns are strong deterrents to aspiring to a full-time MBA. Given the complexity around pricing and paying for higher education, however, a more fine-tuned understanding of financial deterrents would be additive. To that end, this study will also calculate various descriptive statistics by group on the questions the detailed questions the survey asked about tuition prices, financial aid, debt, application fees and other financial considerations.

#### **Conclusion**

The descriptive and multivariate analyses aim to uncover key barriers faced by certain groups and explain why women, lower SES, and underrepresented minorities continue to under enroll in top MBA programs. This focused analysis of nonapplicants to highly selective MBA programs also aims to test hypotheses put forward in the literature about graduate school choice and provide avenues for understanding barriers to other top professional and graduate programs generally.

Table 2

Logistic regression model variables

	•		•			
			Models			
Variable	Type	Source	1	2	3	4
Dependent variable Interest in full-time, top- ranked MBA program	Dichotomous	Q1, Q2, Q4	X	X	X	x
Independent variables Demographic						
Age	Continuous	Age	X	X	X	X
Gender	Categorical	Sex	X	X	X	X
Race/Ethnicity	Categorical	Hisp., race	X	X	X	X
Social/cultural capital						
Parent ed. level	Ordinal	Peduc		X	X	X
Home region	Categorical	Country, USzip		X	X	X
Work industry	Categorical	S13		X	X	X
Human capital factors						
College GPA	Categorical	GPA			X	X
Undergraduate debt	Continuous	Q20			X	X
Personal income	Categorical	Income			X	X
Undergraduate context						
Control	Dichotomous	S12, IPEDS				X
Classification	Categorical	S12, IPEDS				X
HBCU / MSI	Dichotomous	S12, IPEDS				X

Note. Categorical and ordinal variables are recoded as dichotomous variables in the regression model.

### Barriers to applying to a full time MBA

#### Deterrent

#### Financial considerations

I do not have enough money to pay for business school right now.

I may have to take on a large amount of debt to attend business school.

I don't believe I would receive enough financial aid to make the program affordable for me.

The financial return is not worth it.

My compensation in my current job is enough right now.

The \$200-\$300 application fee per school is too much for me to afford right now.

#### Personal considerations

Attending business school may require me to postpone life events (such as marriage, children, buying a home, etc.).

The demands on my time would be too great.

These programs are not for people like me.

I may not be able to work in the U.S.

I am unable to relocate.

For security purposes, please select Not a deterrent for this item.

#### Career considerations

Attending business school could delay me from accepting career opportunities that may come up before I would finish the program.

I am satisfied enough with my current job for now.

An MBA is not relevant in my field.

My post-MBA job prospects are not appealing enough.

## Process/qualification considerations

I don't believe I have the qualifications to be admitted to a top-ranked program.

I don't have the time required to complete a competitive application right now.

Taking the required standardized test (typically GMAT or GRE) is too daunting.

#### Other

Some other reason (please specify)

## 1d. References cited (no word limit).

- Anderson, G. (2019, August 21). Columbia, Stanford and Chicago law schools now cost more than \$100,000 to attend. *Inside Higher Ed*.

  https://www.insidehighered.com/news/2019/08/21/columbia-stanford-and-chicago-law-schools-now-cost-more-100000-attend
- Baum, S., & Steele, P. (2018). *Graduate and professional school debt how much students*borrow.pdf (No. 4). AccessLex Institute, Urban Institute.

  https://www.accesslex.org/resources/grad-and-professional-school-debt-how-much-students-borrow
- Belasco, A. S., Trivette, M. J., & Webber, K. L. (2014). Advanced Degrees of Debt: Analyzing the Patterns and Determinants of Graduate Student Borrowing. *The Review of Higher Education*, *37*(4), 469–497. https://doi.org/10.1353/rhe.2014.0030
- Bielby, R., Posselt, J. R., Jaquette, O., & Bastedo, M. N. (2014). Why are Women

  Underrepresented in Elite Colleges and Universities? A Non-Linear Decomposition

  Analysis. *Research in Higher Education*, 55(8), 735–760.

  https://doi.org/10.1007/s11162-014-9334-y
- Blackburn, G. (2011). Which Master of Business Administration (MBA)? Factors influencing prospective students' choice of MBA programme an empirical study. *Journal of Higher Education Policy and Management*, 33(5), 473–483. https://doi.org/10.1080/1360080X.2011.605222
- Bourdieu, P., & Passeron, J.-C. (1990). Reproduction in education, society and culture (Vol. 4). Sage.

- Brint, S., & Yoshikawa, S. R. K. (2017). The Educational Backgrounds of American Business and Government Leaders: Inter-Industry Variation in Recruitment from Elite Colleges and Graduate Programs. *Social Forces*, *96*(2), 561–590. https://doi.org/10.1093/sf/sox059
- Brown, A. (2018). *Most see higher ed going the wrong direction. Partisans split on why*. Pew Research Center. https://www.pewresearch.org/fact-tank/2018/07/26/most-americans-say-higher-ed-is-heading-in-wrong-direction-but-partisans-disagree-on-why/
- Cappelli, P., & Hamori, M. (2004). *The Path to the Top: Changes in the Attributes and Careers of Corporate Executives, 1980-2001* (No. w10507; p. w10507). National Bureau of Economic Research. https://doi.org/10.3386/w10507
- Cappelli, P., Hamori, M., & Bonet, R. (2014, March 1). Who's Got Those Top Jobs? *Harvard Business Review*, *March 2014*. https://hbr.org/2014/03/whos-got-those-top-jobs
- Carnevale, A. P., Rose, S. J., & Cheah, B. (2011). *The college payoff: Education, occupations, lifetime earnings*. Center on Education and the Workforce, Georgetown University. https://cew.georgetown.edu/cew-reports/the-college-payoff/
- Clune, M. S., Nuñez, A.-M., & Choy, S. P. (2001). *Competing Choices: Men's and Women's Paths After Earning a Bachelor's Degree* (Statistical Analysis Report NCES 2001–154; Postsecondary Education Descriptive Analysis Reports, p. 99). National Center for Education Statistics.
- Colby, S., Bruggeman, P., Schoenfeld, G., White, S., & Coppock, C. (2017). What Women Want:

  \*A Blueprint for Change in Business Education. Graduate Management Admissions

  \*Council. http://www.gmac.com/market-intelligence-and-research/research-library/diversity-enrollment/what-women-want-blueprint-change-business-education

- Daniel, R., Hazenbush, M., Schoenfeld, G., Williams, T., & Caruthers, D. (2019). Demand for MBA and Business Master's Programs: Insights on Candidate Decision Making Summary Report\_mba.com Prospective Students Survey 2019. 43.
- Dela Cruz, A. J. (2012). Women and Graduate Program Choice: The Decision To Apply to Full-Time MBA Programs [Ed.D., University of California, Los Angeles].

  http://search.proquest.com/docview/1038140229/abstract/E203D56C4DCB4CFEPQ/1
- Edgington, R., & Garcia, V. (2005). What Leads to Minority Enrollment into B-School? (p. 11).

  Graduate Management Admissions Council.
- Eide, E., Brewer, D. J., & Ehrenberg, R. G. (1998). Does it pay to attend an elite private college?

  Evidence on the effects of undergraduate college quality on graduate school attendance.

  Economics of Education Review, 17(4), 371–376. https://doi.org/10.1016/S0272-7757(97)00037-X
- English, D. J. (2012). Graduate School Choice: An Examination of Individual and Institutional

  Effects [Ph.D., North Carolina State University].

  http://search.proquest.com/docview/1034718291/abstract/2DB1EE501E664186PQ/1
- English, D. J., & Umbach, P. D. (2016). Graduate School Choice: An Examination of Individual and Institutional Effects. *The Review of Higher Education*, *39*(2), 173–211. https://doi.org/10.1353/rhe.2016.0001
- Gross, E. L. (2019). *The Top Five Graduate Schools For This Year's Forbes 400*. Forbes. https://www.forbes.com/sites/elanagross/2019/11/02/the-top-five-graduate-schools-forthis-years-forbes-400/

- Hanson, J. M., Paulsen, M. B., & Pascarella, E. T. (2016). Understanding graduate school aspirations: The effect of good teaching practices. *Higher Education*, 71(5), 735–752. https://doi.org/10.1007/s10734-015-9934-2
- Hazenbush, M. (2018). Unpacking the appeal of for-profit GME to U.S. underrepresented populations. Graduate Management Admissions Council.
- Hersch, J. (2013). Opting out among women with elite education. *Review of Economics of the Household*, 11(4), 469–506. https://doi.org/10.1007/s11150-013-9199-4
- Lee, J., & Mueller, J. A. (2014). Student Loan Debt Literacy: A Comparison of First-Generation and Continuing-Generation College Students. *Journal of College Student Development*, 55(7), 714–719. https://doi.org/10.1353/csd.2014.0074
- Legal education data deck: Key trends on access, affordability, and value. (2019). AccessLex Institute.
- Malcom, L. E., & Dowd, A. C. (2012). The Impact of Undergraduate Debt on the Graduate School Enrollment of STEM Baccalaureates. *The Review of Higher Education*, *35*(2), 265–305. https://doi.org/10.1353/rhe.2012.0007
- Mare, R. D. (1980). Social Background and School Continuation Decisions. *Journal of American Statistical Association*, 75(370), 295–305.
- Millett, C. M. (2003). How Undergraduate Loan Debt Affects Application and Enrollment in Graduate or First Professional School. *The Journal of Higher Education*, 74(4), 386–427. https://doi.org/10.1080/00221546.2003.11780854
- Mullen, A. L., Goyette, K. A., & Soares, J. A. (2003). Who Goes to Graduate School? Social and Academic Correlates of Educational Continuation After College. *Sociology of Education*, 76(April), 143–169.

- National Center for Education Statistics. (2013). *Master's degrees conferred by postsecondary institutions, by field of study: Selected years, 1970-71 through 2011-12* (Table 323.10; Digest of Education Statistics). National Center for Education Statistics. https://nces.ed.gov/programs/digest/d13/tables/dt13\_323.10.asp
- Perna, L. W. (2004a). Understanding the Decision to Enroll in Graduate School: Sex and Racial/Ethnic Group Differences. *The Journal of Higher Education*, 75(5), 487–527.
- Perna, L. W. (2004b). Understanding the Decision to Enroll in Graduate School: Sex and Racial/Ethnic Group Differences. *The Journal of Higher Education*, 75(5), 487–527.
- Perna, L. W. (2006). Studying college access and choice: A proposed conceptual model. In J. C. Smart (Ed.), *Higher Education: Handbook of Theory and Research* (XXI, pp. 99–157). Springer.
- Posselt, J. R., & Grodsky, E. (2017). Graduate Education and Social Stratification. *Annual Review of Sociology*, 43(1), 353–378. https://doi.org/10.1146/annurev-soc-081715-074324
- Reynolds, J. R., & Johnson, M. K. (2011). Change in the Stratification of Educational Expectations and Their Realization. *Social Forces*, 90(1), 85–109. https://doi.org/10.1093/sf/90.1.85
- Sasson, A. (2017). Understanding the Motivations: A Qualitative Analysis of Israelis Holding a Bachelor's Degree who Pursue an MBA Abroad. *Qualitative Research in Education*, 6(2), 179. https://doi.org/10.17583/qre.2017.2475
- Schleef, D. (2000). "That's a Good Question!" Exploring Motivations for Law and Business School Choice. *Sociology of Education*, 73(3), 155. https://doi.org/10.2307/2673214

- Seibert, S. E., Kraimer, M. L., Holtom, B. C., & Pierotti, A. J. (2013). Even the best laid plans sometimes go askew: Career self-management processes, career shocks, and the decision to pursue graduate education. *Journal of Applied Psychology*, *98*(1), 169–182. https://doi.org/10.1037/a0030882
- Stolzenberg, R. M. (1994). Educational Continuation by College Graduates. *American Journal of Sociology*, 99(4), 1042–1077. https://doi.org/10.1086/230371
- Tienda, M., & Zhao, L. (2017). Institutional and Ethnic Variations in Postgraduate Enrollment and Completion. *The Journal of Higher Education*, 88(4), 561–592. https://doi.org/10.1080/00221546.2016.1272332
- Torche, F. (2011). Is a college degree still the great equalizer? Intergenerational mobility across levels of schooling in the United States. *American Journal of Sociology*, 117(3), 763–807. https://doi.org/10.1086/661904
- Torche, F. (2018). Intergenerational Mobility at the Top of the Educational Distribution.

  Sociology of Education, 91(4), 266–289. https://doi.org/10.1177/0038040718801812
- Wai, J. (2013). Investigating America's elite: Cognitive ability, education, and sex differences.

  Intelligence, 41(4), 203–211. https://doi.org/10.1016/j.intell.2013.03.005
- Wai, J., & Lincoln, D. (2016). Investigating the right tail of wealth: Education, cognitive ability, giving, network power, gender, ethnicity, leadership, and other characteristics.

  \*Intelligence\*, 54, 1–32. https://doi.org/10.1016/j.intell.2015.11.002
- Wakeling, P., & Laurison, D. (2017). Are postgraduate qualifications the 'new frontier of social mobility'?: Postgraduate qualifications. *The British Journal of Sociology*, 68(3), 533–555. https://doi.org/10.1111/1468-4446.12277

- Weiler, W. C. (1994). Expectations, undergraduate debt and the decision to attend graduate school: A simultaneous model of student choice. *Economics of Education Review*, *13*(1), 29–41. https://doi.org/10.1016/0272-7757(94)90021-3
- Zhang, L. (2013). Effects of college educational debt on graduate school attendance and early career and lifestyle choices. *Education Economics*, 21(2), 154–175. https://doi.org/10.1080/09645292.2010.545204

**1e**. List the datasets that will be used and explain why they best serve this research. Applicant should also provide a statement indicating whether the proposed research will require use of restricted datasets. If restricted datasets will be used, the plan for acquiring the appropriate license should be described (limit 750 words). 435 words

The data for this study come from a survey conducted by market research firm SSRS in May 2019. I have received written permission from the data owner to utilize these data in this research study (permission available upon request). The survey targeted those who would be well suited for an MBA but who had not applied at the time of the survey. Specifically, to complete the survey and be counted as part of the sample, respondents had to meet the following criteria:

- 1. Age 21-35
- 2. Earned a bachelor's degree
- 3. Undergraduate GPA of 3.0 or higher, or equivalent
- 4. Do not have an MBA or not currently enrolled in an MBA program
- 5. Interested in a business-related or management career
- 6. English-proficient

Respondents came from five countries: Brazil, China, Germany, South Africa, and the U.S. See Table 4. Respondents came from SSRS's research partner and their global research panels, targeting individuals who met the educational (bachelor's) and age criteria. As the survey was live, SSRS monitored responses to ensure a diversity of industry backgrounds and an even distribution of gender by country. Within the U.S., SSRS also ensured an adequate representation of Hispanic and African American representation by gender (n of ~100 for each intersection). Respondents had the option to take the survey in English in all countries, as well as Portuguese in Brazil, Chinese in China, and German in Germany. SSRS translated all non-English responses (including write-ins) back into English.

After the initial screening questions, respondents answered questions in several sections: First, they indicated any interest in different types of graduate business programs from business master's degrees in fields like finance or accounting to a full-time MBA. Next they indicated aspects of a full-time program that would be key drivers in a decision to apply as well as the most salient deterrents to applying. For the 19 deterrents offered, respondents could indicate if it was a major deterrent, a minor deterrent, or not a deterrent at all. The next section of the survey included more in-depth questions on financial aspects of applying and attending an MBA program, including ability to pay, willingness to pay, comfort with debt, and perceptions about financial aid. Finally, respondents shared additional background information such as personal income and parent education levels. On average, the survey took respondents 14-15 minutes to complete. The full survey instrument is available upon request.

Survey respondents also identified their undergraduate college in the survey. In the dataset studied here, I match each college named in the survey with measures of institutional control, classification, and type from the Integrated Postsecondary Education Data System (IPEDS).

Table 4
Survey sample by country and by gender

Country	Total	% Female	% Male
Brazil	512	46	54
China	500	52	48
Germany	503	55	45
South Africa	512	52	48
United States	2055	51	49
Total	4082	51	49

## 1f. Timeline of key project activities (no word limit).

March – April 2020 Develop and refine dissertation proposal

May 2020 Submit dissertation proposal

June 2020 Dissertation proposal hearing

June – September 2020 Conduct research and analysis

November 2020 Legal Education Research Symposium

(should I be fortunate enough to be awarded the grant)

September – December 2020 Dissertation writing

January 2021 Draft of dissertation complete

April 2021 Final dissertation submitted

May 2021 Dissertation defense

June 2021 and beyond Other research conferences and potential publications

**1g**. List deliverables such as research reports, books, and presentations that will be developed from this research initiative (no word limit).

Research poster and preview for 2020 AccessLex Legal Education Research Symposium (should I be fortunate enough to be awarded the grant and by invited to the symposium)

Doctoral dissertation in partial completion of the requirements for Ed.D. in Higher Education Management from the University of Pennsylvania

Additional submission(s) to academic conferences and/or peer-reviewed journal

## 1h. How will you disseminate the results of this research (limit 250 words)? 176 words

Should I be fortunate enough to receive this grant, I first plan to share the early results of this study and receive feedback at the 2020 AccessLex Legal Education Research Symposium. In addition, I will publish this research as my dissertation in conjunction with my Ed.D. program at the University of Pennsylvania.

With the encouragement of my dissertation chair, I plan to pursue follow-on publication opportunities in peer-reviewed journals and in other professional conferences.

## 2. Statement of Institutional Review Board Approval or Exemption

As part of the online application, a statement outlining a plan for Institutional Review Board (IRB) approval is required. The statement should outline the applicant's timeline and plan for submitting the proposal to an IRB *or* explain why IRB approval is not necessary. Final IRB action is *not* necessary prior to submitting the application (limit 250 words). 49 words

As part of my dissertation process, I will seek Institutional Review Board (IRB) approval at the University of Pennsylvania for my study in June 2020 following my oral dissertation defense. Given that the data for my study have already been gathered, I anticipate receiving IRB approval for my study.

#### 3. Biographical Sketch

A biographical sketch should include prior degrees earned, relevant professional work experiences, skills necessary for completion of the proposed study, and prior research experiences with national datasets (limit 750 words). 701 words

Note: Include a biographical sketch for each person listed on the grant proposal.

Chad Losee is a candidate for an Ed.D. in Higher Education Management at the University of Pennsylvania. Losee is employed by Harvard Business School (HBS) as the Managing Director of MBA Admissions and Financial Aid in 2016. His team is responsible for recruiting, evaluating and yielding a class of nine hundred and thirty students out of a pool of nine to ten thousand applicants annually. In addition, Losee's team oversees a need-based institutional aid program for HBS students.

Losee earned a Master of Business Administration from HBS in 2013, graduating with high distinction as a Baker Scholar. Upon graduation, he worked as an HBS Leadership Fellow helping to launch HBS Online, among other projects.

From 2014 to 2016, Losee returned to Bain & Company, where he had worked from 2008 to 2011, as a strategy consultant. He served clients across multiple industries. Losee graduated from Brigham Young University in 2008 with a bachelor's degree in international relations, summa cum laude.

## 4. Statement of Prior, Current, and Pending Funding

A statement of prior, current, and pending funding for the proposed research from all sources is required. The statement should also include a history of prior funding (past 10 years) from AIR to any of the PIs. Funding from other sources will not disqualify the application but may be considered in the funding decision (limit 250 words). 188 words

While I am receiving assistance from my employer toward the degree program, I do not have any prior or current funding for the proposed research. I also have not received any prior funding from AIR.



February 17, 2020

To Whom It May Concern:

I am writing to offer my strongest endorsement of Chad Losee's application for the AccessLex Institute / AIR Dissertation Fellows Program. I have the pleasure of serving as the faculty advisor/chair of Chad's dissertation committee.

Chad is currently enrolled in the executive-format EdD program in Higher Education Management in the University of Pennsylvania's Graduate School of Education (Penn GSE). Chad has completed coursework sufficient to begin his dissertation work by summer 2020.

Chad is on track to successfully defend his dissertation proposal by June 5, 2020 and defend his final dissertation by May 1, 2021. He has already secured access to the data needed to complete the planned descriptive and multivariate analyses. I am excited to continue to support Chad through completion of his dissertation.

Chad's dissertation promises to improve knowledge of important unanswered questions, including the reasons why women, people from lower socioeconomic status, and racial/ethnic minoritized groups continue to be underrepresented in top-ranked MBA programs. His emerging study is grounded in relevant prior research and conceptual frameworks, and will draw on a dataset that is uniquely suited to address the research questions.

Based on my understanding of his qualifications, the importance and expected contributions to knowledge of his dissertation research, and the goals of this Fellows Program, I believe that Chad is an excellent fit for this prestigious award. I recommend him to you without hesitation or qualification.

Thank you for your consideration of Chad's application. Please contact me at <a href="mailto:lperna@upenn.edu">lperna@upenn.edu</a> with questions.

Sincerely yours,

Laura W. Perna

GSE Centennial Presidential Professor of Education

Chair, Higher Education Division

Executive Director, Alliance for Higher Education and Democracy



## Dissertation Grant Proposal Budget Form



Salary	\$
Travel 2020 AccessLex Institute Legal Education Research Symposium: Other research related travel: ( <i>Note</i> : Other planned travel should be listed in the "Timelines and Deliverables" section)	\$ \$
Other research expenses  Please provide a breakdown of expenses below and add the total value in the box to the right. Allowable expenses include: materials, such as software, books, supplies, etc.; consultant services, such as transcription, analysis, external researchers, etc.; and costs for publishing articles in journals. The purchase of computer hardware, overhead or indirect costs, and living expenses are not allowable. If you have questions about specific expenditures, please contact AIR.	\$
TOTAL REQUESTED – Maximum Allowable is \$25,000	\$