# THE INFLUENCE OF CAHME ACCREDITATION FINDINGS AND PROGRAM REPUTATION ON LENGTH OF HEALTHCARE MANAGEMENT PROGRAM ACCREDITATION

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### **ABSTRACT**

In the competitive education market, accreditation is one way programs differentiate themselves from others. Because accreditation demonstrates a program's willingness and ability to undertake a rigorous peer review and validation process, student, faculty, and university stakeholders have recognized several benefits. The Commission on the Accreditation of Healthcare Management Education (CAHME) is recognized by the Council for Higher Education Accreditation (CHEA) as the only accreditation body for graduate healthcare administration programs. The authors hypothesized a negative association between the number and type of CAHME site visit findings and accreditation length. They compared 75 CAHME site visit reports from 62 programs against *U.S. News and World Report* healthcare management graduate program rankings from 2007, 2011, and 2015 to conclude that performance on site visit evaluations does indeed impact a program's length of accreditation.

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# Introduction

In the competitive education market, accreditation is one way programs differentiate themselves from others (Roller, Andrews, & Bovee, 2003). Because accreditation demonstrates a program's willingness and ability to undertake a rigorous peer review and validation process, student, faculty, and university stakeholders have recognized several benefits (Roberts Jr, Johnson, & Groesbeck, 2006; Roller, Andrews, & Bovee, 2003). Through enhanced credibility, accreditation may improve the quality of admission applications by attracting a wider audience of potential students, both nationally and internationally (Alexander & Hatfield, 1995; Lindsay & Campbell, 2003; Kelderman, 2009). Evidence from the business literature also supports the assertion that accreditation matters to employers. For example, employers familiar with accreditation view program accreditation as a discriminator in hiring practices (Kohlmeyer, Seese, & Sincich, 2011; Shipley & Johnson, 1991). Furthermore, some popular media sources such as *U.S. News and World Report* will only consider programs that are fully accredited and in good standing to be included in their rankings (Morse & Flanigan, 2015; US News, 2017).

However, the accreditation process is costly. Accreditation requires multiple payments and extensive time and effort on the part of faculty, staff, and university officials (Heriot, Franklin, & Austin, 2009). These costs are compounded when programs fail to achieve the maximum accreditation length. Thus, motivation is high for programs undergoing the accreditation process to achieve the maximum accreditation term. However, a lack of empirical evidence that links the number of accreditation findings with accreditation length could cause programs undergoing reaccreditation and those considering accreditation to question if the process is worth the effort (Kelderman, 2009). Furthermore, with so many accreditation standards to meet, programs are left guessing where to focus their efforts. Last, the dearth of published research on factors associated with accreditation length leaves room for questions regarding the validity of the process itself. An unspoken question concerns program reputation as a potential influential factor for the accreditation process. This study will examine these questions and attempt to fill this gap in the literature using data from the Commission on the Accreditation of Healthcare Management Education (CAHME).

The Commission on the Accreditation of Healthcare Management Education (CAHME) is recognized by the Council for Higher Education Accreditation (CHEA) as the only accreditation body for graduate healthcare administration programs (CAHME, 2016). CAHME fees are substantial. Annual program fees range from \$3,200 to \$4,500. Site visit fees, excluding team travel and lodging, total \$7,000 for the initial visit, \$9,300 for a reaccreditation visit, and



\$3,985 for an interim visit (CAHME Accreditation: Schedule of Fees, 2016). CAHME charges additional fees if the program has multiple modalities (e.g., executive program, online program, multi-campus program) (CAHME Accreditation: Schedule of Fees, 2016). Thus, it is likely cost alone could be sufficient impetus for schools to desire the maximum length of accreditation.

CAHME accreditation is currently accomplished through assessment of 35 criteria that are divided into four main inspection categories: (a) Program mission, values, vision, goals, and support; (b) students and graduates; (c) teaching and curriculum; and (d) faculty teaching, scholarship, and service (CAHME Handbook of policies and operating procedures, 2014). Within the 2013 CAHME standards, each category accounts for a dissimilar percentage of the 35 accountable measures. Criterion 1 accounts for 20% (7 of 35); Criterion 2: 14% (5 of 35); Criterion 3: 37% (13 of 35); and Criterion 4: 29% (10 of 35). During the review, a CAHME-appointed site visit team assesses each criterion as met, partially met, or not met. A criterion labeled met indicates the program is in compliance with the criterion in its entirety. A partially met criterion demonstrates the team identified a concern or multiple concerns regarding the program's performance and improvement is required to consider the criterion met. The site visit team assesses not met to indicate severe concerns regarding the program's performance against the criterion requiring substantial improvement to bring the criterion into compliance. The site visit team reports the results of its assessment to the CAHME Accreditation Council. The CAHME Accreditation Council employs a preponderance of evidence approach to determine whether to recommend a seven-year program accreditation duration, a three-year program accreditation duration, or no accreditation (CAHME Handbook of policies and operating procedures, 2014). The final accreditation decision rests with the CAHME Board of Directors. Programs have two years to bring all partially met or not met criteria into compliance or risk losing their CAHME accreditation (CAHME Handbook of policies and operating procedures, 2014).

In this process, a program's reputation could influence accreditors' assessment of the 35 CAHME criteria, as well as Accreditation Council member recommendations and board member decisions. However, we were unable to find existing literature reflecting an association between program standing and accreditation findings. Thus, there is a lack of clarity of the factors that impact the length of CAHME accreditation for graduate healthcare management programs and whether program reputation influences the accreditation process. It is widely believed that the number of findings is related to duration of accreditation; however, we also found no studies that support this assertion. The purpose of this study is to investigate the factors that influence CAHME

accreditation length for graduate healthcare management programs and to examine the role of reputation in the accreditation process. By doing so, we seek to examine the evidence and provide some direction for programs as to which accreditation standards matter the most. In addition, our study helps support U.S. Department of Education goals to make the accreditation process more transparent to participating organizations and the public (Education, 2006, p. 25).

### Literature review

Prior research pertaining to CAHME accreditation primarily consists of descriptive studies completed by programs to share successful approaches to the creation, implementation, and modification of the competency-based education model (Broom, Wood, & Sampson, 2013; Beauvais et al., 2011; Perlin, 2011; Clement et al., 2010). These studies provide insight into the CAHME accreditation process, but they do not develop insight into the factors influencing the accreditation decision. We found no prior studies relating accreditation body findings to the duration of formal accreditation.

There are few studies that examine the association between accreditation and program outcomes (Astin, 2012; Gaddy, Charlot-Swilley, Nelson, & Reich, 1995). To assess educational outcomes, Astin developed a three-variable model consisting of inputs, environment, and outputs (Astin, 2012). In the model, inputs include qualities of the students and faculty, environment refers to the structure and resources available in the program, and outputs consist of outcomes such as products produced by people involved in the program and how long students take to earn a degree (Astin, 2012). Gaddy and associates based their study on Astin's model and analyzed program outcomes for doctoral programs in professional psychology (Gaddy et al., 1995). While these studies focused on developing a model for accountability in higher education as opposed to length of accreditation, they aided in developing control variables.

The *U.S. News and World Report* rankings for healthcare management graduate programs are based on how other schools perceive the academic quality of a respective school through subjective peer ratings. Thus, it is important to understand objective measures of a program's reputation. Existing research looks at reputation from two perspectives; faculty and a program's entrance criteria (Rindova, Williamson, Petkova, & Sever, 2005; Sweitzer & Volkwein, 2009; Trieschmann, Dennis, Northcraft, & Nieme, 2000). From a faculty perspective, Treischmann and associates found there was a significant difference between the rankings in *U.S. News and World Report* and a school's research performance (Trieschmann et al., 2000). The second approach is using an



objective measure of perception by measuring a wide range of entrance data. A study conducted by Rindova and associates (2005) explored the organizational reputations of business schools, to include media rankings as a measure of prominence. They determined that perceived quality and prominence determine organizational reputation. A later study conducted by Sweitzer and Volkwein (2009) found a relationship between the subjective *U.S. News and World Report* peer assessment rating and the program's enrollment size, admissions test scores, and faculty publications.

# Hypothesis development

The conceptual framework for this study is adapted from the antecedents and consequences of organizational reputation model by Rindova and associates, and guided by other related literature (Rindova et al., 2005; Silvernail, Coates, Fulton, & Childress, 2009; Sweitzer & Volkwein, 2009). This framework guided our hypothesis that there is a negative association between the number and type of CAHME site visit findings and accreditation length. We focused on how internal factors and certifications from institutional intermediaries impact accreditation length. Internal factors focus specifically on the healthcare management program characteristics to include characteristics of the students admitted to the program. Internal factors are program size, average entrance Graduate Record Examination (GRE) scores, and average entrance GPA (Silvernail et al., 2009; Sweitzer & Volkwein, 2009). Certifications from institutional intermediaries includes *U.S. News and World Report* rankings.

# **Methods**

# Data and sample

We collected our data from two secondary data sources: CAHME accreditation site visit reports and the *U.S. News and World Report* healthcare management graduate program rankings. CAHME site visit reports provided information on the number and type of CAHME site visit team findings, average entrance GRE and Graduate Management Admission Test (GMAT) scores, and average entrance GPA. The 2007, 2011, and 2015 rankings were obtained from accessing old *U.S. News and World Report* archives.

Our sample is 75 CAHME site visit reports from 62 programs. Our sample originated from the 88 site visit reports of CAHME-accredited healthcare management programs with site visits from fall 2008 to spring 2015. This period covers the competency-based education model, which went into effect in 2008, and the subsequent modification of accreditation standards in 2013. We excluded 12 site visit reports for programs that were undergoing first-time



accreditation. We excluded these because the maximum accreditation length such programs can be awarded is three years. We also excluded one site visit report for a program that withdrew their application for accreditation after a site visit was completed. After exclusions, 75 CAHME site visit reports remained. Of these, 48 site visit reports used the 2008 program evaluation criteria and 27 site visit reports used the 2013 program evaluation criteria, representing a total of 62 CAHME-accredited programs, as 11 programs underwent accreditation site visits twice during the analysis period and one program had three accreditation site visits during the analysis period.

# Dependent variable

The dependent variable is length of accreditation and was dichotomized into high and low accreditation lengths. We considered a high length of accreditation to be the maximum accreditation possible – either six or seven years depending on the time period. We considered a low length of accreditation to be three years. No established programs were awarded fewer than three years of accreditation.

# Independent variables

The primary independent variables are the CAHME site visit team findings. The presumption is each criterion is equally weighted in the accreditation process and thus carries the same measure of magnitude. We used the total number of CAHME site visit team findings in our first model and the number of CAHME site visit findings separated between Criterion 1, 2, 3 and 4 for our second model. The findings variable represents the total number of partially met and not met determinations from the site visit.

# Control variables

As previously discussed, we referenced prior studies of program outcomes, program reputations, and impacts of *U.S. News and World Report* scores to identify control variables for our study. The binary variable, *USNWR* included the values of 0 = No and 1 = Yes, representing whether the school was ranked in the top 25 in any of the 2007, 2011, or 2015 *U.S. News and World Report* rankings. *U.S. News and World Report* only published rankings for healthcare management graduate programs in 2007, 2011, and 2015 and only the top 25 rankings were consistently available during the study period. Size is a continuous variable representing the total number of students enrolled into the program.



GRE is a continuous variable representing the average entrance score based on the 1,600-scale scoring format. The 1,600-scale was used to standardize test scores between three tests, the old GRE, the current scale GRE, and the GMAT. Since there are 41 site visit reports without the old GRE scores available in the site visit reports, we first used a method developed by Mangelsdorff (2014), which included doubling the program's GMAT score to approximate the GRE data for 20 schools to create a Combined GRE variable (Mangelsdorff, 2014). Then we imputed the GRE score by conducting a linear regression using the variables Size and the U.S News and World Report score (USNWR\_Score). The U.S. News and World Report scores for the imputation were based on the 2015 rankings. There were four schools that were not ranked; for those schools we used a method developed by Trieschmann and associates (2000). Using this method, we subtracted .1 from the lowest score, which in this case was 2.0, and used 1.9 as the score for the unranked schools (Trieschmann et al., 2000). The following regression equation was used for the imputation:  $Imputed\_GRE = 825.5 + .363$  (Size) + 91.8 ( $USNWR\_Score$ ). To verify the imputation, we compared the mean of the original data with the imputed variable in addition to determining the correlation between the two variables. The mean of the Combined\_GRE score was 1114 and the mean of the Imputed\_GRE was 1109. The Combined GRE score is positively correlated with the Imputed GRE score (r = .563, p < .001). Therefore, the GRE predictor model appears to be a good fit.

To account for the revision of the CAHME program evaluation criteria, we used time as an independent control variable. *Cohort* is a dichotomous variable representing the two different timeframes of the evaluation criteria. The binary variable, *Cohort* the value of 0 means the program was evaluated using the 2008 criteria and 1 means the program was evaluated using the 2013 criteria. This accounts for the accreditation's competency-based education evaluation change from 2008 to the new standards in 2013 with fewer criteria. The program's average entrance GPA was considered as a variable but was removed from the analysis due to multicollinearity issues with other variables in the model. The final variable table is shown in the Appendix.

### **Procedures**

We conducted a retrospective, cross-sectional, post-test study design. The unit of analysis for this study was the healthcare management program. We conducted two multivariate logistic regression analyses using an alpha



576

level of  $\alpha$  = .05. The first analysis considered the effect of the total number of CAHME site visit team findings on accreditation length using the following regression model:

(1) 
$$\ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 Findings + \beta_2 USNWR + \beta_3 Size + \beta_4 GRE + \beta_5 Cohort + \varepsilon$$
, where  $p = \Pr\left(Length = 1 | x\right)$ 

To conduct our second analysis, we divided the total number of findings into continuous variables representing the number of findings per criterion, Criterion\_1, Criterion\_2, Criterion\_3, and Criterion\_4 respectively, represented by the model below.

$$\begin{split} (2) \ \ln \left( \frac{p_i}{1-p_i} \right) &= \ \beta_0 + \beta_1 Criterion_1 + \beta_2 Criterion_2 + \beta_3 Criterion_3 + \beta_4 Criterion_4 + \\ & \beta_5 USNWR + \beta_6 Size + \ \beta_7 GRE + \beta_8 \ Cohort + \varepsilon, \\ \\ \text{where } p = \Pr \left( Length = 1 | x \right) \end{split}$$

### RESULTS

Table 1 displays the mean, standard deviation, and correlation coefficients between the variables. The average number of findings for graduate programs ranged from 1 to 16 (M = 5.6, SD = 2.99). The size of the graduate programs ranged from 11 to 239 (M = 68, SD = 46.86). A majority of the CAHME-accredited programs in the study rank in the top 25 in the *U.S. News and World Report* rankings (57.3%). Additionally, 48 programs were evaluated using the 2008 criteria (64.0%), whereas 27 programs were evaluated using the 2013 criteria (36.0%). A total of 60 programs received maximum accreditation length of 6 or 7 years (80.0%), while only 15 programs received the minimum accreditation length of 3 years (20.0%).



Table 1
Means, standard deviations, and intercorrelations among study variables

	М	SD	Length	Find- ings	US- NWR	Size	GRE	GPA
Length	0.80		-					
Findings	5.60	2.99	-0.67**	-				
USNWR	0.43		0.23*	-0.26*	-			
Size	68	46.86	0.07	-0.26*	0.11	-		
GRE	1109	61.22	0.30**	-0.39**	0.75**	0.41**	-	
GPA	3.36	0.06	0.30**	-0.35**	0.78**	0.15	0.96**	-

n=75. \*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

Table 1a shows the mean, standard deviation, and correlation coefficients between the criterion variables with the other variables. Criterion 3 had the highest average number of findings (M=2.59) followed by Criterion 2 (M=1.32), Criterion 1 (M=1.12), and Criterion 4 (M = 0.57).

Table 1a

Means, standard deviations, and intercorrelations among study variables

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Length	.80		-								
Criterion 1	1.12	0.93	33**	-							
Criterion 2	1.32	1.04	36**	.32**	-						
Criterion 3	2.59	2.02	60**	.17	.18	-					
Criterion 4	0.57	0.79	14	.13	.01	.01	-				
USNWR	.43		.23*	05	24*	28*	.13	-			
Size	68	46.86	.07	15	10	19	09	.11	-		
GRE	1109	61.22	.30**	19	32**	33**	.02	.75**	.41**	-	
GPA	3.36	0.06	.30**	16	31**	31**	.05	.78**	.15	.96**	-

NOTE: n=75. \*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).



578

Table 2 contains the results of the logistic regression analysis for model 1. The regression equation accounts for 69.3% of the variance in accreditation length awarded (pseudo  $R^2$  = 0.693). Our results indicate that for every additional accreditation finding, the odds of a program achieving a high accreditation length decrease by 65.2% (OR = 0.348, 95% confidence interval, 192-.631, p=.001). None of the control variables significantly impacted the odds of high accreditation length to include the U.S. News and World Report ranking variable.

Table 2
Summary of logistic regression analysis for model 1 (*n*=75)

Independent Variables	OR	95% CI	Significance
Findings	0.348	0.192-0.631	0.001
USNWR not Top 25	1.278	0.046-35.242	0.885
Size	0.978	0.949-1.007	0.138
GRE	1.019	0.983-1.056	0.301
Cohort 2013	0.609	0.077-4.819	0.639
Constant	0.000		0.603

NOTE: OR=Odds Ratio; CI=Confidence Interval

Table 2a displays the results of the logistic regression analysis with the number of findings per criterion (model 2). The regression equation accounts for 70.9% of the variance in accreditation length awarded (pseudo  $R^2$ = 0.709). We found that for every additional finding in Criterion 3, the odds of a program achieving a high accreditation length significantly decreases by 72.9% (OR = 0.271, 95% confidence interval, 0.119-0.617, p = .002). Criterion 2 could also be considered to have an impact on accreditation length if the alpha level of  $\alpha$  = .05 is relaxed slightly (OR = 0.278, p = 0.051). No other criterion findings significantly impacted the outcome. The control variables were not significant in this model to include the *U.S. News and World Report* ranking variable.



Table 2a
Summary of logistic regression analysis for model 2 (*n*=75)

Independent Variables	OR	95% CI	Significance
Criterion 1	0.585	0.201-1.701	0.325
Criterion 2	0.278	0.077-1.006	0.051
Criterion 3	0.271	0.119-0.617	0.002
Criterion 4	0.327	0.086-1.252	0.103
USNWR not Top 25	0.605	0.016-22.626	0.786
Size	0.972	0.942-1.004	0.081
GRE	1.026	0.986-1.068	0.209
Cohort 2013	0.444	0.048-4.123	0.475
Constant	0.000		0.433

NOTE: OR=Odds Ratio; CI=Confidence Interval

# Discussion

The primary results from our analysis support our hypothesis that the total number of findings have a negative association with program accreditation length. The results of our binary logistic regression analysis suggest that with each additional finding reported, the likelihood of receiving the maximum accreditation is significantly reduced. Or, from a positive perspective, fewer site visit findings are associated with longer accreditation length. Our secondary analysis focused on findings in each of the specific CAHME criteria and revealed that the strongest relationship between findings and accreditation length is with Criterion 3: Teaching and Curriculum. This would suggest that not only are the number of findings related to accreditation duration, but the number of findings in the criterion for curriculum have an impact on the duration of accreditation.

The results from our analysis also found that the *U.S. News and World Report* rankings do not appear to have a positive association with program accreditation length. In both analyses, total number of findings and number of findings per criterion, the *U.S. News and World Report* rankings were statistically non-significant (p = 0.885; p = 0.786). Therefore, we can infer that school reputation in the form of this ranking methodology is not a predictor of accreditation length.



# Implications for program leadership and educators

This study serves as evidence that a concerted focus in meeting CAHME accreditation criteria can have an impact on the length of accreditation. Further, as the category with the highest number of assessable measures, concentrated efforts to develop and improve performance within Criterion 3 should be a specific area of emphasis. Criterion 3 covers the topics of Competencies and Curriculum Design (3A), Teaching and Learning Methods (3B), and Assessment and Evaluation (3C). Program and individual faculty member efforts in these areas is not only important for accreditation purposes, but should be considered the core focus of any graduate program aspiring to improve pedagogy, delivery methodology, and student competency outcomes. Thus, the key takeaway from our findings is improvement and development in Criterion 3 can not only strengthen student performance, but could also yield a lengthier CAHME accreditation. Our results should also help dispel notions regarding potential bias of program reputation on accreditation length. We found no effect on accreditation length based on the evaluation criteria in place (i.e., 2008 or 2013) at the time of the site visit survey.

# Study limitations and future research

The primary limiting factor in our analysis was the number of missing data points and the relatively small sample size. With four criteria and numerous focus areas within each, future studies based on larger sample size could produce a more granular analysis. This missing data caused us to impute the entrance exam variable in order to maintain the sample size in the regression. Additionally, the earlier site visit reports were not complete and some of the international programs did not have the same admission requirements as schools in the United States (e.g., GRE/GMAT exams). Greater fidelity and consistency was found in site visit reports after 2012.

Because there is no literature on the number of accreditation site visit findings and accreditation length, this study serves as a baseline for future research. Future studies should explore whether findings are consistent across other accrediting bodies, such as the Association to Advance Collegiate Schools of Business. Future studies should focus on the external factors that could have an influence on the accreditation process to include faculty affiliations with professional associations, the affiliation of the site visit team to the program, and the number and type of CAHME-affiliated staff on a program's faculty. Studying external variables in future research could add some additional validity to the model used in our study.



# Conclusion

In conclusion, the results of our binary logistic regression support the negative association between the number of findings a program receives during a CAHME accreditation assessment and the duration of the program's accreditation. Based on our analyses, performance on site visit evaluations does impact a program's length of accreditation. Our results further suggest that for accreditation purposes, program directors and faculty should focus on building effective healthcare management programs with an emphasis on developing effective teaching curriculums which align with the specifications of the CAHME criteria. Finally, CAHME leaders should rest assured that the evidence indicates CAHME's accreditation process is a fair and consistent evaluation and is not influenced by a program's reputation.

### REFERENCES

- Alexander, R. P., & Hatfield, D. (1995). Does AACSB accreditation impact enrollment. *The Coastal Business Journal*, 1(1), 47-52.
- Astin, A. W., & Antonio, A.l. (2012). Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education. Lanham, MD: Rowman & Littlefield.
- Beauvais, B., Wood, S. J., Brezinski, P., Brooks, M., Kim, F., & Mangelsdorff, A. D. (2011). Adoption and Implementation of Competency Based Education—The Army-Baylor Approach. *Journal of Health Administration Education*, 28(4), 299-313.
- Broom, K. D., Wood, S. J., & Sampson, C. J. (2013). Current trends in graduate-level healthcare management education: An examination of accreditation outcomes. *Journal of Health Administration Education*, 30(3), 159-179.
- CAHME. (2016). Retrieved from <a href="http://www.cahme.org/Default.aspx">http://www.cahme.org/Default.aspx</a>
- CAHME Accreditation: Schedule of Fees. (2016). Retrieved from <a href="http://www.cahme.org/CAHME/Program\_Directors/Fee\_Schedule/CAHME/Program\_Directors/Fee\_Schedule.aspx?hkey=2fb8f70a-445d-42f0-a53a-c90cf67b40b9">http://www.cahme.org/CAHME/Program\_Directors/Fee\_Schedule.aspx?hkey=2fb8f70a-445d-42f0-a53a-c90cf67b40b9</a>
- CAHME Handbook of policies and operating procedures. (2014). Retrieved from <a href="http://www.cahme.org/CAHME/CAHME\_Resources/CAHME\_Resources/CAHME\_Resources/CAHME\_Resources.aspx?">http://www.cahme.org/CAHME/CAHME\_Resources/CAHME\_Resources.aspx?</a>
  <a href="https://www.cahme.org/CAHME\_Resources.aspx?">hkey=d8c683ac-055d-454d-8b51-c6a2d08063e8</a>

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- Clement, D. G., Hall, R. S., O'Connor, S. J., Qu, H., Stefl, M. E., & White, A. W. (2010). Competency development and validation: A collaborative approach among four graduate programs. *Journal of Health Administration Education*, 27(3), 151-173.
- Education, U. S. D. o. (2006). *A Test of Leadership: Charting the Future of U.S. Higher Education*. Washington, D.C.: United States Department of Education Retrieved from <a href="http://www2.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf">http://www2.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf</a>.
- Gaddy, C. D., Charlot-Swilley, D., Nelson, P. D., & Reich, J. N. (1995). Selected outcomes of accredited programs. *Professional Psychology: Research and Practice*, 26(5), 507.
- Heriot, K. C., Franklin, G., & Austin, W. W. (2009). Applying for initial AACSB accreditation: An exploratory study to identify costs. *Journal of Education for Business*, 84(5), 283-289.
- Kelderman, E. (2009). Struggling colleges question the cost–and worth–of specialized accreditation. *The Chronicle of Higher Education*, *56*(8), 1-3.
- Kohlmeyer, J. M., Seese, L. P., & Sincich, T. (2011). Online versus traditional accounting degrees: Perceptions of public accounting professionals. *Advances in Accounting Education*, 12, 139-165.
- Lindsay, D. H., & Campbell, A. (2003). An examination of AACSB accreditation status as an accounting program quality indicator. *Journal of Business and Management*, 9(2), 125.
- Mangelsdorff, A. D. (2014). Competency-Based Curriculum, Outcomes, and Leader Development: Applications to a Graduate Program in Health Administration. Journal of Health Administration Education, 31(2), 111-133.
- Morse, R., & Flanigan, S. (2015, March 9, 2015). Methodology: Best Health Schools Rankings. *U.S. News & World Report (online version)*.
- Perlin, M. S. (2011). Curriculum mapping for program evaluation and CAHME accreditation. *Journal of Health Administration Education*, 28(1), 33-53.



- Rindova, V. P., Williamson, I. O., Petkova, A. P., & Sever, J. M. (2005). Being good or being known: An empirical examination of the dimensions, antecedents, and consequences of organizational reputation. *Academy of Management Journal*, 48(6), 1033-1049.
- Roberts Jr, W. A., Johnson, R., & Groesbeck, J. (2006). The perspective of faculty hired after AACSB accreditation on accreditation's impact and importance. *Academy of Educational Leadership Journal*, 10(3), 59.
- Roller, R. H., Andrews, B. K., & Bovee, S. L. (2003). Specialized accreditation of business schools: A comparison of alternative costs, benefits, and motivations. *Journal of Education for Business*, 78(4), 197-204.
- Shipley, M. F., & Johnson, M. (1991). Employment and academic opportunities for graduates of AACSB-accredited schools. *Journal of Education for Business*, 66(4), 235-239.
- Silvernail, T. S., Coates, H. R., Fulton, L. V., & Childress, C. Y. (2009). Exploring the US News and World Report rankings of masters-level graduate health management programs. *Journal of Health Administration Education*, 26(4), 293-307.
- Sweitzer, K., & Volkwein, J. F. (2009). Prestige among graduate and professional schools: Comparing the US News' graduate school reputation ratings between disciplines. *Research in Higher Education*, 50(8), 812-836.
- Trieschmann, J. S., Dennis, A. R., Northcraft, G. B., & Nieme, A. W. (2000). Serving constituencies in business schools: MBA program versus research performance. *Academy of Management Journal*, 43(6), 1130-1141.
- U.S. News and World Report (2017) Best Graduate Schools Health Care Management (2015 Rankings). Retrieved February 9th, 2017 from: <a href="http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-health-schools/healthcare-management-rankings">http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-health-schools/healthcare-management-rankings</a>



# APPENDIX

# Variable table and code sheet

Concept	Measure/Variable	Variable Name	Use in Analysis	Type of Data	Measurement Unit	Data Source	References
Certifications from Institutional Intermediaries	Number of CAHME Site Visit Team Findings	Findings	Independent Variable	Continuous	Numeric Value	CAHME Site Visit Reports	(Broom, Wood, & Sampson, 2013)
Certifications from Institutional Intermediaries	Number of findings in Criterion 1	Criterion_1	Independent Variable	Continuous	Numeric Value	CAHME Site Visit Reports	(Broom, Wood, & Sampson, 2013)
Certifications from Institutional Intermediaries	Number of findings in Criterion 2	Criterion_2	Independent Variable	Continuous	Numeric Value	CAHME Site Visit Reports	(Broom, Wood, & Sampson, 2013)
Certifications from Institutional Intermediaries	Number of findings in Criterion 3	Criterion_3	Independent Variable	Continuous	Numeric Value	CAHME Site Visit Reports	(Broom, Wood, & Sampson, 2013)
Certifications from Institutional Intermediaries	Number of findings in Criterion 4	Criterion_4	Independent Variable	Continuous	Numeric Value	CAHME Site Visit Reports	(Broom, Wood, & Sampson, 2013)
Certifications from Institutional Intermediaries	U.S. News and World Report ranking in Top 25	USNWR	Independent Variable	Binary	0= No 1= Yes	U.S. News and World Report Rankings website	(Silvernail, Coates, Fulton, & Childress, 2009)
Internal Factors	Program Size	Size	Independent Variable	Continuous	Numeric Value	CAHME Site Visit Reports	(Silvernail, Coates, Fulton, & Childress, 2009; Sweitzer & Volkwein, 2009)
Internal Factors	Average entrance Standardized Test Scores	GRE	Independent Variable	Continuous	Numerical Value	CAHME Site Visit Reports	(Silvernail, Coates, Fulton, & Childress, 2009; Sweitzer & Volkwein, 2009)
Time	Number	Cohort	Independent Control	Binary	0= 2008 Criteria 1= 2013 Criteria	CAHME Site Visit Reports	
Outcome	Length of Accreditation	Length	Dependent Variable	Binary	0= Low (3 years) 1= High (6-7 years)	CAHME Program History	



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