

Eastern Illinois University

The Keep

Undergraduate Honors Theses

Honors College

2021

The Decision to Play: College football in the Era of COVID-19

Jason Tabit

Follow this and additional works at: https://thekeep.eiu.edu/honors_theses



Part of the [Sports Management Commons](#)

The Decision to Play: College Football in the Era of COVID-19

(TITLE)

BY

Jason Tabit

UNDERGRADUATE THESIS

Submitted in partial fulfillment of the requirement for obtaining

UNDERGRADUATE DEPARTMENTAL HONORS

Department of Business along with the Pine Honors College at
EASTERN ILLINOIS UNIVERSITY
Charleston, Illinois

2021

YEAR

I hereby recommend this thesis to be accepted as fulfilling the thesis requirement for
obtaining Undergraduate Departmental Honors

May 19, 2021

Date

THESIS ADVISOR

May 19, 2021

Date

HONORS COORDINATOR

May 19, 2021

Date

DEPARTMENT CHAIR

The Decision to Play: College Football in the Era of COVID-19

Abstract

COVID-19 upended life around the world, including on college campuses across the U.S. where institutions restructured their class modalities, campus life, extracurricular activities, and intercollegiate athletics – including college football. We examine the factors that led universities to make their decisions to play or not play college football during fall 2020, hypothesizing that the decision to play would be consistent with the decision about class modality for health and safety reasons, and that monetary and political motivations would also play a significant role. We collected data for 249 institutions and used logistic regression techniques to test our hypotheses. We ultimately found that health and safety concerns were not the driving factors in the decision to play college football in the fall of 2020, but economics and politics were statistically significant factors.

Keywords: College football, COVID-19, safety, economics, politics

Introduction

The world has changed drastically since December 2019 when COVID-19 was discovered in Wuhan, China (WHO, 2020). The first case of COVID-19 in the United States was reported in January 2020 and by March 13th, COVID-19 was declared a national emergency for the country. The World Health Organization officially named COVID-19 a pandemic on March 11th, 2020, and there were extensive shutdowns in the United States by the end of the month (American Journal of Managed Care, 2020).

These changes were acutely felt in the world of sport, as suddenly there were no live sporting events. The National Basketball Association suspended their season on March 11th after a single positive test and was the first national sporting organization in the United States to postpone their season (Zillgitt, 2020). The National Hockey League announced a postponement on March 12th (National Hockey League, 2020), the same day that Major League Soccer announced a 30 day shut down (Reynolds, 2020). March 12th also saw Major League Baseball announce the cancellation of spring training games and a two-week postponement to the start of the season (Acquavella, Anderson, and Perry, 2020). Even beyond the world of professional sports, there were massive ramifications at the collegiate level.

The NCAA March Madness basketball tournament is one of the biggest sporting phenomena in the United States, and it also came to a screeching halt on March 12th. As professional leagues began to shut down their seasons, individual conferences announced the cancellation of their conference tournaments, and soon the NCAA had no choice but to follow suit. This represented a massive financial blow to the organization, as the 2019 tournament brought in a combined \$933 million in total revenues (Caron, 2020). In the wake of the cancellation of March Madness, there were immediate concerns about the future of college football and those concerns came to fruition during summer 2020.

On July 8th, 2020, the Ivy League became the first Division I conference to cancel their football season. In what was seen as an overreaction at the time, it would later prove to be an intelligent move, as they were followed by every other Football Championship Subdivision (FCS) conference and several Football Bowl Subdivision (FBS) conferences. This came after the Ivy League was the first conference to cancel their basketball tournament on March 10th, two days prior to when most conferences would ultimately cancel.

This paper will be centered around collegiate gridiron football in the United States, one of the most popular sports in the country. The game is played with 11 players on each side, and players have the opportunity to “touch, throw, and carry the ball with their hands” on alternating possessions. The sport is considered a descendant of rugby and soccer and is “named for the vertical yard lines marking the rectangular field” (Oriard, N.D.). Collegiate football refers to gridiron football played by teams of student-athletes from universities, colleges, and military academics.

The Football Champion Subdivision (FCS) is one of two halves of Division I NCAA football, formerly known as Division I-AA. Recognized as the “lower half” of Division I, the FCS has been in existence since 1978 and has gone by its current name since 2006. In total, there are 13 conferences and 125 teams at the level. The hallmark of the FCS is how the national champion is determined: FCS teams play in a single-elimination bracket tournament, with a total of 24 teams currently participating in this annual process. To determine participants in the playoffs, 10 of the conferences receive automatic playoff bids for the conference champion. The remaining 14 spots in the playoff are “at-large” bids. There is a Selection Committee that chooses the teams to fill these “at-large” spaces, with the idea that they select the best teams in the country who did not win their conference title (National Collegiate Athletic Association, 2020).

At the FCS level of football, every conference in the country announced they would not play a conference schedule in the fall. This started with the Ivy League’s cancellation on July 8th and ended with the Ohio Valley Conference shutting down fall football on August 14th, making them the 13th and final conference at the FCS level to do so (Kelley, 2020). Several of these conferences and individual teams decided that they would not play football until the fall of 2021,

but 9 of the 13 FCS conferences intend to play a season in the spring of 2021 (Chiusano, 2020). However, many conferences gave their teams the option to play non-conference games and a total of 15 colleges played football in fall 2020 (Haley, 2020).

The Football Bowl Subdivision (FBS) is the other half of Division I NCAA Football. Considered the “upper half” of Division I, this subdivision was previously known as Division I-A until 2006. There are 10 FBS conferences and 130 teams who compete at this level, whose name is a reflection of the primary postseason activity of the level. While there is a College Football Playoff at the FBS level, it only includes the four highest-ranking teams in the country. The majority of successful teams will participate in a postseason bowl game, of which there were 40 in 2019. Bowl games are single games between teams of different conferences, typically presented by a corporate sponsor. Beyond the different format and a higher level of competition, FBS schools are required to sponsor more athletic teams but they are given a higher number of scholarships to be divided amongst their roster (Weinrib, 2020).

At the FBS level of football, several teams outright canceled their seasons and the Southeastern Conference canceled its non-conference schedule on July 30, 2020 (Wilmer, 2020). Perhaps more notably, there were four conferences that originally cancelled their entire seasons. The Mid-American Conference (MAC) was the first FBS conference to outright cancel their season, with their announcement coming on August 8th. They announced a scheduled return to play on September 25th, with the first game being played on November 4th (Reyes, 2020). The Mountain West Conference followed the MAC on August 10th, announcing an October 24th return to play on September 25th (Mountain West, 2020). On August 11th, the Big Ten canceled their season but announced reinstatement of their season on September 16th, with play resuming on October 24th (Rittenberg and Dinich, 2020). The Pacific Twelve Conference also announced

a season cancellation on August 11th, later announcing they would resume play on November 6th in a September 24th media release (Pac-12 Conference, 2020).

The objective of this study is to examine the factors that may have led to the decision to play or not play football during the era of COVID-19. Utilizing data about the status of fall semester classes at each university, the football-specific revenues of each school, and the political leanings of the region, this paper seeks to establish relationships between the aforementioned factors and the decision to play for collegiate football programs at both the FBS and FCS level.

Hypotheses

Sports during the era of COVID-19 remain a largely unexplored field, as there simply has not been the time for adequate research to be completed on the subject. This study aims to solve that issue in part, providing an examination of the institutional factors that may have been related to the decision made by each university to play or not play college football this fall.

The pandemic has created a new age of online learning, with 1.2 billion children around the globe experiencing education in a remote capacity (Li and Lalani, 2020). This has also been seen on college campuses, where a mere 4% of universities are fully in-person. 27% of colleges have been reported as at least primarily in person, and a whopping 44% have been reported as being entirely online or primarily online. This raises an obvious question: are universities consistent in their approaches towards the COVID-19 pandemic? If a college is fully online but still playing football, what message does that convey about the regard for the safety of those student-athletes?

Schools like Notre Dame, North Carolina, and North Carolina State had to at least pause in-person classes due to COVID-19 outbreaks on campus, but there were never any reports that the football program at each respective school was in danger of shutting down. As pointed out by Dennis Dodd of CBS Sports, “None of this impacts football directly. Rather, it is creating increasingly bad optics.” It is a bad look for universities who play football without students on campus, and conference commissioners have even previously stated that there would be no football without students on campus. The obvious workaround is a “hybrid” model, in which universities have a portion of their classes as in-person and an additional portion as online (Dodd, 2020). Some of the largest and most prevalent universities to utilize an online model include Ohio State University, the University of Texas at Austin, and Pennsylvania State University. (Chronicle of Higher Education, 2020).

The reversal of decisions to not play also bears significant scrutiny, such as the choice of the Big Ten to play football despite an early decision that they would play in 2021 at the earliest. Conference leaders “insisted that they had reconsidered because of, not in spite of, medical advice.” (Blinder, 2020). This led to the unanimous decision to play football in the fall of 2020, but there still were many questions about the factors that truly influenced the decision. Was there political interference? Was the appeal of a sizable media contract too much to ignore? Or did seeing other conferences play without repercussions makes it simply too enticing of an option for the athletic directors and administrators to ignore?

Conversely, what does it say if classes are fully in-person and the university has opted out of competing in fall sports? New Mexico State University is among the independent institutions that opted out of playing football this fall, but they pursued a hybrid educational model with some students in classrooms. We can also use teams in the Mid-American Conference as an

interesting case study for this question. Despite being the first FBS conference to cancel their scheduled season, Ball State University, University of Toledo, and Western Michigan University still pursued primarily in-person education during the fall. Additionally, Bowling Green State University, University of Buffalo, and Central Michigan University pursued a hybrid educational model. This means that half of the teams in the conference were planning to have at least a portion of the student body in the classroom, yet they were not originally planning to put together a fall football season.

Overall, the set of circumstances surrounding higher education and COVID-19 have raised a lot of significant questions about the safety of playing college football during the fall of 2020. Many of the institutions choosing not to play football also opted to keep classes in an online format. Many more schools chose to play football and also had their entire student body on campus, which presents clear logical reasoning. If an institution feels it is safe enough to have students in classrooms, they likely also feel comfortable with the play of collegiate sports. Using data from the Chronicle of Higher Education, we seek to check the strength of this logical relationship. These ideas about logical consistency in the era of COVID-19 suggest the following hypothesis:

Hypothesis 1: Universities with primarily in-person classes are more likely to play college football games during the era of COVID-19.

Another important consideration is the financial element associated with playing college football. Since football is typically viewed as the single largest revenue driver for an athletic department, it is only logical that schools will want to play football if they will profit from it.

This can be examined by comparing the football-specific revenues of Power Five schools, Group of Five schools, and FCS schools. Revenues at FBS schools can be quite lucrative, with the University of Texas at Austin bringing in a whopping \$156 million in revenue during the 2018-2019 fiscal year (Barnett, 2020). Even on the low end of revenues, West Virginia University represented the lowest-grossing Power Five football program with a total of \$25 million. At Group of Five schools, revenues ranged from \$30 million (University of Central Florida) to a comparatively small \$5 million at the University of Louisiana-Monroe.

We have previously explained the difference between FBS and FCS, so we will now use this space to explain the difference between Power Five and Group of Five schools. "The Power Five refers to five conferences considered the elite of collegiate football" (British Broadcasting Corporation, 2020). These are regarded as the five most competitive conferences in NCAA Division I football: the Atlantic Coast Conference, the Big Ten Conference, the Big Twelve Conference, the Pacific-Twelve Conference, and the Southeastern Conference. Group of Five represents the five remaining conferences at the FBS level, and the level of competition is considered lower than the Power Five but higher than the FCS. The five conferences are the American Athletic Conference, Conference USA, the Mid-American Conference, the Mountain West Conference, and the Sun Belt Conference.

Based on the numbers, football represents a major revenue driver. Per USA Today Sports, the University of Texas at Austin brought in nearly \$224 million in total athletic department revenue during the 2018-2019 fiscal year. This means that almost 70% of the revenue was tied to a single sport - football. Another point of interest is the decision by Conference-USA to only play football during the fall of 2020. Is football an inherently safer sport in the midst of a

pandemic? Or is it simply because football represents an influx of cash for each athletic department?

Using data from the U.S. Department of Education's Equity in Athletics Data Analysis, we will be able to see how football-specific expenses likely played into the decision to play college football during fall 2020. Based on these ideas, the following hypothesis can be suggested:

Hypothesis 2: Universities with higher football-specific expenses will be more likely to play college football games during the era of COVID-19.

Politics have also played a significant role in the handling of COVID-19 throughout The United States. In a study by the Pew Research Center, it was found that "Republicans remain far less likely than Democrats to view COVID-19 as a major threat to public health" (Tyson, 2020). Data like this indicates that Democratic politicians would likely place more severe restrictions regarding COVID-19, while their Republican counterparts would be comparatively lax in their policies for the pandemic. As such, it can reasonably be expected that universities in these regions would be under similar political influences, likely helping to determine the school's course of action for the fall 2020 collegiate football season.

Hypothesis 3: Universities in Republican-leaning areas will be more likely to play college football games during the era of COVID-19.

Methods

To test the hypotheses we developed, we decided to utilize a logistic regression model in which the dependent variable is classified as either a 1 or 0. In this case, 1 represented that the institution's football team played at least one game during fall 2020. Some FCS schools played only a single game or just a few games, but any team playing at least once during fall 2020 was listed as a 1. A 0 represents teams that did not play during fall 2020. This includes teams that decided to play in spring 2021 and those that completely canceled football for the 2020-2021 academic year.

For the data regarding reopening models for each college, we collected data from The Chronicle of Higher Education's article "Here's Our List of Colleges' Reopening Models". They classified each school's reopening model as being "fully in person", "primarily in person", "hybrid", "primarily online", "fully online", "other", and "undetermined". For the purposes of use in our study, we used a simple dichotomy - 1 if classes were "fully in person" or "primarily in-person" and 0 if classes did not fit into those two categories. This information was informed by the work of the College Crisis Initiative at Davidson College. We reached out to Davidson regarding the opportunity to use their primary data set and they agreed to share the information, but they ultimately never sent the data. As a result, we moved forward using the data from The Chronicle of Higher Education.

For the data regarding football-specific finances, we relied on the "Equity in Athletics Data Analysis" provided by the United States Department of Education. We chose to use expenses as our financial variable due to "accounting games" that are typically played at the institutional level. Many universities and colleges manipulate their football-specific revenues so that the net revenues come out to \$0 or -\$1, meaning that expenses would be a more accurate measure of the financial dimension of our model.

For the data regarding politics, we took the political party of each state's governor from the National Governors Association's governors listing. We also looked at the results from National Public Radio's "2020 Election Results" to determine the winning candidate for each candidate, as well as the percentage of that county's vote that went to Joseph Biden. The political party of the governor provided the strongest correlation in our preliminary data tests and we chose to use that as our political variable for our models. In this case, Democratic governors were assigned a value of 1 and Republican governors were assigned a value of 0.

We also chose to utilize several control variables in our model and had logical reasons for choosing each of them. The first control variable we used was the net price of attendance at each institution, listed in thousands of U.S. dollars. We chose to include this variable with the idea in mind that the greater the net price of attendance, the less likely the college would be seeking to play because the influx of capital from the student body would lessen the financial pressures of athletics.

From the same source (National Center for Education Statistics), we also collected data regarding what percentage of the university's student body is student-athletes. This variable was chosen based on the concept that the greater the percentage of the student body as student-athletes, the more likely the university was to play football.

The next control variable we used was the university's endowment, listed in billions of U.S. dollars. This data was provided by the National Association of College and University Business Officers, and was included based on the concept that the greater the endowment, the less likely the institution was to play football due to reduced financial pressures.

The final control variable used was winning percentage in 2019. Since a team with recent success would be expected to continue that success in 2020, it makes logical sense that teams

with recent success would be more likely to want to play. As such, we theorized that the greater the team's win percentage in 2019, the more likely they were to play football during fall 2020.

Results

Table 2 displays the results of each model we ran for this study. Model 1 served as the control and was an opportunity to create baselines for the control variables in our sample. Model 2 is regarding the status of classes as it relates to the decision to play in fall 2020. Based on the coefficient of 0.454, we know the relationship between the decision to play and the status of classes is such that institutions with at least primarily in-person classes were more likely to play football during fall 2020. However, with a P-value of 0.219, we know that a statistically significant relationship does not exist between the status of classes and the decision to play.

Model 3 displays the results of our model regarding the financial impact on the decision to play. With a coefficient of 0.600, there is a positive relationship between expenses and the decision to play. In this case, it means that the greater the expenses of the football program, the more likely they were to play football during fall 2020. Since the P-value is 0.000, we know that there is a very strong statistically significant relationship present and that football expenses were extremely relevant in the decision to play.

Model 4 displays the results of our political model, based on the political party of the state's governor. The coefficient of -0.714 indicates that if the state's governor was a Democrat, the university's football program was less likely to play. The model produced a P value of 0.025, representing another statistically significant relationship regarding the decision to play.

Model 5 displays a combined model with all three variables included. The purpose of combining the models is to observe how the variables interact because there is the possibility that

the combination of variables may cancel each other out. The status of classes continued to be non-statistically significant with a P-value of 0.316, while football-specific expenses and the political party of the state's governor remained statistically significant at 0.000 and 0.024 respectively. Model 6 features the final "best model" that we produced, containing the financial and political variables. Expenses remained statistically significant at 0.000 and the governor's party proved to be slightly more significant than before with a value of 0.020.

Discussion and Conclusion

The results that were produced by our models help us make several significant conclusions regarding the decision to play college football in fall 2020. The first conclusion is that safety was not a statistically significant factor influencing the decision to play. This does not mean that safety was not a consideration at any institutions, but it was simply not a consideration at enough institutions to be statistically significant. We simply didn't see the logical consistency we had expected: that institutions with primarily in-person classes would play and that institutions with primarily online classes would not play.

The second conclusion we can make is that football-specific expenses were a major consideration that influenced the decision to play. Due to all the sunk costs associated with college football (coaching staff salaries, facilities, player scholarships, and miscellaneous costs), it's reasonable to assume that these programs are eager to recoup the costs associated with their football program, since the expenses associated with the season itself typically makes up a very small percentage of the team's overall expenses.

The final conclusion that can be made is that there was indeed political influence regarding the decision to play. This can be attributed to the regional political response to

COVID-19, which we expected when originally coming up with hypotheses. The politics of each state and region likely influenced the response at each institution, which in turn influenced the decision to play.

There were unfortunately a few shortcomings to our study, the first being that we did not have access to the data set from Davidson College. Access to such data would have allowed us to make more accurate conclusions regarding the decision to play as it interacts with the modality of classes. The other major shortcoming we faced was the quality of the financial data we were able to access. Due to the “accounting games” that are typically played at the institutional level, we did not have a truly accurate data set, especially in terms of net revenues.

References

- American Journal of Managed Care. (2020). A Timeline of COVID-19 Developments in 2020. *American Journal of Managed Care*. Retrieved November 13, 2020 from <https://www.ajmc.com/view/a-timeline-of-covid19-developments-in-2020>
- Barnett, Z. (2020). The Highest Grossing Football Programs in College Football Are... *Football Scoop*. Retrieved November 19, 2020 from <https://footballscoop.com/news/the-highest-grossing-football-programs-in-college-football-are/>
- Blinder, A. (2020). Big Ten Will Play Football in 2020, Reversing Decision. *New York Times*. Retrieved November 19, 2020 from <https://www.nytimes.com/2020/09/16/sports/ncaaf-football/covid-big-ten-football-season.html>

- British Broadcasting Corporation. (2020). American Football: Sarah Fuller Makes History as First Woman in a Power 5 Game. *British Broadcasting Corporation*. Retrieved December 9, 2020 from <https://www.bbc.com/news/world-us-canada-55115661>
- Caron, E. (2020). March Madness Cancellation Puts Safety Ahead of Substantial Revenue Losses. *Front Office Sports*. Retrieved November 15, 2020 from <https://frontofficesports.com/march-madness-cancellation-coronavirus/#:~:text=The%20NCAA%20made%20%24160%20million,75%25%20of%20its%20annual%20revenue.>
- Chiusano, A. (2020). How the 2020-2021 FCS Football Season Will Work. *NCAA*. Retrieved November 15, 2020 from <https://www.ncaa.com/news/football/article/2020-11-12/how-2020-21-fcs-football-season-will-work>
- Dodd, D. (2020). Questions Raised as Students Leave Campus with the 2020 College Football Season Approaching. *CBS Sports*. Retrieved November 19, 2020 from <https://www.cbssports.com/college-football/news/questions-raised-as-students-leave-campus-with-the-2020-college-football-season-approaching/>
- Haley, C. (2020). FCS Football: Ranking the 15 Schools Playing this Fall. *Athlon Sports*. Retrieved November 15, 2020 from <https://athlonsports.com/college-football/fcs-football-ranking-schools-playing-fall-2020#:~:text=FCS%20Football%3A%20Ranking%20the%2015%20Schools%20Playing%20This%20Fall>
- Kelley, K. (2020). Ohio Valley Conference Postpones 2020 Conference Football Season. *FBSchedules*. Retrieved November 15, 2020 from

<https://fbschedules.com/ohio-valley-conference-postpones-2020-conference-football-season/>

Li, C., Lalani, F. (2020). The COVID-19 Pandemic Has Changed Education Forever: This is How. *World Economic Forum*. Retrieved November 16, 2020 from <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>

Mountain West. (2020). 2020 Mountain West Football Schedule to Begin on October 24. *Mountain West*. Retrieved November 15, 2020 from <https://themw.com/news/2020/9/25/2020-mountain-west-football-season-to-begin-on-october-24.aspx>

National Collegiate Athletic Association. (2020). FCS Championship: Everything You Need to Know. *National Collegiate Athletic Association*. Retrieved December 9, 2020 from <https://www.ncaa.com/news/football/article/2020-01-11/fcs-championship-everything-you-need-know>

National Hockey League. (2020). NHL to Pause Season due to Coronavirus. *National Hockey League*. Retrieved November 13, 2020 from <https://www.nhl.com/news/nhl-coronavirus-to-provide-update-on-concerns/c-316131734>

Oriard, M. (N.D.) Gridiron Football. *Encyclopedia Britannica*. Retrieved December 9, 2020 from <https://www.britannica.com/sports/gridiron-football>

Pac-12 Conference. (2020). Pac-12 Announces Resumption of Football, Basketball, & Winter Sports Seasons. *Pac-12 Conference*. Retrieved November 15, 2020 from <https://pac-12.com/article/2020/09/24/pac-12-announcement>

- Perry, D., Acquavella, K., Anderson, R. (2020) Timeline of How the COVID-19 Pandemic has Impacted the 2020 Major League Baseball Season. *CBS Sports*. Retrieved November 14, 2020 from <https://www.cbssports.com/mlb/news/timeline-of-how-the-covid-19-pandemic-has-impacted-the-2020-major-league-baseball-season/>
- Reyes, A. (2020). "MAcTion" is Back, Plan Approved by Mid-American Conference to Resume Football. *7ABC, WKBW Buffalo*. Retrieved November 15, 2020 from <https://www.wkbw.com/sports/college/maction-is-back-plan-approved-by-mid-american-conference-to-resume-football>
- Reynolds, T. (2020). MLS Shutting Down for 30 Days Due to Coronavirus. *Associated Press*. Retrieved November 13, 2020 from <https://apnews.com/article/36359214c3d5b244ac1d502542ccf4a5>
- Rittenberg, A., Dinich, H. (2020). Big Ten Football to Resume Weekend of October 24. *ESPN*. Retrieved November 15, 2020 from https://www.espn.com/college-football/story/_/id/29897305/sources-big-ten-announce-october-return
- Tyson, A. (2020). Republicans Remain Far Less Likely than Democrats to View COVID-19 as a Major Threat to Public Health. *Pew Research Center*. Retrieved March 17, 2021 from <https://www.pewresearch.org/fact-tank/2020/07/22/republicans-remain-far-less-likely-than-democrats-to-view-covid-19-as-a-major-threat-to-public-health/>
- Weinrib, B. (2020). What Does FBS Stand For? *Athlon Sports*. Retrieved December 9, 2020 from <https://athlonsports.com/college-football/what-does-fbs-stand-for>

Wilmer, B. (2020). SEC Non-Conference Football Games Cancelled Due to COVID-19.

FBSchedules. Retrieved November 15, 2020 from

<https://fbschedules.com/sec-non-conference-football-games-canceled-due-to-covid-19/>

World Health Organization. (2020). Timeline of WHO's Response to COVID-19. *World Health*

Organization. Retrieved November 13, 2020 from

<https://www.who.int/news/item/29-06-2020-covidtimeline>

USA Today Sports. (2020). NCAA Finances. *USA Today*. Retrieved November 19, 2020 from

<https://sports.usatoday.com/ncaa/finances/>

Young, J. (2020). Ivy League Cancels Football and Other Fall Sports Due to COVID-19. *CNBC*.

Retrieved November 15, 2020 from

<https://www.cnbc.com/2020/07/08/ivy-league-cancels-football-and-other-fall-sports-due-to-covid-19.html>

Zillgitt, J. (2020). NBA Shuts Down After Rudy Gobert Tests Positive for Coronavirus. *USA*

Today. Retrieved November 13, 2020 from

<https://www.usatoday.com/story/sports/nba/2020/03/11/coronavirus-nba-shuts-down-after-rudy-gobert-tests-positive/5028026002/>

Table 1: Descriptive Statistics and Correlations

Variable	Mean	s.d.	Min	Max	1	2	3	4	5	6	7	8
1. Fall Games	0.566	0.497	0.000	1.000	1.000							
2. Face-to-Face Classes	0.273	0.446	0.000	1.000	0.009	1.000						
3. Football Expenses	13.921	13.957	1.060	69.720	0.605*	-0.004	1.000					
4. Governor's Political Party	0.478	0.501	0.000	1.000	-0.152*	-0.081	-0.090	1.000				
5. Net Price of Attendance	18.798	7.501	6.000	43.110	-0.179*	0.094	0.044	0.148*	1.000			
6. % of Student-Athletes	0.061	0.056	0.010	0.330	-0.492*	0.062	-0.373*	0.114	0.435*	1.000		
7. Endowment	1.663	4.663	0.000	38.300	0.031	-0.120	0.205*	0.069	0.068	0.138*	1.000	
8. Win % Prior Season	0.499	0.215	0.000	1.000	0.124	-0.017	0.245*	-0.575	0.012	-0.105	0.097	1.000

N=249

*Coefficients are significant at the .05 level

Table 2: Logistic Regression Models

Variable	1	2	3	4	5	6
Face-to-Face Classes		0.454 (0.219)			0.504 (0.316)	
Football Expenses			0.600 (0.000)		0.642 (0.000)	0.638 (0.000)
Governor's Political Party				-0.714 (0.025)	-1.101 (0.024)	-1.134 (0.020)
Net Price of Attendance	0.033 (0.173)	0.032 (0.188)	-0.091 (0.039)	0.038 (0.119)	-0.091 (0.057)	-0.088 (0.062)
% of Student-Athletes	-41.004 (0.000)	-41.870 (0.000)	-2.634 (0.654)	-41.675 (0.000)	-2.739 (0.666)	-2.461 (0.695)
Endowment	0.110 (0.004)	0.116 (0.003)	-0.306 (0.361)	0.118 (0.003)	-0.255 (0.548)	-0.252 (0.553)
Win % Prior Season	0.590 (0.422)	0.545 (0.458)	0.181 (0.873)	0.564 (0.453)	0.042 (0.971)	0.063 (0.956)
Constant	1.392 (0.014)	1.347 (0.017)	-2.314 (0.022)	1.678 (0.005)	-2.182 (0.038)	-2.070 (0.044)
LR χ^2	90.500	92.050	208.840	95.630	215.740	214.740
Pseudo R^2	0.266	0.270	0.613	0.281	0.633	0.630
N=249						