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Dylan C. Cherullo

University of Montana, dc161726@umconnect.umt.edu

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Evaluating the Effect of NIL Laws on College Athletic Department Revenue

The National Collegiate Athletics Association (NCAA) has existed as a major cartel for over a century, generating significant economic profits for colleges and conferences through the exploitation of unpaid student-athletes. Recent court cases, *O'Bannon v. NCAA* and *Alston v. NCAA* have challenged the NCAA cartel and led to the legalization of NIL deals, allowing athletes to be compensated for their Name, Image, and Likeness (NIL). This creates a massive shock to the market of NCAA athletics, and in this paper I will explore the effects of this new market on sponsorship revenues of colleges.

This paper builds upon the existing literature on the NCAA's cartel power in the college athletics market (Santesteban & Leffler, 2017). The majority of this literature is focused on the effect of the NCAA's market power on the labor market for college athletes, with economists assessing the resulting efficiency gains and losses (Santesteban & Leffler, 2017). This literature also includes papers that examine the numerous antitrust cases brought against the NCAA throughout the years, with particular attention given to the recent *O'Bannon* and *Alston* cases (Noll, 2022; Mitten, 2017). These papers demonstrate that economic theory is supported by the Supreme Court's decisions in both cases, discrediting the counterarguments from the NCAA.

The compensation of college athletes has been a topic of much speculation, given its illegal status for so long (Borghesi, 2017; Lane et al., 2014). Economists have attempted to predict athletes' salaries using labor market outcomes in professional sports. One common approach involves calculating a player's marginal revenue product (MRP) based on their contribution to team performance, multiplied by the effect on the team's win-loss percentage and the resulting effect on revenues (Borghesi, 2017; Lane et al., 2014). Borghesi (2017) and Lane et

al. (2014) find that the majority of college football and basketball players should receive a salary in addition to what they earn from their university scholarships.

Additionally, this paper is part of a broader literature examining the effects of wage increases on firms, drawing on methods used to assess minimum wage increases (Lopresti & Mumford, 2015). An increase in athlete's compensation is essentially a minimum wage increase, and with athletes already legally being considered employees, the effects on the colleges that employ them should be similar between the two fields. The findings in the minimum wage field demonstrate that wage increases have limited effects on firms, which is what this paper seeks to prove for college athletics.

The NCAA and its members argue that if athletes are able to be compensated for their NIL, then sponsors would directly sponsor athletes, not the schools. Athletes are now able to sign deals directly with companies, circumventing their college, meaning that the revenue is directed away from the colleges and to the athletes themselves (Noll, 2022). The counter argument is that sponsors would be able to give money to athletes independent of the money that they give to colleges.

This paper represents an initial attempt to quantify this effect on college athletics. There is currently no non-speculative literature available on the effects of NIL deals on college athletics, which is the area that this paper aims to expand. Understanding the effects of these laws will help regulating bodies enact rules to protect athletes and universities in this new market. Most importantly, it can have implications for competitive balance, and rules can be put in place to promote competitive balance across college sports.

To test the theory that compensating athletes will reduce college athletic department revenues, I will use panel data from the Knight Commission on College Athletics, which covers

over 350 public, Division I universities from 2002 to 2021. The data comes from a reputable source and provides a comprehensive picture of athletic department revenues. FPI controls come from ESPN's FPI database and were acquired using the `cfbfastr` package on R. Mask mandate information comes from the COVID-19 US State Policy database.

$$sponsrev = \beta_0 + \beta_1 lcomp + \beta_2 lagfpi + \beta_3 lagcoach + \beta_4 lequip + \beta_5 lagcompout + \delta_0 mask + \delta_1 post + \delta_2 everNIL + \delta_3 post \times everNIL$$

The purpose of this study is to evaluate the effects of allowing college athletes to sign NIL deals on state-level changes in university athletic department revenue from sponsors. The model used in this study is a difference-in-differences model, where revenue from sponsorships (*sponsrev*) is the outcome variable, *post* signifies post-NIL law passage, and *everNIL* signifies if there was ever a NIL law passed in the state. The interaction term will show the difference in revenues for states with a NIL law after it is passed. This model is necessary to control for non-random selection into the treatment group due to factors such as political leanings, college athletics presence, business environment, and public perception that influence the passage of NIL laws in a state.

Fixed effects is also used to control for time invariant factors that cause higher or lower athletic revenues such as historic performance, quality of athletes in a given state, fandom size, population, and sponsors of the schools. This addresses the problem of reverse causality because factors that cause lower or higher revenues will be controlled for by the fixed effects.

Athletic department revenues will be aggregated by state, as there is no way to tell if a certain college has athletes signed to NIL deals. Logs of these values are used due to large variations in the values as displayed in the descriptive statistics below.

Table 1

Variable	Obs	Mean	Std. Dev.	Min	Max
Spons	440	15500000	16200000	1802	103000000
Coach	440	39100000	32700000	2807041	179000000
Equip	440	43200000	38100000	1407794	223000000
Compout	440	3616190	3343664	0	17100000

The treatment group states that passed NIL laws and the control are states that did not pass laws, leaving their athletes under the control of the NCAA's interim policy on NIL. The NCAA's policy is more restrictive than the laws passed at the state level, meaning athletes are less likely to sign as many NIL deals, which means we can expect less of an effect on the revenues of athletic departments in non-NIL states.

Fixed effects cannot control for all covariates, as there are many that vary across state and time. The status of a mask mandate to mitigate the spread of Covid is included as these mandates and corresponding laws had an adverse effect on college sports. The Football Power Index (FPI) from ESPN will be used as a proxy for team performance by state. FPI is a statistic that measures the quality of a football team, and it is calculated only for Football Bowl Series universities. This is not all universities in the sample, however this is a nonissue because it is still a strong demonstration of team performance and the level of football is controlled for by the fixed effects.

Including outward competition guarantees is another proxy for team performance. Competition guarantees are payments made to a non-conference opponent to play them, typically as a tune-up game or for fan entertainment. Better programs want to play better programs in non-conference games, therefore paying more in competition guarantees. Also to control for

changes in the quality of athletic programs in a state, the model will use expenditure on coaches and facilities, as these factors attract better athletes.

However, there are several limitations to this study. The relatively short time frame of data collection may not fully capture the effects of NIL laws on athletic department revenue. A longer-term analysis may be needed to fully understand the impact of NIL laws.

One potential mechanism through which athletic revenues are not reduced by NIL deals is the flow of better athletes to states with NIL laws. States that allow college athletes to earn money from NIL deals could attract more talented and popular players, creating a competitive advantage in recruiting. This could also motivate states to pass NIL laws to attract better athletes. Therefore, this variable will not be controlled to allow for the effect of the mechanism to be assessed.

The results of this regression are shown in Table 1. The results show that the effect of NIL Laws is not statistically significant. This shows that there is no significant effect of NIL laws on revenues. This result disproves the main argument of the NCAA against the legalization of NIL Laws, giving further validation for athletes earning their fair share via NIL.

Table 2

l.evernil	0.0962*
	(2.15)
l.evernil#l.postnil	0.0459
	(0.40)
mask	-0.119
	(-1.14)
fpi	0.00114
	(0.85)
lcoach	0.479***
	(6.70)
lequip	0.381***
	(6.99)
lcompout	0.311***
	(7.38)
_cons	-3.325***
	(-5.92)
R ²	0.809
N	436

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In this model, the controls for FPI and mask are not individually significant nor are they jointly significant. This shows that Covid did not have a huge effect on sponsors of college sports and that year-to-year changes in performance do not have an effect on sponsorship revenues. There is likely more of an effect from historic performance on sponsorship revenues which is something to explore in future studies. A model without these controls is estimated and the results are presented in Table 2.

Table 3

l.evernil	0.0974*
	(2.13)
l.evernil#l.postnil	0.0437
	(0.36)
lcoach	0.473***
	(6.35)
lequip	0.390***
	(6.84)
lcompout	0.308***
	(7.39)
_cons	-3.366***
	(-6.09)
R ²	0.808
N	436

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The second model gives the same result as the first model, with the effect of NIL deals on sponsorship revenue not being significant.

However, this model presents the issue of reverse causality between sponsorship and coach expenditure. Higher sponsorship revenue could be giving colleges more money to go spend on a better coach, creating an issue in this control. Also, changes in FPI during the season are shown to have little effect on sponsorship revenue, likely because sponsors are unable to react that quickly to changes in team performance. To remedy this issue, I include a lagged control for coach spending and for FPI, and report the results in Table 3. Facilities expenditure is not lagged because sponsors would be contributing to the facilities and equipment of a team. Current year compensation guarantees are used as sponsors would be giving more money to teams playing big games in the current year.

Table 4

l.evernil	0.149***
	(3.88)
l.evernil#l.postnil	-0.0111
	(-0.09)
lagfpi	0.000936
	(0.68)
lagcoach	0.124*
	(2.13)
lequip	0.623***
	(11.53)
lcompout	0.374***
	(10.05)
_cons	-2.366***
	(-4.15)
R ²	0.804
N	435

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Adding the lagged controls has no effect on the results of the model. The effect of NIL laws on revenues from sponsors remains statistically insignificant, showing that states have nothing to fear when passing NIL laws. It is interesting to note that even with a lag, FPI does not have a significant effect on sponsorship revenue. This reinforces the fact that historical performance, popularity, and reputation would have more of an effect than year to year variation in performance.

However, identification problems remain in this model. With the variation between colleges within states, it is possible that effects at the college level would be different. Also, despite fixed effects controlling for historical popularity, year-to-year variation in popularity,

performance, and reputation are largely uncontrolled for in this model. Controls for championships, star players, and conference realignment should be included in future models to attempt to control for these factors.

The college athletics market has entered the legal NIL era, bringing with it many questions about the effects of this new policy on the labor market. This study shows that there is no significant effect from an NIL law being in place on sponsorship revenue for college athletic departments in a given state. This supports the argument by economists and athletes that the legalization of NIL would not have the negative effects the NCAA argued it would. As we are still very early into the NIL era, further research and evaluation of the new market is needed.

Works Cited

- Borghesi, Richard, 2017. "Pay for play: the financial value of NCAA football players" *Applied Economics*, vol49(62), 4657-4667.
- Lane, Erin, Juan Negel, and Janet S. Netzl, 2014. "Alternative Approaches to Measuring MRP: Are All Men's College Basketball Players Exploited?" *Journal of Sports Economics*, vol15(3), 237-262.
- Lopresti, John W., and Kevin J. Mumford, 2015. "Who Benefits from a Minimum Wage Increase?" *Upjohn Institute Working Paper*, 15-224.
- Mitten, Matthew J, 2017. "Why and How the Supreme Court Should Have Decided O'Bannon v. NCAA." *The Antitrust Bulletin*, vol62(1): 62-90.
- Noll, Roger. 2022. "Sports Economics on Trial: Alston v. NCAA." *Journal of Sports Economics*, vol23(6): 826-845.
- Santesteban, Christian J., and Keith B. Leffler, 2017. "Assessing the Efficiency Justifications for the NCAA Player Compensation Restrictions." *The Antitrust Bulletin*, vol62(1): 91-111.