The Effect of NIL Rights on Revenue and Donations in Power 5 Collegiate Sport Programs

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Abstract:

This study examines how the implementation of Name, Image, and Likeliness (NIL) rights has affected revenue and donations within Power 5 collegiate football programs. Using ordinary least squares regressions with controls for year and conference variation, I evaluate revenue and contribution patterns before and after the introduction of NIL rights. The findings indicate the NIL rights alone do not significantly impact overall revenue, but they negatively affect revenue for high-performing programs. Additionally, contributions generally declined post-NIL implementation yet significantly increased for programs with strong athletic performance. These results highlight economic and financial shifts resulting from NIL policy implementation and suggests necessary strategic considerations for collegiate athletic programs in the evolving landscape of athlete compensation.

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Introduction

The introduction of Name, Image, and Likeness (NIL) rights marks a pivotal shift in collegiate athletics, transforming long-standing practices regarding athlete compensation and revenue distribution. Prior to the 2021 policy changes, collegiate athletes were prohibited from monetizing their personal brands, while universities and athletic departments benefited from the athletes' participation in sports, especially in football programs. These restrictions were justified by the National Collegiate Athletic Association (NCAA) under the notion that NIL rights would undermine the amateur status of college sports, potentially leading to a situation where athletes were primarily motivated by financial gain.

However, significant criticism and backlash over these regulations/led to multiple legal cases that challenged the NCAA's position. In O'Bannon V. NCAA (2015), former UCLA basketball player Ed O'Bannon argued that student-athletes deserved compensation for the use of the names, images, and likenesses in commercial products like video games. Although the Ninth Circuit Court of Appeals upheld some amateurism principles, the decision indicated that NCAA restrictions should not unduly prevent compensation related to NIL (*O'Bannon v. NCAA*, 2015). In the landmark Supreme Court case NCAA v. Alston (2021), the court unanimously ruled that NCAA regulations that restricted education-related benefits, such as scholarships for graduate school, paid internships, and academic tutoring, violated federal antitrust laws. It was this case that marked a significant blow to the NCAA's existing model and paved the way for athletes to start using their name, image, and likeness to their advantage. After several states passed their own NIL laws in response to the Supreme Court's decision, the NCAA implemented a NIL

policy that permitted student-athletes to profit from their personal brands in strictly "quid pro quo" agreements.

This rapid shift toward athlete compensation through NIL raises significant interest and concern regarding their broader economic implications, especially in how these changes affect revenue streams within Power 5 collegiate sport programs. The traditional revenue streams that were predominantly controlled by universities, athletic departments, and the NCAA, potentially may be redistributed as athletes have more financial opportunities, such as endorsements, sponsorships, merchandise sales, and social media promotions. Despite widespread media coverage and public discussion surrounding NIL rights, relatively little empirical research has examined how these rights influence revenue and donations within collegiate sports programs. Power 5 institutions, which includes members of the Atlantic Coast Conference (ACC), Big Ten, Big 12, Pac-12, and Southeastern Conference (SEC), are particularly influential within collegiate athletics due to their financial resources, visibility, and athletic dominance.

By examining revenue and contribution data collected from public NCAA Power 5 Division I football programs before and after the implementation of NIL policies, this study aims to determine whether revenue streams have been influenced in this new financial environment. This research intends to contribute new insights to the understanding of NIL's economic consequences.

Literature Review

Existing research highlights the significant economic implications surrounding collegiate athletics and compensation for student-athletes. Borghesi (2017) examines the financial value of

NCAA football players by quantifying their contributions to their respective program's revenues. The study estimates that, in the absence of NCAA restrictions, the annual market value for elite five-star recruits could approach $799,000, significantly higher than the current scholarship-based compensation model (Borghesi, 2017). Four-star recruits would similarly earn around $361,000 annually (Borghesi, 2017). This highlights the financial value that student-athletes contribute to collegiate athletic programs.

The landmark case of O'Bannon v. NCAA significantly influenced the discussion regarding athlete compensation and amateurism rules. Mitten (2017) emphasizes the importance of this case as the first decision to identify NCAA amateurism restrictions explicitly as antitrust violations under the Sherman Act (Mitten, 2017). This ruling challenged the NCAA's traditional stance, suggesting that prohibitions against athletes profiting from their NIL unfairly restrict market competition among universities and negatively impact student-athletes economically (Mitten, 2017).

Further extending this legal perspective, Noll (2022) analyzes the implications of the Supreme Court's ruling in NCAA v. Alston (2021), arguing that the decision dramatically weakened the NCAA's regulatory authority over athlete compensation. According to Noll, this ruling has fundamentally shifted regulatory power toward conferences and individual institutions, thus reshaping the financial landscape within collegiate athletics (Noll, 2022).

In evaluating the broader implications of NIL policies, Cherullo (2023) provides initial insights into the financial impacts on collegiate athletic departments. Contrary to concerns that NIL opportunities for athletes might reduce institutional sponsorship revenues, this research finds minimal negative impact. Instead, NIL agreements appear capable of coexisting alongside

traditional institutional revenue streams. This indicates that universities may not face substantial revenue declines due to athlete compensation (Cherullo, 2023).

This thesis extends existing literature by empirically analyzing the specific financial impacts of NIL implementation on revenue and contribution patterns within public Power 5 collegiate football programs, thereby addressing the big changes and the money at stake in a multi-billion dollar industry. The findings provide insights into how NIL rights affect institutional financial strategies and athlete compensation within collegiate sports.

Data

The primary objective of this study is to estimate how the implementation of NIL rights affects and athletic revenue and donations within Power 5 collegiate football programs. To achieve this, I require variables capturing overall athletic revenue, athletic contributions, football ticket sales, and athletic performance indicators. I collected data from publicly available comprehensive financial reports published by all public universities in the Power 5 conferences and supplemented by ESPN for athletic football performance records. The dataset spans eight academic years: 2014, 2015, 2016, 2017, 2018, 2019, 2021, and 2022. The 2020 academic year was omitted from analysis due to the financial and operational disruptions caused by the COVID-19 pandemic.

Table 1: Summary Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Revenue	407	125.779	39.95001	54.1126	391.7696
Ticket Sales	407	25.32264	13.34627	5.532126	72.45721
Contributions	407	29.20529	20.5184	4.613715	298.5011
Winning Percentage	407	0.56814	0.2056395	0	1

The primary variables analyzed include athletic revenue (measured in millions), university enrollment, ticket sales revenue (measured in millions), athletic contributions (measured in millions), and winning percentage for each institution's football program as a measure of athletic performance. These variables collectively enable an analysis of financial outcomes and how they are influenced by NIL implementation and performance. Table 1 summarizes the key financial statistics across the observed years. The unit of observation is a college year. Total revenue refers to the athletic income generated by each institution's football program, ticket sales represent income from football games, contributions represent financial donations made to athletics, and winning percentage quantifies athletic performance.

Table 2 presents a correlation matrix of key variables used in the analysis.

Table 2: Correlation Matrix of Key Variables

Variable	Revenue	Ticket Sales	Contributions	Winning Percentage
Revenue	1.0000	–	–	–
Ticket Sales	0.7843	1.0000	–	–
Contributions	0.8037	0.4612	1.0000	–
Winning Percentage	0.3611	0.2421	0.3883	1.0000

Revenue exhibits a strong positive correlation with both ticket sales (r = 0.7843) and contributions (r = 0.8037), suggesting that institutions generating higher revenues also typically have higher ticket sales and receive larger donations. Revenue has a moderate positive correlation with winning percentage (r = 0.3611), indicating that more successful programs tend to generate somewhat higher revenues. Ticket sales and contributions are moderately positively correlated (r = 0.4612). Winning percentage has weaker but positive correlations with both ticket sales (r = 0.2421) and contributions (r = 0.3883), highlighting the role of athletic success in revenue streams and financial support.

Figure 1 and 2 show how revenue has change over time overall and by conference, respectively.

Figure 1: Average Revenue of Power 5 Collegiate in Millions per Year

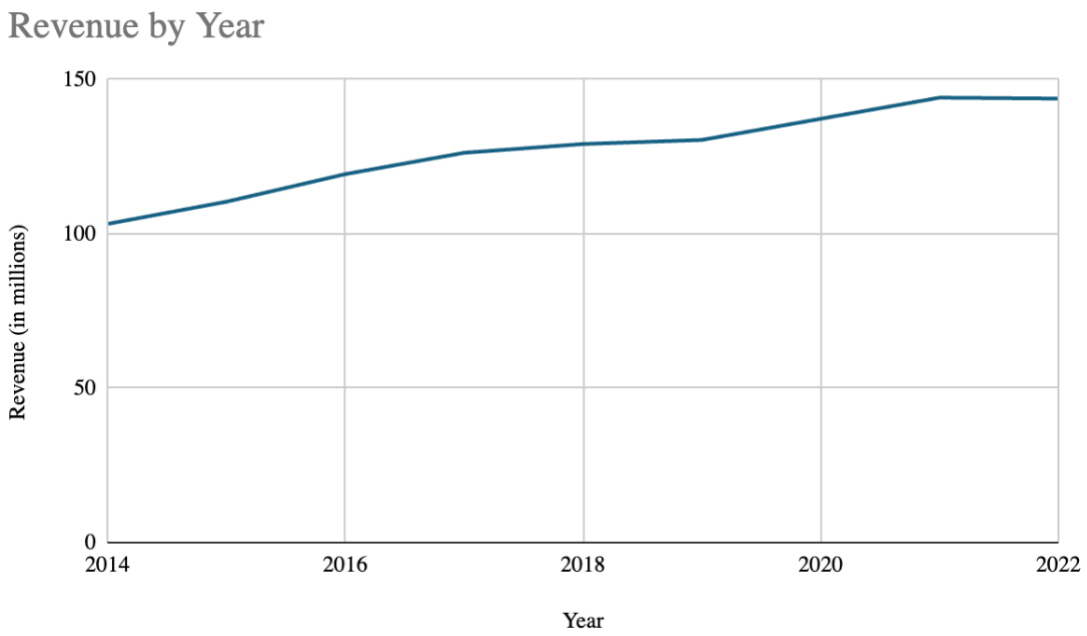

Figure 2: Average Revenue per Year for each Power 5 conference

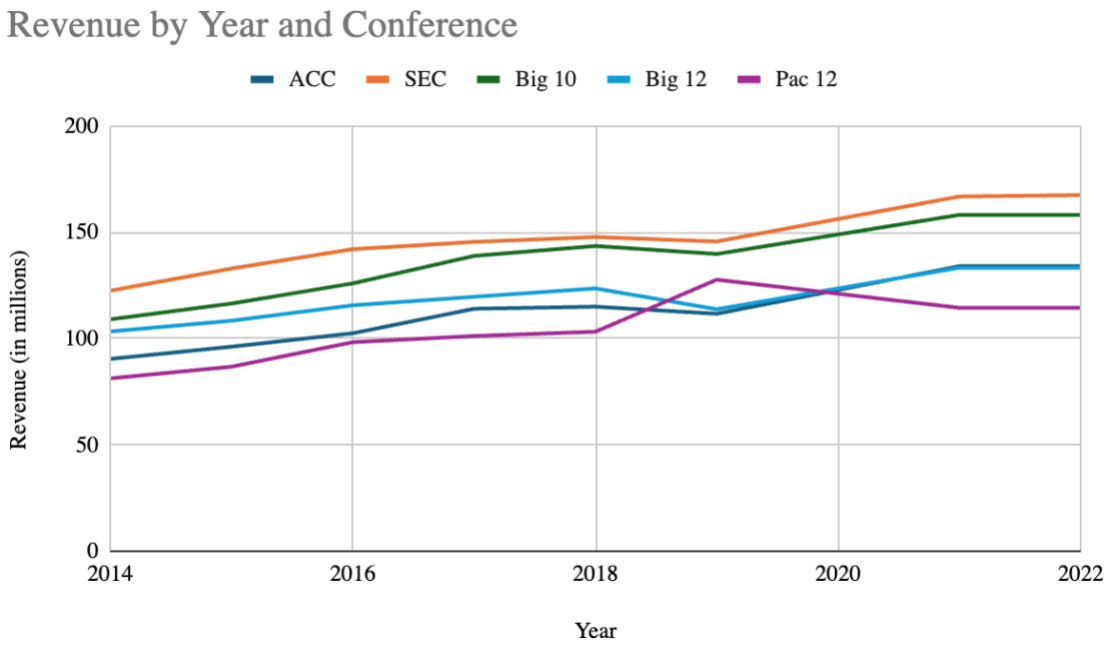

Figure 2 clearly depicts the differences in revenue across conferences, with the SEC consistently leading in average revenue generation across all observed years. By 2022, the average SEC school earned approximately $167 million with the Big Ten closely following with an average school's revenue reaching $158 million. The Big 12 and ACC remain in the mid-tier range, with an average university generating approximately $133 million and $134 million, respectively, in 2022. The Pac-12 consistently has the lowest average revenue among the Power 5 conferences, other than its slight peak in 2019 before declining to $114 million for an average school.

Empirical Analysis

To evaluate the impact of NIL rights implementation on revenues for Power 5 collegiate sports programs, I utilize four ordinary least squares (OLS) regressions that include controls for variations across years and conferences. The first two regressions include controls for variations across conferences, while the subsequent two regressions introduce lagged dependent variables to account for dynamic effects.

Model 1: Revenue with Conference Controls

$$Revenue = \beta_0 + \beta_1 NIL + \beta_2 NIL * Performance + \beta_3 Year + \beta_4 TicketSales + \beta_5 Contributions + \beta_6 Performance + Conference\ Dummies + \varepsilon$$

Table 3 presents regression results controlling for conference:

Table 3: Regression Results for Revenue (Conference Controls)

Variable	Coefficient	Std. Error	t-value	P-value
NIL	-0.22	3.726	-0.06	0.953
NIL × Performance	-6.186	5.577	-1.11	0.268
Ticket Sales (Millions)	1.589	0.0465	34.12	0.000
Contributions (Millions)	0.984	0.027	36.03	0.000
Performance	5.292	2.916	1.81	0.070
Year	4.101	0.323	12.70	0.000
SEC	6.006	1.621	3.71	0.000
BIG10	15.06	1.612	9.34	0.000
BIG12	-2.72	1.745	-1.56	0.120
PAC12	4.716	1.64	2.86	0.004
Constant	-8226.292	651.35	-12.63	0.000

The regression results indicate that the NIL rights alone do not significantly impact revenue ($p = 0.953$). Ticket sales and contributions remain highly statistically predictors, highlighting their importance in generating football revenues. The significant positive year coefficient reflects a general upward revenue trend over the years studied.

A F-test for joint significance was conducted to evaluate whether the NIL variable and the interaction term for NIL and performance together significantly impact revenue.The results ($F(2, 396) = 2.44$, $p = 0.0889$) indicate that the joint effect of NIL and its interaction with performance is not statistically significant at the 5 percent level. However, the p-value is less than 0.10, suggesting weak evidence that these variables may jointly affect revenue.

Model 2: Contributions with Conference Controls

$$Donations = \beta_0 + \beta_1 NIL + \beta_2 NIL * Performance + \beta_3 Year + \beta_4 Performance + \beta_5 TicketSales + Conference\ Dummies + \varepsilon$$

Table 4 presents regression results focusing on athletic contributions, controlling for conference:

Table 4: Regression Results for Contributions (Conference Controls)

Variable	Coefficient	Std. Error	t-value	P-value
NIL	-5.46	0.94	-5.78	0.000
NIL × Performance	7.98	1.51	5.27	0.000
Year	0.953	0.5911	1.61	0.108
Ticket Sales (Millions)	0.62	0.0796	7.80	0.000
Performance	8.528	5.338	1.60	0.111
SEC	3.048	2.972	1.03	0.306
BIG10	-5.72	2.946	-1.94	0.053
BIG12	-0.29	3.205	-0.06	0.954
PAC12	-2.176	3.024	-0.72	0.472
Constant	-1913.67	1192.1	-1.61	0.109

The regression results reveal that NIL implementation significantly decrease contributions overall ($p < 0.001$). However, the positive interaction with performance ($p < 0.001$) highlights increased contributions for successful programs under NIL. This indicates that highly successful football programs may benefit from increased contributions due to enhanced visibility and brand appeal. Thus, lower performing teams with a winning percentage of 0%, they earn 11 million dollars less than a higher performing team with a winning percentage of 100%. Ticket sales are positively correlated with donations and statistically significant.

Model 3: Lagged Revenue

$$Revenue = \beta_0 + \beta_1 NIL + \beta_2 TicketSales + \beta_3 Contributions + \beta_4 Performance + \beta_5 LaggedRevenue + \varepsilon$$

Table 5 presents regression results focusing on athletic revenue, controlling for previous years' revenue, using a lagged dependent variable:

Table 5: Regression Results for Revenue Lagged Dependent Variable

Variable	Coefficient	Std. Error	t-value	P-value
NIL	2.426	1.599	1.52	0.130
Ticket Sales	0.606	0.081	7.43	0.000
Contributions	0.785	0.029	27.13	0.000
Performance	5.139	2.768	1.86	0.064
Lagged Revenue	0.521	0.031	16.33	0.000
Constant	21.288	2.415	8.82	0.000

The lagged revenue model indicates past revenue significantly predicts current revenue ($p < 0.001$). Although NIL implementation itself is not significant ($p = 0.130$), it indicates that NIL is causing revenue to grow by 2.426 million dollars each year. Ticket sales and contributions continue to play substantial roles, highlighting consistency year to year.

Model 4: Lagged Revenue without Ticket Sales and Contributions

$$Revenue = \beta_0 + \beta_1 NIL + +\beta_2 Performance + \beta_3 LaggedRevenue + \varepsilon$$

Table 6: Regression Results for Revenue Lagged Dependent Variable with only NIL and Performance

Variable	Coefficient	Std. Error	t-value	P-value
NIL	-4.244	2.766	-1.53	0.126
Performance	16.29	5.057	3.22	0.001
Lagged Revenue	0.945	0.029	31.71	0.000
Constant	2.769	3.778	0.73	0.464

Results indicate that past revenue remains a highly significant predictor ($p < 0.001$), reflecting revenue stability over time. While the NIL coefficient is not statistically significant ($p = 0.126$), its negative sign suggests potential revenue declines by 4.244 million dollars each year associated with NIL implementation when other financial factors are not considered. In this model, athletic performance becomes a highly significant predictor of revenue ($p = 0.001$), highlighting the direct impact of success on revenue generation independent of other revenue streams.

Comparing Tables 5 and Table 6, the coefficients on the lagged revenue dependent variable change from 0.521 to 0.945, respectively, due to the removal of ticket sales and contributions in the regression model for Table 6. This suggests that past revenue serves as strong predictor for current revenue. Removing ticket sales and contributions in Model 4 avoids multicollinearity as previous years revenue includes ticket sales and contributions. Model 4 clarifies the prominent role athletic performance plays in revenue generation when revenue trends are the primary control. Additionally, the differences in the coefficients on NIL and Performance, can be explained by the removal of ticket sales and contribution shifting NIL down and Performance up in Model 4 compared to Model 3.

Model 5: Lagged Contributions

$$Donations = \beta_0 + \beta_1 NIL + \beta_2 NIL * Performance + \beta_3 TicketSales + \beta_4 Performance + \beta_5 LaggedDonations + \varepsilon$$

Table 7 presents regression results focusing on athletic contributions, controlling for previous years contributions, using a lag dependent variable:

Table 7: Regression Results for Contribution Lagged Dependent Variable

Variable	Coefficient	Std. Error	t-value	P-value
NIL	-0.7615	2.557	-0.30	0.766
Ticket Sales	0.0020	0.092	0.02	0.982
Performance	9.9038	4.875	2.02	0.043
Lagged Contributions	0.9010	0.078	11.45	0.000
Constant	–1.7226	2.914	–0.59	0.555

In the lagged contributions model, previous contributions significantly predict current contributions ($p < 0.001$). Athletic performance positively influences contributions ($p = 0.043$), indicating that successful programs maintain higher contributions over time, while NIL and ticket sales do not significantly affect current year contributions. Although NIL is not statistically significant, the coefficient indicates that NIL results in contributions decreases 761,500 dollars each year.

Conclusion

This research evaluates the financial impact of the implementation of Name, Image, and Likeness (NIL) rights within Power 5 collegiate sports programs. By employing ordinary least

squares regressions that include conference controls, as well as lagged dependent variables, the analysis provides insights into NIL's economic implications. The findings demonstrate that NIL policies alone do not significantly influence overall revenue when controlling for other financial factors but reveal complex interactions with athletic performance. Specifically, high-performing programs experience a decrease in revenue, indicating potential challenges in adapting financially to the NIL landscape.

Furthermore, the study identifies significant impacts on athletic contributions following NIL implementation. Generally, contributions declined post-NIL. However, successful athletic programs experienced substantial increases in donations, suggesting that enhanced visibility and brand appeal can be effective under the new NIL rules. The lagged contribution model also highlights the importance of past contributions and current athletic performance in predicting ongoing donation levels, while NIL rights represented the growth in contributions due to NIL, although NIL implementation had no statistically significant impact.

Overall, these results highlight the economic consequences of NIL rights implementation, emphasizing the substantial implications for collegiate athletics. NIL policies have introduced new financial pressures, particularly for high-performing programs, and altered the traditional patterns of revenue generation and donor behavior. Future research is necessary to explore the long-term economic impacts of NIL policies, particularly as more comprehensive data becomes available, and as the upcoming regulatory changes, including potential revenue-sharing for collegiate athletes, further reshape the collegiate athletics landscape.

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