



Path to the Podium: Analyzing Influential Factors in NFL Draft Player Selection

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Background & Importance

- **The NFL Draft:** annual draft where all teams select new players to join the league
- **College football** contributes significantly to large school revenues through **ticket sales** and **higher applicant volume**
- **Universities, sports agents, NFL teams,** and even **players** have **much to gain** if they knew and acted on NFL team draft tendencies

Design

- **Data:** All 2013-2023 first & second-round picks
 - Independent Variables: School **Winning %**, **Football Expenses**, Player **Race**, **Weight**, **Height**, if College Team in **SEC**, if player from the **Deep South**, Player **Position**
- **Two Regressions:**
 - Dependent Variable 1: **probability** of being drafted in the first round
 - Dependent Variable 2: **pick height** within the first round

Empirical Model

$$P(\text{Firstround}) \text{ and } Rd. 1 \text{ PickHeight} = \beta_1 \text{SchoolW\%} + \beta_2 \text{FootballExp} + \beta_3 \text{Race} + \beta_4 \text{Heightin} + \beta_5 \text{Weightlbs} + \beta_6 \text{SEC} + \beta_7 \text{DeepSouth} + \beta_8 \text{QB} + \beta_9 \text{RBWR} + \beta_{10} \text{TE} + \beta_{11} \text{OTOGC} + \beta_{12} \text{CBS} + \beta_{13} \text{DTDE} + \beta_{14} \text{LB} + \varepsilon$$

Significant Results

Variable	P(1st round)	Pick Height
QB	0.884 (0.497)*	-7.012 (0.042)**
QB x Race	0.032 (0.177)	7.725 (0.042)**
Weight	-0.003 (0.001)***	0.006 (0.031)
(OT, OG, C) x Weight	0.005 (0.004)	-0.032 (0.105)
Winning %	0.190 (0.111)*	-1.546 (3.024)
School Football Expenses (\$)	2.54e-09 (1.40e-09) *	-6.72e-08 (3.79e-08)*

Clinical Significance

- QB: **88%** more likely to be a **first-round pick** than a **second-round pick**
 - On average, QBs move up **7 slots** if they are **first-round selections**
 - QB x Race: Black QBs are **3%** more likely than white QBs to be a **first-round pick** than a **second-round pick**
- OT/OG/C: **90%** more likely to be a **first-round pick** than a **second-round pick**
 - If OT/OG/C **gain 23 pounds**, they're **62%** more likely to be a **first-round-pick** than a **second-round pick**
- Winning Percentage/College Football Expenses: **Significant** at a **90% confidence** interval
- Other Positions:
 - RB/WR, TE, CB/S, DT/DE, LB all **lack statistical** and **clinical** significance

Takeaways

- **Weightlifting:** College programs should emphasize their strength & conditioning and nutrition programs to improve draft pick (especially for offensive lineman)
- **Budget Allocation:** Spend more money on football, improving factors like S&C - makes both the team more successful and improves player draft position
- **Develop QBs:** Quarterbacks are the top draft priority to NFL teams. They are the "face of their franchise", increasing visibility of their alma mater to the entire nation
- **Not That Important? :** Surprisingly, **all defensive positions, the Deep South** variable, and the **SEC variable lack significance**, questioning the pertinence of these variables in draft tendency