Determinants of Compensation and Performance of NCAA FBS Head Football Coaches

Yuhei Inoue, Temple University
Aubrey Kent, Temple University
Jose Plehn-Dujowich, Temple University
Steve Swanson, Temple University

In 2007, the average salary of head football coaches at National Collegiate Athletic Association (NCAA) Division IA (DIA) institutions exceeded $1 million for the first time in the history (USA Today, 2007). In the Southeastern Conference alone, eight coaches received compensation in excess of $2 million in 2009 (The Chronicle of Higher Education, 2009). However, these coaches are not necessarily paid based on their performance. At the University of Iowa, for example, head coach Kirk Ferentz received a guaranteed salary of $3 million in 2007, although his team had an unimpressive 6-6 regular season record. Examples such as these lead to questions about whether high paid coaches are really worth their salaries (USA Today, 2006). As such, a need clearly exists from an academic standpoint to identify factors that determine coaches’ compensation, and if universities indeed enjoy greater success by investing in this area of human resources. The existing empirical literature in coaches’ compensation is scarce, and has really only examined superficial categories of coaches’ salaries, such as gender (Humphreys, 2000) and race (Kahn, 2006), thereby failing to provide a comprehensive insight into the pay-performance relationship among college coaches. From this, the purpose of the current research is to identify factors that influence the level of head coaches’ compensation. Furthermore, from the perspective of return on investment for the university, the study aims to assess whether the identified determinants of compensation lead to on-field success.

The current study addresses the two aforementioned purposes relying on perspectives provided in the chief executive officer (CEO) compensation literature (e.g., Banker, Plehn-Dujowich, & Xian, 2009; Jensen & Murphy, 1990; Prendergast, 2002). This literature suggests that CEO pay is a function of both internal and external factors, such as CEO performance, the level of complexity a CEO must deal with, managerial labor market, market forces, and CEO’s human capitals (Hengartner, 2006). The study makes for a contribution to the CEO compensation literature by addressing the inconclusive pay-performance relationship (e.g., Jensen & Murphy, 1990; Hengartner, 2006), a finding which has been attributed, at least in part, to the unavailability of definitive performance measures (Hengartner, 2006). Given that sport is a setting in which “performance were observable and could be reliably measured over an extended period of time” (Bloom, 1999, p.25), the compensation of college coaches offers a desirable empirical context to investigate the pay-performance relationship. From the sport management perspective, given the prevalent view that coaches are the equivalent of CEO’s in terms of assumed leadership roles (Kellett, 1999), the application of frameworks used in the CEO compensation research offers an interesting lens through which to view the pattern of compensation seen across the NCAA Football Bowl Subdivision (FBS) landscape. Additionally, the results allow for analysis of administrator decision making when it comes to compensation.

We ran two separated multiple regression analyses using a sample of head football coaches at NCAA FBS institutions in 2006 and 2007. For the first regression model, we specified the coach’s total (maximum) compensation as the dependent variable (figure included base salary, “other” income, plus possible bonuses). The compensation data of coaches were collected from USA Today’s online database. The second regression model used the coach’s current performance as the dependent variable. Current performance consisted of a factor with four relevant variables: the number of total season wins, the number of total conference wins, AP top-25 ranks, and bowl game participation. Consistent with previous CEO compensation research (e.g., Banker et al., 2009), we included three groups of the independent variables: size, the coach’s ability, and the coach’s previous performance. Size was measured using the previous year’s annual football revenue (Hengartner, 2006). Second, as proxy for the coach’s ability, we constructed a factor using three variables related to the coach’s work experience, including the coach’s age, years as head coach in the current football program, and years as an FBS head coach (Banker et al., 2009). Third, another factor that represents the coach’s performance for each of the previous two seasons was formed by the same variables used for current performance. For additional measure of this construct, we also included the career FBS winning percentage of the coach. Finally, variables related to university characteristics (e.g., enrollment), the coach’s general characteristics (e.g., education, race) and the characteristics of the coach’s contract (e.g., years left on the contract) were entered into both regression models. These data were gathered from various sources, such as the integrated
postsecondary education data system (IPEDS), The Chronicle of Higher Education’s website, ESPN.com, and official athletic websites of universities. Our preliminary data set consisted of 239 all university-year observations. In order to have a homogeneous sample, we restricted our analysis to coaches who served as head coach at the current football programs for both of the previous two years, and those with full and available data, resulting in a final sample size of 113 complete observations.

The results suggested that the independent variables collectively explained substantial variation in both compensation (adj. $R^2 = .76$) and current performance (adj. $R^2 = .35$). More specifically, in line with the CEO compensation literature (Banker et al., 2009; Gabaix & Landier, 2008), the level of the coaches’ compensation was positively associated with size (t-value = 3.55, p < .01) and the coach’s ability (t-value = 2.22, p = .03). Interestingly, coach performance in either of the preceding two seasons did not significantly impact compensation. Notably, there was a significant negative effect of alma mater institutions, indicating that coaches working for their alma mater universities were likely to accept lower compensation (t-value = -1.95, p = .06). There were some surprising findings also, such as a coach’s ability having a negative effect on current performance (t-value = -2.56, p = .01), but their career winning percentage having a positive association (t-value = 3.32, p < .01), suggesting that perhaps during the analyzed period some long-successful coaches were having a rough stretch. Collectively, these findings may suggest that universities were likely to reward coaches based on factors that would not lead to high current performance, such as the previous season’s performance and the coach’s ability, while failing to evaluate attributes that would have a positive effect on performance, such as career-winning percentage.