



Stingy principals or benevolent stewards: Reward practices in family versus nonfamily trucking companies

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Abstract

Research on family firms' employment practices remains equivocal with findings from studies framed on the basis of stewardship and socioemotional wealth (SEW) preservation perspectives suggesting that family firms are better employers than nonfamily peers, and findings from studies grounded on agency theory suggesting the opposite. Arguing that these two perspectives are not mutually exclusive, we theorize that, consistent with notions of compensating differentials, pay practices in family firms offer a compensatory balancing of lower base pay with pay forms and benefits signaling the kind of caring, support and long-term commitment typical of such firms. Accordingly, while, consistent with an agentic perspective, pay rates in nonfamily firms may be higher than in family firms, consistent with the stewardship/SEW perspective, we argue that pay and benefits may be structured to offer greater long-term reward security in family firms. Focusing on reward practices among employees in a single job in a single industry (i.e., truck drivers), we find that where there are differences, they generally favor family firms, with a significantly higher proportion of family firms paying on the basis of fixed salary (as opposed to more variable hourly/mile-based rates), and with those firms paying hourly offering typical and "floor" rates higher than those offered by nonfamily firms. Implications for theory and practice are discussed.

KEYWORDS

compensation and benefits, reward systems

1 | INTRODUCTION

With firms controlled by families (i.e., family firms) employing 60% of the global workforce (Neckebrouck, Schulze, & Zellweger, 2018) and accounting for over 40% of the U.S. gross national product (Gómez-Mejía, Núñez-Nickel, & Gutierrez, 2001), whether such firms are better employers than nonfamily firms remains an important and contentious issue. While empirical findings remain limited, a number of scholars report that family firms offer lower compensation, invest less in employee training, and experience lower labor productivity (Chrisman, Memili, & Misra, 2014; Neckebrouck et al., 2018; Sraer &

Thesmar, 2007). These researchers suggest that such outcomes are consistent with family firms' agentic interests, or in other words, an overarching concern with maximizing family members' career opportunities and economic returns (Chrisman, Devaraj, & Patel, 2017; Neckebrouck et al., 2018). Yet other scholars argue that relative to nonfamily firms, family firms place a stronger emphasis on the long-term economic security and well-being of their nonfamily employees (Klein & Bell, 2007; Miller, Breton-Miller, & Scholnick, 2008; Nicholson, 2008; Rubinfeld, MacLean, Pham, & Reardon, 2013), and that nonfamily employees in family firms report higher satisfaction (Huang, Li, Meschke, & Guthrie, 2015) and lower absenteeism

(Bennedson, Tsoutsoura, & Wolfenzon, 2019). According to these scholars, such findings suggest that rather than grounding their HR practices on agentic principles, family firms base their employment practices on the principles of stewardship and socioemotional wealth (SEW) preservation (Arregle, Hitt, Sirmon, & Very, 2007; Eddleston, Kellermanns, & Zellweger, 2012).

In the current study, we attempt to address the empirical anomaly suggested by these findings by focusing on differences between family and nonfamily firms specifically with regard to employee reward practices. We argue that despite the wide divergence between agentic and stewardship approaches to employment, these approaches need not necessarily be viewed as mutually exclusive. More specifically, drawing from the integrative perspective offered by Madison, Holt, Kellermanns, and Ranft (2016), we argue that reward strategies in family firms may be characterized by a *balancing* of concerns regarding agency-related personnel costs with stewardship-related interests in securing and maintaining a motivated and committed workforce, thus reconciling the inconsistent findings noted above.

Such balancing, and a resulting integration of both agentic and stewardship/ SEW preservation approaches to rewards management, may be visible only when taking a more fine-grained analysis of employment practices than has been done to date. Focusing specifically on reward practices allows us to undertake such a fine-grained analysis and offer a theory-grounded framework for understanding how such balancing may, all else equal, be more characteristic of family firms than nonfamily firms. Distinguishing between practices relating to the rate or level of pay, and those relating to the form in which total remuneration is provided, we offer a broad framework explaining how these different approaches may combine to yield a blended architecture of reward practices in family firms. We propose that this blended architecture of reward practices places a primacy on long-term growth by combining limitations on base pay with pay forms and benefits aimed at signaling caring, commitment and support consistent with a typical family-business strategy of long-term employment relations (Brigham, Lumpkin, Payne, & Zachary, 2014; Lee, Hsu, & Lien, 2006). Accordingly, we argue that while family firms may, on the basis of agentic interests, pay less on average than nonfamily firms, consistent with stewardship theory (Davis, Schoorman, & Donaldson, 1997), they may nevertheless attempt to safeguard those they employ, ensuring the latter's economic security and well-being by offering a higher "floor" rate of pay, more generous benefits, and placing less pay-related risk on employees than do similar nonfamily firms. We argue that such nuanced differences in the level and form of nonmanagerial rewards have been overlooked in analyses of archival databases (such as those relied upon in most of the previous research exploring differences in employment practices between family and nonfamily firms) as such databases tend to lack the kind of fine-grained compensation and benefits data required to capture such balancing.

Examining pay practices among a sample of family and nonfamily owned trucking firms in the United States, we test hypotheses regarding differences in reward practices with respect to both compensation (i.e., pay level and form), and benefits. Our findings offer an important

contribution to the field of human resource management in that they isolate the nature of differences in reward practices between family and nonfamily firms. This is important in that while family business researchers have extensively studied how family businesses differ in structure and processes from nonfamily firms, with the exception of a handful of studies noted below, HR scholars have paid relatively little attention to such distinctions. They are also important in that they demonstrate that while the principles of agency and stewardship may be highly divergent, they are by no means mutually exclusive when it comes to organizational reward practices in particular contexts such as family business. Indeed, our theorizing and findings suggest that in particular employment contexts such as those characteristic of family business, a compensatory balancing of elements of both may be not only feasible, but widely prevalent. Furthermore, our findings offer an important empirical contribution to the research on employment practices in family business because, as noted by Gómez-Mejía, Cruz, Berrone and De Castro (2011, p. 664), when it comes to differences in HR policies and practices between family and nonfamily firms, the evidence tends to be less than rigorous, with much of it based on "anecdotes, isolated interviews with HR managers, general impressions, and even conjecture." In contrast to such studies, our findings offer some of the first detailed, quantitative evidence of how reward strategies may differ between family and nonfamily firms. To the extent that such findings may be generalizable to other industries and sectors, they suggest that, at least with regard to pay, family firms are not necessarily worse employers than their nonfamily peer companies, but rather adopt a different, more security-oriented approach.

2 | THEORY DEVELOPMENT

2.1 | Dimensions of pay systems and theoretical foundations

Remuneration is defined by Milkovich and Newman (2008, p. 12) as "all forms of financial returns and tangible services and benefits employees receive as part of an employment relationship." As such, analyses of organizational pay systems typically differentiate between compensation (i.e., direct or deferred financial returns) and benefits (e.g., paid days off), and further distinguish between two main dimensions of compensation, namely *pay level* or the rate of compensation, and *pay form* or the ways in which remuneration is provided (e.g., hourly wage, salary, performance-based incentive).

As noted by Bamberger, Biron and Meshoulam (2014, p. 125), choices made regarding these reward system dimensions (i.e., pay level, pay form, extent of benefits) tend to be determined on the basis of "a set of assumptions about how rewards may be used to motivate employee participation, contribution, development and retention," and the degree to which decisions based on these assumptions are consistent with key organizational objectives and contingencies. Research suggests that, with regard to family business, these assumptions tend to be grounded in two overarching management perspectives, namely agency theory and stewardship/SEW preservation

TABLE 1 Agency theory versus stewardship/socioemotional wealth (SEW) preservation perspectives

		Agency theory	Stewardship/SEW theory
Core assumptions		Economic model of man Individuals are opportunistic and self-serving	Humanistic model of man Individuals are collectivistic and other-serving
General principles	Governance	Monitoring and incentive systems: Mechanisms to curb opportunistic behavior by aligning the interests of employees with those of the owner	Involvement and cooperative arrangements enable a natural alignment of interest between employees and owners
	Outcome	Firm performance by means of cost minimization	Firm performance by means of wealth maximization
Implications for pay rates		Pay at lowest rates necessary to ensure positive sorting and to motivate performance.	Rates of pay aimed at ensuring economic security and motivating long-term retention
Implications for pay form	Assumption of risk	Shared with employees	Largely on employer
	Emphasis on incentives	Heavy emphasis	Not emphasized
	Emphasis on benefits	Not emphasized	Heavily emphasized

Note: Source for core assumptions and general principles is Madison et al. (2016).

(Gómez-Mejía et al., 2011; Neckebrouck et al., 2018). Table 1 contrasts these two perspectives in terms of their assumptions, core principles and implications for organizational reward systems.

As shown in Table 1, agency theory is based on the premise that organizational reward systems can be used as an efficient means to promote convergence in the interests of employers (principles) and employees (agents), which otherwise diverge (Eisenhardt, 1989; Jensen & Meckling, 1976). According to agency theory, employees are opportunistic. That is, they are averse to effort and (all else equal) will exert only enough effort to ensure continued employment. When the employer compensates all employees at the same rate regardless of their level of effort or contribution, all the risk of employment is transferred to the employer. To reduce their risk, employers must either engage in costly monitoring, or attempt to share the risk with the employee by making a portion of the employee's reward contingent on the achievement of some outcome. Such risk sharing may not only realign employee interests with those of the employer (hence enhancing the former's motivation), it may also serve as an important signaling and screening mechanism, helping firms attract and retain employees possessing the competencies required for performance in a given set of circumstances (Trevor, Reilly, & Gerhart, 2012).

In contrast, stewardship theory assumes that those establishing and controlling the enterprise are driven primarily by self-actualization and, embracing collectivistic attitudes and a focus on altruism and longevity, take for granted a natural alignment of interests among all of those involved in the organization (Corbetta & Salvato, 2004; Zahra, Hayton, Neubaum, Dibrell, & Craig, 2008), and a strong sense of identification with and commitment to the organization (Davis et al., 1997; Miller et al., 2008). Similarly, the SEW preservation perspective views those establishing and controlling the enterprise as "stewards of the company" (Gómez-Mejía et al., 2011, p. 678), driven by "a desire to preserve and enhance the family's socioemotional wealth apart from efficiency or economic instrumentality consideration" (p. 656).

Accordingly, from this perspective as well, management aims toward the embodiment and perpetuation of family-like emotional ties within the business and with all of its stakeholders in order to "accumulate social capital and reserves of goodwill" that may "serve as a form of social insurance in times of crisis" (p. 682). These emotional ties are long-term in nature, and grounded on notions of altruism, identity, and commitment.

2.2 | Pay practices in family versus nonfamily firms

The question of whether family firms are better employers than their nonfamily peer firms has long been a contentious issue (Le Breton-Miller & Miller, 2018), with differences in pay policy and practice serving as one of the core parameters along which such firms have been posited to differ. As noted by Neckebrouck et al. (2018), those arguing that pay in nonfamily firms is higher than in family firms base their arguments largely on the agentic principles shown in Table 1. Accordingly, they argue that relative to their peers in nonfamily firms, non-managerial employees in family firms are more poorly compensated for two main reasons. First, agency theory suggests that it is the interests of family members to first consider their own welfare when allocating the resources of the enterprise. This in turn is likely to leave fewer resources available to allocate in the form of compensation and benefits to nonfamily employees (Carrasco-Hernandez & Sánchez-Marín, 2007). Second, agency theory suggests that managers in family firms (typically family members) earn less than their nonfamily firm peers because their interests are already aligned with those of the principals (i.e., the family), thus reducing the need for additional compensation to incentivize such alignment (Combs, Penney, Crook, & Short, 2010; Werner, Tosi, & Gómez-Mejía, 2005). As there is no reason to believe that pay differentials are any different in family firms than nonfamily firms, lower pay for family firm managers is likely to

have downward cascading effects on the pay of nonmanagers (Carrasco-Hernandez & Sánchez-Marín, 2007; Werner et al., 2005).

In contrast, those arguing that rewards are greater in family firms ground their arguments on the principles of stewardship (Eddleston et al., 2012) or SEW preservation (Gómez-Mejía et al., 2011; see Table 1). In terms of the former, as noted by Neckebrouck et al. (2018), if family firms are guided by the ideals of stewardship, such firms would be expected to adopt pay practices supportive of employee welfare. Based on these principles, they argue (p. 558) that “family owners will be willing to defer benefits (Davis et al., 1997) and invest in the firm and its workforce.” Similarly, based on SEW preservation, Gómez-Mejía et al. (2011, p. 663) argue that family firms, “place a greater weight on nonmonetary rewards (Cruz, Gómez-Mejía, & Becerra, 2010), and make variable pay a smaller component of the pay package (Gómez-Mejía, Larraza-Kintana, & Makri, 2003).”

While empirical evidence is limited, studies examining pay-related differences between family and nonfamily firms consistently suggest that family firms compensate their employees less than nonfamily firms compensate theirs. For example, Neckebrouck et al. (2018) found a wage differential benefiting employees in nonfamily firms equivalent to 7%, while Chrisman et al. (2017), using data from the 2007 Survey of Business Owners, also found average wages to be substantially lower in family firms (\$37,694) than in matched nonfamily firms (\$57,383). Using a French sample of matched family and nonfamily firms, Bassanini, Breda, Caroli, and Rebérioux (2013) found the differential to be 2.8%, again in the favor of nonfamily firms.

But given that employment is more stable in family firms than nonfamily firms with voluntary turnover rates tending to be lower in the former relative to the latter (Bacon, Hoque, & Siebert, 2013; Memili & Barnett, 2008), logic suggests that family firms must in some way compensate for these lower than average rates of pay. One possibility, consistent with the hedonic model of compensating wage differentials (Smith, 1979), is that family firms make up for these pay deficiencies by other means, such as offering better terms of employment.¹ Indeed, scholars have noted that family firms offer greater job security (Allouche & Amann, 1998; Bassanini et al., 2013; Carrasco-Hernandez & Sánchez-Marín, 2007; Reid & Harris, 2002; Sraer & Thesmar, 2007), along with enhanced intrinsic rewards such as a more benevolent and inclusive work environment, more flexible work practices, and greater opportunities for engagement and participation (Bach & Serrano-Velarde, 2015; Bammens, Notelaers, & Van Gils, 2015; Block, Millán, Román, & Zhou, 2015; Hauswald, Hack, Kellermanns, & Patzelt, 2016; Miller et al., 2008).

Another possibility, also consistent with the principles of compensating wage differentials theory, is that while the average level of pay is lower in family firms, such firms balance this pay deficiency with other pay practices more consistent with the principles underlying SEW preservation, longer-term time horizon and differential approach to employing labor (Barbera & Moores, 2013; Brigham et al., 2014; Cruz et al., 2010). For example, to the extent that family firms have a longer-term time horizon and emphasize long-term asset growth over short-term profitability (Anderson & Reeb, 2003; Bertrand & Schoar, 2006), they may have an interest in allocating a larger portion

of reward resources toward retirement and fringe benefit packages as such benefits plans have been demonstrated to offer a cost-effective means by which to promote employee loyalty and commitment, and the long-term retention of human capital (Lee et al., 2006).

Unfortunately, however, few studies have examined differences between family and nonfamily firms with regard to any pay-related parameter other than average wage or total compensation or cost of labor (for exceptions, see Combs et al., 2010; Schulze, Lubatkin, & Dino, 2003). For example, Neckebrouck et al. (2018, p. 561) examined total compensation which they operationalized as “total labor-related expenses [which] include salaries and other costs insofar as they are part of an employment contract.” This is not surprising as nearly all studies comparing pay in family and nonfamily firms do so on the basis of archival pay data, with such databases typically lacking the level of granularity needed to explore how lower pay levels may be offset by other, more benevolent pay practices.

Accordingly, building on the integrative approach proposed by Madison et al. (2016), we next theorize how family firm employers may adopt a mix of pay practices allowing them to balance both agentic and stewardship agendas. While much of the family business literature treats agency and stewardship explanations of family business structures and processes dichotomously, Madison et al. (2016) propose that agentic principles may best explain differences between family and nonfamily firms relating to monitoring and cost minimization, while the stewardship principles may best explain differences associated with normative reinforcement and wealth maximization. Extending this logic on the basis of compensating differentials, we propose a broad, integrative framework grounded on the proposition that while agentic interests drive family firms to more strongly—relative to nonfamily—limit expenditures associated with base pay, principles of stewardship and SEW preservation drive family firms to balance such controls by more strongly (relative to nonfamily firms) emphasizing reward management approaches which, by signaling caring, commitment and support, are consistent with the long-term employment orientations typical of family forms (Brigham et al., 2014; Lee et al., 2006). Based on this underlying proposition, we offer specific hypotheses regarding the differences between family and nonfamily firms with regard to pay level, pay form and benefits.

2.3 | Pay level

Two agentic forces operate to generate a wage differential benefiting employees of nonfamily firms. The first agentic force has to do with the interest of family members to allocate firm resources toward the benefit of family (vs. nonfamily) members, thus limiting the availability of resources with which to reward nonfamily employees in family firms (Gómez-Mejía et al., 2011). Others refer to this as a “bifurcation bias” that favors family employees at the expense of nonfamily employees (Chrisman et al., 2017; Neckebrouck et al., 2018; Verbeke & Kano, 2012).

The second agentic force has to do with the use of pay as a means by which to better align the interests of managers and

principles in nonfamily firms. Reinforcing these agentic interests in favor of higher average wages in nonfamily (relative to family) firms, is the use of pay in the former as a sorting device aimed at securing superior human capital, particularly for managerial positions (Chrisman et al., 2017). In contrast, with managers frequently sourced from among family members (Karra, Tracey, & Phillips, 2006), pay is less likely to be used as a sorting device in family firms, with the upshot being lower managerial pay in family (vs. nonfamily) firms. With family firms typically retaining pay differentials no smaller than those of nonfamily firms (Neckebrouck et al., 2018), these lower rates of managerial pay in the former are likely to cascade down to nonmanagerial employees as well. Consistent with such theorizing, archival data tend to indicate that wages are typically higher in nonfamily firms relative to family firms (Bassanini et al., 2013; Chrisman et al., 2017; Neckebrouck et al., 2018). Accordingly, focusing on the rate of pay typically paid to those in the dominant occupation in the enterprises we study (i.e., truck drivers), and consistent with the first part of the proposition underlying our study (namely that agentic interests drive family firms to more strongly -- relative to nonfamily -- limit expenditures associated with base pay), we hypothesize that:

Hypothesis 1 Relative to nonfamily firms, the typical rate of truck driver pay in family firms is lower.

2.4 | Pay form

If, as suggested above, family firms' typical base pay is lower than that of comparative nonfamily firms, one might expect that family firms might seek to attract and retain talent on the basis of more intensive application of incentive pay or pay for performance. Indeed, given the positive sorting affects attributed to incentive pay, a higher reliance on pay for performance might allow family firms to attract and retain talent potentially dissuaded by such firms' tendency to pay at a lower base rate (Lazear, 2000).

But while the typical pay of nonmanagerial employees may be higher in nonfamily (relative to family) firms, both theory and empirical evidence from studies of executive pay (McConaughy, 2000; Baek & Fazio, 2015) suggest that family (relative to nonfamily) firms may still be less likely to attempt to shift the risk in the effort-pay bargain onto employees (Eisenhardt, 1989). From an agentic perspective, despite the productivity benefits potentially associated with more tightly linking pay to effort or performance (Eisenhardt, 1989), family owner-managers may view incentive-based pay as placing greater restrictions on their ability to allocate a larger share of reward resources to fellow family members (Chrisman et al., 2014; Chua, Chrisman, & Bergiel, 2009). Additionally, consistent with the SEW preservation perspective, Chrisman et al. (2014, p. 4) note that the owners of family firms may be reluctant to provide incentive compensation to nonfamily employees because, in the eyes of the family, "doing so is perceived as an impediment to the achievement of noneconomic goals such as the preservation of family control."

Furthermore, while incentive pay has been demonstrated to promote positive sorting and facilitate the hiring and retention of those

most motivated, qualified and able to contribute and develop (Chrisman et al., 2017; Hancock, Allen, Bosco, McDaniel, & Pierce, 2013), the relevance of such sorting-related advantages to family firms is questionable. On the one hand, as argued by Chrisman et al. (2017), such incentives may be particularly salient in family firms given the negative sorting effects associated with diminished longer-term career and earning prospects for nonfamily member talent. On the other hand, such incentives may lack relevance to family firms given their tendency to hire on the basis of relationships rather than merit, and as their interest is typically in developing and promoting family members first and foremost (Schulze, Lubatkin, Dino, & Buchholtz, 2001). Furthermore, as suggested by Gómez-Mejía, Larraza-Kintana, Moyano-Fuentes, and Firfiray (2018), because managers in nonfamily firms are more vulnerable to dismissal or reduced earnings than family-based managers in family firms, the former have a greater interest in reducing their personal risk by transferring it onto, or at least sharing it with, their subordinates. Accordingly, Gómez-Mejía et al. (2018) posit and show that agency-based (i.e., incentive or variable pay) arrangements are more prevalent in family firms managed by nonfamily members than in those managed by family members.

Just as importantly, however, from a stewardship/SEW perspective, such incentives may run counter to the nature of employment relations in family firms. More specifically, research on family firms emphasizes such firms' reinforcement of employee identity with the firm, mutual goodwill, family-like relations and long-term security (Bammens et al., 2015; Kidwell, Kellermanns, & Eddleston, 2012; Stevens, Kidwell, & Sprague, 2015). With family member interests already aligned with the interests of the firm, family firms have a natural tendency to rely on identity-based alignment as the basis for ensuring nonfamily employee motivation and reducing the risk of nonfamily employee opportunism. As such relational commitment only tends to emerge over extended periods of time as *both* parties to the exchange observe each other passing up on opportunities to engage in opportunistic action at the expense of the other (Lawler & Yoon, 1993, 1996), studies suggest that family firms often compensate for lower rates of pay by offering a higher degree of employment security (Bassanini et al., 2013). This may not only be manifested in lower rates of dismissal during periods of economic hardship (Bassanini et al., 2013), but also be exhibited in the willingness of family firms to absorb a greater share of the inherent risk in the effort-pay bargain (Eisenhardt, 1989). Thus, while nonfamily firms may be willing to offer higher rates of pay on condition that performance outcomes are achieved, family firms may offer lower rates of pay but do so in the context of "fixed" (rather than variable) pay; that is, without conditioning such pay on contribution, productivity or performance, or in the case of the truck drivers examined in the current study, on the number of hours or miles driven. Indeed, at least one recent study suggests that family firms are less likely than nonfamily firms to use incentives to compensate nonfamily employees (Memili, Misra, Chang, & Chrisman, 2013).

The discussion above suggests that while family firms may be driven by agentic forces to pay at levels lower than nonfamily firms, consistent with the compensating differential logic underlying the integrative framework proposed earlier, they may strive to leverage

particular forms of pay to signal caring and commitment and ensure employee economic security and well-being. Indeed, this idea that family firms may simultaneously adopt pay practices driven by agentic and stewardship interests is consistent with the perspective suggested by Madison et al. (2016, p. 82) who note that these forces "are not necessarily opposite," and may "co-exist." As they suggest, the identity-based commitment to the organization cultivated by stewardship-driven forms of pay may play an important role in counter-balancing any adverse consequences of agentic efforts to offer lower relative levels of pay. Accordingly, with respect to the truck drivers studied in the current research, we posit:

Hypothesis 2 Relative to nonfamily firms, family firms are more likely to pay on a fixed (i.e., salary) basis, and less likely to pay on a variable (i.e., by the mile or on an hourly) basis.

Moreover, as a function of shifting the effort-pay bargain risk onto employees by making pay contingent on performance or contribution, agency-based reward frameworks also tend to offer a lower base or fixed (i.e., nonperformance-contingent) rate of pay (Eisenhardt, 1989). On the one hand, this may enhance effort-reward instrumentalities, thus boosting the potential incentive effect. On the other hand, particularly when incentive criteria may be beyond the control of the employee (e.g., the ability to drive more miles in a given time frame), paying a lower base rate may run counter to the principles of stewardship, and more specifically, the collective values and principles of long-term security and employee welfare underlying the employment models of most family businesses (Martin, Farndale, Paauwe, & Stiles, 2016). Moreover, consistent with the compensating differentials logic noted earlier, such an approach is likely to run counter to the primary signal that family firms may use to compete for and retain human capital in the labor market in lieu of offering higher wages, namely the provision of employment security and a remunerative safety net (Bjuggren, 2015). Accordingly, just as we expect family firms to be less likely than nonfamily firms to adopt agency-based pay forms, we also expect:

Hypothesis 3 Family firms provide a higher minimum (i.e., "floor") rate of pay for nonmanagerial employees in a given position than similar nonfamily firms.

2.5 | Benefits

Finally, because of the strong emphasis on a relational and normative commonality of interests, relative to nonfamily firms, family firms are less dependent on incentive-based reward frameworks to reduce the costs of monitoring and align the interests of agents with principals. However, while relational and normative commonality of interests may be inherent to family member-employees, for nonfamily employees, such a normative-based commonality of interests or relational commitment is only likely to develop on the basis of repeated principle-agent exchanges over time (Lawler & Yoon, 1993, 1996). Accordingly, organizations striving to govern their work processes

more on the basis of normative control have an interest in promoting longer-term employment relations and retaining their human capital over time. Indeed, organizational scholars have noted a strong link between the reliance on more normative bases of workplace control and long-term or commitment-based employment relations (Arthur, 1994; Bamberger et al., 2014; Baron & Kreps, 1999).

The provision of health insurance and pay for days not worked have been noted not only as two of the most prevalent valuable benefits provided to employees in the United States (Hallock, 2012), they have also been noted as an important, cost-effective means by which to compensate for lower levels of base pay, and as such, have been an important focus of contemporary research on the hedonic model of compensating wage differentials (e.g., Gariety & Shaffer, 2001; Smith, 1981). Moreover, such benefits have also been noted as offering an important means by which to boost employment stability and employee loyalty (Bryant & Allen, 2013; Holtom, Mitchell, & Lee, 2006; Manchester, 2012). This is because such benefits, in addition to providing economic benefits to employees greater than their cost to the employer (consistent with family firms' agentic interests), also tend to increase in value over time and thus be difficult for employees to immediately replicate in a different employment context (Bryant & Allen, 2013; Gómez-Mejía et al., 2001). While enterprise-level studies examining the impact of these two forms of employee benefits on employment stability are limited, Fronstin and Helman (2003) report that, particularly in smaller firms, the provision of health benefits "has a positive impact on various aspects of the business, such as recruitment, retention, employee attitude and performance." More generally, Chang and Chen (2002) found a strong, inverse association between the comprehensiveness of enterprises' employee benefit plan, and voluntary turnover. Similarly, Lee et al. (2006) found enterprises' rates of employee turnover to be inversely related with comprehensiveness of their fringe benefit plans.

To the extent that the economic efficiencies of benefit-based compensation may appeal to family firms' agentic interests, and that family firms may place a greater reliance on employment stability as a means by which to embed relational commitment and develop a stronger normative alignment of interests with their nonfamily employees, we expect family firms to place a higher emphasis (relative to nonfamily firms) on benefits as part of their blended architecture of compensatory pay practices. Accordingly, we posit that:

Hypothesis 4 Relative to nonfamily firms, family firms: (a) are more likely to offer health insurance, and (b) offer more extensive sickness and vacation benefits in the form of pay for days not worked.

3 | METHODS

3.1 | Sample

We tested the hypotheses specified above on the basis of archival data on the U.S. trucking industry collected by the University of

Arkansas (see Kepes, Delery, & Gupta, 2009 for more information on this archival dataset). Trucking offers a highly suitable context in which to test the hypotheses specified above for two main reasons. First, the trucking industry is one of the most heavily family-dominated sectors in the United States, with at least 71% of companies examined by Villalonga and Amit (2010) controlled by one or more families (a full standard deviation above the cross-industry mean). Second, despite significant regulatory reform over the past 50 years, Federally mandated industry reporting requirements offer scholars relatively easy access to a wide range of enterprise-level archival data.

The study in which these data were collected focused on driver compensation and benefits. According to the documentation accompanying this archival data set, the initial population for the study included 1890 motor carrier organizations that reported information to the Interstate Commerce Commission (ICC) and were included in the 1997 TTS Blue Book of Trucking Companies. The Blue Book database is publicly available and reports organizational and financial information that motor carriers file with the federal government. Out of that number, 1522 met the study sampling criteria. Of these, 376 companies were excluded by the original study's investigators because, "they had gone out of business in the interim, could not be located, did not have company drivers and used 'owner-operators' exclusively, or were duplicates" (Kepes et al., 2009, p. 506). Data were collected on the basis of a 24-page questionnaire distributed to each enterprise's highest-level HR manager. Questionnaires were returned by 326 enterprises for a 28.4% return rate (Kepes et al., 2009). Analyses performed to check for response bias between enterprises that returned questionnaires versus those that did not showed no significant differences between these two groups on a variety of characteristics and accounting information that were contained in the Blue Book. Thus, according to Kepes et al. (2009), response bias is likely not a significant problem.

For the current analyses, we further reduced this sample first to 320 firms (as six of the original enterprises were no longer listed in the 1999 TTS Blue Book which we used as the basis for coding firms on additional study variables), and then by an additional 86 enterprises (for which it was impossible to ascertain family vs. nonfamily ownership status at the time the survey data were collected). Of the remaining 234 firms, we applied the coding framework proposed by Villalonga and Amit (2006), to differentiate between family and nonfamily firms. According to this framework, a family business is one in which the founder or a member of his or her family by either blood or marriage is an officer, director, or blockholder, either individually or as a group. Although over 30 definitions of family business have been applied by scholars in recent publications (O'Boyle, Pollack, & Rutherford, 2012), the Villalonga and Amit (2006) framework is consistent with the conceptualization of family businesses as those characterized by high levels of family influence and control, realized, for instance, through voting rights, and managerial involvement (e.g., Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007).

Using this framework, 201 enterprises were categorized (at the time the survey data) as family firms, and 33 as nonfamily firms. An

outlier analysis indicated that three of these enterprises (all family-owned) reported an employee count of over 2,000 which is over 10 times greater than the mean size of the enterprises in the sample actually analyzed ($n = 216$; mean size = 153; $SD = 238$), and larger than 99.9% of trucking companies in the United States. Accordingly, we excluded these three firms from our analysis. From the remaining sample, we analyzed data from only those 216 observations that had no missing values for both the treatment (family vs. nonfamily) and control variables (age, size, type of carrier).

Given the large number of enterprises dropped from the original sample, we tested for sample bias using the regression-based approach developed by Goodman and Blum (1996) and testing on the basis of the full sample of firms in the original, archival dataset ($n = 326$). With the exception of enterprise age, none of the control or theoretical variables examined were significantly associated with dropout, indicating that being excluded from the sample was not systematically associated with any of the study's variables other than age. In the case of age, we found a significant, but weak, positive association between enterprise age and the probability of being excluded from analysis, most likely stemming from the fact that all six of the enterprises dropped as a result of no longer being in the Blue Book, as well as all three of those enterprises with over 2,000 employees, were considerably older than the remaining enterprises. Nevertheless, in those cases in which data were missing on any of the five dependent variables, we applied simultaneous multiple imputation in order to avoid excluding any additional observations. For continuous variables, the imputation was done using the predictive mean matching method or PMM, since it ensures that imputed values are plausible (Horton & Lipsitz, 2001). For binary variables, we used the logistic regression method as described in Rubin (1987). While the proportion of missing data is large for some variables, previous work has demonstrated that this does not bias imputation results (Madley-Dowd, Hughes, Tilling, & Heron, 2019).

3.2 | Measures

Dependent variables in this study captured three different dimensions of rewards, namely pay level (operationalized in terms of most frequent and lowest rate paid per mile and hour, as well as average and lowest annual salary), pay form (likelihood of paying per mile, hour or by salary), and benefits (namely, pay for days not worked and likelihood of employer-paid health insurance coverage). All the values used in the research represent actual reported rates measured in US dollars as reported by the enterprise's HR manager or officer responsible for managing compensation.

Lowest rate per mile was measured on the basis of the following item: "What is your lowest per mile rate?" The response was measured in cents per mile. The instructions specified that only permanent drivers be considered in answering the question. *Lowest rate per hour* was similarly assessed with responses provided in U.S. dollars. Again, participants were asked to relate only to permanent drivers when responding to this item. Kepes et al. (2009, p. 507) explain that they

used pay rate as a primary metric because “this is how drivers discuss their pay most often, and this is the metric typically used by companies when recruiting drivers.” *Lowest annual salary* was assessed in terms of the lowest annual earnings for those not paid by either miles or hours.

We operationalized *typical rate per mile* and *typical rate per hour* on the basis of responses to items enquiring as to the most frequent rate per mile or per hour reported. As Kepes et al. (2009, p. 511) explain, the “most frequent” pay rate was standardized across firms that paid by the hour and those that paid by the mile. Kepes et al. (2009) note that they first standardized the variable within each of the two groups (hourly vs. by mile) and then used either the standardized per mile or per hour rate, depending on the method used for the majority of drivers in the company.

Average salary was operationalized in terms of reported annual income for those drivers not paid on a mile- or hourly based compensation scheme. *Likelihood of paying by mile* was measured on the basis of the following item: “Are any of your drivers paid on the basis of miles driven?” Responses were coded 1 for “yes” and 0 for “no.” *Likelihood of paying by hour* was similarly assessed and coded. Benefits for *days not worked* were calculated as the sum (in days) of the reported number of paid holidays, paid sick leave and vacation days a typical driver gets. *Health insurance* benefits provision was assessed on the basis of a single item inquiring as to whether the firm offered health insurance to their drivers (dummy variable with value 1 for “yes” and 0 for “no.”)

Family firm, the study's primary independent variable, was operationalized as a dummy variable (1 = yes; 0 = no) following Villalonga and Amit (2006), with an enterprise coded as being a family firm only if the founder or members of his or her family (by either blood or marriage) served as an officer, director, or dominant stockholder, either individually or as a group, at the moment of data collection. In order to code enterprises as family versus nonfamily firms, two observers, working independently, searched online for company ownership information. In those cases in which insufficient or inconsistent information was available online, the observers contacted the company by phone. As already noted, out of 320 companies, the observers returned identical classifications in 234 cases (i.e., 201 firms as family firms, and 33 as nonfamily firms).

In testing our hypotheses, we controlled for a number of potential confounds, namely the size and age of the company, and the type of carrier. Controlling for size is important in that several studies have found links between firm size (operationalized in terms of the log of the number of employees) and age (log of years since enterprise established) on the one hand, and compensation and benefits on the other (Dennis, 2000; Kalleberg & Van Buren, 1996; Kepes et al., 2009). Furthermore, while less of a concern in the current study as only one family enterprise (out of over 200) reported employing 10 or less individuals, it is important to take size into account in that in smaller family firms, most if not all of the employees may be family members, thus blurring the distinction between agents and principles.

We also controlled for industry segment in that studies consistently indicate that pay practices vary across different segments of

the trucking industry (Bulk Transporter, 2018). Respondents were asked to classify the primary type of their company based on a single item question with five response options, namely: General freight-truckload or TL (a); general freight-less than truckload or LTL (b); general freight- local (c); specialized commodity (d) and household goods (e). Separate dummy variables were created for each of the two major types, namely truckload (TL) and less than truckload (LTL). The three remaining less common types were aggregated into a separate (other) category.

3.3 | Analysis

As we tested our hypotheses on the basis of an observational study with no random allocation of subjects to conditions (family vs. nonfamily), following the approach adopted by others comparing family with nonfamily firms (e.g., Chrisman et al., 2017; Neckebrouck et al., 2018), we applied a propensity score analysis. Propensity score analysis solves a key issue in causal inference in observational research, namely how to estimate some “treatment effect” (in the current case, the effect of being a family vs. nonfamily firm) when the unit under examination (an enterprise) has not been randomly assigned (as in the case of a randomized clinical trial or controlled experiment). As noted by Dehejia and Wahba (2002, p. 151), “the estimate of a causal effect obtained by comparing a treatment group with a non-experimental comparison group could be biased because of problems such as self-selection or some systematic judgment by the researcher in selecting units to be assigned to the treatment.” Propensity score analysis solves this problem by balancing the covariates between the “treated” and “untreated” (i.e., control) conditions, thus lowering the influence of unobserved heterogeneity and reducing the risk of Type 1 error (Dehejia & Wahba, 2002).

Using this approach, we first fitted a logistic regression model to obtain the propensity scores. Then, the observations for which the propensity scores lay in the region of common support for the family condition (family = 1) and nonfamily (i.e., control) condition (family = 0) groups, were selected. The common support interval was defined as the largest interval that includes propensity scores for subjects in both groups. By default, the region is extended by 0.25 times a pooled estimate of the common standard deviation of the logit of the propensity scores. The common support region included 189 observations.

The two popular methods of propensity score analysis are weighting and matching. Though the matching procedure is more prevalent, it reduces bias at the expense of the sample size and increased variance of the treatment effect estimates. Given the unbalanced nature of our sample (33 nonfamily companies vs. 156 family-owned firms), any loss of observations could be extremely problematic. Moreover, as shown by King and Nielsen (2019), propensity score matching (PSM) often accomplishes the opposite of its intended goal, and in fact *increases* imbalance, inefficiency, model dependence, and bias.

Accordingly, we opted for the weighting method, and more specifically, inverse probability weighting (Robins, Hernan, &

Brumback, 2000), as it allowed us to retain most of our observations while still reducing bias by using the propensity scores to create a balanced sample. As noted by Brookhart, Wyss, Layton and Stürmer (2013, p. 604), “the purpose of propensity score weighting is to reweight the individuals within the original treated and control samples to create a so-called ‘pseudo-population’ in which there is no longer an association between the confounders and treatment.” Following the same logic as survey sampling weights, using propensity score weights, an observation's weight is equal to the inverse of the probability of receiving the “treatment” that the subject actually received (Austin, 2011).

To examine whether the weights obtained from the propensity score model balanced the covariates between the Treated (i.e., family firms or Family = 1) and Control (nonfamily firms or Family = 0) conditions, we computed the weighted and unweighted standardized mean differences (between treatment and control conditions) and variance ratios (treatment and control) for the covariates used in the propensity scores model. These values are displayed in the “Covariate Differences for Propensity Score Model” table (Table 2). The improvement in the covariate balance after weighting is indicated by the standardized differences in the weighted column that are smaller in magnitude than their counterparts in the unweighted column. All the weighted standardized differences are smaller than 0.2 in magnitude, which is less than the upper limit of 0.25 recommended by Rubin (2001) and Stuart (2010). In addition, the treated-to-control variance ratios between the two groups are between 0.8420 and 1.4743 for all variables in the weighted observations, which is within the recommended range of 0.5–2 (Rubin, 2001). Moreover, all the variance ratios (except for log of age) in the weighted column are closer to 1 than their counterparts in the unweighted column.

The weighted regression model for each of the dependent variables was fitted for each of 500 imputed data sets, as was the propensity score model, which was used to create the weights for each of the models. The regression models used were logistic, linear, or negative binomial regressions, depending on the nature of the dependent variable. Finally, the MIANALYZE SAS procedure was applied to combine the results of the analyses of the imputed data and generate the reported estimates.

4 | RESULTS

Table 3 presents the study's descriptive findings and correlation estimates, while Table 4 compares the means for each of the study's

variables across family and nonfamily firms. As the bivariate results shown in Table 3 indicate, consistent with our theorizing, there is significant inverse correlation between family firm categorization and the likelihood of being paid either by the hour ($r = -0.18$; $p < .01$) or by the mile ($r = -0.17$; $p < .01$), but a positive association with the likelihood of being paid on the basis of a salary ($r = 0.16$; $p < .01$). Additionally, the log of the enterprise age was positively correlated with the number of paid days off of work offered by the enterprise, thus offering support for our decision to include the former as a covariate. Although a number of other variables are correlated with each other, these correlations are at most moderate, and there is no evidence of multicollinearity.

Tables 5–8 show the results of our multivariate tests (using propensity score weighting²) of the hypotheses. For each dependent variable we provide results (including the effect size associated with the inclusion of family vs. nonfamily in the model) based on the common support area, multiple imputation and weighting as discussed above.

Hypothesis 1 posited that the typical rate of pay, either by hour or by the mile, is lower in family firms than in nonfamily firms. However, as shown in Table 5, taking into account the log of enterprise age and size, as well as industry sector (truckload vs. less-than-truckload; truckload vs. other), enterprise type (family vs. nonfamily) was not significantly associated with an enterprise's typical rate of pay, regardless of whether this typical rate of pay is estimated on the basis of hourly pay or pay by the mile. We were unable to reliably estimate a model for the association of family versus nonfamily business type on average salary in that only one nonfamily firm reporting that they paid by salary provided average annual salary data (\$35,000). Of the 22 family firms paying by salary and providing average annual salary, the mean annual salary was \$36,143 ($SD = \7213).

Hypothesis 2 predicted that family firms are more likely to pay on a salary basis, and less likely to pay by the mile or by the hour. As can be seen in Table 6, we found evidence in support of this hypothesis. More specifically, taking the control variables into account, the results of the weighted regression indicate that family firms are significantly less likely than nonfamily firms to pay by the hour ($B = -1.02$, $p < .01$; 95% CI: -1.72 to -0.32). They are also less likely than nonfamily firms to pay by the mile ($B = -1.08$, $p < .01$; 95% CI: -1.75 to -0.40). In contrast, family firms are nearly five times more likely than nonfamily firms (odds ratio = 4.79; 95% CI: 1.68–13.61) to pay on the basis of a fixed salary ($B = 1.57$, $p < .01$).

We also found partial support for Hypothesis 3, which proposed that regardless of how family firms pay, they provide a higher minimum (or floor) rate than nonfamily firms. As shown in Table 7, our

TABLE 2 Covariate differences for the propensity score model

Parameter	Standardized difference		Variance ratio	
	Unweighted	Weighted	Unweighted	Weighted
Log of age	0.1608	0.1332	0.9255	0.8420
Log of size	-0.2177	0.0319	2.1069	1.4743
Industry segment—less than truckload	0.1322	0.0219	1.2725	1.0385
Industry segment—other	0.1659	0.0295	1.1355	1.0209

TABLE 3 Correlation^a matrix and descriptive statistics for observations ($n = 189$) used in propensity score analyses

	Mean	SD	Log of age	Log of size of firm	Industry LTL	Industry other	Family firm	Lowest per hour	Lowest per mile	Paid by hour	Paid by mile	Days off work	Avg. rate (mile)	Avg. rate (hour)	Annual salary	Paid by salary
Log of age	4.02	0.35	1.00													
Log of size	4.21	1.00	0.16*	1.00												
Industry-LTL	0.17	0.38	0.05	0.26**	1.00											
Industry-other	0.33	0.47	0.22**	-0.01	-0.32**	1.00										
Family firm	0.83	0.38	-0.06	0.09	-0.05	-0.06	1.00									
Lowest rate (hour)	11.05 ($n = 110$)	2.53	0.17*	0.12	0.18*	-0.03	0.12	1.00								
Lowest rate (mile)	29.16 ($n = 104$)	11.95	0.03	0.07	-0.02	0.05	0.00	0.14	1.00							
Paid per hour	0.60 ($n = 184$)	0.49	0.01	-0.01	0.31**	-0.14*	-0.18*	0.07	-0.04	1.00						
Paid per mile	0.60 ($n = 182$)	0.49	-0.13	0.07	0.05	-0.13	-0.17*	-0.06	-0.03	0.03	1.00					
Days off work	17.99 ($n = 149$)	18.43	0.09	-0.06	0.03	0.06	0.01	0.09	0.02	0.01	-0.17*	1.00				
Average rate (mile)	31.75 ($n = 105$)	13.78	0.07	0.04	0.02	0.09	-0.01	0.11	0.71**	-0.08	-0.06	0.02	1.00			
Average rate (hour)	12.42 ($n = 111$)	2.76	0.22*	0.32**	0.36**	0.00	0.05	0.77**	0.11	0.11	-0.09	0.12	0.09	1.00		
Annual salary	37,828 ($n = 143$)	7,112	-0.02	0.14	0.23**	-0.02	0.02	0.27**	0.10	0.08	0.16	0.15	0.08	0.33	1.00	
Paid by salary	0.16	0.37	0.05	-0.01	-0.02*	0.22**	0.16*	-0.01	0.02	-0.54**	-0.55**	0.12	0.03	-0.04	-0.1	1.00

* $p < .05$.** $p < .01$.

^aCombined correlation coefficients are calculated for pairs of variables where at least one of the variables has missing data, and where, as a result, we assess correlation on the basis of multiple imputed data. As the mean and SD were estimated on the basis of nonimputed data, where $n < 189$, it is reported alongside the mean in (). We combined the sample correlation coefficients that are computed from a set of imputed data sets by using Fisher's z transformation.

TABLE 4 Comparison of family and nonfamily firms along study variables (Kruskal–Wallis test)

Variable name	Nonfamily firms			Family firms			Chi-square	Prob
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>		
Log of age	33	4.07	0.34	156	4.019	0.35	0.75	0.39
Log of size	33	4.01	1.33	156	4.26	0.91	0.80	0.37
Industry–LTL	33	0.21	0.42	156	0.160	0.37	0.52	0.47
Industry–other	33	0.40	0.50	156	0.3	0.47	0.78	0.38
Lowest rate (hour)	24	10.29	1.78	86	11.27	2.67	2.157	0.143
Lowest rate (mile)	24	29.833	12.65	80	28.96	11.81	0.087	0.78
Paid per hour	30	0.8	0.41	154	0.56	0.50	5.77	0.023
Paid per mile	30	0.8	0.41	152	0.57	0.50	5.72	0.02
Days off work	22	17.32	6.76	127	18.10	19.78	0.65	0.42
Average rate (mile)	24	33.04	17.93	81	31.37	12.40	0.07	0.79
Average rate (hour)	24	12.04	2.35	87	12.53	2.86	0.36	0.55
Annual salary	27	37,446.30	5,972.03	116	37,916.30	7,372.04	0.14	0.71
Paid by salary	33	0.03	0.17	156	0.19	0.39	4.91	0.03

Note: Kruskal–Wallis test conducted for each variable with 1° of freedom.

TABLE 5 Weighted regression analysis of typical pay level (by hour and mile)

	Typical rate (hour)		Typical rate (mile)	
	Est.	SE	Est.	SE
Intercept	4.26	2.63	26.64	17.71
Log of age	1.12	0.65	0.84	4.57
Log of size	0.49*	0.22	0.11	1.76
Industry–LTL	2.70**	0.51	1.99	4.34
Industry–other	0.92	0.52	4.88	3.63
Family	0.65	0.41	0.41	3.16
<i>R</i> ² for model EXCLUDING family	.284		.033	
<i>R</i> ² for model INCLUDING family	.302		.036	
Difference in <i>R</i> ²	.018		.003	

Note: *n* = 189.

** *p* < .01.

data indicate that family firms pay a significantly higher minimum hourly rate ($B = 0.95$, CI 95% [0.16; 1.74], $p < .05$). However, no significant difference was found with respect to the minimum rates paid by the mile. Again, due to limited data on salaries paid by nonfamily firms ($n = 1$), we were unable to estimate the association of family status on the lowest level of pay.

Finally, Hypothesis 4 posited that relative to nonfamily firms, family firms are more likely to offer health insurance, and offer more extensive sickness and vacation benefits. Given the invariance in the provision of health insurance across the firms in our sample (only six of the 189 enterprises did not offer health insurance to their drivers), we could not reasonably test its association with family versus nonfamily business. As for sickness/vacation benefits provisions, as can be seen in Table 8, both enterprise age and being in the less-than-truckload segment of the industry were positively associated with the number of nonwork days for which drivers may receive payment.

However, taking the control variables into account, there was no significant association between family versus nonfamily business type on the number of paid holidays, paid sick leave and vacation days offered by the employers to their drivers.

5 | DISCUSSION

Examining pay practices in a sample of trucking companies in the United States, we tested hypotheses derived from a broad, integrative proposition grounded on a compensating differential logic aimed at explaining differences in enterprise compensation (i.e., pay level and form) and benefits practices between family and nonfamily owned enterprises. Consistent with this proposition, we found evidence that the differences between family and nonfamily firms with regard to compensation practices may be guided by a compensatory balancing

TABLE 6 Weighted logistic regression of pay form (likelihood of pay by hour, mile or salary)

	Paid by hour		Paid by mile		Paid by salary		Odds ratio
	Est.	SE	Est.	SE	Est.	SE	
Intercept	-0.62	2.17	5.27 [*]	2.17	-7.48 [*]	3.00	–
Log of age	0.60	0.54	-1.22 [*]	0.52	0.92	0.70	2.51
Log of size	-0.17	0.22	0.20	0.20	0.22	0.26	1.25
Industry-LTL	2.90 ^{**}	0.97	0.42	0.50	-2.60	1.47	0.07
Industry-other	-0.25	0.37	0.15	0.38	0.21	0.48	1.24
Family	-1.02 ^{**}	0.36	-1.08 ^{**}	0.35	1.57 ^{**}	0.53	4.79
R ² model EXCLUDING family ^a	.161		.051		.094		
R ² model INCLUDING family ^a	.221		.127		.196		
Difference in R ²	.060 ^{**}		.076 ^{**}		.102 ^{**}		

Note: $n = 189$. The dependent variable, "paid by salary" has no missingness, hence no imputation is done for this variable. Since quasi complete separation occurred, we used Firth's penalized maximum likelihood estimation to reduce bias in the parameter estimates (Firth, 1993) caused in cases of separability.

^{*} $p < .05$.

^{**} $p < .01$.

^aNagelkerke R².

	Lowest rate (hour)		Lowest rate per mile	
	Est.	SE	Est.	SE
Intercept	5.99 [*]	2.47 ^{**}	26.23	14.43
Log of age	0.86	0.62	-0.01	3.73
Log of size	0.06	0.22	0.49	1.47
Industry-LTL	1.07 [*]	0.51	0.86	3.47
Industry-other	0.62	0.49	2.82	2.94
Family	0.95 [*]	0.40	0.38	2.46
R ² for model EXCLUDING family	.070		.027	
R ² for model INCLUDING family	.117		.031	
Difference in R ²	.047 [*]		.004	

Note: $n = 189$.

^{*} $p < .05$.

^{**} $p < .01$.

of agentic and stewardship/SEW pressures in family firms, and that, overall, reward strategies in family firms are more nuanced than has generally been suggested by analyses of archival datasets lacking fine-grained, enterprise-level compensation and benefits data. Analyzing data from a detailed survey on pay practices in an industry dominated by family firms, we found that family firms paid drivers at rates no different than those of their nonfamily competitors, suggesting that family firms may be no less sensitive than nonfamily firms to agency pressures to use pay as a means to motivate and sort human capital. Still, we found evidence that in family firms (more so than nonfamily firms) such sensitivity to these types of agency pressures is likely to be balanced with other reward practices more consistent with the stewardship and SEW preservation perspectives.

Based on an agency perspective, we expected typical rates of pay to be lower in family enterprises relative to nonfamily firms. While the bivariate results indicated that typical (i.e., most common) hourly and

TABLE 7 Weighted regression analysis of lowest pay by hour and by mile

mile-based rates of pay in family firms were indeed significantly lower rates than nonfamily firms, our multivariate results, controlling for industry segment and the age and size of the firm, suggest that these typical rates paid by family and nonfamily firms were not significantly different. In contrast, consistent with the stewardship-oriented, compensatory-balancing notion underlying our overarching proposition, we found that relative to nonfamily firms, family firms were significantly more likely to compensate their drivers on the basis of a fixed salary. Indeed, while only one of the 33 nonfamily firms in our sample paid their drivers on a salary basis, 32 of the 156 (over 20%) family firms did. Similarly, also consistent with such stewardship-based, compensatory counter-balancing, the lowest hourly rate paid to drivers in family firms was significantly higher than that paid in nonfamily firms. However, no significant difference was found between the two types of enterprises with regard to the rate paid by the mile, or payment for days not worked. Lack of variance with

TABLE 8 Weighted negative binomial regression analysis of pay for days not worked (in number of days)

	# paid days not worked	
	Est.	SE
Intercept	1.64**	0.48
Log of age	0.27*	0.12
Log of size	-0.013	0.05
Industry—LTL	0.30*	0.11
Industry—other	0.13	0.10
Family	-0.02	0.09
R ² for model EXCLUDING family ^a	.098	
R ² for model INCLUDING family ^a	.101	
Difference in R ²	.003	

Note: $n = 187$ (2 observations dropped due to excessive values for pay for days not worked; median = 16 days; dropped from analysis were two observations of 143 and 176 days).

* $p < .05$.

** $p < .01$.

^aNagelkerke R².

regard to employee health insurance coverage (regardless of family vs. nonfamily ownership), and with regard to salary-based pay (in nonfamily firms) made it impossible for us to test hypotheses regarding the impact of family ownership on employer-provided health insurance, and average or lowest salary levels.

At first glance, therefore, our findings suggest that the pay practices of family-owned trucking firms in the United States may in some ways be more consistent with those suggested by a stewardship/SEW perspective than by the agency perspective adopted in much of the previous research on family versus nonfamily firm employment practices. More specifically, while (after controlling for potential confounds) family-owned trucking enterprises paid hourly and mileage-based rates no lower than those paid by their nonfamily peer firms, a significantly higher proportion of family firms avoided such agency reward frameworks, adopting a more fixed, salary-based mode of compensation instead. Moreover, even those family firms compensating on the basis of such agency frameworks ensured a significantly higher “floor” rate than their nonfamily peer companies. Such a pattern of reward practices is consistent with studies grounded in notions of stewardship/SEW preservation suggesting that family firms tend to be characterized by more caring and supportive values, emphasizing the long-term security and well-being of their nonfamily employees (Klein & Bell, 2007; Miller et al., 2008; Nicholson, 2008; Rubinfeld et al., 2013).

However, the fact that pay rates were no different in family firms from nonfamily firms may also be interpreted as suggesting that agentic forces may be no less robust in family firms than in nonfamily firms, and thus that in the former, pay practices consistent with the stewardship/SEW perspective are balanced with an agentic orientation when it comes to rates of pay. Previous analyses (e.g., Bassanini et al., 2013; Chrisman et al., 2017; Neckebrouck et al., 2018), explain their finding that family firms pay less than nonfamily firms on the basis of a higher probability of aligned interests between principals

and agents in family (relative to nonfamily firms), and thus a diminished sensitivity to agency forces in family firms. The fact that we find nonsignificant differences between family and nonfamily firms with regard to rates of pay suggests that family firms may be no less sensitive to agentic pressures, using remuneration to align the interests of the agents with those of the principals in the same way that nonfamily firms do. On the other hand, we found that the tendency of employers to shift risk onto employees (by paying by the hour or by the mile rather than on the basis of a steady salary) was greater in nonfamily than family-owned firms, and that even in family firms paying by the hour, “floor” rates of hourly pay were significantly higher than in nonfamily firms. Taken together, these findings suggest that, consistent with the integrative perspective proposed by Madison et al. (2016), family firms may indeed balance pay forms consistent with stewardship and SEW preservation with pay rates driven by such agency pressures.

In sum, our results are significant in that they suggest a balance between two seemingly contradictory approaches to compensation in family firms resulting in a blended architecture of compensatory pay practices. On the one hand, our findings suggest an agentic tendency similar to that found in nonfamily firms with managers in both types of firms having an economic incentive to capture as much of the value as possible for the firm, and thus to provide the minimum possible compensation necessary to ensure both motivation and positive sorting (Gerhart & Rynes, 2003). On the other hand, they suggest a complementary tendency more consistent with the SEW preservation perspective, with managers in family firms adopting a broader, more socioemotional interpretation of what it means to capture value, thus framing and executing such value-capturing over a less immediate (i.e., longer) time-frame. The mix of practices grounded on these two different approaches may underlie the inconsistent findings noted in the literature.

As for why our findings regarding the difference in pay rates between family and nonfamily firms deviate from those reported by those approaching the question from an agency perspective, we can only speculate. One explanation may be that, as suggested by Chrisman et al. (2017), family firms may be forced to offer pay consistent with or even higher than nonfamily competitors in order to compensate for a tendency of better employees to self-select to work for nonfamily enterprises where longer-term career and earnings prospects may be deemed to be higher.

A second explanation may be that our findings are driven by a founder effect, or in other words, that the differences reported are largely a function of the family firms in our sample being dominated by lone founders. Prior research suggests that founder firms pursue different objectives and decisions than family firms, and tend to be more committed to their workforce than their descendants (e.g., Miller, Le Breton-Miller, Lester, & Cannella, 2007). Moreover, Miller et al. (2007); Miller, Le Breton-Miller, and Lester (2011) find that any advantage of family firms over nonfamily firms in terms of overall enterprise performance is largely driven by such lone founder family firms: Exclude lone founder firms from consideration, and the family firm disadvantage is no longer statistically significant.

In order to test this possibility, we split the original 183 family firms into two categories, namely those in which a founder serves as an officer, director, or dominant stockholder (founder-involved; $n = 106$) versus those in which there is no founder in such a role (no founder involved; $n = 77$). We then reanalyzed the data, testing the same models as those reported in the results section for each pay-related variable by comparing nonfamily firms to (a) founder-involved family firms, and (b) no founder involved family firms).³ Only with respect to Hypothesis 2 (likelihood of being paid by the hour/by the mile) did we find a significant effect of founder involvement. More specifically, only in *founder-involved* family firms (vs. the nonfamily firms) was there a significantly lower likelihood of being paid by the hour or by the mile. In contrast, *nonfounder-involved* family firms were not significantly different than nonfamily firms with regard to the likelihood of drivers being paid by the hour or mile. In all remaining models the parameters for the “family firm” variable did not differ in statistical significance or direction as a function of founder involvement (results available from the first author upon request). Accordingly, we conclude that it is unlikely that founder involvement serves as a general explanation for the divergence of our findings from those generated on the basis of archival data.

The unique approach taken to study this question may offer yet a third set of possible explanations. In contrast to most of the previous research which examined pay-related differences in family versus nonfamily firms across a range of industries, our analysis focused on a single occupation in a single industry. Although some of these previous analysis (e.g., Neckebrouck et al., 2018) took industry classification into account, such cross-industry classification schemes may be too broad to capture the kind of within-industry segmentation effects (e.g., truckload vs. less-than-truckload vs. other industry segments) that were taken into account in the current study. The fact that our bivariate results regarding the association of family-ownership and pay rates were consistent with those suggested in previous research suggests that this may be a plausible explanation. Moreover, our detailed pay survey offered more nuanced insights into pay practices unavailable from broad, archival employment data typically capturing only mean rates of pay. By examining not only gross pay levels, but also floor rates, pay forms, and benefits, we were able to gain a more complete picture of the differences in pay practices between family and nonfamily firms.

Finally, we cannot rule out the possibility that our findings are distinct from cross-industry, archival analyses due to the unique characteristics of the trucking industry, its enterprises and employment practices. For example, nearly all of the companies in our sample were small and medium-size enterprises. Additionally, despite the value of the cargo entrusted to them, truck drivers are entrusted with significant autonomy. Furthermore, in contrast to the archival analyses which examine family versus nonfamily-based differences in pay across multiple jobs, our analyses examined pay practices with regard to only a single job, namely that of truck driver. To the extent that truck driver compensation practices are unique, this may serve as an additional explanation for our divergent findings.

5.1 | Implications for practice

Our findings offer two main practical implications. First, they suggest that family businesses, more limited in their ability to allocate resources to nonfamily members (and thus unable to offer rates of pay exceeding or competitive with those offered by nonfamily firms to nonmanagerial employees), may leverage practices signaling support and caring as a means by which to more efficiently achieve their long-term human capital objectives of workforce stability and commitment. Indeed, our findings indicate that in the trucking industry—where attraction and retention of drivers has been a significant issue for decades—family firms did precisely this, with a substantially greater proportion of firms paying drivers on the basis of a fixed salary, and with those firms not paying on the basis of salary paying a minimum (i.e., floor-level) hourly rate significantly greater than that paid by nonfamily labor market competitors. These firms appear to be using compensation structures that are rare in an industry in which employees (i.e., drivers) are often viewed as commodities and paid only for the miles they drive (Irwin, 2014) and not the time spent in traffic or waiting to load or unload (Kudo & Belzer, 2019). Indeed, with the issue of pay for nondriving duties linked to questions of driver safety and health (nonpayment for such duties forces drivers to make up for noncompensated time by driving beyond legal limits or covering more miles in less time; i.e., speeding), and thus being of increased salience to drivers (Kudo & Belzer, 2019), family employers' heightened tendency to offer fixed modes of pay may offer such firms a significant competitive advantage in the labor market.

Second, we found no significant difference in typical pay rates between family and nonfamily firms. This suggests a second practical implication of our study, namely that family firms matching rates of pay offered by their nonfamily labor market competitors may still adopt such stewardship-oriented pay forms less as a compensating differential, and more as a means to attract and retain a workforce whose interests are more aligned with those of the family firm. That is, consistent with stewardship and SEW preservation, such family firms may leverage pay form practices signaling long-term support and caring to differentiate themselves in the labor market, and thus attract employees who more heavily weigh those aspects of remuneration consistent with the long-term interests of the family in SEW preservation. In the trucking industry, competition for drivers is intense. Drivers are often able to quit and sign on with a new firm in a matter of days. Focusing on longer term interests, while also matching the more objective pay rates that are widely advertised in the industry, may help these firms develop a longer-term attachment. These alternative stewardship-oriented pay forms might alleviate some of the driver turnover and retention problems the industry has grappled with for several decades (Irwin, 2014).

However, the absence of a significant difference between family and nonfamily firms with regard to pay rates suggests that the family firms that we studied may not have been able to rely strictly on pay forms signaling long-term support and security as a means by which to attract and retain talent. To the extent that this is the case in other

industries as well, it suggests that management should be careful in assuming that they may be able to secure and retain talent strictly on the basis of a compensating differential grounded on more secure and stable forms of remuneration.

5.2 | Limitations and directions for future research

While our focus on a single job in a single industry offers a unique perspective on the possible differences in compensation practices between family and nonfamily firms, associated with this approach is also an important study limitation, namely the questionable generalizability of our findings to other industries and even other jobs in the trucking sector. As noted above, the divergence between the findings reported in this study and those reported in cross-industry, archival analyses may stem in part from our focus on a unique job in a unique, family-firm-dominated industry. Accordingly, we encourage additional, industry-specific studies examining differences in pay practices between family and nonfamily enterprises.

Additionally, we should note that these data are over 20 years old. Changes in the nature of trucking (e.g., GPS, tracking, limitations on driver hours of service) have changed the industry significantly.⁴ These changes raise further questions as to the generalizability of our results even to the contemporary trucking industry in the United States. Again, this suggests the need for replication research before firm conclusions can be drawn.

A third concern has to do with the limitations of the dataset in terms of ruling out alternative explanations. For example, the higher floor rates that we found in family firms may stem from other factors that may have been systematically confounded with family firms. Such confounding could occur if family firms seek out and hire more experienced drivers, or if they apply more advanced technologies or transport more dangerous loads, and thus need to attract drivers with higher skill levels. Such confounding could also occur if, as might be expected, family firms, with high SEW preservation concerns, prefer more risk-averse drivers. To the extent that this is the case, family firms may have little choice but to pay higher base rates in order to attract and retain nonopportunistic yet highly motivated individuals whose interests and values are naturally aligned with those of the enterprise. After all, as suggested by Graham, Murray and Amuso (2002, p. 111), "firms use pay system choices such as the amount of risk in employees' pay" to maximize the attraction and retention of those types of employees whose identities are most aligned with the strategic contingencies faced by the enterprise. Unfortunately, while we were able to control for sub-industry type and age (which may be associated with reliance on more advanced technology), our dataset did not include variables capturing such detail about the firms themselves or the types of employees they tend to hire.

Relatedly, because we do not have data on family and nonfamily employees within our sample firms, our results regarding the higher floor rates and greater tendency to pay salaries in family firms may simply reflect the bifurcation bias noted earlier. That is, if salaries and

higher pay floors are given to family employees only, when averaged, this could explain the significant results in favor of family firms, particularly if most of the employees in a given family firm are in fact members of the owning family (a reasonable assumption for smaller firms).

Finally, two aspects of our sample raise concerns of possible sample bias. First, 82.5% of the analyzed sample were family firms while Villalonga and Amit (2010) estimated a prevalence rate of just 71% in their sample. One explanation for this discrepancy may be that they examined only publicly traded enterprises, whereas the survey upon which we based our analyses included privately held firms.

Furthermore, we analyzed data on 189 of the 320 firms originally returning complete surveys.⁵ As noted, those enterprises left out of the analyzed sample were dropped either because they were not listed in the Blue Book 2 years subsequent to survey completion, they were extreme outliers in terms of the number of drivers employed, or because there was insufficient information available on these companies to reliably code family versus nonfamily ownership. Moreover, depending on the pay practice examined, additional observations falling outside of the range of common support may also have been excluded from the analyses. To the extent that such exclusion is systematically associated with family or nonfamily ownership, bias may have been introduced into our sample, further limiting the generalizability of our findings, but likely no more than in other studies using propensity analysis to compare family to nonfamily businesses. Unfortunately, however, we have no way to assess the degree to which this may have been the case.

We view these study limitations as offering important directions for future research. More specifically, as noted above, we encourage studies that seek to replicate our findings both within the contemporary trucking industry, and in other industry-specific studies. While archival data sets may be useful for exploring differences between family and nonfamily firms along a wide range of employment practices, they may offer limited insights into nuances of pay practice differences. For this, we believe that the best approach are detailed surveys of compensation and benefit practices that take both between- and within-industry contextual factors into account as potential confounds. We also encourage studies that explore the impact of leader stewardship orientation on compensation practices in firms which are not family owned which also have elements of stewardship underpinnings. Indeed, while organizational scholars have investigated a vast array of work- and organization-related phenomena impacted by varying approaches to leadership and leadership styles, little is known as to how leader orientation influences organizational pay practices.

6 | CONCLUSION

The question of whether family firms are better or worse employers than nonfamily firms remains contentious. However, in contrast to some recent findings suggesting better employment practices by the latter, we find that with regard to compensation practices, typical pay rates in family firms are not significantly lower than that of matched

nonfamily firms. Moreover, in many ways, the pay forms adopted by the family firms we studied offer a more stable and secure reward framework for nonmanager employees than those adopted by their peer nonfamily firms. Taken together, we conclude that at least in the trucking enterprises that we studied, not only is there little evidence that pay practices in nonfamily firms are more beneficial to employees than those of family firms, but there is in fact ample evidence that the pay practices of family firms offer employees a higher and more stable compensation safety net.

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ENDNOTES

¹ As noted by Smith (1981, p. 463), the hedonic model of compensating differentials, “views employers and employees as jointly choosing employment characteristics (including wages) which maximize their objective functions.” Accordingly, older workers or workers with young children, may respectively prefer to tradeoff higher wages in order to receive a larger or more secure pension (Smith, 1981), or have more flexible work hours (Gariety & Shaffer, 2001). Similarly, according to the principles laid out by Rosen (1986), by offering working conditions with fewer aversive elements such as job insecurity or riskier forms of pay, firms may still be able to attract and retain workers even if paying lower wages (Villanueva, 2007).

² We analyzed the same models shown in Tables 3-6 on the basis of imputation only (i.e., in the absence of propensity score weights). The results indicated the same pattern of results with only two, relatively minor differences. Specifically, while the likelihood of being paid on the basis of salary was significantly greater in family firms regardless of whether the model was tested on the basis of imputation and propensity score or imputation alone, with the propensity score the estimate was statistically significant at $p < .01$ while at $p < .05$ for imputation alone. Additionally, while the estimate for family (vs. nonfamily = 0) with regard to the lowest rate paid per hour was positive regardless of whether we tested with or without a propensity score, the estimate was significant at $p < .05$ in the propensity score model, but only at $p = .11$ in the imputation only model. Detailed results are available from the first author.

³ We also tested these same models comparing founder-based family firms to nonfounder family firms. In none of these models was the estimate for the founder (vs. nonfounder) family firm statistically significant.

⁴ While there have certainly been changes in the trucking industry over the past 20 years, it is surprising how much has stayed the same. There

has been an increase in the use of on-board technology that tracks truck and driver performance, but to our knowledge such technology is still predominantly used by the larger fleets. There have also been some changes to driver logs – they are now electronic. Many of the larger fleets had been using electronic logs, however, at the time of data collection. Moreover, recent survey data suggest that the driver situation in the industry is much as it was 20 years ago. For example, driver turnover, a supposed driver shortage, and driver compensation have been topics that have widely discussed in the industry for well over 30 years. A 2017 survey done by the American Trucking Association found annual turnover rates for large truckload fleets to average 95%—which is very similar to this sample. Likewise, Irwin (2014) highlighted issues of driver turnover and pay similar to those motivating the collection of these data and others over 20 years ago.

⁵ As indicated at the bottom of Table 8, in the case of pay for days not worked, $n = 187$ firms as two firms with extreme values on this variable were excluded from the analysis.

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