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According to the Association for Talent Development (2016), the average organization spends just shy of \$1 million each year on sales training, with the average expenditure for a salesperson approximately 20% greater than the average expenditure for employees in all other roles. Despite the magnitude of the investment that many firms make in sales training, criticism continues to mount regarding the effectiveness of training investments (Lassk et al. 2012). Within the domain of training, onboarding of newcomers (or “organizational socialization,” as frequently referred to in academic research) is an area that is particularly critical to firm success (Allen and Meyer 1990; Barksdale et al. 2003; Bauer et al. 2007).

Onboarding refers to the systematic approach firms take to assimilate new hires and bring them up to a suitable level of productivity as quickly as possible (Bauer 2015). Within the sales context, onboarding programs can provide benefits both by accelerating the time required for a salesperson to reach a suitable level of performance and by elevating the level of performance a salesperson is able to achieve. Firms that are effective at onboarding newly hired salespeople benefit from sales achievement levels that are, on average, 8% higher than those experienced by other firms (Sales Management Association 2017). Firms commonly onboard salespeople through a centralized program conducted at a corporate training center (in which specialized trainers lead cohorts of new salespeople), a decentralized/on-the-job training program conducted within the field (in which a newcomer’s sales manager guides the process, assisted by physical and/or digital content provided by the firm), or a mix of the two. As advances in digital technologies have enabled the delivery of richer forms of learning content remotely, firms have begun shifting away from centralized training to on-the-job training, which can be effectively bolstered by digital learning technologies. In support of this trend, *Training Magazine* (2018)

reports that approximately 69% of training hours were delivered through blended learning in 2018, a little more than double the percentage reported in 2017. Taking these points into account, it is also important to recognize that any decision to employ a specific onboarding program should consider the role of the sales manager in a newly hired salesperson's training and development. To this point, Zoltners, Sinha, and Lorimer (2014) warn that if sales managers are responsible for too many salespeople (i.e., their span of control is too wide), they will not be able to allocate sufficient time to coaching all of them.

A review of the sales literature suggests an increasing interest in sales training (e.g., Cron et al. 2005; Lassk et al. 2012). However, a limited number of studies have considered factors related to the onboarding of salespeople, and to the best of our knowledge, no prior study has considered the implications of onboarding newly hired salespeople through either centralized or on-the-job training programs. Considering this, we ask two questions: (1) What is the relative effectiveness of onboarding a newly hired salesperson through centralized training or on-the-job training? and (2) Should the onboarding decision be influenced by a sales manager's ability to be involved in both the onboarding and early development of newly hired salespeople?

We report the results of a quasi-field experiment that resulted from the participating firm's decision to provide its newly hired salespeople with the option to undergo onboarding either within a regional training center (i.e., centralized training) or within their respective sales districts (i.e., on-the-job training). Training in the regional centers emphasized trainer-led cohort-based learning delivered in a classroom setting, while training in the sales districts emphasized hands-on learning in the field, coaching from the new salesperson's sales manager, and the consumption of standardized digital content produced by the firm and delivered to the new salesperson in a modular format. Overall, we observe the onboarding of 326 newly hired

salespeople, each of whom reported to one of 44 district sales managers during the observation period. Data collected from an 18-month period allowed us to track the effects of both types of training programs on newly hired salespeople during the early months of their employment.¹ Drawing on organizational socialization theory, which examines the role of different dimensions of socialization tactics in inducing either a custodial or an innovative role orientation in a newcomer (Jones 1986; Van Maanen and Schein 1979), we consider the implications of centralized and on-the-job training on the development of newly hired salespeople. Given the dynamic nature of a salesperson's role, we predict that on-the-job training, which enables a newcomer to take on an innovative role orientation to a greater degree, will lead to more favorable performance outcomes.

We contribute to both the theory and practice of sales force training and socialization in three ways. First, we examine the relative effectiveness of onboarding salespeople through either centralized training or on-the-job training. Research on salesperson training provides insights into the benefits of selective sales force training (Atefi et al. 2018) and the positive but diminishing benefits of training for growth- and task-related knowledge, skills, and abilities in terms of a salesperson's future value to a firm (Kumar, Sunder, and Leone 2014). These studies shed light on the benefits of both administering different types of training and directing training to specific members of the sales force, but they do not consider the impact of the environment in which training occurs on performance or the implications of specific types of training programs on newcomers.² In this regard, our study helps further complete the picture of how firms should train salespeople at different stages in their tenure. Given firms' substantial investment in salesperson training, it is critical for sales managers to know whether they are better served onboarding their salespeople using a centralized training program or an on-the-job training

program. Related to this point, we link specific types of socialization tactics to salesperson performance using objective data within the context of a quasi-field experiment. Prior studies in the salesperson socialization space have relied on a combination of nonexperimental methods and self-reported performance measures from data collected through surveys (e.g., Barksdale et al. 2003; Evans et al. 1995; Menguc, Han, and Auh 2007).

Second, we establish that a manager's span of control influences the efficacy of the type of onboarding program that a newly hired salesperson undergoes. We find that as a manager's span of control widens, the level of performance that an on-the-job-trained salesperson can achieve is diminished, with the greatest impact occurring in the first few months of that salesperson's tenure. Although studies treating span of control as a theoretical variable of interest have become less common, it remains of substantial practical interest to managers (Meier and Bohte 2003). In addition, in the sales literature, Plank et al. (2018) highlight a lack of research examining the breadth of a manager's span of control and its impact on the practice of sales management (e.g., the limitations it places on the sales manager's ability to evaluate and supervise a sales team), and they encourage further research to examine this important construct. By linking a sales manager's span of control to salesperson performance in the context of salesperson socialization, we provide further support for the managerial perspective that span of control is an important variable to consider in decisions related to the design of management structures in sales organizations.

Third, we build on extant theory in organizational socialization by identifying an occupational context in which individualized socialization tactics yield greater benefits than institutionalized socialization tactics. Extant research in the organizational socialization literature has commonly supported the benefits of institutionalized socialization tactics for newcomers

over individualized socialization tactics (e.g., Allen and Meyer 1990; Bauer et al. 2007; Cable and Parsons 2001). These studies have relied on either recent graduates of undergraduate and graduate programs or employees across an organization without considering differences between functions and roles. In our study, we argue that occupational roles that require certain types of characteristics in greater quantities (e.g., such as those that require greater adaptability and creativity) may benefit more from the use of individualized socialization tactics, which enable newcomers to take a more individualized approach in adapting the norms, values, and practices of an organization (e.g., Schein 1988). Furthermore, our study provides quasi-field experimental evidence of the relative impact of two of the most common means through which firms socialize newcomers. Saks and Ashforth (1997, p. 259) call attention to the need for this type of research in the organizational socialization literature by noting “a glaring lack of experimental or quasi-experimental studies.”

Theoretical Background

Organizational Socialization

Overview. Organizational socialization refers to “the process by which an individual acquires the social knowledge and skills necessary to assume an organizational role” (Van Maanen and Schein 1979, p. 3). One of the most commonly employed theoretical perspectives associated with organizational socialization research is Van Maanen and Schein’s (1979) dimensions of socialization tactics (Saks and Ashforth 1997). Van Maanen and Schein identify six dimensions of organizational socialization tactics that occur when an individual has joined a firm³: (1) collective versus individual socialization tactics, (2) formal versus informal socialization tactics, (3) sequential steps versus random steps in the socialization tactics, (4) fixed versus variable socialization tactics, (5) serial versus disjunctive socialization tactics, and (6) investiture versus

divestiture socialization tactics. Each of the two items associated with a given dimension can be viewed as serving as one end of a continuum. In more recent years, research has provided links between the different dimensions of organizational socialization tactics and greater newcomer adjustment, greater job embeddedness, greater perceptions of person–organization fit, greater value congruence, greater performance, and lower turnover (e.g., Allen 2006; Ashforth and Saks 1996; Bauer et al. 2007; Cable and Parsons 2001; Riordan et al. 2001).

Within this framework, Van Maanen and Schein (1979) proposed that each of the socialization tactics in a given dimension could lead to either custodial responses or innovative responses on the part of a newcomer, with Jones (1986) later using this distinction to organize the tactics in each dimension, defining those associated with a custodial response as *institutionalized socialization tactics* and those associated with an innovative response as *individualized socialization tactics*. The socialization tactics associated with a custodial response include collective, formal, sequential, fixed, serial, and investiture, while those associated with an innovative response include individual, informal, random, variable, disjunctive, and divestiture (Allen and Meyer 1990; Jones 1986).⁴

Van Maanen and Schein's (1979) theory of organizational socialization is particularly well suited for an examination of the relative efficacy of salesperson onboarding programs conducted through either centralized or on-the-job training for two reasons. First, centralized training predominately consists of institutionalized socialization tactics, and on-the-job training predominately consists of individualized socialization tactics. Second, the type of response (i.e., custodial or innovative) obtained from salespeople as a result of their onboarding experience has significant implications on their future performance. Because of the greater demands on

adaptability and creativity associated with personal selling, we posit that an innovative response can lead to more favorable performance outcomes.

Onboarding of newly hired salespeople. Research has applied organizational socialization to determine the initial training (often referred to as “onboarding”) of newly hired salespeople. Formal and informal efforts associated with training, education, and mentoring are techniques firms use to socialize new salespeople (Barksdale et al. 2003). Feldman (1976) proposes a contingency theory of socialization consisting of three stages that a new employee passes through sequentially: an anticipatory socialization stage, an accommodation stage, and a role definition stage. Dubinsky et al. (1986) adapt Feldman’s (1976) conceptual model of organizational socialization to the salesperson context and find general support for the three stages and also tie their relationship to important salesperson outcomes (i.e., general satisfaction, mutual influence, internal work motivation, and job involvement). Within this context, centralized training and on-the-job training can be viewed as residing in the accommodation stage of socialization, in which a new salesperson endeavors to gain an understanding of what working in the firm is truly like and makes an effort to become a part of it (Dubinsky et al. 1986). Grant and Bush (1996) apply work on socialization tactics (e.g., Jones 1986; Van Maanen and Schein 1979) to the salesperson context and find support for the role of institutionalized socialization tactics in fostering greater organizational value congruence on the part of newly hired salespeople.

Manager’s role in socialization. Newly hired salespeople tend to interact with other members of the organization less frequently than other types of employees do because of the nature of their role (Grant and Bush 1996). This tends to heighten the importance of sales managers as socialization agents, especially considering that they are primarily responsible for

both clarifying what is expected of newly hired salespeople and helping them develop the knowledge and skills necessary to perform the tasks associated with the role. The importance of this dynamic can be attributed to factors such as the higher levels of uncertainty that newcomers commonly experience than other employees and the efforts undertaken to reduce such feelings (Ashford 1986). A newcomer's manager is frequently the target of efforts designed to gather uncertainty-reducing information, especially as it relates to what is expected of the newcomer and how to effectively perform various tasks (Morrison 1993; Ostroff and Kozlowski 1992). Within the context of salesperson socialization, sales managers have a significant influence on the shaping of a sales force's culture (Grant and Bush 1996) as well as the development of their reports through their capacity to serve as a role model (Rich 1997). However, sales managers' ability to be a positive force in the socialization of newly hired salespeople may be constrained by the demands of other aspects related to their job.

Overall, a review of the organizational socialization and salesforce socialization literature streams confirms the role of a firm's socialization tactics in enabling new employees to adapt to their roles with tangible downstream impacts. Within the salesperson context, evidence shows the specific value of institutionalized socialization tactics in fostering greater organization value congruence for newly hired salespeople (e.g., Grant and Bush 1996) but does not link these types of tactics to performance, a critical outcome of any socialization program. We build on this literature by investigating the effect of two common and competing forms of organizational socialization offered within the context of the sales force.

Manager's Span of Control

Span of control refers to the number of subordinates a supervisor is responsible for overseeing (Jones 2010). As the number of subordinates increases, the number of interpersonal relationships

the manager is required to oversee increases as well, but in an exponential manner. A manager who loses control of his or her subordinates and the relationships between those subordinates will be in a limited position to prevent those subordinates from engaging in dysfunctional behaviors (e.g., pursuing unaligned goals, shirking of responsibilities) (Jones 2010).

In the sales literature, researchers have considered factors that influence span of control, such as environmental uncertainty and salesperson risk aversion (e.g., Krafft 1999), and the potential for span of control to influence other variables, such as salesperson role conflict and role ambiguity (Chonko 1982) and the diffusion of market orientation (Lam, Kraus, and Ahearne 2010) within the sales force. In addition, studies have provided limited evidence for the relationship between span of control and salesperson performance (Ryans and Weinberg 1979), but the findings are mixed. Specifically, Ryans and Weinberg (1979) find that a wider span of control is negatively related to a salesperson's performance during the first year after a major sales reorganization, but not in the second year. They conjecture that the sales manager's ability to allocate personal resources (e.g., time) to his or her salespeople during this time of new challenges and opportunities was critical to their performance. We build on the extant literature on span of control by both examining how managers' span of control influences the efficacy of different forms of organizational socialization and evaluating the relative importance of span of control early in the tenure of newly hired salespeople.

Socialization Tactics: Centralized Versus On-the-Job Training

Research identifying how socialization tactics yield different responses from newly hired employees serves as our primary theoretical framework for developing our hypotheses. It is instructive to understand how the two types of training programs we study can be decomposed in terms of the six socialization tactic dimensions identified by Van Maanen and Schein (1979). We

provide an overview of the subsequent mapping of each training program type (i.e., centralized training and on-the-job training) onto each socialization tactic (in a given dimension) in Figure 1.

The defining feature of collective (vs. individual) socialization tactics is that they are administered to individuals in a group setting comprised of other similar individuals (e.g., other new employees). Collective socialization tactics can include common educational experiences provided to new salespeople grouped together into cohorts. Individual socialization is provided to a new employee (e.g., a salesperson) on an individual basis, separate from other new employees. Centralized training fits the definition of a collective socialization tactic, while on-the-job training generally fits the definition of an individual socialization tactic.

The defining feature of formal (vs. informal) socialization tactics is that individuals (e.g., new salespeople) are isolated from other members of the firm during a period in which they are exposed to a set of experiences designed for new employees. This can occur in either an individual or a group setting. Informal socialization tactics do not involve an effort on the part of the firm to separate, in terms of physical space, the experiences the new employee is exposed to from those that are generally part of the daily work lives of other members. While on-the-job training may contain some elements that would qualify as informal socialization tactics, centralized training is more closely aligned with the definition of a formal socialization tactic, given the significantly greater degree of structure offered within it and its delivery outside the context of the new salesperson's working environment (e.g., the store territory within which the salesperson has been hired to work).

The defining feature of sequential (vs. random) socialization tactics is that the sequence of steps the individual is required to take to transition into a given role is set ahead of time. Random socialization tactics do not possess a clearly defined sequence of steps outlined at the

onset. Centralized training is more closely aligned with the definition of a sequential socialization tactic than on-the-job training, given its uniform curriculum and its homogenized administration by a set of specialized trainers. However, it is worth noting that on-the-job training is likely to possess some elements that fit within the definition of a sequential socialization tactic, but this is likely to be contingent on the purview and capabilities of the manager overseeing the district or territory within which the salesperson is employed.

The defining features of fixed (vs. variable) socialization tactics are that the time required to complete each step associated with them has been specified and that the associated set of steps, taken holistically as a single activity or process, has a clearly demarcated beginning and end. Variable socialization tactics do not provide any indication of the time required to complete each step associated with them, and the associated set of steps has a less loosely defined beginning and end. Centralized training is slightly more closely aligned with the definition of a fixed socialization tactic than on-the-job training, given its highly structured nature and the need to clearly define how long the firm will retain a cohort of newly hired salespeople in the centralized training center; however, on-the-job training may also possess elements that fit within the definition of a fixed socialization tactic.

The defining feature of serial (vs. disjunctive) socialization tactics is the incorporation of experienced members of the firm (e.g., veteran salespeople) into the related socialization process so that new employees can learn how to “follow in their footsteps.” Related to this, experienced employees generally serve in this capacity because of their potential to be role models to new employees, which sometimes means exposing new employees to current employees who act, apart from their relatively greater experience in the firm, as new employees (Van Maanen and Schein 1979). Disjunctive socialization tactics lack the incorporation of experienced employees

considered otherwise similar to new employees into the related socialization process (Van Maanen and Schein 1979). Both centralized training and on-the-job training are likely to involve the inclusion of experienced members of the firm, but we conjecture that the level of experience of the salespeople and their suitability as role models involved in on-the-job training may be more variable than what is found in centralized training. For this reason, we view centralized training as slightly more closely aligned with the definition of a serial socialization tactic than on-the-job training.

The defining feature of investiture (vs. divestiture) socialization tactics is that they are designed to affirm the value of employees' personal characteristics possessed before entering the firm (e.g., skills, values, attitudes). Conversely, divestiture socialization tactics are designed to disconfirm the value personal characteristics of employees insofar as these characteristics do not align with those perceived as desirable to the firm, so that a new set of preferred characteristics can be developed within employees. Examples of organizations that use divestiture socialization tactics include the military, fraternities, and religious orders (Van Maanen and Schein 1979). On the surface, it is not clear whether centralized training or on-the-job training aligns more closely with investiture or divestiture socialization tactics. An argument could be made that because of the investment the firm makes in employees when they undergo centralized training and their exposure to executives and other prototypical employees during this period, they may feel more positively supported in their personal characteristics. Given the potential variability in on-the-job training, new salespeople could be more likely to experience trials and tribulations that serve to cast personal characteristics of themselves in a negative light. From this standpoint, we are inclined to view centralized training as slightly more closely aligned with the definition of an

investiture socialization tactic than on-the-job training. In the following section, we use our mapping of both types of training programs to aid in the development of our hypotheses.

Hypotheses Development

Training Program Type's Influence on Performance

Within the sales force socialization framework proposed by Dubinsky et al. (1986), the primary objectives of training (engaged in during the “accommodation” stage of socialization) include effectively initiating a salesperson to the tasks associated with his or her role and clearly defining his or her role as a salesperson in the firm. Institutionalized socialization tactics, with which centralized training is more closely aligned, lead to a custodial response on the part of the salesperson (Jones 1986). A new employee who possesses a custodial role orientation is one who accepts the knowledge, values, and strategies of the firm on their face (Van Maanen and Schein 1979). In this regard, a salesperson who possesses a custodial role orientation is more likely to behave in a manner that is congruent with the firm’s values and what it believes to be necessary to perform acceptably in the role.

By contrast, individualized socialization tactics, with which on-the-job training is more closely aligned, lead to an innovative response on the part of the salesperson (Jones 1986). An innovative response involves a newcomer taking a more active role in seeking out additional information on how to perform in his or her new role, which can lead him or her to actively determine how to more optimally perform in it (Van Maanen and Schein 1979). Baker (1989) posits that several of the features of institutionalized socialization tactics may reduce the performance potential of a newcomer by limiting the freedom to engage in more innovative behaviors that are likely to increase the incidence of success and positive outcomes. As a consequence, institutionalized socialization tactics are more likely to produce a group of more

consistent but unexemplary performers who aim to keep their efforts within the bounds of the status quo.

The other side of this position is that individualized socialization tactics may allow newcomers to become more exemplary performers through greater flexibility, but this flexibility can also lead to higher incidences of errors and adverse outcomes (Ashforth and Saks 1996). Experimenting with new behaviors is one of the more effective learning and knowledge acquisition strategies newcomers can take (Ostroff and Kozlowski 1992), but it is a strategy whose use is conditional on the flexibility with which a newcomer can engage in experimentation. In addition, the greater personal latitude offered through individualized socialization tactics is linked to greater internal work motivation (Baker 1989). Because salespeople must be more adaptable and creative in meeting the dynamic needs of the role (e.g., Dubinsky et al. 1986) and firms generally hire new salespeople with a unique mix of values, traits, and competencies, we contend that fostering an innovative role orientation will yield greater performance benefits when incorporated into the training and development of newly hired salespeople.

In addition, it is important to reiterate one of the key differences in a centralized training program versus an on-the-job training program—that is, the firm takes initial responsibility for socializing newly hired salespeople who undergo centralized training, whereas sales managers take initial responsibility for socializing newly hired salespeople who undergo on-the-job training. Sales managers have greater knowledge of distinct characteristics of their sales districts, which we argue they can more easily transfer to newly hired salespeople who undergo on-the-job training, and also a more precise understanding of what knowledge and skills are most critical for salespeople to develop initially in consideration of their respective sales districts. Deeter-

Schmelz, Goebel, and Kennedy (2008) find that both sales managers and sales representatives view a sales manager's possession of relevant business knowledge as one of the most critical attributes. Gaining this type of knowledge in the relevant environment (i.e., in the context of observing sales and selling to customers) is likely to improve the efficacy of its transfer, enabling salespeople to more effectively sell within their respective sales districts. Thus:

H₁: Compared with centralized training, on-the-job training has a greater positive influence on performance.

Salesperson Tenure as a Moderator of the Relationship Between Training Program Type and Salesperson Performance

The relative benefits of on-the-job training are likely to be more fully realized over time as newly hired salespeople adapt to the demands of their new role in the firm. As they do so, their mastery of tasks associated with the role and overall performance within their role will improve (e.g., Chan and Schmitt 2000; Chen 2005). However, the potential performance improvement and rate of related improvement for centrally trained salespeople are constrained by the capacity of institutionalized socialization tactics to produce a custodial orientation (e.g., Allen and Meyer 1990; Jones 1986). We expect the capacity of institutionalized socialization tactics to promote conformity on the part of newly hired salespeople to reduce the opportunity for more radical growth in performance. In support of this position, Ostroff and Kozlowski (1992) identify experimentation and observation as information acquisition strategies that are relatively more influential in the pursuit of greater role and task mastery for newcomers. We contend that on-the-job training is more likely to promote greater experimentation, particularly given the idiosyncratic characteristics of the newly hired salesperson's sales district, that will generally lead to greater performance improvements over time. Thus:

H₂: As salesperson tenure increases, on-the-job-trained salespeople will improve in performance at a faster rate than centrally trained salespeople.

Manager Span of Control as a Moderator of the Relationship Between Training Program Type and Salesperson Performance

Sales managers' ability to allocate time to their sales force is constrained by the number of salespeople who report to them (Zoltners, Sinha, and Lorimer 2012). Through closer supervision, sales managers can reduce the level of ambiguity or uncertainty that salespeople reporting to them experience in their jobs (Walker, Churchill, and Ford 1975), with downstream benefits related to greater role ambiguity's negative influence on salespeople's ability to perform in their role (e.g., Brown and Peterson 1993). As such, we argue that the degree of impact of sales managers on each new hire reporting to them will depend on the type of initial training each undergoes and the capacity of the managers to take a hands-on role in this hire's development early on. As mentioned previously, we expect centrally trained salespeople to exhibit a custodial role orientation but on-the-job-trained salespeople to exhibit an innovative role orientation (Jones 1986; Van Maanen and Schein 1979).

We propose that a sales manager with a narrower span of control will be in a better position to engage in several of the dimensions of socialization tactics associated with institutionalized socialization, but with the related custodial role orientation fostered within the salesperson being directed to adhering to the knowledge, values, and strategies espoused by the sales manager. In addition, the sales manager will be able to take a more flexible approach with on-the-job-trained salespeople than is possible when institutionalized socialization tactics are employed (e.g., in a centralized training program). This dynamic provides the opportunity to foster a custodial role orientation in newly hired salespeople to some extent, while also allowing

the opportunity for the development and expression of some innovative responses (e.g., when considered beneficial to both sales manager and salespeople). Within the context of Van Maanen and Schein's (1979) dimensions of organizational socialization tactics, a sales manager with a narrower span of control should be able to engage more effectively in serial and investiture tactics, which have a relatively strong role (compared with other socialization tactics) in both influencing salespeople's role orientation and increasing their job satisfaction (Jones 1986).

Early on in a salesperson's tenure with a firm, the ability to obtain relevant information is critical to developing competencies related to the role (e.g., Miller and Jablin 1991; Morrison 1993; Ostroff and Kozlowski 1992). Newcomers to a firm seek out technical information, referent information, and performance feedback from their supervisor to a greater extent than they do from their peers (Morrison 1993). A salesperson who has trained on the job is more likely to seek out information from his or her sales manager, but the extent to which he or she can obtain the desired information will be constrained by the sales manager's ability to allocate time to any related interactions. Gittell (2001) finds that a wider span of control can lead managers to take a more impersonal approach to managing their subordinates, focusing their efforts on monitoring whether their subordinates adhere to prescribed behaviors and meet performance goals set forth at the corporate level.

Furthermore, we contend that differences in information-seeking behavior directed to a salesperson's sales manager, based on whether the salesperson underwent centralized or on-the-job training, can be partly attributed to the different foci of identification the two types of training foster. Traditional forms of institutionalized socialization tactics, such as centralized training programs, instill greater organizational identification in their recipients (Ashforth and Saks 1996; Ashforth, Sluss, and Saks 2007). Salespeople who undergo centralized training are

likely to feel more confident in their ability to perform their role in a manner congruent with the expectations of the firm and are likely to be more comfortable, at least initially, having an arm's-length relationship with their respective sales managers. Consequently, we expect centrally trained salespeople to seek out information from their sales managers less frequently and have differing attitudes toward situations in which it is provided without solicitation. Thus:

H₃: Compared with a centrally trained salesperson, the performance of an on-the-job-trained salesperson is adversely influenced by a wider manager span of control.

The Temporally Shifting Influence of Manager Span of Control on the Relationship Between Training Program Type and Salesperson Performance

Saks and Ashforth (1997) suggest that organizational socialization's effects on newcomers (e.g., in the form of accommodation and adjustment) occur at a fast pace. This pattern is in line with Ashford's (1986) argument that the extent to which newcomers seek out new information decreases as their tenure increases as a result of the increased social costs of acquiring related information (e.g., out of concerns that their supervisor might view the information being sought as something they should have already known or as something they should have asked for sooner). That is, newcomers limit the extent to which they seek out technical information over time (Morrison 1993). Newly hired salespeople's manager plays an important role in their socialization, especially when they undergo on-the-job training. Given this discussion, on-the-job-trained salespeople's ability and, arguably, willingness to benefit from their manager's involvement in their early socialization and development will be most pronounced at the beginning of their tenure with the firm and become less pronounced over time. However, the extent to which newly hired salespeople reap this benefit early on will be contingent on the sales manager's ability to allocate suitable time to related activities.

Institutionalized socialization tactics (e.g., centralized training) can increase both newcomers' perception of fit with the organization (Cable and Parsons 2001) and their identification with the organization (Ashforth and Saks 1996; Ashforth, Sluss, and Saks 2007). In those cases in which either information or values shared by centrally trained salespeople's manager stand in contrast to either information or values provided by the firm during centralized training, it is likely that the salespeople would view the related elements with skepticism, impeding their adoption or internalization. We expect this dynamic to be most pronounced in the period after the salespeople undergo centralized training. In support of this view, several stage models of organizational socialization (e.g., Feldman 1976; Katz 1980) suggest that the responsiveness of newcomers to institutionalized socialization tactics will wane over time as they become more stable in their roles and their professional needs change. Ashforth and Saks (1996) find a stronger relationship between institutionalized socialization tactics and key outcomes of socialization four months into an employee's tenure than ten months into tenure. They posit that this dynamic may be the product of a shift to a lesser degree of responsiveness to institutionalized socialization tactics and a greater degree of responsiveness to other elements of the work environment. We contend that as centrally trained salespeople become more stable in their role, they will turn more to their sales manager for relevant information associated with the role, particularly information capturing idiosyncratic characteristics of the sales district that they might have been less motivated to seek out initially. However, the opportunity to gain this type of information from the sales manager will be contingent on the manager's ability to allocate suitable time to related activities. Thus:

H4: As their tenure increases, the relationship between a wider manager span of control and performance (a) becomes less adverse for on-the-job-trained salespeople and (b) more adverse for centrally trained salespeople.

Research Design

Empirical Setting

The research setting is a national retailer in the United States that sells durable goods in stores. Each district is overseen by one district sales manager, and each store within a given district is staffed by the retailer's salespeople. These salespeople sell to customers on an individual basis, a common feature of most retail settings, which allows outcomes to be attributed to individual salespeople. The study period spans 18 months and includes salespeople who were hired during the first 11 months of the study period, which represents the period in which the firm openly offered its centralized training program to new hires.

During the first 11 months of the study period, the firm provided new hires with training, either within the districts where they would be employed or within one of three regional training facilities. Training administered within the districts (i.e., on-the-job training) involved rotating new hires between multiple stores, with training administered through interactions with their respective manager and other salespeople, digital content, and hands-on learning experiences. Training administered within regional centers (i.e., centralized training) constituted a program administered to groups of salespeople that involved classroom-based experiences and some hands-on training in a larger "showroom-style" store contained within the related regional center. It was common for new hires trained within the regional centers to have interactions with executives of the firm and other highly regarded employees (e.g., star salespeople). For the purpose of this study, we use salesperson-time observations for the first nine months of each new

hire's tenure with the firm. Specifically, we consider the performance of each newly hired salesperson in month two through month nine.⁵ Overall, we examine 2,608 salesperson-time observations for 326 newly hired salespeople.⁶

The retailer pays its salespeople a small base salary to guarantee that they receive a living wage for their work; however, most of the pay is commission based. To set expectations, the firm assigns salespeople monthly quotas through a two-step process. First, it assigns districts monthly quotas according to district-level factors, such as same-district sales from the same period last year. Second, it divides district quotas among salespeople depending on their scheduled hours and store locations.

This context is well suited for a study on the role of centralized training and sales managers in the early stages of newly hired salespeople's tenure for three reasons. First, the firm chose to administer training to its new hires during an 11-month window by offering both types of salesperson training (i.e., centralized and on-the-job training), which allows for an examination of the differences between the two paradigms. Of the 326 salespeople included in the study, 184 (approximately 57% of the total) underwent centralized training at a regional center. Second, the firm's primary point of contact with its salespeople is through its district managers, who play a significant role in both the coaching and supervision of the salespeople within their respective districts. Third, peers play a less significant role in this setting because salespeople rotate between multiple locations within a district early in their tenure and work independently in stores, with one other salesperson sometimes scheduled to work in the same location at the same time.

Data and Explanatory Measures

The data come from the firm's records (i.e., the retailer's human resources and performance-tracking databases). Table 1 reports correlations among the variables and descriptive statistics.

The following section outlines the set of measures used in this study.

Training program type. Using the firm's records, we are able to identify whether a newly hired salesperson was trained in a centralized program or through an on-the-job program in a district's stores. *Training program type* is a time-invariant characteristic that equals 1 if the new salesperson underwent the centralized training program and 0 if he or she underwent the on-the-job training program.

Span of control. Following extant sales literature (e.g., Chonko 1982; Krafft 1999; Lam, Kraus, and Ahearne 2010), we define manager span of control as the total number of salespeople (both new hires and incumbents) who report directly to a manager. In this context, salespeople report to a district manager who oversees the district in which they are employed. Consequently, *span of control* is the sum of the total number of salespeople within a given district in month $t - 1$.

Tenure. We define *tenure* as the specific month of employment a newly hired salesperson is in. Measuring tenure enables us to account for the component of a salesperson's performance that is subject to change as he or she becomes more experienced in his or her role. In addition, it enables us to examine how our other explanatory variables of interest vary in terms of their influence on performance as a salesperson's tenure in the firm increases.

Control variables. We define *peer turnover* as the count of a given salesperson's peers who leave, up to month $t - 1$, divided by the total number of peers he or she had in month $t - 1$. Extant research (e.g., Sunder et al. 2017) has shown the influence of peer turnover on a

salesperson's likelihood of quitting. We expect that the exit of peers will have an influence on a salesperson's performance through its effect on both personal and broader factors. In addition, we expect that changes in the number of salespeople reporting to a sales manager related to turnover will have a conceptually different type of influence on the performance of the affected salespeople. We also include salesperson-level control variables that are fixed before a salesperson begins his or her tenure with the firm. These variables, which are intended to capture systematic differences among new hires, include *past sales experience*, *hire age*, *gender*, and *race*.⁷

Methodology

We use the following specification to test H₁:

$$\begin{aligned}
 y_{ijt} = & \beta_0 + \beta_1 Training_{ij} + \beta_2 Span_{jt-1} + \beta_3 Tenure_{ijt} + \beta_4 PeerTurn_{ijt-1} \\
 & + \beta_5 PriorSalesExp_i + \beta_6 HireAge_i + \beta_7 Gender_i + \beta_8 Race_i + \sum_{t=1}^{18} \beta_{t+8} D_t \\
 & + \varepsilon_{ijt},
 \end{aligned}$$

where the dependent variable y_{ijt} is salesperson i 's performance (or sales quota obtained) in district j in month t , *Training* represents whether salesperson i participated in either the firm's centralized training program (denoted by a value of 1) or its on-the-job training program (denoted by a value of 0) at the beginning of his or her tenure, *Span* represents the manager's span of control in month $t - 1$ within district j , *Tenure* refers to the current month that salesperson i in district j at time t is currently in, *PeerTurn* refers to the proportion of salesperson i 's coworkers in district j up to month $t - 1$ who have left the firm, *PriorSalesExp* indicates salesperson i 's past sales experience (in years) at the time of hire, *HireAge* indicates salesperson i 's age (in years) at the time of hire, *Gender* indicates salesperson i 's gender (where a value of 1

denotes a male salesperson), and *Race* indicates salesperson i 's race (where a value of 1 denotes a Caucasian salesperson). We include calendar-time dummies (D_t) for each period (i.e., month) to account for time-specific factors that could be common across salespeople in the firm. We estimate the model using ordinary least squares with statistical inference based on bootstrapped cluster-robust standard errors, accounting for clustering at the salesperson level.

To test H_2 and H_3 , we interact the *Training* variable in our model with the *Span* and *Tenure* variables, respectively. To test H_4 , we interact the *Training*, *Span*, and *Tenure* variables with each other, while accounting for all corresponding lower-order interaction terms in the model.

A potential concern in the specified model is the possibility that the *Training* variable is endogenous, due to the self-selection of newly hired salespeople into the centralized training program. The ideal setting would be one in which the firm randomly offered the opportunity to undergo centralized training to new hires and was able to achieve perfect compliance in this regard. In the absence of this possibility, unobserved characteristics may bias the relationship between undergoing centralized training and performance. For example, higher-ability salespeople may perceive centralized training as an opportunity to showcase their potential to individuals in the firm with higher social capital early on in their careers and consequently choose to attend centralized training. Such a dynamic would likely lead to an upwardly biased relationship between centralized training and performance.

To address concerns surrounding the possible endogeneity of the *Training* variable, we use a control function approach (e.g., Petrin and Train 2010; Wooldridge 2015). To use this approach, we need to be able to identify a variable that can serve as an instrument correlated with the endogenous *Training* variable but not with the error term in the model. We argue that the

distance between a sales district's headquarters and its regional training center is a suitable instrument for our purposes and measure it as the distance (in miles) required to drive between the newly hired salesperson's district headquarters and the corresponding regional training center. In a similar vein, research has used geographic proximity as an instrument for estimating the returns to education (e.g., Card 1995; Kane and Rouse 1993), given the view that students who live in an area that does not have a school within a reasonable proximity are faced with the prospect of pursuing a more costly educational experience away from home (e.g., because such an occurrence takes away the option to live at home while in school).

To establish that driving distance is a suitable instrument, we must provide support for the position that it meets both the relevance criterion and exclusion restriction. To meet the former condition, the instrument must influence the decision of a newly hired salesperson to undergo centralized training. The costs, both to the firm and the individual, of going to a regional training center that is closer to the new salesperson's district are generally lower for both parties than costs that would be incurred for a new salesperson whose district is farther away from the same regional training center. Given that the firm absorbs both transportation and lodging costs for salespeople who train centrally, distance will be a factor in the firm's managers decision to recommend that a newly hired salesperson undergoes the centralized training program. For the newly hired salesperson, distance will represent an opportunity cost related to displacement from home, routine, and responsibilities. Different caretaking responsibilities would capture a common set of activities that would incur an opportunity cost for the newly hired salesperson faced with the prospect of participating in centralized training. For salespeople who live within a reasonable driving distance of a regional training center, commuting daily between their residence and the training center or making the trip back home on relatively short notice would

be feasible should the need arise. Considering these points, we expect that the distance between a sales district and a corresponding regional training center will decrease the likelihood that a newly hired salesperson will participate in a centralized training program.⁸

To meet the exclusion restriction, the instrument should not influence any unobserved factors in our model of salesperson performance (i.e., it should not be correlated with the error term). The strongest challenge to the exclusion restriction in this case is whether more talented salespeople and/or more talented sales managers would work within districts that are farther from their respective regional training centers. Our contention is that this is unlikely to be the case, given the tendency of individuals to explore job opportunities in consideration of their residence. To the extent that district sales managers previously worked as salespeople in the same firm (i.e., were internally promoted), we would expect this pattern to hold for them as well. In the cases in which a new salesperson chooses to relocate given the opportunity to work with the firm, we would not expect his or her level of ability to drive the related decision; rather, the decision would be made based on consideration of the extent to which viable opportunities are present in his or her current geographic location at the time of seeking employment. We do not expect this to be more or less pronounced depending on the newly hired salesperson's proximity to each of the regional training centers.

Having established that the instrument meets both the relevance criterion and the exclusion restriction, we adopt a control function approach (e.g., Petrin and Train 2010; Wooldridge 2015). We estimate the first stage as a probit model, regressing the *Training* variable on our instrumental variable (driving distance) along with all the control variables previously specified. We then estimate the inverse Mills ratio and include it as an additional control variable

in the second-stage regression to estimate our main model, in which salesperson performance is the outcome of interest (for additional details, see procedure 21.4 of Wooldridge 2010, p. 949).

Results

We present the results of the first-stage probit regression in Table 2 and present the results for our estimation of the salesperson performance models in Table 3. As shown in Model 1, we find that centralized training (relative to on-the-job training) has a negative influence on salesperson performance ($\beta = -.249, p < .05$), in support of H₁.

As Model 2 shows, we find a negative interaction between centralized training and tenure ($\beta = -.013, p < .05$), in support of H₂. Simple effect tests, to explore the differential relationship of tenure with performance of centrally trained and on-the-job-trained salespeople, show a positive influence of tenure on performance for centrally trained salespeople ($\beta = .018, p < .05$) and a positive and relatively greater influence of tenure on performance for on-the-job-trained salespeople ($\beta = .031, p < .001$). We also find a positive interaction between centralized training and span of control ($\beta = .007, p < .05$), in support of H₃. Simple effect tests, to explore the differential relationship of span of control with performance of centrally trained and on-the-job-trained salespeople, reveal that a wider manager span of control has a negative influence on performance for on-the-job-trained salespeople ($\beta = -.006, p < .05$) but has neither a positive nor a negative influence on performance for centrally trained salespeople ($\beta = .001, p > .5$).

For H₄, we predicted that the negative influence of span of control on performance would decline as tenure increased for on-the-job-trained salespeople but would increase for centrally trained salespeople. We find a significant three-way interaction among centralized training,

tenure, and manager span of control ($\beta = -.0024, p < .01$), providing general support for H₄.

The statistically significant three-way interaction indicates that at least one of the two-way interactions in Model 3 varies across the third variable included in Model 3's three-way interaction. Because we predicted that the two-way interaction between a salesperson's tenure and a manager's span of control would depend on the type of training program received, we probe the three-way interaction by plotting the effect of manager span of control for centrally trained and on-the-job-trained salespeople across each month of tenure (depicted in Figure 2, following References). In other words, we calculate the marginal effect of span of control, separately for centrally trained and on-the-job-trained salespeople, at each value of tenure included in the model. The plot shows (1) how the marginal effect of span of control for on-the-job-trained salespeople trends upward as salesperson tenure increases and (2) how the marginal effect of span of control for centrally trained salespeople trends downward as salesperson tenure increases.

Discussion

Whether to onboard new salespeople through either a centralized program or an on-the-job program is not immediately clear to firms. Advances in digital training technologies that can assist in the implementation of on-the-job training programs have increased the importance of being able to assess the efficacy of centralized training programs as a means of onboarding salespeople in relation to on-the-job training programs. By bringing the literature streams of organizational socialization, sales force socialization, and span of control together, we are able to develop and test a set of hypotheses that provide new insights into whether it is more effective to have salespeople be onboarded either centrally or on the job. Furthermore, we are able to provide

insight into whether the relative efficacy of each is contingent on the role of sales managers early in the development of newcomers.

Theoretical Implications

This study finds that on-the-job training, as a mechanism of onboarding newly hired salespeople, yields greater benefits than centralized training. We find that the benefits of the type of initial training newly hired salesperson receive are conditional on both the sales manager's span of control and the salesperson's tenure. In addition, we find that the relationship between a salesperson's tenure and a sales manager's span of control is conditional on the type of initial training the newly hired salesperson underwent. Related to these findings, we next discuss three important theoretical implications of our research.

First, we contribute to the organizational socialization and sales force socialization literature streams by providing evidence for the positive influence of individualized socialization tactics on the development of newly hired salespeople. Extant research within the domain of organizational socialization has considered the potential benefits of institutionalized socialization tactics in terms of factors such as greater newcomer adjustment, greater organizational commitment, greater person–organization fit, greater performance, and lower turnover (e.g., Allen 2006; Bauer et al. 2007; Cable and Parsons 2001; Riordan et al. 2001). Taken collectively, most findings in the organizational socialization literature generally support the view that institutionalized socialization tactics offer greater benefits than individualized socialization tactics. However, several scholars, in support of Van Maanen and Schein's (1979) theorizing of the influence of socialization tactics on custodial or innovative role orientations, reason that institutionalized socialization tactics may carry a cost in their capacity to reduce the role innovativeness of newcomers (e.g., Allen and Meyer 1990; Baker 1989; Jones 1986). Our

research supports the position that there are contexts in which an innovative role orientation is desirable. Specifically, fostering an innovative role orientation is desirable in organizational contexts in which greater levels of creativity and adaptability on the part of a newcomer are desirable. Furthermore, we provide evidence that an innovative role orientation provides benefits in terms of greater gains in competence as a salesperson's time in a firm increases. In support of this finding, we argue that an innovative role orientation encourages greater experimentation on the part of a newly hired salesperson, the benefits of which continue to materialize over time as the salesperson learns more from the results of engaging in experimental behaviors than he or she would have otherwise.

Second, we connect the span-of-control literature with the sales force socialization literature by providing evidence that the span of control of the newly hired salesperson's manager influences the relative effectiveness of centralized training compared with on-the-job training. Dubinsky et al. (1986) argue that the successful assimilation of salespeople into a firm is a key responsibility of sales managers. Our research provides an empirical test of this position by identifying a boundary condition that influences the relationship between the type of initial training a salesperson receives and his or her performance. Span-of-control research has largely shifted its focus to a consideration of factors that provide insight into how to effectively set span of control in the related context (Van Fleet and Bedeian 1977). We identify a factor that is informative in determining how firms should regulate sales managers' span of control.

Third, we add a novel longitudinal perspective to the sales force socialization literature by providing evidence that the influence of a sales manager as an agent of both socialization and development evolves over time, depending on the type of initial training a newly hired salesperson receives. Specifically, sales managers may play a more important role in the

socialization and development of new salespeople who train on the job early on, but the importance of their ability to serve in this role diminishes as salespeople's tenure in the role increases. Conversely, sales managers play a less important (and a potentially detrimental) role in the socialization of new salespeople who train centrally early on, but the importance of serving in this role increases as the tenure of centrally trained salespeople increases. Previous studies examining the longitudinal impact of institutionalized socialization tactics have observed diminishing effects over time (e.g., Allen and Meyer 1990; Ashforth and Saks 1996), with one explanation being that the needs of newcomers change as they become more established and secure in their respective roles. Our research supports this view, while showing that this temporal dynamic differs depending on whether a newly hired salesperson initially underwent centralized or on-the-job training.

Managerial Implications

This research has implications for decision making at both the firm level and the sales manager level. Our findings reveal the general value of on-the-job training relative to centralized training. We argue that the benefits of an on-the-job training program, in which newcomers' sales manager guides the process, assisted by digital training content provided by the firm, are associated with the higher levels of creativity and adaptability required of those who operate within a sales role. Consequently, many sales firms may want to consider onboarding their salespeople through an on-the-job training program, especially when the specific selling tasks associated with the role require that salespeople possess these characteristics. The combination of hands-on learning guided by a sales manager and learning delivered digitally provides a suitable setting for a newly hired salesperson to both internalize the values of the firm in a personally meaningful way and to learn how to effectively perform the various activities

associated with the job in consideration of his or her individuality. In this regard, we provide managers with insight into the relative efficacy that an on-the-job training program infused with digital content can have on the early development and performance of newly hired salespeople.

Our findings encourage firms to think about the decision of how to onboard newly hired salespeople depending on the extent to which sales managers can be involved early in their tenure. While digitally supported on-the-job training programs may offer more cost savings than centralized training programs, we suggest that firms ensure that sales managers tasked with onboarding their salespeople have the resources (e.g., time) to be appropriately involved in the process. A too wide span of control or too much time constraints brought by sales managers' other activities will lead newly hired salespeople to fall substantially short of their true potential. In this regard, it is important that the digital component of an on-the-job training program does not completely replace the sales manager during the onboarding of newly hired salespeople.

In addition, having the appropriate bandwidth to be involved in the first few months of an on-the-job-trained salesperson's tenure is particularly critical, given that a significant proportion of the performance benefits observed are realized at that point in time. In industries or in other contexts featuring relatively high levels of salesperson turnover, effectively setting the span of control of sales managers may be an especially important consideration given the correspondingly high levels of new salespeople being brought in at a given point in time. Having the ability to allocate more time and effort to coaching new hires promises greater opportunities for sales managers to effectively develop newly hired salespeople into high performers, with the benefit of such efforts likely being felt in other ways, including greater intentions to stay with the firm (Barksdale et al. 2003).

From a sales manager perspective, our findings show the importance of sales managers in the development of salespeople early on but suggest that this importance differs depending on the type of onboarding a salesperson underwent. While the sales manager's ability to be involved in the development of newly hired salespeople in the first few months is most critical for those onboarded on the job, the opposite seems to be true for those onboarded centrally, who may benefit instead from a wider manager span of control in the first few months. These differences in the dynamics of these different types of onboarding programs underscore at least one potential synergy for sales managers responsible for salespeople who vary in the type of onboarding program in which they participated. In this type of environment, sales managers who allocate equal amounts of time to newer salespeople regardless of how they were initially trained should consider taking a more strategic approach that puts an initial focus on allocating greater resources to coaching salespeople who undergo on-the-job training and then shifts the focus to allocating greater resources to coaching salespeople who undergo centralized training. Doing so may allow sales managers to improve the performance of both types of salespeople to a greater degree.

Limitations and Future Research Directions

This study is not without limitations, several of which offer promising directions for further research. We provide evidence that on-the-job-trained salespeople reach higher levels of performance than centrally trained salespeople and do so through greater rates of performance improvement over time. While we theorize that this phenomenon occurs largely because of the salesperson's ability to develop an innovative role orientation, which is of particular benefit in the sales context, our administrative data prevent us from substantiating this mediating mechanism.

Our research provides preliminary evidence that the inclusion of digital components in an on-the-job training program can assist in the development of salespeople who are able to more fully and more quickly realize their potential. In this regard, we set the stage for further research to examine how the digital components of a blended training program can be tailored to yield more optimal outcomes. Some promising areas in this regard include (1) the extent to which gamification can be integrated into the digital component of a salesperson's onboarding to more effectively promote the retention of specific knowledge, (2) whether the delivery of digital content in smaller quantities (what is commonly referred to as "microlearning") may be more effective than delivering it in larger programmatic chunks for specific topical areas of sales onboarding, and (3) whether specific elements of onboarding that a sales manager is responsible for can be delivered more effectively through digitally mediated means (vs. delivering the related elements in-person). Lassk et al. (2012) note that technology can offer firms the opportunity to deliver useful training content more cost-effectively. Further exploration of both the means through which digital training content can be delivered more effectively to salespeople and the conditions under which digital training content is most effective for salespeople would be a promising avenue for research that could significantly inform how organizations should evolve their sales training capabilities in a world that is increasingly driven by digital innovations.

We also identify the moderating role of a manager's span of control in the performance of on-the-job-trained salespeople. Related to this, research could consider the effect of a sales manager's span of control on his or her ability to develop salespeople in relation to specific managerial traits and competencies that have been identified as influential. In the nursing literature, research has shown that a manager's span of control weakens the positive relationship between his or her leadership traits and behaviors and subordinates (Doran et al. 2004; Lucas,

Laschinger, and Wong 2008). It would be valuable to understand within the sales context the extent to which a manager's span of control influences the efficacy of different leadership traits and behaviors. This would also be a fruitful area for research to explore.

We conducted this research study with a national retailer that employs a sales force to sell durable goods to consumers. It would be valuable to replicate these findings in other industries to further establish their generalizability. In particular, it would be useful to validate the findings of this study within a business-to-business setting. In our context, the average manager span of control is approximately 20 salespeople,⁹ whereas in many business-to-business contexts the average manager span of control is 8 salespeople (Zoltners, Sinha, and Lorimer 2012).

Finally, future studies should more explicitly consider the differential effect of peers on newly hired salespeople during the sales force socialization process, given how their influence might vary depending on the type of onboarding the newly hired salespeople underwent. Of substantial importance to firms is whether a salesperson's manager or peers wield more influence during socialization (Barksdale et al. 2003). Our research addresses how institutional elements (i.e., centralized and on-the-job training programs) influence the socialization and development of newly hired salespeople and how these same institutional elements interact with a manager's span of control to result in outcomes of varying utility to the firm. That said, it is likely that the influence of peers may also depend on the type of initial training received by a newly hired salesperson.

References

- Akkoyunlu, Buket and Meryem Yimaz Soylu (2008), "A Study of Student's Perceptions in a Blended Learning Environment Based on Different Learning Styles," *Educational Technology & Society*, 11 (1), 183-93.
- Allen, David G. (2006), "Do Organizational Socialization Tactics Influence Newcomer Embeddedness and Turnover?" *Journal of Management*, 32 (April), 237-56.
- Allen, Natalie J. and John P. Meyer (1990), "Organizational Socialization Tactics: A Longitudinal Analysis of Links to Newcomers' Commitment and Role Orientation," *Academy of Management Journal*, 33 (4), 847-58.
- Ashford, Susan J. (1986), "Feedback-Seeking in Individual Adaptation: A Resource Perspective," *Academy of Management Journal*, 29 (3), 465-87.
- Ashforth, Blake E. and Alan M. Saks (1996), "Socialization Tactics: Longitudinal Effects on Newcomer Adjustment," *Academy of Management Journal*, 39 (1), 149-78.
- Ashforth, Blake E., David M. Sluss, and Alan M. Saks (2007), "Socialization Tactics, Proactive Behavior, and Newcomer Learning: Integrating Socialization Models," *Journal of Vocational Behavior*, 70 (3), 447-62.
- Association for Talent Development (2016), "2016 State of Sales Training," (accessed February 10, 2019), <https://www.td.org/research-reports/2016-state-of-sales-training>.
- Atefi, Yashar, Michael Ahearne, James G. Maxham III, D. Todd Donovan, and Brad D. Carlson (2018), "Does Selective Sales Force Training Work?" *Journal of Marketing Research*, 55 (5), 722-37.
- Baker, Robin Zenger (1989), "A Control Perspective of Organizational Socialization," paper presented at the Annual Meeting of the Academy of Management, Washington, DC.

Barksdale, Hiram C., Jr., Danny N. Ballenger, James S. Boles, and Thomas G. Brashear (2003),

"The Impact of Realistic Job Previews and Perceptions of Training on Sales Force

Performance and Continuance Commitment: A Longitudinal Test," *Journal of Personal*

Selling & Sales Management, 23 (2), 125-38.

Bauer, Talya N. (2015), "Onboarding: Enhancing New Employee Clarity and Confidence,"

white paper (June).

Bauer, Talya N., Berrin Erdogan, Todd Bodner, Donald M. Truxillo, and Jennifer S. Tucker

(2007), "Newcomer Adjustment During Organizational Socialization: A Meta-Analytic

Review of Antecedents, Outcomes and Methods," *Journal of Applied Psychology*, 92 (3),

707-21.

Brown, Steven P. and Robert A. Peterson (1993), "Antecedents and Consequences of

Salesperson Job Satisfaction: Meta-Analysis and Assessment of Causal Effects," *Journal of*

Marketing Research, 30 (1) 63-77.

Cable, Daniel M. and Charles K. Parsons (2001), "Socialization Tactics and Person-Organization

Fit," *Personnel Psychology*, 54 (1), 1-23.

Card, David (1995), "Using Geographic Variation in College Proximity to Estimate the Return to

Schooling," Working Paper No. 4483, NBER Working Paper Series.

Chan, David and Neal Schmitt (2000), "Interindividual Differences in Intraindividual Changes in

Proactivity During Organizational Entry: A Latent Growth Modeling Approach to

Understanding Newcomer Adaptation," *Journal of Applied Psychology*, 85 (2), 190-210.

Chen, Gilad (2005), "Newcomer Adaptation in Teams: Multilevel Antecedents and Outcomes,"

Academy of Management Journal, 48 (1), 101-16.

- Chonko, Lawrence B. (1982), "The Relationship of Span of Control to Sales Representatives' Experienced Role Conflict and Role Ambiguity," *Academy of Management Journal*, 25 (2), 452-56.
- Cron, William L., Greg W. Marshall, Jagdip Singh, Rosann L. Spiro, and Harish Sujan (2005), "Salesperson Selection, Training, and Development: Trends, Implications, and Research Opportunities," *Journal of Personal Selling & Sales Management*, 25 (2), 123-36.
- Deeter-Schmelz, Dawn R., Daniel J. Goebel, and Karen Norman Kennedy (2008), "What Are the Characteristics of an Effective Sales Manager? An Exploratory Study Comparing Salesperson and Sales Manager Perspectives," *Journal of Personal Selling & Sales Management*, 28 (1), 7-20.
- Doran, Diane, Amy Sanchez McCutcheon, Martin G. Evans, Kathleen MacMillan, Linda McGillis Hall, Dorothy Pringle, et al. (2004), "Impact of the Manager's Span of Control on Leadership and Performance," white paper, Canadian Health Services Research Foundation.
- Dubinsky, Alan J., Roy D. Howell, Thomas N. Ingram, and Danny N. Ballenger (1986), "Sales Force Socialization," *Journal of Marketing*, 50 (4), 192-207.
- Evans, Kenneth R., Dwayne D. Gremler, John L. Schlacter, and William G. Wolfe (1995), "The Impact of Salesperson Socialization Organizational Commitment, Satisfaction, and Performance in a Professional Service Organization," *Journal of Professional Services Marketing*, 11 (2), 139-56.
- Feldman, Daniel Charles (1976), "A Contingency Theory of Socialization," *Administrative Science Quarterly*, 21 (3), 433-52.

- Gittell, Jody Hoffer (2001), "Supervisory Span, Relational Coordination and Flight Departure Performance: A Reassessment of Postbureaucracy Theory," *Organization Science*, 12 (4), 468-83.
- Grant, E. Stephen and Alan J. Bush (1996), "Sales Force Socialization Tactics: Building Organizational Value Congruence," *Journal of Personal Selling & Sales Management*, 16 (3), 17-32.
- Jones, Gareth R. (1986), "Socialization Tactics, Self-Efficacy, and Newcomers' Adjustments to Organizations," *Academy of Management Journal*, 29 (2), 262-79.
- Jones, Gareth R. (2010), *Organizational Theory, Design, and Change*, Upper Saddle River: Pearson.
- Kane, Thomas J. and Cecilia Elena Rouse (1993), "Labor Market Returns to Two- and Four-year Colleges: Is a Credit a Credit and Do Degrees Matter?" Working Paper No. 4268, NBER Working Paper Series.
- Katz, Ralph (1980), "Time and Work: Toward an Integrative Perspective," *Research in Organizational Behavior*, 2, 81-127.
- Krafft, Manfred, (1999), "An Empirical Investigation of the Antecedents of Sales Force Control Systems," *Journal of Marketing*, 63 (3), 120-34.
- Kumar, V., Sarang Sunder, and Robert P. Leone (2014), "Measuring and Managing a Salesperson's Future Value to the Firm," *Journal of Marketing Research*, 51 (5), 591-608.
- Lage, Maureen J., Glenn J. Platt, and Michael Treglia (2000), "Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment," *Journal of Economic Education*, 31 (1), 30-43.

- Lam, Son K., Florian Kraus, and Michael Ahearne (2010), "The Diffusion of Market Orientation Throughout the Organization: A Social Learning Theory Perspective," *Journal of Marketing*, 74 (5), 61-79.
- Lassk, Felicia G., Thomas N. Ingram, Florian Kraus, and Rita Di Mascio (2012), "The Future of Sales Training: Challenges and Related Research Questions," *Journal of Personal Selling & Sales Management* 32 (1), 141-54.
- Lucas, Victoria, Heather K. Spence Laschinger, and Carol A. Wong (2008), "The Impact of Emotional Intelligent Leadership on Staff Nurse Empowerment: The Moderating Effect of Span of Control," *Journal of Nursing Management*, 16 (8), 964-73.
- Meier, Kenneth J. and John Bohte (2003), "Span of Control and Public Organizations: Implementing Luther Gulick's Research Design," *Public Administration Review*, 63 (1), 61-70.
- Menguc, Bulent, Sang-Lin Han, and Seigyoung Auh (2007), "A Test of a Model of New Salespeople's Socialization and Adjustment in a Collectivist Culture," *Journal of Personal Selling & Sales Management*, 27 (2), 149-67.
- Miller, Vernon D. and Fredric M. Jablin (1991), "Information Seeking Organizational Entry: Influences, Tactics, and a Model of the Process," *Academy of Management Journal*, 16 (1), 92-120.
- Morrison, Elizabeth Wolfe (1993), "Newcomer Information Seeking: Exploring Types, Modes, Sources, and Outcomes," *Academy of Management Journal*, 36 (3), 557-89.
- Ostroff, Cheri and Steve W.J. Kozlowski (1992), "Organizational Socialization as a Learning Process: The Role of Information Acquisition," *Personnel Psychology*, 45 (4), 849-74.

- Petrin, Amil and Kenneth Train (2010), "A Control Function Approach to Endogeneity in Consumer Choice Models," *Journal of Marketing Research*, 47 (1), 3-13.
- Plank, Richard E., David A. Reid, Steven E. Koppitsch, and Jeffrey Meyer (2018), "The Sales Manager as a Unit of Analysis: A Review and Directions for Future Research," *Journal of Personal Selling & Sales Management*, 38 (1), 78-91.
- Rich, Gregory A. (1997), "The Sales Manager as Role Model: Effects on Trust, Job Satisfaction, and Performance of Salespeople," *Journal of the Academy of Marketing Science*, 25 (4), 319-28.
- Riordan, Christine M., Elizabeth W. Weatherly, Robert J. Vandenberg, and Robin M. Self (2001), "The Effects of Pre-entry Experiences and Socialization Tactics on Newcomer Attitudes and Turnover," *Journal of Managerial Issues*, 13 (2), 159-76.
- Ryans, Adrian B. and Charles B. Weinberg (1979), "Territory Sales Response," *Journal of Marketing Research*, 16 (4), 453-65.
- Saks, Alan M. and Blake E. Ashforth (1997), "Organizational Socialization: Making Sense of the Past and Present as a Prologue for the Future," *Journal of Vocational Behavior*, 51 (2), 234-79.
- Sales Management Association (2017), "Salesperson Retention and Turnover," research report (March).
- Schein, Edgar H. (1988), "Organizational Socialization and the Profession of Management," *Sloan Management Review*, 30 (1), 53-65.
- Sunder, Sarang, V. Kumar, Ashley Gorezcny, and Todd Maurer (2017), "Why Do Salespeople Quit? An Empirical Examination of Own and Peer Effects on Salesperson Turnover Behavior," *Journal of Marketing Research*, 54 (3), 381-97.

Tallent-Runnels, Mary K., Julie A. Thomas, William Y. Lan, Sandi Cooper, Terrence C. Ahern, Shana M. Shaw, and Xiaoming Liu (2006), "Teaching Courses Online: A Review of the Research," *Review of Educational Research*, 76 (1), 93-135.

Training Magazine (2018), "Training Industry Report," (November/December),

<https://trainingmag.com/sites/default/files/trn-2018-industry-report.pdf>.

Van Fleet, David D. and Arthur G. Bedeian (1977), "A History of the Span of Management," *Academy of Management Review*, 2 (3), 356-72.

Van Maanen, John and E.H. Schein (1979), "Toward a Theory of Organizational Socialization," in *Research in Organizational Behavior*, B.M. Staw, ed. Greenwich, CT: JAI Press, 209-64.

Walker, Orville C., Jr., Gilbert A. Churchill Jr., and Neil M. Ford (1975), "Organizational Determinants of the Industrial Salesman's Role Conflict and Ambiguity," *Journal of Marketing*, 39 (1), 32-39.

Wooldridge, Jeffrey M. (2010), *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press.

Wooldridge, Jeffrey M. (2015), "Control Function Methods in Applied Econometrics," *Journal of Human Resources*, 50 (2), 420-45.

Zoltners, Andris A., Prabhakant Sinha, and Sally E. Lorimer (2012), *Building a Winning Sales Management Team: The Force Behind the Sales Force*. Evanston, IL: ZS Associates.

Zoltners, Andris A., Prabhakant Sinha, and Sally E. Lorimer (2014), "Does Your Company Have Enough Sales Managers?" (Accessed November 7, 2018), <https://hbr.org/2014/04/does-your-company-have-enough-sales-managers>.

Footnotes

¹ In our empirical setting, this includes the first nine months of employment of a newly hired salesperson who received either type of training program (during an 11-month period in which both were offered). This time duration aligns with the firm's position on how long it takes for a salesperson to reach a suitable level of productivity.

² The term "environment" is commonly used in the education literature to refer to both the tangible and intangible external factors that characterize a space in which learning is being delivered to individuals (e.g., Akkoyunlu and Soylu 2008; Lage, Platt, and Treglia 2000; Tallent-Runnels et al. 2006). The term is commonly used in relation to online learning, face-to-face learning, and blended learning.

³ The dimensions Van Maanen and Schein (1979) proposed are not intended to be exhaustive but are argued to be relatively widespread across a diverse range of firms and provide a useful characterization of the structural component of socialization in an organization.

⁴ Van Maanen and Schein (1979) originally theorized that fixed and investiture tactics (vs. variable and divestiture tactics) were associated with an innovative response (vs. a custodial response). Contrary to this position, Jones (1986) argues for the opposite classifications of these two socialization tactics and, similar to Allen and Meyer (1990), finds empirical support for this position. Consequently, we follow this updated classification of the affected socialization tactics.

⁵ The first month of a salesperson's employment emphasizes learning about the firm's values and developing the knowledge and skills necessary to perform the job. Any selling activities occurring during the first month generally involve the supervision of senior personnel and may not be directly attributable to the salesperson. In addition, because centrally trained salespeople

are not in their districts during the majority of the first month, it was not clear how the first month's performance should be assessed.

⁶ We focus on salespeople who did not leave the firm during their first nine months to more effectively capture the time-varying effects of interest (turnover in the first nine months of employment was 13%).

⁷ To avoid losing salesperson observations as a result of some missing values for past sales experience and hire age contained within the data set, we replace the missing values with the overall averages calculated for these variables.

⁸ A regression of the centralized training variable on the driving distance variable conducted with the data treated as a cross-section provides empirical support for the relevance of the instrument ($F = 28.23$).

⁹ The average span of control for U.S. sales forces has more recently been reported to be between 10 and 12 salespeople. However, within sales forces and across companies, span of control varies considerably. For example, sales contexts that require tight supervision, employ predominately full-time employees, and involve complex selling tasks may feature spans of control that average as low as 6 salespeople; on the opposite end of the spectrum, sales contexts that allow for loose supervision, employ predominately part-time workers, and involve fairly simple selling tasks may feature spans of control that average as high as 50 salespeople (Zoltners, Sinha, and Lorimer 2014).

TABLE 1
Intercorrelations and Descriptive Statistics

Variables	1	2	3	4	5	6	7	8	9
1. Salesperson performance	1								
2. Centralized training	-.02	1							
3. Tenure	.07*	.00	1						
4. Span of control	-.06*	.07*	.20*	1					
5. Peer turnover	-.02	.02	.53*	.07*	1				
6. Past sales experience	.02	-.01	.00	-.02	.02	1			
7. Hiring age	.02	-.14*	.00	-.05*	.03	.59*	1		
8. Gender	.07*	-.03	.00	-.05*	-.01	.09*	-.01	1	
9. Race	.04*	-.15*	.00	.03	.01	.01	.01	.01	1
Descriptive Statistics									
M	.97	.57	5.5	19.85	.06	3.33	30.15	.64	.77
SD	.36	.49	2.29	6.69	.07	4.29	8.33	.48	.42

* $p < .05$.

TABLE 2
First-Stage Probit Regression (DV: Centralized Training)

Driving distance (instrumental variable)	-0.002*** (0.000)
Tenure	0.069* (0.033)
Span of control	0.021 (0.012)
Peer turnover	2.000* (1.005)
Past sales experience	0.035 (0.020)
Hire age	-0.022 (0.011)
Gender	-0.078 (0.162)
Race	-0.407* (0.181)
Time fixed effects	Yes
Observations	2608

Notes: Cluster robust standard errors are in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$.

TABLE 3
Salesperson Performance Models

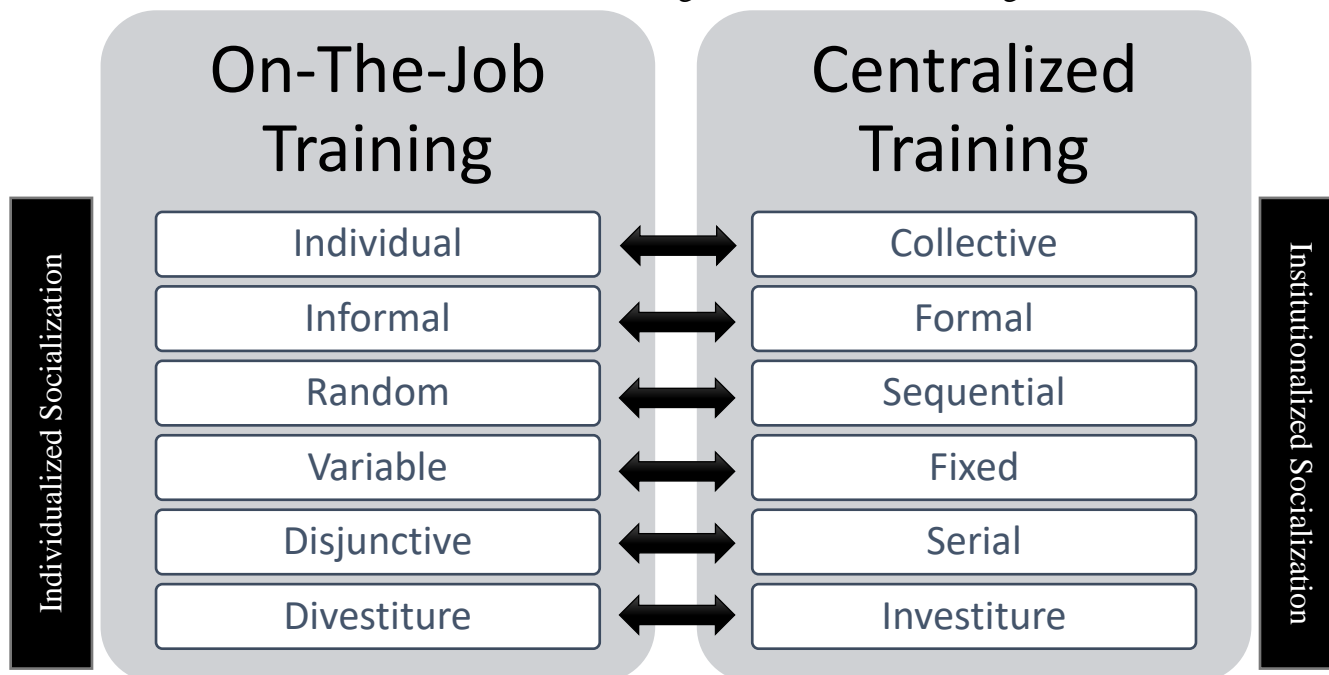
	(1)	(2)	(3)	Test of Hypotheses
Inverse Mills ratio	0.1599** (0.0615)	0.1516* (0.0618)	0.1534* (0.0619)	
Centralized training	-0.2489* (0.1045)	-0.1618 (0.1122)	-0.1488 (0.1120)	H ₁
Tenure	0.0244*** (0.0070)	0.0311*** (0.0084)	0.0332*** (0.0083)	
Span of control	-0.0021 (0.0019)	-0.0060* (0.0026)	-0.0140** (0.0051)	
Peer turnover	-0.2492 (0.1477)	-0.2231 (0.1476)	-0.2414 (0.1464)	
Past sales experience	0.0043 (0.0043)	0.0042 (0.0043)	0.0041 (0.0043)	
Hire age	-0.0021 (0.0021)	-0.0019 (0.0021)	-0.0018 (0.0021)	
Gender	0.0412 (0.0250)	0.0406 (0.0244)	0.0406 (0.0245)	
Race	-0.0037 (0.0298)	-0.0019 (0.0298)	-0.0017 (0.0299)	
Centralized training × tenure		-0.0133* (0.0066)	-0.0148* (0.0066)	H ₂
Centralized training × span of control		0.0071* (0.0030)	0.0209*** (0.0060)	H ₃
Span of control × tenure			0.0014* (0.0007)	
Centralized training × span of control × tenure			-0.0024** (0.0008)	H ₄
Time fixed effects	Yes	Yes	Yes	
Observations	2608	2608	2608	
R ²	.061	.067	.069	

Notes: Bootstrapped cluster robust standard errors are in parentheses. Listed models include a mean-centered span-of-control measure to ease interpretation.

* $p < .05$. ** $p < .01$. *** $p < .001$.

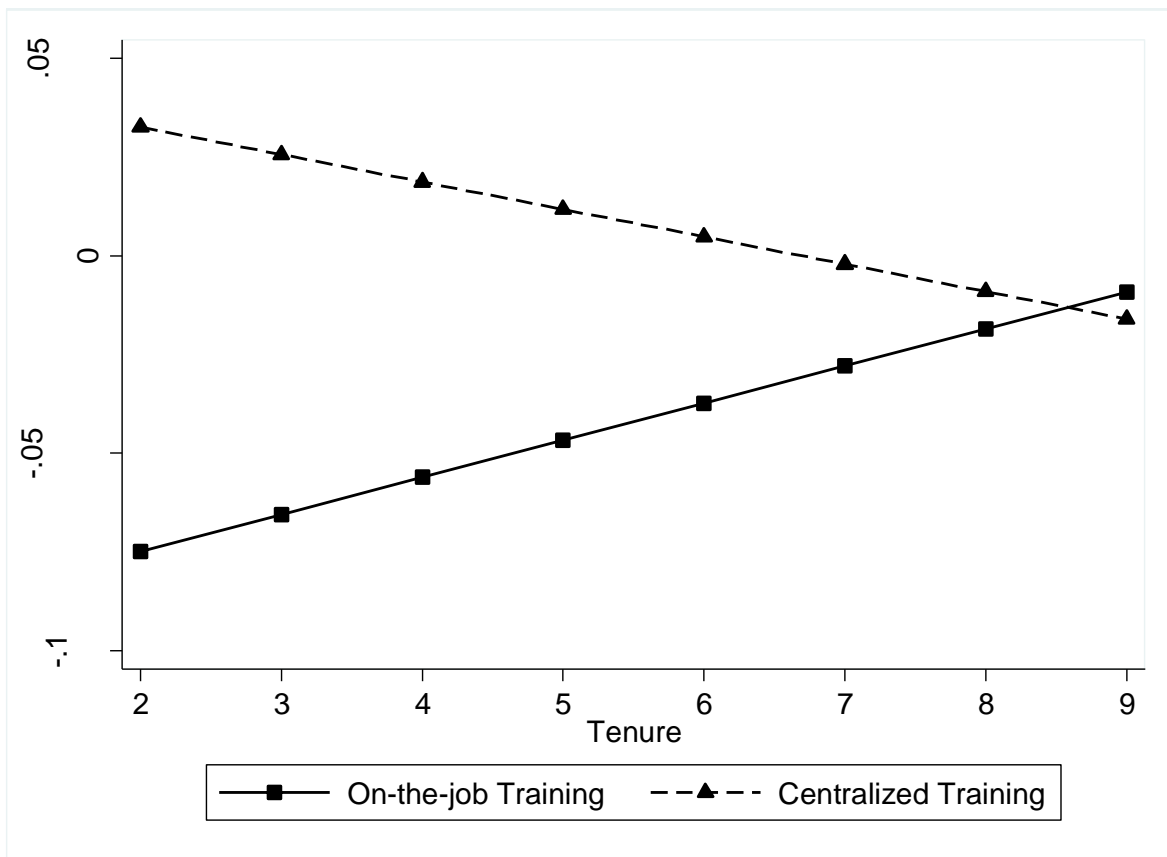
FIGURE 1

Mapping of Van Maanen and Schein's (1979) Dimensions of Socialization Tactics onto Centralized Training and On-the-Job Training



Notes: Each row represents a different dimension of Van Maanen and Schein's (1979) dimensions of socialization tactics, with each element signifying one end of a continuum (which Jones [1986] categorized as individualized socialization tactics and institutionalized socialization tactics). In addition, fixed and investiture tactics have both been categorized as institutionalized socialization tactics expected to yield a custodial response in newcomers, in line with the findings of both Jones (1986) and Allen and Meyer (1990).

FIGURE 2
 Marginal Effects of Span of Control on Salespeople Trained Centrally and On the job
 (Tenure Increasing)



Notes: In this graph, we display the marginal effect estimates for span of control as a standardized variable. This is intended to clarify the performance implications of a wider span of control for a salesperson trained either centrally or on the job as his or her tenure increases. In this context, a 1 SD increase in span of control is equivalent to an increase of 6.69 salespeople under the supervision of a sales manager.