Organization Science

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Abstract. This paper adapts real options theory to explain how executives create and maintain real options portfolios within leadership pipelines. Hypotheses flowing from our theorizing predict that executives often make seemingly risky staffing decisions for leaders who occupy stepping-stone positions. Focusing on their option (future potential) rather than project (current productivity) value, executives laterally transfer leaders in stepping-stone positions frequently, despite it resulting in *lower* short-term job performance, but often promote these leaders at *lower* levels of performance and *sooner*. Once leaders are promoted to destination positions where they may stay indefinitely, executives tend to transfer high-performing leaders more often but not when they are still improving the effectiveness of their current unit. We present evidence suggesting that executives make these decisions to improve other units and maintain a flexible system, possibly recapturing previous investments in developing those leaders. We provide empirical support for our hypotheses using eight years of data in a large retail organization (*n* = 25,004) where executives overseeing thousands of units made internal mobility decisions. These findings refine real options theory, show that it explains these phenomena better than existing theories, and provide important and immediately usable practical implications for executives.

Supplemental Material: The online appendix is available at https://doi.org/10.1287/orsc.2022.1608.

Keywords: leadership • careers • promotions • options theory

> [Leader development] is a little like having double vision. One eye has to focus on today. The other has got to focus on tomorrow. —George Buckley, former Chief Executive Officer (CEO) of 3M

A major challenge facing most large organizations is the development of future leaders. The practice literature often refers to this problem as one of building and maintaining a *leadership pipeline* (Conger and Fulmer 2003, Charan et al. 2011), which is defined as the pool of potential future leaders at various career stages of the development process in an organization. Effectively creating a pipeline requires the development of emerging lower-level leaders ready to promote when the need arises. Executives frequently leverage on-the-job learning and job assignment challenges to develop leaders on a large scale. Strategically transferring employees among lateral positions on a continual basis not only develops their leadership skills but also addresses staffing needs of the organization (Day 2000, Conger and Fulmer 2003). Despite the prevalence of leadership pipelines in practice and being among the top five concerns on executives'

minds (Cappelli 2008, Protiviti 2014), little research exists explaining how executives cultivate and maintain them.

Most of the research on leadership pipelines is in the literature on succession management, which refers to the process of identifying and developing new emerging leaders who can replace old leaders when they leave or retire (Charan et al. 2011). This research provides a range of additional clarifications of the pipeline concept. Brands and Fernandez-Mateo (2017) describe the pipeline as simply the number of candidates who are available and willing to fill senior positions. In addition, Charan et al. (2011) describe it as an internal "architecture" for growing leaders that consists of a series of stages where each stage has different management requirements and challenges that the leader must master before moving on to the next stage. In their review of this literature, Brymer et al. (2018) extend a typology of pipelines, of which internal pipelines are one and the topic of the current research. Cappelli (2008) acknowledges that organizations need to anticipate uncertainty in future staffing

needs, which requires significant monitoring of their internal pipeline and augmenting it with external hiring (also see Brymer et al. 2018). Finally, this research has identified myriad considerations in using job assignments for management development, such as the role of leadership potential, differences in challenges across positions within the organization, flexibility within the system, and the other approaches to the continuous development of leaders (e.g., Conger and Fulmer 2003, Fulmer et al. 2009, Charan et al. 2011).

Although informative, the succession management literature does not answer three important questions about how executives operate pipelines. Perhaps the most basic question is the following: What criteria do executives use when making promotion decisions within a pipeline? Promotion decisions are vital to a pipeline as they directly affect the upward flow of leadership. Although logic suggests that job performance may be the most important criterion for promotion (DeVaro 2006), research on staffing indicates that individual differences, such as education, work experience history, and other indicators of potential to perform, are also associated with promotions and perceptions of promotability (e.g., Stumpf and London 1981, De Pater et al. 2009, Bidwell 2011). In other words, past performance is important, but executives also assess the potential to perform in future jobs. Second, how do executives simultaneously contend with objectives that are both long term and short term in nature? We submit that in the context of leadership pipelines, decisions regarding lateral transfers and promotion are made in a strategic manner, and leader development and performance concerns are often interrelated, inseparable, and possibly at odds. For example, investments in leader development now may result in a short-term cost in job performance to ensure a long-term payoff in future staffing flexibility. Third, how do executives manage the risks and uncertainty associated with maintaining a talent pipeline, especially having the talent available over time so it can be used when the need occurs but not be committed to using it, and do so at a reasonable cost? Cappelli (2008) argues that external hiring may partially address this uncertainty. We argue that uncertainty also can be addressed by viewing a leadership pipeline as creating options in the form of managers ready to promote if the need arises but not being committed to a promotion at any given time because the managers are fulfilling other jobs in the meantime. Having leaders perform other jobs while being developed reduces the costs of creating the pipeline, and developing firm-specific human capital from lateral assignments should also reduce the likelihood and costs of turnover (Brymer et al. 2018).

In summary, the purpose of this study is to begin to answer these questions by examining how executives make and use lateral transfer and promotion decisions

strategically to develop leaders within leadership pipelines. Specifically, we use real options theory (Hurry et al. 1992; Bowman and Hurry 1993; Malos and Campion 1995, 2000) to gain insights into the trade-offs between development and performance in the use of job assignments and promotions at different career stages in order to achieve both short- and long-term goals and balance risk when creating a leadership pipeline. We seek to advance real options theory into a conceptual framework for understanding the interconnectedness of staffing decisions made by executives for leaders within the leadership pipeline. This theory provides a single overarching framework that no theory in organizational behavior or human resources can offer to illuminate how executives cultivate and maintain a leadership pipeline. We use real options theory to propose that executives begin by investing in options in the form of hiring junior-level leaders and then make investments in the form of lateral assignments to develop those options.

It is important to note that real options theory offers value beyond existing career development theories in understanding leadership pipelines. For example, human capital theories (e.g., Becker 1962) focus on the extent to which individual factors, like education, training, and work experience, influence career development and do not capture the broader internal architecture of the pipeline. Structural theories (e.g., Doeringer and Piore 1971) focus on how organizational factors, such as job vacancies, job ladders, and internal labor markets, influence career mobility and neglect the strategic decisions made by executives. Further, although tournament theories (e.g., Rosenbaum 1979) combine human capital and structural elements into a conceptualization of career development as a series of competitions where early success portends later success, this framework narrowly focuses on early performance as a long-term indicator of success and fails to consider performance instead as a secondary factor when addressing immediate organizational needs (e.g., filling job vacancies). Instead, our development and application of real options theory recognize the role of investments in developing leaders. The prioritization of investment over performance may create trade-offs with short-term job performance but allows potential to be evaluated to create leadership resources that are ready when needed. Further, this theoretical framework recognizes how early career investment in leaders affords a later-career return on investments.

This study also goes beyond previous applications of options theory to career development (e.g., Malos and Campion 1995) and further refines it in several important ways. First, it extends the theory from professional service firms to hierarchical organizations that do not have an "up or out" promotion system. Second, it examines the role of job performance and trade-offs

therein. Third, it defines and tests the role of a central type of investment in career development in large organizations, specifically lateral transfers. Fourth, it explains how the organization recaptures investments in career development once leaders reach the destination positions.

The application of real options theory to leadership pipelines provides two contributions. First, it allows us to explain the trade-off of lower performance in the short run for flexibility in the future. Executives monitor the growth of their investments (options) until a potential opportunity to use them exists through promotion to higher-level jobs while incurring costs along the way in the form of reduced performance of the leaders because of frequency of movement. They recover the costs of those options by using the leaders to provide enhanced flexibility in the staffing system in the future. Options theory enables us to explain why executives make seemingly risky decisions, such as continuing to invest in (i.e., laterally transfer) leaders despite it resulting in lower performance, as well as why they promote leaders at lower levels of performance. It also leads to the conclusion that job performance alone often does not merit promotion in the minds of executives in the context of leadership pipelines.

Second, options theory highlights how organizations create an options portfolio with differences in leadership levels corresponding to different types of options for executives, enabling them to treat the pipeline as a real options portfolio (Bowman and Hurry 1993). Once leaders ascend to upper hierarchical levels, job performance becomes critical; it identifies those who can be used to maintain flexibility within the system. We show that leaders at upper levels tend to be kept in units when they are still improving operational effectiveness, whereas they are transferred to improve other units once they achieve higher job performance in their current units. Such decisions are made in an effort to realize a payoff from the developmental investments leaders received earlier in their careers.

In order to understand the context, goals, and challenges confronting executives charged with cultivating leadership pipelines and refine our theory, we conducted focus groups and interviews with 40 executives and four staff experts who make leader assignment decisions and are responsible for developing future leaders in the organization studied. Their comments led in part to our use of options theory. Similar to others (e.g., Uzzi 1999), we insert quotes throughout to bolster our theory development and illustrate the insights we gained. To support our predictions empirically, we analyze executives' actual decisions to laterally transfer as well as upwardly promote leaders across thousands of units within a large hierarchical organization. These data span eight year's worth of decisions across the population of leaders during this period of time ($n = 25{,}004$).

Theoretical Background

We define leaders in the traditional sense of those holding formal positions in organizations at higher authority or hierarchical levels who supervise the work of others, make some independent decisions, and are responsible for the organization's direction and outcomes. What we believe is needed to understand leadership pipelines is the broad perspective offered by a literature that enables one to understand the more strategic, holistic, and long-term/future-oriented reality of executive decision making in large leadership pipelines. To do so, we adapt real options theory, which is a financial framework. In what follows, we describe real options theory and identify integration points with the leadership pipeline concept.

In financial economics, the traditional approach to evaluating projects prior to investing in them is to calculate the net present value of the project given predictions of future cash flows (both incoming and outgoing) to inform the investment decision (Dixit and Pindyck 1994). In leadership pipelines, the net present value represents a leader's performance, which guides the decision of whether to hire or promote the leader. This traditional approach makes at least two important assumptions: (a) that the decision maker will not deviate from the "planned" schedule of investments and (b) that environmental changes will not alter the inflow of cash from (or productivity of) the asset investment (Trigeorgis 1996). As Dixit and Pindyck (1994), Trigeorgis (1996), and other proponents of the real options approach point out, however, these assumptions are often unrealistic. Investment behavior and environmental conditions often do change over time. For example, previously scheduled leader promotions may deviate because of factors beyond the organization's control, such as leaders quitting, leaving a vacancy, and requiring executives to adapt by either promoting other leaders early or laterally moving leaders at the same level. However, such shifts can affect leader performance (the productivity of the investment). Instead, real option value explains the investor's flexibility as new information is acquired. This flexibility can take the form of the investor delaying investment until uncertainty is reduced (Dixit and Pindyck 1994) or altering the asset in some way (e.g., produce different products or use different inputs) (Trigeorgis 1996). Laterally moving leaders provides executive decision makers new information about leaders and their abilities, which affords flexibility as to whether and when executives choose to promote them.

Myers (1977) coined the term "real option" when he noted that the logic associated with investments made in financial options could be applied in an analogous way to understand other resource investment decisions in organizations (such as leaders). Since then, real options theory has been widely applied to investment decisions in contexts where (a) investments occur sequentially over time, (b) the project invested in requires time to mature, and (c) there is little or no return to investment until a later date (Majd and Pindyck 1987). Real options logic can be directly applied to leadership pipelines in that major organizations regularly hire lower-level managers, take time to develop them, and reap the benefits down the line when the leaders are promoted to positions with more responsibility. The insight from options theory is that leaders are viewed as investments that are made sequentially with the expectation, but not the certainty, that the investments will pay off in the future. Real options theory sheds light on the interconnectedness of decisions made by executives, which considers both the uncertainty of whether the leaders will be needed and their development potential.

According to real options theory, executives view leaders as having either *project value*—short-term direct gains conferred by the investment, such as a leader's current productivity—or a *real option value*, which constitutes the long-term indirect strategic gains conferred through the flexibility it affords decision makers in the future, such as the value of a leader's potential should it be needed to fill higher-level jobs (Hurry et al. 1992; Dixit and Pindyck 1994; Malos and Campion 1995; 2000; Trigeorgis 1996; Busby and Pitts 1997). Central to our theorizing is the real option value, which is determined through two choices for executives: *incremental real options* or *flexibility real options* (Sharp 1991, Bowman and Hurry 1993). Put differently, these options align with how executives conceptualize leaders at different levels (or stages of development) within the pipeline and the associated uncertainties. Specifically, executives are likely to view leaders in *stepping-stone positions* or lower-level positions that are intended to be transitional (e.g., leader trainee, assistant unit leader, associate attorney) as incremental real options to develop the leader characterized by sequential investment choices (lateral transfers) made toward a single strategic opportunity (promotion). In contrast, executives are likely to view leaders in *destination positions* or upper-level positions in which an employee has influence over unit-level outcomes and may stay indefinitely (e.g., unit leader, partnered attorney) as offering flexibility options that allow for a choice to be made among a range of alternative strategic opportunities (Sharp 1991, Trigeorgis

1996). Destination positions can be used to maintain flexibility within the system by addressing staffing needs across units should they occur. As such, both types of options address uncertainty in the leadership pipeline. These choices are made to either contain current costs associated with an asset or to use the asset to offset costs or risks associated with other investments (Bowman and Hurry 1993).

Real options theory proposes that the investment process entails three distinct stages (McGrath et al. 2004, Barnett 2008). First, a small investment is made in an asset, securing preferential access to it later on. Second, the option is held for a period of time, and *amplifying preinvestments* are made in the asset in an attempt to enhance its real option value (McGrath 1997, Barnett 2008). In the context of leadership pipelines, an important amplifying preinvestment in leaders in stepping-stone positions is to laterally transfer them to different jobs for their development. Third, *strike signals* are received, indicating that it is time to make a larger investment in the asset (Bowman and Hurry 1993). At that point, a larger investment is made not only to realize a payoff but also, to avoid the cost associated with holding the option past its "expiration." In the context of leadership pipelines, the strike signal is an opening at a higher level, requiring a decision of whether to promote the leader, which fills an organizational need and also avoids the cost of further unnecessary development. These features help executives cope with uncertainty because they allow for the future consideration of whether a particular leader will develop sufficiently and be ready when needed.

We apply these concepts to develop predictions regarding how executives make staffing decisions for leaders within leadership pipelines. We focus on the use of lateral job assignments to develop early career leaders, despite the short-term costs, and when early career leaders are promoted to upper-level positions. We examine the costs of lower short-term job performance during development, but additional costs may include direct costs of developing leaders (e.g., training, coordinating transfers), impact on employees from changes in leadership, missed opportunities of other potential uses of the leader, among others. We then examine how executives use lateral transfers for later-career leaders to recover early costs associated with their development in the form of a payoff from their effectiveness in being able to manage other units. Here, the purpose of lateral transfers changes from developing leaders to enhancing unit effectiveness. The role of job performance also changes from an unavoidable cost of transfers for early career leaders to a determinant of transfers for later-career leaders. Promotion also saves the costs from continued investment in the

leader's development once the leader is sufficiently developed to fulfill destination positions.

Executives' Strategic Staffing Decisions for Leaders Within the Leadership Pipeline
Developing Leadership Potential: Investing in Incremental Real Options

As the overview outlined, real options theory suggests that the general process of executives investing in leaders in stepping-stone positions involves several stages (Figure 1). First, executives make a small investment in one or more leaders by hiring or promoting them into stepping-stone lower-level positions, thus securing access to the future real option of using them to expand the organization's stock of leadership talent. Second, executives then hold them for a period of time (called the *holding period* in options theory). During this stage, executives laterally transfer leaders for two reasons. First, lateral transfers allow executives to fill openings internally and balance staffing with workload levels. Second, lateral transfers act as amplifying preinvestments in leaders (McGrath 1997, Barnett 2008). *Lateral transfers* refer to alternative jobs that may involve different duties, titles, and locations but are at the same hierarchical (grade and pay) level (also called job rotations in some previous research) (Campion

et al. 1994). They offer a way for executives to increase leaders' real option values in the form of greater decision-making flexibility in making future promotion decisions.

Research on leader development suggests that lateral transfers are likely to augment leadership potential by broadening leaders' work experiences. Thus, lateral transfers serve as a proxy for experience, which is the core construct. Work experience can be broken down into quantitative, qualitative, and interactive components that differ in terms of measurement mode (e.g., amount, time, density) and level of specificity (e.g., task, job, work group) (Tesluk and Jacobs 1998). Learning takes place as leaders encounter and work through challenging experiences (e.g., DeRue and Wellman 2009). Challenging experiences include, for example, creating change, working across boundaries, dealing with unfamiliar responsibilities, having high levels of responsibility, and managing diversity (Ohlott 2004). These assignments cause individuals to reframe established patterns of thought and action (McCauley et al. 1994).

Although options theory does not specifically speak to the frequency of investment, in this setting frequency reflects increasing investments. Research suggests that a greater number of assignments increases the probability of individuals' exposure to a wider variety of roles, relationships, responsibilities, and

Figure 1. (Color online) Strategic Option Investment Process Stages for Developing and Maintaining a Leadership Pipeline
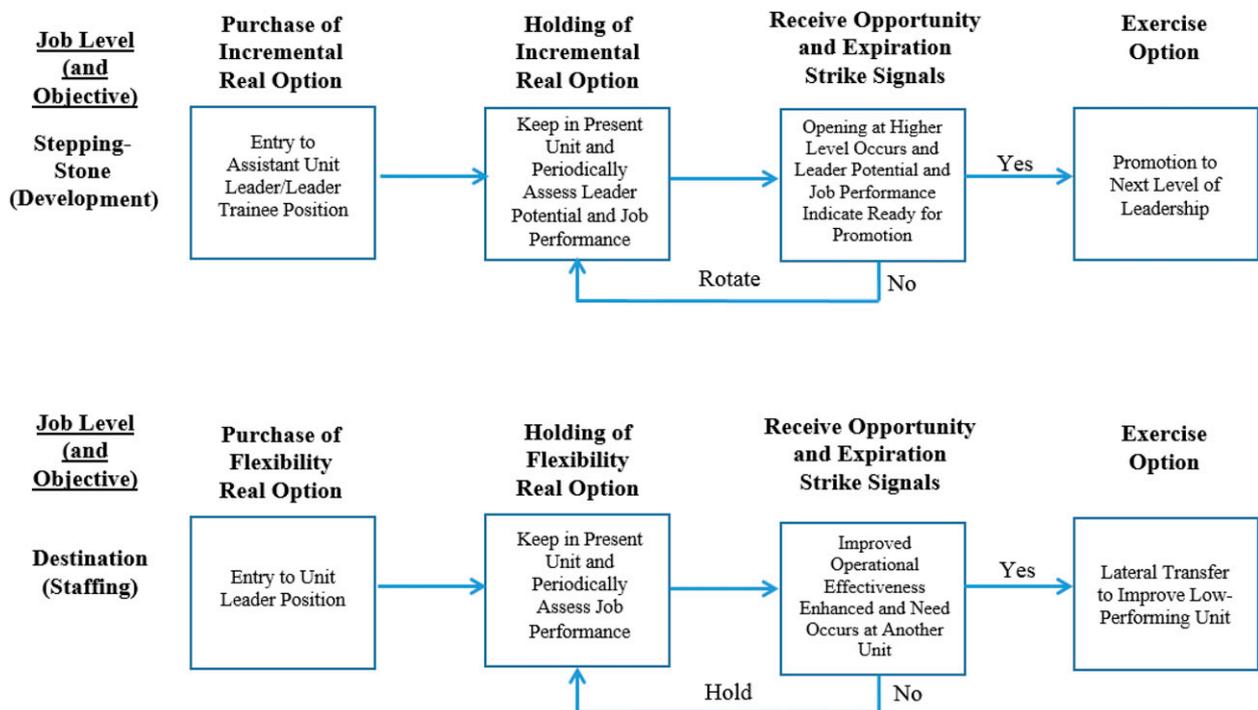
Note. Adapted with permission from Malos and Campion (1995).

other job characteristics (Collins and Smith 2006). Even if lateral transfers do not radically change a leader's job duties, they alter the immediate work group. Because effective leadership depends on subordinates and constraints by contextual factors (e.g., clientele), the skills required are likely to differ to a degree with each new transfer. Thus, exposure may enhance a leader's potential because it diversifies his or her cognitive, social, and behavioral repertoire (Hooijberg et al. 1997). For example, the accumulation of varied roles and responsibilities over one's career has been found to relate to leadership outcomes, such as strategic thinking competency (Dragoni et al. 2011). Strategic thinking, in turn, has been shown to be fundamental for those in leadership positions at upper levels of organizations (i.e., destination positions) (Mumford et al. 2007). Evidence also suggests that more frequent lateral transfers across organizational divisions contribute to a differentiation in one's knowledge and skill portfolio (Campion et al. 1994). Thus, it is used by organizations to estimate an employee's ability and productive capacity and is directly associated with a faster promotion rate (Campion et al. 1994, Ortega 2001, Eriksson and Ortega 2006).

In addition to developing their potential, matching leaders to different job assignments allows executives to evaluate leaders' potential to assume future assignments (Lombardo and Eichinger 2000), which is the second reason executives laterally transfer leaders during this period. It serves as an indicator of the leaders' real option value because it predicts the flexibility the leaders will afford in the future. Evaluating potential enables them to reduce uncertainty when making decisions to promote leaders in the future. Recent theorizing on the meaning of high potential recognizes that development opportunities increase potential and allow the evaluation of potential, possibly through observing key indicators, like mental ability, social competence, and learning agility (Finkelstein et al. 2018). As one executive stated,[1]

> [o]nce I've hired employees into positions of leadership, I will stretch their experience by moving them around to a variety of locations. This helps to broaden their perspective to include the big picture and to understand how their actions and decisions relate to the organization as opposed to any particular location. This is critical because if they don't develop this perspective, how can I justify promoting them and making them responsible for their own unit?

More frequent lateral transfers are expected to lead to promotion not only because they indicate the capabilities comprising potential but also because they indicate the readiness component of potential (De Pater et al. 2009, Finkelstein et al. 2018). Thus, more transfers enhance the leader's experience, but they also prepare the leader for promotion.

Hypothesis 1. *When executives laterally transfer leaders in stepping-stone positions more frequently, they will be more likely to promote them.*

Executives may also transfer leaders more frequently to prepare them for promotion sooner. This would build the leadership pipeline more quickly and provide another important benefit from developmental investments, like transfers. As such, supplemental analyses of this hypothesis will explore whether those promoted are promoted sooner if they have been transferred more frequently.

If leaders are laterally transferring frequently and thus, being consistently challenged, they must devote much of their effort to learning new contexts, colleagues, and demands (McCauley et al. 1994). This suggests that other work outcomes, such as job performance (or current project value), may suffer for at least two reasons. First, individuals have a limited quantity of cognitive resources (Ackerman 1986). Second, ongoing high levels of challenging work or perceptions of misfit between one's abilities and job requirements may lead to increased levels of psychological stress or strain (Courtright et al. 2014), which has been linked to lower levels of job performance (Lang et al. 2007). Similarly, frequent lateral transfers are likely to result in heightened levels of role ambiguity, which has also been found to be negatively related to job performance (Tubre and Collins 2000). As an executive stated,

> [m]ost of our assignments in and of themselves are only developmental for the first six to twelve months. After that, leaders become set in their routines. So, in order to really groom leaders for upper levels you have to constantly keep them out of their comfort zone. This presents an interesting dilemma because those leaders you really push to develop—who I think have more leadership potential as a result—rarely have outstanding performance … at least according to the yearly performance appraisals I see. Really, there's just a delicate balance between stretch and break; it's a tough balancing act.

Thus, we predict Hypothesis 2.

Hypothesis 2. *When executives laterally transfer leaders in stepping-stone positions more frequently, these leaders will exhibit lower levels of job performance relative to their peers who are less frequently laterally transferred.*

However, the lower short-term job performance may not affect the promotability of these leaders, which is explained by options theory. This is because at the third stage when executives promote leaders, real options theory suggests that the timing of this event will be contingent upon two types of signals. The first signal is an *opportunity arrival strike signal* (Bowman and Hurry 1993). This signal indicates that

a leader has fulfilled the job assignment requirements necessary to be promoted (cf., De Pater et al. 2009). Organizations often have various types of job assignments that a leader must have in order to be viewed as "ready for promotion." Readiness is not based entirely on job performance because of the recognized effect of the frequent transfers on performance. The lateral transfers are investments and thus, incur costs. Note that this departs from predictions of tournament theory, where performance alone is expected to determine promotion.

Because promotions to and among leadership positions are also driven by staffing needs or vacancies in upper-level positions (Doeringer and Piore 1971, Stumpf and London 1981), real options theory suggests that the second type of signal received by executives is an *expiration strike signal* (Bowman and Hurry 1993). This signal indicates that a position has opened at a higher hierarchical level that must be filled. Upon receiving these signals, leaders are promoted (i.e., their real options are exercised). However, because there will be a cost of the development provided by transfers in terms of lower short-term job performance, leaders will have lower job performance at the time of promotion. As an executive stated,

> I often rely on the transfer histories of leaders I'm considering for that opening. This provides a pretty good indicator of potential to perform as a leader in that job. It's all about past experience, even if this means slightly lower, but adequate, performance and less tenure.

In other words, executives consider the development investment and future potential of those with high transfer rates as well as current job performance in determining promotions. However, the prediction of promotion from transfers and job performance could take two possible forms. It may be a simple direct effect in that a higher transfer rate indicates greater potential and will increase the likelihood of promotion regardless of the level of performance. On the other hand, it may be an interaction in that the role of performance changes with more transfers. That is, lower performance will matter less if the leader has a high transfer rate. Thus, we predict Hypothesis 3.

Hypothesis 3. *There will be an interaction between job performance and transfers such that a higher frequency of transfer will compensate for a lower level of job performance in the prediction of promotion for leaders in stepping-stone positions.*

Note that unlike other contexts where options theory has been used to explain promotions, such as in professional service firms where "up or out" promotion systems exist (e.g., law firms where associate attorneys not promoted to partner are terminated)

(Malos and Campion 1995; 2000), there is no immediate risk of losing the option if not exercised in most large organizations. Although some junior-level leaders may leave if not promoted quickly enough, most will not, and many will be promoted eventually as openings occur. As such, applying options theory to leadership pipelines in large hierarchical organizations expands our understanding of options theory as it applies to promotion systems.

Maintaining Flexibility Within the System: The Use of Flexibility Real Options

By the time leaders are promoted to destination positions (e.g., unit leader), they have received a substantial amount of developmental investment. Real options theory now suggests they become resources that confer flexibility options because they can be used for strategic opportunities (Sharp 1991, Bowman and Hurry 1993), such as improving low-performing units or opening a new unit. Whereas incremental real options are sequential investments (transfers of leaders in stepping-stone positions) toward a single strategic opportunity (promote to unit leader or destination position), flexibility real options represent the result of past investments to create a unit manager who can now be used for a range of purposes to pay off past investments. Note, again, that this departs from predictions of other theories. Tournament theory would predict that a high performer in one position would not want the risk of a performance decrement from learning a new job because performance primarily drives future promotability, and research on human capital theory has shown that it is not wise to move high performers because they may not be able to replicate in a new context (e.g., Groysberg et al. 2008).

For leaders in destination positions, real options theory suggests that the leader investment process will involve a staged process (Figure 1). First, a leader is promoted into the unit leader position, creating a flexibility real option. Second, the leader is held for a period of time in a unit to allow the new unit leader time to learn the position. During this holding period, executives learn about the leader's project value through periodic assessments of the leader's real option value in terms of his or her job performance. Project and real option value become more aligned and are both reflected more by current job performance.

It is important to note that this is different than how leaders in stepping-stone positions are evaluated. Job performance in destination positions serves as an indicator of the longer-term indirect strategic gains to be realized by executives (i.e., their real option values) should new opportunities arise to laterally transfer these leaders to other units in order to improve those units. This is also because performance evaluations are often based on where leaders stand on a predetermined

and broadly applicable set of leadership competencies (see Campion et al. 2011 for examples using a range of organizations). This is consistent with the leadership literature that suggests that leaders' effectiveness across similar jobs (and thus, the flexibility they afford executives in making future lateral transfer decisions) is most often assessed by examining their job performance (Kaiser et al. 2008). It is also in line with prior research on leadership potential, which suggests that potential can be assessed based on the average job performance across a variety of assignments (Lombardo and Eichinger 2000).

In the third stage, real options theory suggests that an executive will laterally transfer leaders based on receiving opportunity arrival and expiration signals (Bowman and Hurry 1993; Malos and Campion 1995; 2000). Demonstrating a high level of job performance triggers an opportunity arrival signal, indicating that executives can use the leader to pursue a range of strategic opportunities (e.g., improve a unit's functioning, fill a position, open a new unit). Once a staffing need appears (expiration signal), the leader's option is struck, and the executive laterally transfers the leader. Research shows that executives use observable signals of the individual's ability to perform (e.g., experience in the same or similar jobs) in filling lateral positions (Bidwell 2011), and high-performing individuals in professional positions tend to be laterally transferred more frequently (Campion et al. 1994).

The real options (both flexibility and incremental) of leaders across all levels of the hierarchy constitute a real options portfolio for executives. Using this real options portfolio, it may be possible for executives to essentially create a hedged position (Bowman and Hurry 1993, Barnett 2008). A *hedged position* is created when the potential gains from one investment are used to offset the potential losses from a companion investment. Executives laterally transfer leaders in destination positions who exhibit the capacity to produce leadership results in an attempt to contain and protect units against potential costs from problems associated with units as well as the low job performance of laterally transferring leaders in stepping-stone positions. Day (2000) contends that this real options portfolio we refer to can be viewed as an open system, where forces that serve to differentiate the system (i.e., develop future leaders) are countered and complemented by forces that serve to integrate the system (i.e., through leadership of existing leaders). As one executive stated,

> [w]e are confronted with many forces acting at once. At any given time, you're dealing with a number of locations that have preexisting conditions—[such as] difficult clientele, poor morale, high turnover, changes in market demands—and all the while you're trying to maximize the development of leaders in

lower positions while maintaining location profitability. So, having unit leaders who are willing and able to learn, capable of picking up the slack and instituting change in their current units, and capable of working in diverse environments in all aspects of operations and with different clientele helps you make the system work.

Therefore, whereas staffing criteria for stepping-stone positions are based on the developmental needs of the managers and the opportunities that become available, the staffing criteria for destination positions are leadership potential and current productive capacity as well as the vacancies or staffing needs. This is because executives may view leaders in stepping-stone positions as conferring incremental options (i.e., sequential investments toward a single future purpose) but view those in destination positions as conferring flexibility options (i.e., investments that can be used for strategic opportunities). As such, leadership potential and productive capacities in their current jobs are still equivalent to real option value and project value, respectively. However, because leaders in destination positions have a greater level of influence over unit-level outcomes, executives are able to evaluate the short-term direct gains conferred by them (i.e., their project values) using objective indicators of unit performance, which is best reflected by operational effectiveness in a retail context (e.g., sales and profits). Once a leader exhibits a high level of effectiveness, it is interpreted as an opportunity arrival strike signal, indicating that the leader is ready to be used to mitigate issues in other units. An occurrence of a staffing need or problem in another unit is interpreted as an expiration strike signal. Executives likely view leadership potential and current productive capacity as now positively related or the same. As one executive in the focus groups said about transferring unit leaders, "[t]here is no substitute for job performance. Job performance is key." On the basis of this, we predict Hypothesis 4.

Hypothesis 4. *Executives will transfer leaders in destination positions more often who exhibit consistently higher levels of job performance.*

However, leaders with high project values or those who are enhancing the operational effectiveness of their units are likely to be held in their units for some time because of two reasons. First, they are "paying off" in their current units and have not yet completed their work. Second, executives likely want to afford them the opportunity to be rewarded (through bonuses) for positive changes their units experience as a result of their leadership (Jenkins et al. 1998). Thus, executives are likely to wait to transfer leaders in destination positions until their project values reach an asymptote and level off. As an executive in a focus group stated,

I would be very hesitant to move a unit leader who has shown the ability to drive results to another location unless I really needed them there. When in doubt, the needs of the unit come first. Also, this can result in lower financial incentives [for them].

In summary, paying off in destination positions is best evaluated over time because improvement to operational effectiveness takes time and can only be judged after it occurs rather than while it is still improving. Thus, we predict Hypothesis 5(a).

Hypothesis 5 (a). *Executives will be less likely to laterally transfer leaders in destination positions who had improved their operational effectiveness in the previous year.*

Because leaders in destination positions serve as flexibility options, they are transferred to improve the performance of other units. Again, this is in stark contrast to tournament and human capital theories that would predict that moving high performers to an ineffective unit is a big risk. Thus, we predict Hypothesis 5(b).

Hypothesis 5 (b). *When executives laterally transfer leaders in destination positions, these leaders will improve their operational effectiveness over the course of the following year.*

Methods
Sample and Procedure
We collected data regarding the lateral transfer and promotion decisions of executives across eight years (2000–2007) for leaders in units across the United States, many of whom had moved between stepping-stone positions and destination positions by 2007. In this organization, executives make lateral transfer and promotion decisions, and there are three leadership positions below the executive level: *leader trainee, assistant unit leader*, and *unit leader*. There is one executive for each of about 220 regions. All three leadership positions exist within each unit and are considered entry-level to midlevel line manager positions. Within the leader ranks, this corporation promotes almost entirely from within. Leader trainee and assistant unit leader positions are considered *stepping-stone positions*. Individuals are hired or promoted into leader trainee and promoted to assistant unit leader in order to prepare them for eventual destination positions (as unit leaders). Thus, these positions are intended to be transitory, serving as stepping stones along one's developmental path to becoming a unit leader. This organization considers the unit leader position to be a *destination position* because once individuals are promoted to this level, nearly all of them occupy this position for the remainder of their careers within this organization. The structure of the organization is similar to many others in that it has a pyramid-like shape

that narrows radically above the midlevel. This organization is in the retail industry and has thousands of locations, each with a unit leader charged with overseeing the operation. It was very large but not very diversified and not international at the time of the study.

The sample size varied by managerial level. The total sample sizes at the managerial level for leader trainees, assistant unit leaders, and unit leaders were 13,436, 7,109, and 4,459, respectively. We retained eight years of data for each manager. The total possible sample sizes at the year level for leader trainees, assistant unit leaders, and unit leaders were 105,136, 56,719, and 35,528, respectively. Sample sizes varied downward for several reasons, such as expected discrepancies in the organization's human resource data collection and management, not all managers had eight years of data, and because we excluded outliers such as years with transfer rates greater than 12 per year (these outliers represented 0.56% of the sample). Removal of these individuals did not change the final results in a meaningful way. We analyzed missing data patterns, and there was no evidence that missing data were systematic.

Virtually all of the promotions available to managers were on the career path leading to unit leader. Very few move to executive-level positions. The chances of promotion from manager trainee to assistant unit leader are roughly 4 to 1, the chances of promotion from assistant unit leader to unit leader are roughly 2 to 1, and the chances of promotion from unit leader to executive are roughly 30 to 1. This organization rarely hires externally above the trainee level and generally has low turnover among its leadership ranks (e.g., 4%–5% per year).

About 60% of leader trainees are outside hires, and 40% are promoted from the hourly ranks, which is the same across regions. College hires are not fast-tracked or placed in special rotational programs like college hires in some companies. They assume the same jobs at the same pay level and are moved to different locations for staffing and development just like internal promotions. The company did not have fast tracks, have assignments signaling impending promotion, or designate some employees as high potential. The company had a fairly standardized and job-related promotion process. It was an open internal labor market where managers in stepping-stone positions could express interest in promotion. When promotion opportunities occurred, decisions were made by the regional manager based on semistructured interviews with the candidates' managers of a subset of candidates, the job performance ratings of the candidates, and completing mandatory training programs. The interviews consisted of about six questions measuring knowledge and skills that would likely be improved by experience in a range

of jobs, such as knowledge of computer systems and skill in supervising employees. The decision was not formulaic with cutoff scores or hard decision rules. These factors were considered as inputs to be used based on the judgment of the region managers. As discovered in the executive interviews described, the reasons for promotion were the work experiences (transfers) and job performance, which were likely reflected in the interviews, performance ratings, and past training.

Measures and Variables
Lateral Transfers. *Lateral transfers* in this organization were virtually always to other locations in the same region, so they did not require moving one's home; however, they involved changes to one's immediate manager (except for unit leaders who report to the region executive), subordinates, and geographic location but not job title, type of work, or pay grade. It was operationalized as the absolute number of lateral transfers a given leader has accrued at that job level up to a given point in time. *Lateral transfer rate* was calculated as the number of lateral transfers a given leader received per year during his or her total time at that level. *Cumulative lateral transfer rate* was the rate up to any given year.

Job Performance. Leader *job performance* was evaluated on a yearly basis on a scale of one to five (with five being the highest level of job performance). Evaluations are made by immediate supervisors. Thus, leader trainees and assistant unit leaders receive their performance appraisals from unit leaders, and unit leaders receive their performance appraisals from executives. In this organization, job performance reflects a given leader's mastery of a set of competencies, which were based on an extensive competency modeling study and are the same for each leadership level. Examples of these competencies include develops talent in others, business and financial acumen, leads and directs change, facilitates teamwork, and empowers others. They are also rated on the achievement of several goals each year, which vary by leader. Ratings are made at the competency/goal level; then they are aggregated and rounded to a one to five score, which is all that is recorded in personnel records. Administrative job performance ratings are imperfect measures of true job performance, but the ratings in this organization showed relatively little skew (means from 3.12 to 3.77) and not excessive restriction (standard deviations (SDs) from 0.52 to 0.57). To help ensure the quality of ratings, managers are periodically trained on the performance review process, must maintain a target rating distribution, and calibrate their ratings by having to discuss and defend them in meetings with other managers, which

maintains the same standards across managers and should improve accuracy. Research during the development of the performance evaluation process found a reliability across years (using ICC(2)s), which often reflects rating from different managers, from 0.61 to 0.63 for the three leader levels. The evaluations are taken seriously because they are used to make important decisions, including compensation and promotions. Job performance evaluations were available for the purposes of this study over the course of eight time periods (i.e., from year 2000 to 2007). When *average job performance* was used, it was computed for leaders over the course of their entire time at that level. *Cumulative job performance* represents the average job performance up to any specific year.

Improved Operational Effectiveness. *Improved operational effectiveness* was measured using unit leader bonuses in U.S. dollars. Leader trainees and assistant unit leaders do not receive bonuses. In positions where leaders are formally in charge of units (destination positions), the link between individual behavior and unit-level outcomes is perceived as strong. Thus, organizations often develop formulaic, objective measures based on a number of unit productivity metrics, and this is directly tied to the amount of bonus received (Gerhart and Milkovich 1990). In this organization, unit leaders' bonuses are based on approximately 50% performance evaluation rating and 50% *changes* (defined as improvements) in several objective indicators of their unit's productivity (e.g., increased sales, decreased costs) during that year. It was not based on a percentage of salary, as in many organizations. This means that if a leader managed the unit for a given year and showed improvements on these metrics, they received a bonus commensurate with those improvements and the performance rating. The company management viewed the bonus as the best bottom-line indicator of effectiveness because it factored in effort and results (i.e., performance rating and increase in unit productivity). We interpreted the bonus measure as *improved operational effectiveness* because senior management indicated that the bonus amount was more determined by improvement in productivity in that it had more variance than performance. In addition, we control for the performance rating in the analyses, so that primarily variance because of improved productivity remains. Bonus data were only available for two years (2004–2005 and 2005–2006). An analysis of the total company revenue during the time period from 2005 to 2011 showed steady growth and nothing unusual about 2005 and 2006.

Tenure. *Tenure* was used as a control variable and operationalized as the number of years a given leader

had spent either with the organization so far or in each leadership position when designated as such (e.g., tenure as leader trainee, tenure as assistant unit leader, tenure as unit leader). We used years because it is the most common and understandable unit of time for tenure.

Region Growth. Region growth was another control variable. It was operationalized by creating an index based on the number of new locations opened within each region between and including the years 2000 and 2007. After a count was performed, frequencies were calculated, and regions were banded into three levels: 1 = low growth ($M = 9.83$ new locations, $SD = 2.51$), 2 = medium growth ($M = 14.59$ new locations, $SD = 1.09$), and 3 = high growth ($M = 20.29$ new locations, $SD = 3.43$). Each level contained an equal number of regions. This region growth variable was created as opposed to using the count of new locations because it was suggested by management as capturing the key differences in growth, and it divided the regions into categories of equal size and reduced the skew in the distribution. We aggregated across years to enhance reliability and avoid any transient yearly swings. To ensure the measure would not change the results, we also tested Hypothesis 1 with the count of new locations, and the results were very similar. All regions are comparable in terms of the work, number of locations, and employee management policies and procedures; thus, differences between region executives making the promotion and transfer decisions should not be large.

Other Controls. We used several additional controls that may influence the availability of leaders, their quality, and their experiences. In all analyses, in addition to region growth, we controlled for the number of managers in the region, the average transfer rate, average performance, and average tenure of other leaders at the same level in the region. We utilized aggregates of the regional variables across the years of the study to improve reliability. We also controlled for tenure, number of transfers, and performance in the proceeding position level for analyses of assistant unit leaders and unit leaders. We did not control for these variables for leader trainees because as noted, about 60% of leader trainees are outside hires and 40% are promoted from the hourly ranks; this means that we would not have data on 60% of the sample, thus drastically reducing our sample size, biasing our samples to just those who were promoted from within to leader trainee, and altering our inferences. Because we controlled for the same variables in all hypotheses and their estimates are reported in each table, we do not write this in each hypothesis test in the Results

section. Instead, we only mention additional controls beyond those mentioned here, as needed.

Analytic Strategy. For Hypotheses 1 and 3 predicting promotion, we used Cox proportional hazard analysis to predict promotion in any given year based on cumulative transfer rate, with rate treated as a time-varying covariate because it changes over time. In Hypothesis 3, both independent variables were centered prior to creating the interaction term. To avoid left censoring, we eliminated those leaders who entered the position before the observation period (2000–2007). Put differently, there are leaders who began with the organization prior to 2000, but they had to begin in one of the leadership positions as of 2000 to be included in this study. Table A1 in the online appendix shows the effects of censoring on each sample. To reduce the effects of right censoring, we used transfer rate as opposed to the number of transfers because the hypotheses were about the frequency of transfer rather than the number and because the leaders not promoted or not promoted early had more time to accumulate transfers simply because they were in the job longer. We used cumulative transfer rate and cumulative performance up to a given year to predict promotion or transfer in that year, so the variables are properly time lagged. For Hypotheses 2, 4, and 5(b) predicting continuous outcomes, we used regression. Because the data were structured as years (year observations) nested within people (manager observations), we used cluster-robust standard errors to account for nonindependence (McNeish et al. 2017). For Hypothesis 5(a) predicting a dichotomous outcome, we used logistic regression. Table A2 in the online appendix summarizes the analytic strategy for each hypothesis.

Results

Table 1 shows the descriptive statistics and intercorrelations among all the measures in the study for all three positions. The analyses are at the observation (person by year) level to correspond to the later multivariate tests of the hypotheses, which means all estimates refer to averages in a given year. All the key measures show logical averages and good variation. Leader trainees average 2.12 years of cumulative tenure, with an SD of 1.61; they average 3.26 cumulative transfers (or 2.42 per year), with an SD of 2.02 (or 2.19 per year). Their cumulative job performance averages 3.23 on the 5-point scale, with a fairly large SD for performance ratings (0.58), and 13% are promoted in any given year, with an SD of 34%. Assistant leaders average 2.59 years of cumulative tenure, with an SD of 1.87; they average 3.48 cumulative transfers (or 1.71 per year), with an SD of 2.24 (or 2.25 per year). Their

Table 1. Year-Level Means, Standard Deviations, and Intercorrelations of Study Variables

	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11
Leader trainees														
1. Region growth	1.63	0.80	105,136	—										
2. Number of managers in region	26.86	5.19	104,541	0.06**	—									
3. Average transfer rate of leader trainees in region	3.25	1.36	105,136	0.02**	-0.18**	—								
4. Average performance of leader trainees in region	2.99	0.17	105,136	-0.01**	0.20**	-0.20**	—							
5. Average tenure of leader trainees in region	2.18	0.54	105,136	-0.07**	0.43**	-0.40**	0.31**	—						
6. Tenure prior to leader trainees	0.90	2.24	105,136	-0.04**	0.03**	-0.08**	0.05**	0.15**	—					
7. Number of lateral transfers prior to leader trainees	0.64	1.31	105,136	-0.03**	0.02**	-0.05**	0.03**	0.11**	0.70**	—				
8. Cumulative tenure	2.12	1.61	41,563	-0.02**	0.05**	-0.03**	0.04**	0.13**	0.07**	0.06**	—			
9. Cumulative average performance	3.23	0.58	16,827	0.02*	-0.01	-0.01	0.13**	-0.05**	-0.01	0.01	0.00	—		
10. Cumulative lateral transfers	3.26	2.02	41,580	0.04**	0.02**	0.09**	-0.03**	-0.04**	-0.28**	-0.29**	0.43**	-0.19**	—	
11. Cumulative transfer rate	2.42	2.19	41,563	0.04**	-0.02**	0.08**	-0.04**	-0.12**	-0.23**	-0.24**	-0.53**	-0.21**	0.13**	—
12. Promoted (1, 0)	0.13	0.34	41,580	0.02**	-0.02**	0.03**	-0.01	-0.08**	-0.06**	-0.05**	0.07**	0.49**	0.02**	-0.15**
Assistant unit leaders														
1. Region growth	1.63	0.79	56,719	—										
2. Number of managers in region	26.92	5.16	51,023	0.07**	—									
3. Average transfer rate of assistant unit leaders in region	1.07	0.27	53,317	0.05**	-0.16**	—								
4. Average performance of assistant unit leaders in region	3.60	0.16	53,317	0.01	-0.01**	-0.25**	—							
5. Average tenure of assistant unit leaders in region	2.80	0.74	53,317	-0.16**	0.41**	-0.38**	0.06**	—						
6. Tenure prior to assistant unit leaders	3.29	2.18	56,735	-0.03**	0.02**	0.03**	0.01*	0.08**	—					
7. Number of lateral transfer prior to assistant unit leaders	3.17	3.06	56,735	-0.08**	0.07**	-0.09**	0.02**	0.21**	0.53**	—				
8. Cumulative tenure	2.59	1.87	25,793	-0.03**	0.02**	-0.04**	0.03**	0.10**	-0.02*	0.04**	—			
9. Cumulative average performance	3.60	0.62	11,178	-0.01	-0.01	-0.06**	0.21**	-0.02	-0.09**	-0.05**	-0.05**	—		
10. Cumulative lateral transfers	3.48	2.24	15,038	0.01	-0.01	0.13**	-0.06**	-0.02*	0.06**	-0.02*	0.66**	-0.09**	—	
11. Cumulative transfer rate	1.71	2.25	25,791	0.04**	-0.03**	-0.09**	-0.05**	-0.10**	0.04**	-0.05**	-0.57**	-0.02*	0.02*	—
12. Promoted (1, 0)	0.23	0.42	15,038	0.02*	-0.04**	-0.02	0.01	-0.09**	-0.09**	-0.05**	0.11**	0.35**	0.07**	-0.14**
Unit leaders														
1. Region growth	1.75	0.97	35,528	—										
2. Number of managers in the region	28.75	8.13	28,184	0.40**	—									
3. Average transfer rate of unit leaders in the region	2.39	0.56	35,528	0.06**	0.27**	—								
4. Average performance of unit leaders in the region	3.19	0.17	35,128	-0.06**	0.05**	0.31**	—							
5. Average tenure of unit leaders in the region	3.44	1.55	35,528	-0.13**	0.08**	0.61**	0.27**	—						
6. Tenure as leader trainees	1.82	1.55	33,576	-0.02**	0.04**	0.03**	0.06**	0.08**	—					
7. Tenure as assistant unit leaders	2.64	1.95	35,000	-0.06**	0.01*	0.09**	0.05**	0.18**	0.14**	—				
8. Number of lateral transfers as leader trainees	2.06	1.69	35,672	0.00	-0.03**	-0.06**	-0.01	-0.11**	0.40**	-0.03**	—			
9. Number of lateral transfers as assistant unit leaders	2.66	2.22	35,672	-0.03**	-0.03**	0.03**	0.01*	0.01	0.09**	0.58**	0.07**	—		
10. Transfer rate as leader trainees	1.61	1.55	33,576	0.03**	-0.04**	-0.09**	-0.07**	-0.14**	-0.31**	-0.11**	0.34**	-0.01*	—	
11. Transfer rate as assistant unit leaders	1.14	0.92	34,992	0.03**	-0.03**	-0.06**	-0.01	-0.13**	-0.03**	-0.17**	0.01	0.46**	0.08**	—
12. Average performance as leader trainees	3.73	0.54	23,632	0.00	0.04**	0.06**	0.11**	0.07**	-0.10**	-0.01	-0.15**	-0.04**	-0.04**	
13. Average performance as assistant unit leaders	3.96	0.54	31,888	0.00	0.04**	0.05**	0.14**	0.06**	-0.01	-0.11**	-0.04**	-0.20**	-0.05**	
14. Average performance as unit leaders	3.1	0.37	29,288	0.01	0.05**	0.08**	0.25**	0.03**	-0.07**	-0.10**	-0.09**	-0.12**	0.02**	
15. Cumulative average job performance	3.08	0.36	13,406	-0.01	0.03**	0.07**	0.24**	0.02	-0.04**	-0.08**	-0.08**	-0.11**	0.00	
16. Job performance 2005	3.15	0.57	2,315	0.00	0.02	0.07**	0.18**	0.01	-0.03	-0.07**	-0.06**	-0.11**	0.01	
17. Job performance 2006	3.17	0.51	2,977	-0.01	0.01	0.10**	0.20**	0.04*	-0.06**	-0.08**	-0.07**	-0.10**	0.02	

Table 1. (Continued)

	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11
18. Cumulative tenure	2.67	1.93	17,826	−0.01	0.03**	0.08**	0.04**	0.09**	0.03**	−0.04**	−0.07**	−0.08**	−0.07**	
19. Lateral transfer (1, 0)	0.46	0.50	17,744	0.01	−0.01	0.03**	−0.01	−0.04**	−0.03**	−0.01	0.03**	0.03**	0.05**	
20. Number of lateral transfers	0.49	0.57	17,744	0.06**	0.07**	0.06**	−0.01	−0.05**	−0.03**	−0.02*	0.02**	0.02*	0.04**	
21. Improved operational effectiveness in 2005 and 2006 (rescaled by 1,000)	12.05	9.99	8,211	−0.03*	0.01	0.11**	0.07**	0.11**	0.03*	−0.10**	−0.12**	−0.14**	−0.08**	
22. Improved operational effectiveness in 2005	11,726.76	10,157.63	4,014	−0.04*	0.01	0.10**	0.06**	0.10**	0.02	−0.10**	−0.12**	−0.14**	−0.08**	
23. Improved operational effectiveness in 2006	12,355.84	9,815.72	4,197	−0.02	0.02	0.11**	0.08**	0.11**	0.04*	−0.09**	−0.11**	−0.14**	−0.07**	

	11	12	13	14	15	16	17	18	19	20	21	22
11. Transfer rate as assistant unit leaders	—											
12. Average performance as leader trainees	−0.02**	—										
13. Average performance as assistant unit leaders	−0.11**	0.20**	—									
14. Average performance as unit leaders	−0.01*	0.13**	0.17**	—								
15. Cumulative average job performance	−0.03**	0.11**	0.14**	0.81**	—							
16. Job performance 2005	−0.02	0.07*	0.11**	0.76**	0.85**	—						
17. Job performance 2006	−0.01	0.13**	0.11**	0.81**	0.82**	.c	—					
18. Cumulative tenure	0.01	0.06**	0.05**	0.08**	0.18**	0.19**	0.22**	—				
19. Lateral transfer (1, 0)	0.01	−0.01	−0.01	0.05**	0.05**	0.06**	0.07**	−0.42**	—			
20. Number of lateral transfers	0.02*	0.00	−0.01	0.06**	0.04**	0.06**	0.05**	−0.38**	0.94**	—		
21. Improved operational effectiveness in 2005 and 2006 (rescaled by 1,000)	0.01	0.068**	0.09**	0.29**	0.29**	0.26**	0.31**	0.56**	−0.31**	−0.28**	—	
22. Improved operational effectiveness in 2005	0.02	0.070**	0.08**	0.26**	0.28**	0.26**	.c	0.60**	−0.33**	−0.30**	1.00**	—
23. Improved operational effectiveness in 2006	−0.01	0.067**	0.10**	0.32**	0.32**	.c	0.31**	0.56**	−0.30**	−0.27**	1.00**	.c

Note. All tenure variables measured in years. c, constant.
*$p < 0.05$; **$p < 0.01$.

Table 2. Cox Proportional Hazard Analysis Predicting Promotion from Time-Varying Cumulative Transfer Rate by Year in Stepping-Stone Positions

DV = Promoted (1, 0)	Log odds	SE	Odds ratio	*p*-value
Leader trainees				
Region growth	0.02	0.02	1.02	0.21
Number of managers in region	0.01	0.00	1.01	0.02
Average transfer rate of leader trainees in region	−0.05	0.01	0.95	0.00
Average performance of leader trainees in region	0.30	0.08	1.35	0.00
Average tenure of leader trainees in region	−0.76	0.03	0.47	0.00
Time-varying cumulative transfer rate	0.20	0.01	1.22	0.00
Assistant unit leader				
Region growth	0.06	0.03	1.06	0.02
Number of managers in region	0.00	0.00	1.00	0.65
Average transfer rate of leader trainees in region	−0.99	0.08	0.37	0.00
Average performance of leader trainees in region	0.14	0.13	1.15	0.28
Average tenure of leader trainees in region	−0.56	0.03	0.57	0.00
Time-varying cumulative transfer rate	0.29	0.01	1.34	0.00

Notes. Event *N* = 5,475; censored *N* = 35,285. Event *N* = 2,740; censored *N* = 10,312. DV = dependent variable; SE = standard error.

cumulative job performance averages 3.60 on the 5-point scale, with a fairly large SD for performance ratings (0.62), and 23% are promoted any given year, with an SD of 42%. Unit leaders average 2.67 years of cumulative tenure, with an SD of 1.93; they average 0.49 transfers per year, with an SD of 0.57. Their cumulative job performance averages 3.08 and an SD of 0.36. Their improved operational effectiveness bonuses average about $12,000, with an SD of about $10,000, and 46% are transferred per year, with an SD of 0.50.

Several observations can be made from the bivariate correlations that foreshadow possible relationships in our hypothesis tests. For example, cumulative lateral transfers are related to lower cumulative job performance for both trainees (−0.19) and assistants (−0.09), suggesting potential support for Hypothesis 2. The number of transfers is related to higher performance for unit leaders (0.06), suggesting potential support for Hypothesis 4, and transfers are generally negatively related to the various improved operational effectiveness measures for unit leaders, suggesting potential support for Hypothesis 5(a). There are negative correlations between cumulative transfer rate and promotion for trainees and assistants, contrary to Hypotheses 1 and 3. However, this is because of an anomaly from conducting correlations with observation-level data, with one observation for each year per leader. The years before a leader is promoted will have higher transfer rates because the denominator is smaller; thus, more observations will show high transfer rates and few promotions, causing the appearance of a negative correlation. Plus, observations not showing promotions will include data from both leaders eventually promoted as well as those not promoted in the study period. As such, correlations at the observation level do not take into account the clustered (by person) nature of the data nor

consider the time-varying nature of cumulative transfer rate, which is why we use hazard analysis to test these hypotheses. The average transfer rates for other managers in the region differ from the cumulative transfer rates for the focal managers for trainees and assistants possibly because of the influence of left censoring and differences in the region size, but we control for average transfer rate and region size in all analyses.

Hypothesis 1 predicted that, when executives laterally transfer leaders in stepping-stone positions more frequently, they will be more likely to promote them. Table 2 shows the hazard analysis. Including all the controls, cumulative transfer rate significantly predicts the likelihood of promotion for both leader trainees and assistant leaders with odds ratios of 1.22 and 1.34, respectively. In effect sizes, this means that for every additional transfer per year, the odds of promotion are 22% higher for trainees and 34% higher for assistant leaders. Thus, Hypothesis 1 was supported.

The development of Hypothesis 1 suggested a supplementary analysis to examine whether executives transfer leaders more frequently with the goal of preparing them for promotion sooner. Table A3 in the online appendix shows whether those promoted are promoted sooner if they have been transferred more frequently. These analyses are based on the 5,474 trainees and 2,739 assistants promoted during the observation period. Including all the controls, results showed that transfer rate as a leader trainee is significantly related to time to promotion to assistant leader for those promoted, with less time to promotion for those with higher transfer rates ($\beta = -0.37$, $p < 0.01$). Transfer rate as an assistant leader is also related to time to promotion to unit leader for those promoted, with less time to promotion for those with a higher transfer rate ($\beta = -0.44$, $p < 0.01$).

Table 3. Regression Predicting Performance from Lagged Cumulative Transfer Rate in Stepping-Stone Positions

DV = Performance	Model I				Model II			
	B	SE	β	p-value	B	SE	β	p-value
Leader trainees								
Region growth	−0.07	0.01	−0.10	0.00	0.09	0.01	0.13	0.00
Number of managers in region	0.02	0.01	0.02	0.02	0.02	0.01	0.03	0.00
Average transfer rate of leader trainees in region	0.00	0.00	−0.03	0.01	0.00	0.00	−0.02	0.03
Average performance of leader trainees in region	0.01	0.00	0.02	0.06	0.01	0.00	0.03	0.01
Average tenure of leader trainees in region	0.43	0.03	0.13	0.00	0.44	0.03	0.13	0.00
Cumulative tenure	−0.01	0.00	−0.03	0.00	0.08	0.01	0.19	0.00
Cumulative transfer rate					−0.09	0.00	−0.33	0.00
ΔR^2					0.04			0.00
R^2	0.03	0.00		0.00	0.07	0.01		0.00
Assistant unit leaders								
Region growth	−0.01	0.01	−0.01	0.38	−0.01	0.01	−0.01	0.41
Number of managers in region	0.00	0.00	0.01	0.41	0.00	0.00	0.01	0.42
Average transfer rate of leader trainees in region	−0.01	0.04	0.00	0.82	−0.01	0.04	0.00	0.86
Average performance of leader trainees in region	0.85	0.07	0.17	0.00	0.85	0.07	0.17	0.00
Average tenure of leader trainees in region	−0.03	0.02	−0.3	0.12	−0.03	0.02	−0.03	0.12
Cumulative tenure	0.00	0.01	0.00	0.83	0.00	0.01	0.00	0.82
Cumulative transfer rate					0.00	0.00	−0.03	0.06
ΔR^2					0.00			
R^2	0.03	0.01		0.00	0.03	0.01		0.00

Notes. N manager observations = 10,238; N year observations = 16,640. N manager observations = 5,364; N year observations = 9,902. DV = dependent variable; SE = standard error. Data were structured as years nested within people. Therefore, we used cluster-robust standard errors to account for the clustered nature of the data (McNeish et al. 2017). B = unstandardized coefficient; β = standardized coefficient.

Hypothesis 2 predicted that, when executives laterally transferred leaders in stepping-stone positions more frequently, these leaders will exhibit lower levels of job performance relative to their peers who are less frequently laterally transferred. Table 3 shows the regression models predicting current job performance, which is measured in the spring, from cumulative transfer rate up to the end of the previous year (Model (II)). Including all the controls, the relationship is negative and significant as predicted for trainees ($\beta = -0.33$) and negative and marginally significant for assistants ($\beta = -0.03$, $p = 0.06$). To illustrate the effect sizes, we tested the mean difference in average job performance of those whose transfer rate was one standard deviation above and below the mean. There was a significant difference in average job performance for trainees ($M = 3.45$ versus 3.14, $p < 0.01$, $d = 0.53$) but not assistants ($M = 3.77$ versus 3.73, $p = 0.37$, $d = 0.06$). Nevertheless, Hypothesis 2 was largely supported.

Hypothesis 3 predicted that there will be an interaction between job performance and transfers such that a higher frequency of transfer will compensate for a lower level of job performance in the prediction of promotion for leaders in stepping-stone positions. Table 4 shows the hazard analysis predicting promotion from the cumulative transfer rate and job performance. To test this hypothesis, we first show that both variables had significant main effects for both positions (Model (I)). In effect sizes, for every additional transfer per year, the odds of promotion are 16% higher

for trainees and 41% higher for assistants on average. Then, we tested the hypothesis by adding the interaction (Model (II)). It was small but significant for trainees (odds ratio = 1.05) and not significant for assistants. A plot of the interaction (Figure A1 in the online appendix) suggests that high transfer rates help promotion chances at all levels of job performance, with a very slightly greater advantage for those who also have high job performance. As such, Hypothesis 3 is not meaningfully supported.

Hypothesis 4 predicted that executives will transfer leaders in destination positions more often who exhibit consistently higher levels of job performance. Table 5 shows the regressions predicting transfers from cumulative average job performance. We included additional controls for tenure, transfers, and performance while in each of the stepping-stone positions as well as cumulative tenure as a unit leader. Model (III) shows that cumulative average job performance as a unit leader is significantly and positively related to transfers as a unit leader ($\beta = 0.09$, $p < 0.01$). We also examined whether this effect depended on cumulative tenure as a unit leader and found that the interaction effect was not significant (Model (IV)). To confirm that this was not also true for stepping-stone positions, we ran the same analyses for those positions (Table A4 in the online appendix). The effect is negative for trainees ($\beta = -0.30$, $p < 0.01$) and not significant for assistants ($\beta = 0.00$, $p = 0.83$), providing discriminant validity evidence for the hypothesis. To illustrate the effect sizes,

Table 4. Cox Proportional Hazard Analysis Predicting Promotion from Time-Varying Cumulative Transfer Rate and Time-Varying Cumulative Job Performance by Year in Stepping-Stone Positions

	Model I				Model II			
DV = Promoted (1, 0)	Log odds	SE	Odds ratio	p-value	Log odds	SE	Odds ratio	p-value
Leader trainees								
Region growth	0.01	0.02	1.01	0.54	0.00	0.02	1.00	0.94
Number of managers in region	0.01	0.00	1.01	0.01	0.01	0.00	1.01	0.03
Average transfer rate of leader trainees in region	−0.05	0.01	0.95	0.00	−0.06	0.01	0.94	0.00
Average performance of leader trainees in region	−0.06	0.09	0.94	0.50	−0.21	0.09	0.81	0.03
Average tenure of leader trainees in region	−0.56	0.04	0.57	0.00	−0.54	0.04	0.58	0.00
Time-varying cumulative job performance (A)	0.55	0.01	1.74	0.00	0.77	0.02	2.17	0.00
Time-varying cumulative transfer rate (B)	0.15	0.01	1.16	0.00	0.09	0.01	1.09	0.00
A × B					0.05	0.00	1.05	0.00
Assistant unit leaders								
Region growth	0.11	0.03	1.11	0.00	0.11	0.03	1.11	0.00
Number of managers in region	−0.01	0.01	0.99	0.11	−0.01	0.01	0.99	0.12
Average transfer rate of leader trainees in region	−0.93	0.10	0.40	0.00	−0.93	0.10	0.39	0.00
Average performance of leader trainees in region	−0.77	0.15	0.46	0.00	−0.77	0.15	0.46	0.00
Average tenure of leader trainees in region	−0.54	0.04	0.58	0.00	−0.54	0.04	0.58	0.00
Time-varying cumulative job performance (A)	0.61	0.02	1.85	0.00	0.61	0.02	1.85	0.00
Time-varying cumulative transfer rate (B)	0.35	0.01	1.41	0.00	0.35	0.01	1.42	0.00
A × B					−0.01	0.01	1.00	0.51

Notes. Event $N = 4,563$; censored $N = 12,067$. Event $N = 2,166$; censored $N = 7,596$. DV = dependent variable; SE = standard error.

we tested the mean difference between the number of transfers of unit leaders whose average job performance was one standard deviation above and below the mean. There was a significant difference in the number of transfers ($M = 2.71$ versus 1.82, $p < 0.01$, $d = 0.68$; average number of transfers across unit leaders $= 1.97$, $SD = 1.17$). Thus, Hypothesis 4 was supported.

Hypothesis 5(a) predicted executives will be less likely to laterally transfer leaders in destination positions who had improved operational effectiveness in the previous year. This analysis was tested using logistic regression because the criterion was dichotomous. Data were available for two years: improved effectiveness from 2004–2005 and 2005–2006 predicting transfer in 2005 and 2006. Controlling for unit leader tenure and cumulative job performance, Model (II) in Table 6 shows that an improved operational effectiveness in the previous year predicted a significant decrease in likelihood of transfer the next year (odds ratio $= 0.98$, $p < 0.01$). Note that the improved operational effectiveness variable is based on both performance and increased productivity, so controlling for performance should mostly only leave variance in productivity. In terms of effect sizes, the odds ratios indicate that for each $1,000 improvement in operational effectiveness (which is about 0.10 SD in bonus), there is a 2% decrease in the odds of transfer the next year. However, those one standard deviation above the mean on improved operational effectives (about $10,000) would have a 20% decrease in the odds of transfer in the next year, and the opposite is true for those one standard deviation below the mean. Thus, Hypothesis 5(a) was supported.

Hypothesis 5(b) predicted that when executives laterally transfer leaders in destination positions, these leaders will improve operational effectiveness over the course of the following year. Controlling for change in improved operational effectiveness and job performance in the previous year as well as job performance in the current year (to only leave variance in improved unit productivity), Model (II) in Table 7 shows that those who transferred in the previous year (2005) improved the operational effectiveness of their new assignment the next year (2006; $\beta = 0.05$, $p < 0.05$). To illustrate the effect sizes, we tested the mean difference in change in improved operational effectiveness in 2006 of those who transferred and did not transfer the previous year. There was a significant difference in the change in improved operational effectiveness based on bonus ($M = \$14,119.91$ versus $\$11,481.35$, $p < 0.01$, $d = 0.27$). Thus, Hypothesis 5(b) was supported.

Supplemental Analyses

Although we included past tenure, transfers, job performance, and other relevant variables as controls for leader quality in the analyses, we conducted two additional analyses to explore the potential role of leader quality as an explanation of transfer rate. First, we analyzed whether past performance in a previous level predicted future transfer rates in the next level. We found no relationship for average performance as leader trainees predicting transfer rate as assistant unit leaders ($r = -0.03$) and no relationship for performance as an assistant unit leader predicting transfer rate as a unit leader ($r = -0.03$). Note that the

Table 5. Regression Predicting Transfers from Cumulative Average Job Performance in Destination Position: Unit Leaders

DV = Number of lateral transfers	Model I[a] B	SE	β	p-value	Model II[b] B	SE	β	p-value	Model III[b] B	SE	β	p-value	Model IV[b] B	SE	β	p-value
Region growth	0.01	0.01	0.02	0.13	0.01	0.01	0.02	0.16	0.01	0.01	0.02	0.15	0.01	0.01	0.02	0.15
Number of managers in region	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.96
Average transfer rate of unit leaders in region	0.13	0.02	0.12	0.00	0.18	0.03	0.18	0.00	0.19	0.03	0.19	0.00	0.19	0.03	0.19	0.00
Average performance of unit leaders in region	−0.07	0.04	−0.2	0.06	−0.18	0.05	−0.05	0.00	−0.18	0.05	−0.06	0.00	−0.18	0.05	−0.06	0.00
Average tenure of unit leaders in region	−0.05	0.01	−0.12	0.00	−0.05	0.01	−0.11	0.00	−0.04	0.01	−0.11	0.00	−0.04	0.01	−0.11	0.00
Tenure as leader trainee	−0.01	0.00	−0.04	0.00	−0.02	0.00	−0.05	0.00	−0.02	0.01	−0.05	0.00	−0.02	0.01	−0.05	0.00
Tenure as assistant unit leader	0.02	0.01	0.04	0.00	−0.01	0.01	−0.03	0.10	−0.02	0.01	−0.05	0.00	−0.02	0.01	−0.05	0.00
Number of lateral transfers as leader trainee	0.01	0.00	0.4	0.00	0.01	0.01	0.03	0.03	0.01	0.01	0.03	0.08	0.01	0.01	0.03	0.08
Number of lateral transfers as assistant unit leader	0.01	0.00	0.02	0.20	0.00	0.01	0.01	0.55	0.03	0.01	0.01	0.62	0.00	0.01	0.01	0.63
Average performance as leader trainee	0.01	0.01	0.00	0.92	0.00	0.01	0.00	0.86	0.01	0.01	0.01	0.50	0.01	0.01	0.01	0.51
Average performance as assistant unit leader	0.02	0.01	0.02	0.12	0.00	0.01	0.00	0.94	−0.01	0.01	−0.01	0.43	−0.01	0.01	−0.01	0.42
Cumulative average job performance (A)					0.11	0.03	0.07	0.00	0.15	0.03	0.09	0.00	0.15	0.03	0.09	0.00
Cumulative tenure as unit leader (B)									−0.05	0.01	−0.12	0.00	−0.05	0.01	−0.12	0.00
A × B													−0.02	0.02	−0.01	0.38
ΔR²					0.01			0.00	0.01			0.00	0.00			0.00
R²	0.19	0.003			0.03	0.01		0.00	0.04	0.01		0.00	0.04	0.01		0.00

Notes. Data were structured as years nested within people. Therefore, we used cluster-robust standard errors to account for clustered nature of data (McNeish et al. 2017). DV = dependent variable; SE = standard error.
[a] *N* manager observations = 2,097; *N* year observations = 6,407.
[b] *N* manager observations = 1,597; *N* year observations = 4,377.

relationship between performance and transfers for unit leaders is examined in Hypotheses 4 and 5. In addition, rotation rates as a leader trainee are not correlated ($r = -0.02$) with later average performance as an assistant leader, and rotation rates as an assistant unit leader are not correlated ($r = -0.03$) with later average performance as a unit leader. This lack of straightforward relationships between past performance and future transfers and vice versa is partly what suggested the use of options theory to understand the phenomenon.

Second, we examined potential differences in human capital. Outside hires into leader trainee positions (60% of new trainees) are virtually all recent college graduates, whereas internal promotions from hourly positions are usually not. Therefore, comparing the two groups provides a test of differences in human capital defined as a college degree, which is a common measure of human capital. This analysis revealed that internal promotions have fewer transfers at the trainee level ($M = 1.68$ versus 2.35, $p < 0.01$, $d = -0.41$), but they have slightly more transfers at the assistant level ($M = 2.73$ versus 2.53, $p < 0.01$, $d = 0.09$). Internal promotions also take more time to promotion than external hires both at the trainee level ($M = 2.06$ versus 1.63 years, $p < 0.01$, $d = 0.28$) and at the assistant level ($M = 2.92$ versus 2.45, $p < 0.01$, $d = 0.25$), which may suggest that internally promoted leaders are perceived as requiring more development and having less potential than external hires, consistent with past research (Bidwell 2011, DeOrtentiis et al. 2018).

Discussion

Cultivating and maintaining a leadership pipeline are cornerstone practices in many organizations (Conger and Fulmer 2003, Charan et al. 2011), although very little research exists. We developed and tested a real options theory approach to understand how executives use job assignments to strategically cultivate and maintain a leadership pipeline. In so doing, we offer insight into what merits promotion and how executives simultaneously contend with short- and long-term objectives and uncertainties associated with having the talent available over time to be used when needed all at a reasonable cost. We then performed a large-scale empirical validation study to test the hypotheses, yielding a number of important findings. First, when executives invested in the development of leaders by laterally transferring them more frequently to give them more experience, they were more likely to promote them and to promote them sooner. Second, although research suggests that lateral transfers are likely to develop leaders yielding *higher* levels of job performance (e.g., Tesluk and Jacobs 1998), we found that leaders transferred in stepping-stone positions

Table 6. Logistic Regressions Predicting Likelihood of Lateral Transfer from Improved Operational Effectiveness in the Destination Leader Positions

	Model I[a]				Model II[b]			
DV = Lateral transfer (1, 0)	Log odds	SE	Odds ratio	*p*-value	Log odds	SE	Odds ratio	*p*-value
Region growth	0.02	0.01	1.02	0.13	−0.01	0.02	0.99	0.53
Number of managers in region	−0.01	0.00	0.99	0.00	0.00	0.00	1.00	0.36
Average transfer rate of unit leaders in region	0.27	0.03	1.31	0.00	0.27	0.05	1.31	0.00
Average performance of unit leaders in region	−0.21	0.08	0.81	0.01	−0.18	0.13	0.84	0.16
Average tenure of unit leaders in region	−0.06	0.01	0.94	0.00	−0.05	0.02	0.95	0.01
Cumulative tenure as unit leader	−0.14	0.01	0.87	0.00	−0.09	0.01	0.91	0.00
Job performance	0.23	0.03	1.26	0.00	0.27	0.04	1.31	0.00
Improved operational effectiveness (rescaled by 1,000)					−0.02	0.00	0.98	0.00

Notes. Data were structured as years nested within people. Therefore, we used cluster-robust standard errors to account for clustered nature of data (McNeish et al. 2017). DV = dependent variable; SE = standard error.
 [a]*N* manager observations = 2,864; *N* year observations = 10,177.
 [b]*N* manager observations = 2,399; *N* year observations = 4,122.

may exhibit somewhat *lower* levels of job performance over time. This suggests that development and high performance may not be achieved simultaneously early in careers, and executives sacrifice performance for development in order to create real options they can use later.

Moreover, although executives promoted the higher performers over lower performers, we found that when executives invested more in leader development in stepping-stone positions through transferring them more frequently, they were more likely to promote them at all levels of job performance. This occurs because lateral transfers act as amplifying preinvestments that raise leaders' real option values by enhancing their experience. The relationship between lateral transfers of leaders and job performance reversed once leaders were promoted to destination positions. Then, executives laterally transfer those with higher job performance to improve other units and get a return on investment. Yet, they were *less* likely to laterally transfer unit leaders to other units when they

were still improving performance in their current positions. When executives did laterally transfer unit leaders to other units, it enhanced the operational effectiveness of the new unit.

Theoretical Implications

This study has potential theoretical implications for scholarship on staffing, succession management, and leader development. First, the options-based approach presents a perspective that reflects the more strategic, holistic, future-oriented, and uncertain reality of how such decisions are made. Research needs to draw clearer connections between the time horizons of objectives executives have, the staffing decisions they make, and the uncertainties they must consider. Because executives must focus on both long- and short-term objectives, their focus shifts from current direct gains from their investments to indirect and strategic gains through greater decision-making flexibility in the future. Adapting real options theory allowed us to assess this "double vision" (focusing

Table 7. Regression Predicting Change in Improved Operational Effectiveness in 2006 from Transfer in 2005 in Destination Leader Positions

	Model I				Model II			
DV = 2006 operational effectiveness (rescaled by 1,000)	*B*	SE	*β*	*p*-value	*B*	SE	*β*	*p*-value
Region growth	−0.19	0.22	−0.02	0.38	−0.18	0.22	−0.02	0.41
Number of managers in region	0.02	0.03	0.02	0.36	0.02	0.03	0.02	0.37
Average transfer rate of unit leaders in region	−0.36	0.48	−0.02	0.46	−0.45	0.48	−0.03	0.36
Average performance of unit leaders in region	−0.35	1.21	−0.01	0.77	−0.26	1.21	−0.00	0.83
Average tenure of unit leaders in region	0.40	0.19	0.06	0.04	0.42	0.19	0.06	0.03
Tenure as unit leader	−0.12	0.14	−0.02	0.39	−0.10	0.14	−0.02	0.49
Improved operational effectiveness in 2005	0.51	0.02	0.51	0.00	0.51	0.02	0.52	0.00
Job performance in 2005	0.75	0.41	0.04	0.07	0.69	0.41	0.04	0.10
Job performance in 2006	2.31	0.41	0.14	0.00	2.82	0.41	0.13	0.00
Lateral transfer (1, 0) in 2005					0.86	0.40	0.05	0.03
ΔR^2					0.01			0.03
R^2	0.32	0.02		0.00	0.33	0.02		0.00

Notes. *N* manager observations = 1,723. *B* = unstandardized coefficient; *β* = standardized coefficient. DV = dependent variable; SE = standard error.

simultaneously on both short- and long-term objectives) that other succession planning theories (e.g., human capital, tournament) are unable to capture.

Second, we refine real options theory by emphasizing the fact that lateral transfer and promotion decisions within organizations are made based on multiple goals, and we provide an illustration of how a shift in perspective can create a richer, more complete understanding of how and why job assignment decisions are made. For example, we show that executives make seemingly counterintuitive lateral transfer and promotion decisions when viewed in light of current knowledge on staffing, succession, and leader development. Specifically, executives tend to laterally transfer leaders frequently to give them more experience despite its negative impact on their job performance, and executives are more likely to promote leaders if they have invested in their development despite the fact that they might exhibit lower levels of job performance. Yet, when such decisions are viewed in light of logic offered by options theory, these findings become predictable and logical.

Third, our study highlights that there are two perspectives critical to understanding leader development in organizations. The traditional perspective is one that focuses on the individual psychological nature of development. Our use of real options theory suggests that leaders should also be conceptualized as strategically valuable resources and the pipeline as a real options portfolio. From this perspective, it becomes important to consider leaders' future real option value as well as their current project value. For example, our study suggests that lateral transfer decisions can be seen as emphasizing either investment in the individual or the organization but perhaps not both, that promotions are likely based on real option value rather than project value, and that the type of position an individual occupies (i.e., stepping stone versus destination) tends to impact how executives make decisions regarding movement. A proposition that arises from such a perspective is that promotion decisions may be less a function of who is most capable and more a function of the flexibility the leader affords the executive in maintaining the system. Having leaders who afford greater flexibility (because of greater potential) allows executives to rapidly respond to staffing needs in upper-level positions when needed and maintain a steady upward flow of leadership.

Fourth, although previous research on leader development has focused almost exclusively on the qualitative aspects of job assignments that render them developmental (McCall et al. 1988, McCauley et al. 1994), our study shows that simple quantitative aspects of work experience (i.e., number job assignments) provide another way to examine the factors that challenge leaders to enhance their development

(Tesluk and Jacobs 1998). This leaves room for future research to unite these two perspectives. For example, do less frequent lateral transfers enhance leadership potential to the same degree when there are greater qualitative differences across assignments? Similarly, how do critical assignments, presenting disproportionately greater levels of challenge, impact executives' decisions to laterally transfer leaders?

Finally, the study shows that options theory can provide an overarching framework for understanding leadership pipelines not gained from other theories, including viewing leadership pipeline decisions as options, the distinction between project and option value, the distinction between options and real options, the distinction between incremental and flexibility real options, the notion of amplifying preinvestments, options portfolios, and other insights. The study incrementally advances options theory by showing that it can be applied to agentic resources (e.g., emerging leaders who are active internal labor market participants) as opposed to previous research on options theory as applied to nonagentic resources (e.g., stock options in finance). Our model recognizes the agentic role of the employee in the sense that employees willing to rotate will be promoted more quickly. The model in this paper also advances the application of options theory by showing how it can be applied to career systems in large hierarchical organizations, which complements research focused on professional service firms where options not exercised are lost because of "up or out" promotion policies (e.g., law firms) (Malos and Campion 1995; 2000). Moreover, the model complements other career mobility theories, such as tournament theory, because leaders in this context still compete in tournaments (e.g., leader trainees compete to get to assistant leaders, and then, only assistant leaders compete to get to unit leaders), and it goes beyond both tournament theory and human capital theory by explaining why organizations would take the risk of sacrificing short-term job performance for long-term staffing flexibility.

Managerial Implications

The present study offers several implications for practice that do not exist in the current literature. First, managers need to better understand the role that lateral transfers and promotions play in the organization's overall strategy for creating and managing its stock of leadership talent. This study suggests that lateral transfers can be considered as amplifying preinvestments made toward the accumulation of leadership talent. The more frequently leaders are laterally transferred (i.e., the more they are invested in), the more rapidly they are likely to develop. As a consequence, they are also likely to demonstrate poorer job performance than peers who do not receive the same

amount of investment. Thus, executives need to be aware of this development-performance trade-off and carefully consider lateral transfers as tools for developing talent.

Second, the study demonstrates that promotions are often given to somewhat *lower-performing* leaders in stepping-stone positions and that they are given to them *sooner*. Thus, managers should also be aware of the fact that those who might be perceived as less promotable (given slightly lower levels of job performance relative to peers) may actually be better prospects for promotion. Consistent with real options theory, this may be because individuals in organizations have a project (or current productive) value and a real option value. Project value may be a less useful indicator of promotability in contexts where short tenure is relatively common. Managers may help develop leaders by giving them tools for successful transitions, as new leaders are expected to transition and get up to speed quickly (Watkins 2013). Further, managers may not want to delay promotions until individuals reach the highest possible job performance level as the organization and leaders may incur a cost by doing so. For example, allowing a leader to remain in his or her current position may create opportunity costs associated with not investing in the development of another leader who could be developed by transferring into the position.

Third, managers should recognize that the criteria for job movement depends on job level. Once leaders reach destination positions, then not only does the traditional criterion of job performance become paramount, but there is a caveat—unless they are critically needed elsewhere, they should not be moved until they have completed improving performance of their current unit.

Potential Limitations and Future Research

First, it is possible that the applicability of the theoretical framework developed in this article is contextually dependent on the large size and career process of the organization studied. Smaller organizations may be less capable of laterally transferring developing leaders to the degree found here, and they may not be able to afford the loss in job performance. Similarly, organizations with different structures may find the relationships to vary depending on the number of levels, whether lateral transfers entail moving homes to different locations, and so on. Some organizations even have formal rotational programs for new management-track hires, which would create another type of option that is expected to develop and promote more quickly. The framework developed and tested in this paper is applied to leaders in line manager positions, so generalizability to staff and top management positions must be tested. Moreover, the

lateral movement process in this organization is not based on applications but instead, on the judgment of executives. Although such a process is common in succession management, the study should be extended to contexts with job postings or other more self-determined development systems. Finally, many organizations rely on external staffing as opposed to the internal pipeline for at least some managerial roles, such as those with unique knowledge or skill requirements, which should be incorporated into our theory in future research because it creates another type of real option that affords even more flexibility for the executives.

Second, the study did not examine why some leaders in stepping-stone positions get transferred more than others. As noted previously, the company does not have a formal fast track or designate some leaders as high potential, past performance is not related to increased future transfer rate for those in stepping-stone positions (test of Hypothesis 4), and supplemental analyses of leader quality indexed by college degree made little difference. However, options theory (as depicted in Figure 1) suggests that executives likely monitor and assess the development of rising leaders based on many factors (e.g., challenges they have experienced, adequate but not necessarily high performance, informal feedback from the unit managers, etc.) and then, make incremental investments in developing the most promising leaders (especially by transferring them). In addition, the leaders in stepping-stone positions themselves have a choice about their involvement in transfers by deciding whether to accept them or not (Campion et al. 2021). That is beyond the scope of this study, but it may be the other half of the story. Transferring involves costs for the leaders too, such as additional effort to learn a new location, increased uncertainty, perhaps a longer commute, and potential impact on nonwork life, which they likely weigh against the potential benefits of increased chances of eventual promotion, with many deciding not to participate.

Third, the archival nature of these data limited our ability to look at some causal mechanisms. We attempted to strengthen our inferences by modeling the effects over time, but we encourage future examinations to consider other research designs. One recommendation is to perform a policy-capturing study to directly assess psychological mechanisms of executive decision-making processes. Fourth, our study focused on transferring within a single job. This allowed us to isolate and compare the influence of a common industry practice that occurs across the employee life span at many organizations. However, future research that examines alternative types of lateral transfers in the leader development context is encouraged, such as transfers between line and staff

and to other business units. Fifth, our study did not examine the potentially important role of other factors, such as breadth of portfolio, lost investments, few expiration strike signals, and outside options. Empirically, breadth of portfolio is not an issue in the current research setting because the regions are all about the same size, and the number of expiration strike signals (promotions) is reflected in region growth, which was a control variable. However, they may be factors to consider in other organizations. The current study was unable to examine lost investments and outside options reflected in management turnover, which is another direction for future research. Sixth, we used administrative performance reviews as our measure of job performance, which is probably an imperfect measure of job performance. Endogeneity concerns remain a potential limitation of the study. Finally, future research could further examine the effects of viewing leadership pipelines as real options on firm outcomes. Although we examined improved operational effectiveness in one of our hypotheses, the question of the net financial outcome from using rotation to develop future leaders based on the associated costs of doing so compared with the benefit of the flexibility allowed once those leaders have been developed was not answered. This research might also include the financial costs and benefits of other approaches to management development to create a leadership pipeline.

Acknowledgments

Endnote

[1] All the quotes are from the 40 regional executives participating in the focus groups described who made the staffing decisions in this study.

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