

A Stitch in Time Saves Nine:

LEVERAGING NETWORKS TO REDUCE THE COSTS OF TURNOVER

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 Over the past two decades, workforce mobility has risen significantly and is imposing dramatic but often misunderstood costs on many organizations. According to a 2008 report by the U.S. Bureau of Labor Statistics, 30% of workers stay with an employer less than two years, and more than half depart by the five-year mark. The average employee holds as many as eight jobs between the ages of 22 and 44. Although the recent recession has slowed turnover, historical trends suggest that organizations will see a significant increase in the number of employees leaving for new job opportunities as the recovery gains momentum and job market conditions improve.

Loss of valuable talent—especially of productive, engaged, and well-connected employees—is always expensive. The direct costs of recruiting and training new hires are estimated to range from 25% to 500% of an employee’s salary.¹ General Mills, for example, estimated that the departure of just one experienced marketing manager could cost millions of dollars due to the loss of critical marketing and client knowledge. Although such an impact is clearly sizeable, our research suggests that these estimates do not capture the true impact of turnover because they are based only on the costs of replacing an individual employee. What many companies fail to fully appreciate is the damage turnover can do by disrupting productive informal networks and critical collaborations when well-connected employees depart.

Network analysis has a rich history in the organizational literature² and has recently been used as a lens for understanding in principle how turnover might influence, and be influenced by, networks of connections between employees.³ Yet while scholarly research has established correlations between network structure and turnover, there has been little work done to demonstrate the ways in which managers can act on network analytic findings to reduce the

negative effect when well-connected employees depart.⁴ To bridge this gap, we contacted senior leaders who were participants in a research consortium focused on network analysis and we found ten who were interested in applying network analysis to reduce the negative impacts of turnover. This group spanned 5 industries (consumer products, life sciences, professional services, health services

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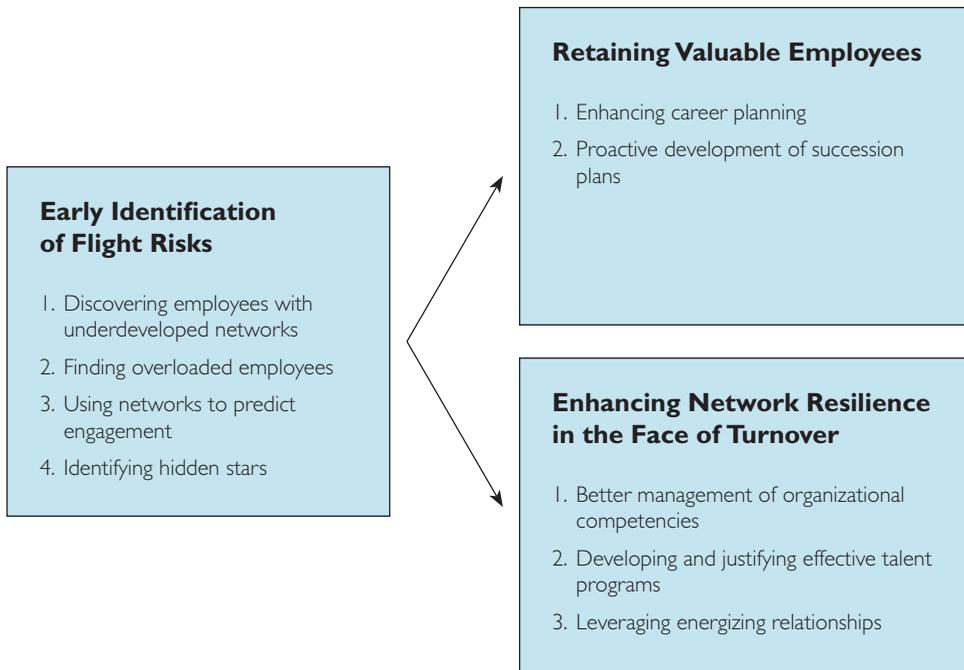
and high tech) and allowed us to assess informal networks of groups within these organizations ranging in size from 186 to 2,110 employees. We first explained to the participating managers the likely effects that had been documented in the research literature, and then through an iterative dialogue, we collectively developed ideas about the kinds of analyses and outputs that might be most valuable in helping them better understand turnover in their organizations. Armed with their insights, we conducted network analyses on each organization and met regularly with each

leader to see how they interpreted the analytics and acted on the results. While each company could be considered a case study, the fact that our efforts were deliberately intended to provide leaders with information that could improve company performance makes our work more akin to action research.⁵ (See Appendix “About the Research.”)

Three broad strategies emerged from our analysis of how leaders interpreted the network results and formulated strategies to reduce the negative impact of turnover in their organizations. First, 60% of managers in our sample used the results in an effort towards early identification of flight risks. Second, 80% of managers in our research developed ways of using the output of the network analyses to retain valuable employees. Third, all of the managers focused at least some efforts on improving network connectivity to ensure resiliency in the face of turnover. Figure 1 describes the types of initiatives that were most representative of these three strategies, and the approaches discussed in this article that apply to each of these strategies are described in further detail in Table 1. These strategies first assess an individual’s connections that create “embeddedness” and then leverage this knowledge to mitigate the extent to which turnover detrimentally impacts social capital and job performance.⁶

Within the scope of the specific findings summarized in Figure 1, our first goal is to help researchers and practitioners who care about organizational turnover see that network analytic approaches can be effective in reducing the negative impacts of turnover on organizational performance. In many contemporary organizations, performance is heavily influenced by an ability to collaborate across geographic barriers, time zones, functions, and cultures.⁷ The loss of a small number of highly connected employees can often have a dramatic impact on performance and innovation.⁸ Worse yet, there is often a knock-on effect, as the departure of a well-connected individual increases the likelihood that

FIGURE 1. Network Based Strategies and Tactics for Reducing the Negative Effects of Turnover



people connected to him/her also leave.⁹ David Krackhardt and Lyman Porter referred to this as a “snowball effect” and recommended that firms “concentrate resources on those who are observing similar co-workers leave.”¹⁰ As such, we set out to show how leaders can better assess the organizational costs of turnover in order to justify appropriate investments in the employee networks that are critical to performance and retention.

Our second goal is to show how leaders can reduce turnover by cultivating networks. To attract top talent, many organizations have developed corporate branding strategies that are compelling not just to consumers but also to recruits.¹¹ Once employees are in the door, these companies focus on rewards, role design, physical work environment, and human resource practices that make their organizations compelling places to work. For example, Qualcomm provides new workers with stock benefits and offers opportunities to volunteer and expand their horizons with such varied activities as surfing lessons, kayaking tours, and customized team-building experiences.¹² Alternately, Google focuses on culture as a source of engagement by giving employees time to innovate, expecting them to host and attend “Tech Talks” given by leading innovators in the industry, creating an open-space office environment, and hosting regular firm-wide meetings.¹³

TABLE I. Managerial Approaches to Using ONA to Reduce the Negative Impact of Turnover

Strategy	Tactic	Approaches
Early identification of flight risks	Discover employees with under-developed networks	Compare information provided in network connections to identify employees with fewer relevant ties compared with high performing peers Identify managers with too many technical information ties compared with decision-making ties.
	Find overloaded employees	Identify employees with a large number of cross-unit collaborations as these may increase sense of overload. Identify employees that sit on several key paths of critical information flows within the organizational unit.
	Use networks to predict engagement	Work to understand the point at which too many network connections increases burnout. Identify employees with increasing levels of demand on them and work to decrease their relational overload.
	Identify hidden stars	Use an individual's number of high-quality network connections as an added indicator of performance on top of a formal appraisal system. Identify those individuals with high numbers of "energizing" ties who activate better performance in others but are being overlooked by formal appraisal systems.
Retaining valuable employees	Enhance career planning	Use ONA to spot key talent and develop targeted career and retention plans that recognize the value of their collaborations. Develop on-boarding processes aimed at showing employees how to build effective network connections.
	Proactively develop succession plans	Work with promoted managers to develop plans to remove network ties that are no longer needed and build ties that will help. Use ONA to spot and improve network communication processes by pairing key brokers with emerging stars to reduce dependence on key broker.
Enhance network resilience in the face of turnover	Better management of organizational competencies	Use network analysis to make targeted efforts to retain key experts. Develop mentoring and onboarding programs to integrate junior experts with senior talent.
	Develop and justify effective talent programs	Identify key collaborations and place a value on those collaborations. Work with management to identify and reward individuals with high value-added collaborations. Use data on these collaborations to show key employees how the firm and their colleagues help them create value.
	Leverage energizing relationships	Identify energizers and create programs to increase their central status in key networks. Develop training interventions to show employees how to create and maintain energizing connections.

Though such investments are well-intentioned, the evidence suggests that they are not as effective for attracting and retaining top talent as most leaders hope. In part, this is because such efforts focus on the individual employee but miss the web of relationships around him or her. Informal networks throughout an organization have a pervasive influence on employees' experience of work, and are critical to how they find information, solve problems, and capitalize on opportunities.¹⁴ Networks are central to how high performers get their work done and distinguish themselves over time,¹⁵ and they are intimately intertwined with employee satisfaction, well-being, and retention.¹⁶ When leaders understand and cultivate informal networks appropriately, they help build and strengthen the relationships that can keep their best employees from looking for opportunities elsewhere.

Organizational Networks and Employee Turnover

It is simply not possible to replace a longtime employee—even when the replacement has a very similar skills profile—without disrupting the organization's web of formal and informal relationships. It takes time for others to understand a new person's true expertise,¹⁷ and even longer to develop trust in that person's intentions and capabilities.¹⁸ In short, the departure of well-connected employees—not just those high in the hierarchy, but also those central in a network—can damage networks and organizational performance.¹⁹

Recent research has illuminated the importance of workplace relationships to retention. One study, for example, has demonstrated that broad perceptions of relationships with colleagues create a sense of embeddedness that reduces the likelihood of voluntary turnover.²⁰ Other work has shown that the quality of an individual's relationship with a supervisor is a key determinant of turnover in subsequent years.²¹ While this research has advanced the idea that a specific relationship—in this case with someone in a position of authority—affects turnover, there has been little done to show how the broader pattern of an individual's relationships with others in an organization influences departures.

Organizational network analysis (ONA)—also called social network analysis—is a set of tools that help leaders visualize and understand the relationships in informal networks that facilitate and impede collaboration. By making patterns of interaction visible, ONA helps leaders move beyond simply valuing an individual's contribution in a work setting to also accounting for the way in which he or she makes others more successful through collaborations. ONA also gives managers a way to pinpoint situations where targeted interventions can preserve relationships and protect a unit or even an entire organization from productivity losses. In the remainder of this article, we expand on the three strategies identified in Figure 1 and illustrate them with specific examples drawn from our work.

Early Identification of Flight Risks

A first common theme that we observed was managers' focus on trying to predict which employees might be most at risk of departure. Many of these managers believed that workloads in their organizations were not evenly distributed across employees, and that existing talent management systems were biased towards identifying those high performers whose behaviors were most visible to senior leaders. To address these and other potential shortcomings in HR practices, several sought other kinds of evidence that would help them see emerging dysfunctional situations before they blossomed fully and led to turnover.

Discovering Employees with Under-Developed Networks

A majority of managers in our study were interested in discovering which employees were not well integrated into their organization's network of collaborations. Several used network analysis to predict, on the basis of personal network size and shape, which employees were most likely to leave. For example, in one firm's global IT function it became clear that people left when they were not well positioned in their unit's decision-making and information flow networks, and so struggled to accomplish their work. The ONA also helped leaders see who was likely, over time, to become a lower performer and occasionally even fired—these people often had very underdeveloped networks (poor connections on networks of information flow, decision making, problem solving, and career advice) compared with others of similar organizational tenure, and they also tended to be less-efficient collaborators, thus taking valuable time from their peers.

Though it may seem straightforward to conclude that people with less-developed networks are more likely to be at risk for departure, the specific ways in which their networks were deficient provide useful insights. As one example from our research, under-developed networks happened when up-and-coming managers maintained too many connections with colleagues who came from their own area of specialization, rather than the broader range of expertise available through their peers' networks.²² The structure of their network also became a hindrance to advancement when it focused too heavily on information access and failed to diversify into areas of decision making, innovation, and problem solving. The managers in our research were keenly concerned with three categories of people on the fringe of their organization's informal networks: 1) high performers or high tenured employees who were less connected than hoped; 2) newcomers who were not connecting well and were thus at greater risk of departure and 3) highly regarded employees struggling with work-life balance issues. In each of these cases, managers in our research employed unique staffing, mentoring and development opportunities to help promote greater connectivity amongst these valued employees.

Finding Overloaded Employees

The departure of highly connected employees (i.e., people with many incoming ties from others) or those with many ties bridging strategically important silos can cause significant network disruption. In our research, we encountered numerous employees who had developed a reputation for being knowledgeable and reliable, which led many colleagues to turn to them for expertise, information, or assistance. Unless steps were taken to offset these constant demands, these employees' performance often declined as network demands increased. When such high levels of demands persisted over time, employees often burned out and left, thus creating a significant gap in the network.

Senior leaders can be key sources of collaborative demands within a unit or reporting chain, their needs often made seemingly more urgent because of the high levels of accessibility created through employee use of smart phones and email. However, our interviews suggested that such demands were relatively visible and could be prioritized by a leader when overload began to occur. What was more problematic in the companies we studied were demands from other parts of the organization, which tended to be invisible to most superiors. For instance, in one large consumer products company, the number of network ties to an employee from other units or geographies was a far better predictor of departure than the number of ties within a unit. In several cases, we found that just a few cross-function or cross-geography ties significantly worsened employees' sense of overload and degree of disengagement.

High levels of cross-unit overload can also be exacerbated by poorly managed within-unit connectivity. Consider, for example, the plight of hospital leaders who were concerned about the potential departure of highly connected physicians. From earlier experience, they knew that the loss of key physicians could result in a decrease in consultations and best practice sharing among doctors (and thus increased medical errors), and also could significantly decrease revenue from referrals. An ONA of different practice areas in the hospital revealed a number of network susceptibilities. Table 2 identifies the most-connected physicians in one of the key practice areas, ranked top to bottom based on the number of collaborations each physician supported. The rows reveal not just physicians who were consuming time but also how residents, nurses, and administrative staff tapped into the doctors—the volume of these boundary-spanning ties can be seen across the rows beside each physician. As such, the analysis helped this leader understand key susceptibilities (i.e., central physicians who were leaving) and how best to alleviate network demands placed on these important employees.

Using Networks to Predict Engagement

Several managers in our study sought to develop predictive models of disengagement as an antecedent to turnover. Through a combination of ONA output with measures of employee engagement, they were able to predict flight

TABLE 2. Reviewing the Network Structure of Key Ties Helps Anticipate Costs of Turnover

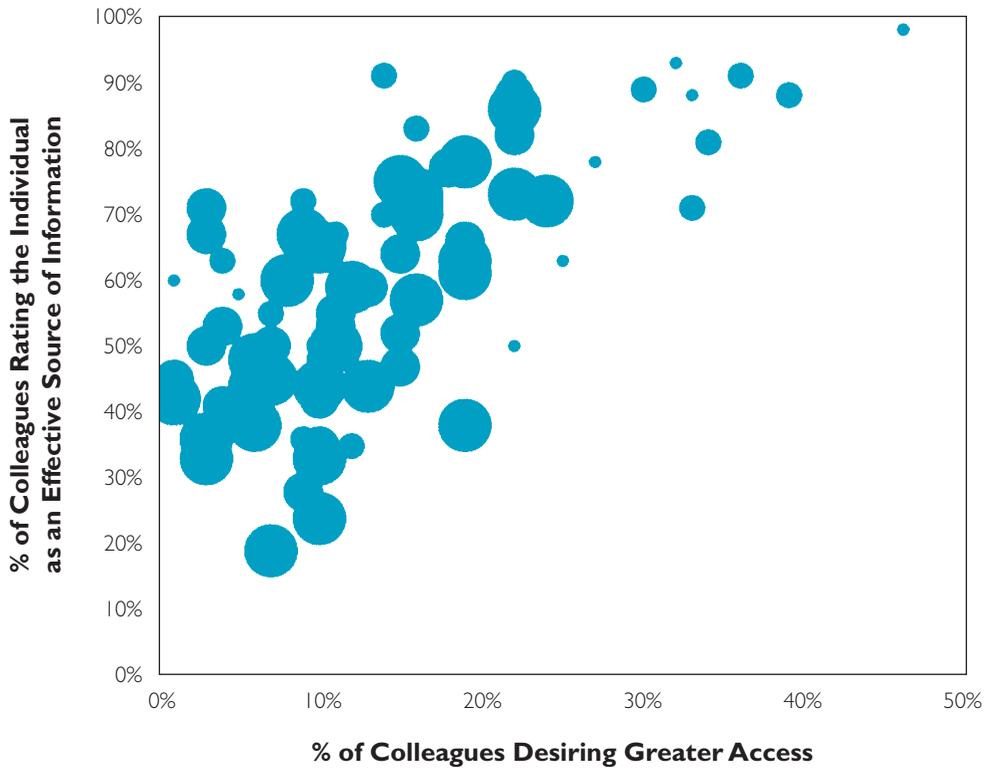
Name	Total Info Seeking Ties	Attending Physician	Resident Physician	RN	LPN	Clinical Admin	Non-Clinical Office Staff
Martha Lay*	30	10	8	1	1	1	9
Kelli Skaggs	26	10	8	1	1	0	6
Pauline Weiss*	26	9	7	1	1	1	7
Mike Teague	25	10	8	1	1	0	5
Ernest Hastings	24	10	7	1	1	0	5
Kenneth Hagen*	24	7	6	2	1	2	6
Becky Jung	23	8	6	2	1	2	4
Charles Ellsworth*	23	10	7	0	0	0	6
Ana Hollenbeck	23	9	8	0	0	1	5
Michelle Calvin	22	8	6	2	1	0	5
Carolyn Stallworth	22	10	5	0	1	1	5
Danielle Sydnor	22	8	5	1	1	0	7
Caroline Pichardo*	22	7	5	1	1	0	5
Craig Summerlin	22	11	6	0	0	0	5
Thomas Fisk	22	8	8	1	1	0	4
Charlene Mares	21	8	7	0	0	0	6
Isabel Moss	21	7	6	0	1	0	7

Note: * indicates those physicians who were rotating from practice within 9 months, which was going to reduce overall network connectivity by 31%. These names are pseudonyms generated by a random name generator.

risks by identifying thresholds at which network overload began to drive disengagement.

In a global financial services organization, for example, we measured employee engagement and mapped networks across firm-wide communities of practice. In several communities, the least engaged individuals were those who were *both* (a) heavily sought out for information *and* (b) whose colleagues indicated that they needed greater access to them in order to be effective. In Figure 2, the employees who occupy the upper-right-hand quadrant—those who were clearly the most influential in the network—had significantly lower engagement scores, as seen in decreasing bubble sizes.

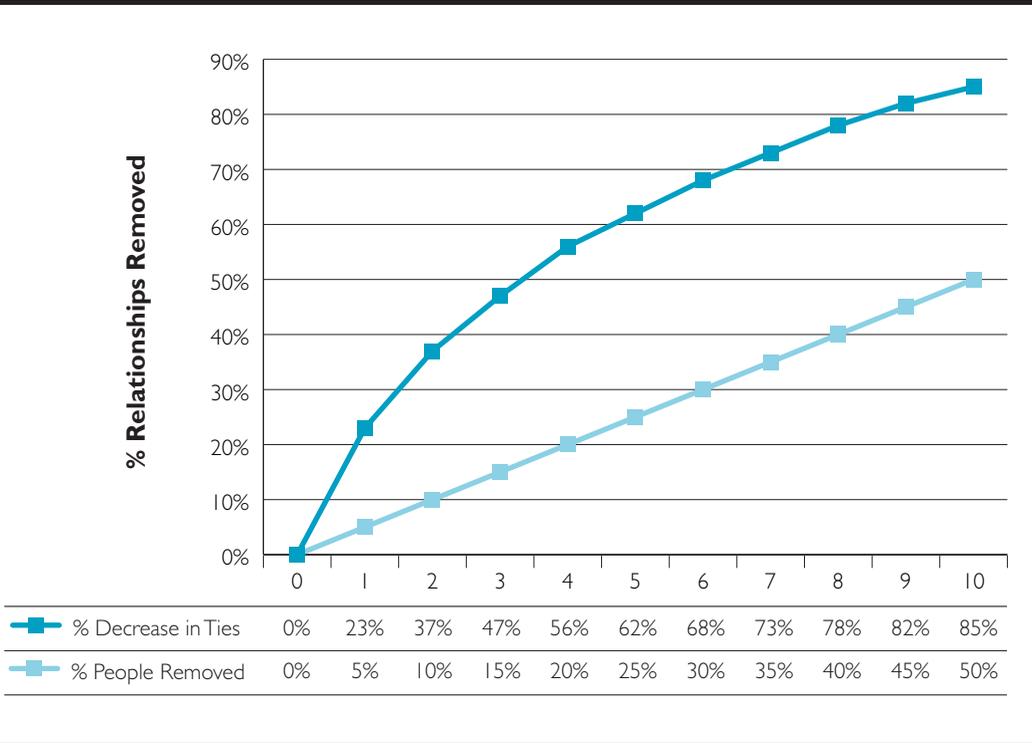
FIGURE 2. Identifying Engagement Levels Important to Detecting Flight Risks



Note: Size of bubble indicates the employee's engagement. Larger bubbles indicate more engagement, smaller bubbles less engagement.

As expected, engagement scores were strong indicators of burnout and subsequent departure. More importantly, however, the network scores began to help the unit's leader determine at what point employees became overloaded, and how and where to make adjustments for such individuals before they began to disengage. While excessive job demands have long been linked to burnout and low engagement, the demands that amass from networks of collaboration can be invisible time drains. In our research we frequently spoke with leaders who were mystified as to why an employee's productivity had been falling off until they were able to see how relationally overloaded that employee had become. For example, in one organization, disengaged employees maintained 50% more ties across functions and locations than the most-engaged people, and 30% more decision-making ties. Leaders who can spot these people early are better able to resolve the underlying problems before valued employees drown under the weight of their ties (and, given the degree to which turnover can spread through networks, take others with them when they leave).²³

FIGURE 3. High Concentration of Central Connectors Exposes Firms to High Costs of Turnover



Identifying Hidden Stars

Finally, a common belief among many managers in our study was that company performance evaluations were failing to identify key individuals whose loss could significantly disrupt the organization. Specifically, the dimension they felt was missing from performance evaluations in their organizations was an assessment of the degree to which employees were collaborating effectively. One leader, working in a consumer products organization, felt that this deficiency in performance evaluations led employees to believe that collaboration was not crucial. This intuition was supported by culture surveys, which revealed that employees struggled to build effective networks across functions, geographies, and product lines.

A subsequent ONA confirmed broad patterns of under-collaboration across the organization. However, the network analysis revealed that the company was highly susceptible to losing well-connected employees. A small set of people supported a disproportionately large number of collaborations: Figure 3 shows that 5% of employees accounted for 23% of the relationships in the network, while 10% supported 37% of these collaborations.²⁴ As suspected, many employees who were most effective collaborators in the organization had neither been recognized as high-potential employees nor rewarded as top talent. In fact, more than half of these individuals had not been on senior leaders’ and

human resource managers' radar screens as employees who played an important role in connecting people across the organization. While many were tirelessly supporting their colleagues and enabling them to be high performers, they were not receiving individual accolades—a combination that often frustrates employees and so increases the likelihood that they will leave.

Leaders who understand informal networks in their organizations are also better able to identify employees who may not have many connections but who occupy a unique network position—for example, forming a key collaborative bridge between units, locations, expertise groups or accounts. An ONA often reveals employees whom the organization is excessively reliant upon in a given area of technical expertise or client/market. For instance, it is not uncommon to find that a small group of specialists accounts for 55% to 75% of the network interactions around a strategically important capability. In technical domains such as engineering, R&D, and software development, ONA provides a powerful lens to understand which employees are heavily sought for a given kind of expertise, and it can also reveal employees who hold crucial knowledge but are underutilized. It is important to protect heavily sought individuals, as they often constitute the basis of an organization's strategic capabilities. Quite frequently, leaders will hire experts in a given competency only to discover that the network—for whatever reason—listens only to a small number of these employees. This tendency makes organizations extremely vulnerable to the loss of a few people.

Retaining Valuable Employees

A second general theme emerging from our research was the use of network data to ensure that valuable employees (once identified) were retained. Broadly speaking, the goal here was to use ONA to focus retention strategies on high-value employees within the network. Our research revealed two main categories of efforts that could be effectively guided by network analytic results: enhancing career planning and proactive development of succession plans.

Enhancing Career Planning

With key collaborators in their organizations identified through network analysis, many leaders sought to improve career planning processes to better reflect what they learned about these collaborators. For example, the results of the network analysis at the consumer products organization described earlier made it possible for leaders to take a number of quick and targeted steps to reduce flight risk among high-impact individuals who had not been identified in traditional performance evaluations. First, executives invited many of them into talent programs targeting high potentials at multiple hierarchical levels. In addition, human resources provided briefings to help department and function leaders develop career and retention plans that specifically accounted for the value they were bringing to the organization through their extensive collaboration efforts. Each leader also scheduled time with his or her highly

connected employees to specifically acknowledge the importance of their collaborative efforts and discuss how their skills in this area could enhance certain career paths. Over time, the results showed that these and other simple but targeted actions helped decrease turnover by 23% among this important set of employees.

Network analysis can also assist in career planning from the first day of employment. Across a number of organizations, we found that employees with small networks were unable to engage others sufficiently to do their job well. To prevent employees from ending up on the fringes of a network, the companies we studied often redesigned on-boarding practices to include early staffing assignments, targeted mentoring relationships, and career planning advice on networks—all moves that helped newcomers understand and replicate the network profiles of those who had succeeded in their roles.

Proactive Development of Succession Plans

While all companies in our study engaged in some form of succession planning, the injection of network analytic results provided important new insights that helped them develop talent. In the consumer products company, leaders saw talent development as a key tool for engaging and retaining high-value collaborators. Their HR organization began to assess performance not just as a product of an individual's skills and competencies, but also in terms of the networks required for one to succeed in current and future roles. Each employee was expected to assess annually how his or her personal network needed to be re-shaped to avoid career-limiting network traps²⁵ and to prepare for his or her next career step. This network perspective, in conjunction with traditional career planning activities focused on skills and capabilities, helped prepare employees for new roles much more effectively and so reduced transition failures and turnover.

The ONA results also played a significant role in succession planning in two key ways. First, the network results improved the company's processes for identifying emerging leaders. Second, it helped new leaders move into more-demanding roles more effectively. Traditionally a leader stepping into a new role took a great deal of time to learn who the key experts and opinion leaders were, as well as where and how to exert influence through the informal networks. With network maps in hand, these leaders had a much better understanding of the units they were stepping into and were more successful over time—again reducing turnover at a key transition point that the company had struggled with in the past.

The head of the medical practice described earlier took a range of actions to develop new leaders and better retain established ones. First, in terms of planned departures, five of the top 17 most-connected physicians intended to leave within the coming nine months. While the head of the practice had known about most of the departures, he had not realized just how many productive relationships would be lost. To mitigate the impact, he quickly formed mentoring ties and transition plans with the people who were departing by pair-

ing them with emerging stars in the network. The network analysis played a key role in helping him identify rising stars who had emerged as leaders in their peers' eyes—people who often were not those he would have previously considered for leadership roles. It also revealed the centrality of one behavioral scientist in the group, who counseled almost all of the physicians and helped them cope with stress. The hospital chose not to have another person share this role but instead focused on supporting the physicians in additional ways, through various programs.

The ONA also revealed cross-function collaborations that were imposing significant time demands on physicians. After learning of these demands, one practice leader coached others to tap the doctors more selectively and instituted other changes that eased their burden. For example, simple shifts in how nurses engaged physicians resulted in a dramatic decrease in the volume of requests reaching the doctors throughout the day, and revised protocols helped reduce demands imposed by administrative staff.

Enhance Network Resilience in the Face of Turnover

The third area of focus that we saw among managers in our study centered around efforts to structure organizational networks in a way that made them less susceptible to the departure of any given individual. Here, the general acknowledgement was that efforts towards the first two strategies (identification and retention) would never be perfect, and that the network analysis provided them with insights that could make the network more resilient to loss. We saw three types of managerial tactics to accomplish this, as described below.

Better Management of Organizational Competencies

Leaders at one of the world's largest life sciences organizations had in place specifications of the core technical competencies necessary for competing in their rapidly changing bio-pharmaceutical environment. Managers then used a network analysis of one of its R&D departments to identify areas of network susceptibility. Each of the 2,600 employees involved identified the competencies for which they most depended on colleagues for help and then indicated which employees they turned to for each competency. The resulting analysis provided two important sets of insights around network resilience. First, the listing of most highly sought after technical competencies showed senior leaders where hiring efforts should be focused in order to reduce the likelihood that turnover would have a catastrophic impact on their strategy of time-based competition. Second, identifying those most sought for individuals in a given competency allowed the organization to re-shape staffing assignments and role demands to ensure that these experts were sufficiently accessible and also not overloaded with network demands.

These insights were highly revealing to senior leaders. For example, in some areas it became obvious that cultivating communities of practice around five to eight core thought leaders would help build scientific depth and bench

strength and enhance best practice transfer in a strategically important capability. For other competencies it became apparent that the organization was too reliant on a small number of employees. This was not only a source of inefficiency (since many people could not get to the overloaded employees in a timely fashion), but also of vulnerability: the unit's new product development efforts would suffer if those experts left.

Finally, in still other competencies, insufficient collaborations were occurring for the unit to pursue growth and innovation in strategically important domains. In some instances, although leaders thought they had appropriate expertise in-house, the network was casting a different vote on the quality of people's contribution or their willingness to help each other. In several cases, this was quite a surprise given the investments leaders had made to hire world-class talent. In other cases, high-end experts were underutilized simply because colleagues were not fully aware of their skills and experience.

Armed with these insights, the leaders of the unit focused on two kinds of initiatives. First, they made targeted efforts to retain key experts—especially those central to a technical domain and those who bridged domains at points where leaders felt innovation potential was greatest. Only about 20% of the employees bridging technical domains were on top talent lists, yet they turned out to be critical to integrating expertise in innovation and new product development efforts. These hidden stars received additional attention through talent programs and leadership focus, as outlined above.

To further improve knowledge utilization, unit leaders formed communities of practice around heavily sought out experts. Simply designating these employees as “go to” people (thus acknowledging and publicizing what they were already doing), providing them with 5% of their time and some venues to connect and share ideas and best practices with one another, and asking them to reach out to two or three less-connected experts yielded significant benefits. The resulting collaborations built greater depth in each technical domain and thus made the organization less susceptible to any single departure. These communities of practice also provided affirmation and peer recognition, and they embedded experts in networks of like-minded people; this alone decreased their departure in comparison to historical turnover rates.

The second set of initiatives focused on reducing the network's susceptibility to the departure of some of these stars. For example, mentoring programs required well-connected employees to bring junior colleagues into meetings, projects, and publication efforts, helping them improve their connections both internally and with external scientists. In addition, on-boarding and project staffing practices were redesigned and a new social networking technology introduced to help legitimate and draw in employees with expertise that the network was not utilizing. To build awareness of underutilized expertise, management also implemented a skill profiling system and launched a communication effort to help others become familiar with the work of high-end experts and to discover potential areas of project overlap. These program-level initiatives, combined with tactical efforts such as customized workshops (e.g., at project

start-up), helped build trust in the expertise of these experts, which decreased the network's susceptibility to their departure. Perhaps just as important, these efforts also significantly reduced bottlenecks as employees built ties to alternative "go to" people.

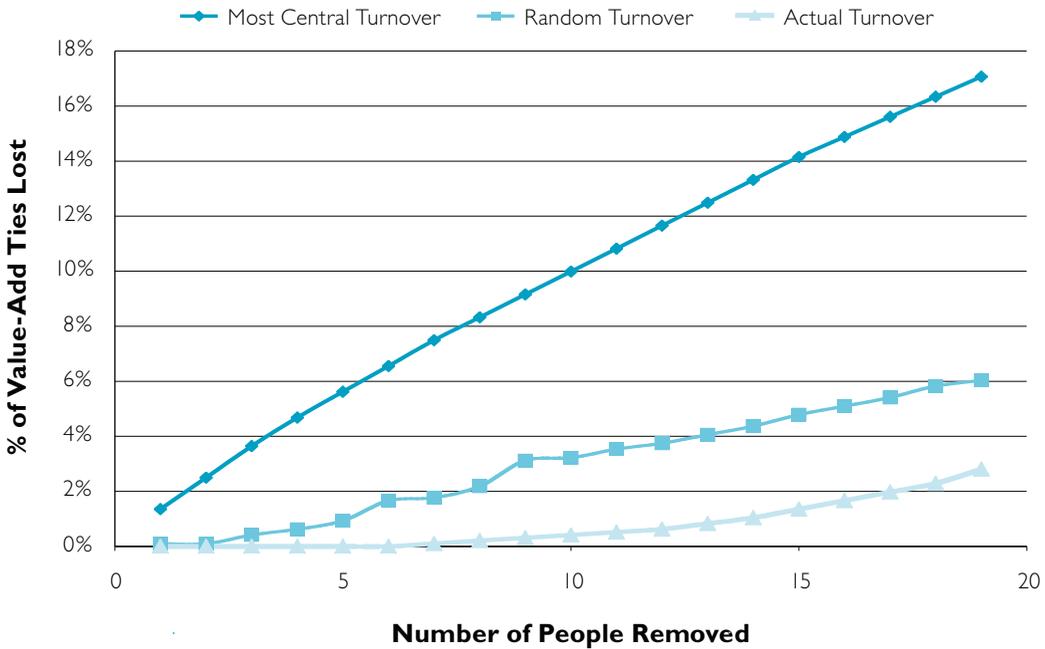
Developing and Justifying Effective Talent Programs

Understanding the network costs imposed by departing or disengaged employees can be extremely helpful in justifying and measuring the impact of talent retention programs. For example, consider how a network development program, implemented by a top investment bank, helped create connections among the highest performers at the SVP/VP level. The program was very expensive, requiring time away from work, travel expenditures, and production costs for events that brought together this global group of 300 high performers. To justify the investment, the bank's chief learning officer focused on expected improvement in retention rates as a benefit from the program. However, she then went a step further by measuring networks where collaborations had generated revenue (for example, through account penetration or cross-selling) to show how network development resulting from these programs produced quantifiable business value.

Figure 4 shows one analysis of the effectiveness of this program in retaining high-potential employees at a point in their careers when they are often tempted by offers from competing banks. Specifically, it demonstrates that the departure of employees at this level had become less disruptive on the network. The lowest line on the chart demonstrates the revenue producing collaborations produced by those who actually left the bank. When measuring the turnover effect nine months after the program, the departure of 19 investment bankers reduced revenue-producing collaborations by only 3%. In contrast, if 19 employees with average network profiles had left (as shown in the middle line), the number of revenue producing collaborations would have decreased by 6%. Most important, though, the top line illustrates that had the 19 departures been from among the most-connected bankers—the population the bank traditionally lost to competing firms at the highest rate—the number of revenue-producing collaborations would have fallen by 17%. The talent retention program was thus demonstrably successful in convincing the most valuable bankers to stay.

Because the network analysis at the bank measured collaborations that had won business, it was possible to place dollar values on these collaborations. Doing so provided strong justification for the investments the company was making in the talent program. Further, success at the SVP/VP level was so great that the company extended the program to the top 600 managing directors and achieved similar results. With this population, the company also introduced a range of initiatives that encouraged and rewarded cross-selling, using network data to target those efforts at specific collaborations. With the network data in hand it became much more obvious how and where to offer spot bonuses and other acknowledgements that encouraged greater cross-selling among this important group.

FIGURE 4. Departure of Less-Connected Employees Limits Damage to Value Creating Networks



The top collaborators at the managing director level were also heavily sought out by competing institutions and often wooed away when they were not happy with their bonuses. The network analysis gave the chief learning officer an interesting tool to combat this turnover. In many cases she sat down with prominent stars after they had announced plans to leave and showed them their personal networks, demonstrating how various collaborations at the bank had enabled them to win deals and so produce revenue. The subtle message was that they were often not the individual stars they thought they were and that to hit the same revenue numbers in another institution they would need to build an entirely new network.

Many got the point immediately and changed their minds about leaving. Others were not persuaded, but even in those cases, the network analysis gave leaders a last chance to match competitive offers. In several instances, the network results more than justified a higher bonus given the degree to which highly connected employees enabled revenue production beyond what they were credited for in the account management processes. This gave the firm a new lens for deciding which employees required a bit more investment and which were overcompensated relative to the revenue their collaborations produced in the network.

In other contexts this same kind of perspective can be applied to timesaving interactions (for instance, in modeling the effect of best practice transfer or idea sharing in internally focused groups). Economic value can then be placed on the people or roles that contribute a great deal to the organization through their collaborations. In turn, these numbers help justify targeted investments to retain key players. Quite often such investments suddenly seem trivial relative to the much greater losses that would occur should critical network members depart.

Leveraging Energizing Relationships

Finally, our research revealed that while information flow and decision-making networks were important to understanding turnover, relationships with an emotional component were even more important for retention. Research has shown that when people depart, their friends are more likely to do so as well,²⁶ and that positive, energizing relationships improve organizational commitment and retention.²⁷ In our own work, we found that mapping the network of people who energize others provided a view of the under-connected employees who were most likely to depart.

For example, one professional services firm we studied undertook a transition from a multinational to a global organization. During this time, the leadership team conducted annual ONAs to design targeted change initiatives and track progress. In addition to focusing on the ties that helped people do their work, leaders also assessed energy generated in collaborations with other colleagues. This network question—which asked people to indicate the degree to which interactions with certain colleagues typically left them feeling energized, neutral, or de-energized—yielded vivid maps that showed where enthusiasm existed in the network.

What was striking was the degree to which energy was related to retention. Employees' energy levels exerted a kind of gravitational pull; when certain people left, those who saw them as energizing were more likely to leave than those who did not. Surprisingly, this held true regardless of the average level of energy that a particular person generated; even the departure of people who were seen as energizing by only a few colleagues increased the likelihood of turnover among them. It is important for leaders to understand which employees energize their most critical talent so that they can invest in holding onto those people, too.

To illustrate this effect, consider three representative employees who left the engineering consultancy and the subsequent turnover patterns of people in their networks. Employee A (whose energy rating was 3.39, close to the median rating) left in the spring of 2004. Only four of the 49 respondents who rated Employee A indicated that he/she was strongly energizing, but following Employee A's departure, three of these four left. Given the organization's 12% annual turnover rate, only one of the four would have been expected to leave. Employee B was more of an energizer across the network, with an average score of 3.64. Of the 11 colleagues who rated Employee B as strongly energizing, four

departed after Employee B left. Lastly, Employee C (average energy rating 3.55) departed in the summer of 2004; seven of the 12 colleagues who rated him/her as strongly energizing departed in the following two years. Based on expected departure rates, only three would have been anticipated to leave.

Energy is not a vague and amorphous concept; it can be influenced in networks by focusing on people's behaviors and interactions.²⁸ To that end, the organization invested in training, revised its leadership development programs, and created team-building and on-boarding practices that taught employees how to create energy in their interactions with coworkers. These efforts, in conjunction with changes to HR practices, increased not only information flow but also the degree to which interactions with colleagues were seen as sources of energy. There was a 42% increase in energizing ties between 2003 and 2008, with important increases occurring across locations (28%) and functions (34%), and a concurrent reduction in turnover rates during that period.

Conclusion

While the academic literature has focused heavily on connecting turnover to organizational performance, it has provided practitioners with little advice on just what to do about it.²⁹ Our research couples new developments in the science of network analysis with rich observations from managerial practice to provide powerful insights for academics and managers alike. Today's leaders face enormous challenges in cultivating and keeping top talent. Though slowed in recessionary times, turnover is still occurring at a rapid pace that will likely accelerate with economic recovery. Traditionally, leaders have not fully recognized the true cost of losing key people, nor have they been aware of the network investments that can help keep them. Our research shows how a network lens can help leaders both understand the cost of departures and target investments that significantly improve the success of retention efforts.

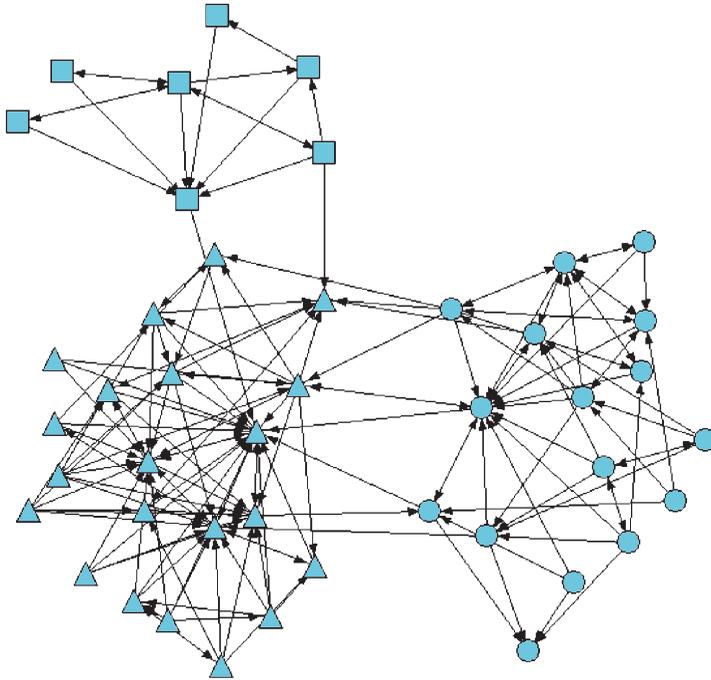
APPENDIX

About the Research

Our program of research used Organizational Network Analysis (ONA) to systematically analyze networks and turnover in ten organizations.

Our data are primarily qualitative (including observations, interview notes, and company communications) on how leaders interpreted the network results and formulated strategies to reduce the negative impact of turnover in their organizations. We sought to distill our complex datasets into key themes and common approaches taken by leaders that were most powerful in accomplishing their goals, and that were most representative across the sample. While our sample is clearly a convenience sample and thus our findings may not generalize broadly, we believe that the novel implications for managerial practice provide important insights for managers and researchers alike; managers may find these insights valuable in their own efforts to enhance organizational per-

FIGURE A1.



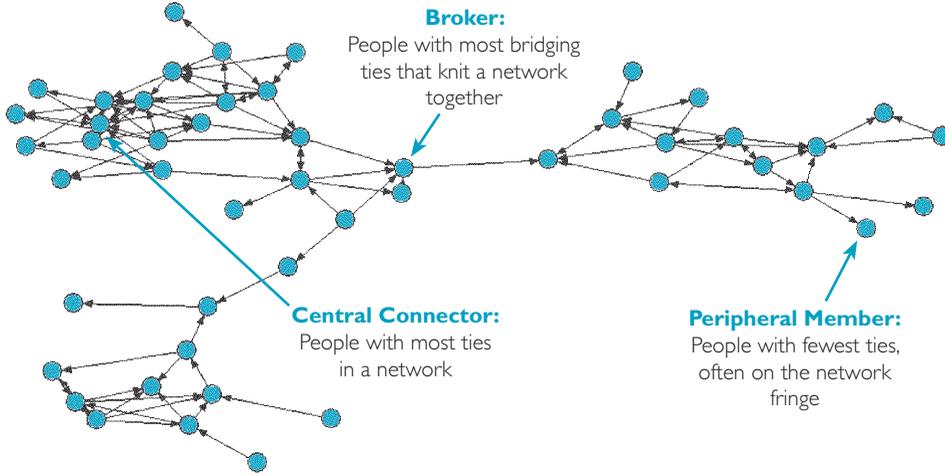
formance, and researchers may benefit from rich examples of strategies and tactics that might inform future efforts to validate issues like generalizability and moderating conditions in large-sample quantitative studies.

Each company analysis produced detailed observations of five to eight opportunities where improving collaboration would yield significant business impact. We then worked with each organization using the network data to: visualize collaborative loss when well-connected people departed; model network predictors of departure; and assess the effectiveness of network intervention strategies on turnover within each organization.

ONA, also known as Social Network Analysis, is a well-established method for analyzing relationships and collaboration within an organization. Data are typically collected through surveys in which respondents are asked questions like: “Please indicate the degree to which you typically turn to each person below for information to get your work done” or “Please indicate the degree to which you seek each person out for input or approval prior to making key decisions in your work.” A survey asks several of these kinds of network questions, which can then be analyzed to assess collaboration both visually and quantitatively.

For each network question, diagrams are generated that provide a kind of X-ray of collaboration. For example, the network diagram in Figure A1 shows

FIGURE A2.



information seeking among employees in a global technology function. Here the lines reflect information flow, the nodes are people, and the node shape reflects function. Using visualization software, leaders can dynamically navigate the networks within and across core attributes (location, hierarchy, function, and expertise often fragment networks at key points that executives care about).

The three units shown below were tasked with working together on a range of joint projects, but it is clear that their approach to collaboration involved selecting a few people to work as brokers, while the majority continued to work within their existing structures. This strategy is most obvious across the square and triangle interfaces, but even in the triangle/circle interface, only a few people on either side actively work across groups.

In addition to visualizations, a highly advanced body of statistics can be used to measure network cohesiveness, fragmentation points, and degree of connectivity of people or roles. We focused heavily on silos that undermined effectiveness (seen visually through shaped nodes in the network as well as counts of ties within and across functions, locations, hierarchy, or expertise). In addition, three roles in the network always yielded improvement opportunities—central connectors, brokers, and peripheral members (see Figure A2). Central connectors are people who have a large number of direct relationships and tend to represent either overload points or network susceptibilities should they leave the organization. Brokers are those who have ties across subgroups in a network and so are critical to leverage in change initiatives or efforts to integrate lateral networks like communities of practice. Peripheral people reside on the boundaries of the network and can be critical sources of innovation, but they may be newcomers who need help to become productive network members.

Notes

1. Estimates of direct costs range anywhere from a quarter to five times annual base salary to replace an employee, depending on who is being replaced—the higher the rank the higher the cost. See Carol Morrison, “If You’ve Got ‘em, Keep ‘em,” American Management Association’s Performance & Profits e-Newsletter, July 2006.
2. Organizational network analysis—also known as social network analysis—has enjoyed a rich research tradition within the fields of anthropology, sociology, psychology, and management. See, for example, N. Tichy and C. Fombrun, “Network Analysis in Organizational Settings,” *Human Relations*, 32/11 (November 1979): 923-956; N. Nohria, “Is a Network Perspective a Useful Way of Studying Organizations?” in N. Nohria and R.G. Eccles, eds., *Networks in Organizations: Structure, Form, and Action* (Boston, MA: Harvard Business School Press, 1992). Within organizations, network analysis has helped advance scholarship on such issues as power [D. Brass, “Being in the Right Place: A Structural Analysis of Individual Influence in an Organization,” *Administrative Science Quarterly*, 29/4 (December 1984): 518-539; M. Burkhardt and D. Brass, “Changing Patterns or Patterns of Change: The Effects of a Change in Technology on Social Network Structure and Power,” *Administrative Science Quarterly*, 35/1 (March 1990): 104-127], communication [P. Monge and N. Contractor, “Emergence of Communication Networks,” in F. Jablin and L. Putnam, eds., *The Second Handbook of Organizational Communication* (Thousand Oaks, CA: Sage, 2000)], the diffusion of innovation [E. Rogers, *Diffusion of Innovations*, 4th ed. (New York, NY: Free Press, 1995); R. Burt, “Social Contagion and Innovation: Cohesion Versus Structural Equivalence,” *American Journal of Sociology*, 92/6 (May 1987): 1287-1335], information flow [M. Granovetter, “The Strength of Weak Ties,” *American Journal of Sociology*, 78/6 (May 1973): 1360-1380; T. Allen, *Managing the Flow of Technology* (Cambridge, MA: MIT Press, 1977)], and social capital [J. Nahapiet and S. Ghoshal, “Social Capital, Intellectual Capital and the Organizational Advantage,” *Academy of Management Review*, 23/2 (April 1998): 242-266; R. Leenders and S. Gabbay, *Corporate Social Capital and Liability* (Boston, MA: Wolters Kluwer, 1999); D. Cohen and L. Prusak, *In Good Company* (Cambridge, MA: Harvard Business School Press, 2000)].
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23. Shaw et al., op. cit.
24. Our broader research shows that it is typical for 3% to 5% of the people to account for 20% to 35% of the collaborations. These people are often more likely to leave because many of them (usually more than half) are working selflessly to support colleagues but have not been able to get into the top talent lists within their organization. As such individuals begin

to feel unrecognized and underappreciated, they become more likely to leave and impose a significant cost on the network and their colleagues' productivity.

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