Measuring Telework ROI: Metrics Based on the Employee Life Cycle

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For several years, HR professionals have heard about the individual and organizational benefits of integrating telework into the work environment. ITAC, the telework advisory group of WorldatWork, broadly defines *telework* as *working from anywhere* and reports such benefits as higher organizational commitment, reduced employee absenteeism, increased levels of job satisfaction and reduced turnover rates among employees who telework (Davis and Polonko 2001).

These statistics are powerful because they provide concrete measurement outcomes of the organization's return on investment (ROI) related to telework. By creating and tracking these metrics and measurements, organizations can clearly illustrate the benefits they receive from providing and supporting telework, whether it is via a formal program or informal process (See Figure 1 on page 7.). Whether a program is formal or informal, metrics are the strongest evidence telework supporters can collect to persuade key stakeholders to support and fund remote-work initiatives.

Unfortunately, most organizations do not track telework's ROI, whether the program is formal or informal. Fundamentally, metrics are overlooked for three reasons:

▶ lack of measurement expertise/know-how
▶ they are viewed as labor-intensive and

FIGURE 1	Formal Versus Informal Telework	
Formal	Informal
Policies and Procedures	No Policies and Procedures (Ad hoc)
Training	No Training
Accountability at the Individual, Departmental and Organizational levels	Accountability: None or Individual
Designated Funding	No Designated Funding

▶ lack of accountability regarding telework within the organization.

Lacking key indicators of success, it is unsurprising that many pilot telework programs fail to move to full implementation, existing programs fail or informal telework becomes the norm within organizations.

Given telework's identified benefits and the challenges of measurement, this paper provides guidance on how to develop and track telework ROI—the key strategic benefits that a telework program can provide to an organization. The paper illustrates how to integrate telework measurement into existing HR measurement programs using a comprehensive employee life cycle model.

The Employee Life Cycle Measurement Model

Many *Fortune* 500 companies now have HR research functions in-house. Generally, the function of this job is to develop and implement measurement across the employee life cycle. While this practice is not universal in implementation, in theory it is a universally accepted concept. A few organizations have developed well-thought-out employee life cycle measurement systems with measurement tools dovetailing to tell a cohesive story of employee life from attraction to exit.

The nature of measurement is such that metrics are typically not developed at one period in time to measure across all employee life cycle phases. If the overarching model is in place, however, when metrics are developed, the model's architecture informs the linkage in the individual measurement tools. Because the practice of telework often is ingrained within the

fabric of an organization, leveraging measurement tools in place, or being developed, is the perfect opportunity to understand telework's impact within an organization.

The span of employees' engagement with an organization can be broken into four phases with each impacting organizational image: attraction, joining, performing and leaving the organization. Figure 2 on page 8, The Employee Life Cycle Measurement Model, adapted from Colquitt and Macey (2005), depicts these phases and the related processes that measurement during each phase can influence.

Starting at the top of the model, the first phase is *Attract*. This phase is coupled with recruiting metrics. Once an individual is recruited into an organization, the onboarding/*Join* process begins. Measurement around this phase of the relationship is typically associated with selection and socialization/onboarding assessment. The employee is then integrated into the organization and the focus becomes to *Engage* and Retain the individual, often the most measurement-intensive phase. Examples of measurement during this stage can be from early hire through retirement. These examples include: performance management, upward feedback and employee opinion surveys. The final phase for employees occurs when they *Leave* the organization. This phase is linked to exit measurements such as data gathered in exit interviews.

When a comprehensive employee life cycle model is used within an organization, information gathered during one phase may serve as feedback into any other life cycle phase, not necessarily simply looped back into the phase to which it is coupled. The circular arrows in the middle of the diagram illustrate this integrative process.

Using a life cycle model to develop and track telework metrics is helpful as it provides a logical framework for examining telework's impact on key organizational indicators. Additionally, the model helps ensure that the full ROI of telework is assessed because it covers all phases of employee experience. Finally, the life cycle

FIGURE 2 The Employee Life Cycle Measurement Model
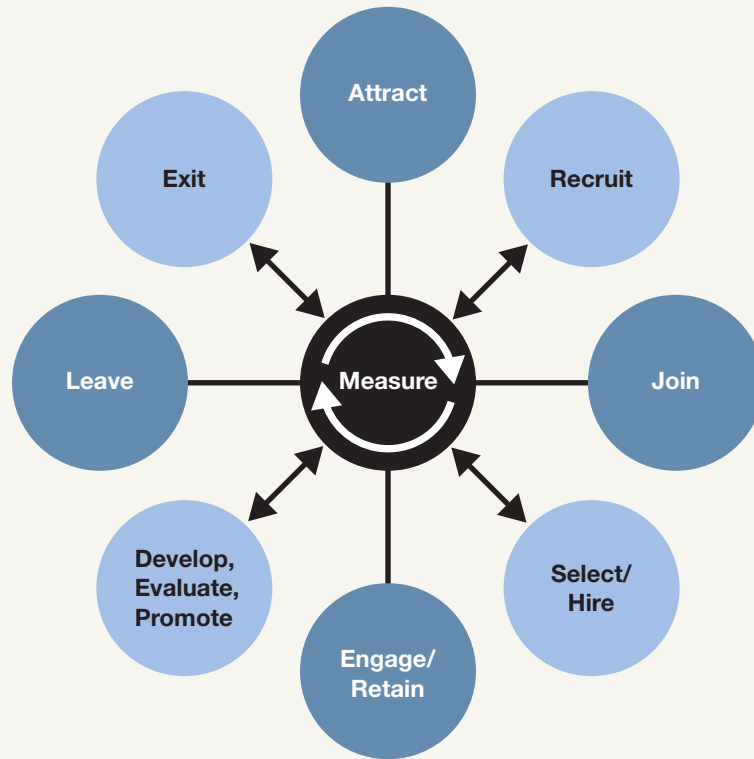
model provides both specificity in measurement (each of the four phases) as well as the "big picture" view that is essential in understanding any initiative's effect on the organization.

A Primer On Telework ROI Metrics

Metrics quantify the benefits of telework and, for a formal program, demonstrate return on investment. Anecdotal stories about how some employees like telework are helpful, but clear, hard numbers convince stakeholders to support telework.

Developing sound, reliable metrics to capture ROI often is perceived as an art form. Indeed, many organizations do not have adequate measurements in place because these efforts can be time- and resource-intensive. However, such effort is necessary because the only way an organization can measure its return on investment, or the benefits of a particular program, whether formal or informal, is by collecting specific, relevant data.

Fortunately, the Employee Life Cycle Measurement Model is an excellent guide for developing telework metrics. The four phases suggest not only what types of things or processes might be measured, but also where one can look to find those numbers. Using the model as a guide, the following steps provide a quick "how to" on developing the types of metrics that support and sustain telework efforts.

Step 1: Identify Strategic Initiatives

Metrics measuring return on investment must link to an organization's key goals. For example, if an organization is striving to be No.1 in its marketplace, then good ROI metrics are those demonstrating the organization's high-level performance. Specific metrics for this type of strategic goal might include data on employee productivity, customer satisfaction and product enhancements/quality improvements.

Thus, the first step is to examine the various initiatives

Although creating metrics may be more time-consuming, it's also an excellent opportunity to develop a custom measurement specific to telework.

and programs at an organization and determine which are strategic. Piggybacking on or leveraging these sorts of efforts ensures that key stakeholders are interested in the metrics that are to be tracked.

Next, consider how telework might positively impact these key initiatives and at what levels. The Levels of Telework Metrics box (See Figure 3) shows how measurements may be taken at different levels, from Individual to Community. Thinking about measurements in this way helps develop a list of the types of data that must be collected. With this in mind, move to the second step.

Step 2: Identify the Measurements Already Being Tracked

Most organizations already collect a great deal of data via ongoing events such as annual employee opinion surveys, employee performance reviews, customer satisfaction surveys, production data and so on. Explore the measurements the organization already tracks to see if any cover the type of data identified in Step 1. Existing measurements are particularly compelling because they can be used to develop "before and after" statistics to powerfully demonstrate the impact of telework.

If the organization doesn't track certain needed measurements, a variety of third-party sources provide relevant benchmarking data for similar organizations (See Figure 4). Although not as compelling as organization-specific data, they are useful and reliable.

Step 3: Consider Creating New Metrics

Possibly, an existing measurement is not tracking the data an organization is most interested in collecting. In this case, get creative and develop needed metrics. Although creating metrics may be more time-consuming, it's also an excellent opportunity to develop a custom measurement specific to telework.

FIGURE 3	Levels of Telework Metrics

Individual
▶ Job satisfaction, work-life balance, personal savings (time, car expenses, dry cleaning, etc.)

Team/Department
▶ Productivity, workgroup morale, quality

Organization
▶ Retention, customer satisfaction, positive public relations

Community
▶ Air pollution, traffic congestion

FIGURE 4	Sources of National and Industry Data

▶ United States Bureau of Labor Statistics — Household data, Annual Average and more http://stats.bls.gov

▶ CCH — Commercial Clearing House — Unscheduled Absence Survey http://hr.cch.com

▶ WorldatWork — Compensation, Employee Recognition, Performance Management and more. http://www.worldatwork.org

▶ The MetLife Study of Employer Costs for Working Caregivers http://www.metlife.com, click on MetLife Research Center

▶ Nobscot Corp. Retention Management and Metrics http://www.nobscot.com

No easy formula exists for creating metrics. It varies case by case, but two examples of creative metrics used by Wells Fargo (Pon-Gee 2004) follow:

- After launching an education/communication campaign to increase awareness of their wellness program, they tracked the spikes in Intranet usage on the Web page describing the program.
- To demonstrate the ROI of a company-sponsored weight loss program, they calculated how increased employee fitness saved them money through less need for and use of health benefits.

As can be seen from these examples, the types of numbers that can be tracked are unlimited. The more specific the data are to the telework program goals, the easier it is to demonstrate ROI.

Step 4: Link Metrics to Key Telework Program Events

Once the metrics to be tracked are determined, the final step is to determine when to take those measurements. For existing metrics, measurement may occur at specific points in time (for example, the annual employee opinion survey is done in the spring, performance reviews are done twice a year) so, to some extent, the usual timing of those events limits the collection.

For metrics specifically evaluating telework's impact, there are several moments when measurements are taken, such as:

- Before/after implementing a telework pilot program
- Before/after expanding a telework program
- Before/after a key program event (for example, a specific communication, training program, rollout of new equipment, workplace utilization study)
- Before/after a key organizational event (for example, downsizing, hiring campaign, introduction of a new product)
- Any of the previous four points can also be done at predetermined specified time periods (for example, at six months, 12 months, 18 months after an event occurred), meaning a "before" measurement is unnecessary to obtain meaningful data.

It is possible to use these measurement moments with existing metrics too; it may simply take a little more organization or time.

Here is a note on metrics for formal versus information telework. Measuring ROI when a formal telework program is in place is easier as metrics tie to the program's goals and evaluation process. However, it is also possible to provide outcome measures for informal telework. The most direct way to do this is to add a demographic question to existing measurement tools. Doing this enables program evaluators to compare teleworkers versus nonteleworkers on a variety of dimensions. Although one must be cautious when drawing conclusions from these data (that is, such data

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do not prove that telework "caused" any group differences), these data are still useful and appropriate for evaluating telework benefits.

The challenge with measurement of informal programs is gathering data regarding the investment made (the inputs) by the company to support telework. A little creativity may well be necessary to put numbers to these inputs. Examples of costs possibly relevant to informal telework include:

- ▶ Hardware or software provided to informal teleworkers
- ▶ Company-funded home phone lines, broadband, cell phones
- ▶ Workplace utilization (the time where the worker is present in the workspace divided by the time the workspace is available).

Finally, be sure to get approval and buy-in on the metrics *before* tracking them. This ensures that stakeholders will "buy" the numbers that result from measurement efforts.

Telework ROI According To Employee Life Cycle

Having discussed the Employee Life Cycle Measurement Model as well as the general process for developing telework metrics, the next step is to join the two. This section discusses the life cycle model and identifies potential telework metrics for each key phase.

Attract

Measurement of the employee life cycle and the impact of telework begins before an employee becomes an employee. The attractiveness of an organization — its image — is composed of many aspects and can be measured through marketing research with prospective employees, such as students on campus. The goal is to assess the viability of an organization's employment offer. In other words, what attracts a candidate to consider employment with a firm? Understanding this relationship enables an organization's recruiting

function to build capabilities by attracting the right candidates.

In terms of telework ROI, organizations spend a great deal of money creating a positive image that will attract new employees and retain existing ones. For example, companies strive to be on a variety of "Best Companies" lists, from *Fortune's* 100 Best Companies to Work For and to Best Companies for Working Mothers to the U.S. Environmental Protection Agency's Best Workplaces for Commuters. Interestingly, the top 10 companies on these types of lists usually have at least one thing in common, they offer some form of remote-work/telework program. They know that offering such programs provides a positive return on investment for their public relations and image-making dollars. In fact, a recent study quantified just how profitable being a "Best" company can be.

The study found that the "100 Best" portfolio, adjusted annually to reflect changes to the list between 1998 and 2004 and provided a cumulative return of 176 percent, compared with lesser gains of 42 percent for the U.S. equity market portfolio, and 39 percent for the S&P 500. An initial investment of $1,000 on Jan. 1, 1998, in publicly traded companies on the "100 Best" portfolio, adjusted annually, would have risen to $2,760.04, versus $1,415.62 for the U.S. Equity market index and 1,387.70 for the S&P 500, by Dec. 31, 2004 (*Silicon Valley/San Jose Business Journal* 2005).

Demonstrating through reliable data that telework helps an organization be one of the "Best" can be a key return on investment metric. Additionally, telework is linked to a variety of attraction and recruiting benefits.

- ▶ IBM's retention rate among teleworkers is the highest for employees in alternative work arrangements and is sharply higher than nontelework employees (ITAC Case Study: IBM).
- ▶ With its telework program in place, KCTS, a nonprofit company, found more success recruiting new employees under a lower wage structure (ITAC Case Study: KCTS).

Figure 5 presents examples of metrics that can be tracked during the Attract phase of the employee life cycle.

Join

Once an individual is attracted to an organization, and he/she has the capabilities needed within that organization, an offer usually is extended. During this employee life cycle period, several opportunities exist for measurement. An often-overlooked opportunity is assessing what prompts an individual to either accept or decline an offer that the organization made. Regardless of choice, this information is invaluable for those functions involved in employee selection/recruiting.

Additionally, during this phase it is important to understand how well the employee integration/ socialization process is going. The first few months of employment can determine whether an employee chooses to stay with the organization or leave. At this time, it's important to measure whether expectations are being met and if the employee is feeling like a valued new team member. In addition, this holds an organization to the standard of "walking the talk" and a better understanding if recruiting promises are being achieved once an employee is hired.

In terms of telework ROI, many studies and surveys show that telework options and work-life programs are among the key reasons why individuals decide to accept or reject a job offer. For example:

▶ A survey on Ernst & Young's Web site (April 2003) asked, "When assessing a potential employer, which is your prime consideration?" The most popular choices were "training and development" and "salary." However, the third and fourth most popular choices were "company reputation" and "work-life balance options."

▶ The ITAC Telework America Survey found that 39 percent of workers who do not work remotely would like to do so; 13 percent of those workers would consider the ability to telework an important influence when making a decision to accept another job (Davis and Polonko 2001).

Additionally, once on the job, new hires are likely to have certain expectations about the availability of the promised flexwork options. Measuring telework participation can thus also provide an understanding of how well the organization is "walking the talk." Figure 6 provides examples of metrics that could measure telework's impact on the Join phase of the employee life cycle.

Engage

The third, and likely most measured, phase of the employee life cycle is when the organization strives for the employee to be engaged and successfully performing.

FIGURE 5	Examples of Attract Telework ROI Metrics (adapted in part from Cascio 1987)

▶ Number of applicants citing telework or work-life balance as reason for accepting job offer

▶ Number of new hires citing telework or work-life balance as reason for accepting job offer

▶ Number of applicants for vacancies

▶ Number of open positions

▶ Readership of an advertisement

▶ Number of awards, honors or community-based accolades received

▶ Number of positive media citations

FIGURE 6	Examples of Join Telework ROI Metrics

▶ Number of applicants citing telework or work-life balance as reason for accepting job offer

▶ Number of applicants declining a job offer who cite telework or work-life balance as a reason

▶ Number of new hires citing telework or work-life balance as reasons for accepting job offer

▶ New hire turnover percentage

▶ Performance review of new hires who telework versus new hires who do not

▶ Multirater feedback ratings by peers of new hires who telework versus new hires who do not

▶ Performance or quality review of departments with managers who support telework versus departments whose managers do not support telework

Common measurement tools such as employee satisfaction, multirater feedback (360, upward feedback), performance management, and research identifying key attitudes and behaviors that drive satisfaction, commitment, retention, safety and performance are found in this bucket. The ultimate goal is to evaluate, develop and promote employees as necessary.

Due to the rich measurement opportunities during this cycle, incorporating measurement of telework success is easily accessible.

In the area of telework ROI, many studies show that teleworkers tend to be more satisfied with their jobs, their managers and their organization than are their peers who do not telework.

▶ Teleworkers at Eli Lilly & Co. were more satisfied with their supervisors than nonteleworkers, a key indicator of intention to stay at the organization (De Lay and Loverde 2003).

▶ A technology company found that 95 percent of teleworkers cited an increase in job satisfaction from being able to telework (Templar and van Zyll de Jong 2000).

▶ Sixty-eight percent of teleworkers surveyed in the ITAC Telework America study reported that the teleworkers were more or much more satisfied with their jobs since they began working at home (Davis and Polonko 2001).

Research also demonstrated that teleworkers tend to outperform their nonteleworking peers: .

▶ AT&T estimated that the productivity of teleworking employees increased from 15 percent to 20 percent as a result of enhanced morale, fewer meetings and fewer interruptions (Lusk 2002).

▶ Merrill Lynch estimates that in one year, each telecommuter saved it $10,000 in reduced absenteeism and employee retention (ITAC Case Study: Merrill Lynch).

A variety of metrics are available for tracking teleworking employees' performance and productivity (that is, how engaged they are). Figure 7 presents some examples.

FIGURE 7 Examples of Engage Telework ROI Metrics (adapted in part from Cascio 1987)

Engage-Performance Ratings
▶ Self-report measures
▶ Regularly scheduled employee appraisals
▶ Multirater (360) appraisals
▶ Upward feedback
▶ Number of planned and unplanned absences

Engage-Productivity Output
▶ Number of units produced
▶ Number of items sold
▶ Dollar volume of sales/amount of commission
▶ Number of letters typed/documents written

Engage-Quality Outcomes
▶ Number of errors/number of errors detected
▶ Number of policy renewals
▶ Number of complaints
▶ Rate of scrap, reworks or breakage
▶ Cost of spoiled or rejected work

Engage-Customer Outcomes
▶ Support Centers
  – Number of calls answered
  – Customer's average time on hold
  – Number of escalations
▶ Numbers or percentage of repeat customers
▶ Number of customers referred by other customers
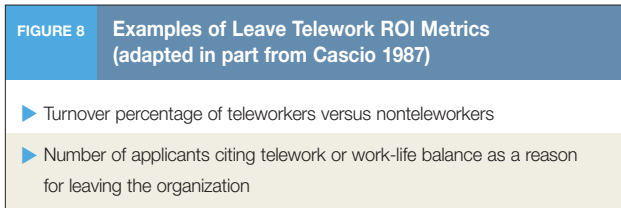▶ Customer satisfaction survey

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Leave

The final employee life cycle phase is when the employee leaves the organization. Understanding the circumstances under which one chooses (or is chosen) to exit an organization can be obtained through the exit interview process, exit surveys and/or retiree surveys. Once this information is gathered and understood, it can be looped back into the organization for action.

Related to telework ROI and as discussed in the Join section, many job seekers cite telework and work-life balance options as primary factors attracting them to an organization. It makes sense then that turnover among teleworkers is quite low, for example:

▶ ITAC's Telework America study found that 71 percent of teleworkers indicate that they are likely to remain with their employers (Davis and Polonko 2001).

▶ THOR, an online travel agency, saw its turnover rate

plummet from 45 percent to 3 percent after implementing a telework program *(Denver Business Journal 2003)*.

As Figure 8 shows, tracking turnover is the primary metric for the Leave phase of the Employee Life Cycle Measurement Model. However, this may be an ideal area to apply some creativity to processes or data gathering opportunities.

FIGURE 8	**Examples of Leave Telework ROI Metrics** **(adapted in part from Cascio 1987)**

▶ Turnover percentage of teleworkers versus nonteleworkers

▶ Number of applicants citing telework or work-life balance as a reason for leaving the organization

Conclusion

The Employee Life Cycle Measurement Model is a logical and easy-to-use guide to developing the kind of metrics that reveal telework's benefits within a specific organization. Each phase of the model — Attract, Join, Engage and Leave — suggests an opportunity for measuring the impact of telework on employee attitudes and organizational processes. Integrating telework metrics into this ongoing flow increases the legitimacy and relevance of measurement and helps make the data collection process seamless. Additionally, the comprehensiveness of a life cycle model helps ensure that a company taps into the full realm of possible telework benefits. Organizations implementing measurement around the employee life cycle have built-in learning opportunities that can provide a competitive advantage.

Taking the effort to develop sound telework metrics is worthwhile because whether leveraging existing data or creating new metrics, the most persuasive data are those that are specific to an organization's employees and strategic goals. Using metrics will help clearly demonstrate the return on investment this type of work arrangement (formal or informal) provides. **WJ**

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