

Evaluation Guide: Evidence-Based Strategies to Capture the Benefits and Costs of Work-Life Programs



BACKGROUND

In July 2016, the Government Accountability Office (GAO) released a report, [Federal Telework: Better Guidance Could Help Agencies Calculate Benefits and Costs Incurred \(GAO-16-551\)](#). GAO reported that only a few of the Federal agencies sampled for the study had data to support the costs and benefits associated with their telework programs. As a result, GAO recommended that OPM provide clarifying guidance to all Government agencies on how to strategically evaluate telework programs. Subsequently, OPM elected to broaden the scope of the recommendation to include all work-life programs, and present it in the form of this guide.

Today's Federal workforce strives to fulfill performance expectations while maintaining personal lives and commitments outside of work. Work-life programs are vital, and public and private sector research consistently demonstrates that these programs directly affect recruitment, retention, performance, and employee engagement. According to [OPM's 2018 Federal Work-Life Survey Report](#), Federal employees who used work-life programs in their agency reported their participation increased their performance, morale, health, ability to manage stress, and increased their intent to remain in their agency. Additionally, those who participated in telework, work schedule flexibilities, or health and wellness programs were more likely to be satisfied with their jobs compared to employees who did not participate.

“Federal employees who used work-life programs in their agency reported their participation increased their performance, morale, health, their ability to manage stress, and increased their intent to remain in their agency.”

There is significant evidence that highlights the benefits of work-life programs, however, agency guidance and information is limited. Evaluation of these programs has historically been unsystematic and based primarily on anecdotal evidence and/or the desire to “do the right thing,” which impacts the agency’s ability to make effective, data-informed decisions on how to efficiently invest in work-life efforts. In applying work-life programs within the government, we must take seriously our responsibility to do so consistently with the best interest of the American people we serve.

HOW TO USE THIS GUIDE

Evidence-based evaluation strategies can demonstrate the value of Federal work-life programs while increasing the likelihood of financial and organizational support. The term ‘evidence’ in the context of this guidance refers to quantitative and qualitative data used to estimate the costs and benefits associated with work-life programs.

Agencies can use the evidence-based evaluation strategies in this guide to:

- Define benefits of continued program use
- Determine program effectiveness
- Understand and measure goal achievement
- Make program improvements or changes

In an effort to assist agencies take action on these strategies, this guide includes Agency Insights, which are real world examples of practical challenges and successes. The featured agencies and programs highlighted in this guidance are: the United States Patent and Trademark Office (USPTO) – Telework; the Centers for Disease Control and Prevention (CDC) – Worksite Health and Wellness; and the National Institutes for Health (NIH) – Family and Dependent Care.

LOGIC MODEL

The Conceptual Logic Model to Capture Program Benefits and Costs (see Figure 1).

Like all human resource programs, work-life programs require a strategic effort for change. The logic model below (see Figure 1) is a roadmap for understanding the evaluation process and goals and objectives guiding agency efforts to implement and sustain work-life programs. The logic model includes two central components that are intended to occur in order, Inputs and Outputs.

Inputs are the resources and critical activities that go into a program. Outputs are the direct results or products that result from the activities of program participants. For the purposes of this guidance, outputs can also be considered as the increased capability to effectively evaluate program impact.

Reading the logic model from top to bottom and left to right, the user performs a series of sequential steps to identify and assess the basic components of the program – from the initial strategic planning through strategic evaluation activities. These steps are not always linear and are often completed in a back-and-forth effort overtime. For each step, the user applies a chain of reasoning focused on identifying inputs and outputs to determine the appropriate strategic activities. The logic model is discussed in detail throughout the guide to identify program evaluation activities and illustrate the relationship between them.

Figure 1: Conceptual Logic Model to Capture Program Benefits and Costs



STRATEGIC PROGRAM PLANNING

Strategic program planning starts with organizational leaders establishing the organizational goals, objectives, and initiatives. These goals align with the organization’s mission. Supporting objectives for these goals may include the optimization of performance, recruitment and retention of talent, and the flexibility needed to adapt to rapid change.

Step 1: Identify Business Needs

The first step is to identify the business need and determine if a work-life program(s) is an appropriate solution or intervention. Business needs should be assessed at every organizational level, and each business unit may have its own unique needs for meeting organizational goals. Figure 2 includes examples of common business needs.

Figure 2: Business Needs



Step 2: Identify Employee Needs that May Influence Business Needs

It is critical to identify employees’ professional and personal needs in order to support the business goals of an organization. Leaders must understand employees’ needs and demonstrate support. Like business goals, employee needs are different at every level of an agency. Therefore, a “one-size-fits-all” approach in the development of work-life solutions and interventions is ineffective. Figure 3 provides examples of common employee needs.

“Leaders must understand employees’ needs and demonstrate support.”

Figure 3: Employee Needs



Step 3: Identify Work-Life Programs and Services that May Influence Employee Needs

While an agency’s next step is to identify work-life programs and services that positively influence employee needs, agencies should also consider business needs to determine if the program will help achieve the intended organizational goal(s). Specifically, what is the link between the program and the outcome that is to be achieved?

For example, is the goal to decrease attrition and increase productivity? Agencies can continue operations during emergencies (e.g., inclement weather) through the expansion of telework, thus meeting a business need.

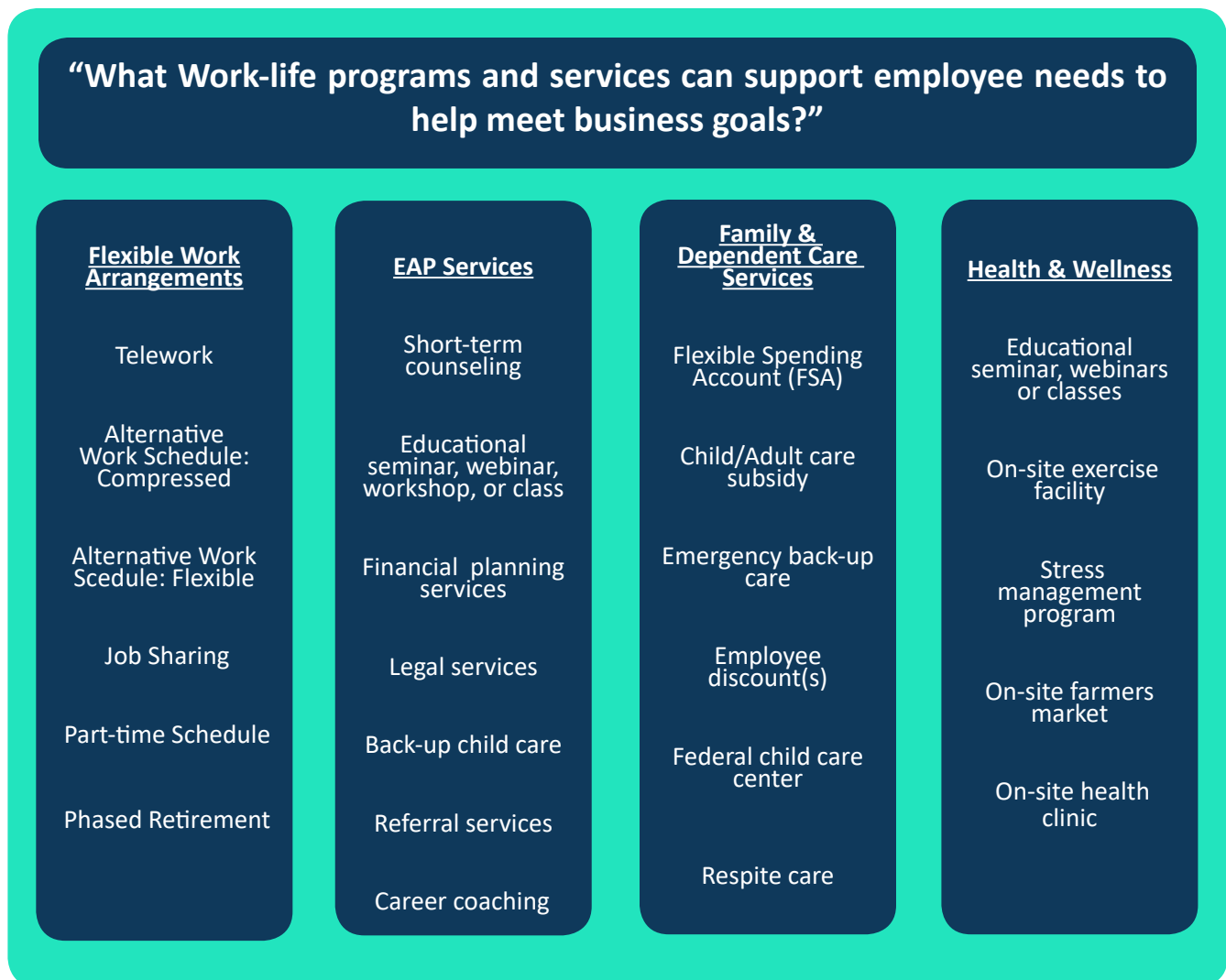
However, expanded telework also gives employees flexibility that promotes work-life support, meeting an employee need. The telework program and the benefits that it provides may also increase employee engagement and commitment, which can translate into decreased attrition. There is a link between the telework program and the organizational goal to decrease attrition and increase productivity.

Figure 4 lists a variety of work-life programs and services that support employees’ needs that also help meet organizational goals. In the context of this guide, work-life programs include telework and schedule flexibilities, family and dependent care (FDC) programs, employee assistance programs (EAP), and health and wellness programs. However, other types of work-life programs may also be applicable.

Step 4: Determine Method(s) to Capture Evidence and Results

Work-life programs are under increased scrutiny and need data-driven methodologies to show their need, as well as how they help accomplish organizational goals. Reliable data should establish a baseline measurement to help determine if there is a business need for a program. Baseline measurements can be taken before starting a program and then after the program is in place. Results can be compared to clearinghouses or consortiums that provide databases of employee attitudes (see the Benchmarking section on page 16). There are several evidence-based methods to choose from, and not all programs will use the same method.

Figure 4: Work-Life Programs and Services



Ways to Capture Data to Build Evidence

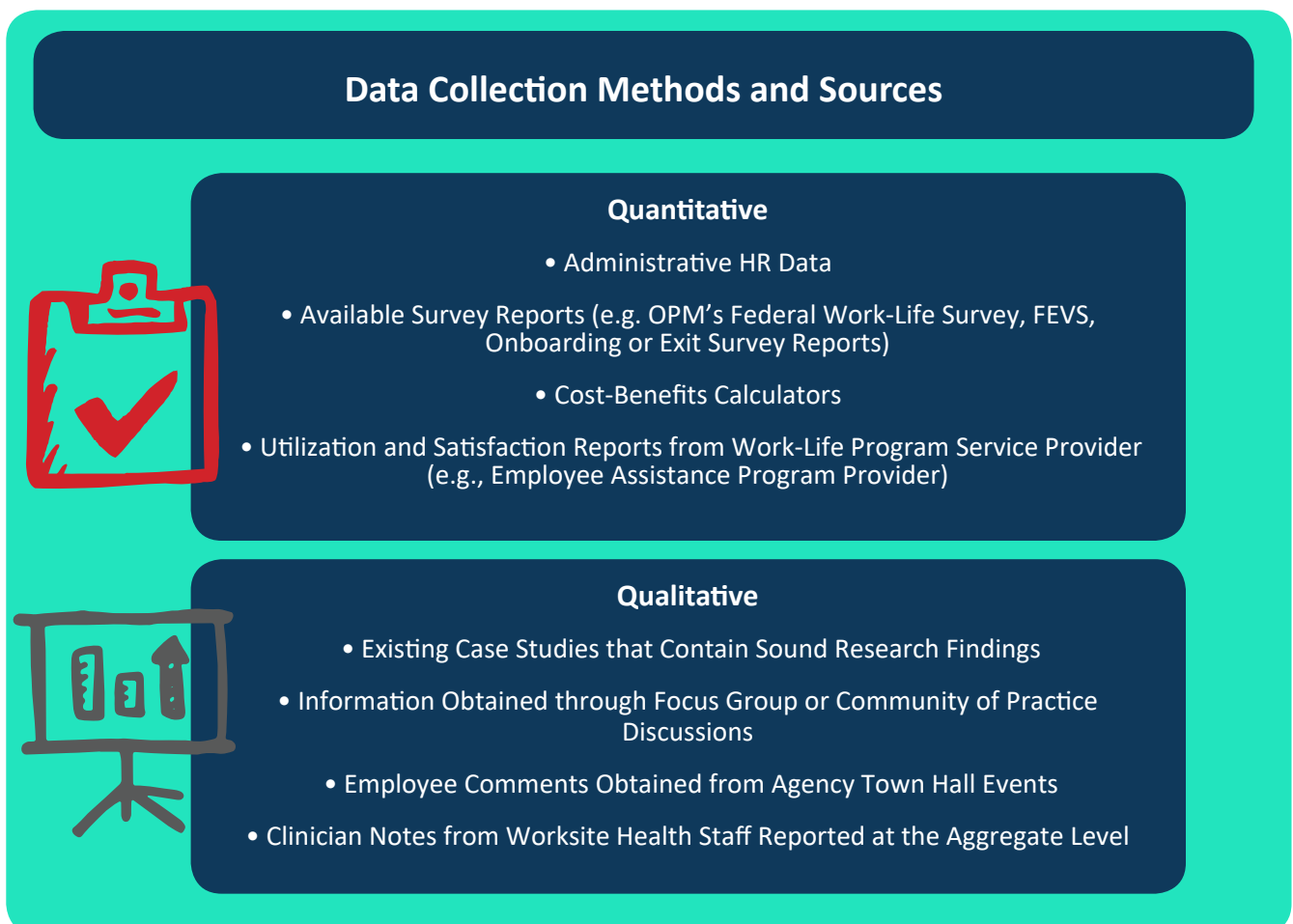
The data collection and analysis methods described in this guidance include quantitative data, qualitative data, or a combination of both. Every effort should be given to obtain data from existing sources in order to maximize the efficiency of data collection. Existing sources may include agency human resource data, survey reports (e.g., Federal Employee Viewpoint Survey (FEVS), OPM's Federal Work-Life Survey –program participation reports from a work-life program service provider). There are several data collection methods that can be used to obtain the information desired where there are no existing data sources (e.g., conducting focus groups, administering a survey). See Figure 5 for a full list of various data collection methods.

Administrative Human Resource Databases

Human resources information systems and databases provide useful data for work-life program evaluation. These databases may produce reports that contain:

- Program usage rates
- The number of employees in a targeted group
- Health insurance claims data
- Demographic information about employees who use specific programs
- Employee retention rates (which can be used to capture the cost of turnover)
- Performance appraisal ratings (which can be used to capture productivity)

Figure 5: Data Collection Methods and Sources



Work-Life or Benefits Service Providers

Agencies may be able to obtain aggregated claims data reports from health and benefits plan vendors. Agencies also have easy access to utilization and satisfaction reports, particularly if they work with work-life program service providers. This information should enable program coordinators to determine program value and impact. Note, the request for these type of reports is generally considered a reasonable request. However, all requests from a service provider are subject to each vendor's policy on sharing information, and the contract specifics.

Surveys and Focus Groups

Employee surveys are a common and effective way to obtain information not available in HR databases. Survey results from OPM's Federal Work-Life Survey or the annual FEVS are excellent existing data sources. However, developing a targeted survey may be necessary to obtain information that is not available from an existing source. Surveys can determine employees' intention to leave, perceived stress levels, and awareness and usage of particular work-life programs. Agencies can obtain valuable information through the use of open-ended questions.

Focus groups can provide useful information that individual survey data collection does not provide. Focus groups are helpful because the participants can be probed for the reasoning behind their opinions, and conversations can be generated around a particular topic—providing rich, qualitative information, as opposed to the limited answers received from survey questions.

Subject Matter Experts

Collaborating with subject matter experts can help obtain insights on costs, savings, and other benefits potentially associated with or influenced by a work-life initiative.

For example, a financial or budget analyst may be able to calculate the expense of average missed days of work for employees that experience unforeseen caregiving responsibilities. Likewise, Contract Officers can produce estimates or current costs to acquire a work-life program service provider. Facilities managers, Occupational Safety professionals, and many others offer the potential to provide data useful for on real estate and utility usage costs.

To determine which evaluation method(s) is the best for your program, it may be helpful to answer these fundamental questions:

- What is the scope of your program?
- What do you hope to achieve as a result of the program?
- What types of variables do you want to measure?
- Do you have a budget or time constraint that limits your evaluation options?
- Do you have the ability to conduct the desired evaluation method?

In most cases, information that helps an organization identify business goals and needs usually comes from an existing data source. For example, an agency's most recent annual Federal Employee Viewpoint Survey (FEVS) report may reflect a less than favorable employee engagement index score, low employee intent to remain in their agency, and low participation and satisfaction with the use of work-life programs. Such a finding may prompt agency leadership to initiate a strategic work-life program initiative aimed to increase retention (i.e., identifying employee needs and developing a strategy to fulfill those needs).

“Survey results from OPM’s Federal Work-Life Survey or the annual FEVS are excellent existing data sources.”

Figure 6: Agency Insights – Strategic Program Planning

Strategic Program Planning				
Agency	Identified Business Needs	Identified employee needs that may influence business needs	Identified work-life program(s) that may influence employee needs	Determine methods to capture business goals, employee needs, program cost, and benefits
U.S. Patent and Trademark Office (USPTO)	The USPTO mission is to deliver high quality and timely examination of patent and trademark applications. To support their mission, the USPTO strives to maximize productivity; recruit and retain talent; and avoid costs associated with real estate.	Telework enables the retention of highly skilled talent who otherwise may have left the agency (to be near family, avoid lengthy commutes, high real estate costs in the Washington metropolitan area or retirement). Also, telework can overcome geographical work space limitations and avoid costs by reducing the need for securing additional real estate.	USPTO identified telework as a means to attract and retain highly skilled talent while enabling its employees to meet the challenges of balancing work and life events. USPTO leverages common technology, including collaboration tools to support employee productivity, and ensures that its teleworkers remain engaged and connected to colleagues and managers.	Metrics: In addition to collecting data for the Telework Enhancement Act Pilot Program reporting (impact on agency efficiency, real estate, continuity of operations, transit subsidy, environment, salary), USPTO collects quarterly telework participation data for reporting to business unit heads, and agency telework coordinators. Annual surveys are conducted and analyzed to determine impact on business goals, employee needs, program benefits. Annual data related to real estate avoidance is also calculated.
Centers for Disease Control & Prevention (CDC)	To support CDC’s overall mission, the WorkLife Wellness Office (WVO) supports the health and well-being of the CDC workforce. WVO’s mission is to educate, engage, and empower CDC staff to live healthier and more productive lives at work, at home, and in their communities.	Employees desire productivity support; job satisfaction; physical wellness; and morale support.	CDC identified health & wellness programs as a path to model a comprehensive wellness program for the agency. This includes assessments, screenings, communications, programming, policy, evaluation, and partnerships.	Metrics: Scores (%) on federal and/or large benchmark organizational health Health Scorecard, HERO (Health Enhancement Research Organization), Agency Status of assessments (e.g., OPM, CDC Health Report reflecting responses from the Employee Viewpoint Survey, and program participation).
National Institutes of Health (NIH)	NIH strives to remain competitive in securing the most skilled and productive workforce required to further the NIH mission.	Employees desire to meet work and family responsibilities when care arrangements fall through and telework is not an option.	NIH identified back-up child and dependent care to allow employees to work when regular care provider is unavailable.	Metrics: Partnering with a work-life program service provider provides an opportunity to collect quarterly and annual reports on program participation, satisfaction, and missed work days avoided.

STRATEGIC PROGRAM IMPLEMENTATION

Step 1: Identify Resources to Initiate a Work-Life Program

Once a strategic plan is in place, the next step is to identify the resources needed to start or sustain a work-life program. These resources include the administrative staff required to coordinate and manage the program, and promotion and marketing efforts to ensure employees are aware of programs and services. Also, supervisors and managers must be trained to facilitate the program's use. In the case of telework, the Telework Enhancement Act of 2010 requires each agency to have an appointed Telework Managing Officer or Coordinator. In addition, participant training, technology and other equipment are required to ensure employees can effectively work off-site. Agency leadership must dedicate funding for these types of resources and staff support. See Figure 7 for additional categories of resources needed to start and sustain a work-life program.

Figure 7: Program Resource Categories

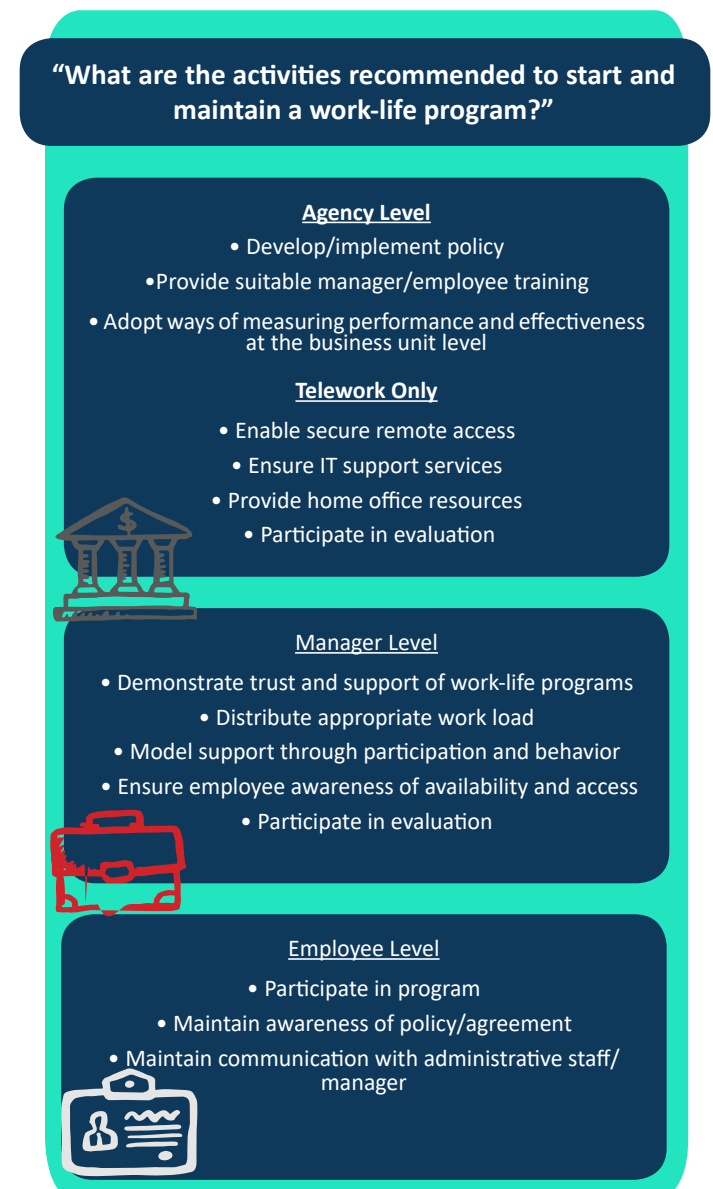


It is important to consult with the agency's finance office, Resource Officer, or other appropriate staff to assess the degree to which its budget can support the use of these resources.

Step 2: Identify Employee Needs that May Influence Business Needs

The allocation of resources is ultimately decided at the agency level by leadership. However, managers and supervisors have a responsibility to facilitate the use of programs and employees must be aware and empowered to participate. Likewise, HR professionals may be able to offer useful data analytics to develop targeted distribution of resources for efficiency. See Figure 8 for further examples of additional recommended activities to start and sustain a work-life program at various organizational levels.

Figure 8: Recommended Activities



Step 3: Calculate the Investment Costs

All resources can be considered as cost or investments made to achieve program goals.

Direct Costs: These costs are often one-time expenses associated with implementing or revamping a program. Examples include program fees, personnel salary, facilities, equipment, and employee incentives.

Indirect Costs: These costs are generally accounted for in existing operations, such as employee labor hours, utilities, communications materials, and data systems. You will need to determine if and when some new or pre-existing costs should be attributed to a work-life program. For example, computer equipment for teleworkers may already be factored into the budget of another department. In this case, the costs would not be within the scope of the work-life program.

Conducting a cost-effectiveness analysis identifies both the costs and benefits of work-life programs, and can be done at any time of a program's life cycle. Cost-effectiveness analyses are particularly useful when comparing work-life programs to determine which produces the greatest benefit for the least amount of money. See section on Strategic Evaluation on page 16 to learn more about cost-effectiveness analyses.

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Figure 9: Agency Insights – Strategic Program Implementation

Strategic Program Implementation				
Agency	Agency Level: Allocate and track resources to initiate work-life programs	Management Level: Implement programs to support business unit(s) and employee(s) needs	Employee Level: Receive program awareness and to meet work-life needs	Capture program cost and benefits associated with business and employee needs
U.S. Patent and Trademark Office (USPTO)	Initiated a pilot program designed to enhance cost savings and other efficiencies that accrue to the government. Leadership allocated resources for equipment and shipment costs, training, office space, transit subsidies, and travel costs for return trips to headquarters. Ensured that each business unit (patent examiners, trademark examiners, etc.) has its own telework program.	Managers develop skillsets specific to managing in a telework environment with training. They participate in sessions about effective virtual leadership. Managers are encouraged to identify opportunities where telework participation could be expanded in their business unit.	Telework awareness is created through the Telework Resource website, located on the USPTO intranet. Topics such as policy, business unit guidelines, training materials geared to supporting, employee engagement in a distributed environment, best practices, agency telework statistics, reports and white papers related to telework are also available.	Metrics: The 2017 TEAPP survey: supervisors of participants: 55% of supervisors reported that the ability of participants to balance work and family life was slightly or significantly improved. In FY 2017, the agency avoided securing \$46.2 million (annual) in additional office space (less hoteling office expenses) as a direct result of all of the USPTO’s hoteling programs.
Centers for Disease Control & Prevention (CDC)	Established an Executive Wellness Council consisting of high-level leaders to ensure support from the top to implement a comprehensive wellness program, which includes on-site fitness facilities, three annual wellness campaigns, seminars, access to healthier food options (cafeteria and vending machines), mental health counseling, flu vaccines, biometric screenings, and policies.	A Center, Institute and Office (CIO) level fitness challenge is initiated to help leaders demonstrate support for a culture of wellness.	CDC wellness staff promotes wellness programs through events, challenges, and campaigns. Regular and consistent communication to employees fosters an organizational commitment to employee health. Health campaigns and screenings are heavily promoted (flyers, emails, newsletters).	Metrics: Quarterly and Annual tracking of % participation (reach) of staff; Annual number of staff participating in on-site biometric screening events and health appraisals; Annual review of Agency Health Risk Status (low, medium, high according to health appraisals).
National Institutes of Health (NIH)	Child Care Board launched a Back-Up Care Program Pilot to assist NIH's diverse workforce with the competing demands of work and family responsibilities, especially those serving in critical roles such as patient care clinical studies and laboratory research.	NIH family/dependent care coordinator and supervisors provide employees with information on back-up care with the goal of reducing absenteeism.	NIH family/dependent care coordinator ensures that employees are aware of the service and explains how it can be used - they have a choice of taking leave or using back-up care. NIH conducted a Lunch and Learn video webcast, distributed flyers, hosted seminars conducted by the back-up care service provider, and planned multiple outreach events. This resulted in increased awareness (e.g., 9% increase in utilization rate during the second year of the Pilot).	Metrics: Worked with service provider to: <ul style="list-style-type: none"> • Determine the child care services program's return on investment (ROI) • Assess the current state of the child care services program • Benchmark NIH’s child care program against others deemed “best in class”. • Determine the future needs of NIH’s child care program. • Develop recommendations for program improvements.

STRATEGIC PROGRAM DEVELOPMENT

For the purposes of this guidance, *Strategic Program Development* is defined as the process of assessing the immediate outcomes associated with program implementation. Program assessments provide useful information that can lead to adjustments (development) and help achieve intended outcomes. Ongoing assessments and use of appropriate metrics allow an agency to check its progress at regular intervals and provide feedback about whether a work-life program can be enhanced, maintained, diminished, or eliminated. The frequency of program assessments varies and depends on the program, and can be driven by whether leadership requires ongoing justification for the investment in work-life programs. It is best to establish a good assessment strategy at the start of the program and track key metrics periodically (quarterly, annually, etc.).

Step 1: Evaluating Immediate Outcomes and Adjust Resources as Needed

The most challenging aspect of program evaluation is linking the data analysis to the bottom line or expectations. Specific evidence-based information is needed to measure progress and ensure program objectives are met. Program managers can use this information to determine the future value of a program, re-assess stated goals, and set new objectives.

Types of Evidence

The evidence used to determine program impact is classified into two categories, tangible and intangible.

- Tangible evidence is objective and observable. For example, retention and productivity rates are tangible because they can be measured and observed using an appropriate quantitative data collection methods (e.g., existing HR administrative data).
- Intangible evidence is subjective and experienced. For example, job satisfaction and employee morale are intangible evidence because they are often perception based and measured through the use of ad hoc data collection methods such as employee surveys and focus groups.

Both types of evidence are important because they work together. Tangible evidence is ideal to determine direct impact, whereas intangible evidence helps determine the validity of impact, and in some cases, influence the strength of impact. See Figure 10 for additional examples of both types of evidence and Figure 11 for agency examples.

Figure 10: Types of Evidence

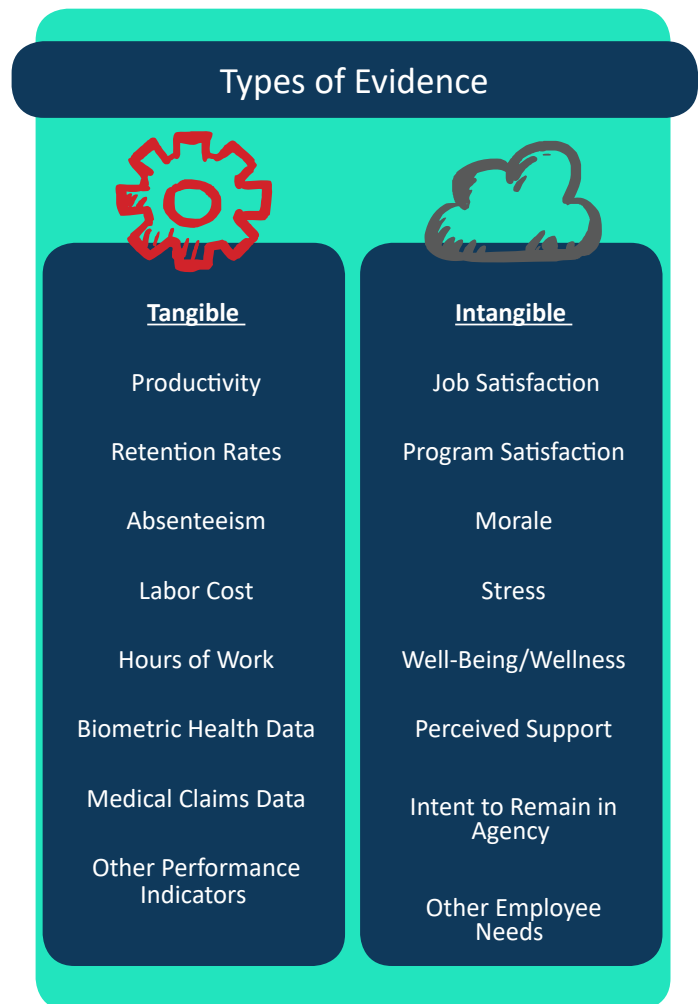


Figure 11: Agency Insights – Strategic Program Development

Strategic Program Development				
Agency	Agency Level: Availability of work-life programs	Management Level: Empowered to support business unit(s) and employee needs	Employee Level: Experience benefits of program participation to support needs	Assess employee participation, satisfaction, and business unit immediate outcomes
U.S. Patent and Trademark Office (USPTO)	Telework is a data-driven business strategy, which supports mission achievement and goal fulfillment via a distributed workforce. The Telework Program is aligned with the Strategic Plan's management goal of building and maintaining a flexible, diverse, and engaged workforce.	Managers review a quarterly balanced scorecard to ensure their business unit level telework program is aligned with the agency's goals. Telework data is gathered and analyzed quarterly. Annual Telework Enhancement Act Pilot Program (TEAPP) surveys have indicated enhanced job satisfaction and improved work and family life balance.	TEAPP survey: 98% of survey respondents felt that TEAPP had a positive impact on employee satisfaction. 93% reported that the option to participate in TEAPP would affect their decision to accept or not accept a position in future career choices.	Metrics: Annual TEAPP survey scores show improvement in job satisfaction and the ability to balance work and family. Analysis of efficiency data shows positive impact on productivity and real estate costs.
Centers for Disease Control & Prevention (CDC)	CDC established a culture where health promotion is a valued part of the normal work environment. This demonstrates concern for the health and well-being of employees, enhances the agency's competitiveness, engages employees, improves morale and productivity, and presents the agency as an attractive place to work. CDC workplace scores on the HERO (Health Enhancement Research Organization), Scorecard (a best practices indicator) are high compared to similar industry scores.	Management at all levels realize the immediate benefits of wellness and communicate the importance of health and wellness goals, objectives, and programs for employees.	Employees experience improved health, work-life support, job satisfaction, and well-being. Employees save money and time by using on-site services (e.g. fitness center, screenings and consultations) to manage their health and wellness needs.	Metrics: CDC measures and seeks to increase total reach and participation rates for events, challenges, screenings, and campaigns. Providing on-site screenings allows CDC to gather data, improve reach, and provide better customer service by making timely changes in response to direct feedback. CDC conducts a "hot wash" after each campaign to build in improvements for the following year. CDC partners with one third party insurer to obtain some health claims data.
National Institutes of Health (NIH)	NIH determines if the program is achieving the desired outcomes by conducting a needs assessment and benchmarking Survey of Child and Dependent Care programs. Evidence of strong participation and satisfaction with programs are good indicators of program effectiveness.	NIH coordinator is able to monitor, evaluate, and modify the back-up care program to ensure it supports the NIH mission and meets the needs of its unique workforce at the business unit level. Likewise, Managers are able to recommend the use of back-up care as a resource to employees in order to sustain continuity of operations and reduce absenteeism.	Employees have peace of mind knowing that they can continue with their important work when they could not have otherwise and that their family member will receive quality care. There is no restriction on where the family member is that needs care.	Metrics: Reports from NIH's service provider show that, whether employees use the program or not, it supports their work, effectiveness, and morale. The program benefits intramural, clinical, and extramural research programs because this important work can continue where it might otherwise be interrupted.

STRATEGIC PROGRAM EVALUATION

Effective work-life program evaluation includes the types of metrics valued to leadership, considers organizational goals and the value of the program, as well as funding and staff resources. Some evaluation methods are more complicated and time consuming than others.

Types of Evaluation Strategies

Benchmarking

Benchmarking describes research that compares one organization's business processes to those of a recognized leader in Federal Government or the private sector. For Federal work-life programs, benchmarking may be used to compare program implementation, delivery, operations, and outcome metrics. Benchmarking is often used to evaluate a work-life program against an industry standard, and can be used when developing a new program or revitalizing an old one. It is best to conduct benchmarking early in the Strategic Planning process so that program managers can make well-informed decisions.

This evaluation strategy can identify:

- What makes a program successful
- Potential areas of concern
- Ways to improve a program
- How to avoid costly mistakes

Benchmarking can also provide answers to the following questions:

- What did you do that worked?
- What did not work?
- What are the lessons learned?
- Where do I get my biggest “bang for the buck”?

As an example, one agency can interview another agency to determine the Employee Assistance Program offerings they include and make comparisons. Another example is to research how private sector organizations implement telework programs.

Agencies who use this evaluation method should consider leveraging Federal Communities of Practice (CoP), third parties (e.g. national clearinghouses) or vendors who have information on program participation rates, health risks, changes in health care expenditures, and Return on Investment (ROI). Best practices can become outdated, and programs evolve rapidly over time. For these reasons, benchmarking should utilize recent/current information. When using benchmarking, it is important to benchmark against an organization similar in culture, mission and workforce demographics.

Cost-Effectiveness Analysis

Cost-effectiveness, or value on investment (VOI), measures the cost of an intervention relative to its impact. It is usually expressed in dollars per unit of outcome (cost of the component divided by its outcome). A cost-effectiveness analysis estimates how much it costs for a program to achieve anticipated outcomes.

This method can be applied to any type of work-life program, but it typically is used to compare different ways to provide a service by estimating both the monetary cost and the amount of outcome expected to be achieved. While these evaluations estimate past effects (e.g., historical intervention data or industry benchmarking), the primary use of cost-effectiveness analysis is to estimate the future cost and future outcomes of each alternative being considered.

It is important to remember that cost savings are only one of the potential outcomes of work-life program implementation. An intervention with minimal cost-effectiveness may produce benefits that are substantial, but are not easily quantified (such as improved employee morale, retention, or employee loyalty). The VOI method takes into account measurements such as reduced absenteeism, increased productivity, turnover, reduced modifiable risk factors, and job satisfaction of employees who participate in the program.

Cost-Benefit Analysis

The Cost-Benefit Analysis evaluation method compares the benefits of a program to its cost. The purpose of this evaluation method is to determine the net benefit of a particular intervention, also called the Benefit Cost Ratio (BCR).

BCR supports evidence-based policymaking by identifying programs that can provide the greatest return on investment (ROI). Historically, the use of cost-benefit analysis with respect to Federal work-life programs has been limited. However, a growing number of agencies are using this approach to direct resources to programs that can deliver a strong ROI and demonstrate how a program helps the agency meet its objectives at a reduced cost.

BCR takes both effectiveness and costs into consideration. While it is helpful to know whether a program is effective, cost is also a valuable factor to consider. Similarly, knowing only a program's cost does not mean it will produce beneficial outcomes. For instance, a comparison of two effective work-life programs might reveal that the more expensive program did not achieve a greater ROI.

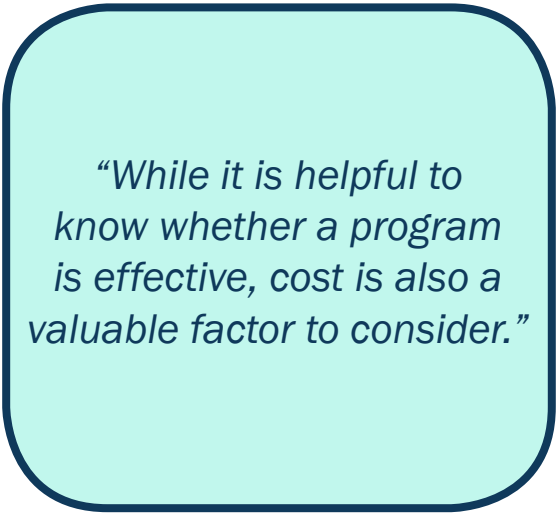
Calculating ROI is also important for determining whether up-front costs are justified. Keep in mind, however, that this evaluation method provides meaningful data to the extent that benefits can be accurately measured. The steps to complete a comprehensive Cost-Benefit Analysis include:

- **Identify Costs:** including upfront costs, technology, vendor fees, employee incentives, personnel salary, facility operations, and health screenings. This step requires an accurate calculation of the resources used in planning and implementing an intervention.
- **Identify Benefits/Savings:** such as fewer health care expenses, reduced sick leave, fewer injuries, increased service delivery metrics. This step requires identifying any tangible benefits that can be quantified and linked to the program.

If the value of the benefits minus the value of the costs is positive, then it can be assumed that the intervention is financially worthwhile.

Generally speaking, the higher the program participation rate, the better the ROI (i.e., more cost savings). For example, comprehensive health and wellness programs that target a variety of risk factors have better ROI because they target a wider population, thereby experiencing a higher program participation rate compared to a health and wellness program that targets only a specific intervention or population (e.g. high blood pressure).

Figure 12 provides agency examples of strategic program evaluation. Please see Appendix A for a detailed example of BCR and ROI.



“While it is helpful to know whether a program is effective, cost is also a valuable factor to consider.”

Figure 12: Agency Insights – Strategic Program Evaluation

Strategic Program Evaluation				
Agency	Agency Level: Improved performance and effectiveness	Management Level: Improved employee performance and engagement	Employee Level: Improved productivity, job satisfaction, and commitment	Evaluate impact on business needs (performance, retention, recruitment, etc.)
U.S. Patent and Trademark Office (USPTO)	Through the Telework Enhancement Act Pilot Program (TEAPP) USPTO is able to recruit and retain a larger and more capable nationwide workforce with lower space and administrative costs because of the flexibilities provided through the TEAPP legislation. Without the legislation, the agency may not have access to as deep and qualified of a pool of employee candidates due to the standard travel regulations that can contribute to recruitment and retention problems.	The TEAPP survey: Supervisors of Participants: 55% of supervisors reported that the ability of participants to balance work and family life was slightly or significantly improved as a result of participation in the TEAPP. Intangible benefits resulting from the TEAPP, such as increased employee satisfaction and enhanced morale, have had a positive impact on retention.	TEAPP has not only had a positive impact on employee retention but has also helped to ensure continued improvement in productivity. USPTO research has shown that patent examiners participating in a full-time telework program have, on average, a lower attrition rate than Patent examiners not on a full-time telework program. From 2008-2018, the overall attrition for full-time teleworkers has averaged 1.6% lower.	Metrics: Annual TEAPP Report is prepared annually for review by the TEAPP Oversight Committee, agency executives and GSA, the pilot program administrator. The report highlights the accomplishments of the TEAPP, provides methodologies used for evaluation, demonstrates the positive impact the TEAPP has had on agency efficiency, real estate, COOP, transit subsidy and the environment, and details the costs and benefits associated with the TEAPP.
Centers for Disease Control & Prevention (CDC)	CDC has evidence of the benefits that result from their health and wellness efforts. For example, results from the 2017 Federal Work- Life Survey show CDC’s strong participation in wellness programs have a positive impact on employee performance, job satisfaction, and retention at levels that exceed Government-wide benchmarks.	CDC management maintains productivity and continuity of operations. For example, providing flu vaccinations reduces the number of sick days used by employees based on vaccine effectiveness literature.	Employee participation in long-term wellness courses, coaching, and preventive counseling can lead to improved health outcomes. CDC’s most recent WellCheck Scorecard, which measures the impact of proven health promotion strategies on reducing the leading causes of preventable death and major illness, was 94%.	Metrics: CDC engages in benchmarking through score cards such as HERO (Health Enhancement Research Organization), OPM Work-Life Survey results, Federal Employee Viewpoint Survey results, and WellCheck. Also, identification of new diabetics via screenings is a cost saving measure. CDC uses health data changes to estimate potential cost savings.
National Institutes of Health (NIH)	The value of attending a critical meeting, participating in scientific review groups, conducting experiments, treating patients, and maintaining facilities is of much greater value than a day’s wage. The real Return on Investment for NIH is the commitment to support a workforce that deeply values its role in turning discovery into health.	An employee’s decision to use back-up care and pay an hourly rate instead of taking leave signifies determination to be present at work, which is the value of the investment. Managers are able to consistently maintain continuity of operations.	FEVS metrics such as satisfaction are improving. Internal surveys show high levels of user satisfaction and that employees would recommend the program to coworkers.	Metrics: NIH uses their service provider to produce cost effectiveness reports and, in part, cost-benefit analysis. NIH calculates the loss of work hours, which is measured by an employee’s pay and number of saved work days. NIH markets this program as an important component of its recruitment and retention efforts.

RECOMMENDED STEPS FOR FEDERAL AGENCIES

OPM recommends that agencies assess their current work-life programs to determine the extent their programs are aligned with the business goals of the organization and employee needs. This assessment should be conducted at the agency level and business unit level to ensure each goal aligns with unique needs. Furthermore, to develop strategies for program evaluation and data collection, OPM recommends:

1. Agencies acquire and develop the competencies required to conduct program evaluation, cost-benefit analysis, and/or data collection. Developing skills in these areas increases an agency's ability to effectively capture the costs and benefits of work-life programs, while also contributing to the evaluation of other initiatives.
2. Agency leadership and human resources professionals identify existing and current data sources and collection processes that are already in use at their organization. Identifying these sources (such as HR Information Systems and databases) may offer information to help evaluate the value of work-life programs with minimal use of resources.
3. Agencies identify and leverage external resources that contain useful data regarding performance, employee engagement, job satisfaction and other measures of interest that correlate with work-life program use (i.e., Federal Work-Life Survey Results, Federal Employee Viewpoint Survey Results, etc.).

NEXT STEPS FOR OPM

OPM is committed to help agencies advance various workplace flexibilities, cultivate positive work-life integration, improve recruitment and retention of talented employees, and create a high-performance culture. OPM intends to continue to:

1. Assess feedback from agencies to strengthen current and future guidance.
2. Highlight and share agency work-life best practices to assess program value.
3. Provide a guide highlighting best practices to advance work-life programs

APPENDIX A

Benefit-Cost Ratio Program Benefits

$$\text{BCR} = \frac{\text{Program Benefits}}{\text{Program Costs}}$$

A BCR of 1 (expressed as 1:1) means that the benefits equal the costs. A BCR of 2 (expressed as 2:1) indicates that for each dollar spent on the program, two dollars in benefits were returned. BCRs are usually used in the context of new or replacement programs. If a project has a BCR greater than 1, it indicates that the program benefits outweigh the costs. If the BCR is equal to 1, it indicates that the value of expected profits equal the costs. If a program's BCR is less than 1, the costs outweigh the benefits.

For example, assume an agency that subsidizes transit benefits decides to implement a pilot telework program. The agency has 100 employees who telework once a week with each saving \$20 per telework day in transit benefits. One GS-11 HR Specialist spends 1,000 hours per year tracking and managing the agency's telework program. The HR Specialist's fully-loaded hourly rate, including benefits, is \$35.00 per hour.

The program benefits are calculated as:

$$100 \text{ employees} \times 52 \text{ weeks} \times \$20 \text{ per day} = \$104,000 \text{ per year saved in transit benefits}$$

The program costs are calculated as:

One HR Specialist spending 1,000 per year at \$35 per hour = \$35,000 in administrative costs to develop and manage the program.

The BCR calculation is then:

$$\text{BCR} = \frac{\$104,000}{\$35,000} = 2.971:1$$

This means that for each dollar spent administrating the program, \$2.97 in benefits are realized in reduced agency-subsidized transit benefits for employees within the organization.

Return on Investment (ROI)

ROI, expressed as a percentage, is similar to BCR but reduces the program benefits by the cost of developing and managing the program. The ROI calculation is expressed in this formula:

$$\text{ROI (\%)} = \frac{\text{Net Program Benefits}}{\text{Program Costs}} \times 100$$

Net Program Benefits are calculated by subtracting the Program Costs from the Program Benefits. If the value of the benefits minus the value of the costs is positive, then it can be assumed that the intervention is financially worthwhile.

Using the same costs and benefits from the previous example, the ROI calculation would be:

$$\text{ROI (\%)} = \frac{\$104,000 - \$35,000}{\$35,000} \times 100 = 197\%$$

This means that with an ROI of 197%, the program costs have been recovered and benefits or “earnings” are almost 2 times the cost of managing the program.



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