

A Forrester Total Economic Impact™
Study Commissioned By Ceridian
November 2018

The Total Economic Impact™ Of Ceridian Dayforce

Productivity Gain And Cost Avoidance
Enabled by Dayforce

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ABOUT FORRESTER CONSULTING

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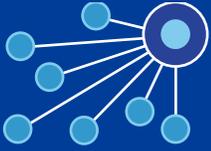
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Executive Summary

Main Benefits



Consolidation of multiple disparate on-premises solutions into

one cloud-based system



Payroll productivity gains:
50%



“With Dayforce, the HR team has significantly reduced time spent on administrative tasks. They can now focus on more strategic issues, like workforce planning, to keep a pulse on the growth and direction of their talent at an executive level.”

Senior HR manager of nationally recognized healthcare provider

One of the challenges that organizations face as they grow — whether organically or through mergers and acquisitions — is that they end up with a multitude of different technology solutions and processes serving a single business function. This is often the case for human resource management systems (HRMS) including core HR administration, payroll, time and attendance, benefits management, performance management, learning and development, talent acquisition, and onboarding. Consolidating all or part of the HR functions into one system can allow organizations to proactively manage their people, reduce costs, and realize productivity gains.

Dayforce® is a modern cloud human capital management (HCM) platform that provides end-to-end employee life cycle management delivered in a single software-as-a-service (SaaS) application. For a more detailed overview of Dayforce, please refer to the Ceridian Dayforce Overview at the end of this report.

Ceridian® commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) large enterprises may realize by deploying the Dayforce HCM solution. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of this kind of investment on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed a large physical therapy provider with several years of experience using the Dayforce platform. Prior to implementing Dayforce, the interviewed organization was using multiple workforce management (WFM) and HCM systems that were disconnected and outdated, with processes that were often paper and excel-based. This posed significant operational challenges as the business was growing at a rapid rate and employee headcount grew nearly 30% within five years.

Key Findings

Quantified benefits. The interviewed organization experienced the following risk-adjusted quantified benefits:

- › **Cost savings due to retirement of legacy systems (\$2,149,573).** With the introduction of Dayforce, the company retired its various legacy systems for benefits, recruiting, payroll, and time-tracking, resulting in direct cost savings.
- › **Payroll productivity gains (\$136,751).** The harmonization of protracted payroll processes into a single, real-time, and cloud-based platform led to a 50% improvement in the productivity of the payroll team, which translates into an increase in the ratio of employees per payroll staff from 1,800:1 to 2,700:1.
- › **Supervisor productivity gains (\$7,978,352).** On average, the 1,000 supervisors now each save 200 hours per year reviewing and approving time cards, allowing them to focus on patient care and business operations.
- › **Onboarding productivity gains (\$52,876).** The onboarding process, which was lengthy and paper-driven, has now become simpler and more efficient with the implementation of Dayforce. Not only has there been paper, printing, and follow-on cost avoidance, the HR team has also experienced handling time savings of 20 minutes per new hire, which is significant considering the annual average of 2,500 new hires.



- › **Improved tax and wage compliance (\$268,580).** Increased visibility and improved accuracy of payroll data allowed the company to not only better ensure compliance with regards to various state and tax authorities but to also avoid noncompliance fines. The single application provides better visibility and tracking for constant audits, reducing the risk of employee misclassifications and ensuring that the right pay and attendance policies are applied. This also lowers the potential risk of litigation.

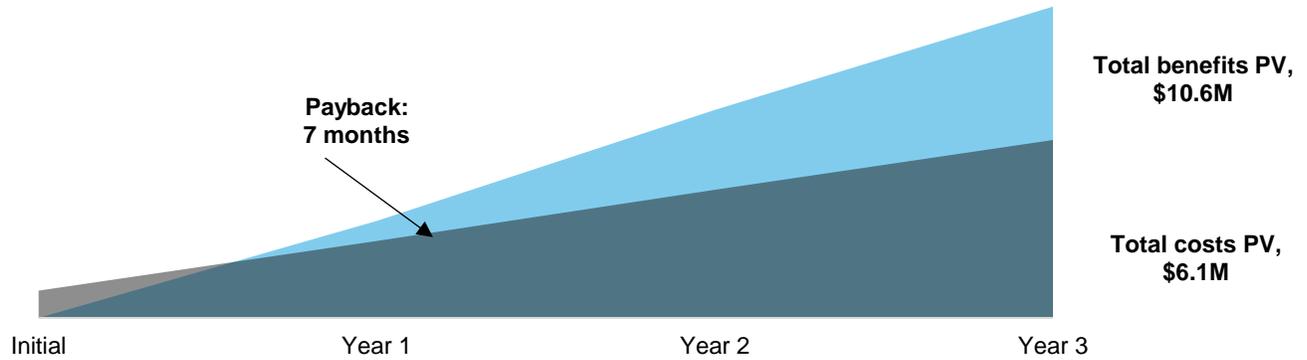
Unquantified benefits. In addition to the quantified benefits above, the interviewed organization experienced the following benefits, which are not quantified for this study:

- › **Improved employee experience.** Dayforce helped enhance the employee experience throughout the employee life cycle, from onboarding to annual year-end performance review. New hires are able to access orientation videos and information via the user-friendly platform before their official start date. The harmonization of time-tracking and payroll processes into a single, cloud-based platform with single sign-on functionality means employees save time and hassle on administrative tasks and issues. Employees also appreciate the structured and more transparent performance review process enabled by Dayforce. Readers interested in quantifying this area can consider a comparison of employee retention rates and improvements in onboarding time.
- › **Improved customer experience.** Prior to Dayforce, poor staffing often led to manpower shortages, which resulted in a spillover effect on customers, where long waiting times and missed visits were common. With the implementation of Dayforce, the finance analytics team is now able to better determine optimal staffing ratio and forecast labor growth, enabling the recruitment team to hire the required manpower to support the business and growth. Readers interested in quantifying this area should consider lost revenue in the form of customers who leave the queue due to long waiting times as well as the longer-term effect on customer loyalty and return frequency.
- › **Improved scalability.** Consolidation of multiple on-premises point solutions for payroll and time tracking into one single cloud-based platform simplified the integration of new employees coming from organic growth or future acquisitions. Readers interested in quantifying this area can consider this a future benefit or flexibility. The value would include the alternative cost to scale or bring on more users, whether that includes incremental hardware, software, or services.
- › **Costs.** The interviewed organization experienced the following risk-adjusted costs over the three years of this analysis:
 - › **Technology costs (\$5,062,176).** This study's cost model is built based on 8,100 users in Year 1 with organic growth factored into years 2 and 3. Readers are encouraged to reach out to Ceridian for a more tailored quote based on their needs and anticipated size of user base.
 - › **Initial setup costs (\$687,500).** The rollout of Dayforce took six months and required internal labour of around eight full-time employees (FTEs) – six of which are from HR and the remaining two are from IT.
 - › **Initial training costs (\$181,825).** These costs account for the time spent on initial training for the entire company. On top of a once-off onsite training for over four days, the estimated training costs also included 2 hours of training for 43 HR staff, 1 hour for 1,000 supervisors, and 30 minutes for the rest of the approximately 7,057 employees.

- › **Professional service costs (\$118,636).** The interviewed organization engaged professional services firms to support the initial implementation of Dayforce as well as provide ongoing consulting services.

Forrester's interview with this existing Ceridian customer and subsequent financial analysis found that the interviewed organization experienced benefits of \$10.6 million over three years versus costs of \$6.1 million, adding up to a net present value (NPV) of \$4.5 million, an ROI of 75%, and a payback within the first year after deployment.

Financial Summary



The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

TEI Framework And Methodology

From the information provided in the interview, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing Dayforce.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that Dayforce can have on an organization:



DUE DILIGENCE

Interviewed Ceridian stakeholders and Forrester analysts to gather data relative to Dayforce.



CUSTOMER INTERVIEW

Interviewed one organization using Dayforce to obtain data with respect to costs, benefits, and risks.



FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interview using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organization.



CASE STUDY

Employed four fundamental elements of TEI in modeling the Ceridian Dayforce impact: benefits, costs, flexibility, and risks. Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Ceridian and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Dayforce.

Ceridian reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

Ceridian provided the customer name for the interview but did not participate in the interview.

The Dayforce Customer Journey

BEFORE AND AFTER THE DAYFORCE HCM INVESTMENT

Interviewed Organization

For this study, Forrester interviewed a senior HR manager of a leading physical therapy company with over 830 clinics across 25 US states. The company currently employs approximately 8,100 people and is continuing its headcount growth on an upward trend by hiring more than 2,500 new employees every year.

Key Challenges

Over the past five years, the organization grew significantly through both organic growth and external acquisitions. Employee headcount grew nearly 30% within this five-year span, adding both employees and retail clinic locations at a similar pace across multiple states. Prior to investment in Dayforce, the organization was using various workforce management (WFM) and HCM systems that were disconnected and outdated, with processes that were often paper- and excel-based, resulting in the following challenges:

- › **Operational inefficiencies.** Multiple disconnected legacy systems, coupled with long-drawn, inefficient processes, resulted in a loss of employee productivity. Redundant hours were spent on manually entering, transferring, processing, and auditing data, with significant waiting time in between tasks. For instance, regular payroll runs, the opening of new branches, and the onboarding of several employees at once, were such tasks that often posed challenges. Essentially, HR staff were inundated with repetitive administrative tasks while other employees were often confused on how to complete processes in their various legacy systems.
- › **Lack of accuracy.** Due to limitations of the legacy systems — for example, challenges in properly calculating overtime according to the company's time-and-pay policies — supervisors and payroll staff had put additional audits and processes in place to avoid payroll errors as much as possible.
- › **Lack of transparency.** Reporting on WFM data prior to a payroll commit was challenging as it was impossible to monitor productivity outside of a two-week period. Also, paper-based performance review processes meant that employees did not have visibility of how performance is measured and translated into performance bonus.
- › **Difficulty in scaling up.** As business grew, the number of employees required to support the business growth increased. However, the disparate systems and inefficient pen-and-paper processes resulted in inconsistencies in the way HR processes were dealt with across the organization. For example, managers who had employees across multiple payroll or time-tracking systems had to apply different processes depending on which system or platform that respective individual was on. It was thus challenging for the business to scale up to keep pace with its strong growth.

“We used to have to import a new payroll file every two weeks for an updated benefits deduction. We do not do that anymore, since the benefits deduction just live in the system. “

Senior HR manager of nationally recognized healthcare provider



Solution Requirements

The interviewed organization searched for a solution that could:

- › **Provide a single, reliable, and integrated platform that would allow them to scale up quickly.** Instead of having multiple siloed HR systems, the provider wanted a single, integrated, and cloud-based solution that all employees could access with varying level of access rights. This single source of truth would eliminate the redundancies of transferring data or accessing multiple systems to match data. An integrated platform would also help them add new locations quickly, recruit talent, onboard employees more easily, and manage the employee life cycle as efficiently as possible.
- › **Streamline processes and improve employee productivity.** As the organization continues its growth trajectory, it is important to ensure consistency of processes across the organization. They wanted a platform that would ensure standardization of processes, improve operational efficiencies, and hence boost employee productivity. Such improvements would then allow HR staff to reduce their time spent on repetitive administrative tasks and focus on more strategic issues like workforce planning. For non-HR staff, reducing the burden of HR administrative tasks would also allow them to focus on their job of treating patients or managing business operations.
- › **Improve compliance with pay policies of different states.** Operating out of 25 states with individual local rules and pay policies meant that the organization needed an automated solution which could accommodate and ensure compliance to these different pay policies and relieve HR staff from manual reviews and audits.

“We never had a technology solution for performance management. With Dayforce, there is now greater visibility in the performance review and merit planning process, which helped to drive down attrition.”

Senior HR manager of nationally recognized healthcare provider



Key Results

Dayforce was rolled out over six months and required internal labour of around eight full-time employees — six of which are from HR and the remaining two from IT.

The interview revealed that key results from the Dayforce investment include:

- › **Consolidation of multiple HR solutions into one single, integrated system.** Dayforce replaced multiple legacy systems for payroll, time-tracking, recruitment, benefits, etc., and the retirement of these legacy systems resulted in direct technology cost savings. A consolidated HCM solution also enables HR staff to have greater end-to-end visibility of employees' journey.
- › **Employee productivity gains.** The implementation of a single, integrated, and cloud-based platform brought about productivity improvements throughout the organization. Payroll staff saw a 50% improvement in productivity: supervisors gain 200 hours of time review and approval savings and HR onboarding staff was able to reduce onboarding handling time by two-thirds. These productivity gains mean that employees are able to put these extra hours back into productive work.
- › **Reduced tax fines and wage litigations.** The interviewed organization reported that — due to better visibility and increased data accuracy — it was able to avoid tax compliance fines and wage litigations.

“Previously, employees had separate logins to remember for ATI networks, time clocks, and self-service. Now, they only need to remember their ATI network credentials with single sign-on.”

Senior HR manager of nationally recognized healthcare provider



› **Improved employee experience.** Implementing Dayforce has significantly improved how the organization communicates to its employees. The increased consistencies and efficiencies have helped to enhance the employee experience from onboarding all the way to the year-end annual performance review. New hires are able to access orientation videos and information via the user-friendly platform before their official start date. The harmonization of time-tracking and payroll processes into a single, cloud-based platform with single sign-on functionality means employees save time on administrative tasks and issues. Employees also appreciate the structured and more transparent performance review and merit planning process enabled by Dayforce as they now have greater visibility of performance ratings and how that relates to performance bonus.

Analysis Of Benefits

QUANTIFIED BENEFIT DATA

Total Benefits						
REF	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
At	Cost savings due to retirement of legacy systems	\$340,200	\$1,166,400	\$1,166,400	\$2,673,000	\$2,149,573
Btr	Payroll productivity gains	\$48,668	\$55,140	\$62,474	\$166,282	\$136,751
Ctr	Supervisor productivity gains	\$3,119,712	\$3,213,303	\$3,309,702	\$9,642,716	\$7,978,352
Dtr	Onboarding productivity gains	\$20,949	\$21,280	\$21,622	\$63,851	\$52,876
Etr	Improved tax and wage compliance	\$108,000	\$108,000	\$108,000	\$324,000	\$268,580
Total benefits (risk-adjusted)		\$3,637,528	\$4,564,124	\$4,668,198	\$12,869,849	\$10,586,132

Cost Savings Due To Retirement Of Legacy Systems

Prior to the introduction of Dayforce, the organization was using multiple systems from different vendors that only served specific HR uses and were disconnected and outdated. When the company migrated its employees over to Dayforce, it also retired the legacy systems that then no longer needed to be upgraded, maintained, and supported.

To estimate the associated IT cost savings, the following assumptions were made:

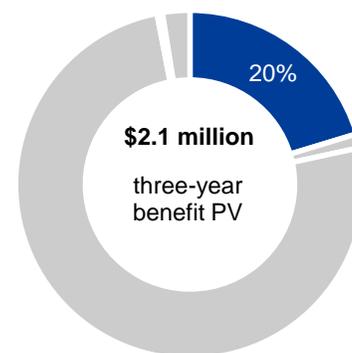
- › The benefits software was retired at the go-live date of Dayforce, i.e., the beginning of Year 1.
- › The recruiting tool had one license kept open for six months in Year 1.
- › The HR and payroll system, which was a smaller-scale solution under Ceridian, was kept running for Year 1 and was only retired at the beginning of Year 2 when all employees had been migrated to Dayforce.

The model accounts for a risk adjustment that could impact the value of benefits. Below are risks to keep in mind:

- › Uncertainty of avoided costs from other legacy systems.
- › Uncertainty of avoided upgrade and maintenance costs.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of \$2,149,573.

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the interviewed organization expects risk-adjusted total benefits to be a PV of approximately \$10.6 million.



Cost savings due to retirement of legacy systems: 20% of total benefits

Cost Savings Due To Retirement Of Legacy Systems: Calculation Table

REF	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
A1	Benefits software costs per year	Provided by customer	\$360,000	\$360,000	\$360,000
A2	Recruiting tool costs per year	Provided by customer	\$18,000	\$36,000	\$36,000
A3	HR & payroll system costs per year	Provided by customer	\$0	\$900,000	\$900,000
At	Cost savings due to retirement of legacy systems	A1+A2+A3	\$378,000	\$1,296,000	\$1,296,000
	Risk adjustment	↓10%			
Atr	Cost savings due to retirement of legacy systems (risk-adjusted)		\$340,200	\$1,166,400	\$1,166,400

Payroll Productivity Gains

Prior to the deployment of Dayforce, the organization had a centralized payroll team of four full-time employees. However, the team had to deal with inefficient processes and outdated systems that required redundant hours of work for entering and transferring data. Hours were often spent on transferring, calculating, and sending data to a mainframe for review before the transactions were audited. The process will then be repeated multiple times before a payment can be made.

With the consolidation of multiple point solutions into one single cloud-based platform and harmonization of processes, time-tracking and payroll processing is as easy as refreshing the real-time data that lives in Dayforce and viewing a pay preview without any downtime. The payroll team gained a 50% improvement in productivity, with an increase in the ratio of employees per payroll staff from 1,800:1 to 2,700:1. Furthermore, over 900 hours were saved on processing complex payment situations. The payroll team was thus able to reduce its headcount from four full-time employees to three. All in all, the average cost of payroll administration per employee decreased from \$40.06 to \$26.70.

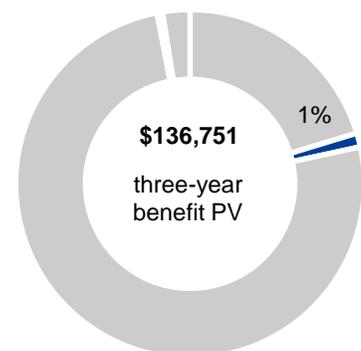
Readers should also note that Forrester adjusts productivity formulas with a productivity conversion ratio to be realistic and conservative in modelling. Productivity conversion describes that not every minute gained in productivity is put directly back into productive work — employees could use the time to take a longer break, leave work on time, etc. The productivity conversion ratio for this study is 50%.

Companies should also consider the potential impact of productivity and what it could allow employees to achieve (e.g., process an additional payroll, etc.). Forrester does not suggest speculating on the values of these potential actions and incorporating them into a ROI model, but companies should consider these as potential and flexibility factors.

The model accounts for a risk adjustment that could impact the value of benefits. Below are risks to keep in mind:

- › Variance in time spent on payment situations of different complexities.
- › Variance in number of employees with complex payment situations.
- › Variance in salaries of payroll employees.

To account for these risks, Forrester adjusted this benefit downward by



Payroll productivity gains: 1% of total benefits

10%, yielding a three-year risk-adjusted total PV of \$136,751.

Payroll Productivity Gains: Calculation Table					
REF	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
B1	Number of employees included in Dayforce	Year 1: provided by customer Years 2 and 3: $B1_{py} * 110\%$	8,100	8,910	9,801
B2	Pre-Dayforce number of employees for payroll	Provided by customer	1,800	1,800	1,800
B3	Pre-Dayforce number of payroll staff required	$B1/B2$	4.50	4.95	5.45
B4	Average employee fully loaded salary	Year 1: assumption Years 2 and 3: $B4_{py} * 103\%$	\$72,100	\$74,263	\$76,491
B5	Pre-Dayforce cost of payroll administration per employee	$(B3 * B4) / B1$	\$40.06	\$41.26	\$42.49
B6	Post-Dayforce number of employees for payroll administration per payroll staff	Provided by customer	2,700	2,700	2,700
B7	Post-Dayforce number of payroll staff required	$B1/B6$	3.00	3.30	3.63
B8	Post-Dayforce cost of payroll administration per employee	$(B7 * B4) / B1$	\$26.70	\$27.50	\$28.33
B9	Productivity conversion	Assumption	50%	50%	50%
Bt	Payroll productivity gains	$(B5 - B8) * B1 * B9$	\$54,075	\$61,267	\$69,415
	Risk adjustment	↓10%			
Btr	Payroll productivity gains (risk-adjusted)		\$48,668	\$55,140	\$62,474

Supervisor Productivity Gains

Front-line managers are not only at the helm of treating patients and ensuring successful business operations, but they are also responsible for managing their employees. The WFM capabilities of Dayforce, which drives real-time data and reporting, allow these supervisors to simply and accurately review and approve employees' time and attendance within a single system that employees can also easily access.

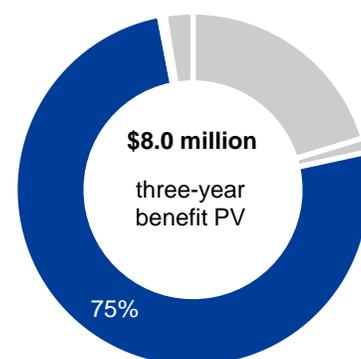
These 1,000 supervisors thus save up to 200 hours each per year, or an 83% improvement in time review and approval, based on the assumption of 240 pre-Dayforce time review and approval hours per supervisor. Readers should note that the assumption for pre-Dayforce time review and approval hours is made to illustrate the before and after-state of Dayforce implementation so as to highlight the productivity gain of 200 hours per supervisor attained by the interviewed organization.

A productivity conversion ratio of 50% is also applied in the calculation of this benefit, with the assumption that only 50% of the time saved will actually be converted into productive output.

The model accounts for a risk adjustment that could impact the value of benefits. Below are risks to keep in mind:

- › Variance in pre-Dayforce time spent on review and approval.
- › Variance in salaries of supervisors.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of \$7,978,352.



Supervisor productivity gains: 75% of total benefits

Supervisor Productivity Gains					
REF	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
C1	Number of supervisors	Provided by customer	1,000	1,000	1,000
C2	Pre-Dayforce time review and approval per supervisor (hours)	Assumption	240	240	240
C3	Post-Dayforce time review and approval improvement	Provided by customer	83%	83%	83%
C4	Post-Dayforce time review and approval per supervisor (hours)	$C2 * (1 - C3)$	40	40	40
C5	Average employee fully loaded salary	B4	\$72,100	\$74,263	\$76,491
C6	Productivity conversion	Assumption	50%	50%	50%
Ct	Supervisor productivity gains	$C1 * (C2 - C4) * (C5 / 2,080) * C6$	\$3,466,346	\$3,570,337	\$3,677,447
	Risk adjustment	↓10%			
Ctr	Supervisor productivity gains (risk-adjusted)		\$3,119,712	\$3,213,303	\$3,309,702

Onboarding Productivity Gains

Dayforce has been instrumental in recent onboarding efforts, as employees have been able to hit the ground running with a simple and efficient onboarding process that offers new employees user-friendly technology that does not require much training. The implementation of Dayforce thus provided the organization onboarding productivity gains in two key aspects: reduction in operational expenses and improvement in productivity of HR staff.

The reduction in operational expenses is attributed to cost savings from paperless onboarding packages. Prior to Dayforce, new employees are each provided with an onboarding package of approximately 50 pages. With Dayforce, the onboarding package is digitized, and new employees are able to access onboarding information even before setting foot into the company. The model leverages industry figures and assumptions for three categories of operational expenses:

At \$0.06 per page, the total paper and printing cost is \$3.00 per onboarding package. The storage cost per page is \$0.03 to account for filing cabinets needed. These printed documents are assumed to be lost 5% of the time, which then require reprinting and filing. The total storage and lost document cost per onboarding package is \$1.40. In calculating paperless cost savings, a 3% frequency and a 3-hour rework figure are typically included to account for time and effort needed to file and refile missing documents. However, in this study, misfiling cost is not factored in the calculation of reduction in operational expenses as it is assumed to be accounted for under improvement in productivity of HR staff.

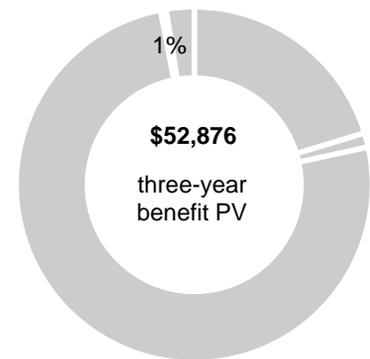
The improvement in productivity of HR staff is attributed to the improvement in onboarding handling time. Prior to Dayforce, HR staff used to spend about 30 minutes per hire on data entry, paperwork review, and policy and paper checklist sign-offs. With Dayforce, the time spent on onboarding each new hire from recruiting to orientation is significantly reduced to 10 minutes.

A paperless productivity contribution of 15% is applied to eliminate the productivity gain that is enabled by the eSignature solution. A productivity conversion ratio of 50% is also applied in the calculation of this benefit, with the assumption that only 50% of the time saved will actually be converted into productive output.

The model accounts for a risk adjustment that could impact the value of benefits. Below are risks to keep in mind:

- › Variance in number of new hires.
- › Variance in printing, storage, and lost document assumptions.
- › Variance in salaries by role.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of \$52,876.



Onboarding productivity gains: 1% of total benefits

Onboarding Productivity Gains: Calculation Table

REF	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
D1	Average annual number of new hires	Provided by customer	2,500	2,500	2,500
D2	Average number of pages per onboarding package	Provided by customer	50	50	50
D3	Paper and printing cost per page	Assumption	\$0.06	\$0.06	\$0.06
D4	Storage cost per page	Assumption	\$0.03	\$0.03	\$0.03
D5	Lost document frequency	Assumption	5%	5%	5%
D6	Total paper and printing cost per onboarding package	D2*D3	\$3.00	\$3.00	\$3.00
D7	Total storage and lost document cost per onboarding package	(D2*D4)+(D2*D3*D5)	\$1.40	\$1.40	\$1.40
D8	Total annual cost of onboarding packages	D1*(D6+D7)	\$11,000	\$11,000	\$11,000
D9	Pre-Dayforce HR onboarding handling time per employee (mins)	Provided by customer	30	30	30
D10	Post-Dayforce HR onboarding handling time per employee (mins)	Provided by customer	10	10	10
D11	Average employee fully loaded salary	B4	\$72,100	\$74,263	\$76,491
D12	Paperless productivity contribution	Assumption	15%	15%	15%
D13	Productivity conversion	Assumption	50%	50%	50%
D14	HR onboarding handling productivity gain	D1*((D9-D10)/60)* (D11/2,080)* (1-D12)*D13	\$12,277	\$12,645	\$13,024
Dt	Onboarding productivity gains	D8+D14	\$23,277	\$23,645	\$24,024
	Risk adjustment	↓10%			
Dtr	Onboarding productivity gains (risk-adjusted)		\$20,949	\$21,280	\$21,622

Improved Tax And Wage Compliance

An integrated, real-time, and cloud-based HCM solution enables a more rigorous, accurate and transparent way of calculating employees' overtime. Payroll staff are now better able to ensure proper application of company's time-and-pay policies and also have greater visibility over employees' pay and benefits eligibility. This helps to reduce the organization's risk of being drawn into wage and hour litigations.

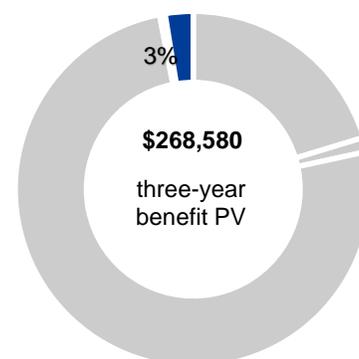
While, of course, the amounts at stake for such litigations vary significantly, for the sake of this business case, we assume as baseline a wage and hour settlement value of \$2.2 million, which corresponds to the median over the period between 2007 and 2015 in the US.¹ We further conservatively assume that Dayforce reduces the risk exposure by 5%.

In addition, the likelihood of incurring noncompliance fines from tax authorities is also reduced. For the sake of this case study, we assume that the organization avoids tax noncompliance fines of \$10,000 per year.

The model accounts for a risk adjustment that could impact the value of benefits. Below are risks to keep in mind:

- › Uncertainties in occurrence of fines and litigations.
- › Variance in tax-fine avoidance.
- › Variance in wage and hour litigation amounts.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of \$268,580.



Improved tax and wage compliance: 3% of total benefits

Improved Tax And Wage Compliance: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
E1	Estimated tax fines avoided	Assumption	\$10,000	\$10,000	\$10,000
E2	Median wage and hour settlement value	See endnote (1)	\$2,200,000	\$2,200,000	\$2,200,000
E3	Assumed reduction in risk exposure	Assumption	5%	5%	5%
E4	Improved wage and hour compliance	E2*E3	\$110,000	\$110,000	\$110,000
Et	Improved tax and wage compliance	E1+E4	\$120,000	\$120,000	\$120,000
	Risk adjustment	↓10%			
Etr	Improved tax and wage compliance (risk-adjusted)		\$108,000	\$108,000	\$108,000

Flexibility

The value of flexibility is clearly unique to each customer, and the measure of its value varies from organization to organization. There are multiple scenarios in which a customer might choose to implement Dayforce and later realize additional uses and business opportunities including the deployment of other Dayforce modules. However, at the time of the interview, the organization was particularly looking at the possibilities of:

- › Launching compensation management to grow their talent portfolio of products and to enhance performance management.
- › Implementing a minimum wage tool to automate the application of different time-and-pay policies.
- › Leveraging the solution for other use cases such as succession planning.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for a future additional investment. This provides an organization with the "right" or the ability to engage in future initiatives but not the obligation to do so.

Analysis Of Costs

QUANTIFIED COST DATA

Total Costs							
REF	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Ftr	Technology costs	\$0	\$1,856,131	\$2,041,744	\$2,245,919	\$6,143,794	\$5,062,176
Gtr	Initial setup costs	\$687,500	\$0	\$0	\$0	\$687,500	\$687,500
Htr	Initial training costs	\$181,825	\$0	\$0	\$0	\$181,825	\$181,825
Itr	Professional services costs	\$55,000	\$0	\$77,000	\$0	\$132,000	\$118,636
Total costs (risk-adjusted)		\$924,325	\$1,856,131	\$2,118,744	\$2,245,919	\$7,145,120	\$6,050,137

Technology Costs

Technology costs include the ongoing subscription costs of Dayforce for all employees. For this study, we model with 8,100 users in Year 1 with a 10% organic growth each year thereafter.

The model accounts for a risk adjustment that could impact the value of costs. Below are risks to keep in mind:

- › Variance in rate of organic growth.
- › Variance in subscription cost model.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of \$5,062,176.

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the interviewed organization expects risk-adjusted total costs to be a PV of approximately \$6.1 million.

Initial Setup Costs

Dayforce took six months to implement, with an initial implementation cost of \$345,000. Six HR employees and two IT employees were involved on a full-time basis.

The model accounts for a risk adjustment that could impact the value of costs. Below are risks to keep in mind:

- › Variance in salaries by role.
- › Maturity of existing processes and ease of transferring to new environment.
- › Complexity of environment and deployment.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of \$687,500.

Initial Training Costs

These costs account for the time spent on initial training for the whole company. The estimated training costs include an initial onsite training of four days, as well as 2 hours of training for 43 HR staff, 1 hour for 1,000 supervisors, and 30 minutes for the rest of the approximately 7,057 employees.

The model accounts for a risk adjustment that could impact the value of costs. Below are risks to keep in mind:

- › Variance in training needs and standing knowledge of Dayforce.
- › Variance in salaries by role.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of \$181,825.

Professional Services Costs

The interviewed organization engaged professional services firms to support the initial implementation of Dayforce as well as provide ongoing consulting services. The implementation consulting fees was a once-off cost of \$50,000 while the ongoing consulting fees of \$70,000 per annum will be incurred every two to three years.

The model accounts for a risk adjustment that could impact the value of costs. Below are risks to keep in mind:

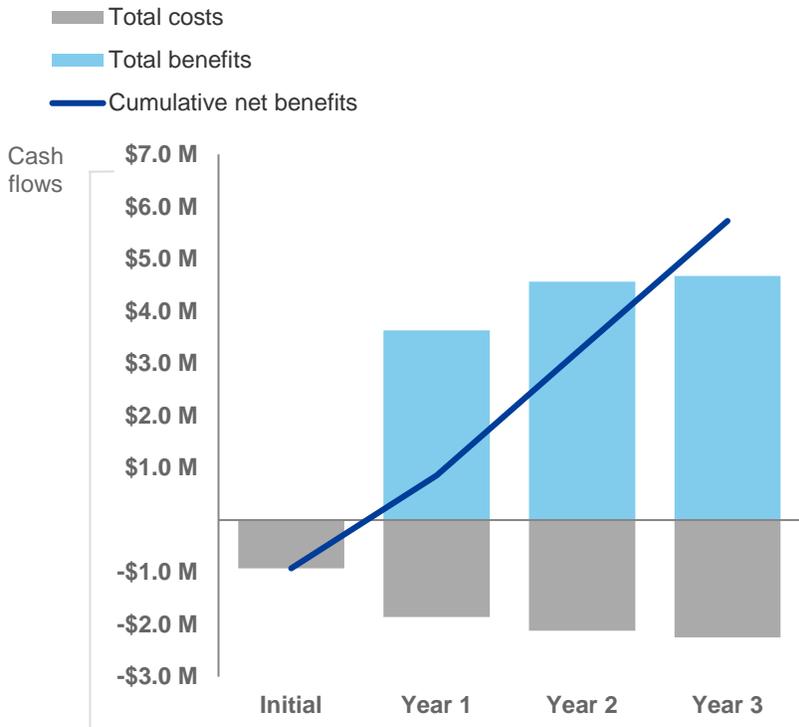
- › Maturity of existing processes and ease of transferring to new environment.
- › Complexity of environment and deployment.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of \$118,636.

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI and NPV for the interviewed organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.



These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	(\$924,325)	(\$1,856,131)	(\$2,118,744)	(\$2,245,919)	(\$7,145,120)	(\$6,050,137)
Total benefits	\$0	\$3,637,528	\$4,564,124	\$4,668,198	\$12,869,849	\$10,586,132
Net benefits	(\$924,325)	\$1,781,397	\$2,445,379	\$2,422,279	\$5,724,730	\$4,535,995
ROI						75%
Payback period						<7 months

Ceridian Dayforce: Overview

The following information is provided by Ceridian. Forrester has not validated any claims and does not endorse Ceridian or its offerings.

Dayforce is a global human capital management platform delivered in a single, reliable, end-to-end, SaaS application. The main characteristics include:

- › One employee record, which consolidates all HCM processes.
- › One user experience, providing a consistent and intuitive interaction for all users.
- › No interfaces among the native software modules, which results in ease of use, enhanced accessibility, and elimination of errors versus a mixed solution environment.

Dayforce aligns the needs and interests of employees, managers, and administrators to deliver better bottom-line performance. Built on the Dayforce platform, the application delivers human resources, payroll, tax, benefits, workforce management, and talent management, including recruiting, onboarding, performance management, compensation management, and learning and succession planning.

- › Employees get:
 - Modern software usability and mobility.
 - A one-stop shop for work-related information and transactions.
 - A consistent, easy-to-learn user interface.
- › Managers get:
 - Real-time access to reports and embedded analytics.
 - Flexible processes that allow for a more balanced work week.
 - Process automation and employee self-service to minimize administrative tasks.
- › Executives get:
 - Real-time visibility into key data across modules and geographies.
 - Quick implementations and high user adoption for rapid ROI.
 - A single application with consistent business rules, which ensures security and improves compliance.

Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

Total Economic Impact Approach



Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.



Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.



Flexibility represents the strategic value that can be obtained —for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.



Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on “triangular distribution.”

The initial investment column contains costs incurred at “time 0” or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.



PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.



NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.



RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.



PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendix B: Endnotes

¹ In the US, the overall 2007 to 2015 median of the settlement values for wage and hour litigations was \$2.2 million. Source: "Trends in Wage and Hour Settlements: 2015 Update," (http://www.nera.com/content/dam/nera/publications/2015/PUB_Wage_and_Hour_Settlements_0715.pdf).