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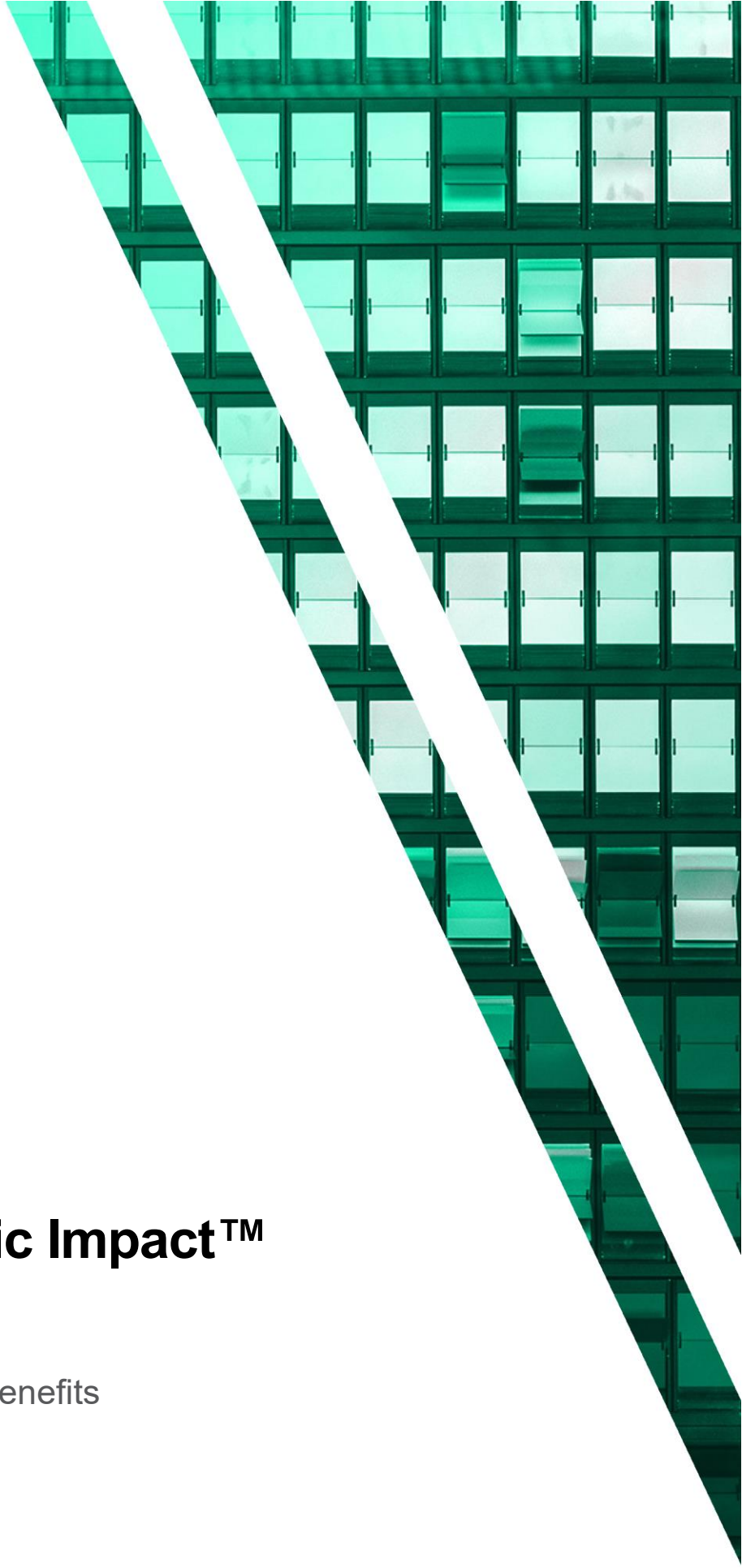

The Total Economic Impact™ Of Quinyx

Cost Savings And Business Benefits Enabled By Quinyx

OCTOBER 2022

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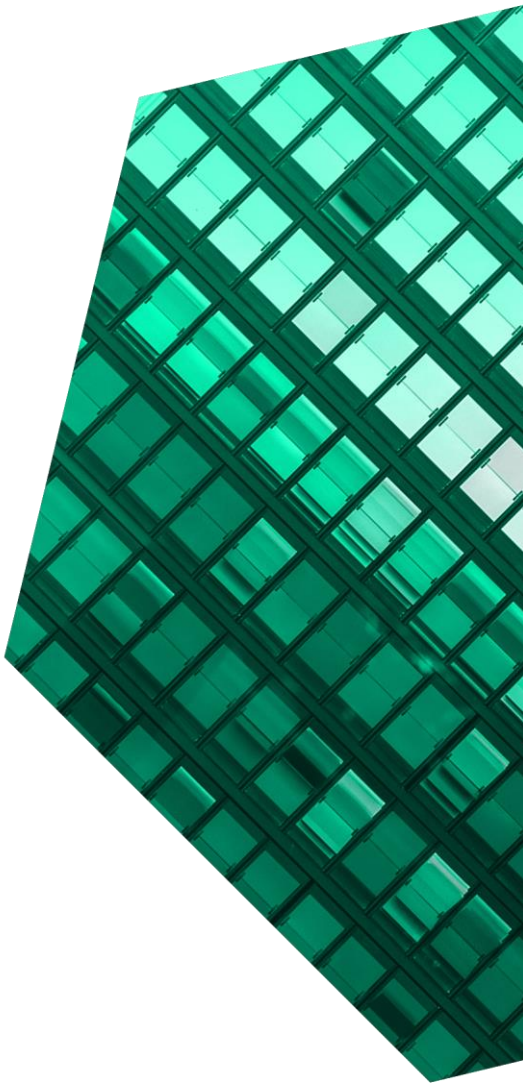


Executive Summary

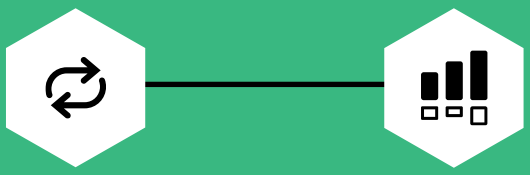
Labor is usually a business's largest expense. So, executives often look there for opportunities to reduce costs and increase profitability. The ideal has always been a "just right" labor force that puts the right people in the right place at the right time — and not to have extra employees standing around. But as any retail manager can tell you, that's a lot harder than it sounds. As technology and AI continue to mature, solutions like Quinyx offer companies a way to easily optimize labor at scale.

Quinyx is a workforce management technology solution that saves time for managers, improves the work experience for employees, and provides the key link — between the schedule and the demand data — that allows companies to easily (and even automatically) optimize their labor forces. The system starts with basic features like schedule creation and time attestation, then adds a user-friendly app for employees to swap shifts or request time off. Finally, it also provides AI-driven forecasting that suggests optimal schedules based on historical data points — from customer footfall to number of transactions to revenue per location — so that schedules can be easily aligned with anticipated business demand.

Quinyx commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Quinyx.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Quinyx on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four representatives with experience using Quinyx. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization that is a large retailer with 260 stores, 3,900 employees, and revenue of $1 billion per year.

KEY STATISTICS



Return on investment (ROI)
376%

Net present value (NPV)
$3.67M

Interviewees noted that prior to using Quinyx, their organizations' managers created schedules manually (typically in a spreadsheet program), then posted a paper schedule in the lunchroom to notify associates of their upcoming shifts. Without an easy way to reference sales data and base their labor projections on anticipated demand, managers relied on institutional memory, which was not always accurate. Some companies didn't have the information to fully leverage existing labor contracts, so they were paying wages for hours that employees had never even been asked to work.

Moreover, the processes of manual schedule creation and frequent revision took hours per week, and the manual data entry required to run payroll was equally time-consuming and error-prone.

Interviewees said that after the investment in Quinyx, their organizations' managers not only created schedules much more efficiently, but thanks to data-driven forecasting, their schedules also became

much better aligned with the peaks and valleys in customer and business demand. Those improvements increased profitability, facilitated process improvements, and, in some cases, were significant drivers of business growth.

KEY FINDINGS

Quantified benefits. Three-year, risk-adjusted present value (PV) quantified benefits for the composite organization include:

- **Significant time savings for managers.** Quinyx reduces schedule creation time by 2 hours per week for every store manager — not including the additional time savings inherent in not having to make manual adjustments for shift swaps, sick leave and time-off requests. Over three years, these efficiencies save the composite organization more than $1.5 million.
- **Additional time savings for frontline workers.** By automatically linking each employee's schedule to their time attestation and to their payroll account, Quinyx saves each hourly employee one half-hour of manual data entry per pay period. This is an incremental benefit that adds up to more than $600,000 in annual savings for the composite organization, which has 3,900 employees (of whom 3,600 are hourly associates).
- **Increased labor forecasting accuracy.** Quinyx's ability to use historical sales data to predict the optimal number of employees for the anticipated customer footfall produces savings for the composite organization in the following three areas:
    - First, the data insights highlight opportunities to adjust the organization's mix of full-time and part-time employees to fully leverage employment contracts.
    - Second, the organization can better dial in the timing of its seasonal hiring surges and purges. Taken together, these two areas of benefit result in $751,500 in savings over three years for the composite.
    - And finally, the organization can reduce its overtime costs since it's better able to plan in advance for periods of high demand. Although the retail sector doesn't rely heavily on overtime, the composite organization sees nearly $1.4 million in savings over three years by reducing its overtime by 50%.

> **"Personnel is the biggest cost you have, so it's extreme how much money you can save. It can be millions in a month if you're accurate with it."**
>
> *HR controller, retail*

Unquantified benefits. Benefits that provide value for the composite organization but are not quantified in this study include:

- **Improved customer satisfaction.** Having enough frontline associates to wait on customers and provide high-quality service ensures a high level of customer satisfaction. And in the current post-pandemic labor shortage, organizations that have the labor resources to meet customer expectations have a significant edge over many competitors.
- **Improved employee experience.** When employees are automatically notified of scheduled shifts and can turn to a user-friendly app to swap shifts or request time off, they feel like they have more control over their work-life balances. This experience is a vast improvement

over a paper schedule posted in the break room or frantic texting or calling when they need a coworker to cover for them.

- **Improved reporting, which leads to improved compliance.** Companies can easily create individual employee reports of hours worked. Some industries require workers to report their hours every year to maintain licensing. What used to be a huge chore for employers is now manageable.
- **Improved employee communication.** Quinyx provides an easy platform for companywide communications: from announcements of unfilled shifts to opportunities for overtime to urgent broadcasts during emergencies.

Costs. Three-year, risk-adjusted PV costs for the composite organization include:

- **Software fees.** Based on user license fees for a total workforce of 3,900 people, phased in from a small pilot in Year 1 to companywide deployment in Year 2, software fees add up to $566,000 over three years for the composite organization.
- **Implementation costs.** The organization assembles a cross-functional team for the initial pilot and full companywide rollout. The cost of those employees' time adds up to $347,000 over three years.
- **Ongoing manager support.** The organization names its best managers "manager mentors" who support their colleagues in the transition to Quinyx and advise them on the best practices of schedule creation. Paying bonuses to those mentors is a relatively small investment to assure a smooth transition and adds up to $62,000 over three years.

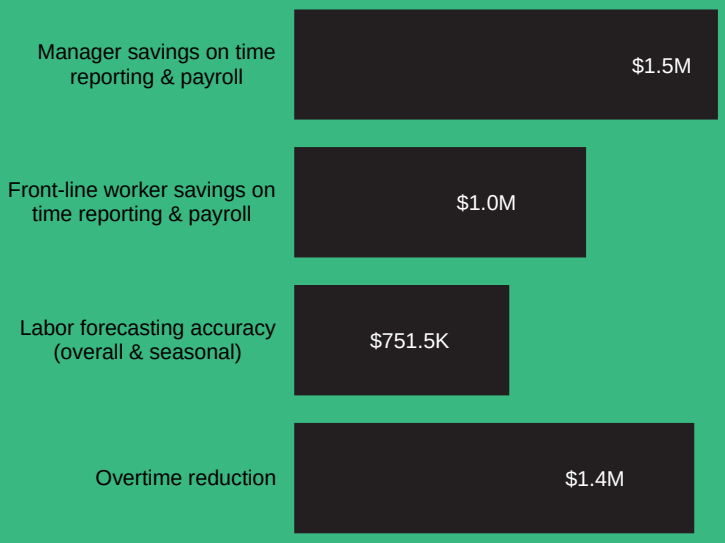
The representative interviews and financial analysis found that a composite organization experiences benefits of $4.65 million over three years versus costs of $977,000, adding up to a net present value (NPV) of $3.67 million and an ROI of 376%.

ROI
376%

BENEFITS PV
$4.65M

NPV
$3.67M

Benefits (Three-Year)



“When you do everything manually, you have no idea what to expect at 2 p.m. on a Friday afternoon. There’s nothing proactive. Quinyx’s demand forecasting took all the guesswork away.”

— COO, healthcare

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Quinyx.

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 Quinyx can have on an organization.

DUE DILIGENCE

Interviewed Quinyx stakeholders and Forrester analysts to gather data relative to Quinyx.

INTERVIEWS

Interviewed four representatives at organizations using Quinyx to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewees' organizations.

FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewees.

CASE STUDY

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

The Quinyx Customer Journey

Drivers leading to the Quinyx investment

Interviews			
Role	**Industry**	**Region**	**Revenue**
HR controller	Retail	Western Europe	$300M
COO	Healthcare	North America	<$100M
Chief of HR	Transportation	UK	$100M
VP/CIO	Retail	North America	$1B

KEY CHALLENGES

All four of the interviewees' organizations were using simple and unsophisticated scheduling tools prior to Quinyx. For the most part, these tools were homegrown and based in spreadsheets, and they lacked any connectivity with sales data, payroll systems, and employees – who noted their assigned schedules, and swapped shifts if needed, entirely offline.

The interviewees noted how their organizations struggled with common challenges, including:

- **No insight into business demand.** As managers created their schedules, they had no prior sales data to guide them. So when it came to budgeting the number of employees needed for each shift, they either guessed or simply referenced the prior year's schedule for the same period, which may or may not have been adequate for that day's customer footfall. As a result, stores were often over- or under-scheduled.
- **Manual processes were time-consuming and error-prone.** With no connection between the scheduling and payroll systems, data had to be manually entered for each employee at the end of each pay period. Frequent errors meant many rounds of corrections and additional payroll runs.
- **Reporting was cumbersome.** Previous solutions didn't offer easy ways to parse or sort data for reporting, which became a compliance issue for some interviewees' organizations.
- **Employee communication was cumbersome.** Employees recorded their work schedules by noting days and times from paper schedules posted in break rooms. Shift swaps occurred in an ad-hoc manner, and managers were sometimes not informed. If the organization needed to fill shifts, managers spent a lot of time reaching out to individual employees to find replacements.

> **"Coming from a completely paper-based process, the ability to understand our labor and its effectiveness was all fraught. And like most service-based companies, payroll is our biggest single expense."**
>
> *VP/CIO, retail*

SOLUTION REQUIREMENTS

The interviewees' organizations searched for a solution that could:

- Connect with historical sales data to forecast the optimal number of employees needed to fill each shift.
- Connect with the payroll system to eliminate manual data entry.
- Provide a user-friendly way for employees to access schedules, trade shifts, and exchange timely communications with their managers.

"We wanted our sales associates to have an app where they could show interest in shifts and change shifts with each other. So, a big factor was that the [Quinyx] app is easy on the eye and has a very modern feel that makes you want to use it."

HR controller, retail

After a business case process evaluating multiple vendors, the interviewees' organizations chose Quinyx and began deployment, which generally took on a phased approach.

- Three of the four interviewees' organizations first piloted Quinyx in one region or department, then proceeded with companywide deployment.
- Those organizations completed their pilots within a year and then completed full rollout within the following six months.
- Two interviewees' organizations began initial deployment with just the basic features of the Quinyx platform (scheduling and time attestation) and added the forecasting module later.

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four interviewees, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The composite organization is a large retailer with 260 stores and $1B in annual revenue. It has a total workforce of 3,900 people, 3,600 of whom are hourly frontline workers. The company experiences a seasonal surge in the fourth quarter, and typically increases its workforce by around 7% for the holiday season. When required, overtime hours are usually worked by 20% of the company's hourly employees, whose overtime hours amount to a 4% overage above their regular full-time hours.

Deployment characteristics. The composite organization opts for a phased deployment. In Year 1, it pilots the solution in one region or 20 stores. It expands to full companywide deployment in Year 2.

Key Assumptions

- **$1B retail company**
- **260 stores**
- **3,900 employees**
- **7% hiring surge in Q4**
- **4% overtime usage**

Analysis Of Benefits

Quantified benefit data as applied to the composite

Total Benefits

Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	Manager savings on time reporting and payroll	$69,160	$899,080	$899,080	$1,867,320	$1,481,406
Btr	Frontline worker savings on time reporting and payroll	$47,297	$619,164	$619,164	$1,285,625	$1,019,890
Ctr	Labor forecasting accuracy (overall and seasonal)	$38,697	$454,029	$454,029	$946,755	$751,528
Dtr	Overtime reduction	$64,865	$849,139	$849,139	$1,763,143	$1,398,707
	Total benefits (risk-adjusted)	$220,019	$2,821,412	$2,821,412	$5,862,844	$4,651,531

MANAGER SAVINGS ON TIME REPORTING AND PAYROLL

Evidence and data. By largely automating the processes of schedule creation, employee communications, schedule swaps, and reporting for payroll, Quinyx saved store managers a substantial amount of time. Interviewees shared the following data:

- The four interviewees estimated time savings for each of their organization's managers from 30 minutes per week to 4 hours per week.
- The retail VP/CIO said his company's administrative savings were approximately $200,000 per year across 260 store managers. They said: "There was a ton of manual effort required. Our store managers complained loudly about it."
- The chief of HR for the transportation company said that after the Quinyx deployment, their organization saved a projected hire of three additional people. The interviewee estimated that 50% of those savings could be attributed to Quinyx.

Modeling and assumptions. Forrester calculates the impact of a more efficient scheduling and time-attestation tool in terms of hours saved by store managers.

- The composite organization's pilot program deploys Quinyx to 20 stores in Year 1 and completes full deployment at the start of Year 2.
- The organization sees time savings of 2 hours per store manager per week, which is in the mid-range of the data shared by interviewees.

"We're looking at half a million dollars a year [in savings] just in the reduction of payroll effort. How much might eventually be attributed to better management of our seasonal hiring? Timing that surge correctly can make or break our profitability for the season. That's the area we think Quinyx will have the greatest benefit."

VP/CIO, retail

Flexibility. Measuring time savings is one way to quantify the impact of a more efficient tool. An organization might also consider the business impact of other, higher-value projects that those time savings allow. For example, one interviewee shared: "It used to be me sitting with [each of the managers] and more or less making their schedules. And now, they just do it on their own. So I do other things now." Those things include leading a companywide digital advancement initiative and implementing a new HR system. These projects could lead to faster employee ramp, greater employee satisfaction, and/or additional time savings or productivity gains through further process improvements.

Risks. Manager time savings can vary based on several factors, including:

- **Managers' scheduling experience.** The interviewee from the organization that saw the most time savings (4 hours per week) shared that her company's managers were relatively inexperienced and needed a lot of help building their weekly schedules. So, inversely, organizations with managers who are highly experienced with the scheduling process may have an easier time building schedules manually, and they may not see as much time savings from the Quinyx tool.
- **Less variability in work shifts.** Managers of organizations with highly standardized shifts and/or a higher ratio of full-time to part-time employees are likely to need less time to build schedules manually since their prior-state schedule matrices are less complex. Therefore, these teams may not see as much in savings.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of just under $1.5 million.

Manager Savings On Time Reporting And Payroll

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Number of store managers	Composite	20	260	260
A2	Time savings per manager (hours per week)	Interviews	2	2	2
A3	Manager hourly rate (fully burdened)	TEI Standard	$35	$35	$35
At	Manager savings on time reporting and payroll	A1*A2*A3	$72,800	$946,400	$946,400
	Risk adjustment	↓5%			
Atr	Manager savings on time reporting and payroll (risk-adjusted)		$69,160	$899,080	$899,080
	Three-year total: $1,867,320			**Three-year present value: $1,481,406**	

FRONTLINE WORKER TIME SAVINGS ON TIME REPORTING AND PAYROLL

Evidence and data. When managers create schedules in Quinyx, employees are automatically notified of their assigned shifts through the app. If they need to swap shifts with a coworker, they can also make that request, find a replacement, and receive manager approval in the app. Finally, the built-in time attestation and payroll-reporting features mean that employees do not have to manually add up and submit their hours for payroll; this is done automatically and exported to the payroll system through an API connection.

All of this automation saves employees from having to complete scheduling-related administrative tasks during their shifts, which adds up for a large workforce.

According to the VP/CIO of one retail company, all of the manual entry also made the process highly error-prone. They said: "Timesheets were meant to be entered on a daily basis, but [they] tended to be put together by the employee towards the end of the pay period, right before the payroll run. Then, the store manager would enter those hours into payroll. Often, adjustments had to be made after the fact, and we'd find ourselves running additional pay cycles to fix something."

Modeling and assumptions. While the incremental time savings for each individual employee is relatively small, these efficiencies have a quantifiable business impact when multiplied across thousands of frontline workers.

- The composite organization sees some savings in Year 1 when it deploys Quinyx in its pilot region of 20 stores. It realizes the full benefit in Years 2 and 3 after full companywide rollout.
- Forrester applies a productivity realization factor, acknowledging that employees won't always dedicate 100% of efficiency-related time savings to other business-related tasks.

> **"There were all these little shift swaps and schedule changes and holiday requests, which you don't usually try to quantify. But when you have 300 or 400 people, all of those take a lot of time, which Quinyx removed."**
>
> *Chief of HR, transportation*

Risks. Administrative time savings on the frontline-worker level can be variable. Contributing risk factors may include:

- **Employees' comfort level with technology.** If a company's frontline workforce is older, employees may need additional ramp-up time to get familiar with using a mobile app for scheduling and communication. The costs of providing additional technical support may also erode the full value of the time savings.
- **Employee longevity.** If an organization employs a large number of temporary, seasonal, and/or part-time workers, the company may experience some resistance to full workforce adoption of the Quinyx technology, especially if it requires occasional workers installing an app on their personal devices.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $1 million.

Frontline Worker Savings On Time Reporting And Payroll					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
B1	Number of frontline employees	Composite	275	3,600	3,600
B2	Time saved per employee (hours per pay period)	Interviews	0.5	0.5	0.5
B3	Employee hourly rate (fully burdened)	TEI Standard	$21	$21	$21
B4	Productivity realization factor	TEI Standard	70%	70%	70%
Bt	Frontline worker savings on time reporting and payroll	B1*B2*B3*B4*26	$52,553	$687,960	$687,960
	Risk adjustment	↓10%			
Btr	Frontline worker savings on time reporting and payroll (risk-adjusted)		$47,297	$619,164	$619,164
	Three-year total: $1,285,625			**Three-year present value: $1,019,890**	

LABOR FORECASTING ACCURACY (OVERALL AND SEASONAL)

Evidence and data. Quinyx uses different demand drivers such as transactions, customer footfall, and revenue per location to forecast the labor hours needed. This allows companies to optimize their labor and operations, avoiding over- or under-staffing.

- One retail executive said: "You can look at stores based on their open hours, their sales performance, or their traffic volume. We started by cutting hours where we didn't need them and putting them in the right place. Then we looked at things like, 'When is the best time for lunch breaks?' and 'When are the most people in the stores?'"
- Another retail leader estimated the impact of labor force optimization on his company as close to $2 million per year.
- Under Scandinavian labor contracts, many part-time workers are paid a monthly flat rate regardless of the hours actually worked. The HR controller for a Western Europe-based retailer used Quinyx data to identify the employees with underutilized contracts and assign them more hours, saving the company $600,000 to $1.2M annually. The interviewee said: "There were monthly employees who didn't work enough because we didn't see the numbers properly before. Now we can say, 'Oh, he's 50 hours under his contract, so let's give him more hours.'"
- For companies with seasonal hiring surges, these forecasting tools allow them to be much more precise with their timing. According to one retail VP/CIO: "Timing is really important, and it's very difficult to do. Some of our best store managers knew how to do that, and some struggled. They often ended up with too many people, and then you end up eroding your profitability."

Modeling and assumptions. The composite organization realizes labor savings and efficiencies through the overall optimization of its workforce on a year-round basis, as well as through the more precise timing of its fourth-quarter hiring surges and purges.

- As the composite organization starts using AI-based recommendations for optimal staffing based on historical sales data, Forrester estimates it sees $20,000 in savings during its first-year pilot, which increases to $200,000 annually in Years 2 and 3.
- The same intelligence and algorithms help the company fine-tune its seasonal hiring, resulting in more than $300,000 worth of annual savings once Quinyx is deployed companywide.

Flexibility. This analysis focuses primarily on the cost savings of eliminating overstaffing. But it may also be useful for readers to consider some alternative ways to measure the value of labor force optimization on their organizations. For example:

- Process standardization may be important from a compliance standpoint. The HR executive for one of the retail organizations shared that her company's employees often swapped shifts without manager preapproval using a social media site that wasn't affiliated with the company. If all associates are not fully cross-trained, this

> **"A restaurant has cooks versus those who take orders. For them, customer frustration is the biggest problem when you put the wrong person in the wrong place. In our world, we are breaking the law."**
>
> *COO, healthcare*

ad-hoc shift swapping could put the company at risk, either for poor customer service or even legal liability.

- One interviewee added that labor force optimization also makes recruitment more straightforward. They said: "You know exactly what hours you need, which makes it easier to advertise."

Risks. There are several factors that could have a significant impact on a business's potential cost savings through labor force optimization. Contributing risk factors may include:

- **Extent of seasonal business fluctuation.** Organizations without seasonal hiring surges or that have demand fluctuations smaller than that shown for the composite will not see the same level of savings from the seasonal component of this benefit.
- **Variability in demand.** Companies with a steadier volume of customer traffic or with footfall variability that coincides with planned promotions
- won't have as much opportunity for improvement through AI-assisted labor-force optimization.
- **Local labor laws and practices.** The HR controller at the European retail company said their organization's part-time employees who work more than half-time are guaranteed a minimum monthly rate regardless of hours worked. This highlights the fact that local labor laws will significantly impact the opportunity for savings through labor optimization.

> **"We can do a lot of analysis now. There's a lot of data that we've never had before, and we've saved a lot of money based on those numbers."**
>
> *HR controller, retail*

Results. To compensate for these variabilities in the data, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of $751,500.

Labor Forecasting Accuracy (Overall And Seasonal)

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	**Overall labor optimization**	**Composite**	**$20,000**	**$200,000**	**$200,000**
C2	Number of seasonal hires	Composite	19	252	252
C3	Weeks hired	Composite	13	13	13
C4	Hours/week	Composite	30	30	30
C5	Hourly rate, unburdened	TEI Standard	$17	$17	$17
C6	Total cost of seasonal hiring surge	C2*C3*C4*C5	$127,628	$1,670,760	$1,670,760
C7	**Seasonal surge avoided through optimization**	**Composite**	**$25,526**	**$334,152**	**$334,152**
Ct	Labor forecasting accuracy (overall and seasonal)	C1+C7	$45,526	$534,152	$534,152
	Risk adjustment	↓15%			
Ctr	Labor forecasting accuracy (overall and seasonal) (risk-adjusted)		$38,697	$454,029	$454,029
	Three-year total: $946,755			**Three-year present value: $751,528**	

OVERTIME REDUCTION

Evidence and data. Quinyx's AI-powered labor forecasting achieves an optimized employee schedule that better aligns with customer demand. When companies can better plan for high-demand periods, their overtime needs should decline.

One of the retail organizations interviewed for this study was able to reduce its use of overtime by 50%. This company's HR controller reported: "We now get data about exactly how much overtime we use, so we can take corrective measures in those cases where, for example, we see a store often using overtime."

Modeling and assumptions. An organization's expected use of overtime is dependent upon its industry sector and the size of its hourly workforce.

- Most of a company's overtime hours tend to be worked by the same employees. Forrester assumes 20% of the workforce works overtime.
- Human resource experts report that the average overtime per week for all types of employers is between 4% and 8%.[2] And economic data shows that retail organizations are not typically large users of overtime.[3] So, Forrester assumes that the composite organization's overtime amounts to 4% of working hours for the employees who take those overtime hours.
- The composite organization realizes the full value of the benefit in Year 2 once companywide deployment of Quinyx is complete.

Risks. Several factors can affect the size of this benefit. Readers will want to consider the following:

- **Industry sector.** Economic data shows considerable variation by business sector in employees' total weekly work hours, with employees in logging and manufacturing at the high end at the time of this writing (46.1 average hours per employee per week) and workers in leisure and hospitality at the low end (25.6 average hours per employee per week).[4] Readers will want to evaluate the most recent employment and demand trends for their organization's industry.
- **Local labor laws.** The threshold when overtime kicks in, the amount of overtime hours an employee can work, and the rate of overtime pay all vary from country to country and from state to state. An organization's locations will have a significant impact.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $1.4 million.

Overtime Reduction

Ref.	Metric	Source	Year 1	Year 2	Year 3
D1	Frontline workers working overtime	20%	55	720	720
D2	Overtime hours worked (prior state)	D1*2,080*4%	4,576	59,904	59,904
D3	Reduction in overtime hours due to better labor forecasting	Interviews	50%	50%	50%
D4	Hourly rate for overtime	TEI Standard	$31.50	$31.50	$31.50
Dt	Overtime reduction	D2*D3*D4	$72,072	$943,488	$943,488
	Risk adjustment	↓10%			
Dtr	Overtime reduction (risk-adjusted)		$64,865	$849,139	$849,139
	Three-year total: $1,763,143			**Three-year present value: $1,398,707**	

UNQUANTIFIED BENEFITS

Interviewees mentioned the following additional benefits that their organizations experienced but were not able to quantify:

- **Improved customer satisfaction.** "Just right" staffing has a positive customer-service impact. One of the interviewees from a retail company said their organization saw its average customer satisfaction score go from 6 to 6.5 on a 7-point scale, which is an improvement they attributed partially to optimized scheduling and partially to pandemic-inspired service innovations.

  This relationship between staffing and customer satisfaction may be even more significant in light of the post-pandemic staffing shortage. Companies that have the labor resources and the data intelligence to staff more employees during busy times now have an even bigger opportunity to surprise and delight their customers, who are growing increasingly accustomed to frustration.
- **Improved employee experience.** By replacing manual data entry and paper-based schedules with a user-friendly mobile app, Quinyx can help improve employee experience. The ease with which employees can swap schedules and request time off may also give them more control over their work-life balances. These are all factors that improve employee longevity with an organization.
- **Improved reporting, which leads to improved compliance.** Quinyx's attestation and reporting capabilities allow companies to be more accurate in time reporting and to more easily and efficiently generate custom reports that may be required for compliance. Highly regulated industries, industries with complex licensing requirements, and companies that require regular employee safety training could find tremendous value in this benefit. Organizations that are required to submit frequent compliance reports could quantify the time savings enabled by Quinyx's advanced reporting functions.

> **"To maintain their license, a clinician needs to provide a list of hours worked and what type of work. In Quinyx, we can get that with the touch of a button. Previously, we had to go through all these spreadsheets, and we could spend 8 hours trying to pull together that information for a single individual."**
>
> *COO, healthcare*

- **Improved employee communication.** One interviewee shared two instances when improved employee communication helped his business.

  The first related to employee satisfaction. He said: "One of the complaints we used to get was

> **"There is no doubt in my mind that there is a link between employee engagement and how technology has enabled people to manage their schedules and communicate with their managers."**
>
> *Chief of HR, transportation*

that you had to be in on a certain day to get [extra work shifts]. But Quinyx notifies everyone at the same time, and everyone gets the same opportunity. It's made a big difference in that feeling of fairness."

And he said that, when the company had an emergency and had to close on short notice, "we were able to immediately tell a whole group of people, 'Don't come to work.' That was hugely useful."

FLEXIBILITY

Forrester defines overall flexibility in terms of the ability of a technology solution to enable additional, perhaps unanticipated, business opportunities beyond the benefits described in this study.

One such opportunity in the case of Quinyx is the enablement of rapid business growth, particularly if the move from manual processes to an automated workforce management solution is well-timed with a key business opportunity.

The COO of the healthcare organization said this was the case for their company. They said: "When [the COVID-19 pandemic] hit [and our business exploded], we were able to support 10 times the number of customers for 8% to 10% less money. And Quinyx was a big part of that."

"People would often say, 'I was so busy!' But that isn't always in line with the data. When you're only going on what you're being told, you don't have the insight. Quinyx enabled us to forecast with accuracy how many people we would need."

COO, healthcare

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

Analysis Of Costs

Quantified cost data as applied to the composite

Total Costs							
Ref.	**Cost**	**Initial**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Etr	Software fees	$0	$26,460	$343,980	$343,980	$714,420	$566,773
Ftr	Implementation costs	$228,620	$130,640	$0	$0	$359,260	$347,384
Gtr	Ongoing manager support	$0	$31,240	$23,430	$19,525	$74,195	$62,433
	Total costs (risk-adjusted)	$228,620	$188,340	$367,410	$363,505	$1,147,875	$976,590

SOFTWARE FEES

Modeling and assumptions. Quinyx's monthly subscription costs are based on service level and number of user licenses.

The composite organization subscribes to Quinyx at its "Accelerate" level, which includes all of the service features that the interviewees described in their interviews.

Risks and results. To allow for underestimation of subscription costs and possible growth, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $566,800.

Software Fees						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	License fees per employee per year	Composite		$84	$84	$84
E2	Number of employees	Composite		300	3,900	3,900
Et	Software fees	E1*E2	$0	$25,200	$327,600	$327,600
	Risk adjustment	↑5%				
Etr	Software fees (risk-adjusted)		$0	$26,460	$343,980	$343,980
	Three-year total: $714,420			**Three-year present value: $566,773**		

IMPLEMENTATION COSTS

Evidence and data. While none of the interviewees reported running into any significant technical problems during their organizations' implementations, the two from large retailers reported that the project required a dedicated team of internal people. One of the retail companies engaged a contract project manager to lead an internal team, while the other relied solely on internal resources.

One retail executive described his company's implementation team this way: "For the initial [one-year] pilot, we had a contracted project manager who had some workforce management expertise. And then there were business analysts from [our internal] IT team, plus some systems analysts and representatives from HR and operations. I would say about eight people worked on the pilot."

The company had a similarly sized team for the companywide rollout, which took about half as long as the pilot. The executive said: "When we reengaged for the full rollout, we again had a contract project manager, as well as a team of internal folks from operations, HR, and payroll. Those six or seven people rolled it out to the entire organization [in a six-month timeframe]."

Modeling and assumptions. Forrester assumes that implementation processes and costs for the composite organization closely mirror those of the retail companies interviewed.

- The composite organization completes a one-year pilot project for 20 stores, then proceeds with full companywide rollout. While that full rollout happens in Year 1, the organization does not realize benefits until Year 2.
- The organization assigns seven internal IT staff members to the pilot project and a smaller team of four people to the full rollout.

Risks and results. To account for possible underestimation of deployment resource needs, Forrester adjusted this cost upward by 15%, yielding a three-year, risk-adjusted total PV of $347,400.

Implementation Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Number of IT staff	Composite	7	4	0	0
F2	Annual salary per person (fully burdened)	TEI Standard	$113,600	$113,600	0	0
F3	Percent of time dedicated to project	Composite	25%	25%	0	0
Ft	Implementation costs	F1*F2*F3	$198,800	$113,600	$0	$0
	Risk adjustment	↑15%				
Ftr	Implementation costs (risk-adjusted)		$228,620	$130,640	$0	$0
	Three-year total: $359,260			**Three-year present value: $347,384**		

ONGOING MANAGER SUPPORT

Evidence and data. Several interviewees talked about how their company's move to Quinyx also introduced opportunities for internal process improvement. In particular, the interviewees from two retail companies said their organizations both implemented new mentoring systems, in which experienced and tech-savvy store managers offered guidance to their more junior colleagues.

One retail executive explained: "We're over the hump now, but it was a big change for the store managers. There's a lot more rigor applied to the scheduling process now. So, part of what we built into the support structure was, [beyond] our IT team that provides the technical support for the platform, the business teams within our store operations also support the product in its use in our stores."

The interviewee from the other retailer that implemented a similar process referred to these manager-mentors as "super users," and their organization paid them small salary bonuses for the added responsibility.

Modeling and assumptions. Forrester assumes that the composite organization starts with eight "manager mentors" in Year 1, but that some of these additional responsibilities and the associated bonus pay are phased out over time as managers become more comfortable with the system and less support is needed throughout the company.

Risks and results. This cost could vary based upon the experience level of the company's store managers, as well as its annual manager turnover. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $62,400.

> **"We started something called 'Super Users,' where the managers who were extra good at making schedules became the first-line support to help with different tasks in the system."**
>
> *HR controller, retail*

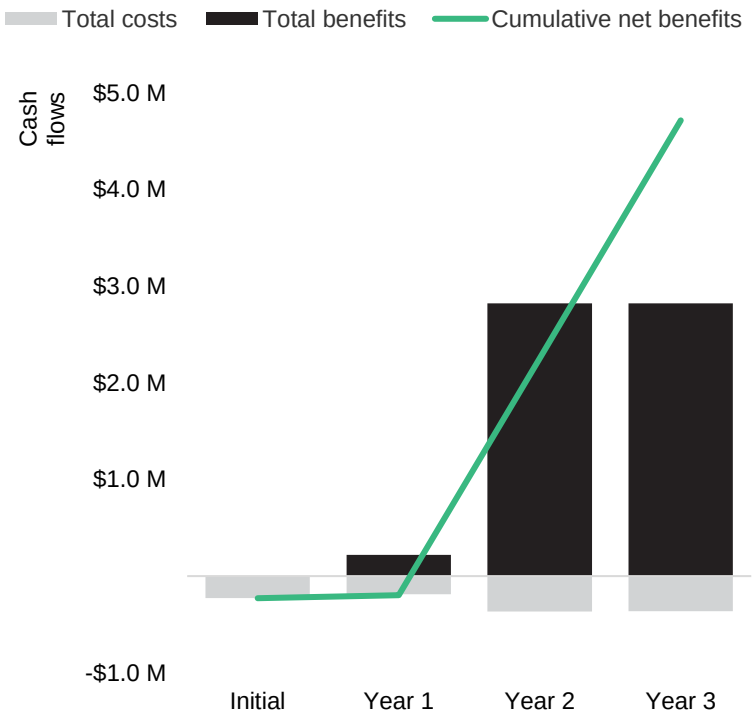
Ongoing Manager Support

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
G1	Number of manager mentors	Composite		8	6	5
G2	Annual salary (fully burdened)	TEI Standard		$71,000	$71,000	$71,000
G3	Amount of annual mentor bonus	Composite		5%	5%	5%
Gt	Ongoing manager support	G1*G2*G3	$0	$28,400	$21,300	$17,750
	Risk adjustment	↑10%				
Gtr	Ongoing manager support (risk-adjusted)		$0	$31,240	$23,430	$19,525
	Three-year total: $74,195			**Three-year present value: $62,433**		

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, NPV, and payback period for the composite 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.

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($228,620)	($188,340)	($367,410)	($363,505)	($1,147,875)	($976,590)
Total benefits	$0	$220,019	$2,821,412	$2,821,412	$5,862,844	$4,651,531
Net benefits	($228,620)	$31,679	$2,454,002	$2,457,907	$4,714,969	$3,674,941
ROI						376%

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%.

Appendix B: Endnotes

[1] 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.

[2] Source: Roger Dickerson, "Winning the Game in Overtime," SHRM, June 1, 2003.

[3] Source: "Average weekly hours and overtime of all employees on private nonfarm payrolls by industry sector, seasonally adjusted," U.S. Bureau Of Labor Statistics press release, September 2, 2022.

[4] Ibid.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