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The Total Economic Impact™ Of Microsoft 365 Education A5 Security For K-12 Schools
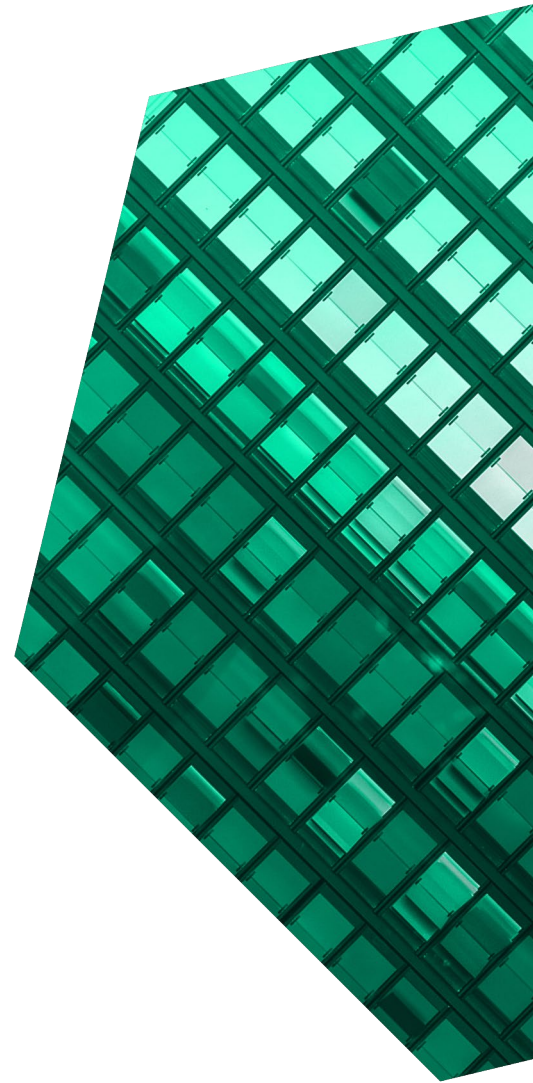
Improved Security Posture And Cost Savings Enabled By Microsoft 365 Education A5

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Consulting Team: Isabel Carey
Jonathan Lipsitz

Executive Summary

> K-12 school systems, like every organization regardless of industry, are now at increased risk of security breaches, ransomware demands, and compliance violations. Providing necessary protection and being able to recover quickly is especially challenging for schools because budget constraints make it difficult to hire and retain IT security teams and to pay for the requisite solutions. Microsoft 365 Education A5 makes it possible for schools to cost-effectively protect all of their people and online resources.

Microsoft 365 Education is a suite that combines the core capabilities of Microsoft 365 with learning tools. The Microsoft 365 Education A5 SKU includes a comprehensive set of management, security, privacy, and compliance solutions to create secure learning environments.[1] Paid users, such as faculty and staff, benefit from all of these features, and the student use benefit makes a subset of the features available to students at no cost.

Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study that examines the potential security-related return on investment (ROI) K-12 school systems may realize by deploying Microsoft 365 Education A5.[2] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the Microsoft 365 Education A5 security features on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed seven representatives from a total of four school systems and surveyed 67 respondents with experience using Microsoft 365 Education A5. For

KEY STATISTICS

Return on investment (ROI)
118%

Net present value (NPV)
$2.28M

Reduced likelihood of a significant breach

15%

the purposes of this study, Forrester aggregated the experiences of the interviewees and survey respondents and combined the results into a single composite organization that is a K-12 (primary and secondary education) school system with 60,000 students and 10,000 employees.

Prior to upgrading from the Microsoft 365 Education A3 SKU to the A5 SKU and eliminating other point security and compliance solutions, interviewees noted how their organizations found it increasingly difficult to provide adequate security, privacy, and compliance protection. These limitations led to costly security-related events in terms of ransomware payments, recovery efforts, brand damage, and disruption to business continuity. Additionally, limited budgets meant that their existing security stacks sometimes did not meet the minimum requirements dictated by cyber insurance providers.

After upgrading to Microsoft 365 Education A5, the interviewees rationalized their IT security estate while

improving protection for employees, students, and online resources.

KEY FINDINGS

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

- **Improved security and compliance posture.** Consolidating onto Microsoft 365 Education A5 improves the overall security, compliance, and privacy protection for everyone in the composite organization and all their online resources. Specifically, the annual number of significant breaches that cross multiple systems and large portions of users is reduced by 15% for the composite organization, and the cost to remediate the remaining breaches is reduced by 29%. These savings include the actual remediation costs as well as fines and additive audit and compliance costs. Over three years, this is worth about $972,800 to the composite organization.

- **Security solution vendor consolidation reduces license costs by 30%.** The consolidation from multiple security, privacy, and compliance solutions to Microsoft 365 Education A5 provides integrated access to solutions that meet or exceed minimum requirements included in industry best practices or mandated by a cyber insurance policy. Consolidating from multiple vendors onto Microsoft also reduces the total license/subscription and maintenance spend. The three-year value to the composite organization is $1.1 million.

- **Efficiencies in detection, remediation, and efficiency reduces future IT security team staff growth.** The tight integration across all security-related solutions within Microsoft 365 Education A5 and the ability to see everything in a single pane of glass makes it easier to analyze what is happening and identify vulnerabilities and security events across the composite

organization in real time. This integration and single console also mean remediation takes less time and effort, enabling the existing IT security team to deal with the increased number and sophistication of attacks. Additionally, eliminating prior solutions makes management activities easier.

Taken all together, consolidating onto Microsoft 365 Education A5 makes it possible to provide the composite organization with necessary improved protection and response to threats without growing the IT security team by the 50% it would need with the prior solutions. In doing so, the composite organization realizes about $545,700 in added labor savings over three years. This is an especially important benefit because of the difficulty the composite organization's school system has with hiring, training, and/or retaining IT security professionals.

- **Improved security and using security features save employees fifteen minutes per week.** Less downtime during a security breach and time savings from features such as single sign-on (SSO) and self-service password reset save time for staff and teachers. In the case of teachers, this is time they can spend on student instruction.

> **"We now have less downtime for students. Supervision on Teams means we catch problems like bullying before they get out of control. A5 provides a safe environment that is conducive for student learning. All of this indirectly contributes to improved learning outcomes."**
>
> *CIO, alternative education campus*

After very conservatively reducing this benefit by 75% because not all time saved translates into additional work getting done, the three-year value to the composite organization is $1.7 million.

"Which of the following outcomes do you feel your organization has realized due to adopting Microsoft 365 A5?"

78%	Improved threat protection and security (including identity) posture
76%	Helped protect against cyberbullying and/or other code-of-conduct violations
76%	Lower internal IT costs due to less security and IT team efforts
73%	Improved visibility across IT environments
73%	Improved compliance with internal policies

Base: 67 decision-makers who have experience using and managing Microsoft 365 Education A5 at their organizations
Note: Showing "agree" and "strongly agree."

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, April 2023.

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

- **Improved learning outcomes.** Microsoft 365 A5 Education indirectly contributes to improving learning outcomes in several ways. Firstly, less downtime for students and teachers means more time for in-class learning. Secondly, it helps provide a safe and compliant environment for online learning and collaboration. This is especially true for hybrid and all-remote learning models. Lastly, device management and security features such as Microsoft Intune make it possible to provide students with secure learning devices more easily and efficiently.

- **Benefits from nonsecurity Microsoft 365 Education A5 capabilities.** Microsoft 365 Education A5 includes other capabilities not included in the A1 or A3 SKUs. Two capabilities highlighted by interviewees that save them

money and provide for better school operations and collaboration are Microsoft Teams Phone and Power BI.

- **Ability to purchase and save money on cyber insurance.** Cyber insurance providers increasingly require schools to have specific security solutions such as endpoint detection and response (EDR). Additionally, the cost of cyber insurance is generally increasing rapidly. Microsoft 365 Education A5 helps schools put in place insurance-mandated solutions faster and at less cost than many other alternatives, and it can help slow down the increases in policy premiums.

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

- **Internal costs of $621,000.** Internal costs are the effort to implement Microsoft 365 Education A5 and the incremental effort for ongoing management. The initial implementation takes nine months and requires 4.8 FTEs. Ongoing management requires 1.5 FTEs.

- **External costs of $1.3 million.** The main component of external costs is the $51 per employee per year incremental cost of the Microsoft 365 Education A5 SKU over the A3 SKU. Students receive free use of a subset of capabilities via the student use benefit. There are also some initial external professional services as part of the deployment and configuration.

The financial analysis, which is based on the interviews and survey, found that a composite organization experiences benefits of $4.22 million over three years versus costs of $1.94 million, adding up to a net present value (NPV) of $2.28 million and an ROI of 118%.
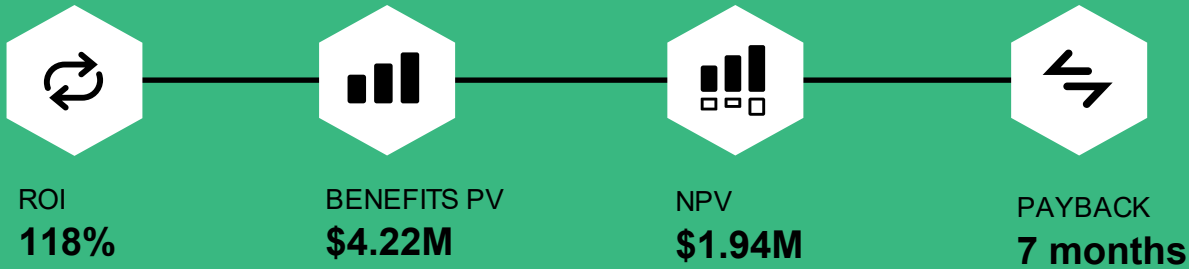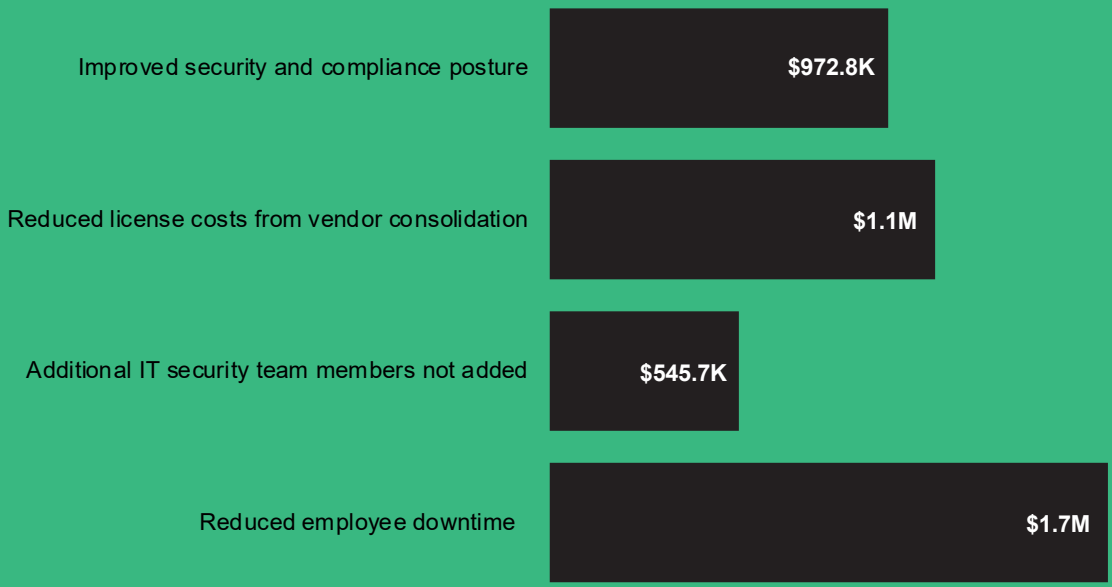
ROI
118%

BENEFITS PV
$4.22M

NPV
$1.94M

PAYBACK
7 months

Benefits (Three-Year)

Improved security and compliance posture	$972.8K
Reduced license costs from vendor consolidation	$1.1M
Additional IT security team members not added	$545.7K
Reduced employee downtime	$1.7M

"We were able to cut our security license costs 25% by moving to A5. More important than saving money is that we now have better security and user experiences."

— CIO, public school district

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews and survey, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Microsoft 365 Education A5.

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 Microsoft 365 Education A5 can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Microsoft 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 study to determine the appropriateness of an investment in Microsoft 365 Education A5.

Microsoft 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.

Microsoft provided the customer names for the interviews but did not participate in the interviews.

Forrester fielded the double-blind survey using a third-party survey partner.

DUE DILIGENCE
Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to Microsoft 365 Education A5.

INTERVIEWS AND SURVEY
Interviewed seven representatives across four school systems and surveyed 67 respondents at organizations using Microsoft 365 Education A5 to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION
Designed a composite organization based on characteristics of the interviewees and survey respondents.

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

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.

KEY CHALLENGES

Forrester interviewed seven representatives from four school systems and surveyed 67 respondents with experience using Microsoft 365 Education A5. For more details on these individuals and the organizations they represent, see Appendix B.

Prior to implementing Microsoft 365 Education A5, interviewees were using Microsoft Education A3 in conjunction with other vendors' security, compliance, and privacy solutions. This multivendor approach required custom integrations for monitoring and remediation.

Both interviewees and survey respondents noted how their organizations struggled with common challenges, including:

- **Prior solutions resulted in increased complexity and associated rising costs.** Interviewees reported that their prior point solution integration approaches required too much effort to set up and manage. Additionally, multiple point solutions required more effort and time to identify and remediate threats, and this was expected to increase with more frequent and

> **"The biggest driver was cyber insurance. The easiest way for us to get what we needed was going from A3 to A5."**
>
> *Network administrator, public school district*

complex attacks. Interviewees also reported that they were spending too much on security solution licenses.

- **It was difficult to respond to the increasing complexity of security threats and compliance requirements.** Vulnerabilities and attacks were becoming more complex, and interviewees said that addressing these threats required better solution integration and the ability to analyze all signals in a single pane of glass. A successful breach could impact trust and reputation, result in high costs for external remediation help, and disrupt school operations.

What security specific goals did your organization hope to achieve with your current security solutions?
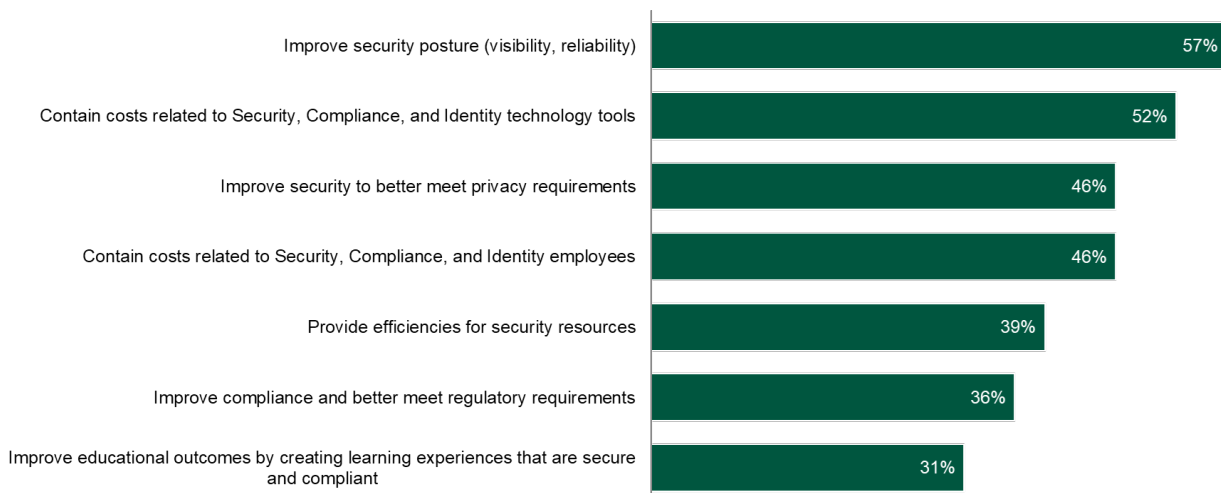
Improve security posture (visibility, reliability)	57%
Contain costs related to Security, Compliance, and Identity technology tools	52%
Improve security to better meet privacy requirements	46%
Contain costs related to Security, Compliance, and Identity employees	46%
Provide efficiencies for security resources	39%
Improve compliance and better meet regulatory requirements	36%
Improve educational outcomes by creating learning experiences that are secure and compliant	31%

Base: 67 decision-makers who have experience using and managing Microsoft 365 Education A5 at their organizations
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, April 2023.

- **Prior solutions did not meet cyber insurance requirements.** Interviewees' prior security toolsets did not meet their insurance providers' new cyber security requirements. They needed to add these solutions quickly and cost-effectively.

SOLUTION REQUIREMENTS

The interviewees and survey respondents searched for a solution that could:

- Improve their security posture, including compliance and privacy, without adding many people to the IT security team.

- Provide integrated security across all levels, including device-level security such as that found on Surface devices.

- Speed up recovery after a cyber attack.

- Reduce the total spend on security solutions.

- Meet minimum cyber insurance requirements.

- Enable secure and compliant environments that support learning, especially hybrid and online models.

COMPOSITE ORGANIZATION

Based on the interviews and survey, 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 seven interviewees from four school systems and 67 survey respondents, 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 K-12 public school district. There are 7,860 teachers and 2,140 staff, all of whom have paid Microsoft 365 Education A5 licenses. IT has six FTEs on the IT security team. The district's 60,000 students all use some of the security and compliance features available in the student use benefit at no additional cost. The district operates many different

types of schools, including traditional elementary, middle, and high schools, as well as schools for special needs students and vocational training. The district recently launched an online-only school built on Microsoft 365 Education.

Deployment characteristics. The school district upgraded from the Microsoft 365 Education A3 SKU to the A5 SKU and retired previous security solutions now provided by Microsoft. Microsoft 365 Education A5 can replace as many as 26 point security, compliance, and privacy solutions. The features rolled out to all employees as part of the upgrade included Azure Active Directory Plan 2, Office 365 Right Management, Litigation Hold, Microsoft 365 Purview eDiscovery, Microsoft 365 Data Loss Prevention for email and files, Microsoft Purview Communication Compliance, Endpoint data loss prevention, School Data Sync, Intune for Education, Microsoft Defender for Endpoint Plan 2, Advanced Threat Analytics, Office 365 Cloud App Security, Microsoft 365 Defender for Cloud Apps, Microsoft Defender Antivirus, Microsoft Defender Device Guard, and Microsoft Defender for Identity.

Some of the main features rolled out to students as part of the student use benefit were Azure Active Directory Plan 2, Litigation Hold, Microsoft Purview eDiscovery Standard, Microsoft Purview Data Loss Prevention for email and files, Intune for Education, School Data Synce, Advanced Threat Analytics, Office 365 Cloud App Security, and Microsoft 365 Defender for Cloud Apps.

> **Key Assumptions**
> - **60,000 students**
> - **7,860 teachers**
> - **2,140 staff**
> - **6 FTEs on the IT security team**

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	Improved security and compliance posture	$361,126	$408,476	$408,476	$1,178,079	$972,775
Btr	Reduced license costs from vendor consolidation	$366,429	$488,571	$488,571	$1,343,571	$1,103,966
Ctr	Additional IT security team members not added	$219,450	$219,450	$219,450	$658,350	$545,740
Dtr	Reduced employee downtime	$393,750	$787,500	$787,500	$1,968,750	$1,600,441
	Total benefits (risk-adjusted)	$1,340,755	$1,903,998	$1,903,998	$5,148,750	$4,222,922

IMPROVED SECURITY AND COMPLIANCE POSTURE

Evidence and data. Microsoft 365 Education A5 includes more than twenty security, compliance, and privacy features not included in the A3 SKU. Additionally, Microsoft made most of its security features and almost half of its compliance and privacy features available to students at the interviewees' organizations at no cost as part of the student use benefit. All of these capabilities had tight integration because they were all from a single vendor, and this improved the interviewees' schools' security posture in terms of the number and severity of breaches as well as metrics such as mean time to detect (MTTD) and mean time to remediate (MTTR). An improved posture reduced downtime and cost after a cyber event, protected schools' public reputation and limited the disruption to teaching. Interviewees' rollout roadmaps varied based on their highest priorities. Interviewees and survey respondents shared the following examples of how their security postures improved:

• The head of IT at a European private education trust said: "Rolling out multifactor authentication

to all staff members traps 90% of vulnerabilities. If they click on a phishing link, bad actors can't access anything." The number of successful phishing attacks has been reduced from three per month to one per quarter.

• The CIO at an alternative education campus reported that their organization was hit with a ransomware attack in 2020. The damage was limited to one server containing old pictures. They said: "If we were not on Microsoft, we probably would have lost a lot more data. The ransomware demand was $1.6 million, which we did not have to pay."

• The CIO at a public school district said, "Being able to see everything in a single pane of glass helps to understand what is happening, the root cause, and how to remediate the threat."

• The same CIO shared an example in which some student IDs were accidentally emailed to external parties. Data loss prevention from Microsoft blocked that email from leaving the domain.

• About compliance and privacy, the CIO at the alternative education campus said: "We definitely

have better privacy and compliance. We have automated cyberbullying monitoring, and eDiscovery finds state regulatory violations before they result in fines."

- The European director of IT said that Microsoft 365 Education A5 helped their organization meet GDPR requirements and respond to freedom of information requests.

- The CIO at a public school district explained that previously purchased student devices were out of compliance with regard to US federal poverty regulations. That was caught by Microsoft 365 Education A5, and the district can now ensure that it is in compliance.

- Two-thirds of survey respondents reported a decreased risk of a data breach, and the average decrease was 16%.

- The survey also found that the cost to remediate remaining breaches was reduced by 29%.

- With regards to compliance, survey respondents reported a 14% decrease in non-compliance events linked to regulations such as Children's Online Privacy Protection Act (COPPA), Family Educational Rights and Privacy Act (FERPA), Health Insurance Portability and Accountability Act (HIPAA), and General Data Protection Regulation (GDPR).

> **"Communication Compliance helps a lot to identify and respond to incidents. It also helps us change student and staff behavior. Without these safeguards, small incidents would probably spiral into large issues."**
>
> *CIO, public school district*

Modeling and assumptions. For the financial analysis as applied to the composite organization, Forrester assumes:

- Based on Forrester's research, the average number of material breaches that impact multiple systems and a large proportion of users at an organization the size of the composite is 3.0 per year.[3]

- This study's survey's average cost of a breach of $270,000 is scaled to $351,000 to reflect the larger composite organization. These savings include the actual remediation costs as well as fines and additive audit and compliance costs.

- Based on the survey and interviews, the reduction in material breaches for the composite is 15%. Three quarters of this is realized in Year 1 as the Microsoft solutions are fully deployed and fine-tuned and as the IT security team learns to use them fully.

- For the remaining material breaches, the survey finding of a 29% reduction in the cost to remediate is applied.

Risks. The size of this benefit can vary because of:

- The prior frequency of breaches and the total cost of a breach.

- What other security solutions, from Microsoft or another vendor, were in place before.

- Which Microsoft 365 Education A5 security features are implemented and an IT security organization's maturity as it relates to threat detection and remediation.

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 about $972,800.

Improved Security And Compliance Posture

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Average annual number of material breaches before A5	Forrester research	3.0	3.0	3.0
A2	Average total cost of a breach	Composite	$351,000	$351,000	$351,000
A3	Reduced likelihood of a breach with A5	Composite	11.3%	15.0%	15.0%
A4	Reduced number of breaches	A1*A3	0.3	0.5	0.5
A5	Subtotal: Savings from fewer breaches	A2*A4	$105,300	$175,500	$175,500
A6	Reduction in total cost of remaining breaches	Composite	29%	29%	29%
A7	Subtotal: Savings from lower costs associated with remaining breaches	(A1-4)*(A2*A6)	$274,833	$254,475	$254,475
At	Improved security and compliance posture	A5+A7	$380,133	$429,975	$429,975
	Risk adjustment	↓5%			
Atr	Improved security and compliance posture (risk-adjusted)		$361,126	$408,476	$408,476
	Three-year total: $1,178,079		**Three-year present value: $972,775**		

REDUCED LICENSE COSTS FROM VENDOR CONSOLIDATION

Evidence and data. Consolidating from a point-solution-integration approach to Microsoft 365 Education A5 lowered license costs for interviewees and survey respondents. Interviewees and survey respondents shared the following examples of how they reduced license costs:

- The CIO at the alternative education campus reported a 50% reduction in license costs. Solutions that were retired in favor of Microsoft included endpoint security, antivirus, email filtering, and eDiscovery.

- The CIO at the public school district described a savings of 25% from eliminating prior antivirus and malware solutions.

- A network administrator at a public school district said that the EDR savings alone more than paid for their district's upgrade from Microsoft 365 Education A3 to A5.

- The survey reported software license savings of 14% and an additional software maintenance savings of 15%.

Modeling and assumptions. For the financial analysis as applied to the composite organization, Forrester assumes:

- The total Microsoft 365 Education A5 license cost of $120 per employee per year is 30% less than the cost of the prior security, compliance, and privacy solutions it replaces.

- Only three-quarters of the benefit is realized in Year 1 as some prior solution license agreements expire.

> **"We were able to cut our security license costs 25% by moving to A5. More important than saving money is that we now have better security and user experiences."**
>
> *CIO, public school district*

Risks. The size of this benefit can vary because of:

- The extent to which an organization consolidates onto Microsoft 365 Education A5 and the cost of solutions being replaced.

- How much time is remaining on the prior solution license agreements.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of $1.1 million.

Reduced License Costs From Vendor Consolidation

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Number of faculty and staff employees	Composite	10,000	10,000	10,000
B2	Total Microsoft 365 A5 subscription costs	B1*$120	$1,200,000	$1,200,000	$1,200,000
B3	Reduction compared to previous solutions	Composite	30%	30%	30%
Bt	Reduced license costs from vendor consolidation	Y1: B2/(1-B3)-B2*75% Y2: B2/(1-B3)-B2*100% Y3: B2/(1-B3)-B2*100%	$385,714	$514,286	$514,286
	Risk adjustment	↓5%			
Btr	Reduced license costs from vendor consolidation (risk-adjusted)		$366,429	$488,571	$488,571
	Three-year total: $1,343,571		**Three-year present value: $1,103,966**		

ADDITIONAL IT SECURITY TEAM MEMBERS NOT ADDED

Evidence and data. Compared to prior multivendor security estate, IT security teams working with Microsoft 365 Education A5 were more efficient and effective for several reasons. Firstly, the breadth of solutions within the system and the tight integration across all of them made it easier for the IT security team to view signals in a single pane of glass. This gave them the ability to better avoid breaches and to efficiently detect and remediate ones that do occur. The increased number and complexity of attacks made this more important. Secondly, there were built-in automations that reduced a team's effort. Lastly, there was less effort in managing an integrated security, compliance, and privacy platform compared to a multivendor stack. These efficiencies meant that an existing IT security team could handle a larger workload without adding headcount. Interviewees and survey respondents shared the following examples of how they are more efficient and effective:

- The CIO at a public school district explained that a significant driver of moving to Microsoft was an IT staff shortage. With Microsoft's tools, the school district was able to implement a one-device-to-student model and provide internet access to 14,000 families without adding any additional IT staff.

- The same CIO also estimated that their district would have needed to add four security people to its existing team of four if it had not moved to Microsoft 365 Education A5 — two on the security operations center (SOC) team and two working on compliance and identity. The interviewee said this was largely attributed to automation in A5 needed less human monitoring and let their organization's teams work with fewer people.

- The CIO at the alternative education campus estimated that everyone on the virtual team

responsible for security saved 30% of their time. They also said that application developers saved time by leveraging Microsoft 365 Education A5 security features in their applications.

- The infrastructure manager at the European private education trust said: "I see increased confidence in my team. We get a lot of security alerts, and the built-in automation gives them the time to look at what is most important and analyze what is happening and why."

- The executive director of technology at a public school district said that managing a multivendor estate requires more people. They said: "[With Microsoft 365 Education A5], the teams are becoming more efficient on response time to triage and respond to an attack, containing it before it becomes a larger problem."

- Survey respondents reported increased efficiencies across several teams, including security, developers, and internal audit.

> **"My team consists of four people. We have almost doubled the number of schools without adding security people because of A5. Otherwise, I would have had to grow the team by at least 50%."**
>
> *Infrastructure manager, private education trust*

Modeling and assumptions. For the financial analysis as applied to the composite organization, Forrester assumes:

- The existing IT security team is six FTEs, and it would need to grow by 50% if the composite

organization had not consolidated onto Microsoft 365 Education A5.

- A team member's average fully burdened cost, including salary, benefits, and payroll taxes, is $77,000.

Risks. The size of this benefit can vary because of:

- The prior team size and eve of experiences.

- The prior security solutions in place and the level of automation.

- The fully burdened cost of an IT security team member.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of about $545,700.

Additional IT Security Team Members Not Added

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Number of FTEs on IT security team	Composite	6	6	6
C2	Avoided FTE headcount increase	C1*50% (rounded up)	3	3	3
C3	Average fully burdened cost	TEI standard	$77,000	$77,000	$77,000
Ct	Additional IT security team members not added	C2*C3	$231,000	$231,000	$231,000
	Risk adjustment	↓5%			
Ctr	Additional IT security team members not added (risk-adjusted)		$219,450	$219,450	$219,450
	Three-year total: $658,350		**Three-year present value: $545,740**		

REDUCED EMPLOYEE DOWNTIME

Evidence and data. Teachers and staff at the interviewees' organizations experienced less downtime because there were fewer successful breaches, and the time to remediate the remaining ones was less. Additionally, security tools such as SSO and multifactor authentication (MFA) saved users' time. In the case of teachers, these time savings could be used for additional student teaching, which contributed to improved learning and is discussed in the upcoming unquantified benefits section. Interviewees and survey respondents shared the following examples of how employees experienced less downtime:

- The CIO at the alternative education campus described a breach in which some systems were down for two weeks. Without the forensic and remediation tools in Microsoft 365 Education A5, they estimated that those systems would have been down for two months.

- The head of IT at the private education trust estimated that SSO saved employees 30 to 60 minutes per week because they were not forgetting and resetting passwords.

- The CIO at a public school district said that giving substitute teachers Microsoft 365 Education A5 licenses sped up the onboarding process.

- Survey respondents estimated that employees saved 289 hours yearly since moving to Microsoft 365 Education A5.

Modeling and assumptions. For the financial analysis as applied to the composite organization, Forrester assumes:

- Faculty and staff save fifteen minutes weekly because of less downtime and features such as SSO. For teachers, this is only experienced for

36 weeks out of the year because they have summers off.

- Half of the benefit is experienced in Year 1 as solutions are rolled out and staff become familiar with them.

- An annual average fully burdened cost of staff $63,000 is used, and the hourly fully burdened cost is adjusted for teachers and staff based on how many weeks per year they work.

- To be very conservative, only 25% of this benefit

> **"Less downtime means more student engagement time. Previously, teachers experienced around 2 hours of security-related downtime per month. Now it's less than one minute."**
>
> *CIO, alternative education campus*

is included in the financial analysis because not all time savings translates into additional productive work.

Risks. The size of this benefit can vary because of:

- The amount of previous downtime.

- If features such as SSO and MFA are implemented.

- The fully burdened cost of an employee.

Results. To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of $1.7 million.

Reduced Employee Downtime

Ref.	Metric	Source	Year 1	Year 2	Year 3
D1	Number of staff	Composite	2,140	2,140	2,140
D2	Annual staff time savings (hours)	50 weeks*0.25 hours [50% realized in Year 1]	6.3	12.5	12.5
D3	Hourly fully burdened cost staff	TEI standard	$32	$32	$32
D4	Subtotal: Reduced staff downtime	D1*D2*D3	$421,313	$842,625	$842,625
D5	Number of faculty	Composite	7,860	7,860	7,860
D6	Annual faculty time savings (hours)	36 weeks*0.25 hours [50% realized in Year 1]	4.5	9.0	9.0
D7	Hourly fully burdened cost faculty	TEI standard	$44	$44	$44
D8	Subtotal: Reduced faculty downtime	D5*D6*D7	$1,547,438	$3,094,875	$3,094,875
D9	Productivity capture	TEI standard	25%	25%	25%
Dt	Reduced employee downtime	(D4+D8)*D9	$492,188	$984,375	$984,375
	Risk adjustment	↓15%			
Dtr	Reduced employee downtime (risk-adjusted)		$393,750	$787,500	$787,500
	Three-year total: $1,968,750		**Three-year present value: $1,600,441**		

UNQUANTIFIED BENEFITS

Interviewees and survey respondents mentioned the following additional benefits that their organizations experienced but were not quantified in the study:

- **Improved learning outcomes.** Microsoft 365 Education A5's security, compliance, and privacy capabilities help create secure environments in which to teach and collaborate. Learning outcomes can also improve because of less downtime for teachers and students.

  - The head of IT at the European private education trust explained that: "[Managing student laptops with Intune] means we are confident that we are giving them safe learning devices. This is especially important for the students struggling financially."

  - The infrastructure manager at the same school reported that teachers can now reset students' passwords, which reduced student downtime.

  - The CIO at a public school system said remote teaching would be impossible without Microsoft 365 Education A5. For a newly launched all-virtual school, every student and teacher was provided with a Surface device. The CIO said, "This virtual model couldn't operate without a great security environment."

  - Fifty-eight percent of survey respondents said that off-campus/hybrid learning improved. Forty-two percent reported that they could better provide learning experiences in secure and compliant ways. Forty-two percent also stated that accessibility and inclusiveness improved.

- **Benefits from nonsecurity Microsoft 365 Education A5 capabilities.** The security features and benefits described in this study are just one part of the Microsoft 365 Education A5 suite. In addition to the education-specific capabilities, it provides other features a school system can use and save money by retiring other vendor solutions. Two that were called out by interviewees were Microsoft Teams Phone and Power BI.

- **Ability to purchase and save money on cyber insurance.** Interviewees shared that insurance providers were increasingly requiring additional security capabilities be in place. EDR was the one most cited. They also said that Microsoft 365 Education A5 contributed to their insurance premiums not increasing as fast as other schools' rates.

> **"We've experienced 5% to 10% increases in insurance costs where others are having increases as high as 200%. We are seeing other schools our size pay three times what we do."**
>
> *Executive director of technology, public school district*

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Microsoft 365 Education A5 and later realize additional uses and business opportunities, including:

- **Implementing additional security features.** All the interviewees explained that they continue to investigate the various security, compliance, and privacy features and that they intend to implement more of them in the future. These could replace other existing solutions and/or eliminate the need to purchase additional

solutions. In both cases, this can result in additional cost savings.

- **Integrating with Microsoft Sentinel.**
  Interviewees described different levels of use of Microsoft Sentinel. Some were fully deployed and ingesting signals from all the deployed Microsoft 365 Education A5 components. Others were in the process of integrating everything, and one was still planning their implementation. Everyone believed that the combination of Microsoft 365 Education A5 and Microsoft Sentinel creates better security and saves them more time.

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	Internal costs	$304,920	$127,050	$127,050	$127,050	$686,070	$620,875
Ftr	External costs	$50,000	$510,000	$510,000	$510,000	$1,580,000	$1,318,295
	Total costs (risk-adjusted)	$354,920	$637,050	$637,050	$637,050	$2,266,070	$1,939,170

INTERNAL COSTS

Evidence and data. Interviewees generally said that implementing the Microsoft 365 Education A5 security, compliance, and privacy features was easier than other past projects because of the native integration across all of the capabilities. Implementation times ranged from a couple of months to one year, depending on the size of the school system and the features initially being deployed.

Ongoing effort for Microsoft 365 Education A5 activities and implementing new policies and features was also described as relatively minor. The level of effort varied based on school size but typically came out to one-quarter of the team's time.

Modeling and assumptions. For the financial analysis as applied to the composite organization, Forrester assumes:

- The initial implementation lasts nine months and requires 4.8 FTEs. These individuals come from various IT teams, including security, networking, and operations.

- Ongoing solution management requires 1.5 FTE.

- The average fully burdened cost for an IT security FTE is $77,000.

Risks. The size of this cost can vary because of:

- The size of the deployment based on solutions being added, the overall size of the organization, and the prior solutions replaced.

- The average fully burdened cost of these resources.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $621,000.

Internal Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
E1	Number of months spent in implementation	Composite	9			
E2	Number of FTEs involved in implementation	Composite	4.8			
E3	Fully burdened cost of IT FTE	TEI standard	$77,000	$77,000	$77,000	$77,000
E4	Implementation costs	E1*E2*(E3/12 months)	$277,200			
E5	Ongoing solution management (FTEs)	C1*25%		1.5	1.5	1.5
Et	Internal costs	E4+E5*E3	$277,200	$115,500	$115,500	$115,500
	Risk adjustment	↑10%				
Etr	Internal costs (risk-adjusted)		$304,920	$127,050	$127,050	$127,050
	Three-year total: $686,070		**Three-year present value: $620,875**			

EXTERNAL COSTS

Evidence and data. External costs to the interviewees' organizations mainly consisted of the incremental Microsoft 365 Education A5 subscription costs. Two interviewees used some upfront professional services to assist with the deployment, configurations, and implementation of best practices.

Modeling and assumptions. For the financial analysis as applied to the composite organization, Forrester assumes:

- In Year 1, 2, and 3, the $51 increase in price from Microsoft 365 Education A3 to A5 is fully included even though it provides additional capabilities, such as Microsoft Teams Phone and Power BI, which were not included in the benefits section.

- The composite spends $50,000 on deployment professional services for the scope of work shown in the organization's description. This is in addition to the free support that Microsoft sometimes provides.

Risks. The size of this cost can vary because of:

- The overall size of the organization.

- The number of professional services required.

Results. No risk adjustment was made because the list price is used, and the full, incremental cost is included. The three-year total PV is $1.3 million.

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
	External Costs					
F1	Number of A5 subscriptions	B1		10,000	10,000	10,000
F2	Incremental A5 cost over A3	$120 - $69		$51	$51	$51
F3	Incremental A5 subscription uplift cost	F1*F2		$510,000	$510,000	$510,000
F4	Professional services	Composite	$50,000	$0	$0	$0
Ft	External costs	F3+F4	$50,000	$510,000	$510,000	$510,000
	Risk adjustment	0%				
Ftr	External costs (risk-adjusted)		$50,000	$510,000	$510,000	$510,000
	Three-year total: $1,580,000			**Three-year present value: $1,318,295**		

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Financial Analysis (risk-adjusted)
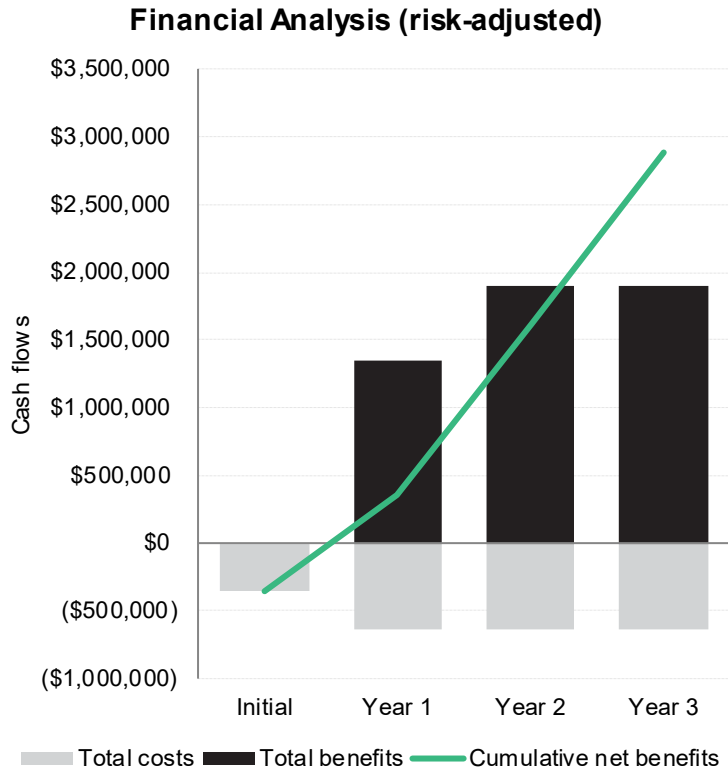
The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

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	($354,920)	($637,050)	($637,050)	($637,050)	($2,266,070)	($1,939,170)
Total benefits	$0	$1,340,755	$1,903,998	$1,903,998	$5,148,750	$4,222,922
Net benefits	($354,920)	$703,705	$1,266,948	$1,266,948	$2,882,680	$2,283,752
ROI						118%
Payback						7 months

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%.
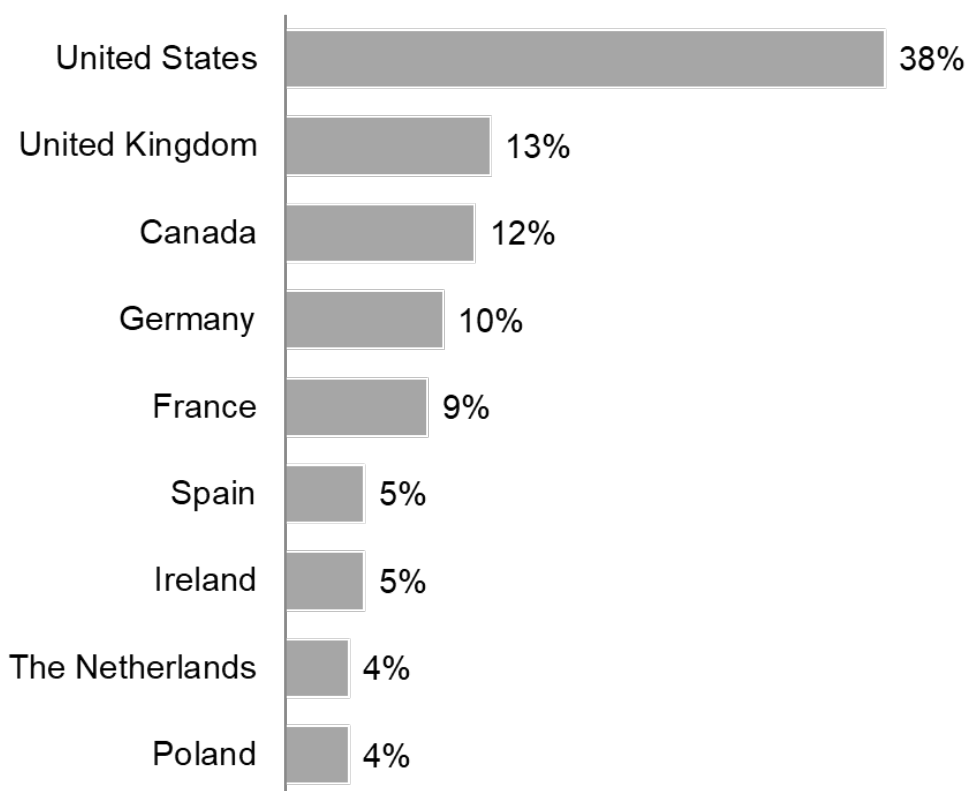
PAYBACK PERIOD

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: Interview And Survey Demographics

Interviews			
Role	**School Type**	**Students**	**Faculty And Staff**
CIO	Alternative education campus	6,000	500
Head of IT	Private education trust, Europe	10,000	1,500
Infrastructure manager	Private education trust, Europe	10,000	1,500
CIO	Public school district	50,000	10,000
Network administrator	Public school district	21,000	5,000
Network administrator	Public school district	21,000	5,000
Executive director of IT	Public school district	21,000	5,000

Survey Demographics

In which country are you located?

Country	Percentage
United States	38%
United Kingdom	13%
Canada	12%
Germany	10%
France	9%
Spain	5%
Ireland	5%
The Netherlands	4%
Poland	4%

Base: 67 decision-makers who have experience using and managing Microsoft 365 Education A5 at their organizations
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, April 2023.

Appendix C: Endnotes

[1] In this study, security is sometimes used as a shorthand for security, compliance, and privacy.

[2] 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.

[3] Source: Forrester Consulting Cost Of A Cybersecurity Breach Survey, Q1 2021.

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