

Quantifying Impact: Knowing the Value of your Tech Investment

Fostering learning, navigating IT challenges, and strengthening security in the modern educational landscape



The value of Microsoft 365 and Windows Devices

Education technology is often a multi-million-dollar investment over many years, and locks schools into a platform that directly affects how educators teach, students learn, and schools operate. It's critical school leaders choose the right technology for teaching and learning while spending wisely and getting a good return on every dollar they spend. This includes the devices they buy, the apps and services they deploy, and the security solutions they choose to protect it all.

Quantifying value, benefits received, and total cost of ownership for a complex array of solutions is a challenge. Microsoft commissioned Forrester and Concentrix to help. Three studies, two that measure the Total Economic Impact of Microsoft products and solutions, and a third on the Total Cost of Ownership of Microsoft devices, provide readers with a deeper understanding of the value they may be getting in return for their tech investments. Overall results from these studies show:



Increased overall savings achieved when using Windows and Microsoft solutions, totaling \$1.90 in return for schools for every dollar spent towards investment.⁴



Lowered initial and ongoing costs when using Windows devices and A5 security, saving schools money and helping IT teams be 50% more effective.³



Decreased "hidden" costs with more transparency when using Windows devices and Microsoft's inclusive solutions to deploy and manage technology.²



Improved device and data protection with embedded Microsoft solutions, reducing annual breaches by 15% and the cost to remediate remaining breaches by 29%.³



Accelerated teaching, learning, and work outcomes saving educators 10-15 minutes a day and better preparing all students for the future.⁴



Microsoft delivers on the features customers care about most with overwhelming satisfaction across need areas like security, accessibility, sustainability, and student preparedness.²

When it comes to low-end ecosystems, Microsoft provides a 6%–9% cost advantage compared to non-Windows devices within the same price-band.²

Reviewing the research

The Microsoft Education Total Cost of Ownership (TCO) study analyzes the true costs of technology for schools, going beyond device price to the overall costs associated with maintenance, learning and security solutions, and training and support over five years. It compares the cost of devices and solutions for a school system of 500 students and 50 educators and administrators.

Forrester Consulting conducted two Total Economic Impact™ (TEI) studies, examining security-related return on investment (ROI) as well as deployment, privacy, and productivity-related ROI that school systems may realize by deploying Microsoft 365 A5 licenses and Windows devices, respectively. These studies utilized composite organizations of a K-12 school system with 60,000 students and 10,000 employees1 and a US-based public school district serving 30,000 students across 50 schools grades K-12 respectively to measure ROIs.



The Microsoft Education **Total Cost of Ownership** (TCO) study

Microsoft offerings

years

educators and administrators

Forrester Consulting: Total Economic Impact™ (TEI) studies

The Total Economic Impact™ Of Microsoft 365 Education A5 Security For K-12 Schools

> 60k students in composite K-12 school system

> > **10K**

employees in composite K-12 school system

The Total Economic Impact™ Of Microsoft Windows Devices For K-12 Education

> 30K students in US public school system

> > school grades

Transforming schools with Windows devices and Microsoft solutions

In today's educational landscape, schools find themselves grappling with various challenges related to the IT infrastructure deployment and management needed to support schools. Schools now use a range of tools and applications for instruction, communication, and collaboration as well as platforms to access and analyze data. Moreover, schools require expansive security features to keep them safe, especially as more schools and districts across the nation are finding themselves the victims of malicious cyberattacks. In fact, since 2016, the K12 Security Information eXchange has catalogued over 1,619 cybersecurity incidents in K-12 schools in the United States.¹ Averaged over the last six years, this equates to a rate of one incident per school day.

The COVID-19 pandemic caused schools to rapidly expand their digital ecosystems to support student learning and wellbeing in new ways. As they reacted to the pressure to quickly switch to remote learning, 54% of schools noted that between 2020-2023 devices were purchased or leased sooner than they would have otherwise.² Unfortunately, that meant schools needed to make quick decisions regarding devices and licenses due to time constraints and spending pressures that may not have always supported teaching and learning to the fullest capacity. This paradigm shift brought with it escalating costs and disjoined systems, resulting in school environments where digital cohesion proves to be a challenge for both budgets and utilization.

Between the expensively cobbled together and underutilized technology that schools now have and the increased security challenges that schools face, it's no surprise that Chief Technology Officers (CTOs) and IT personnel feel stretched thin by overwhelming demands. While there is no simple fix, there is a better way. Together, Microsoft 365 for Education and Windows devices provide a trusted, comprehensive, and connected platform with intelligence to meet the changing and diverse needs of education institutions by improving efficiency, preparing students for the future, and accelerating learning. Microsoft has responded to these new demands on schools with a focus on:

- Infusing the power of AI into teaching and learning tools, which help educators differentiate instruction, save time on administrative processes and data analytics, and provide students with opportunities for more deliberate practice.
- Ensuring devices and device management are cost-effective to help schools control the rising cost of technology infrastructure.
- Simplifying disparate security systems to improve prevention, detection, and response across the entire digital school environment.



cybersecurity incidents in K-12 U.S. schools since 2016¹



cybersecurity incidents per school day, averaged over 6 years¹

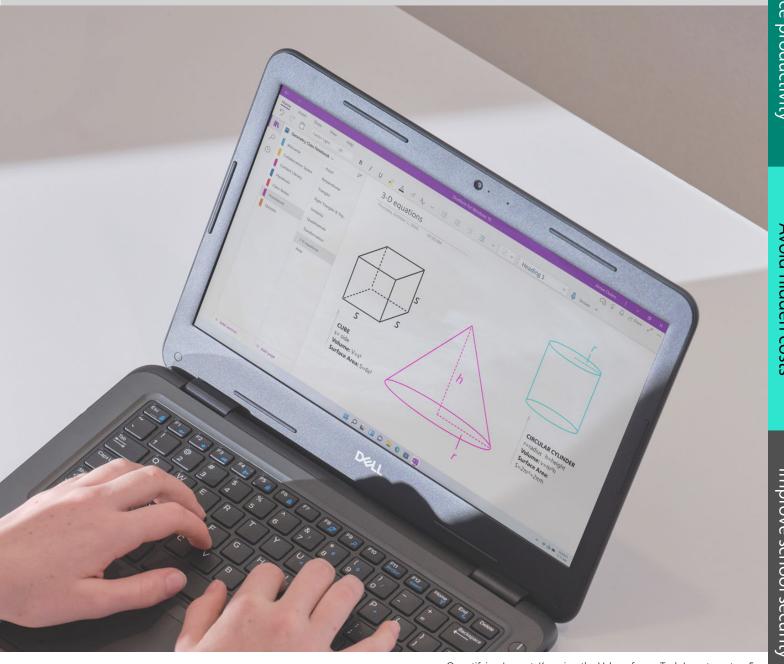


of schools, between 2020–2023 reported buying or leasing devices sooner than anticipated²

Explore how Microsoft provides integrated and inclusive experiences for classroom instruction, the best productivity platform for communication and collaboration, reliable devices and management, and integrated security and compliance all in a way that is efficient and cost-effective, saving schools money and time.



Use the tabs on the right side to navigate to the different sections of this paper and then scroll to learn more about Microsoft devices and solutions.



Considerations for school technology decision-makers

Given this swift shift towards digital ecosystems and the growing demand for device management in educational settings, it is crucial that school decision-makers comprehend the significance of furnishing secure digital learning environments that cater to the teaching, learning, and working requirements of both students and staff. Digital ecosystems should engage learners, improve collaborative efforts, and accelerate learning outcomes while allowing IT staff to efficiently and effectively protect and manage devices and data and keep the financial burden low. With 85% of schools anticipating the need to purchase or lease more powerful devices in the coming year, on top of already stretched budgets and IT needs, it's imperative that school technology decision-makers understand all factors that go into the total value and cost of ownership for their school.²

As large players in the education technology space, Microsoft Education and Google for Education present school decision-makers with numerous factors to consider before purchasing devices and licenses for students and staff to develop a secure and effective digital learning ecosystem. Microsoft 365 and Windows devices offers education users expansive value from cost-effective devices with security that keeps users, data and devices protected to innovative, inclusively designed solutions that save educators time, reduce the need for expensive third-party applications, and help students accelerate their learning.

"This is the year that a lot of that pandemic funding has been cut off, so whatever is purchased has to be economical, durable, directly connected to student success, and not something that we have to buy [or replace] every year.²"

—Education Technology Specialist, School District in Atlanta, GA





Revolutionize learning

In today's changing education landscape, schools are tasked with accelerating learning and providing inclusive learning settings more than ever. Microsoft offers schools an advantage in this area. Between Al-embedded solutions that enable differentiated instruction and save educators time and easy-to-use accessibility features that support learning for all, Microsoft's comprehensive solutions enhance student learning outcomes, engage students, and fosters inclusive digital learning environments.



79% of schools using Microsoft are with Microsoft's

learning solutions

81% of schools believe **Microsoft** delivers on student preparedness

1 hour

increase in weekly productivity for both educators and school leaders

Accelerated student engagement and learning outcomes

Engaged staff and students play a pivotal role in elevating student learning outcomes within digital ecosystems, and without engagement, progress can slow. As student engagement increases, student learning outcomes often increase.

Microsoft teaching and learning solutions help educators and school staff:

- Grow student engagement: 79% of schools using Microsoft say they are satisfied with how Microsoft solutions, such as Learning Accelerators like Reading Progress and Speaker Coach, improve student engagement and increase excitement.²
- Save educators' time: Microsoft has been shown to increase educator productivity by one hour each week with solutions like Teams for Education and Learning Accelerators, helping educators streamline the creation, review, and analysis of practice assignments while providing students real-time coaching to accelerate learning.4
- Accelerate student learning: One study indicated that at the school districts interviewed, students' grades noticeably improved with Windows devices⁴ while another noted that 81% of schools believe Microsoft delivers on student preparedness.² One interviewee even revealed that their school district experienced a significant improvement in student performance after deploying Windows devices, moving from the bottom third to the top third of districts in their state.4
- Analyze holistic data efficiently: School leaders recover over an hour a week each week by utilizing Microsoft solutions like Education <u>Insights</u>, which aggregates the data provided in Microsoft's Learning Accelerators to allow educators and leaders easy access to data and insights about individual students, groups, classrooms, and schools.⁴

"Teams, OneNote – they're staples. Kids prefer PowerPoint. They prefer Excel hands-down. So, there's the staple love and reliance [towards Microsoft] because it has allowed them to be more skilled, more dynamic, and secure.2"

—Educator, a K-12 school in Seattle, WA



53% believe built-in accessibility

tools are a primary driver in the transition to Windows devices

80%+ satisfaction with Microsoft's accessible and user-friendly features

Inclusive learning environments and accessibility

To ensure all students have access to learning, digital ecosystems must include accessibility features that are intuitive and easy to use. Inclusively designed education solutions provide accessibility that gives students and educators multiple ways to create, engage, and participate in learning.

Microsoft 365 solutions are <u>inclusively designed</u> to ensure accessible learning experiences for all learners by:

- Removing barriers to learning without distractions: Interviewees and survey respondents notes that previous non-Windows devices they had used lacked accessibility features tailored to students' needs, and students became even more likely to be distracted with them during class.⁴
- Leveraging built-in accessibility for a diverse range of learning needs: 53% of education leaders surveyed reported that a primary driver in the move to Windows devices for their organization was empowering students with special education needs (and their teachers) with tools that support teaching and learning, like Immersive Reader and embedded translation features.⁴
- Ensuring built-in, intuitive accessibility features for all users: Eightyone percent of interviewees using Microsoft report that they are
 satisfied with how Microsoft delivers accessibility features and 83%
 report they are satisfied with how Microsoft delivers intuitive userinterface features.²

"You never forget the look of a student smiling at your jokes. I'm very energetic when I'm teaching. To have to stop every couple [of] sentences for somebody to translate, it frankly sucks. When I started using PowerPoint Live... as a vehicle to translate into Spanish, they started laughing at my jokes and I didn't have to stop my class. Gamechanger. I'll go to bat for that one any day.²"

—Director of Digital Learning, 3 school districts in Manhattan



Enhance productivity

Given the increasing time and resource demands on educators and school leaders, the demand for more robust communication and collaboration tools in schools as well as time-saving applications cannot be overstated. These tools act as a catalyst for learning and information sharing among educators, students, staff, and families. Microsoft's innovative solutions support vital collaboration efforts and help staff automate administrative processes, unlocking essential time for educators.



83% satisfaction

with Microsoft's integrated cloud computing for learning and collaboration

63% state classroom teaching experiences are

enhanced

with Windows devices and Microsoft education solutions

Powerful communication and collaboration

Effective communication and collaboration form a cornerstone of a thriving educational ecosystem, uniting staff, students, and families to foster a seamless exchange of ideas, support, and engagement. Microsoft 365 offers powerful solutions to enhance collaboration all within one connected platform.

Microsoft's powerful communication and collaboration solutions:

- Allow reliable and efficient interaction: Those interviewed stated that teachers experienced improved communication with students and were more efficiently able to follow up on requests and assignments through Teams for Education.⁴ In fact, schools using Microsoft reported 83% satisfaction with Microsoft's integrated cloud computing, which allows students to more easily access files and collaborate.2
- Support the seamless exchange of ideas, support, and engagement: Teachers reported that the accessibility of Teams and its ease of use allowed them to more easily observe what fellow colleagues were teaching to incoming students and how other educators within the same district were approaching their lessons, a practice they had engaged in before but now found simpler.4
- Offer users a unified communication platform: As indicated by 63% of survey respondents, the classroom teaching experience was enhanced by Windows devices, a sentiment echoed by interviewees who expressed appreciation for the integration of Windows applications across their services, encompassing tasks such as accessing and editing documents within OneDrive folders from anywhere and collaborating on files with students via Teams, OneNote Class Notebook, or Whiteboard.4

"We saw that Windows laptops provided the most productivity and collaboration possibilities for our students." ... The shift to these devices happened as a result of incredible software and ability to hone on students' learning journey to achieve goals faster.4"

—Chief information officer, North America



75 minutes

saved per week by leaders with Microsoft's automation and data analysis solutions

Automated administrative solutions

It's no secret that educators and school staff have limited time. Microsoft offers a variety of solutions that help educators and staff automate timeconsuming administrative processes and guickly aggregate and analyze data from a variety of sources to help improve learning outcomes.

To save educators and school staff valuable time, Microsoft provides integrated solutions that:

- Analyze and review data trends from a variety of data sources: Administrators reported that using **Power BI** streamlined data intake into school dashboards with minimal errors, saving leaders about 75 minutes per week.4
- Leverage data to help make informed decisions: Administrators also noted that Power BI's strong performance enabled easy sharing of interactive scorecards showcasing student performance across disciplines, facilitating informed personnel and purchase choices, as well as transparent communication of school and district achievements to the public.4
- Efficiently and effectively automate school processes: Microsoft Power <u>Platform</u>, including Power Apps and Power Automate, enables educators to create apps, automations, chatbots, and web pages in a low-to-no-code environment, facilitating tasks with easy-to-use workflows, like auto-scheduling reoccurring communications, sharing resources, and generating data collection forms for families, ultimately enhancing staff efficiency.

"We really utilize our Power BI license through [Microsoft 365 Education] A5. We build multiple dashboards in Power BI and have even made our school scorecards publicly accessible. 4"

— Chief Information Officer, North America



Avoid hidden costs

The initial investment in devices is often a major determinant of what digital ecosystems school districts decide to purchase. This investment typically includes the cost for accessories, software and applications, deployment management services, and warranties.

In addition to the initial cost of devices and ongoing maintenance expenses, schools must take "hidden" costs into account when purchasing devices and licenses. "Hidden" costs refer to expenses that are often not well represented in the up-front purchase investment, such as costs associated with IT staffing hours for deploying and managing devices and software as well as additional third-party software needs to supplement digital ecosystems. These costs have a strong impact on daily operations and budgets, accounting for as much as 70% of the total cost of ownership of educational technology over five years.2



\$50,000+ and \$200,000 saved

on accessories

At least 1 year longer-lasting devices

with cost-effective licensing compared to non-Windows devices

\$225,000 lower

annual repair costs per year than non-Windows devices

Efficient device deployment and continued maintenance

Given the impact initial device deployment can have on an organization's budget, it is imperative that technology decision-makers understand the total value of the devices and services they purchase. Additionally, when planning for device deployment, districts must budget for repairs and replacement devices due to normal wear and tear.

Considering the benefit of free student accounts, lower costs for accessories, deployment and management solutions, decreased repair and warranty costs, and longer refresh rates, Microsoft Windows devices are cost competitive and durable. This makes them a great choice for school technology decision-makers when considering their initial investment.

Utilizing Microsoft solutions and Windows devices enable education institutions to:

- Decrease the cost of their initial device investment: Microsoft provides lower costs for accessories, deployment and management solutions, and warranties.² For initial, necessary accessories alone, such as keyboards, cases, and adapters, Microsoft can save schools anywhere from \$50,000 to about \$200,000.2
- Lower annual maintenance costs than non-Windows devices: Microsoft Windows devices were found to have about \$225,000 lower annual repair costs and decreased frequency of broken devices when compared to non-Windows devices.4
- **Increase device longevity**: Interviewees noted that refresh rates, or the rate at which devices needed to be replaced, increased to at least a fouryear lifespan with Windows devices, compared with three years for non-Windows devices.4
- Secure cost-competitive and comprehensive school technology: Since Microsoft Education 365 is priced by the number of educators and student accounts are offered at no cost, when the educator-to-student ratio reaches 1:23 or higher, Microsoft software licenses becomes more cost effective.2

"[My team does] do the math and [we] do need to know how much it costs. Can we sustainably do it on the budget that we are provided? And the way we see things is: we're getting more value out of a better device that, TCO-wise, now costs roughly about [the same as other brands].2"

—Chief Technology Officer, K-12 District in California



Saving \$545,700 in IT labor over 3 years

Roughly 8 hours saved weekly on IT related tasks

Only 50% of IT staffing

required to provide improved protection and response thanks to Microsoft 365 A5

Optimized IT staffing

As the difficulty to hire, train, and retain IT professionals grows, education organizations are looking for ways to optimize their already thin IT staffing and budget by simplifying device deployment and management. When compared to non-Window devices, Microsoft offers the lowest cumulative deployment costs.² Lowered deployment costs contribute the most savings to IT staff time and technology budgets and account for over three times the expense of other "hidden" costs like management and training.²

To support the high needs and limited funds of IT teams in schools, Microsoft's comprehensive platform:

- Simplifies device and app deployment: Interviewees noted that a automatic enrollment of Windows devices to Windows Autopilot and Intune for Education helped IT guarantee that all devices had uniform settings and applications to support great classroom experiences, minimizing ad hoc requests for access to features and services.4
- Decreases time allocated to security and privacy efforts: 50% of interviewees reported that their organization experienced reduced time spent on compliance and audit activities thanks to Microsoft's embedded security solutions like Microsoft Defender for Identity, allowing IT staff to stay focused on the threats that matter.4
- Reduces IT costs: 76% of interviewees stated that their organization realized lower internal IT costs and efforts due to less security needs when using Microsoft 365 A5.3 47% of schools also noted decreased management costs using Windows devices and Microsoft solutions.2
- Saves IT staff time: One study suggests that by consolidating to Microsoft 365 A5 licenses, an education organization can provide improved protection and response to threats using 50% of the IT staffing needs as other solutions, saving roughly \$545,700 in added labor over three years.³ Additionally, schools that purchase Windows devices can save IT teams:
 - ✓ 0.5 hours on deployment of each device
 - ✓ 2.5 hours weekly on repairs, maintenance, and help desk tickets
 - √ 5 hours weekly of privacy and security related work.⁴

"We have recently begun taking advantage of Microsoft Intune. ... We can almost take the devices out of the box and hand them to the end user. The days of technicians spending months imaging devices are over. 4" —Chief Technology Officer, North America



Improve school security

Cyberattacks on K-12 schools have become a serious concern in recent years. Between 2018 and 2021, reported cyber incidents at schools have risen from 400 to over 1,300.5 Additionally, in 2023, education represented over 80% of total reported malware encounters across all measured industries.⁶

As the education sector increasingly relies on digital technology to support teaching and learning activities, it has become a rich target for cybercriminals looking to exploit vulnerabilities in these systems. These attacks can disrupt daily operations, compromise sensitive data, and in some cases, even endanger students and staff. Microsoft has built-in, best-in-class security, identity, and compliance to keep students, staff, and devices safe.



\$1.1 million saved over 3 years in licensing and maintenance costs

25% to 30% savings

with Microsoft 365 A5's comprehensive and robust security and learning solutions

Decreased third-party application needs

Third-party applications, such as learning solutions or security software, can account for a large cost in technology budgets and often go underutilized. With the vast array of learning and security solutions included in many Microsoft Education licenses, schools report that thirdparty software often is not necessary, allowing IT staff to ensure privacy and security within one comprehensive platform.

By consolidating third-party applications to Microsoft Education licenses, schools can:

- Save significant licensing costs: Schools report a 25% to 50% reduction in license costs thanks to solutions included in Microsoft 365 A5 like <u>Defender for Endpoint</u>, antivirus protection, email filtering, and eDiscovery.³ In fact, a network administrator at a public school district stated that the Endpoint Detection and Response (EDR) savings alone more than paid for their district's upgrade from Microsoft 365 A3 to A5.3
- Enhance technology utilization: 35% of schools using Microsoft shared a decreased need for additional learning and productivity software or deployment/management tools as Microsoft offerings fulfill their needs in a secure environment.²
- Ensure comprehensive security on one platform: Schools can reduce their total license/subscription and maintenance costs, a value of \$1.1 million over a three-year period, by consolidating various security, privacy, and compliance solutions to Microsoft 365 A5, which gives them access to solutions in one comprehensive and secure platform that meet or exceed minimum industry requirements.³

"We were able to cut our security license costs 25% by moving to [Microsoft 365] A5. More important than saving money is that we now have better security and user experiences.3 "

—Chief Information Officer in a K-12 public school district



14% decrease in non-compliance events

29% decrease in cost to remediate breaches

15% reduction in annual breaches with Microsoft

Improved security and compliance

With the high rates of security incidents in education organizations, schools require security and privacy solutions that help keep students and staff safe across their digital ecosystem. Microsoft 365 A5 provides a unified enterprise defense suite that natively coordinates and automates detection, prevention, investigation, and response across endpoints, identities, email, and applications for integrated protection on devices and platforms.

With built-in, best-in-class security, identity, and compliance solutions, Microsoft helps schools:

- Reduce security breaches and remediation costs: Studies show that Microsoft security and compliance solutions can reduce annual breaches by 15% and the cost to remediate remaining breaches by 29%, totaling \$972,800 over three years.3
- Secure student and staff data and devices: 78% of interviewees reported improved threat protection and security (including identity) posture in their organization with Microsoft solutions like Microsoft Entra ID, to manage identities across the organization.3
- Improve the digital safety of students and staff: 76% of those interviewed noted that Microsoft solutions like Microsoft Purview eDiscovery, which helps find relevant content and data more efficiently, helped protect against cyberbullying and/or other code-ofconduct violations.3
- **Ensure compliance with chip-to-cloud security:** 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) by taking advantage of Microsoft's chip-to-cloud security with more than 100 compliance certifications.³

"We definitely have better privacy and compliance [with Microsoft 365 A5]. We have automated cyberbullying monitoring, and eDiscovery finds state regulatory violations before they result in fines.3"

—CIO at an alternative education campus

Delivering the features and outcomes that matter most

Cost savings are only one component of what schools must consider when deciding on devices and licenses. The features and outcomes of digital education solutions also impact their total value, as they can deliver realized benefits that students and staff need.

Microsoft not only provides competitive pricing and robust durability with Windows devices, but also gives educators access to inclusive solutions that support student learning, engagement, and collaboration in a comprehensive and secure environment. Overall, Microsoft's comprehensive solutions help schools save on both upfront and "hidden" costs, offering a lower total cost of ownership over five years when compared with non-Windows devices.² Schools appreciate the features and outcomes that Microsoft provides, with benefits like increased student engagement and learning, intuitive accessibility features, and enhanced security.²

Microsoft's offerings have better overall value with a track record of positive outcomes and a passion for innovating education technology. With solutions that support schools both in the classroom and in the office, make more efficient use of technology budgets, and allow schools to take advantage of emerging technologies like AI, Microsoft Education sets schools up with a foundation for success. Schools leveraging Microsoft's offerings receive unmatched benefits for all stakeholders, making it an exceptional platform for educational institutions.

Summary of Windows Devices and Microsoft 365 A5 cost savings over a 5-year period	
Overall Savings (High-End Devices) ²	Up to 17% lower cost of ownership compared to non-Windows devices
Overall Savings (Entry Level Devices) ²	6 to 9% cost advantage over non-Windows devices
Software and License Savings ²	Higher savings with Microsoft when ratio of educators to students is 1:23 or higher
Annual Repair Savings ⁴	Lower annual repair costs and broken devices compared to non-Windows devices
Refresh Rates⁴	At least 4-year lifespan compared to a 3-year lifespan for non-Windows devices
IT Staff Savings³	Reduction in added IT labor costs by 50% over 3 years with Microsoft 365 Education
Connectivity and Utility Savings ²	Up to 18% lower costs compared to non-Windows devices
Third-Party Application Savings ³	25 to 50% reduction in license costs with Microsoft 365 Education A5
Annual Security Breaches ³	Reduction of 15% and deduction in cost to remediate remaining breaches by 29% with Microsoft 365 Education A5

Footnotes and Resources

- ¹ K12 Security Information eXchange (2023) https://www.k12six.org/map
- Microsoft Education Total Cost of Ownership (TCO) Study (2023), a commissioned study conducted by Concentrix, July 2023. The study is based on qualitative interviews, database analysis, mystery shopping, and quantitative surveys.
- ³ The Total Economic Impact™ Of Microsoft 365 Education A5 Security For K-12 Schools, a commissioned study conducted by Forrester Consulting, July 2023. Results are for a composite organization based on interviewed school districts.
- ⁴ The Total Economic Impact™ Of Microsoft Windows Devices For K-12 Education, a commissioned study conducted by Forrester Consulting, July 2023. Results are for a composite organization based on interviewed school districts.
- 5 The State of K-12 Cybersecurity Report Series K12 SIX (2023) https://www.k12six.org/the-report
- ⁶ Microsoft Security Intelligence (2023) https://www.microsoft.com/en-us/wdsi/threats

