July 2025

E-BOOK

Cloud Econ 101:

Deciphering the Cloud Storage Fees That Plague Higher Ed Budgets

wasabi hot cloud storage

Executive summary

In higher education, IT leaders are caught in a tough balancing act. They need to scale digital infrastructure to meet growing academic demands while navigating shrinking budgets, rising security risks, and pressure to improve equity and access. Institutions are expected to be research centers, digital content creators, compliance stewards, and safety enforcers, while supporting distributed students and staff.

In short, they have to do it all.

This balancing act is forcing IT decision-makers to examine one of the most critical and costly parts of their infrastructure: their cloud storage. From research files and surveillance footage to lecture recordings and backups, storage touches nearly every part of campus life. But not all cloud solutions are created equal. Many promise flexibility and scale but bury schools in fees that strain their inflexible budgets.

This eBook explores the hidden costs of cloud storage that are overwhelming already tight budgets and show how institutions are rethinking their infrastructure to better align with the priorities of higher ed.

Under pressure: What's stretching higher ed IT budgets thin

First, let's break down the two levels of pressure that higher education IT teams are facing:

Macro-level challenges:

Broad forces like shrinking budgets, rising cyber threats, and increased demand for equity and access.

Micro-level impacts:

Everyday operational frustrations, from departmental silos to procurement challenges.

Understanding both helps explain why cloud storage (and how it's billed) is becoming a major pain point for many institutions.

Broad challenges in higher ed

Shrinking budgets and volatile funding

College and university budgets are under pressure from all sides. Many institutions rely on state funding, federal grants, and tuition-based revenue, but every single one of these funding sources is becoming increasingly unpredictable.

- **State funding cuts** have become common since the pandemic, leaving schools to do more with less.
- **Enrollment dips** are further constraining tuition revenue, especially at community colleges and smaller private institutions.
- **Grant cycles** often don't align with tech procurement timelines, leaving IT teams scrambling to line up investment needs with data management, security, or compliance requirements.

For IT teams, this means juggling long-term planning with short-term uncertainty, making predictable IT budgeting a strategic necessity.

Increasing security threats

In 2024, 63% of K-12 schools and 66% of higher education organizations were hit by ransomware attacks, according to **research by Sophos**. This is higher than the global average, **making education one of the most targeted industries for cyber attacks**. Why? Schools manage massive volumes of sensitive data (like student records, research, and financial information) but usually don't have the cybersecurity budgets of large enterprise companies.

Bare-minimum requirements for data protection include immutable storage, strong encryption, and the ability to recover your data quickly in the event of an attack. But many schools are locked-in to cloud environments that charge fees for managing security features like object lock, making immutability cost-prohibitive. They may try to lower their costs by using colder tiers of service, but that makes recovery both slower and more costly in the long run.

Equity and accessibility expectations

Remote access, hybrid learning, and on-demand content aren't fringe use cases anymore. They're the norm. Students expect reliable access to coursework no matter where they are and faculty need real-time collaboration tools that just work. That means digital equity is now an essential.

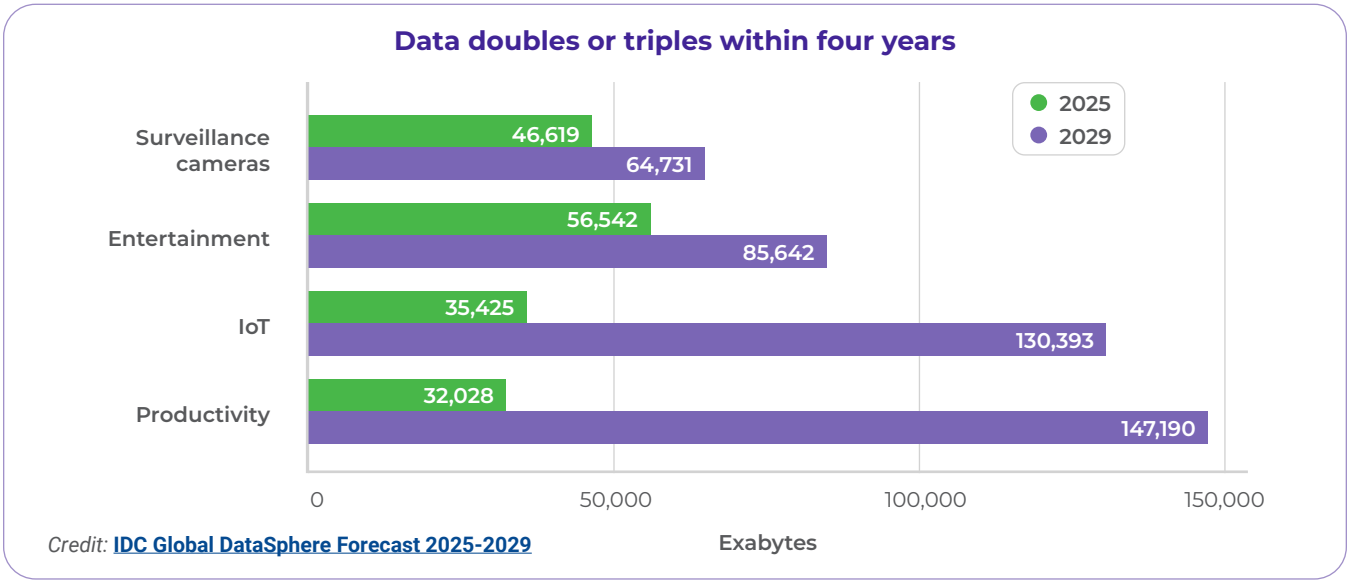
But too often, the infrastructure behind those experiences isn't built for scale or fairness. Traditional cloud providers charge you more every time someone accesses a file. That means the more equitable and accessible your environment becomes, the more it costs to maintain. True digital equity requires storage that scales access, not penalizes it.

Procurement challenges: Innovation stalled by red tape

Innovation moves fast, but procurement in higher ed doesn't. Students expect instant access to digital materials.

Researchers need scalable computing and storage. But many institutions are still navigating outdated approval processes, siloed decision-making, and legacy contracts that make it hard to modernize.

Slow procurement cycles stall upgrades. Vendor lock-in makes switching painful and more expensive the longer data is stored with a hyperscale cloud. And all the while, the data keeps growing—research datasets, high-res video, lecture capture, surveillance footage, admin records, and more.



The result? IT teams are stuck trying to scale yesterday's infrastructure for tomorrow's workloads.

Where the fees hit home: Day-to-day pain points

Now that we've looked at the broader forces at play, let's zoom in on how they appear in daily operations. These are the real-world pain points that show up in meetings, budget reviews, and help desk tickets. Let's explore a few examples.

Unpredictable costs

Surprise bills stack up quickly when cloud providers charge extra for every access, transfer, or data retrieval. These fees are often hidden or misunderstood.

Data silos

When departments buy and manage storage separately, costs increase and visibility disappears. This creates budget strain and potential security gaps.

Access and performance gaps

Cold storage delays and high retrieval costs can stall research, slow investigations, and disrupt time-sensitive campus operations.

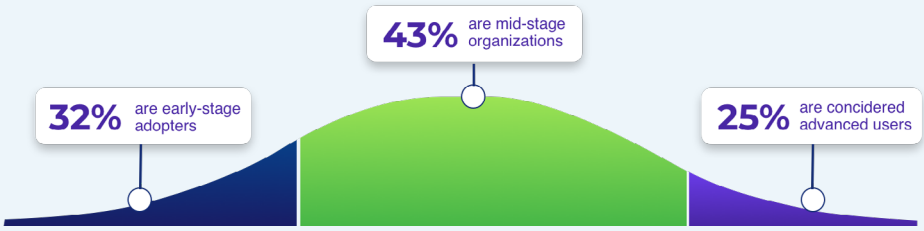
Procurement friction

Outdated procurement processes and long approval cycles make it difficult for IT to adopt more efficient storage solutions, even when the benefits are clear.

If any of these sound familiar, just know that you aren't stuck. Understanding the total cost of cloud storage (what you're paying for, when, and why) can help you get ahead of costs by showing where the real expenses come from and how to avoid them.

Where do you land? Cloud maturity in higher ed

75% of education institutions have been in the cloud for 5 years or less



- 32% are **early-stage adopters**, just beginning to move individual workloads to the cloud (often backups or low-priority data).
- 43% are **mid-stage organizations**, likely storing multiple workloads in the cloud but lack centralized oversight or cost control.
- 25% are considered **advanced users**, with integrated cloud storage across systems.

Data source: **2025 Cloud Storage Index**

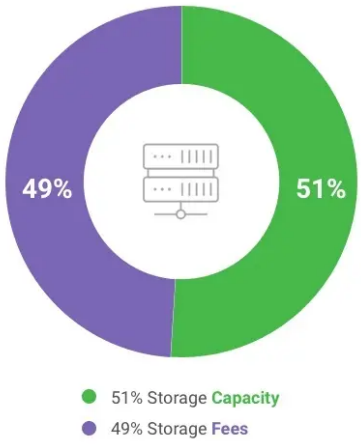
Sticker shock: Why cloud storage costs more than you think

The sticker price of cloud storage rarely tells the whole story. For higher ed institutions, where data is constantly moving, growing, and being accessed, the real cost lives in the fine print.

What you're really paying for with cloud storage

What looks like a good deal per terabyte quickly unravels once you factor in fees for every upload (PUT), download (GET), API call, data preview, and restore. That means the more your departments or teams use the data you store, the more they're penalized.

Key higher ed findings from our **2025 Cloud Storage Index**, an independent study of 1,500 IT-decision makers on their usage and planned usage of cloud object storage, include:



Source: **Cloud Storage Index report** - *Vanson Bourne, 2025*

- Up to **50% of education cloud storage bills** go to fees, not capacity.
- PUT and GET request fees, while deceptively small, add up fast.
- Cold storage retrieval can take hours or even days—and often cost you more than warmer tiers in the long run
- **3 out of 4 surveyed education organizations exceeded budgeted spend** on cloud storage in 2024.

These are major problems for schools that rely on quick access to student files, research archives, surveillance footage, or backups. Delays don't just frustrate users. They derail operations.

Our **total cost of ownership calculator** hows how quickly these fees add up. In many cases, total costs can increase drastically over the expected price when you account for:

Budget Buster:

Retrieval fees from cold storage tiers can delay access to essential data and drive up your total cost.

- API requests (operations your system performs to interact with stored data, like PUT/POST/GET/SELECT/LIST)
- Lifecycle transitions (automatic movement of data between storage tiers, like from hot to cold storage, based on preset rules)
- Cross-region transfers (data moved between data centers in different geographic locations)
- Access and egress fees (charges incurred when you need to access or move your data out of a hyperscale cloud)
- Cold storage retrieval surcharges (accessing data stored in cold tiers. Fees can be for retrieval speed, data volume, or frequency of access)

Worse, these charges can be hard to predict. For education teams working within fixed budget cycles, this makes accurate forecasting nearly impossible. Predictable pricing is non-negotiable for higher ed, yet hyperscale cloud providers make it anything but. The result? IT leaders are stuck choosing between delayed projects, restricted access, or surprise overages.

How PUT charges alone can blow your backup budget

Scenario: Cloud backup requiring 100 TB of storage capacity

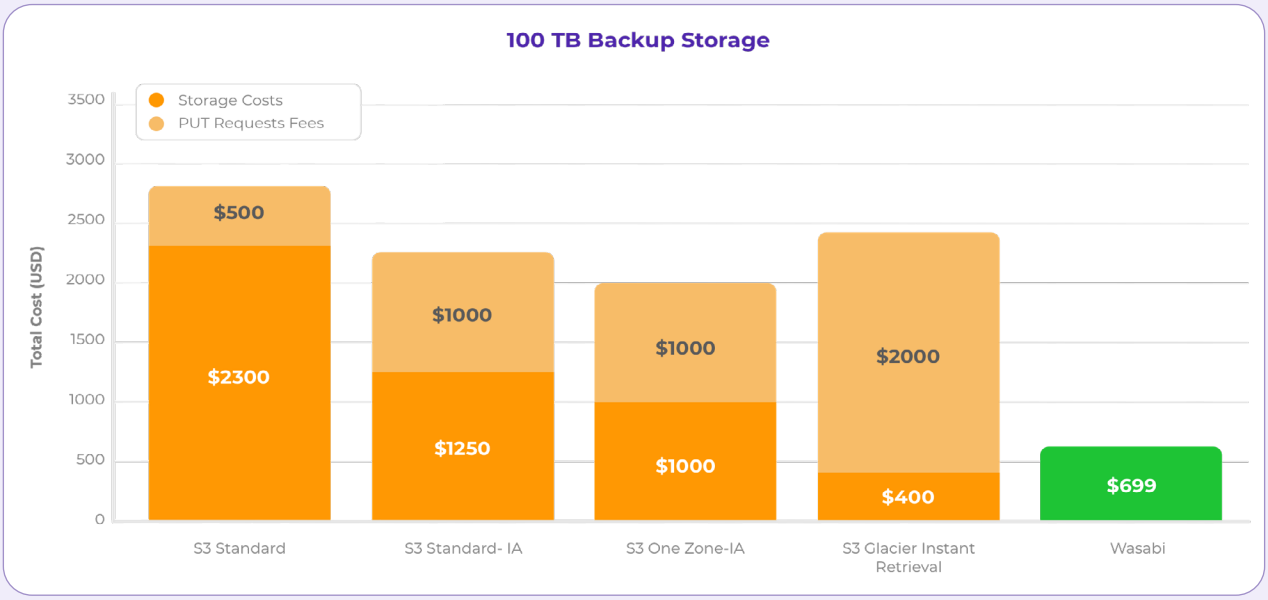
Let's take a look at the true cost of backing up 100 TB in the cloud for one month. To make it simple, let's assume we're using a popular cloud backup application, such as Veeam, where backup data is typically stored as 1 MB objects. Again, to make the math simple, let's say 100 TB = 100 million individual 1 MB objects.

In this simple scenario, we are only focusing on the total cost of the initial 100 TB backup which consists of two main cost components: the per-TB storage cost of storing the initial full backup for one month, and the **PUT** request fees required to write each object to buckets in the cloud environment. **Storage Cost** is calculated as (**cost per TB/month x 100 TB**).

Storage Tier	Cost/TB/Month	PUT Fee (per 1k Requests)
S3 Standard	$23	$0.005
S3 Standard-Infrequent Access	$12.50	$0.01
S3 One Zone Infrequent Access	$10	$0.01
S3 Glacier Instant Retrieval	$4.00	$0.02
S3 Glacier Flexible Retrieval	$3.60	$0.03
S3 Glacier Deep Archive	$0.99	$0.05
Wasabi	**$6.99**	**N/A (no API fees)**

PUT Fees are calculated as (PUT Fee per 1,000 requests). Keeping things simple, we'll assume every object requires 1 API call PUT request. Dividing 100 million individual objects by 1,000 requests we get 100,000 billing units or (**PUT fee x 100,000**).

In terms of performance, Wasabi is comparable to AWS S3 Standard, yet it costs dramatically lower right out of the gate. Amazon offers colder storage tiers like AWS S3 Standard-IA or even Glacier as a way for customers to lower storage costs by tiering data they rarely expect to access. Unfortunately, while these colder tiers offer lower storage rates, the API request fees for things such as PUT, GET, and LIST operations are substantially higher—which leads to a drastically high total cost of ownership.



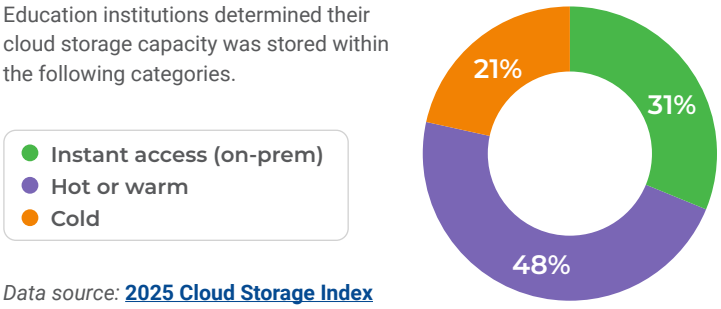
No wonder **73% of education respondents in the 2025 Cloud Storage Index said data access fees delayed or blocked key initiatives**. These aren't rare edge cases. They're everyday roadblocks tied directly to hidden costs. Now, let's take a closer look at how these fees show up across typical use cases in higher education and where you could be most at risk of budget overrun.

Active archiving: Research and records

Cold storage might sound like the logical choice for research archives, backup files, and older video content. But here's the catch: most of that data isn't really cold.

Education data is hotter than you think it is

Education institutions determined their cloud storage capacity was stored within the following categories.



Data source: [2025 Cloud Storage Index]

When we analyzed the results from our [Cloud Storage Index] report by industry, we found that **89% of education respondents access archived data at least monthly, compared with 83% of global respondents**.

Active archiving is on the rise across higher ed

How often, if at all, does your organization have to access or retrieve cool/cold data from a cloud tier that has performance degradation/access penalties?

Source: **Cloud Storage Index report** *- Vanson Bourne, 2025*

Thirty percent (30%) of education respondents reported that slow retrieval has negatively affected their work—56% citing security events as a key reason for needing timely access to archived data, while 50% cited regulatory compliance.

From pulling surveillance footage during a security incident to retrieving backups during a compliance audit to referencing research data for a new grant submission, educational institutions need reliable access to stored data, and they need it fast.

Cold tiers offered by hyperscalers weren't designed for this. Every time you access that "cold" data, you're hit with access, request, and retrieval fees as well as potential delays. And if you want faster access? That costs more, too.

Cost drivers include:

- Retrieval fees every time faculty or students access archive data.
- Higher costs for fast-access tiers.
- API fees to search, move, or preview content.
- Cold storage retrievals that can take hours or even days to complete, slowing down academic workflows and investigations.

The Wasabi advantage:

Our hot cloud storage means no retrieval penalties, making it ideal for digital libraries, historical archives, and research data that's not "cold" at all.

"No egress fees is what makes Wasabi work. It's the reason everybody's not on hyperscaler archive tiers."

— Gregory Guillotte, Research Computing Consultant, LSU

Case in point: Top SEC university

Siloed storage across departments was making research access at this southeastern U.S. state university slow and expensive. Their team was hitting limits with cold cloud tiers, including high egress fees. By switching to Wasabi, the IT team significantly lowered their total archive storage costs and removed the financial barriers to accessing data. Researchers gained faster, unrestricted access to valuable archives, without penalties and workarounds.

Video content: Sports, marketing, and curriculum

Video is everywhere on campus, from lecture capture and athletics to student recruitment, journalism, and marketing. But with large files come larger costs.

Cost drivers include:

- Massive data growth that overwhelms on-prem capacity.
- Retrieval fees when video is edited, reviewed, or republished.
- Additional fees for breaking up and storing large files.
- API request charges any time video is indexed, scanned, or transcoded in cloud workflows.

The Wasabi advantage:

Flat-rate pricing means departments can scale video production without worrying about surprise fees.

"Wasabi gave us the perfect combination of scalability, cost efficiency, and ease of use. It's the ideal solution for our media backups."

— Andy Binkiwitz, AVP of Infrastructure and Security, Bryant University

Case in point: Bryant University

Bryant University in Rhode Island was running out of space for its growing media library. On-prem infrastructure was reaching its limits, and managing backups was eating into time and budget. By integrating Wasabi with their SNS and Veeam tools, they extended their storage capacity without large hardware investments. Immutability added protection while cost predictability gave IT leaders breathing room.

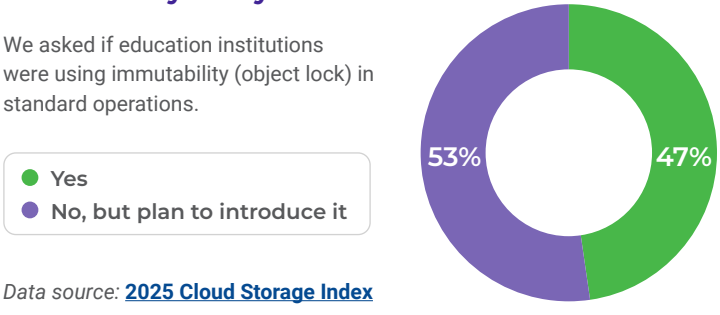
Backup and disaster recovery

Cyber threats and data loss are daily realities for education IT, but storing multiple backups across tiers (or recovering them in a crisis) can be costly and slow. In fact, 30% of institutions say slow recovery times have interfered with their work.

Furthermore, fees are hindering strong cyber resilience and security postures. Although immutability is critical for compliance, many education IT leaders hesitate to utilize the object lock feature due to added complexity and the operational costs tied to managing retention policies, especially when API request fees apply.

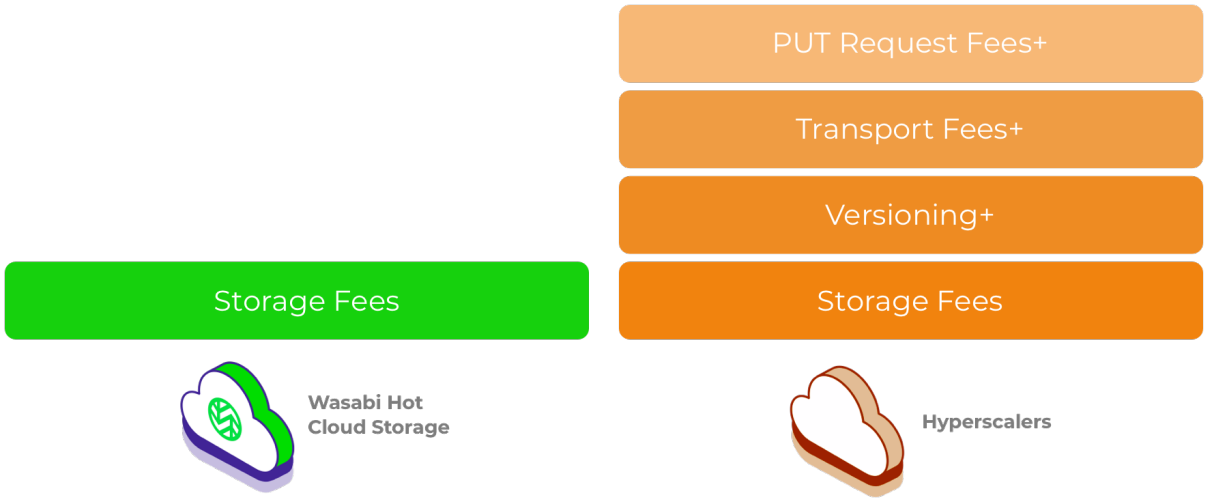
Less than half of higher ed institutions use immutability today

We asked if education institutions were using immutability (object lock) in standard operations.



Data source: 2025 Cloud Storage Index

Calculating the cost of replicating your data doesn't have to be complex



Cost drivers include:

- API request fees for uploading, testing, and verifying backups.
- Egress, access, and transport fees for restoring data.
- Versioning fees for replicating data across regions to bolster cyber resilience.
- Complex tiering models that can slow recovery while adding costs.
- Exorbitant fees for setting and resetting immutability retention periods.
- Legacy backup systems that often require staging backups in more expensive tiers to enable recovery.

The Wasabi advantage:

Built-in immutability, no egress fees, and seamless integrations with Veeam, Beam, Rubrik, and others.

"Wasabi's solution is easy to use compared to many of the other offerings we looked at. It's easy for me to calculate cost, budget for it, and then roadmap for increased use of the service as we go along."

— Scott Beven, Deputy Director of IT Delivery, CDU

Case in point: Charles Darwin University

Serving a widespread remote student population, Charles Darwin University relies on Microsoft 365 and Veeam to support its cloud-first strategy. Wasabi gave them a compliant, sovereign, and predictable-cost storage solution to back up their critical academic data, which is especially important in a region where network infrastructure can be spotty.

The Hidden Cost of Backup Verification

Backing up your data isn't enough. You have to **prove** that the backups are recoverable.

That's why IT teams across higher education are verifying their backups more frequently, whether due to cyber threats, compliance audits, or just good disaster recovery hygiene. But here's what you might not realize: verification itself can get expensive.

Platforms like Veeam, Rubrik, and Commvault regularly run operations like LIST and HEAD operations to verify file integrity and metadata. Some schools test weekly or biweekly, which adds up quickly. In traditional cloud environments, every one of these actions triggers an API fee. You shouldn't have to pay to verify your backups. But with hyperscale cloud providers, you do.

The Wasabi advantage:

With Wasabi, there are no charges for API requests, ever. That means you can test, validate, and restore as often as needed, without worrying about budget impact. It's a smarter way to build confidence in your backup strategy.

A single round of verification can trigger millions of PUT, GET, and LIST requests. A few cents here, a few more there… suddenly, your backup check just became a line item.

You shouldn't have to pay to verify your backups

Popular backup software solutions (such as Veeam, Rubrik, and Commvault) don't just upload data and then "set it and forget it." They also:

- **Regularly verify backups:** These applications routinely LIST objects in your bucket to ensure that every backup file is still there.
- **Perform metadata checks:** Operations like HEAD object requests (to check timestamps or version details) are run frequently.

Furthermore, many organizations test and validate their backups weekly or biweekly—that's 4-8 additional full checks per month. To demonstrate how quickly these fees can add up, our chart includes LIST and HEAD request fees for just 1 full check.

Multiply that figure by the number of times you validate your own backups in a given month to get a better idea where your money is going.

Storage Tier	LIST request fee (per 1k requests)	HEAD request fee (per 1k requests)
S3 Standard	$0.005	$0.0004
S3 Standard-IA	$0.01	$0.001
S3 One Zone IA	$0.01	$0.001
S3 Glacier Instant Retrieval	$0.02	$0.01
Wasabi	**N/A**	**N/A**

wasabi

Why it matters: Routine testing is essential to ensure recovery readiness. But when every verification costs money, schools may be forced to reduce testing, putting data integrity and compliance at risk.

Video surveillance storage

With more cameras, longer retention periods (often dictated by state and federal requirements), and greater compliance demands, storage footprints for surveillance video at higher ed institutions are massive, and many schools have outgrown their on-premises setups.

Cost drivers include:

- Expensive local infrastructure to meet retention rules.
- Unpredictable fees for accessing footage stored in hyperscale clouds
- Decision-making and IT team resourcing to problem-solve around hardware limitations.

The Wasabi advantage:

Extend video surveillance storage to the cloud with **Wasabi Surveillance Cloud**. No retrieval costs, hybrid-ready, and built for scale.

"I don't have to worry about my storage anymore. Wasabi just runs. That's exactly what you hope for in a product."

— Jeremy Leirmo, Senior Systems Engineer, NWTC

Case in point: Northeast Wisconsin Technical College (NWTC)

NWTC faced repeated surveillance footage loss due to overwhelmed on-prem storage, and the IT team knew they needed a future-proof solution. With Wasabi Surveillance Cloud integrated into their Genetec system, they now tier aged data to the cloud, scale effortlessly, and store 12x more data than on-prem. All with no added egress fees.

Why Wasabi for higher ed

For educational institutions trying to contain costs without compromising on performance, Wasabi offers a predictable, transparent, and purpose-built cloud storage solution. Unlike hyperscale providers, Wasabi doesn't charge for egress or API requests, removing the biggest cost uncertainties that blow up education budgets.

This flat-rate model gives higher education IT teams the power to plan with accuracy. No hidden fees, no guesswork—just reliable performance with built-in compliance and security features.

Recently, **IDC analysts interviewed Wasabi customers** to explore the impact of our hot cloud storage.

45%
reduction in annual storage costs

174%
three-year return on investment

$1.1 million
saved in storage operations costs

"The cost compared to other cloud providers is multiple-fold lower. Wasabi also contractually guarantees us a 10Gb/s connectivity speed, coupled with unlimited download and upload. Another important fact is that the data is stored outside the region, which reduces risk for us."

— Higher education Wasabi customer

Why institutions choose our solutions:

No egress or API fees:

Upload, download, and interact with your data. No penalties.

Predictable pricing:

Budget confidently with flat-rate costs that simplify procurement and planning.

Immediate access:

All data is available instantly. No cold tiers, no retrieval delays.

Immutability and encryption:

Meet compliance requirements and defend against ransomware with native object lock.

Seamless integrations:

Compatible with leading backup, surveillance, and research platforms.

Hidden fees aren't just a budget nuisance. They're a barrier to progress and security. Wasabi helps higher ed institutions eliminate surprises, streamline IT operations, and focus on what matters: learning, research, and security.

Discover how much you could save with a better approach to cloud storage.

Ready to explore further?

Talk to one of our higher ed storage experts to see where Wasabi can lower your storage TCO.