



Data Driven Sustainability: Reimagining the Refresh Cycle

Ysleta ISD's Roadmap for Adapting to Shifting Enrollments and
Operational Realities

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<https://tinyurl.com/yisddevtetl>



The District Reality

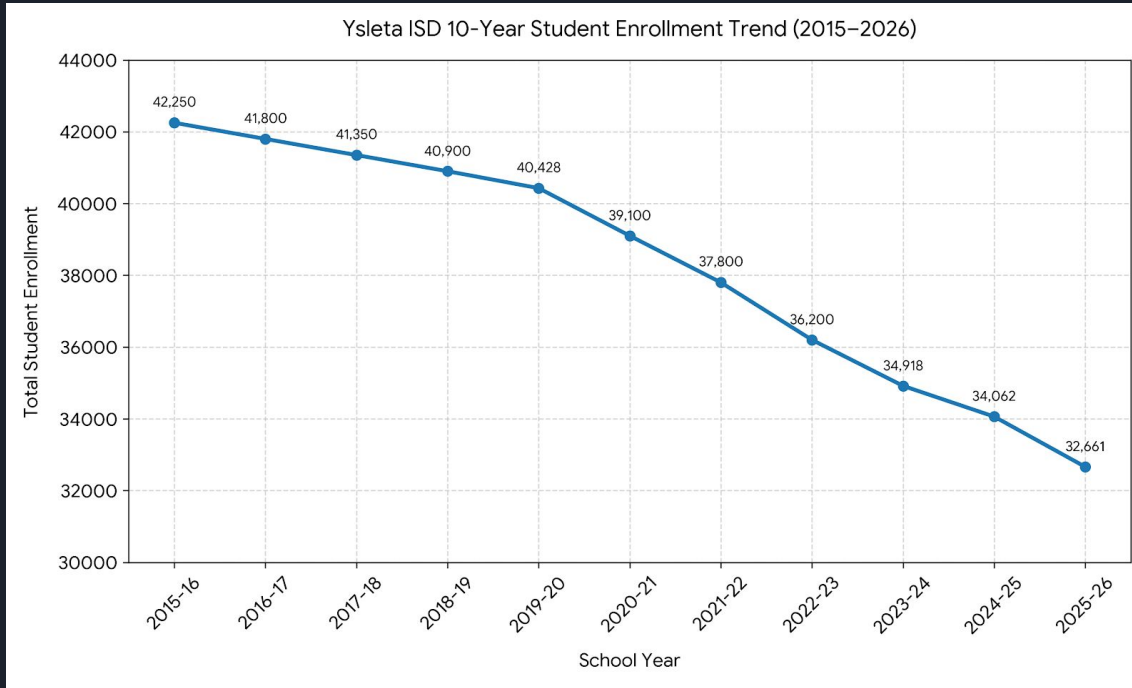
Ysleta ISD, like many districts nationwide, is operating at the complex intersection of declining student enrollment and escalating technology demands.

- Over 8,000 students transitioned out over the last decade.
- Projected \$14M deficit forcing critical budget reevaluations.
- Historic hardware fragmentation increasing IT support overhead.
- Optimize Total Cost of Ownership (TCO) without sacrificing educational quality.

~\$49.7M

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The District's Enrollment



As enrollment and associated state funding decline, the costs associated with supporting a diverse, unmanaged device ecosystem rise sharply.



Historical Context

Ysleta ISD has operated in two different formats, standardized for teachers and students, but not the rest of staff.

Teachers

- Have had laptops since 1999, when all teachers were provided a MacBook for use.
- PD rollout to go along with it.
- Have had varying ages of replacements (2006, 2010, 2018, and 2022)

Students

- The first 1:1 program explored in 2015, with various grade levels deployed.
- Windows models selected first, then Chromebooks starting year 2.
- Have gone through 2 major refreshes (2015-2021 and 2023-2026)

Administrative Staff, Central Office Staff, Paraprofessionals, etc.

- Used department/campus budget to buy a device that abided by standards

Strategic Hardware Pillars



Standardize Admin

Move away from fragmented, localized purchasing. Implement strict business-tier hardware standards to drastically reduce support tickets and ensure predictable lifecycles.



Align Instructional Tools

Deploy device options that are highly relevant to daily instruction and strictly aligned to content standards, moving away from uniform, high-cost hardware for all.



Age-Appropriate 1:1

Align student endpoint form factors with pedagogical research and developmental milestones, transitioning strategically from touch to non-touch environments.



Three Decades of Autonomy

The Cost of Admin Hardware Fragmentation

For nearly 30 years, campuses and departments operated with site-based budgets and vast purchasing autonomy specifically for administrative hardware.

- Schools could select any manufacturer or device model for their admin/paraprofessional staff, provided it met basic minimum standards.
- This decentralized approach created a highly fragmented, unpredictable administrative hardware ecosystem.
- The IT department absorbed the massive operational burden of supporting, imaging, and repairing countless distinct device models.
- Troubleshooting became increasingly complex, driving up resolution times and baseline TCO.





Standardizing Admin Hardware

Unified Procurement

Rather than allow purchases from any vendor/reseller that abided by the standard, we've purchased a bulk set of devices that campuses will be allocated, either desktops or laptops based on position.

The campus then uses their budget to “purchase” the device from the allocation, ensuring the best price and fairness.

Additionally, using a lease program allows the district to sell back the devices at the end of a 5-year period, allowing for refreshes to become cyclical just like teacher and student devices.

The goal is to ensure devices last at least 5 years in our ecosystem, protected either by manufacturer warranties and/or our Service and Support team.



Re-envisioning Teacher Devices

Role-Based Deployment

Equipping every educator with identically high-spec machines is financially unsustainable.

We audit actual software payloads to align hardware with instructional reality.

- **General Education:** Lightweight, highly mobile devices optimized for web-based grading, communication, and modern pedagogy.
- **CTE & Specialized:** High-performance workstations specifically targeted to educators running robust local software.
- **Classroom Integration:** Ensuring seamless connectivity with standardized interactive displays across the district.

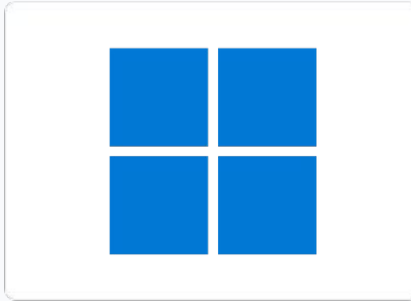
Empowering Teacher Choice

To further facilitate the transition for teachers, we created a task-force to help guide the selection process. Elementary and Middle school teachers have a choice between the three below, so long as it aligns to the district's instructional goals. High School/CTE/Specialized can choose only from Chromebook Plus and the Windows alternative.



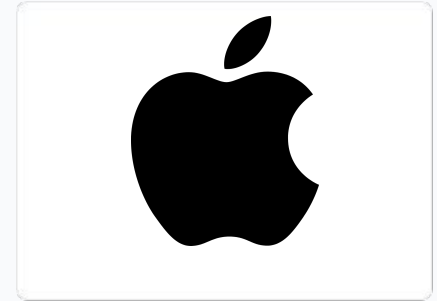
Chromebook Plus

Lightweight and highly efficient, designed for educators relying heavily on web-based grading, LMS platforms, and Google Workspace tools.



Windows Laptop

A robust platform offering deep Microsoft ecosystem integration, perfect for CTE courses and demanding localized software.



MacBook Neo

Apple's newest A18 Pro-powered device, delivering exceptional battery life and reliability for specialized media and instructional workflows.

Student 1:1 Device Lifecycle

Grades 2 to 5

Transition to non-touch
Chromebooks to begin critical
keyboarding and trackpad
navigation skills.

Pre-K to Grade 1

Touch-enabled Chromebooks
tailored to early childhood tactile
development and gross motor skills.

Grades 6 to 12

Standardized 1:1 non-touch
Chromebooks emphasizing
independent research, digital
citizenship, and college/career
readiness.



Data-Driven Form Factors

Aligning Tech to Development

Our shift from touch to non-touch devices in Grade 2 is not arbitrary; it is rooted in pedagogical research and functional requirements.

While PK-1 students require direct tactile interaction, older students must develop fine motor keyboarding and trackpad proficiencies. This ensures readiness for rigorous state testing interfaces and prepares them for industry-standard technical environments.

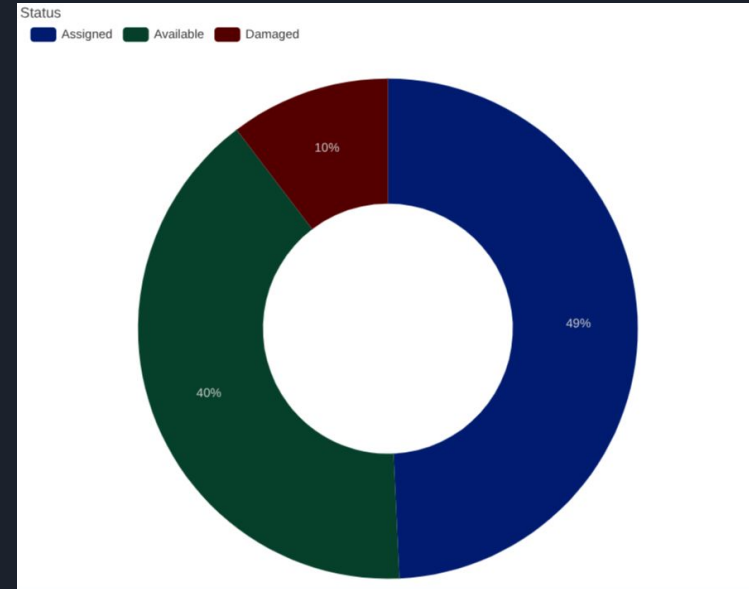
This is further supported by the Technology Application TEKS (TA TEKS), which require keyboarding skills very early on.

Systematic Deployment Strategy

The 5-Year Lifecycle

To maintain a healthy device fleet and stabilize capital expenditures, we established a systemic 5-year replacement cycle for student technology.

- **Predictable Refresh:** Systematically replaces approximately 20% of enrolled students' devices across the district every year.
- **Campus-Level Targeting:** Helps campuses accurately identify which devices require replacement based on their original deployment year (age).
- **Damage Assessment:** Integrates hardware wear-and-tear factors to cycle out heavily degraded units before they impact instruction.



Current Refresh

2023-2024 Summer '23	2024-2025 Summer '24	2025-2026 Summer '25 <i>(Include 2026-2027 Year) (Purchased 2 Years)</i>	2026-2027 Summer '26	2027-2028 <i>Summer '27</i>
Touch Screen Devices All Pre K Students	Touch Screen Devices - New Pre K Students <i>(Excluding YPK/PPK)</i> - Remaining Kinder Students <i>('23 PreK rolled up)</i>	Touch Screen Devices - New Pre K Students <i>(Excluding YPK/PPK)</i> - Remaining KG <i>('24 PreK rolled up)</i> - Remaining 1st Grade Students <i>('24 Kinder rolled up)</i>		
Non Touch Devices - VVECHS (100) - Hanks HS EC (100) - Riverside HS (445) 2nd-12th (% by student enrollment)	Non Touch Devices - VVECHS (100) 2nd-12th (% by student enrollment)	Non Touch Devices - VVECHS <i>(remaining student enrollment)</i> 2nd-12th (% by student enrollment)	Non Touch Devices 2nd-12th (% by student enrollment)	

Strategic Demographic Funding

Rather than relying solely on local revenue or a single General Fund source, we strategically analyze our student demographics. By mapping specific population needs to specialized funding streams, we ensure sustainable and targeted 1:1 deployments.



Title I Funds

Leveraging federal allocations to ensure equitable access to foundational technology for students in economically disadvantaged demographics.



Bilingual Education

Directing specialized state and federal bilingual funds to provide devices that specifically support language acquisition and ELL software platforms.



Gifted & Talented (GT)

Utilizing GT allocations to fund the advanced computing resources required to facilitate accelerated instructional models and specialized coursework.

Visual Asset Identification

Audit-Ready Labeling

To ensure compliance with strict demographic funding requirements (e.g., Title I audits) and to streamline our 5-year refresh cycle, every device utilizes a standardized visual labeling system.

- **Funding Source Verification:** Distinct visual cues to instantly identify devices purchased via specialized funds.
- **Deployment Year:** Allows campus technicians to visually identify devices due for refresh without manual database queries.
- **Scannable Asset Tags:** High-durability QR/Barcodes tied directly to our central inventory management system for rapid auditing.

Campus

Year 3 of 5 Refresh

Title I Funding

HP Pro x360 Fortis 11 G3

PO # 22515189

Alicia R. Chacon International School (ARCIS)

Year 2 of 5 Refresh

ESSER III Funding

HP Chromebook 11 G9 EE

PO # 22417955

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Repurposing Technology

Strategic Usage

Often times, equipment is purchased but not fully optimized to it's full potential. Depending on the funding source, it may be possible to repurpose.

- **Federally Funded Technology:** Fed funded devices have prohibitions on usage outside of the intended program of which it was funded by. However, the minimum life expectancy is 3 years. If a device is no longer usable in that program after the 3, but still viable elsewhere, it can be repurposed.
- **Bond Funds:** Alike federal funding, Bond funds may be even more restrictive, depending on the funding that was used.

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Assessing Campus Technology Assets

Beyond 1:1 Devices

As part of our comprehensive 5-year strategic plan, we are extending our focus beyond student endpoints to evaluate the broader campus technology ecosystem.

- **Strategic Collaboration:** Conducting on-site meetings with every campus principal and administrative team.
- **Physical Audits:** Walking the halls to catalog the current state of technology assets in every instructional space.
- **Identifying Gaps:** Mapping the critical differences between district-provided core infrastructure and locally purchased campus equipment.

B	C	D	E
	Controlled Items (CIM)	Capital Items (Tyler Munis)	Software
IDB Information	Assets under \$5K	Assets Over \$5K	Campus Purchsed
Bel Air High School IDB & OPS Review	*Bel Air HS Controlled Items	Bel Air HS Capital Items	BAHS Software
Del Valle HS IDB Inventory	*Del Valle HS Controlled Items	Del Valle HS Capital Items	DVHS Software
Eastwood High School IDB & OPS Review	*Eastwood HS Controlled Items	Eastwood HS Capital Items	EHS Software
Hanks High School IDB & OPS Review	*Hanks HS Controlled Items	Hanks HS Capital Items	HHS Software
Parkland High School IDB & OPS Review	*Parkland HS Controlled Items	Parkland HS Capital Items	PHS Software

Documenting the Baseline

Mapping Decentralized Purchasing

Historically, campus technology spending was decentralized and subjective to the individual administrator in charge, leading to vast disparities in instructional tools from school to school.

- **Primary Displays:** Logging the presence, age, and functionality of Interactive Displays and standard classroom TVs.
- **Instructional Peripherals:** Documenting the utilization of document cameras and audio enhancement systems.
- **Connectivity:** Assessing wireless casting capabilities to ensure teachers can seamlessly present from their standardized devices.
- **The Goal:** Uncover the true, undocumented baseline of our district's instructional technology footprint.

- **IDB Inventory Audit:** Veronica Alvidrez Alvarez and Roxanne Merfa conducted a room-by-room review of the campus Interactive Display Boards (IDBs) to identify their status and location ([00:23:05](#)). The audit clarified which rooms were used for instruction versus those that were empty or designated for non-instructional purposes, providing a clear list of available inventory ([00:23:53](#)) ([00:27:37](#)).
- **IDB Allocation Strategy:** Veronica Alvidrez Alvarez stated that the primary priority for IDBs is instructional classrooms where students are present ([00:30:11](#)). The strategy involves moving boards from empty rooms to replace failing units in classrooms, with specific plans to swap a malfunctioning board in a teacher's room and replace an outdated, non-upgradable board in the library ([00:30:53](#)).
- **Classroom Hardware Environment:** Roxanne Merfa clarified that teacher classrooms currently have minimal technology beyond document cameras (Elmo) and that they lack additional peripheral hardware such as wireless keyboards or speakers ([00:33:27](#)).
- **Student Device Refresh:** Veronica Alvidrez Alvarez informed Roxanne Merfa that the campus is scheduled to receive 62 non-touch student devices during the summer ([00:35:18](#)) ([00:49:49](#)). Veronica Alvidrez Alvarez explained that the allocation process is no longer based on specific grade-level quotas but is managed according to the expiration of device models ([00:36:02](#)).
- **Librarian and Cafeteria Device Replacements:** Diana Mooy identified that the librarian's desktop is not Windows 11 upgradeable and must be replaced, with the librarian instructed to back up documents in preparation for a July pickup ([00:36:47](#)). Additionally, Diana Mooy noted that two cafeteria desktops used by the cashier also require urgent replacement due to being Windows 11 incompatible, which will require coordination with cafeteria staff ([00:38:41](#)).

Informing the 5-Year Master Plan



Establish Baseline

Utilize the gathered audit data to define a non-negotiable minimum standard for technology in every instructional space, guaranteeing equity across the district regardless of local campus budgets.



Campus Action Plans

Generate a comprehensive, customized roadmap for each individual school, detailing the exact upgrades and investments required for them to meet the newly established district baseline.



Sustained Alignment

Implement centralized procurement controls and ongoing reviews to ensure all future campus-level tech spending remains strictly aligned with this standard, preventing future fragmentation.



Software & Hardware Acquisition Requests

To prevent excessive and unnecessary purchases, all software and technology purchases must be approved by the Instructional Technology and Technology Infrastructure teams.

- Campuses/Departments submit requests through a Power BI system
- The request is reviewed - if software, it gets routed for compliance, TOS, etc.
 - If Hardware, a tech team goes out to evaluate whether the device that is being requested to be replaced or added is necessary
- If approved, these teams provide a quote for a standard device and/or provided one from the allocation.

This same process is used for all technology: printers, cameras, IDBs, computers, etc.

Strategic Takeaways

- 🔗 **Diversify Funding Strategically:** Do not rely solely on the General Fund for infrastructure. Aggressively map procurement cycles against E-Rate, demographic allocations, and specific bond measures to protect against enrollment-driven deficit impacts.
- 📊 **Let Data Drive Form Factors:** Base student device selection on pedagogical research and tactile development data (like the PK-1 touch strategy), not just consumer technology trends.
- 🕒 **Eradicate "One-Size-Fits-All":** Audit actual software payloads across your teacher and admin populations. Targeting specifications to actual roles reclaims massive amounts of wasted hardware capital.
- 🛡️ **Standardization is Security:** A unified, strictly controlled hardware fleet is not just a financial safeguard; it is a fundamental requirement for a robust cybersecurity posture and efficient IT endpoint management.

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Questions?

Reach out if you have any questions or would like to talk about our hardware implementation.

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