

# Academic Technology & Multimedia Committee Mid-Year Progress Report

December 20, 2025

## Introduction

During the current academic year, the Academic Technology & Multimedia Committee (hereafter, Tech Committee) has been actively engaged in reviewing and updating its standing charges, conducting a formal census of software and hardware used by academic departments, and responding to Kean Faculty's concerns about Information Technology's (IT) support of faculty research across campus. Due to the urgent nature of the issues brought to the Tech Committee's attention, the primary focus of this report is to summarize the difficulties caused by poor communication between IT and the faculty responsible for implementing Kean's nascent but rapidly expanding research mission and suggest both immediate and long-term solutions to those issues.

Attached to this report are appendices, which provide a more exhaustive description of the challenges and prescriptions we summarize below. They include:

- A letter from six department chairs describing enumerating the challenges currently experienced by their research faculty and how current Kean policies are inconsistent with the stated research mission of the University.
- A Research Device Experience Survey conducted by Kean computer science faculty to assess research faculty experiences related to IT's current policies.

## IT-related Barriers Hindering Faculty Research Productivity

Tenure-track professors have limited time and a fixed schedule to demonstrate research productivity before their contributions to the university are reviewed. Thus, the prolonged delays to individual research programs summarized in the appendices and reported to the Tech committee can create irreversible damage to the careers of Kean faculty. In addition to the damage to individual faculty wrought by current IT policies, these delays and lack of technical support also result in squandered resources and productivity that should be contributing to our status as New Jersey's premier urban research university. Finally, many of the current IT policies and procedures are not consistent with faculty experiences at other universities or our peer and aspirant R2 institutions.

Based on the attached appendices and individual reports submitted to Tech Committee members, we have identified three major categories of IT-related barriers to faculty research productivity that must be addressed:

### 1. Mandatory Monitoring Software Disrupts Research Workflows

- **Structural Barrier:** Mandatory monitoring tools, such as ThreatLocker and AdminByRequest (now largely replaced by ThreatLocker), pose a major, structural barrier to research. A more appropriate end-point monitoring software in combination with more readily-accessible IT support would better support the diversity of research and software at a large research university. A survey of end-point monitoring software by our peer institutions could yield a solution more aligned with the research goals and diverse needs and practices across colleges.

- **Misalignment with Research:** Threatlocker was designed for standard enterprise office environments and is not engineered for high-performance computing, machine learning, large-scale data processing, or real-time instrument control required by modern research.
- **Functional Blocks:** Faculty reported that these tools block software installation, interfere with data processing, and cause failures in instrument control.
- **Grant Compliance Concerns:** The use of these tools raises extreme concern or uncertainty (86% of faculty surveyed) regarding compliance with federal grant requirements (e.g., NSF and NIH Data Management Plans) due to ambiguity over data logging and remote monitoring.
- **Academic Freedom Considerations:**
  - i. Using a system like Threatlocker to determine which software the faculty use in their research undermines Academic freedom and requires faculty to use software that might be out of sync with their field and collaborators.
  - ii. The capacity of end-point monitoring and the capacity of our limited IT personnel to research and vet hundreds of software is not only creating sluggishness in research but is preventing projects from developing in the way they were proposed.

## 2. Procurement Delays

- **Extended Timelines:** Total procurement time for essential research equipment frequently exceeds five to eight months, often resulting in the loss of entire semesters of potential research activity.
- **Internal Slowdowns:** Internal institutional processes, including multi-layer approval queues and inconsistent routing, have been reported.
- **Lost Time:** Over 82% of respondents experienced moderate to major disruption due to these delays, which materially harmed research productivity and faculty competitiveness.
- **Post-Arrival Delays:** Even after devices arrive on campus, more than 51% of faculty wait over a month, and 34% wait more than two months, before receiving their equipment due to internal workflow delays (e.g., configuration, tagging).

## 3. Support Deficiencies

- **Insufficient Administrative Privileges:** The lack of administrative privileges on faculty-assigned devices prevents the timely installation of essential research software, such as Linux software and database servers, blocking core scientific workflows.
- **Communication Failures:** Nearly half of respondents (52%) received no updates during device handling, and security measures were installed without prior notification, blocking existing research activities.
- **IT Accountability:** Faculty reported that the IT ticket system is not effective for them, with tickets often closed without resolving the underlying issues, undermining trust and delaying research.
- **Appointments with IT Staff.** Many faculty report that scheduling in-person meetings with IT staff to discuss technical issues within a reasonable timeframe is difficult. Additionally, when in-person meetings occur, the personnel assigned to address research technology concerns appear to be randomly selected from the IT staff, resulting in junior IT personnel often troubleshooting the most complex challenges posed by research technology on Kean's campus. This results in incomplete technical support from individuals who lack familiarity with the university's research mission.

### **Suggested Remedies - Short-Term and Immediate (0–3 Months)**

To address the most urgent barriers currently disrupting ongoing research and grant timelines, the Tech committee urges the immediate implementation of the following high-priority actions:

- **Temporary Security Exemptions:** Grant faculty conducting active research temporary exemptions from restrictive monitoring tools (like ThreatLocker) to prevent further disruption to experiments and grant deadlines.
- **Fast-Track Procurement:** Immediately implement a fast-track procurement policy for research technology with clearly defined turnaround expectations for research equipment. There is no mechanism to compensate a tenure-track professors who loses half a semester (or more) of research time due to equipment procurement delays. This permanent damage to faculty research programs can only be prevented by the implementation of more efficient procurement policies.
- **Establish a Research Concierge within IT:** Immediately appoint an experienced person or persons in IT to serve as a point of contact for research-related IT issues. As faculty research programs are by their nature bespoke endeavors, this individual should be highly experienced and empowered to make the decisions that cut through the red tape currently strangling campus research. Additionally, we recommend that any research-related tickets submitted to IT be initially triaged by this individual or individuals to ensure that IT personnel assigned to address research technology issues have the appropriate training and authority to address the issues directly.

### **Suggested Long-Term Remedies and Policy Recommendations**

To resolve and prevent future issues, long-term institutional reform is necessary to modernize research support and align Kean University with national standards. The following remedies and policy recommendations are critical:

- **Implement Standard Communication Protocols:** IT should provide the Tech Committee and Senate with a yearly report describing any forthcoming challenges, planned policy changes, or new software implementations. Ideally, this report should cover the next 18-24 months. This will allow faculty a chance to work in partnership with IT to ensure that both the research mission and cybersecurity of the university are not compromised. Additionally, as cybersecurity threats are often very time sensitive, a protocol should be established to rapidly update the Tech Committee and Senate if urgent action is required or has been taken by IT to protect our campus cybersecurity. This plan should include an after-action review process where both IT and faculty stakeholders review the response.
- **Ensure IT Policies Are Consistent with Peer and Aspirant R2 Institutions.** Many of the issues identified in this report can be attributed to University policies not keeping pace with Kean's rapid research expansion and achievement of R2 status. The current evidence has taught us that we cannot expect cybersecurity tools designed for non-academic institutions to protect our campus while allowing us to be successful at our research mission. Thus, we recommend that the Tech Committee and IT work together to review technology policies at our peer and aspirant R2 institutions to determine how others have successfully navigated these challenges. This will likely involve implementation of a tiered security model, such as a Research VLAN, that avoids imposing restrictive endpoint controls on research devices. Additionally, Kean's future cybersecurity

policies should be formed in partnership with the New Jersey Cell of the National Cyber Security Center ([www.cyber.nj.gov/](http://www.cyber.nj.gov/)) to ensure best practices for state academic institutions are followed.

- **Modernize Procurement System:** Establish a dedicated, transparent procurement workflow specifically for research equipment. This pathway must specify approval requirements and move requests through defined workflow stages with clear timelines, and allow faculty members to monitor the status of orders without resorting to sending repeated emails.
- **Publish Research Specific Guidelines:** Consistent and transparent guidelines for research device approval and processing should be published and maintained separately from the standard FAQs to reflect the unique challenges faced by research computing.
- **Strengthen Research IT Support:** While the **Research Concierge** described above is the first step in this process, more staff will likely be needed to support the research mission of the university. Thus, IT should build dedicated research IT capacity by prioritizing the hiring or training of staff with expertise and experience in high-performance computing, Linux environments, scientific instrumentation, and research data workflows.

Appendix I: An email and letter sent from the Chair of the Department of Computer Science and Technology, Patricia Morreale, to the tech committee and faculty senate on 12/11/2025.

Final  
Draft  
For  
Vote



December 11, 2025

**To:** Members of the Kean Faculty Senate and the Subcommittee on Technology

**Subject: Urgent Research Device Survey Findings: Systemic Barriers Hinder Faculty Research Productivity and Institutional Competitiveness**

We are excited that Kean University achieved R2 status this year, and we continue to work to preserve and enhance Kean's position in New Jersey and nationwide. In our roles as department chairs, we support our tenure-track and tenured colleagues in their research efforts and aim to help ensure their success at Kean University. We actively promote collaborative institutional change and progress. We have identified some barriers to Kean's success.

A recent **survey of** faculty researchers across STEM, health sciences, design, and applied social sciences reveals **systemic institutional patterns** that significantly impede research productivity and place the university at a competitive disadvantage. Our tenure-track faculty are at **extreme professional risk**, as the tenure process has an unforgiving timeframe.

The survey findings highlight that current administrative and IT processes are **misaligned with the needs of an institution pursuing a more research-intensive identity**.

#### 1. Severe Procurement Bottlenecks and Delays

Procurement currently represents the most severe institutional bottleneck for faculty researchers. Total procurement time for essential research equipment frequently **exceeds 5–8 months**, often resulting in the loss of entire semesters of potential research activity.

Key issues include:

- **Internal Slowdowns:** Delays are overwhelmingly caused by **internal institutional processes**—including multi-layer approval queues and inconsistent routing—rather than external vendors.
- **Widespread Disruption:** Overall, **over 82%** of respondents experienced moderate to major disruption due to these procurement delays. These delays are **not administrative inconveniences**; they directly result in **lost research time, weaker grant outcomes, and reduced publication velocity**.
- **Communication Failures:** Communication during device handling is structurally inadequate. Nearly half of respondents (52%) received **no updates** while their devices were in transit or being configured by IT, which amplified frustration and eroded trust.

#### 2. Mandatory Monitoring Software Disrupts Scientific Workflows

Mandatory monitoring tools, such as Threat Locker and AdminByRequest, pose a major, structural barrier to research. These tools were designed for standard enterprise office environments and are **not engineered for high-performance computing, machine learning, large-scale data processing, or real-time instrument control** required by modern research.

The impact of these tools is severe:

- **Major Disruption:** 68% of faculty reported **major disruption** from monitoring software.
- **Functional Blocks:** Faculty reported that these tools **block software installation**, interfere with data processing, and cause failures in instrument control. These problems strike at the heart of research computing and interrupt core scientific activities.
- **Grant Compliance Concerns:** The use of these tools raises extreme concern or uncertainty (86% of faculty) regarding compliance with federal grant requirements (such as NSF Data Management Plans and DoD restrictions) due to ambiguity over data logging and remote monitoring.

### 3. Policy Inconsistency and Lack of Research-Specific Support

The survey highlighted significant policy inconsistencies and a fundamental lack of administrative support tailored to the needs of researchers.

- **Teaching–Research Device Conflict:** Current device policies force faculty to choose between teaching functionality (e.g., printing capability) and research capability (e.g., installing necessary research software freely).
- **Insufficient Administrative Privileges:** The lack of administrative privileges prevents timely installation of essential research software, such as Linux software and database servers, blocking core scientific workflows and affecting both teaching and research.
- **Lack of Communication and Accountability:** Security measures like Threat Locker were installed **without prior notification**, immediately blocking existing software and research activities. Furthermore, faculty reported that the IT ticket system lacks accountability, with tickets often closed without resolving the underlying issues.
- **Divergence from National Norms:** Faculty with experience at other R1/R2 institutions confirm that Kean’s practices—particularly the restrictive monitoring tools and extended procurement cycles—**diverge substantially from national research standards**. This misalignment creates a significant strategic disadvantage for external funding and faculty recruitment/retention.

In summary, the documented challenges in procurement, security, communication, and policy consistency are **institutional in nature** and actively **impede research productivity, delay experiments, restrict student training**, and negatively affect **faculty morale**.

We urge the Faculty Senate to review these findings and support the necessary institutional reforms—including establishing dedicated, rapid research procurement pathways and implementing a research-compatible cybersecurity framework—to align Kean University with national best practices.

**Appendix II:** A Research Device Experience Survey conducted by Kean computer science faculty to assess research faculty experiences related to IT's current policies.

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# Enhancing Research Procurement and Device Security: Strengthening Faculty–IT Coordination at Kean University

Department of Computer Science and Technology, Kean University

## 1. Introduction

Kean University is actively expanding its research enterprise, strengthening its competitiveness for external funding, and laying the groundwork for a more research-intensive institutional identity. As this growth accelerates, the need for **efficient procurement of workflows, research-appropriate cybersecurity practices, and transparent, collaborative communication among IT, Purchasing, and faculty** becomes increasingly critical.

To better understand existing challenges and identify opportunities for improvement, we conducted the **Research Device Experience Survey** to faculty researchers across multiple colleges. The survey was designed to assess faculty experiences across the full lifecycle of research device acquisition and use, from ordering and approval to IT configuration and deployment, to long-term viability under current monitoring and security policies. Survey items included multiple-choice, Likert-scale, and open-ended questions to capture both quantitative metrics and qualitative insights.

**Survey link:** <https://forms.office.com/r/AXDXY3SaYD?origin=lprLink>

A total of **26 faculty researchers** responded. Although modest in size, the dataset is robust due to:

- Strong representation across multiple colleges and research: intensive disciplines
- Inclusion of faculty at different career stages
- High consistency in reported challenges across respondents
- Alignment between quantitative responses and open: ended comments

Together, these results provide a reliable view of the systemic obstacles affecting research productivity and device deployment at Kean University.

### 1.1 Survey Purpose

The survey was specifically designed to evaluate:

- Procurement efficiency (ordering, approval, delivery, internal routing)
- IT configuration and imaging processes
- Impact of required monitoring software (e.g., ThreatLocker, AdminByRequest)
- Research device compatibility with scientific workflows
- Communication between IT, Purchasing, and faculty
- Comparisons with practices at prior institutions

- Faculty recommendations for improving policies and workflows

This structure allows the university to pinpoint where operational gaps and policy misalignments interfere with research output, grant timelines, student mentorship, and overall institutional competitiveness.

## 1.2 Survey Structure and Thematic Categories

Survey questions were grouped into key themes:

- Procurement Timeline and Approval Processes
- Delivery Delays and IT Setup Procedures
- Communication and Transparency During Procurement
- Monitoring / Control Software Requirements
- Impact on Research Productivity
- Institutional Comparisons and Policy Norms
- Faculty Recommendations for Improvement

This thematic organization provides both a granular and holistic understanding of where devices encounter delays, restrictions, or inconsistencies as they move through existing systems.

## 1.3 Data Collection Method

The survey was delivered digitally through a structured online form, enabling efficient distribution and anonymous participation. Respondents provided both categorical responses and narrative explanations, which supplied deep insight into:

- Repeated process bottlenecks
- Unintended consequences of monitoring and security policies
- Comparative observations from faculty with prior R1/R2 experience
- Practical, detailed recommendations for improvement

These narrative comments were especially valuable for contextualizing numerical trends.

## 1.5 Summary

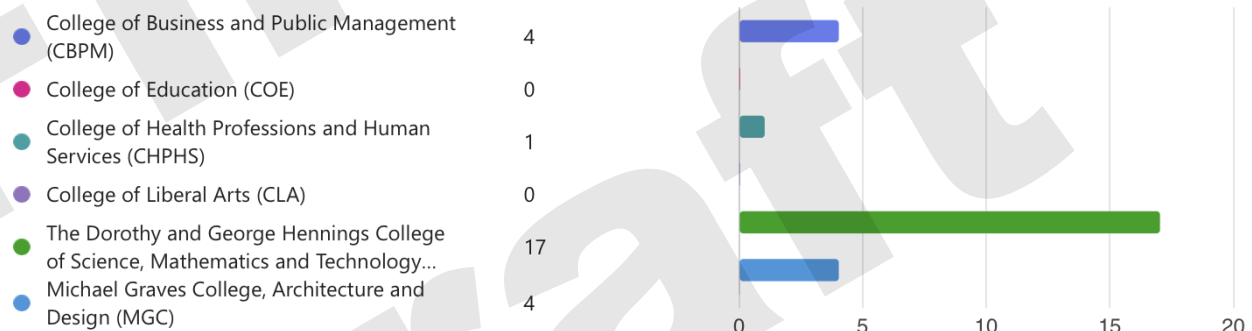
The survey results reveal widespread challenges in procurement workflows, monitoring software restrictions, communication clarity, policy consistency, and research support infrastructure. These findings demonstrate that current processes, though developed with institutional security and operational control in mind, are **misaligned with the needs of an institution pursuing a more research-intensive identity**.

## 2. Respondent Profile

A total of **26 faculty researchers** participated in the survey, representing a cross-section of academic units at Kean University. This diversity ensures that the findings reflect **systemic institutional patterns**, not isolated experiences within a single department.

### 2.1 Colleges and Academic Units Represented (Q1)

Respondents represent multiple colleges:



### 2.2 Departments Represented (Q2)

Individual respondents reported affiliations across a range of research-intensive disciplines, including:

- Computer Science and Technology
- Biology / Biological Sciences
- Chemistry and Physics
- Environmental & Sustainability Sciences
- Rehabilitation and Behavioral Sciences (RBSD)
- Architecture & Design
- Business and Public Management

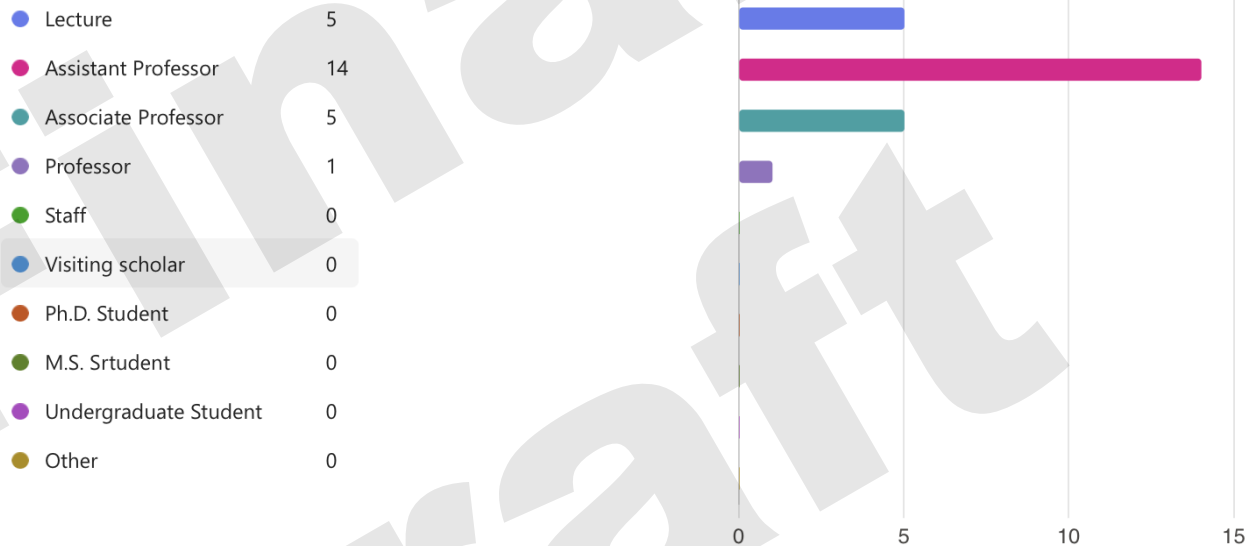
This departmental spread reflects the interdisciplinary nature of research at Kean and reinforces that issues with procurement, IT workflows, and monitoring software affect **STEM, health sciences, design, and applied social sciences alike**.

### 2.3 Faculty Roles (Q3)

Respondents span multiple academic ranks and appointment types:

- Lecturers / non-tenure track faculty

- Tenure-track Assistant Professors
- Associate Professors
- Full Professors



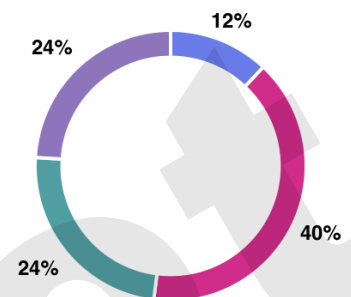
The presence of **early-career faculty is particularly significant**, as delays in research devices and software restrictions can impact:

- Grant competitiveness
- Publication trajectory
- Tenure timelines

Meanwhile, responses from senior faculty provide a broader institutional perspective and comparative insight based on experience at prior institutions.

#### 2.4 Years at Kean University (Q4)

Duration	Count
1-2 years	3
3-5 years	10
6-10 years	6
over 10 years	6



Nearly half of **all respondents (40%)** have been at Kean for **3-5 years**, a critical period when faculty are establishing research programs and pursuing major external funding. 24% have over

10 years of experience, contributing extensive institutional knowledge and allowing comparison with past university practices. Only 12% are new (1-2 years), but even these respondents reported significant challenges early in their research setup processes.

This distribution strengthens confidence in the survey results because:

- Mid-career faculty (3-10 years) provide perspective on how current policies compare to earlier years at Kean.
- Senior faculty (>10 years) confirm that several issues are persistent rather than new.
- Newer faculty reinforce that the challenges are immediately felt, affecting onboarding, lab setup, and grant competitiveness.

Together, the respondent profile demonstrates that the findings reflect systemic barriers experienced across departments, ranks, and years of service, not isolated or anecdotal concerns.

## 2.4 Summary

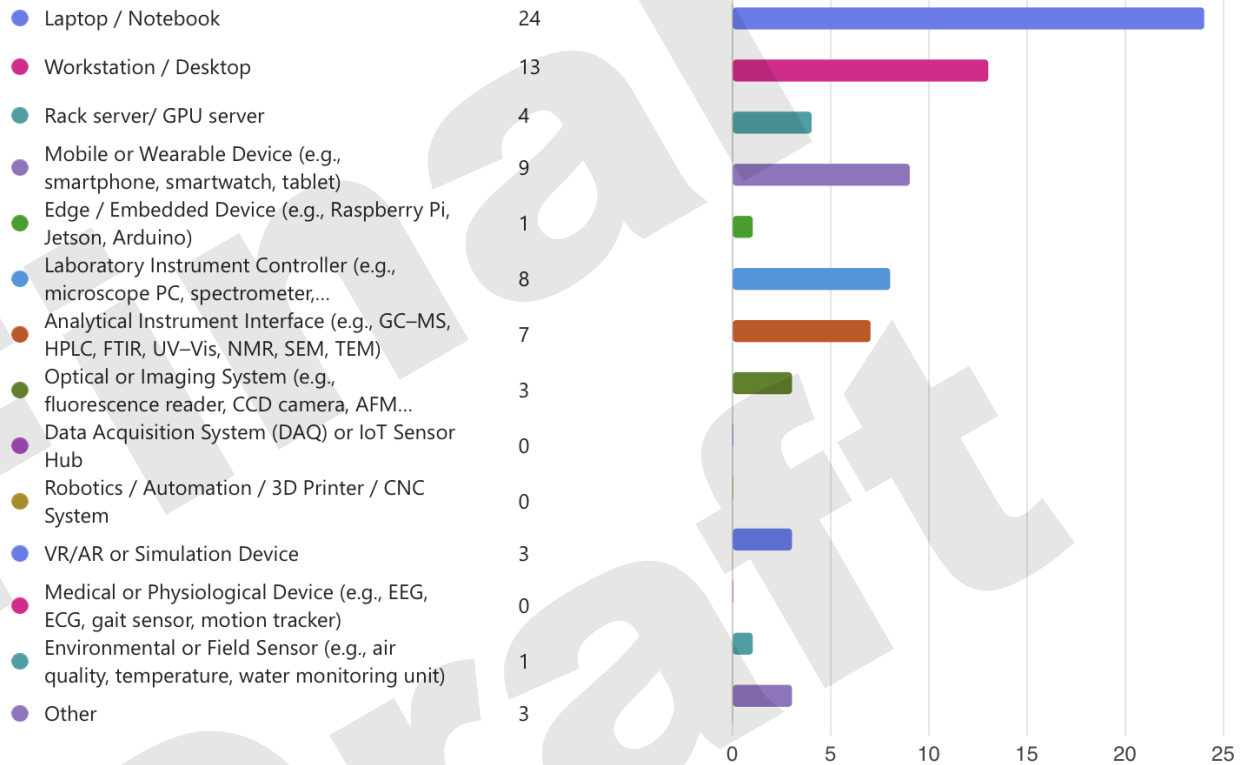
The cross-college and cross-rank distribution indicate that **research barriers identified in this report are institutional in nature**, rather than localized issues tied to specific programs or individuals. This breadth of representation strengthens the validity of the survey results and underscores the need for **university-wide policy and workflow reforms**.

## 3. Research Device Landscape

### 3.1 Types of Devices Used (Q5)

Faculty depend on:

- Laptops (majority)
- Desktop workstations
- GPU: enabled systems
- VR/AR equipment
- IoT sensors and embedded devices
- Tablets for field or instructional use



The variety of devices used across disciplines requires flexible research-supportive IT policies. A one-size-fits-all monitoring or restriction framework is not viable given the diversity and complexity of research workflows.

### 3.2 Number of Devices Owned (Q6)

Most researchers report managing 2-5 devices, while some manage even more due to split teaching, research, and grant-funded responsibilities.

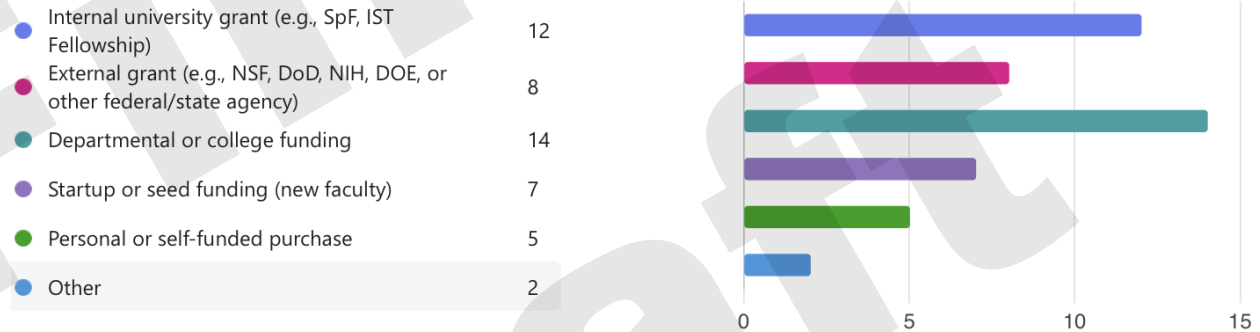


Managing multiple devices increases researchers' dependence on fast procurement, admin rights, and clear IT support. Delays or restrictions multiply across devices, compounding productivity loss.

### 3.3 Research Device Funding (Q7)

Devices are funded through:

- Academic departments
- Grants
- University funds
- Faculty out-of-pocket purchases



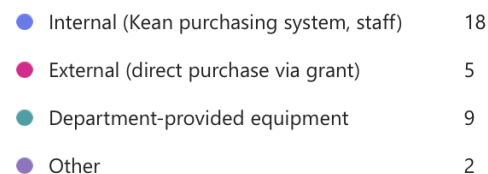
## 4. Procurement Experience Analysis

One of the clearest themes in the survey is the **extensive delay** in acquiring research devices. Many faculty reported slow or unclear processes that directly obstruct research progress and interfere with grant timelines. Procurement remains the most severe institutional bottleneck.

### 4.1 How Devices Were Purchased (Q8)

Researchers follow multiple pathways:

- Department office purchases
- PI-initiated requests
- University purchasing
- Direct faculty purchases due to urgency



#### 4.2 Time from Order Submission to Vendor Confirmation (Q9)

More than 50% of respondents waited over two months just to receive vendor confirmation, and over 68% waited longer than one month. These timelines are far outside the norms of research-intensive universities, where vendor confirmation typically occurs within 1–7 business days.



The extended delays indicate that the problem is **not with external vendors**, but rather with **internal institutional processes**. Once faculty submit purchase requests, the workflow encounters slowdowns across multiple internal checkpoints, including multi-layer approval queues, inconsistent routing between units, and lack of a standardized review timeline. These internal bottlenecks significantly prolong procurement, even before the order reaches the vendor, and highlight the need for a streamlined, fast-track research procurement process.

#### 4.3 Time from Vendor Confirmation to Device Arrival at Kean University (Q10)

Responses show significant delays even after vendors confirm orders:

- Many waited **more than 2 months**
- Others waited **1- 2 months**
- Very few received devices in **less than 2 weeks**



#### 4.4 Device Arrival to Delivery to User or Availability (Q11)

Even after devices arrive on campus, more than 51% wait over a month, and 34% wait more than two months before receiving their equipment.



Total procurement time often **exceeds 5-8 months**. Internal workflow delays (IT intake, configuration, tagging, approval chains) are a primary bottleneck. Entire semesters of research activity can be lost.

#### 4.5 Faculty Expectations for Reasonable Delivery Time (Q12)

What faculty believed was reasonable after arrival:

- 1 week: 61%
- 2-4 weeks: 26%
- 4-6 weeks: 13%
- Other: 0



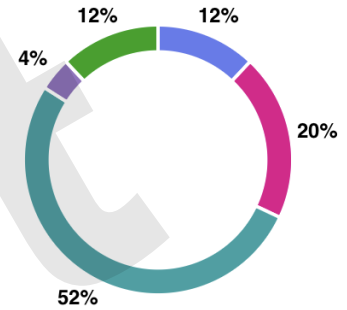
There is a severe mismatch between expectations (1 week) and actual outcomes (5-8 months). Faculty assumptions align with national standards, where arrival to delivery typically takes 2-5 business days. This gap explains pervasive frustration and the perception of unprofessional process management.

#### 4.6 Communication from IT During Device Handling (Q13)

Survey results:

- Received regular updates: 3 (12%)
- Received updates only after asking: 5 (20%)
- Received no updates: 10 (52%)
- Other: 3 (16%)

• Yes, I received regular updates	3
• Yes, but only after I asked	5
• No, I did not receive any updates	13
• Not sure / I did not check	1
• Other	3



Nearly half of respondents received no communication, and only 12% received proactive updates. This indicates:

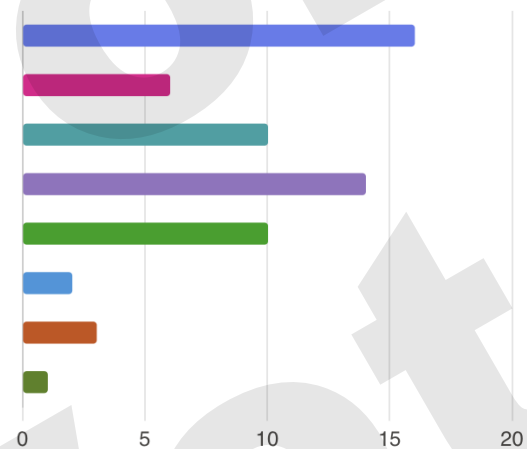
- Lack of structured communication policies
- Absence of defined expectations for IT updates
- Additional delays caused by communication blind spots

This breakdown amplifies frustration and erodes trust.

#### 4.7 Impact of Delays on Research Work (Q14)

Survey results:

• Delayed project start or data collection	16
• Missed proposal or grant deadlines	6
• Interrupted or canceled experiments	10
• Reduced research output or publication timeline	14
• Limited ability to supervise students or research assistants	10
• Lost collaboration opportunities	2
• No significant impact	3
• Other	1



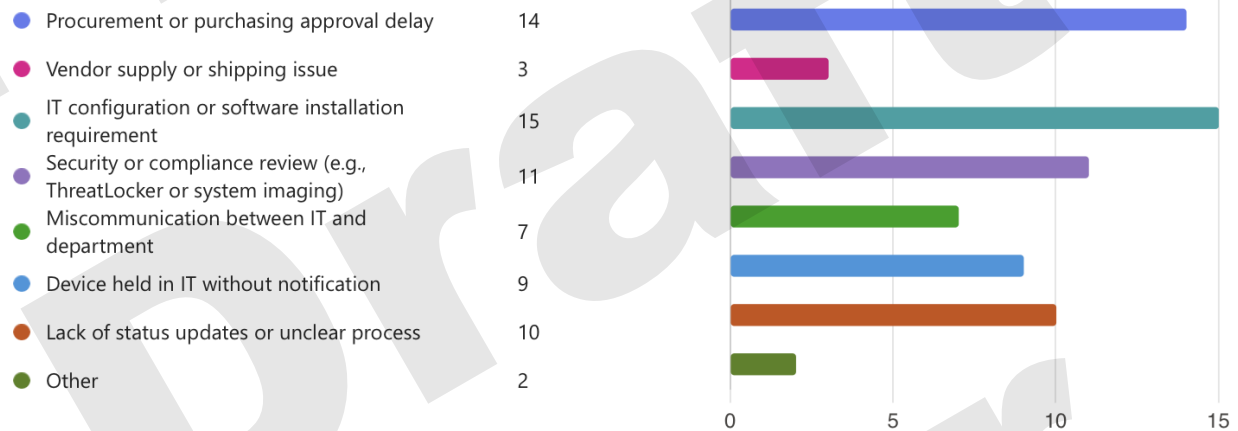
The data from Question 14 shows that procurement delays have **broad, severe, and cascading effects** on research productivity across nearly all respondents. The most

frequently reported consequences include Overall, **over 82%** of respondents experienced **moderate to major disruption**, reinforcing that procurement delays are **not administrative inconveniences**, they materially harm research productivity, student engagement, and faculty competitiveness.

The impacts documented here illustrate that delays in equipment procurement are **directly translating into lost research time, weaker grant outcomes, and reduced publication velocity**. These outcomes place Kean University at a disadvantage relative to R1/R2 institutions and undermine both faculty development and institutional research goals.

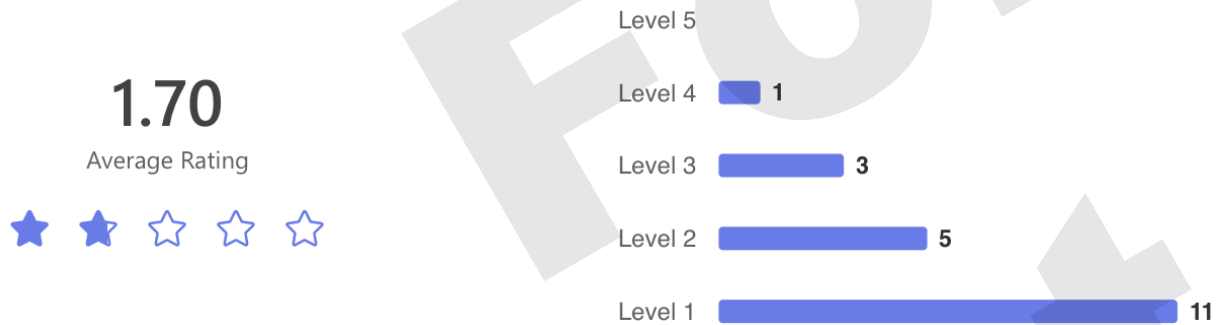
#### 4.8 Causes of Delays (Q15)

Survey results:



Delays are overwhelmingly caused by internal processes, not vendors. Research-blocking security policies (ThreatLocker) directly cause delays.

#### 4.9 Overall Communication Clarity Rating (Q16)



Communication is not only unclear; it is structurally inadequate.

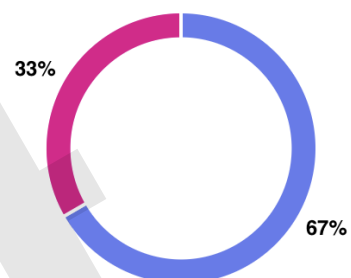
### 5. Impact of Mandatory Monitoring Software

A major part of the survey focused on ThreatLocker, AdminByRequest, monitoring tools mandated by IT for university: managed research devices.

### 5.1 Requirement to Install Monitoring Software (Q17)

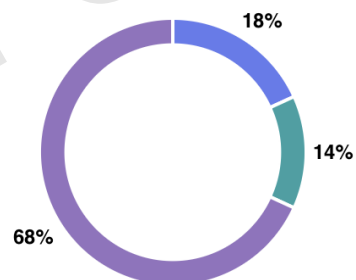
Most faculty were required to install monitoring software on their research devices. However, some devices, such as certain notebooks, were not required to do so, revealing inconsistencies in current IT policy implementation. IT should provide a clearly defined exemption policy and demonstrate consistent application across all device categories.

● Yes	16
● No	8
● Maybe	0



### 5.2 Overall impact on research work (Q18)

● No impact	4
● Minor inconvenience	0
● Moderate disruption	3
● Major disruption	15



68% reported major disruption. Together with Q14, this confirms that procurement/IT issues directly harm research productivity and student research training.

### 5.3 What specific issues did ThreatLocker (or similar tools) cause? (Q19)

Faculty reported a wide range of disruptions caused by ThreatLocker and similar monitoring tools, with several issues directly affecting core research activities.

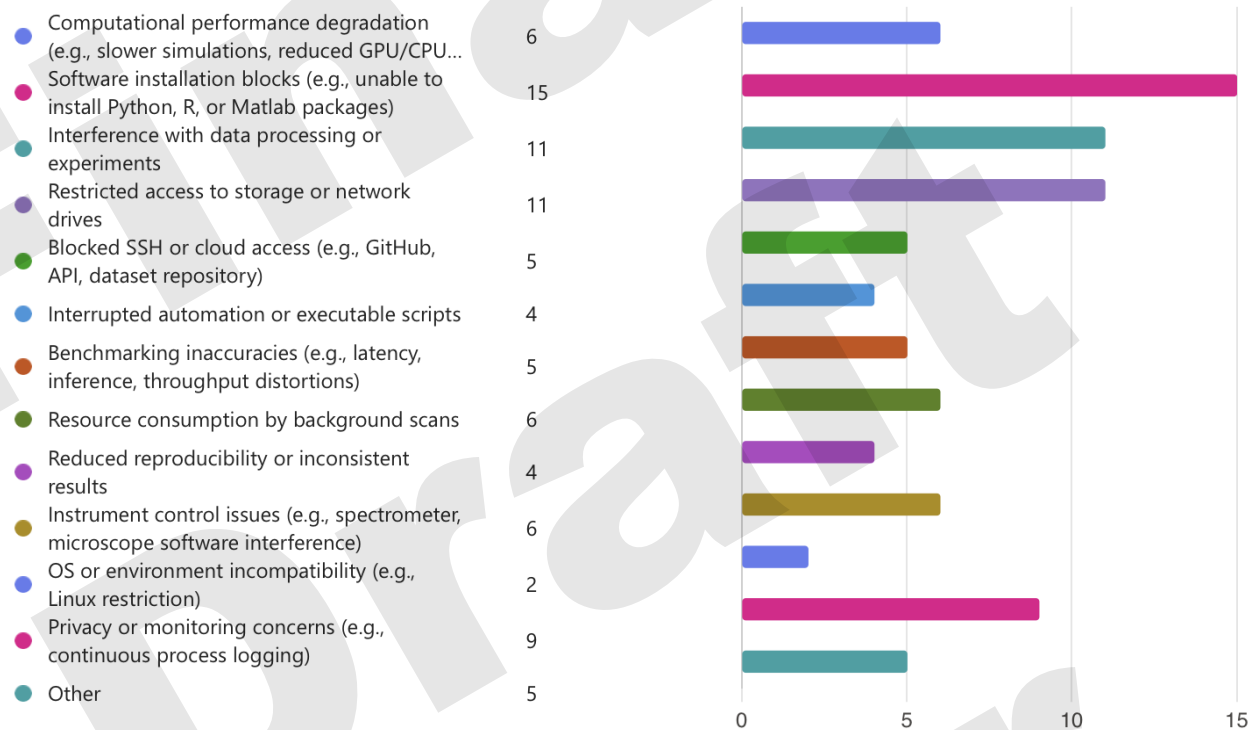
These problems strike at the heart of research computing, not minor IT inconveniences. The majority of issues reported are foundational to modern scientific work, software installation, data access, computing performance, reproducibility, and instrument control. When these fail, entire research programs can be disrupted.

ThreatLocker and similar endpoint monitoring tools were originally designed for enterprise office environments, where workloads are predictable, tightly controlled, and not computationally intensive. These tools are not engineered for:

- High-performance computing
- Machine learning and AI pipelines
- Robotics or automation
- Real-time instrument control

- Large-scale data processing
- Linux or heterogeneous operating environments

As a result, applying the same monitoring framework uniformly across all university devices creates structural incompatibilities with research workflows.



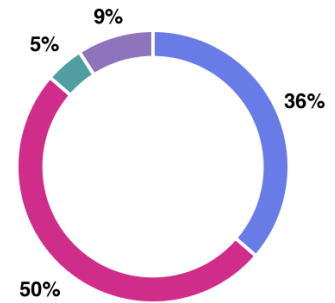
Because of these incompatibilities, monitoring tools:

- Break software dependency chains critical for scientific reproducibility
- Prevent timely installation of research tools required by grants
- Interfere with experiments running on strict timing or hardware-sensitive systems
- Create delays that threaten proposal deadlines, publication timelines, and student mentoring
- Introduce compliance concerns for federally funded projects, especially when data logging behaviors are unclear

The data clearly indicates that the current use of ThreatLocker (and similar tools) imposes systemic barriers to research productivity. To support a growing research university, endpoint security must be redesigned around research-appropriate, flexible, and transparent security models, rather than one identical policy applied to all devices.

#### 5.4. Do you believe ThreatLocker could leak or expose confidential research data? (Q20)

● Yes, highly likely	8
● Possibly, but uncertain	11
● Unlikely	1
● Definitely not	2



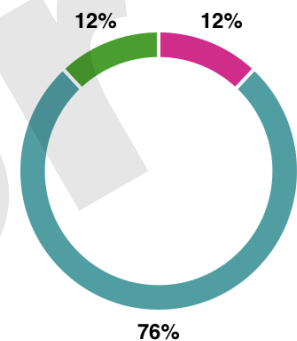
19 out of 22 faculty (86%) expressed concern or uncertainty. This is extremely problematic because many grants (NSF, NIH, DoD, DOE) require strict control over monitoring tools with data access.

Faculty lack assurance that ThreatLocker logs, metadata collection, or remote monitoring comply with:

- NSF Data Management Plans
- DoD CUI/CTI restrictions
- Industry NDAs
- Human: subject sensitive data

#### 5.5. Faculty devices require monitoring software, but student devices do not. Is this a good strategy? (Q21)

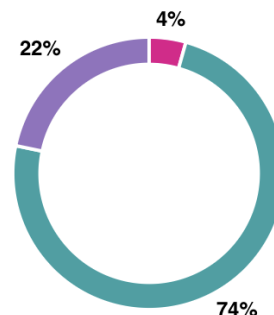
● Yes, it improves overall security	0
● Somewhat reasonable but inconsistent	3
● No, it is ineffective and unfair	19
● No opinion / Not sure	0
● Other	3



The response is uniformly negative. Faculty perceive this as **inequitable, inconsistent and ineffective** (students connect to same network without control). This highlights a fundamental misalignment between IT policy and academic reality.

#### 5.6. Have prior institutions required monitoring software on research devices? (Q22)

● Yes, always	0
● Sometimes, depending on the project or funding agency	1
● Rarely or never	17
● I have not worked at other institutions	5



ThreatLocker requirements are not standard practice at research universities. This places us at a competitive disadvantage and may discourage faculty recruitment/retention.

### 5.7. Institutional Comparisons from (Q23)

Several faculty respondents indicated that their prior institutions operated with significantly more research-compatible policies. Institutions mentioned include:

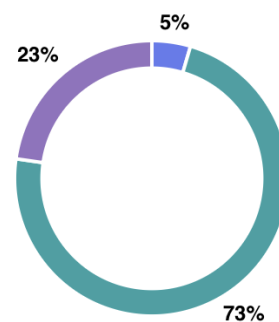
- Penn State
- Rutgers
- Wake Forest University
- University of Pennsylvania
- University of Colorado
- Air Force Research Laboratory
- CUNY
- SUNY
- University of Iowa
- Rowan
- Yeshiva University

Faculty noted that at these institutions, they could install research software freely, work remotely on laboratory machines, and provide student research assistants with access to computing resources without encountering installation blocks or restrictive monitoring tools. One respondent specifically emphasized that they “never had a problem installing software or allowing students to access lab computers using general passwords.”

These comparisons highlight that research universities, including R1 institutions, federal research laboratories, and peer public systems, typically allow faculty greater autonomy in software installation, device configuration, and student access. The contrast further reinforces that Kean University’s current device restrictions and monitoring policies are not aligned with national research norms, and may hinder competitiveness for external funding and faculty recruitment.

### 5.8. Did you experience similar procurement delays at prior institutions? (Q24)

● Yes, frequently	1
● Occasionally	0
● Rarely or never	16
● Not applicable (no prior institution)	5



Delays here are not normal elsewhere. This reinforces that the problem is specific to our internal processes, not unavoidable.

### 5.9. The causes or differences (delay) compared to Kean University (Q25)

Faculty who previously worked at other universities or research institutions highlighted several clear contrasts between Kean's processes and standard practices at established research universities:

- IT's policies and imposed software is too restrictive to be effective.
- Government works really slow.
- Never an issue. Supporting NSF and NIH federal grant holders was always a priority before anything.
- My PhD supervisor ordered items for our research lab. The devices or equipment arrived on time and also have admin access for those devices.
- Too many hurdles in order to increase security, but lacking of efficiency on approvals for example. Mandatory opening "tickets" every single time need a request with delay on responses, or closing tickets when issue is not solved. IT's policies and imposed software is too restrictive to be effective.
- Government works really slow.

The comparative data shows that faculty with experience at other institutions, both R1/R2 universities and federal labs, view Kean's research support processes as **significantly more restrictive, slower, and less aligned with research needs**. Key differences include:

- Faster procurement and delivery at prior institutions
- Greater autonomy and admin rights for researchers
- Clear prioritization of grant-funded projects
- More efficient IT workflows with fewer bureaucratic steps
- Support models tailored to research, not general administrative computing

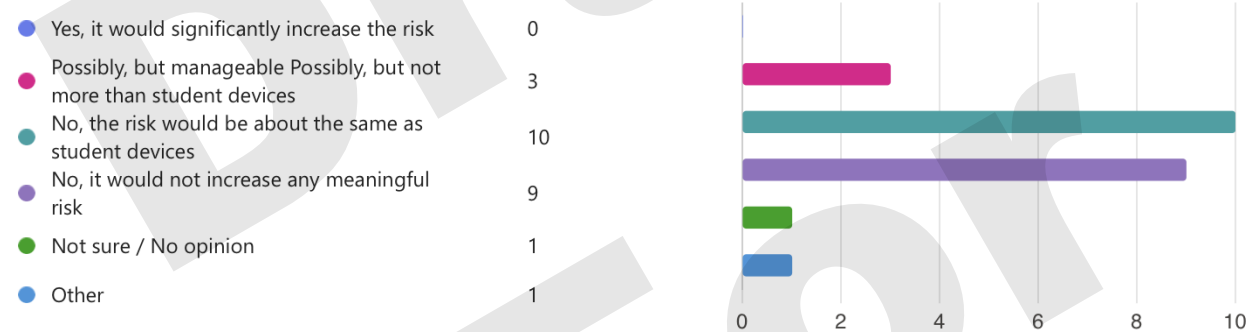
This comparison reinforces that **Kean's current system diverges from national research standards**, contributing to extended delays, reduced research productivity, and diminished grant competitiveness.

**5.10. Should research devices (especially grant funded) be exempt from mandatory monitoring tools? (Q26)**

Research devices should not be forced into a restrictive enterprise, control environment.



**5.11. If research devices are exempt from installing monitor software, would cybersecurity risks increase? (Q27)**

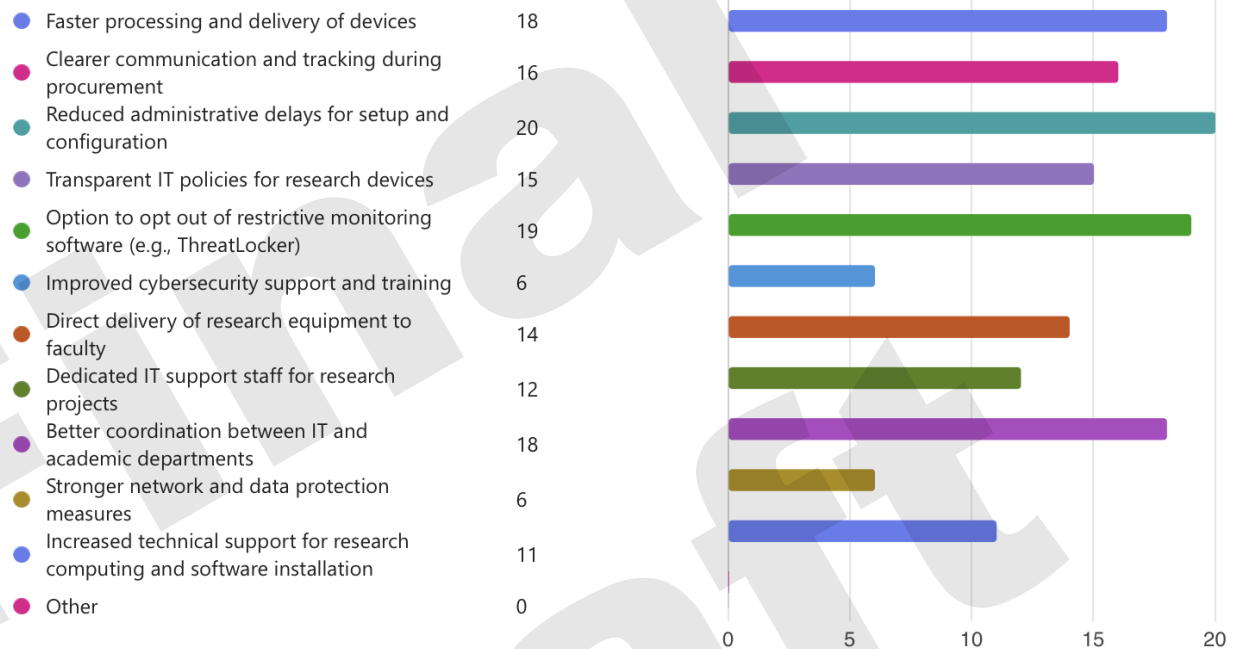


Faculty overwhelmingly believe that:

- Current controls provide limited protection
- Exemption does not meaningfully increase risk
- Students, who is the largest source of network risk, are not required to install anything

**5.11. What improvements should IT make? (Q28)**

Top recommendations (multi: select):



These responses form a consistent picture: Faculty want:

- Speed
- Transparency
- Clear communication
- Reduced administrative friction
- Research-specific IT workflows

### 5.12. Other comments, suggestions, or experiences regarding IT services, procurement, or research device management (Q29)

- A research laptop in addition to a teaching laptop is required in order to install research software at Kean, as research laptops are not allowed to connect to Kean printers. But few faculty have two laptops. So you have to pick one, a research laptop only which you cannot print for teaching materials, or a teaching laptop which you cannot install research softwares freely.
- We need the admin privileges to install and manage Linux software, database server and accounts.
- It seems that a good idea's deployment has not been properly planned for. The idea of cybersecurity is a great idea but then no one asked the users what they need to be able to do on a daily basis. Now we are trying to do our daily tasks around the IT hurdles rather than teaming with IT. More upfront conversations and a project manager would have benefitted all parties. The IT ticket system is not addressing the daily concerns and the over: arching problems.

- IT constantly closes my tickets without actually resolving the issue I am bring to their attention. There needs to be some real accountability on the performance of IT and the current ticket system appears to just incentivize them processing tickets without addressing the underlying issue.
- I see the intent behind the new measures of cybersecurity.. BUT hard clamping security measures without proper notification and any advice on how to "work with the system" is causing massive set back on research performance. And the lack of communication from IT doesn't do anything to relieve the frustration. I strongly recommend going with dedicated IT support staff on departmental levels (per research projects may be overkill and not practical).
- The thing is that there is no one solution that fits everybody. Every faculty has their own research requirements. If the research is sponsored internally, maybe IT can place some restrictions. If the research is sponsored externally, this means a faculty brought \$500,000: 1 mln to the University and at least \$200,000 goes not to supply the research directly, but to Kean as an "indirect cost". This money is supposed to be used by the university to provide administrative, IT and other support to the researcher who holds the grant. If the support is not provided, it does not matter how many supplies the faculty can buy. At the end of the year, the faculty will report to NSF or NIH "I could not do research because IT prohibited me from the software I need and provided no resolution or support". This would be the last day Kean receives any NSF or NIH grants and the designation of R2 university will disappear in thin air, forever. It will be impossible to recover from such a significant reputation damage.
- The research devices should have admin access to the faculty and students using them. They should be able to install and use software at any time without any interruption. Otherwise it will affect both teaching and research work of the faculty.
- On 7/21/2025, I sent the quote to Ms. Victoria Mule, and she submitted the purchase request. On 8/27/2025, I followed up, and she contacted IT to check the order status. On 9/10/2025, I was added to an IT ticket stating, 'We've received the device, but we weren't sure who it was for.' On 9/11/2025, Axel informed me the device was ready for pickup. I went to OCIS and spent an hour setting up my account, but it did not work out. On 10/21/2025, I finally received my research laptop. It's unclear why installing ThreatLocker alone required 1.5 months. Also, it was unprofessional for IT to state, 'We've received the device, but we weren't sure who it was for.' Improvements must be made to simplify the device purchase and delivery procedures.
- Lecturers should be allowe to purchase software ie Nvivo 11 and SPS

The open-ended comments reveal eight major insights into the systemic challenges affecting research computing at Kean University:

1. **Teaching–research device conflict:** Current policies force faculty to choose between teaching functionality and research capability, indicating structural misalignment in device management.
2. **Insufficient administrative privileges:** Lack of admin rights prevents installation of essential research software, blocking core scientific workflows.
3. **Cybersecurity deployment without user input:** Monitoring tools were implemented without consulting researchers, resulting in daily workarounds and significant productivity loss.
4. **IT ticket system lacks accountability:** Tickets are often closed without resolving underlying issues, undermining trust and delaying research.
5. **Communication and rollout failures:** Security measures were enforced without adequate explanation or guidance, exacerbating disruption and frustration.
6. **One-size-fits-all security policies do not support research:** Uniform restrictions are incompatible with the diversity of research methods, tools, and compliance requirements.
7. **Research requires admin access and flexible policies:** Faculty stressed that unrestricted installation and configuration capabilities are essential for both teaching and research.
8. **Severe procurement and configuration failures:** Detailed examples illustrate month-long delays, lost tracking, and unclear responsibilities across departments.

These insights underscore systemic issues that extend beyond isolated incidents, reinforcing the need for research-appropriate IT policies, improved communication, and accountable, streamlined procurement processes.

### 5.13. Any other questions or concerns about our IT or anything (Q29)

Faculties provided additional open-ended feedback for the IT related policies:

- We have a fantastic point of contact for our college. However they are the single point of contact and can't address the multitude of IT issues that Science brings forth on a daily basis. We don't need more student workers we need more fully trained, IT experts with experience in adjusting cybersecurity needs to meet the demand.
- See above, I hope the importance and urgency of the individual support is clear. Thank you!
- IT should notify of any security measures they are doing to the devices in advance. The ThreatLocker was installed overnight on the devices without any prior announcement and blocked access to using the software that was already installed. This is not a professional procedure and should be avoided in future.
- IT should be more supportive. I totally understand their heavy workload to serve the whole university and truly appreciate their efforts. However, computer science faculty work with multiple devices daily for teaching and research and need more prompt support.
- I found it unfair that my department had to fund my requested computer and another department got two of the same computers paid for by the IT budget. That is a major

inequity in my opinion. In addition I'm a female professor and the other professors were male.

- Lecturers should be allowed to purchase software like Nvivo 11 and SPSS.
- One concern I would like to share relates to the responsiveness and accountability of the IT department. I submitted a ticket on September 29 to request additional storage on my Kean-issued laptop. Although IT followed up a couple of times, the messages only asked whether I “still had the issue” rather than making any attempt to diagnose or resolve it. Naturally, the issue persisted because no action was taken. After more than two months without meaningful progress, I was finally informed on December 9 that storage expansion is not possible. It is frustrating that it took this long to receive a definitive answer to a straightforward question, and I still do not have a solution to my original problem. This experience suggests that IT services could significantly improve in responsiveness, communication clarity, and ownership of support requests.

Analysis of the additional comments from Q29 reveals several important themes concerning IT support capacity, communication practices, research needs, and equity considerations:

1. **Insufficient Specialized IT Staffing for Research Needs**  
Faculty consistently emphasized that one IT point-of-contact cannot meet the volume or technical complexity of scientific computing issues. Research disciplines require **fully trained IT professionals** who understand cybersecurity in the context of research workflows, advanced software ecosystems, and laboratory instrumentation.
2. **Strong Need for Dedicated Research-Focused IT Support**  
Respondents reiterated the urgency of establishing **individualized, research-specific support**, noting that current structures are inadequate for the daily technical demands of research and teaching in computing-intensive fields.
3. **Unannounced Security Changes Disrupted Research Work**  
Several faculties expressed concern that **ThreatLocker was installed without prior notice**, immediately blocking existing software and halting research activities. This lack of communication was viewed as unprofessional and inconsistent with best practices. Faculty request advance notification and consultation for any future security deployments.
4. **Faculty Appreciate IT Effort but Need More Timely Support**  
While acknowledging IT's workload and dedication, faculty noted that research computing requires **faster response times**, especially for Computer Science and STEM disciplines where multiple devices are used daily.
5. **Concerns About Inequitable Device Funding Across Departments**  
One faculty member raised concerns about **funding inconsistencies**, reporting that their department had to self-fund equipment while another department received comparable devices through IT. The respondent noted that this disparity appeared to align with gender differences among faculty, raising serious equity implications.

## 6. Findings and Insights

The survey results reveal a systemic pattern of challenges across **procurement, device configuration, cybersecurity controls, communication, and policy consistency**. Taken together, these findings demonstrate that current IT and procurement workflows are **not aligned with** the operational needs of a research-intensive institution.

### 6.1 Procurement and Delivery Delays

Faculty consistently reported substantial delays at multiple stages of the device lifecycle, from initial order approval to vendor confirmation, device arrival, IT intake, and final configuration. Many faculty waited **five to eight months** to receive essential research equipment, with more than half waiting over a month after the device had already reached campus.

These delays stem largely from internal bottlenecks rather than vendor issues. The absence of research on fast-tracks pathways, lack of a tracking system, and over-centralized configuration processes contribute to slow turnaround times. As a result, grant timelines slip, experiments cannot begin, and students lose valuable research opportunities. These disruptions can create compliance issues for federally funded projects.

### 6.2 Monitoring Software as a Barrier to Research

Mandatory security tools such as ThreatLocker and AdminByRequest were a major source of disruption. Faculties described blocked installations of scientific software, interference with data processing and simulations, reduced system performance, and failures in instrument control. These tools also created inconsistencies in reproducibility and raised concerns about privacy for sensitive research data.

These problems arise because the tools **were designed for standard administrative computing, not for high-performance or experimental research environments**. Their use of research devices prevents faculty from meeting grant obligations, disrupts experiments, and contradicts standard practices at R1 and R2 institutions.

### 6.3 Communication and Transparency Issues

Communication around procurement and device setup was rated extremely low. Nearly half of respondents received no updates while devices were held in IT, and many were unsure who was responsible at each stage. Devices were sometimes held without notification, and security tools such as ThreatLocker were deployed without prior warning, immediately blocking existing research workflows.

This lack of transparency prevents faculty from planning experiments, supervising students effectively, or meeting grant deadlines. The root cause appears to be the absence of defined communication protocols, workflow visibility, and clearly assigned responsibilities.

#### **6.4 Policy Inconsistencies and Equity Concerns**

Faculty reported significant inconsistencies in how policies are implemented across departments. Some research devices require monitoring software while similar student devices do not. Device justification expectations differ across units, and central funding for equipment appears unevenly distributed.

These inconsistencies contribute to perceptions of inequity and undermine confidence in institutional processes. Clear, documented, and consistently applied policies are essential for fair access to research resources.

#### **6.5 Impact on Research Productivity, Grants, and Student Training**

The cumulative effects of procurement delays, software restrictions, and communication failures directly hinder research productivity. Faculty reported delayed project initiation, reduced publication output, interrupted experiments, missed grant deadlines, and diminished student research supervision. These consequences are unusually severe for a research institution and represent risks to faculty for advancement, student opportunities, and institutional competitiveness.

#### **6.6 Misalignment with National Research Standards**

Faculty with previous experience at research-intensive universities noted that Kean's current practices differ substantially from national norms. Other institutions typically provide faster procurement, allow administrative privileges for research devices, avoid restrictive monitoring tools, and offer dedicated research IT support.

This misalignment places Kean at a strategic disadvantage as it seeks to strengthen its research profile and maintain R2 status. Without aligning practices to common research standards, recruitment, retention, and grant competitiveness may be affected.

#### **6.7 Summary**

Across all areas, the survey demonstrates that existing systems, procurement workflows, IT configuration processes, monitoring software policies, and communication practices, are not currently supporting Kean's evolving research mission. Addressing these issues will require coordinated institutional reform that includes streamlined procurement pathways, research-appropriate cybersecurity policies, transparent communication structures, consistent policy implementation, and dedicated research IT support aligned with national best practices.

### **7. Recommendations, Roadmap, Outcomes, and Summary**

Our goal is to ensure that procurement, cybersecurity, IT support, and policy structures align with national research standards while enabling faculty productivity and safeguarding institutional security.

### **7.1 Guiding Principles for Improvement**

All improvements are suggested to be grounded in the principles of enabling research, balancing security with flexibility, ensuring transparency, applying policies consistently, and **including faculty** in decisions that affect research operations. These principles ensure that recommended changes of support, not hinder, research productivity.

### **7.2 Modernize Procurement Through a Rapid Research Pathway**

Procurement delays were among the most disruptive issues identified. To eliminate avoidable bottlenecks and align Kean with research-university standards, the university should establish a **dedicated, transparent procurement workflow**, specifically for research equipment.

The university is suggested to specify which device types require approval and who must approve them, such as the Department Chair, Dean's Office, Office of Research for grant purchases, IT for technical review, and Purchasing for final processing. Each request should move through clearly defined workflow stages, such as Submitted, Under Review, Vendor Ordered, Arrived on Campus, In IT Configuration, and Ready for Pickup.

A real-time online tracking portal should display the current status of each device, expected timelines, and notifications when delays occur. This eliminates uncertainty and prevents devices from sitting in pending states without explanation.

To reduce routine delays, commonly purchased research devices should be pre-approved, and direct shipment to research labs should be permitted when appropriate. Together, these changes would shorten procurement cycles from several months to a few weeks, support grant compliance, and allow research projects to begin on time.

### **7.3 Adopt a Research-Compatible Cybersecurity Framework**

Monitoring tools such as ThreatLocker and AdminByRequest **should not be applied uniformly** to research devices. We suggest to create **an exemption policy for research computing**, replace restrictive endpoint tools with approaches, and provide faculty with local administrator rights where appropriate. A tiered cybersecurity model that distinguishes research from administrative workloads will protect institutional systems while allowing research computing to function without unnecessary interruption.

### **7.4 Improve IT-Faculty Communication and Workflow Transparency**

Communication gaps significantly contributed to delays and uncertainty. We suggest to **implement a structured communication protocol** that provides updates when devices are ordered, received, configured, or delayed. Automated email notifications and clear documentation of workflow stages would give faculty the necessary visibility.

## 7.5 Standardize and Document Research Computing Policies

Policies affecting research devices should be consistent, clearly documented, and equitably applied across departments. This includes guidelines for device approval, imaging requirements, cybersecurity expectations, and timelines. A Faculty–IT Policy Advisory Committee should be established to ensure policies reflect research needs and that changes are communicated proactively.

## 7.6 Strengthen Research IT Support Capacity

Research computing requires specialized knowledge that differs from standard administrative IT support. We suggest to build **dedicated research IT capacity** by hiring or training staff with expertise in high-performance computing, machine learning, Linux environments, scientific instrumentation, and research data workflows. Establishing a centralized Research Computing Support unit would significantly reduce faculty downtime and enhance grant competitiveness.

## 7.7 Suggested Implementation Roadmap

Given the significant impact of current delays and restrictions on active research, several actions must be treated as time-sensitive institutional priorities. The roadmap below reflects a compressed and urgency-focused sequence of reforms.

### **Phase 1: Immediate and High-Priority Actions (0–3 Months)**

These actions address the most urgent barriers that directly disrupt ongoing research, grant timelines, and student involvement.

We suggest immediately implementing research fast-track procurement policy with clearly defined turnaround expectations. Communication protocols must be established at once, including automated updates when devices are ordered, received, or delayed. Faculty conducting active research should be granted temporary exemptions from restrictive monitoring tools to prevent further disruption. A Faculty–IT Advisory Task Force should be convened to guide for rapid decision-making. Finally, consistent and transparent guidelines for device approval and processing should be published without delay.

### **Phase 2: Accelerated Medium-Term and Long-Term Enhancements (3–18 Months)**

We suggest building a more sustainable research computing ecosystem by improving workflow transparency, modernizing cybersecurity architecture, and separating research IT from administrative IT where necessary. An online procurement tracking portal should be developed to provide real-time visibility into device status and eliminate communication gaps. At the same time, the university should implement a Research VLAN with a tiered security model, ensuring strong network protection without imposing restrictive endpoint controls on research devices.

It is critical to note that **creating a separate research network does not resolve the current performance problems** if ThreatLocker or similar tools **remain active on research machines**.

The disruptions reported by faculty, software installation blocks, GPU slowdowns, instrument-control failures, and interrupted experiments, are caused by local device-level restrictions, not the network. Therefore, a functional research network must operate without restrictive endpoint controls or adopt non-blocking, research-compatible security approaches.

Finally, the university is suggested to begin annual reviews of procurement timelines, device deployment efficiency, and faculty satisfaction to ensure continuous improvement and accountability.

### **7.8 Expected Institutional Outcomes**

By implementing these reforms, Kean University will see faster device delivery, improved research productivity, more reliable grant performance, and enhanced student engagement in research activities. Faculty satisfaction and retention should increase, and the university will be better aligned with federal funding expectations and peer R1/R2 institutions. These changes will strengthen Kean's reputation and competitiveness as an emerging research university.

### **7.9 Summary**

The survey reveals structural challenges in procurement, IT configuration, monitoring software, policy consistency, and communication. These challenges meaningfully impede research productivity, delay experiments, restrict student training, and negatively affect faculty morale. The unified recommendations and roadmap presented in this section offer a realistic and achievable strategy to modernize research support and create an environment where faculty and students can work efficiently and competitively.