UC **SANTA BARBARA**
Information Technology Services

Annual Report *2023*

A Year in Review
Executive Summary

FY 2022-23 marks Information Technology Services (ITS') first full year of operation as a newly formed organization under the Office of the CIO, and we have remained steadfast in our commitment to provide the campus with excellent service quality while navigating this transition.

During my first year as CIO, I met individually with almost 300 members of our campus community, including each ITS staff member as well as campus leaders, faculty members, and members of our distributed campus IT units. I listened to a broad range of perspectives on our organization and UCSB's culture and community, learning more about the role ITS plays on campus and how we can continue to build upon our past efforts. Some of the near-term goals that arose from this listening tour included improving partnerships and collaboration with campus IT units, stabilizing ITS operations and optimizing our workforce, and ensuring the success of critical projects and services.

In early 2023, I introduced the Campus IT Strategy Development & Alignment initiative. This effort has two goals: to update the existing campus IT strategy to address future priorities, and to align both ITS and the campus IT community for the effective delivery of this strategy. In developing the strategy we've consulted broadly, working with over 200 members of the campus, including faculty, senior administration, staff, and students to identify key priorities. Consultation on this strategy will continue in the new year, with launch planned in summer 2024. Alignment efforts have focused on collaboration with the IT community, as well as organizational work to ensure ITS continues to form into an effective, integrated whole with a unified purpose shared by our entire workforce. During this year, 45 ITS staff and campus partners contributed their insights and experiences to develop a new mission, vision, and core values for ITS, which will guide our go-forward efforts.

ITS' vision is to build a future where we identify UCSB's strategic technology goals through regular collaboration with our partners, and accomplish them by delivering innovative services from our unified organization. In the past year, we selected a new cloud data warehouse tool to support future campus reporting needs, made significant progress towards the upcoming Oracle Financials Cloud implementation, performed a major assessment of UCSB's existing cybersecurity posture, and transitioned additional applications from on-premise servers to cloud hosting. We implemented major improvements to existing services such as UCPath and our student and financial information systems, and rolled out critical transformations like the campus telephony refresh and perm number augmentation.

These feats would not have been possible without the unwavering dedication and efforts of our ITS staff, who I am honored to lead and work with every day. This report details a variety of their accomplishments and key metrics that demonstrate the ITS mission: providing technology leadership, core IT capabilities, and service excellence to enable UCSB's community and its mission of teaching, learning, research, and public service.

Thank you.

Josh Bright, Ph.D.
Associate Vice Chancellor for Information Technology and Chief Information Officer
University of California, Santa Barbara

Accomplishments
Service Quality
Ensure the availability and reliability of core IT services

Copper Cable Repair

The copper cable system at UCSB serves as the underground infrastructure for various communication services, including phones, emergency elevator phones, two-way radios, and more. Unexpected flooding from heavy winter rains on March 16, 2023 submerged a crucial copper cable and damaged 3,900 cable pairs in a communication vault. Prompt action by the ITS Network & Communications Services team and Facilities Management involved pumping water to maintain a dry environment as staff worked to splice cables and replace damaged wires, quickly restoring major services. All repairs were completed by July, ensuring UCSB's vital communication systems remain operational and avoiding long-term damage.

UCPath Lived Name, Fluid Improved Navigation, and 2023 Upgrade

In FY 2022-23, ITS completed four UCPath projects and upgrades, including the Fluid Improved Navigation project, a Chart of Accounts display order update, a PeopleSoft HCM software upgrade, and the Enable Lived Name project. Fluid Improved Navigation, implemented in October 2022, featured a redesigned homepage and tile interface to enhance the user experience. The UCPath chartfields were reordered in December 2022 to align with the new UC systemwide Common Chart of Accounts, and ITS supported the upgrade to PeopleSoft version 9.2.44 in May 2023 to improve application stability. The Enable Lived Name project, completed in June 2023, added functionality for employees to provide a lived name in UCPath in compliance with the UC Gender Recognition and Lived Name (GRLN) policy, furthering the university's commitment to recognizing employees' preferred names and gender identities.

Help Desk Integration

Prior to the formation of ITS, Student Information Systems & Technology (SIS&T) maintained a Help Desk to provide technical support to the Division of Student Affairs, Graduate Division, and Arts & Lectures assisting students and staff with IT services. After ITS' formation, the SIS&T Help Desk integrated with the Enterprise Technology Services (ETS) Service Desk and End User Computing Support group, adopting a tiered support model in summer 2023. This required training all Service Desk staff to support former SIS&T customers, transitioning call centers from Zoom Phone to AWS, and training student staff on the ServiceNow ticketing system. This integration streamlines ITS service support, reducing duplication of work and financial burdens while maintaining exceptional service quality.

Accomplishments

Strategy Development

Lay the foundation for cost-effective, responsive, secure, and resilient services

Campus IT Strategy Development & Alignment

The Campus IT Strategy Development & Alignment initiative began in April 2023 and will establish a new UCSB IT Strategic Plan to ensure that technology investments align with top university priorities, and that both the ITS organization and broader campus IT community are equipped to support this strategy. In order to develop a strategy that reflects a cohesive campus technology vision for the next 3-4 years, ITS has engaged academic and administrative leadership, faculty members, students, and other key stakeholder groups in this process during 2023 and will continue this consultation in the next fiscal year. Concurrently, a Mission & Culture Working Group, comprised of 45 members from diverse ITS units and affiliated campus IT entities, attended three workshops in May, June, and November to establish a mission, vision, and core values for the new organization. This initiative also includes operational and workforce alignment teams, who will focus on identifying opportunities for increasing operational efficiency and improving our administrative processes.

People

Recruit, develop, and retain our talented workforce

IT Internship and Apprenticeship

The IT Internship Program employs six students in different campus IT units, offering them valuable professional experience and exposure to unique projects within higher education technology. This year, the program added a staff position for one UCSB IT intern graduate, providing an opportunity to gain broad exposure to IT services, systems, and processes as a full-time employee. This role is customized to align with the employee's IT interest areas, helping them develop skills for their desired career path. Hiring a former student intern for this post-graduate role enhances employee engagement and reinforces UCSB's dedication to long-term undergraduate student success.

Accomplishments
People

Promoting Interaction in a Hybrid Workforce

In today's post-pandemic environment, 55% of ITS staff work fully remote and 26% are hybrid workers. ITS organized multiple events in the past fiscal year that promote in-person engagement amongst a mostly remote workforce, such as a holiday party, staff celebration lunch, and campus IT beach celebration. The Financial Modernization Management project team and Program Management Office also hosted week-long campus visits to facilitate in-person meetings for remote and non-local workers. Additionally, reservable office spaces in SAASB offer the option for remote and hybrid workers to spend time on campus, and the redesigned lobby now features an open, collaborative layout to encourage staff interaction. While ITS remains flexible and accommodating to remote work, in-person interactions boost staff engagement and foster teamwork.

SIS&T/ETS Integration and ITS Formation

On July 1, 2022, the former Enterprise Technology Services (ETS) and Student Information Systems & Technology (SIS&T) units officially integrated to become Information Technology Services (ITS). While operating as one organization during FY 2022-23, many behind-the-scenes actions took place to complete the administrative integration. Completing this three-year integration marks a major milestone in the move toward a more optimized campus IT landscape, reducing duplication, enhancing efficiency, and fostering collaboration at UCSB.

IT Professionals Mentorship Program

The new UCSB IT Professionals Mentorship Program, launched in response to a strong interest expressed by 60% of campus IT staff in April 2023, is designed to foster professional growth, collaboration, community building, and active learning for IT professionals at different career stages. The IT Engagement Team conducted an interest survey and formed mentor-mentee pairs based on an assessment of participants' career stage, expertise, availability, and program expectations. The inaugural cohort includes 17 mentors and 26 mentees from nine campus departments, aiming to enhance workforce engagement through meaningful workplace relationships within UCSB's campus IT community.

Accomplishments

People

Lean Six Sigma Program Growth

The Office of the CIO offers the Lean Six Sigma (LSS) program, a certification focusing on continuous process improvement to enhance operational excellence. UCSB staff can obtain introductory Yellow Belt and advanced Green Belt certifications. In January 2023, UCSB began offering Yellow Belt training for staff at all UC campuses, attracting 66 participants from sister campuses by June 30. The LSS team also showcased projects from past UCSB Green Belts at UC San Diego's Process Palooza on March 28-29, and led a workshop at UCSB's Professional Women's Association conference on May 11. These program expansions increase professional development opportunities, promoting engagement and retention in the UCSB community. LSS empowers participants to reduce waste and improve efficiency, benefiting both individual staff and participating departments.

Data Liberation

Provide decision-makers access to institutional data

Hyperion Decommissioning

In partnership with many business units across campus, ITS transitioned Hyperion reporting services to Microsoft Power BI, a supported campuswide reporting tool, and decommissioned the legacy Hyperion Web service on June 28, 2023. The outdated Hyperion financial reporting tool posed security and availability risks due to end-of-life software, servers, and browsers. This project delivered a sustainable, secure, and efficient reporting tool for staff to access payroll, General Ledger, human resources, and similar reports for managing departmental and central office operations.

Data Warehouse & Analytics Assessment

With UCSB transitioning to Oracle Financials Cloud (OFC) in 2025, a major overhaul of the outdated campus Data Warehouse is needed to provide financial, budget, and payroll data reporting. Multiple external tools were assessed on whether they would meet OFC reporting requirements while also offering scalability, cost transparency, cloud hosting, and integration with business intelligence tools. After input from various campus constituents, including the Office of Budget & Planning and Administrative & Residential IT, ITS selected the Snowflake platform in June 2023. Snowflake will adhere to data governance and security best practices while supporting OFC reporting needs, and will provide the campus with a modern, cloud-based reporting and analytics platform to support future campus access to data.

Accomplishments
Information Assurance

Ensure the confidentiality, integrity, and availability of information assets

MFA Implemented on Critical Campus Applications

ITS successfully implemented multi-factor authentication (MFA) on all campus applications containing sensitive (P3) and restricted (P4) data. MFA enhances security by requiring users to authenticate login attempts on pre-registered devices, reducing the risk of password theft. In FY 2022-23, MFA was added to all UCSB Google Workspace accounts, including current and former affiliates, as well as functional accounts for departmental devices. Identity Management Services deployed MFA in May 2023, and ITS supported Letters & Science IT in adding MFA to DocuSign and Box services in summer 2022. As of June 2023, 142 campus applications require MFA for sign-ins.

Establishing a Central Information Security Team

As part of ITS' integration, a central Information Assurance & Cybersecurity unit was established to consolidate information security capabilities within a single team focused on identification, protection, detection, response, and recovery from security incidents. The restructured unit now includes security operations, software quality assurance, and physical security/video surveillance infrastructure. These functions align with the overarching goals of the campus cybersecurity program: confidentiality, integrity, and availability. This realignment created a more distinguished and flexible team to ensure security policy compliance and address immediate and future gaps.

Trellix Endpoint Security Implementation

In 2021, the UC Office of the President's Cyber Risk Coordination Center expanded their threat detection initiative to include Trellix Endpoint Security (formerly FireEye), a cloud-delivered tool that monitors and detects cyber threats on campus devices. The ITS Information Assurance & Cybersecurity unit established host devices, policies, and alert triage processes for Trellix. In FY 2022-23, a cross-campus team deployed 3,284 Trellix agents across 21 units, replacing the Sophos AntiVirus license. Expanding cybersecurity tools is crucial to safeguard student, staff, and faculty data in an ever-changing technological landscape.

Campus Security Landscape Assessment

In September 2022, the campus Chief Information Security Officer began an analysis of existing security services, including network-connected systems and their vulnerability management capabilities. The assessment concluded in May 2023, guiding a future state roadmap that outlines resources and tools required to enhance UCSB's security posture. Identified gaps and proposed corrective measures were then presented to campus IT governance groups. Given the frequent cyber threats in higher education, regular analysis of security tools is crucial to meet industry standards and enhance data protection at UCSB in the coming years.

Accomplishments

Campus Cloud

Leverage cloud technologies while controlling infrastructure costs

Amazon Web Services Events for Campus

The ITS Cloud & Identity unit oversees AWS Cloud Champions, an advisory group to share updates and obtain feedback for UCSB's cloud environments: Amazon Web Services, Azure, and Google Cloud Platform. Monthly meetings in FY 2022-23 focused on security and compliance, establishing requirements for handling Controlled Unclassified Information. ITS also provided a robust schedule of AWS events for campus users throughout the past FY, with tailored trainings and workshops to address topics like reporting capabilities and research acceleration with AWS cloud tools. Regular engagement with cloud administrators and campus users promotes the security, efficiency, and use consistency of these environments, benefiting a variety of educational and research initiatives across UCSB.

Fusion Application Transition

In January 2023, ITS moved the Department of Recreation's campus-hosted Fusion application to Innosoft, a cloud-based recreation management and payment processing tool. ITS integrated student and staff data with Innosoft for nightly membership eligibility imports and identification photo display in Fusion. This transition also included the integration of FreedomPay as a single credit card processing solution. Hosting Fusion on Innosoft's cloud reduces reliance on campus infrastructure, lowering operational overhead for ITS and freeing up resources for other purposes. This shift enables smoother Fusion software upgrades and troubleshooting, minimizes service disruptions, and streamlines payment processing.

Digital Transformation

Create new processes, culture, and experiences to meet today's consumer demands

Campus Telephony Refresh Project

The Campus Telephony Refresh Project modernizes communication by replacing the traditional landline system with Zoom Phone, a Voice over Internet Protocol (VoIP) system. Zoom provides one tool that facilitates phone calls, SMS messaging, and video meetings. System design started in August 2022, with four departments participating in a test group in November. All departments were then assigned to migration groups for a phased bulk migration in 2023. Training began in January, and the first 15 departments migrated later that month. By summer 2023, 193 departments had transitioned to Zoom Phone. This allows calls from any Internet-connected device, offering flexibility for remote work, lower annual maintenance costs, and simplified campus communication tools.

Accomplishments
Digital Transformation

Financial Management Modernization

Financial Management Modernization (FMM), led by FARM and managed by ITS, will transform UCSB's financial capabilities through the adoption of a UC-mandated Common Chart of Accounts (CCOA) and the Oracle Financials Cloud (OFC) system. The design phase, completed in January 2023, involved over 200 sessions to review 1,200 user stories defining the required user experience and system functionalities. System configuration began in February, with in-system demos and adjustments based on feedback from team members across all divisions. Significant progress has been made in converting legacy system data to OFC, collaborating with departments to refine existing data in preparation for testing. Additionally, the project team developed various engagement activities for stakeholder awareness, including town halls, videos, virtual deep dives, website content, and more. FMM's go-live date was extended to July 2025 after a decision to retain UCSB's current procurement system expanded the program scope. The new CCOA and OFC system will modernize budgeting, accounting, and financial reporting practices throughout the campus.

Perm Augmentation Project

UCSB has assigned all-numeric perm numbers to students for decades, but in 2019, it was projected that all-numeric perms would run out before 2030. The Perm Augmentation project, completed in FY 2022-23, introduced alphanumeric perms to campus (e.g., A12345). ITS updated the automatic perm assignment processes and modified the Student Information System (SIS) and other systems to handle alphabetical characters. After testing and piloting with a small group of UC Online Education students in September 2022, large-scale use of alphanumeric perms began in March 2023 after admitted students began submitting their intent to register. This project provided a perm number solution compatible with existing campus systems and ensured perm availability for many years to come.

Tuition Stability Plan Support

In Fall 2022, UCSB implemented the UC Office of the President (UCOP) tuition stability plan, adjusting tuition fees for each incoming undergraduate class but charging students in this class the same flat rate for up to six years until the student graduates. ITS facilitated the creation and assignment of class cohort IDs across various student and financial systems, such as Blue, SREG, BARC, My Aid Status, PeopleSoft Financials, and the Data Warehouse. Systems were also modified to ensure Registrar information and BARC student invoices display cohort IDs. Amidst rising higher education costs nationwide, predictable tuition fees help students and their families manage costs while allowing UCSB to provide increased financial aid for students with the greatest need. ITS' contributions ensure existing systems accommodate this new policy and deliver accurate tuition data to students, staff, and UCOP.

By the Numbers
Understanding ITS through the data

Accounts and Identity

Total campus identity logins	336,412,723
Active campus identities	53,213
Applications integrated with single sign-on	464

Collaboration Services

Total email messages delivered	137,939,016
Active Connect accounts	113,591
Websites hosted	447
Sites migrated to UCSB web theme	13

Information Security

Avg. monthy malware alerts detected by Trellix	509
Investigations by Mandiant Managed Defense	241
Applications requiring multi-factor authentication	142
Total incidents	82

Application Support

Service calls addressed	32,771
Kronos users	9,597
Kronos service requests	5,637
UC Learning Center users	4,562
Total workstations supported	3,827
UC Learning Center service requests	3,291
Connect service requests	1,125

Virtual Application & Server Hosting

Gigabytes of RAM	17,314
Gigahertz of CPU	2,805
CPU cores	938
Terabytes of SAN storage	926
Virtual servers hosted (virtual machines)	899
Virtual host servers	34

Network, Remote Access Connectivity

VPN accounts supported	6,665
Wireless access points maintained	4,818
Active Secure Socket Layer certificates issued	505
New wireless access points installed	495
Subnets with access control lists supported	307
Building switches maintained	146
Percent network uptime at building switch	99.94%
Petabytes transported on border routers	50.97

Training

LinkedIn Learning hours (campus)	2,346
Total Lean Six Sigma Yellow Belts on campus	313
Pluralsight learning hours (campus)	288
UC Managing Implicit Bias series completions (campus)	128
Total Lean Six Sigma Green Belts on campus	57
UC People Management series certificates (ITS)	11
UC People Management series completions (ITS)	8

Admissions Support

Peak web users at freshman decision release	10,127
Peak web users at financial aid award letter release	1,916
Peak web users at transfer decision release	1,350

Data Center Operations

Physical servers hosted at the NHDC	602
Total racks at North Hall Data Center (NHDC)	69
Departments hosted in the NHDC	46

Telecommunications

Station-to-station calls attempted	1,206,323
Station-to-station calls completed	655,553
Outgoing calls processed annually	496,103
Legacy Telephone lines maintained	3,350
Zoom Phone VoIP lines maintained	1,900
Radio service customers	455
Miles of outside plant fiber optic cabling maintained	70.3
Miles of outside fiber optic cable installed	1.8

Palo Alto Unified Threat Management Blocks

Total threats blocked	1,009,806,920
Total vulnerabilities blocked	520,760,339
Total spyware blocked	283,111,565
Total URLs blocked (PAN-DB)	278,964,875
CVSS high vulnerabilities (since July 2018)	212,613,626
CVSS critical vulnerabilities (since July 2018)	117,512,683
Total scans blocked	8,443,430
Total files blocked (virus)	755,379

Zoom Adoption and Usage

Total Zoom meeting minutes	21,239,706
Number of participants	1,744,367
Number of meetings	376,645
Total Zoom accounts provided	

Google Drive & Gmail Storage

Total megabytes used	3,714,912,730
Megabytes of Drive used	3,433,676,687
Megabytes of Gmail used	197,709,643

Portfolio, Program & Project Management
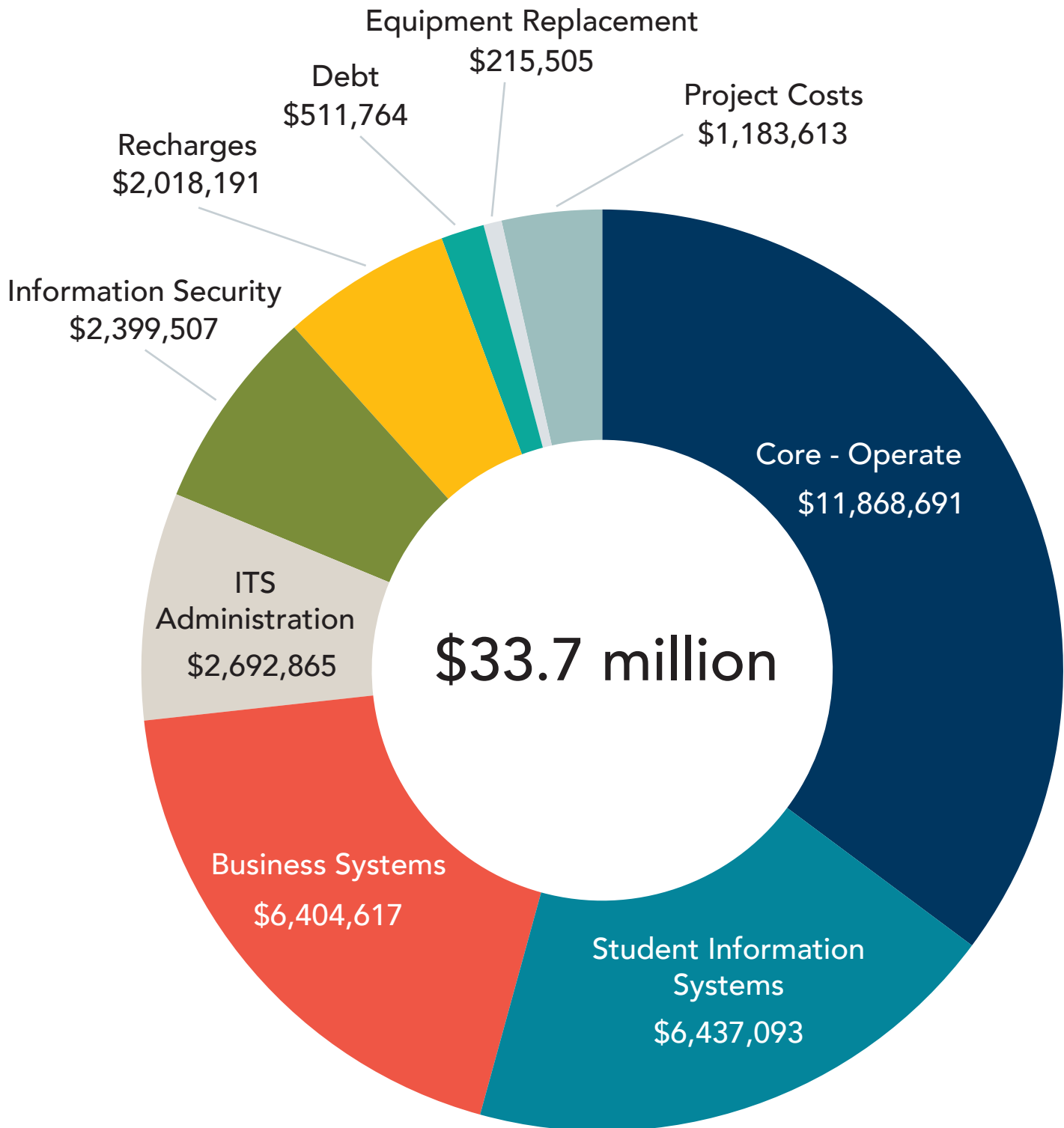
Total projects completed	105
UCPath projects completed	15
Town halls hosted for campus users	14
Financial system projects completed	9
Security projects completed	6

Physical Security

Security cameras hosted in VSaaS	214

Expenditures
FY 2022-2023

Equipment Replacement
$215,505

Debt
$511,764

Project Costs
$1,183,613

Recharges
$2,018,191

Information Security
$2,399,507

Core - Operate
$11,868,691

ITS
Administration
$2,692,865

$33.7 million

Business Systems
$6,404,617

Student Information
Systems
$6,437,093

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