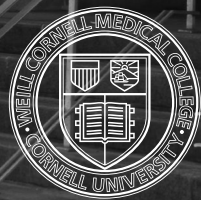




ITS ANNUAL REPORT

2014

The Right Information at the Right Time



Weill Cornell Medical College
Information Technologies & Services

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A Message from the CIO



ITS is entering a new era. With the opening of the Belfer Research Building (BRB), the basic tools ITS has to deliver services to the college will change. The centerpiece is a new data center but what really matters are the technologies and services this new infrastructure enables.

Like the foundation of a building, the layers of technology and services we build on top are limited by the size and strength of that foundation. Belfer provides us with a new world-class foundation.

As with a building, it will take time to build on top of this new foundation. But many major improvements are already in place. This year we expanded our Internet speeds by 10 times. In fact, during the World Cup the campus used three times more bandwidth than we had available to the whole campus only a few months prior.

A new Wi-Fi infrastructure, a new IP telephony system, and a variety of new security systems are just some parts of the new foundation that are working today for some of the campus that we

will roll out for everyone in the months to come.

A great deal of our new technology is designed to enable cutting edge research. Computationally intensive science will benefit from faster network speeds, capacity for high performance computing, and new storage options on campus and in the cloud. All researchers will benefit from the new research administrative systems that we spent this year analyzing. A new system has been selected to replace, integrate, and simplify myriad existing systems.

This past year more than 200 new technology projects were started to support the new curriculum, the rapidly expanding Physician Organization, and a host of departmental and administrative initiatives. While many of these will take more than a year to finish, more than 180 projects were completed this year, nearly 50% more than the prior year.

The coming year will continue with a drumbeat of new technologies and services as we exploit all the new tools we now have. You will see new phone services, new mobile services, several new tools to make secure computing easier, new tools for training and getting help, and much more. Cheaper, faster, easier will be recurring themes.

The next few pages summarize what we have done against our plan and define our new goals for the coming year. The Appendices provide more detail by team. We hope you find it informative and are always eager for any feedback and ideas you have to make our services better.

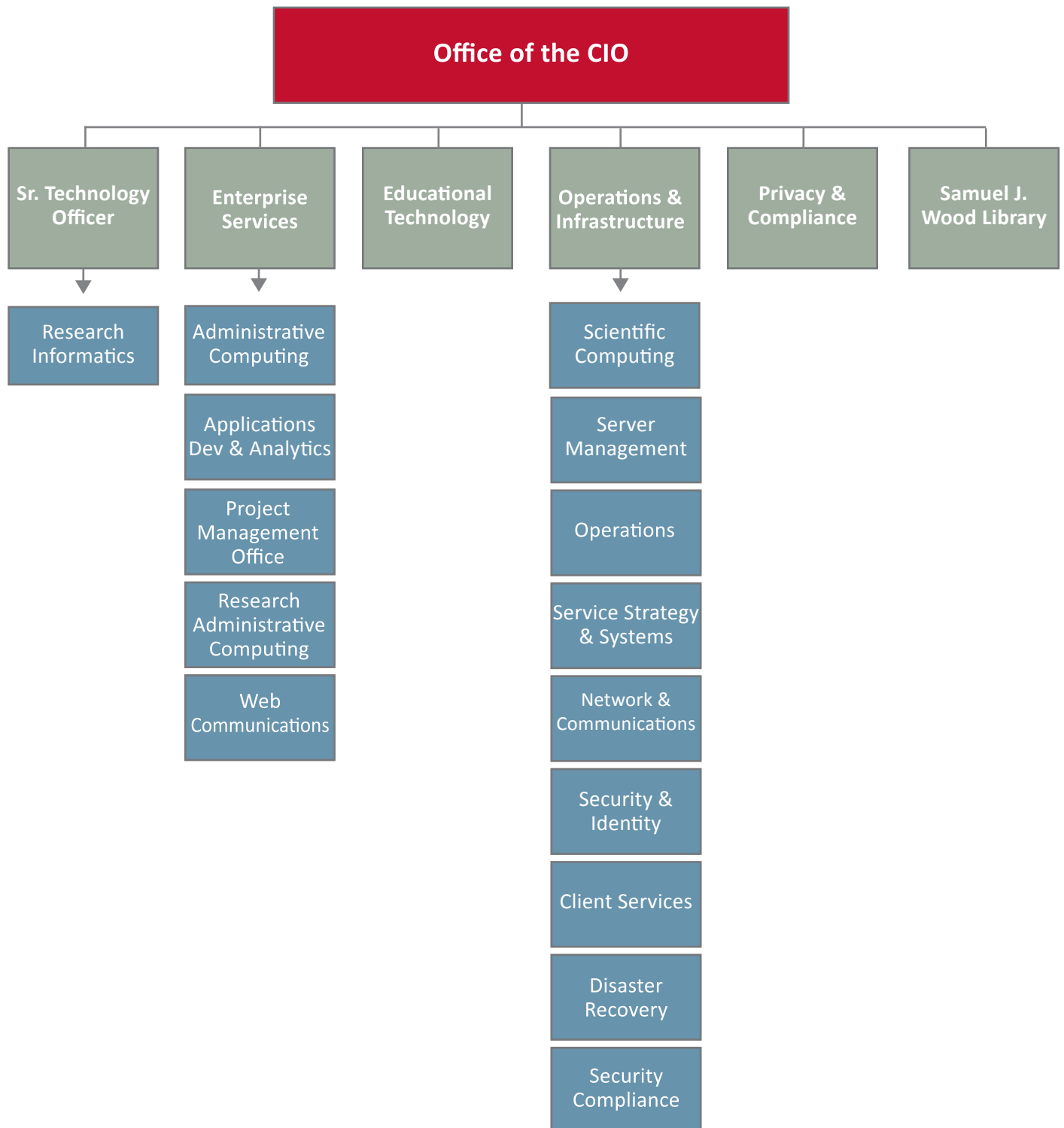
Last year's report was our first to use this format and was well received. We did receive feedback that we have tried to incorporate to make this year's report even more informative. As always, we are very eager to hear ideas on how to improve our communication with users as well as improve any of our services or technologies.

“The coming year will continue with a drumbeat of new technologies and services as we exploit all the new tools we have.”

Curtis L. Cole, M.D., F.A.C.P

Chief Information Officer
Associate Professor of Clinical Medicine and Public Health

ITS Organization Chart



ITS Leadership



Curtis L. Cole, MD, FACP
Chief Information Officer



Dana Kaplan
Department Administrator

Directors



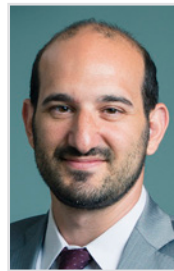
Vipin Kamath
Enterprise Services



Jason Korenkiewicz
Education
Technology



David Lifka, PhD
Research
Computing



Ben Nathan
Operations &
Infrastructure



Susanna Partrick
Privacy



Vinay Varughese
Sr. Technology Officer



Terrie Wheeler
Samuel J. Wood
Library

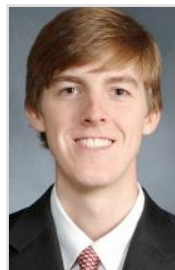
Associate Directors



Vanessa Blau
Research
Administration



Arun Budhwani
Project
Management



Thomas Campion, PhD
Research Informatics



Harish Chava
WBG Program
Management &
Operations



Eugene Chen
Network &
Communication



Diana Delgado
Library User Support,
Research & Education



Dan Dickinson
Web
Communications



Leonard Francis
Operations



Jose Garcia
Applications
Development &
Analytics



Richard Hu
Service Strategy &
Systems Architecture



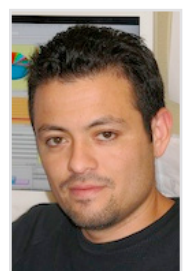
Christine O'Connor
Client Services



John Ruffing
Advanced Tech &
Integration Services



Ramon Segarra
Server Management



Edgar Tijerino
Security & Identity

Background & Summary

This report outlines the status of key projects and initiatives designed to improve quality of life at WCMC as well as support our core missions.

Community Engagement & Governance

Active community engagement guided our work over the past year. ITS has re-examined the **governance** of IT at the medical college. We launched or restructured several oversight groups this year with additional changes on the way. A robust Research Administration Oversight Committee, chaired by Dr. Katherine Hajjar, led the analysis and selection of the new research administrative system launching in FY15. Chaired by Prof. David Warren, we also now have a Web Governance group working hand-in-hand with External Affairs to set priorities, advise on design standards, and review policies. Ongoing participation in community forums like DA meetings, faculty councils, and departmental meetings ensured ongoing communication and feedback about IT initiatives.

Our Project Management Office (PMO) has matured significantly over the past several years, such that we finally have a comprehensive view of all our hundreds of projects, their statuses, and a coordinated view of their timelines. This is now visible to our users and drives internal reports that will also be shared later this year.

Perhaps the biggest news for many users is that ITS will be re-examining our fee structure. Our last major update was a few years ago when we were asked

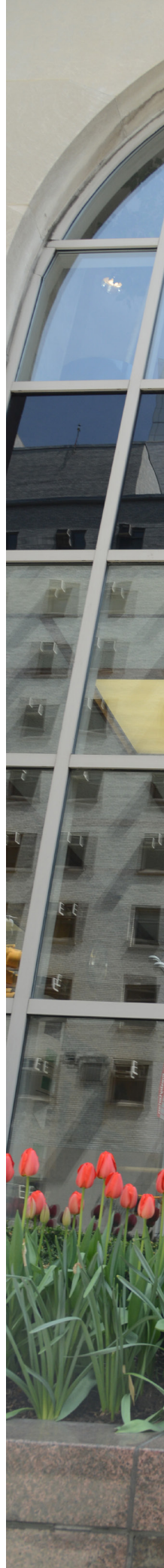
to break down our fees so that users could select from a menu of services. This has many advantages, especially for departments that want fine control over which accounts to charge different services. However, this also poses more complications. We will examine packages of person-based (rather than device based) services and other methods of optimizing the charge-back. Extensive user input will be sought to ensure the structure works optimally for as many of our user groups as possible.

Enabling the College's Missions

Research

Organization: Research administrative systems were reorganized under ITS in late 2012. We worked closely with the Dean's Office to develop the appropriate organizational structure to bolster the technology services that support both the administration and the conduct of research.

ITS now has three distinct but related groups supporting research. Research Administrative Computing leads the support, enhancement, and replacement of key administrative systems such as Grants Management, Proposal Development, IRB, Conflicts, Clinical Trials (CREST), and SAP. The Research Informatics group builds research repositories and data collection and integration tools through





the ARCH program. Finally, Scientific Computing provides direct support for advanced computing and liaises with other institutional providers, such as the Center for Advanced Computing in Ithaca.

Redesign: Dr. Katherine Hajjar led a committee of faculty, staff, and administration in the evaluation of multiple systems to replace core research administrative systems. A sophisticated process for defining requirements and evaluating systems, with extensive input from more than 100 faculty and staff, culminated in a report that went to the Dean in August 2014. Based on guidance from the committee, the Dean approved the selection of InfoEd as our new research administration system. We will begin the implementation process in the fall of 2014 and expect the project to take several years to fully implement.

Stabilization: FY14 was the first full year that ITS had responsibility for the eIRB and the Conflicts system. Both systems are now stable and able to meet their core business and regulatory requirements with reasonable efficiency. The team worked closely with central and departmental users to catalog the lessons learned from stabilizing these systems to ensure we apply our experience to the InfoEd implementation. Some additional minor upgrades are planned before these systems are replaced but no major changes in functionality are expected until that time.

Clinical Research: ITS developed and launched a new system to support the new Clinical Study Evaluation Committee (CSEC). We also continued to develop the clinical trials management system, CREST, in preparation for the next major phase for this project when we tackle a bigger part of trial billing in collaboration with the JCTO. Data collection also got a boost with the security hardening of the REDCap system.

We developed our first pilot research data repository (RDR) under the ARCH (Architecture for Research Computing in Health) initiative for the Center for Advanced Digestive Care. The system was delivered to users for testing with a second RDR close behind for Anesthesia. Three more are in the pipeline for FY15.

Scientific Computing: Perhaps the biggest capability the new data center enables is our ability to host computationally-intensive scientific computing systems. High Performance Computing (HPC) uses many CPUs in parallel to solve complex problems. These systems require extraordinary amounts

of power and cooling. **The new data center, pictured at right, is designed to support the current generation of HPC systems.** It is also designed to be upgradable to accommodate newer systems as these technologies evolve. ITS has worked closely with scientists through the new HPC Co-op to gather requirements, define our services, and determine the best funding models for these new capabilities.

Faculty Evaluation and Profiles: The new Faculty Review Tool had its first full year with a few improvements added on for this summer's cycle. The VIVO profile system also went live in beta with the opening of the BRB. We had significant performance problems early on which have largely been solved. Incremental upgrades to both of these systems are planned for the coming year. We are also designing a much larger project to unify as much faculty profile data as possible into a single view so that each faculty member can validate what various systems know about them in one step. This should enable us to automatically populate much more data into many different systems, like the new proposal development system, reducing tedious rework and inaccuracies.

Clinical Care

Epic: The final phase of the Epic Practice Management system went live last fall. This was a huge undertaking with remarkably few problems. A temporary loss of income was predicted by Epic, but the PO actually outperformed the prediction and comparable Epic customers. A significant upgrade was planned and executed this summer so that several new features can roll out this coming year. One big new feature will be "dual factor" authentication. This is rapidly becoming the standard for IT systems and will start at WCMC in Epic. While it takes longer to use than regular authentication, it will allow physicians to e-prescribe narcotics, a major time-saver and huge convenience for patients and physicians.

Expansion: The biggest portion of work integrating Lower Manhattan Hospital physicians was completed this year. Going forward they will be treated much like other remote sites, albeit much larger than most. ITS and POIS also connected 12 new remote sites, enabling the new Weill Cornell physicians to use the Epic EMR. About 15 additional sites are in the queue. Despite aggressive timelines, recalcitrant landlords, and the vagaries of street construction and cable company appointments, we continue to make solid gains in expanding our physicians' presence throughout the city.

Education

New Curriculum: Much of the second phase of the Jenzabar system roll out took a back seat this year to two major



new initiatives. First, the new MD Curriculum required adding or adapting more than 10 information systems and technologies. Many of the changes needed to support the new curriculum, such as the Edcenter renovation, would have been the largest projects we had done to date. Yet, we did several such projects simultaneously.

The new Business Process Solutions Team started a comprehensive review of workflows in the graduate school. ITS followed this process with major enhancements and revisions to core systems like Jenzabar. Many of these enhancements will be tested in FY15 with more already in development, including student evaluations, rotation evaluations, and improved reporting.

We continue to make solid gains in expanding our physicians' presence throughout the city.

Completing the new curriculum and the graduate school process redesign will remain top priorities in FY15, though we will revisit implementing additional core Jenzabar modules such as Financial Aid, Student Life, and Student Retention.

BI Report Navigation

Learning Modules

Introduction
A quick intro to BI Reports

Entering Data + Executing Reports
Learn how to search for data in a report with Variable Entry

Reporting Menu Area + Layout
Learn about the report layout and Free Characteristics

Drag + Drop Feature
Customize your reports using the Drag + Drop feature

Sorting + Filtering
Learn how to sort and filter the data in your report to suit your business needs

Saving Favorite Reports
Like your current report layout? Learn how to save it here

Go-To Reports
Go-To Reports allow you to access data directly in other reports

Exporting Reports
Learn how to export your reports to Excel and PDF formats

Additional Resources
Check out our additional BI reporting resources

Begin Course

Variable Entry

Available Variables: Save Save As... Delete [Show Variable Persons](#)

Variable**	Current Selection	Description
* FM Area (Single Value)	WCMC	WCMC Weill Cornell Med College
* Fiscal Year (Single Value)	2015	WCMC Fiscal Year 2015
* Posting Period (Single Value)	1	Period 1
* Fund	13611610	
Commitment Item (Multiple Single Values)		
GL Account		
Funds Center		
Vendor Number		
Document Type		
Document Number		
Predecessor Document		
Item Text (Case Sensitive)		
Strategic Plan Flag		
Shopping Cart		

Weill Cornell Medical College

our ability to inventory of thousands of devices we support.

The SMARTDesk service celebrated its first anniversary with new extended hours and a new training and demonstration capability launched at our SMARTFest event in the Wood Library. In FY15 the SMARTDesk will have a renovated space to further expand these services.

Infrastructure: The two most visible infrastructure projects were **building out the core IT infrastructure in the new Belfer Research Building (shown below) and its new data center**. ITS has supported scores of moves since the building opened and started activation of the data center which will continue for about 18 months.

Weill Training Management System:

In FY13, the Educational Technologies Group launched our new Learning Management System, Canvas, for the MD programs. This past year we extended the installation to staff. WTMS is our new name for three systems that work together to deliver teaching and training to both students and staff. For students, Canvas is linked to the student record in Jenzabar. **For staff, Canvas is linked to their HR record in WBG (an example is pictured above).** In the coming year, the system will have a new security extension to allow non-employed staff to use the system as well. More training programs will be added with the goal of having the majority of training delivered through one portal based on the type of job you have at the college.

Event Services: The Event Services group launched a major new audio-visual architecture in the new BRB conference facility. The installation will not be complete until the fall, though components are already in place. The departmental conference rooms in the BRB were also standardized so that they can be controlled centrally. This will allow us to service small rooms for the first time, without a major increase in staff. We hope to expand this model to other parts of the campus in the years to come.

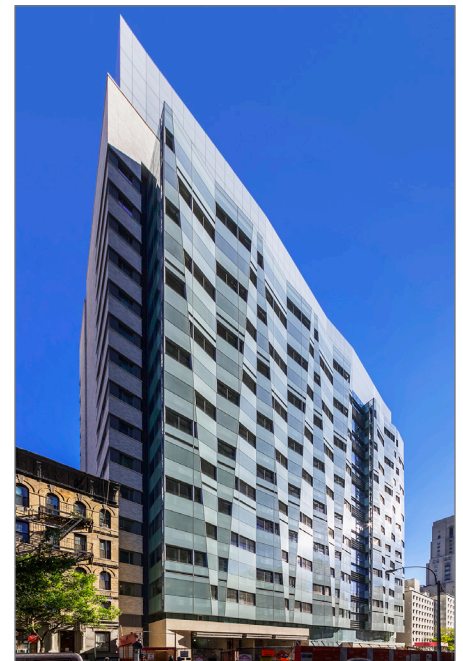
Strengthen, Secure & Support

I4 is the name we gave to the collection of projects surrounding the new data center: ITS Infrastructure Improvement Initiative. In the past year, we successfully hit all the major milestones needed to activate the new building and data center. For the next two years, users will see a variety of new and improved services from that work. Some are already apparent, like faster network speeds. Other changes are more behind the scenes, such as increased virtualization capabilities, new system monitoring, load balancing, and business continuity tools that improve reliability, shrink our energy footprint, and enable faster service delivery.

While I4 is about the foundations of IT, we have also been focusing on transforming our user interactions. Our Client Services group has been reorganizing and exploiting a new service management system, ServiceNow. This system, modeled on a set of IT best practices known as ITIL (Information Technology Infrastructure Library), will take years to fully implement. However, it has already improved our responsiveness and capacity in managing problem tickets, allowed for a new self-service support portal called myHelpdesk, and expanded

Telephony: A new Avaya IP telephony system was installed this year. All ITS supported users will be converted in the coming year from the legacy Nortel system. We also added new redundant connections to our service provider to avoid the service loss we suffered during Hurricane Sandy. Additional redundancy is planned for the coming year.

Wi-Fi/Network: One key new capability provided through the new data center



is much faster connectivity to the Internet, Cornell Ithaca, the Genome Center, and other major partners. WCMC's consumption of network bandwidth is rising at an exponential rate. This includes massive increases in Wi-Fi requirements. This year we installed a new wireless backbone to replace the aging secure and guest wireless services. Rollout of the new service started this spring and will continue through FY15 with expanded coverage to almost the entire campus and support for eduroam. eduroam will also allow ITS users to access networks at other educational sites throughout the world and allows WCMC to host colleagues from other eduroam universities using their own native credentials. Locally, Rockefeller and Columbia have also joined this consortium. In FY15, we will also be providing 10GB service for faculty with large bandwidth requirements.

Core Services: This year, ITS launched a major new service called Lync that provides desktop sharing, instant messaging, video conferencing, and even the ability to access ITS telephone services on your iPhone. We expanded our Virtual Desktop service, which is increasingly becoming our default recommended desktop for most users. In the background, we have been preparing for next year's deployment of Office365. This cloud-based email system will offer a very large inbox, remote file storage, and web-based versions of Word, Excel, and PowerPoint.

Disaster Recovery: A number of changes were made in response to Hurricane Sandy particularly to the phone system. Preparation for co-location of services in Ithaca will provide more redundancy in future years though more work is required.

Security & Privacy: This year, we faced a larger number of complex attacks than ever before. In the past year, we have gone from 71,000 attacks on our network per month to 31 million. ITS continues to expand the range and sophistication of the defenses we employ. This included new high-speed firewalls, improved authentication, intrusion detection, and data loss prevention systems, combined with expanded encryption, desktop, and mobile management services. With the new networking technology installed this year, we will soon deploy security zones that will give different levels of access depending on who you are, where you are, and what you are doing. This should improve both security and convenience, especially for scientists not involved in human subjects research.

Library

New Director: A faculty search committee successfully recruited Terrie Wheeler from the NIH to be the new director of the Wood Library. Terrie arrived in June with deep experience, fresh ideas, and boundless energy.

Renovation: In conjunction with the Education Center renovation, we planned and designed a face-lift for the front area of the Wood Library. The biggest changes will be a new Cornell Store, a training and demonstration area, upgraded computer tables, and an improved SMARTDesk that combines circulation, reference, and IT support functions. Less noticeable will be some minor and much needed bathroom upgrades and new desks in the main back office area.

Mission Support: Lisa Mix lead the library as acting director throughout most of the year, expanding clinical, research, and education support. Lyubov Tmanova led the implementation of a Research and Scholarly Communication Support service for CTSC. Josh Richardson improved resident onboarding, expanding access to library services. And everyone pitched in to support the new curriculum.

Bibliometrics: A team of librarians and programmers created a new publication tracking tool to generate a comprehensive index of WCMC publications. The database will improve the accuracy of VIVO profiles and helps the library generate bibliometric analyses to track faculty productivity and research impact for departmental chairs and the Dean's Office.

Administrative Systems

Expanding employee self-service (ESS) has been a major focus in administrative systems. Open Enrollment is the largest use of ESS, which had a number of improvements this year. We successfully rolled out eTime, a new time management system, to pilot departments. That project is now on hold as the vendor was acquired and a new system is under evaluation. Myriad other improvements to procurement, P-cards, space management, cash flow reporting, and more were completed. Next year's priorities are under discussion by the Steering Committee.

Our multi-year plan to revamp all WCMC web properties and technologies made major strides in FY15. WCMC now has its own distribution of the Drupal content management system with standard designs for all new sites; we also have a new hosting service. The main focus in FY14 was on the underlying infrastructure. The new Web Governance Committee is helping us unify the look and feel of WCMC sites, which will be more visible in FY15.



Review of our 2013-2014 Goals

In last year's report, we laid out a series of goals for the coming year. Below, we review how well we did against these goals, then update them for the coming fiscal year.

Develop new IT services and enhance the IT infrastructure to support the biomedical science and clinical research needs of the faculty.

- **Activate the Belfer Research Building, and launch new campus-wide services enabled by the data center, including further development of the research network, expanded wireless throughout campus, and add 10GB connectivity to Ithaca**

>> This work was completed on time. Rollout will continue into FY15 and beyond for some services.

- **Hire a new Director of Research Administrative Computing**

>> A new director was hired. The job has subsequently evolved.

- **Collaborate with research faculty, administration, and the new Dean of Research to plan for enhancement or replacement of core research administrative systems such as eIRB, eGrants, Conflicts, and the CREST system**

>> A faculty-led committee ran a complex, highly inclusive evaluation process that recommended two finalists to the Dean in early FY15. InfoEd was ultimately selected.

In consultation with the user community, develop new IT services and enhance existing services using cost-efficient financial models

- **Implement advanced computational resources such as RedCloud Secure, low-cost archival storage, and the new HPC Co-op.**

>> Some of these services are live (archival storage). Some are a few months late (e.g. RedCloud Secure). New staff to support scientific computing has been hired and are already extremely active. The proposal for the HPC Co-op was sent to the Dean of Research and was under review at the time of this writing.

- **Begin migration to a lower cost cloud-based email, file sharing, and collaboration platform. Launch the Lync conference system.**

>> Lync is live in beta for the whole campus. We are on track for the migration to Office365 in FY15.

- **Expand new VDI services**

>> This service continues to grow rapidly and will likely become the preferred method for desktop delivery in the next year or two.

Enhance our ability to effectively select and manage a portfolio of projects that will provide the greatest benefit to our user communities.

- **Expand our research advisory working groups and make permanent a Research Liaison Committee to plan for future initiatives**

>> A new research oversight committee led by Dr. Katherine Hajjar has been running the Research Administrative systems selection and will continue. Other oversight committees have been created with Drs. Gary Koretzky and John Leonard.

- **Further mature PMO services to include resource and task management and expand outreach to the user community with improved web-based status reporting**

>> This has been successful with some progress in all planned areas maturing on the Gartner Maturity Model from 2.7 to 2.9.

- **Utilize IDEAS.med.cornell.edu to engage the user community in prioritizing service improvements**

>> A pilot project called “100 Little Things” was launched within ITS to test this concept. This pilot will continue through FY14 before a decision is made about how to extend to all ITS users. So far, more than 180 ideas have been submitted.



Partner with administrative departments to develop more efficient IT-based business processes; implement self-service applications to make data input and data access easily and securely available

- **Pilot eTime for online time entry**

>> The pilot continues, though the product will be discontinued with the vendor now purchased. The SAP Steering Committee is reviewing available options.

- **Expand access to the grants administration cockpit and other central administrative data reporting services for the NYC and Qatar campuses**

>> We deployed the grants administration cockpit to all department administrators and select staff. We are developing this and other reporting services for FY15.

- **Expand central document management services/online forms to reduce paper-based workflows and processes**

>> Modest progress has been made in upgrading and expanding SharePoint. We also negotiated a new agreement via Ithaca for a large-scale document management system, Perceptive.

Expand the use of new learning management and curriculum delivery technologies to enhance the educational experiences of students, staff, and faculty at both the NYC and Qatar campuses

- **Pilot the new learning management system with staff and expand use of the system for additional student programs**

>> WTMS has been successful with students; a pilot for staff started with HIPAA Security & Privacy Training.

- **Enhance the use of classroom-based technologies, and advanced audiovisual management tools to support curriculum reform and faculty collaboration**

>> Ten primary technologies were upgraded/enhanced to support the new curriculum. A new website was developed to train faculty in how to use the new tools.

- **Begin implementation of Jenzabar Phase 2 modules: financial aid (NYC campus), student retention (Doha campus), student life services, document workflow, and a mobile application**

>> Implementation of several modules was deferred, although significant work was done on Jenzabar, especially for the Graduate School.

Implement collaboration tools to enhance faculty, staff, and students' abilities to communicate and deliver information within and outside of the institution

- **Convert 25% of WCMC websites to the new web content management system, enabling departmental management and improved search**

>> 16% of public sites had been migrated to Drupal as of May. A new Web Governance Committee was formed that will guide policy and priorities going forward.

- **Launch SharePoint as a service for team sites, document management, and collaboration**

>> A new version of SharePoint (2013) was launched and rolled out to over 10 departments. Demand for new sites has been strong. SharePoint faced technical challenges this year that delayed the implementation, but the team successfully overcame the issues and also improved the entire service offering.

- **Launch VIVO, integrated with the Faculty Evaluation system, to publish and share editable faculty profiles**

>> VIVO Beta went live and was opened to the public. Site stability and page load time were improved, resulting in an increase in site activity and growth. Faculty profile enhancements are underway in response to excellent feedback from our user community.

Provide expanded training, support, and consultation, enabling faculty and staff to effectively utilize technologies and services

- **Expand online and in-person user training services with longer SMARTDesk hours and more online training tools**

>> This year, we launched a new self-service support portal called myHelpdesk. We also extended the hours of the SMARTDesk and built new online training tools with many more to come.

- **Continue implementation of ServiceNow support system with improved self-service, a knowledge portal, and better asset management**

>> We successfully launched the asset, resource, and task management modules, while expanding project management functionality. Our first online request service in ServiceNow was also created.

- **Implement various fee-based Enhanced Support Services to offload high intensity support calls and improve support for urgent demands**

>> This project did not make much progress this year.

Improve internal ITS work management policies and procedures

- **Major upgrade to ITS service catalog and website**

>> This project started, but is far behind schedule.

- **Revamp internal training and onboarding processes**

>> This project also started, but is behind schedule.

- **Implement new Task Management and Resource Tracking**

>> This project made significant progress. ITS' PMO has been at the forefront of using ServiceNow for this kind of program and is a reference site for the company.

Further strengthen the security and accessibility of our data and infrastructure, balancing usability with risk mitigation

- **Complete pilot and launch new institutional directory and core identity data synchronization**

>> The onlinedirectory.weill.cornell.edu site is now live in beta. Fewer faculty and staff have updated their records than we had hoped. We are synchronizing data using a new "Master Data Management" tool and hope to integrate with more systems that staff will keep up to date.

- **Complete current Data Loss Prevention system, data encryption, and network monitoring to better protect institutional data and reputation**

>> ITS continued to enhance our Data Loss Prevention system and nearly completed the planned deployment of the encryption software. Both of these programs will have expanded scope in FY15. We also implemented next generation network firewalls and intrusion detection systems.

- **Complete deployment of remote management software for desktops, laptops, and mobile devices to improve security, simplify software deployment, improve support, reduce downtime, and speed service delivery**

>> Deployment of the JAMF Mac remote management software is nearly complete.

Continue evolution toward a ubiquitous digital library supporting translational science and Evidence-Based Medicine (EBM)

- **Recruit a new Library Director to continue and build upon the strategic plan**

>> Terrie Wheeler was successfully recruited from the National Institutes of Health (NIH) to be the new director of the Wood Library.

- **Expand EBM, systematic review, embedded librarian, and metadata services programs both as services and subjects of academic analysis**

>> Most of these programs grew more modestly than hoped due to the change in leadership, but some progress was made especially in academic analytics.

- **Implement VIVO Dashboard and related data services**

>> The Library competed for and won a sponsored fellowship which has allowed us to recruit Dr. Michael Bales to assist with developing the VIVO Dashboard and related bibliometric systems over the next two years.

Support the expansion of WCMC patient care services and clinical research

- **Assist POIS with completion of Epic Practice Management install**

>> The Epic Practice Management roll out was completed, as was a major upgrade of the Epic system.

- **Continue supporting growth of the PO Physician Network**

>> ITS expanded our network to 12 new office and campus locations. We also added 600 new phone users bringing the total to more than 3,400.

- **Pilot the new ARCH clinical research database**

>> The first ARCH Research Data Repository went live for user acceptance testing on July 1 for the Center for Advanced Digestive Care.

ITS Goals for 2014-2015

Active engagement with our user communities guides each goal listed below.

Deploy new BRB-enabled infrastructure services to support faculty.

- Migrate the data center from 575 Lexington to the BRB.
- Expand high speed networking to priority sites across campus.
- Roll out the new Wi-Fi and eduroam services across campus and dorms.

Begin multi-year replacement of core research administrative systems.

- Execute contract with new vendor and complete project planning.
- Engage faculty and staff users throughout implementation.
- Prioritize fixes and enhance legacy systems during migration.

Implement new scientific computing services.

- Finish deployment of RedCloud Secure cluster and storage services
- Create tiered network with dedicated research domains
- Expand research data repository services (ARCH and i2b2)

Develop new cost-efficient IT services and enhance existing ones.

- Deploy cloud-based email, calendaring, and file sharing platform (Office 365), migrating on-premise users.
- Promote new collaboration tools like Lync and WebEx.
- Explore alternative funding models (person vs. device based funding).

Enhance user involvement in guiding ITS priorities and projects.

- Engage users and improve transparency through expanded oversight and advisory committees.
- Encourage adoption of PMO methodologies beyond ITS.
- Improve communication mechanisms (e.g. newsletters, IDEAS site) to enhance user knowledge and engagement.

Expand self-service for a wide variety of administrative services and information access.

- Expand SAP and ServiceNow forms, requests, and reporting tools.
- Select new time management system to replace eTime.
- Expand departmental use of SharePoint and Perceptive document management systems.

Expand the impact of diverse educational technologies on core teaching and administrative services.

- Support the new curriculum with training, system extensions, and instructional design.
- Extend WTMS to provide more employee courses and to allow appropriate access for non-WCMC users.
- Begin implementation of Jenzabar Phase 2 modules; financial aid (NYC campus), student retention (Doha campus), student life services, document workflow, and a mobile application.

Support WCMC's branding initiative with a new approach to web communications.

- Establish content policies, a system registry, style guide, and project prioritization methods in collaboration with External Affairs and the Web Governance Committee.
- Continue converting WCMC websites to new Drupal content management system targeting 40% completion.
- Update the main college website: weill.cornell.edu.

Mature ITS' Client Services to better meet the needs of faculty and staff.

- Personalized meetings with all new faculty as they are hired, starting with research faculty.
- Expand self-service offerings with new request tools, knowledgebase, and training programs (Lynda.com).
- Implement various fee-based Enhanced Support Services to offload high intensity support calls and improve support for urgent demands.

Update the Library service catalog and identify new services with patron input.

- Pilot possible new services, such as editing and instructional design.
- Expand bibliometric services for key users, including new VIVO features.
- Develop a program to showcase new information services to users.

Improve internal ITS operating policies and procedures.

- Implement new funds structure and project-based cost accounting.
- Upgrade ITS service catalog and website.
- Revamp internal training and onboarding processes.

Support key Physician Organization priorities and initiatives.

- Continue supporting growth of PO Physician Network.
- Support expansions of warehousing and analytic services including support for the new Accountable Care Organization (ACO).
- Deploy advanced Epic infrastructure tools to enhance virtualization and system operations.

Implement improved security and access policies and procedures.

- Expand and simplify device encryption, malware protection, data loss prevention, and mobile/desktop device management.
- Improve training and attestations programs including guidance for protecting users at home.
- Launch enhanced access request, control, and governance programs to simplify user access provisioning and to improve audit capability

Weill Business Gateway

*Advancing Weill Cornell's
business process, compliance
and productivity*

**ENTER WBG BY CLICKING 'LOG ON'
IN THE UPPER RIGHT CORNER**

Administrative Computing Group

The Administrative Computing Group (ACG) supports the core administrative computing needs of the Medical College through the operation and support of the Weill Business Gateway (WBG). WBG is the College's implementation of SAP's Enterprise Resource Planning (ERP) software including Public Sector Financials and the Industry Solution for Higher Education and Research, and several related systems.

Highlights from 2013-2014

Open Enrollment Implementation

Implemented Benefit Open Enrollment and New Hire Benefit Enrollment using Weill Business Gateway's (WBG) Employee Self-Service (ESS) functionality

Enhancements to Procurement Card Application

Upgraded the Procurement Card application to a new release providing improved functionality

Weill Training Management Pilot Implementation

Successful launch of the Centralized Learning Management System (WTMS) and Canvas integration

***WTMS allows
users to register
for training at
their convenience
and attend
classes in person
or online***

Fixed Assets Inventory Verification System

Implemented a fixed assets inventory verification system in which WCMC Central Finance can verify the existence and location of assets and reconcile with the date in WBG in order to comply with federal regulations, thus resulting in greater data accuracy.

Cash Flow Reporting Prototype

Created a prototype to help analyze WBG's new functionality for Cash Flow Reporting, which would help to reduce the amount of time spent on preparing Cash Flow on a spreadsheet and manually reconcile the balances for different incoming and outgoing transactions. Additionally, this will help the business execute the report at any given point in time and in comparing the projected cash flow versus actual cash flow.

Space Inventory Module – Phase II

In order to gain federal government approval for Indirect Costs (IDC), the second phase of our Space Inventory module was implemented as a way to conduct research space survey, facilitate the submission IDC proposals, maintain space inventory data in terms of location of space, occupants, Net Square Feet and functions performed as assigned to departments.

eTime Implementation

Administrative Computing Group successfully completed the rollout of eTime to beta test departments (using the product TimeLink), the College's new time management application. These included ITS and the Library.

Other Completed Projects

- 2013 Annual SAP Support Packs upgrade/HR Year End Support Packs to coincide with Tax laws and initiatives
- Grants Management Availability Control Implementation - Prototype
- ACG Testing Strategy and Implementation
- Implemented HSBC as a P-Card bank provider for WCMC-Qatar campus
- Human Resources Calendar Year-End Activities
- Implemented the JPMorgan Chase single-use account payment process
- Netweaver Dual Stack Split
- Managed the posting and reporting of Administration, Supervision and Training receipts (AST) in WBG by automating the accounting document creation.
- Replaced FIT-hosted physical servers with virtual servers at WCMC
- Mercer Insurance Interfaces
- SAP BusinessObjects (Reporting) Upgrade to 4.1 SP02 Patch 1
- Set up the new structure for the new Cancer Center in WBG
- SAP Solution Manager Support Pack Upgrade to SPS30
- Space Inventory Verification Phase 2 - Benches and Cubicles
- SciQuest Upgrade versions 13.2, 13.3, and 14.1
- WBG HCM Master Data Infrastructure Design and Clean-Up
- SciQuest User Interface upgrade from Classic style to the new user interface "Phoenix"
- Updates to annual Human Resources benefits plans
- Verified disaster recovery procedures of SAP hosting company (FIT) and WCMC staff
- Automated NYPH billing in which invoices are prepared and printed by WBG
- Fund-to-Fund Center Changes for Ophthalmology and WCMC-Qatar

Upcoming Projects for 2014-2015

Annual Operational Projects

- Disaster recovery test
- ESS Open Enrollment for 2015
- Fiscal year end and calendar year end activities
- HR Benefits changes
- Merit increases
- SAP Solution Manager Support Pack Upgrade
- SAP Support Packs upgrade/HR Year End Support Packs
- SciQuest upgrade (3 upgrades per year)
- Tax updates and HR calendar year end activities
- Accounting Structure for Tri-Institutional Therapeutics Discovery Institute, Inc.- ops
- Creation of Summary Fund Statement
- Document Management (Integrated OCR scanner/ document imaging for A/P)
- Document scanning and cataloging into the document management system for Finance and HR paper documents
- Documentation of ACG System Processes- Phase II
- Documentation of System Processes
- EPIC BusinessObjects (Reporting) Upgrade from 3.1 to 4.x
- ESS-Phase 2 - New Functionality including Demographic info, W4 and Paystub
- eTime replacement prototype
- Extend Grants Master Data Maintenance Access to Qatar Research Administration
- FI Fund create eForm and Workflow
- Financial Closing Cockpit
- Fund-to-Fund Center Change for ITS
- Fund-to-Fund Center Office of the Sr. Executive Vice Dean
- Grants Management Availability Control Implementation
- Paid Sick Leave for Temporary Employees
- Restructuring of Healthcare Policy and Research (formerly Public Health)
- Sandboxes VM Refresh and Upgrade (Corbu/New UI)-Pilot for Annual Upgrade
- SAP Security Role Risk Analysis- Accounts Payable
- SAP Solution Manager 7.1 Installation/Migration (Sandbox)
- Unify Funds, Grants (Sponsored Programs) & SRM Reporting
- WBG Cash Flow Reporting
- WBG HCM Master Data Infrastructure Design & Clean-Up Phase 2

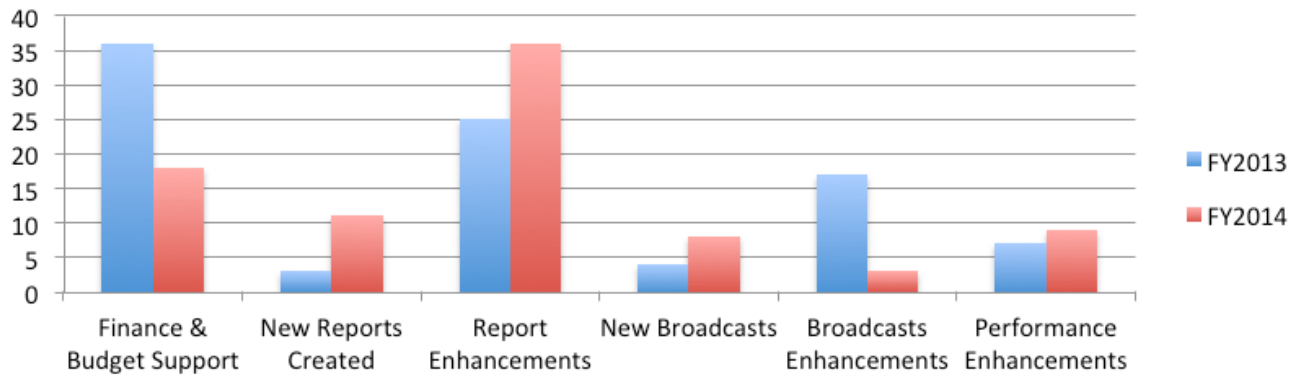
On Hold Projects

- Activate BizApps Attachment Feature
- Clinical and Translational Science Center (CTSC) Cost Sharing
- Data synchronization between WBG and Coeus
- Electronic Bank Statement implementation
- eTime enhancements and rollout to additional departments
- Internal Orders for Project Cost Tracking
- Internal Services Procurement
- Migration Space Management System to Flexible Real Estate Management Module in ServiceNow
- Phase 2 of the interface to ServiceNow to enable bi-directional flow of ticket information between WBG and ServiceNow
- Public Budget Formulation (Exploratory)
- Qatar Research Reporting

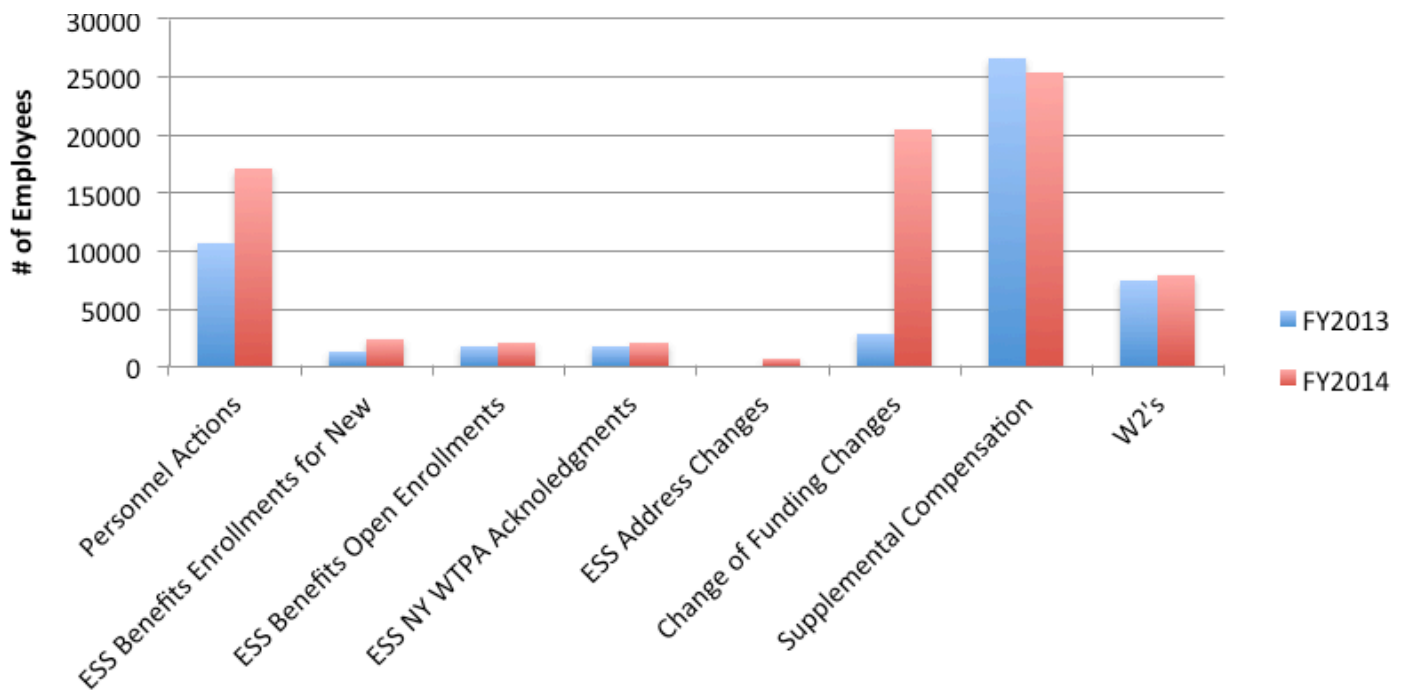
- Rollout AST Billing Module to Departments
- SAP Effort Reporting Implementation
- Solution Manager upgrade to Release 7.1
- Treasury/Endowment Processing
- WCMC-Q Change of Funding Process & Workflow Enhancements
- WCMC-Q Foreign Service Benefits Allocation
- WCMC-Q Material Management Enhancements
- WCMC-Q Research Grant Process & Reporting Enhancements
- WCMC-Q SRM Contract Management
- WCMC-Q SRM Workflow Enhancements
- WCMC-Q WBG Security Model Revision

Key Statistics

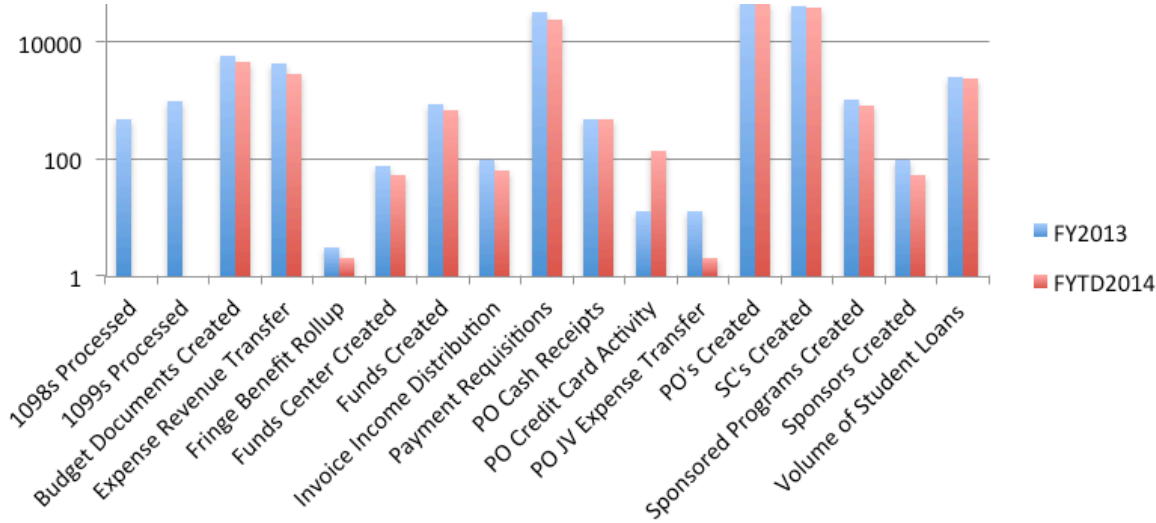
BI Reporting Statistics



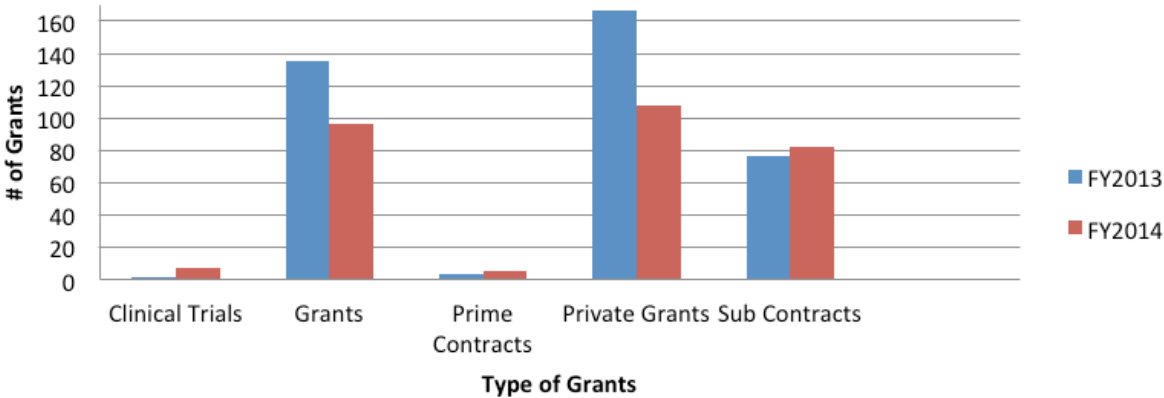
HCM Reporting Statistics



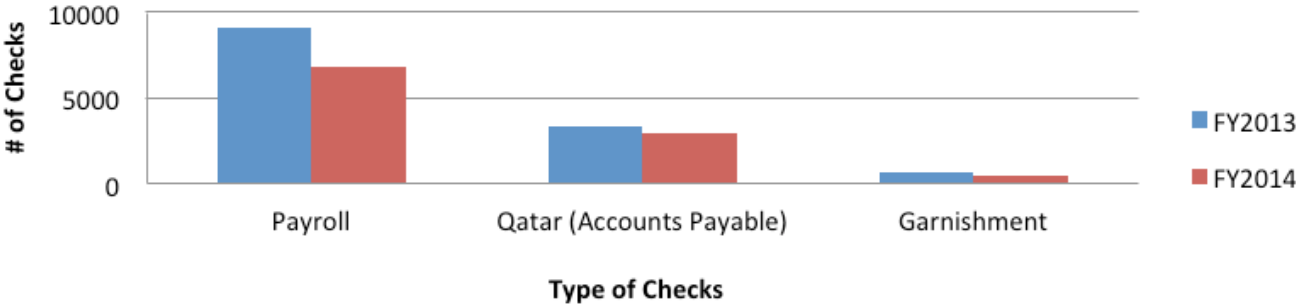
Finance Transaction Statistics



Grants Created



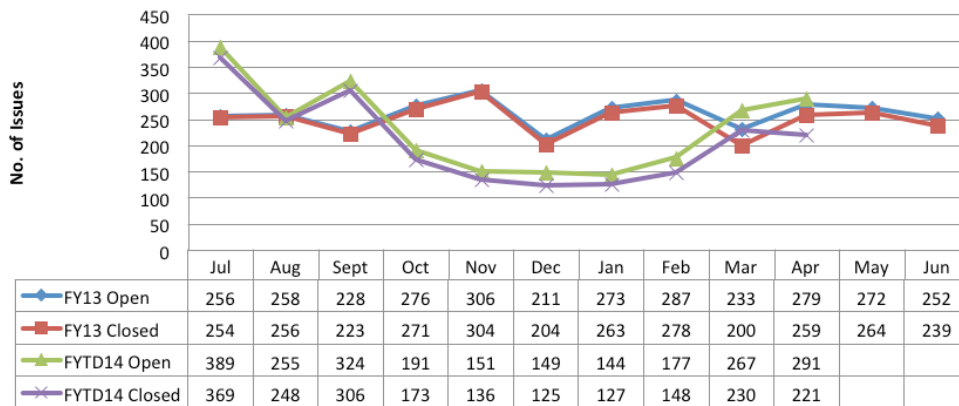
Checks Cut



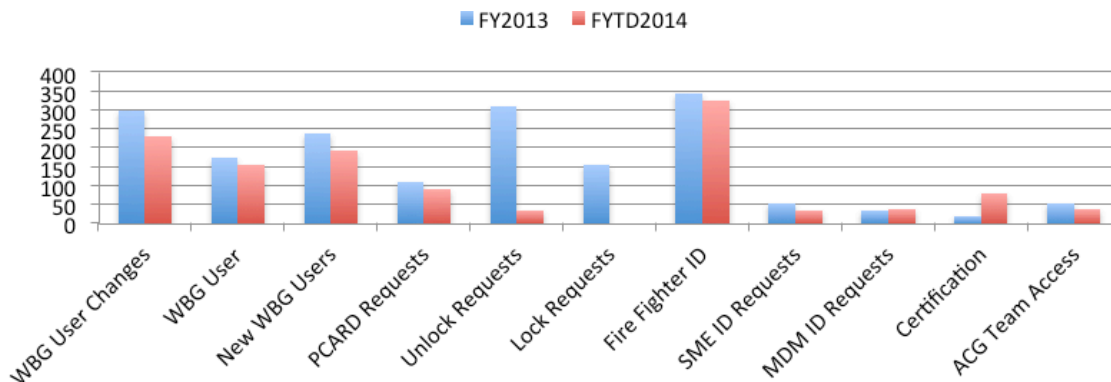
Support Issues by Type

	FY 2013			FYTD 2014		
	Created	Closed	Open	Created	Closed	Open
Human Capital Management	737	692 (93.9%)	45	817	726 (88.9%)	91
Finance	1,335	1,310 (98.1%)	25	695	602 (86.6%)	93
Operations	290	274 (94.5%)	16	461	424 (92.0%)	37
RICE (Development)	26	18 (69.2%)	8	47	31 (66.0%)	16
BI	162	149 (92.0%)	13	108	74 (68.5%)	34
Portal	460	451 (98.0%)	9	211	203 (96.2%)	8
Training	121	121 (100%)	0	48	47 (97.9%)	1
Total Tickets	3,131	3,015 (96.3%)	116	2,387	2,107 (88.3%)	280

Number of Support Issues

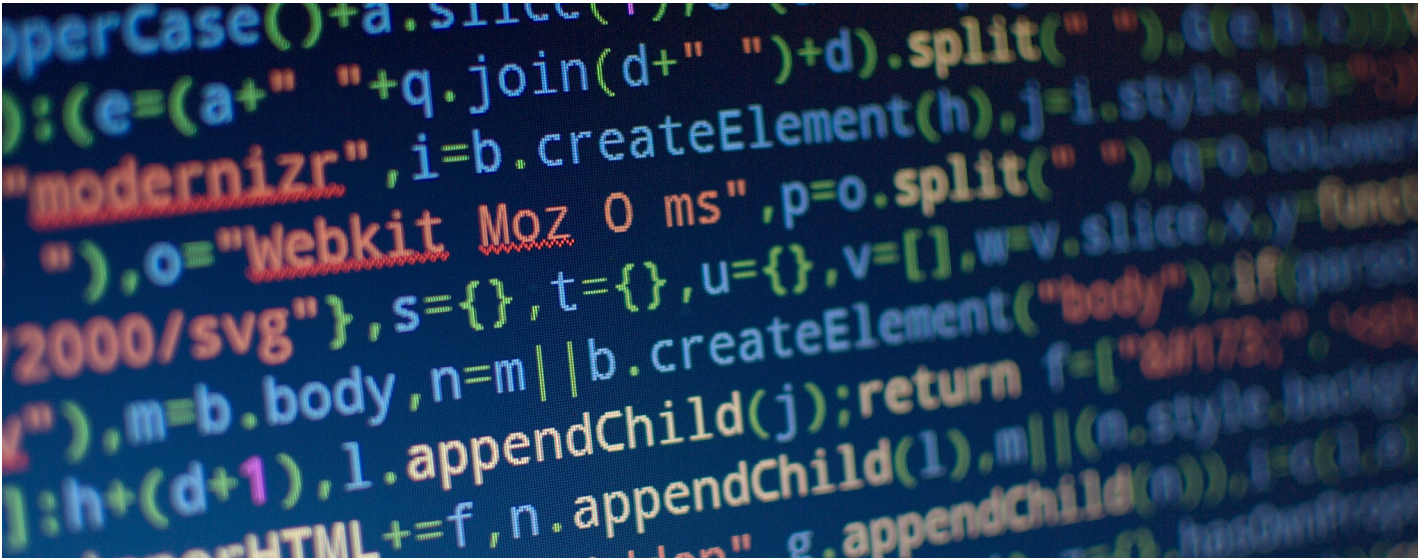


WBG Access Requests Provisioned



DID YOU KNOW?

Our systems were up 99.7% of the time this past year, with unplanned downtime only occurring 0.3% of the time.



Applications Development & Analytics

The Applications Development & Analytics (ADA) group provides the WCMC community with programming services across various languages and platforms. In late 2013, the ADA group was formed, combining three existing teams into one group:

- **Business Intelligence:** Provide analytic, reporting and data warehousing services to SAP and non-SAP source systems using tools such as Business Intelligence (BI) and BusinessObjects (BObj)
- **Core Applications:** Develop business solutions via custom applications and configuration of third party systems
- **SAP Applications Development:** Customize and enhance the functionality of the SAP system, develop custom reports, interfaces, conversions, validations, and forms

The three teams have a wide range of programming and analytic skills such as: PHP, Java, Cold Fusion, SAP ABAP, data warehousing, BusinessObjects, SharePoint, and others. Combining the three development teams under one umbrella has fostered improved communication and the exchange of ideas amongst the developers. In addition, development requests are analyzed and resolved using the best technology available to the entire group.

Highlights from 2013-2014

Business Intelligence

- Rolled out Research Visibility Cockpit (utilizing BusinessObjects tool) to all Department/Division Administrators
- Migrated and published 101 Coeus Crystal reports from version 3.1 environment to 4.1 and incorporated them into Weill Business Gateway, in collaboration with Core Applications
- Unification of Accounts Payable Details report from two versions to one

Core Applications

- Research Administration: Five major code releases for Internal Review Board (eIRB) that included over 100 issues resolutions and enhancements. In addition, the VIVO profile system was released as a public beta.

- SharePoint: Delivered 22 Departmental Data Management Service (DMS) sites and custom solutions. Completed and in production sites include: Pediatrics, Tri-I TDI, Genetic Medicine, IPM, OSRA, BPS, Caregiver Resource, HR Onboarding, HR Internal, ARCH, POIS, Grants Documents, Deans Site, Vendors Database, SIDRA Timesheets, IMP, and ITS.
- Custom Application: Faculty Review Tool enhancements for NYC and rollout for Qatar

SAP Applications Development

- Electronics Forms application and Fund Create eForm
- Weill Training Management System (WTMS) customization, interface improvements, and interfaces
- Space Inventory Phase 2 Enhancements: added cubicle/bench functionality to application

Other Completed Projects

Business Intelligence

- Six new Weill Training Management System (WTMS) BI reports
- New reconciliation programs to tie BI data to source system
- Updates to existing BI Reports:
 1. Single User Account (SUA)
 2. BI Benefits/Mercer plan
 3. BI Time Management temporary employee sick time
 4. Integrated Postsecondary Education Data System (IPEDS) Report Affirmative Action Plan (AAP) Category and Standard Occupational Classification (SOC)
 5. Tri-Institutional Therapeutics Discovery Institute (Tri-I TDI)
 6. Labor Distribution, Immigration Detail, Board Approved Compensation (BAC), Grant Statement, Basic Life Insurance, Payroll Posting Register, and others
- Created and enhanced BI Reporting access and roles to the Office of Sponsored Research Administration (OSRA)
- Created and delivered specialized BI training to the Information Management Services (IMS) office (in collaboration with the Training and Communications team)
- Created a new “BI Quick Tips” program ▶
- Began the conversion of BW extractors for a forthcoming SAP NetWeaver version upgrade
- Rolled out Research Visibility Cockpit to all Department/Division Administrators
- Upgraded BusinessObjects environment to version 4.1
- Migrated and published 101 Coeus Crystal reports
- New BI Reports:
 1. Employee Dependent Participation Analysis
 2. Grant Statement Modified Total Direct Cost (MTDC)
 3. Board Approved Compensation (IT9001)
 4. Basis 403(b) Non-Enrolled report

BI Quick Tip #12: Add Subtotals to a Report



Watch. Practice. Share.

Watch this week's [BI Quick Tip video](#). Learn how to subtotal report results.

Check your email or [Helpfiles](#) every other Tuesday for a new tip!

ITS Training & Communications
wbg-training@med.cornell.edu

DID YOU KNOW?

Our BI Quick Tip videos are emailed to BI users every other Tuesday. They offer great tidbits of information on navigation and other functions to help you run reports more efficiently.

Contact wbg-training@med.cornell.edu to subscribe.

Core Applications

Research Administration

- Significantly improved the performance of the Electronic Routing Form (ERF)
- Enforced change management process to improve QA process to minimize end-user disruption

SharePoint

- Integration with SAP eForms project through ERPLink, allowing for connection between SharePoint and SAP Fund Master Data transaction
- Migration of sites from SharePoint 2010 to SharePoint 2013, laying the foundation for migration to Office 365

ServiceNow

- Created the Configuration Management Database Data and ITAM Application
- Created the Project Survey and Incident Survey
- Upgraded ServiceNow from Calgary to Dublin version
- Environmental Health and Safety ticketing application in progress

Custom Applications

- Breast Cancer Screen Decisions site: first site created by Core Applications that will be accessible to all Internet users. The site will allow visitors to submit a Risk Assessment form indicating the visitor's risk level and show helpful information on treatment options. ▶
- Enhanced billing process to further automate processing of funds and automation of rejections and reporting
- Created and updated ITS request forms through myITS Billing. Added integration with ServiceNow.
- Drupal site for Publications feedback and Grants Management
- VIVO launch
- Faculty Affairs and Faculty Evaluation System updates

The screenshot displays the 'Breast Screening Decisions' website interface. At the top left is the logo featuring a red silhouette of a woman and the text 'Breast Screening Decisions'. A 'Username' input field is located at the top right. Below the header is a navigation menu with four tabs: 'Introduction', 'Your Risk', 'Screening', and 'Values'. The 'Your Risk' tab is active, showing the heading 'Your risk assessment' in red. Below the heading is a paragraph: 'Every woman's risk of developing breast cancer is different. The questions below will help us assess your personal risk. When you have answered all the questions, click on the button at the bottom of the screen to calculate your risk.' The form contains a question 'How Old Are You?' with a dropdown menu. Below that is another question: 'What is your race/ethnicity? Please select one:' followed by five radio button options: 'White', 'African American', 'Hispanic', 'Asian or Pacific Islander', and 'American Indian or Alaskan Native'. A 'Don't Know' option is also present.

SAP Applications Development

- 2014 Benefits Open Enrollment enhancements
- Automated WBG access to employees for Employee Self-Service (ESS) functionalities
- Payroll and Supplemental Compensation Fringe calculation enhancements
- EPIC integration with SAP Financial modules
- Mercer integration for employee benefits enrollment and automated deduction processing
- HSBC/JPMC Purchasing Card e-statement automation

SAP Applications Development (continued)

- SciQuest Upgrade Support
- Time Entry Enhancements to accommodate NY Sick Time legal changes
- Administration Supervision and Teaching (AST) Receipts automation
- SAP Enhancement Package upgrade (2013)
- Space Inventory Phase 2 Enhancements: added cubicle/bench functionality to application
- Assets Verification System rollout

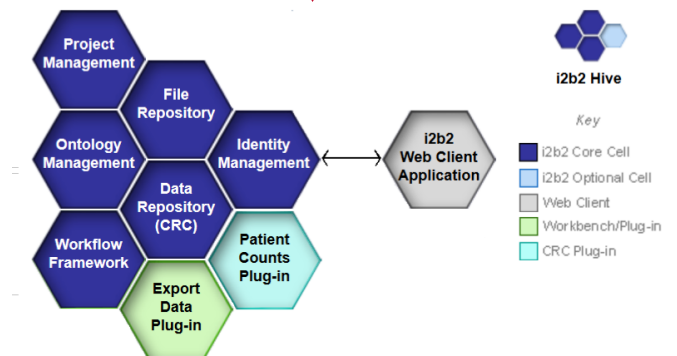
Upcoming Projects for 2014-2015

Business Intelligence

- Research Administration Systems Reporting enhancements:
 - CREST Reports
 - Usage Statistics
 - Consolidation of Coeus Crystal reports
- Research Visibility Cockpit rollout to Faculty
- Explore new BusinessObjects tools such as Design Studio, Lumira, and Excel Analysis
- Continue the Unification of BI reports (extend to PO Details, Funds Reservation Details)
- Continue the conversation of 3.x extractors to 7.x
- Design Thinking workshops for the BI Summary Fund Statement project
- Cash Flow Reporting BI Reports
- WTMS BI Reports Phase 2
- Public Budget Formulation BI integration
- Implementation of HANA in-memory technology for BI

Core Applications

- In Progress and soon to be launched SharePoint sites and solutions:
 - Office of Faculty Affairs (OFA) Appointments Manager
 - Office of Secretary
 - Privacy and Compliance
 - P-Cards Form
 - Genetic Medicine
 - Finance Reporting
- Informatics for Integrating Biology and the Bedside (i2b2) implementation ▼



SAP Applications Development

- Employee Self Service (ESS) electronic paystub
- eTime improvements / replacement
- Improved SAP User Experience (Corbu)
- Weill Training Management System rollout for non-employees
- New Process Based Workflow for Shopping Cart Approvals
- Fiori technical implementation (SAP on mobile devices)
- Master Data Management (MDM) implementation for People Information
- Mapping Conversions for future Process Integration upgrade (SAP interfaces)

SAP Applications Development (continued)

- SAP BusinessObjects Data Services implementation with MDM
- Migration of SAP infrastructure to SAP HANA
- SAP Enhancement Package upgrade (2014)
- Implementation of new Purchasing interface (SRM Renewal)
- SAP Public Budget Formulation implementation

Key Statistics**Business Intelligence**

Data Load Statistics

Nightly/Weekly/Bi-Weekly Batch	# of Jobs	# of Records
Text	279	194,662
Master Data Attributes	222	2,381,110
FI Transactions	303	3,499,526
HR Transactions	193	182,176,862

DID YOU KNOW?

We process over 15,000 jobs per month, with less than 10 failures or issues in that timeframe.

Report Usage for FY2014

Statistics	Count
Average number of unique reports executed per day	~50
Average number of unique users per day	~100
Average number of unique users per month	~400
Peak report executions (June 24-25, 2014)	1,541
Peak unique users (June 10, 2014)	203
Average peak unique report usage (Tuesdays)	1,051
Average peak unique users (Tuesdays)	158

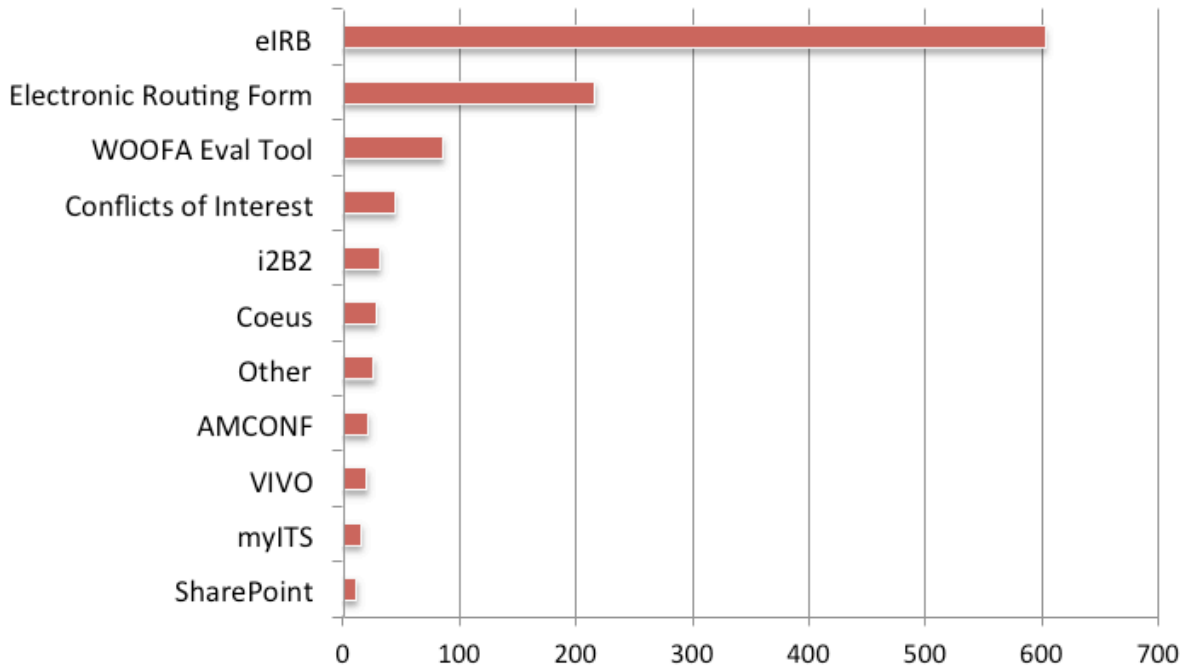
DID YOU KNOW?**Our top 10 reports are:**

1. Matrix Statement
2. Grant Statement
3. PO Fund Statement
4. General Ledger Details by GL Account
5. Fund Detail Statement
6. Grant Statement Total Modified Costs
7. General Ledger Year-To-Year Comparison
8. Payroll Result vs. Posting
9. Payroll Posting Register
10. Grant Detail Statement

Core Applications

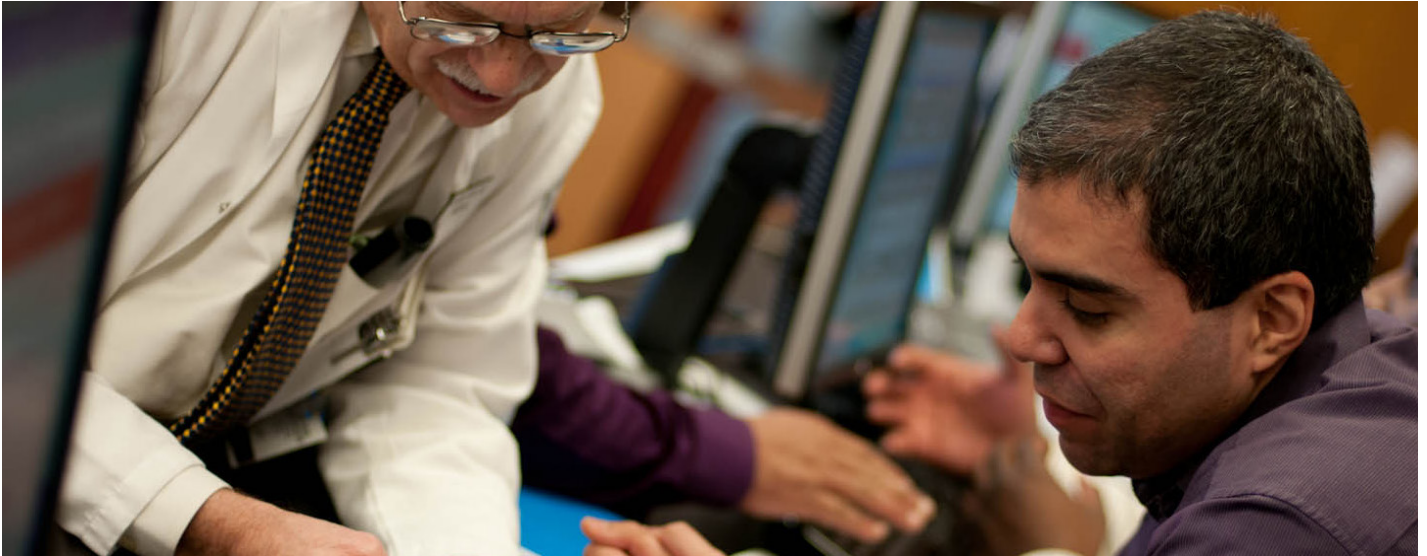
Request Tickets by Type

DID YOU KNOW?
We processed 1,100 tickets this fiscal year.



SAP Applications Development

- Tickets/Issues assigned: 472 (8 critical, 96 high priority)
- Change of Funding (COF) Work Flows processed: 4,594 with 6,797 line items
- Supplemental Compensation: Changes- 30,598 / Approvals - 6,867
- Journal Voucher Approvals: 9,259
- Shopping Carts sent for approval: 48,626
- Positive Pay files sent to bank: 747
- Payroll Files sent to bank: 201
- Approved Shopping Carts sent to Sciquest for fulfillment: Average of 1,000/week



Client Services

The Client Services Group connects faculty, staff, and students to all ITS services and support. We strive to provide a single point of support for IT services and quickly resolve incidents and requests. ITS support services include: knowledge sharing, troubleshooting and problem solving, consulting, training, and exploring new technologies. In addition, we provide dedicated department liaisons and a growing number of experts dedicated to specific technologies and services.

Highlights from 2013-2014

ITS Training & Communications Development

The Training & Communications (T&C) team has grown over the past year to expand support for our end users with more innovative training methods and awareness campaigns. The demand for training in our various services has increased, with the team training over 900 users in Weill Business Gateway (WBG) applications alone, and 235 for all other ITS-related services.

The team continues to develop and manage supplementary training documentation to assist users on the job, spending almost 400 hours on these projects. To better accommodate our users, T&C has made a larger effort this year to move toward self-paced instruction, which is steadily being made available in our new Weill Training Management System (WTMS). This system allows users to register for courses in WBG and take a number of them online via our courses.med.cornell.edu site.

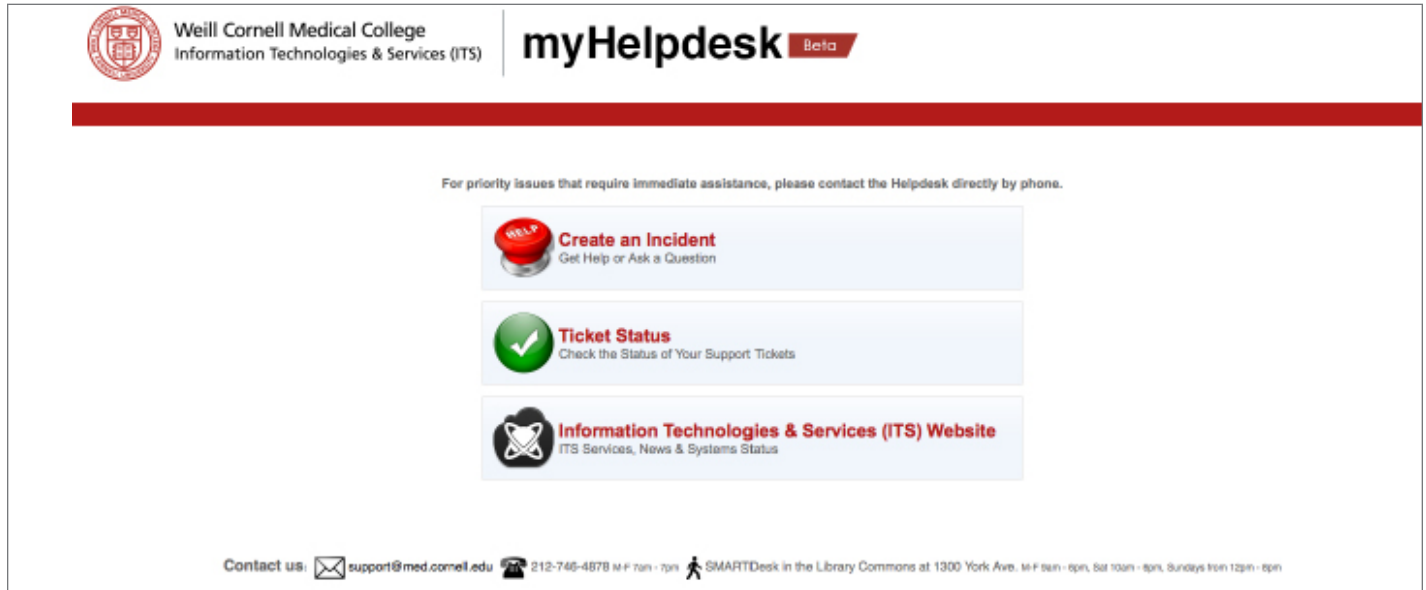
To supplement these activities, the team has further developed its communication strategies, ensuring users are better informed about new applications and training opportunities. This year, the team's Communications Specialist fulfilled 165 requests that included end user announcements, design-related projects (brochures, flyers, etc.) and regular maintenance on the ITS website. This is in addition to approximately 20 ITS projects. The "Inside ITS" newsletter is now issued bi-monthly, with short tidbits of information on ITS news that impacts the college.



ITS trainers hold open demonstrations for users in the Library Collaboration Room. ▲

Launch of the myHelpdesk portal

In March, ITS launched myHelpdesk, which allows WCMC and NYP users with a CWID to submit their own IT issues through an online portal. The simple form provided routes the issues to our Service Desk, where one of our technicians is assigned to the case. myHelpdesk also gives users the ability to track all of their requests and make changes to previously submitted issues.



New closure satisfaction surveys

In an effort to solicit feedback, Client Services implemented customer satisfaction surveys in our closed incident emails starting in March 2014. We have also created project-specific surveys, such as BRB move-in satisfaction, to better understand how we are servicing our users.

Client Services supports moves and relocations

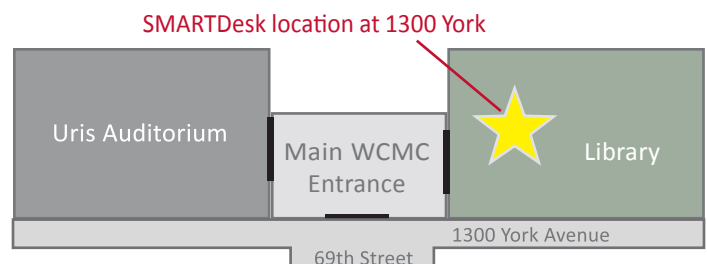
This year, the launch of the BRB and the integration with Lower Manhattan Hospital (LMH) have kept us busy. Moves included:

- LMH – 7th, 11th, and 12th floors, along with offices located at 40 Worth Street
- West Side Practice
- 11 offices and labs moved to the BRB

DID YOU KNOW?
 We help our support techs become HDI Certified to provide our users quality services. HDI, the Help Desk Institute, is a worldwide professional association for the technical service and support industry.

Other Completed Projects

- Desktop and Mobile project (DAMP), Laptop encryption, Mac Management, and MobileIron implementation
- Faculty Onboarding – This includes individually calling and visiting all new faculty and introducing them to ITS services
- Expansion of services offerings for Voluntary Faculty service offering (e.g. email and WebVPN)
- Community Connect for Physicians Organization: completed 12 locations
- Expanded the ITS ticketing system for asset management, service requests, self-service portal, knowledge base, and Service Level Management
- Windows XP to Windows 7 upgrade, including upgrading users to Office 2013 if they were using an older Office Suite
- Expand hours for Service Desk and the SMARTDesk walk-up service in the Wood Library to include night and weekend coverage ▼



Upcoming Projects for 2014-2015

Process improvements

- Implement process lifecycle for hardware and software (for application deployment/upgrade/maintenance on Windows, Mac, and mobile)
- Quality Assurance process improvements to reduce system bugs and promote service readiness, service retirement, and User Acceptance Testing (UAT) and integration testing (certification)

Support improvements

- Rollout Enhanced Service option to offload high intensity support calls
- Client-facing Service Level Agreements (SLAs)
- Quarterly liaison meeting with each department

Projects

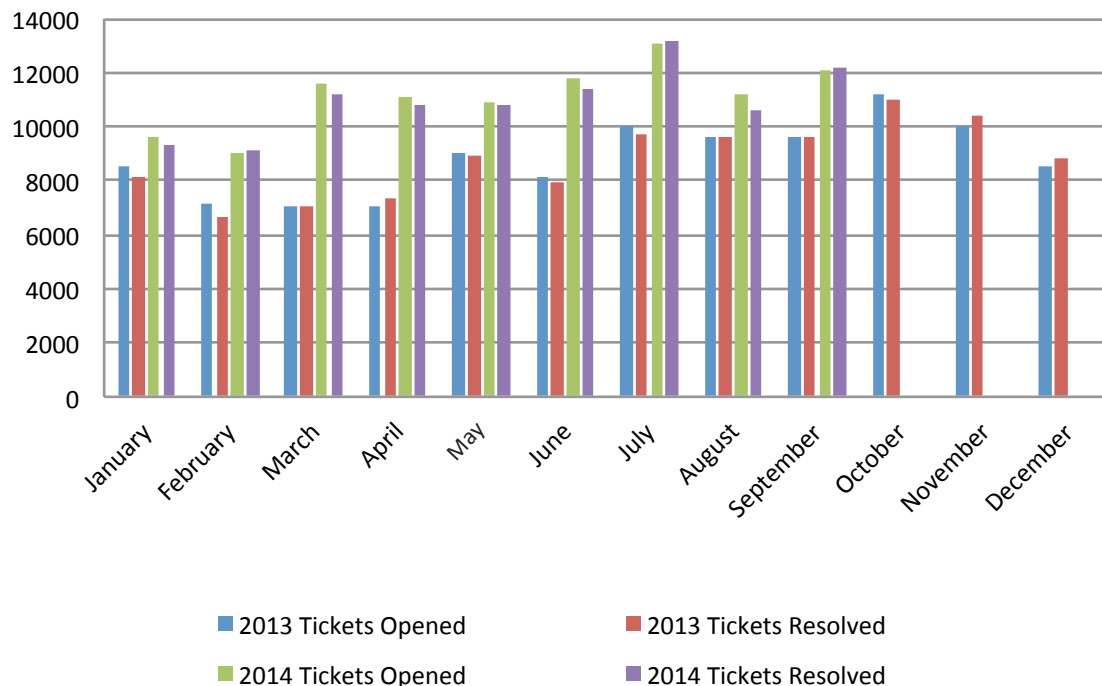
- ITS website redesign to improve service requests, self-service capabilities, and knowledge and awareness of ITS, including service status and metrics, online training, and knowledge system with frequently asked questions
- Windows 7 upgrade completion
- Windows 10 testing
- BitLocker encryption rollout

Training and awareness

- Expansion of ITS training curriculum, accessible via our new WTMS learning management system
- Build educational programs to support our user community
- More innovative training and communication methodologies via social media

Key Statistics

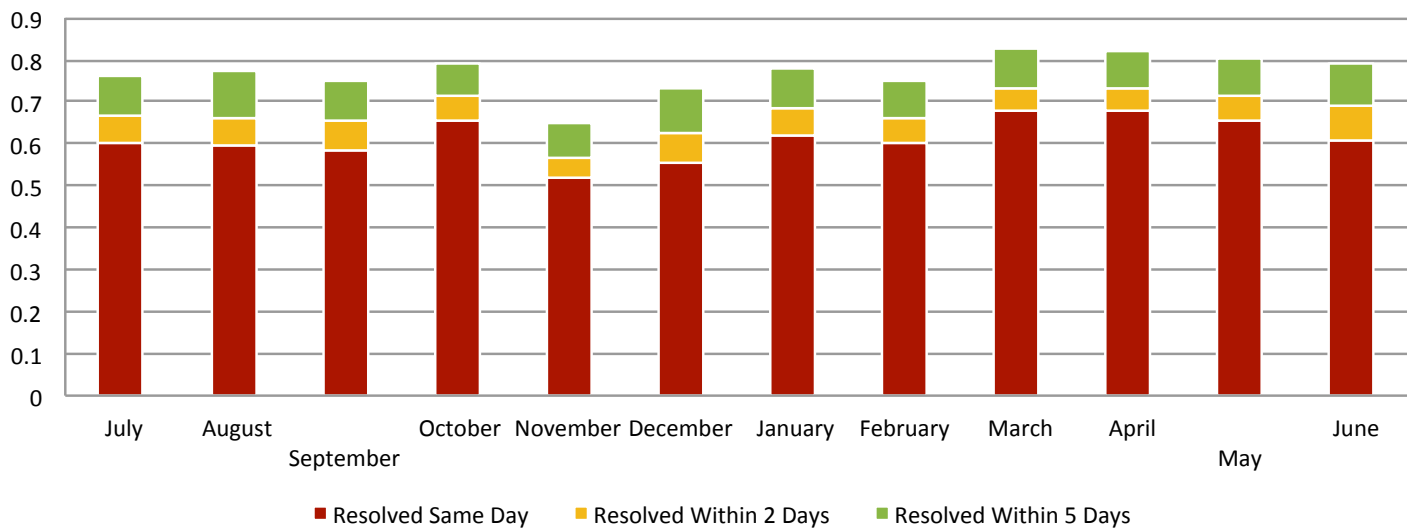
Incidents Opened & Resolved (2013-2014)



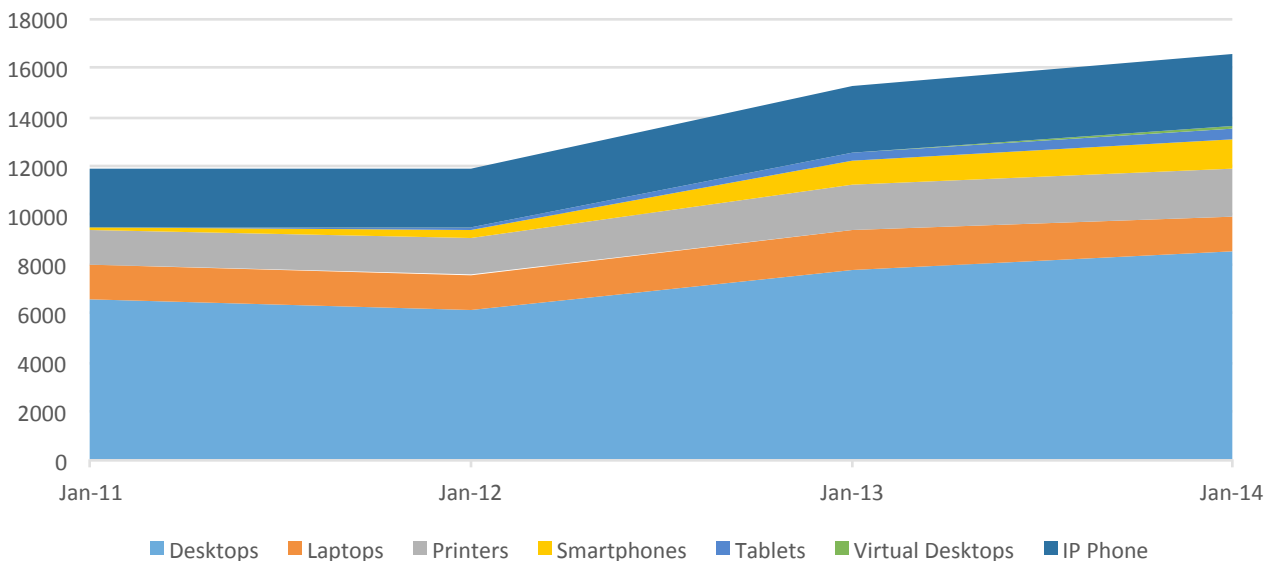
Tickets by Source (FY13-FY14)

Tickets by Source	FY12-13	FY13-14
Email	31%	23%
Phone	44%	36%
Auto-logging (Integration)	21%	32%
SMARTDesk (Walk-up service)	4%	7%
Self-Service (Web)	Not implemented	1%
Other (Internal submissions)	Not implemented	1%

Ticket Resolve Time



Number of Supported Devices (Jan 2011-Jan 2014)



Supported Devices by Operating System

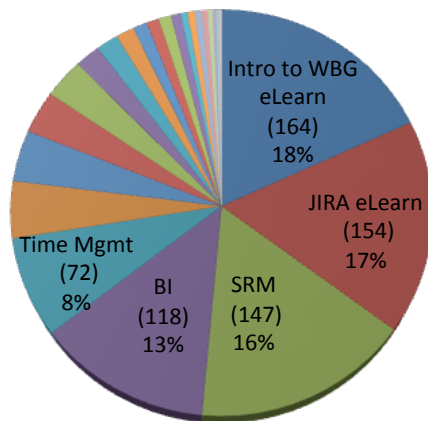
Types of Operating Systems*	Count	Percent of Total
Windows OS Devices	11,744	73%
Mac OS X Devices	3,784	24%
Other (Unix OS)	468	3%

*Includes workstations and laptops

Number of Users Trained in FY13-14

- Intro to WBG eLearn (164)
- JIRA eLearn (154)
- SRM (147)
- BI (118)
- Time Mgmt (72)
- Fixed Assets Webinar (41)*
- eTime Supervisory (37)*
- eTime Super User (31)*
- DM (29)*
- WTMS Admin (18)*
- Equip Inventory eLearn (16)*
- PCard eLearn (13)*
- Change of Funding (10)*
- CoF/Supp Comp (9)*
- JIRA classroom (9)
- NYPH Billing (7)*
- GRC (5)*
- uPerform (5)*
- eForms (5)*
- Supp Comp (4)*
- SRM Approval (4)*
- Equip Inventory-pvt (2)*
- ACG Onboarding (2)*
- eTime Entry (1)*
- JIRA/Pcard-Classroom (1)*

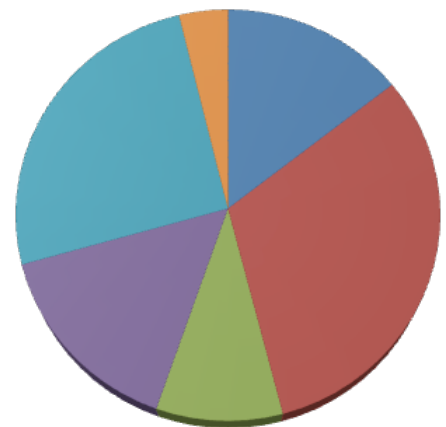
Weill Business Gateway Applications
Total users trained - 904



* Represents Less Than 5% of Total Users Trained

DID YOU KNOW?
In 2015, ITS will be introducing lynda.com, a leading online learning company that offers technology and other skills training for personal and professional growth.

Other ITS Applications
Total users trained - 235



DID YOU KNOW?
As demand for training grows, the training team looks for innovative ways to teach. Currently, most courses are instructor-led, followed by eLearning, webinars, and private training.

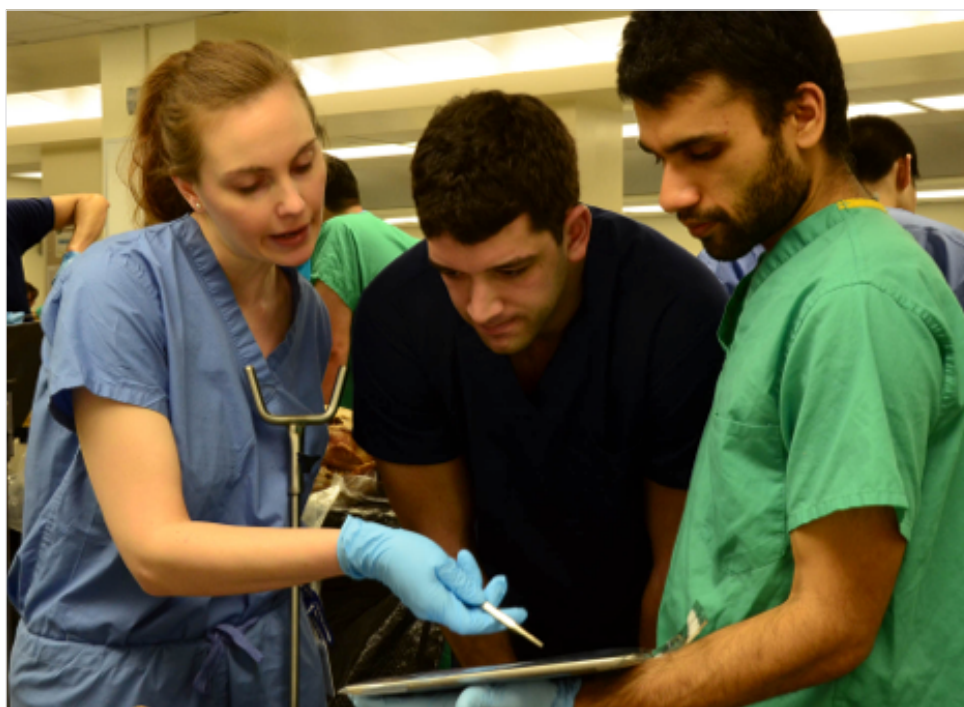
- VDI for Service Desk (34)
- Service Now Task Management (74)
- SN Resource Management (22)
- SN Service Level Management (36)
- SN ITAM (60)
- SharePoint 2013 (9)



Education Technology

The Educational Technologies Group (ETG) is comprised of the Event Services Office and the Educational Technology Group. This division is responsible for:

- Student Information Services
- Learning Management Services
- Instructional Design for faculty and administrative training
- Video capture and access for educational activities
- Mobile device deployment for educational programs
- Management of the Weill Education Center and other central teaching spaces
- Management of the Belfer and Weill Greenberg Conference Centers
- Audio visual design for the institution



*Students use
WCMC-issued
iPads during
their dissection
of a foot in
Gross Anatomy
class*

Highlights from 2013-2014

New Curriculum Support

Education Technology worked hand-in-hand with faculty and students to develop solutions on how to best incorporate IT services into the college's new curriculum. Multiple systems support the new curriculum, including our Learning Management System, Apple TV, iTunes U, Student Information System, and others. As a result, more than 200 faculty members became users of 10 systems, with ITS providing training.

Weill Training Management System (WTMS) Pilot

Education Technology, in collaboration with the Administrative Computing Group, launched a pilot for WTMS, which provides online course listings and self-registration opportunities for WCMC employees. This system is also linked with Canvas (courses.med.cornell.edu) for users to take online training.

Implementation and Maturation of Canvas

Canvas is our Learning Management System (LMS) for MD, MD-PhD and MS students in New York and Doha.

BRB Conference Center Enhancements

Implementation of Belfer Research Building Conference Center audiovisual (AV) systems, booking and management (in progress). The second floor conference room lobby is pictured at right. ▶



Other Completed Projects

Education Center upgrade

- Upgrade of Weill Education Center computer operating system
- Prepared the Education Center for renovations in summer 2014

Audiovisual enhancements

- Implementation of audio visual Enterprise Remote Management (ERM) system pilot for central management of departmental AV systems
- Development of conference room AV system templates for use by Capital Planning and Weill Cornell departments
- Development of central AV management plan for departmental conference room AV system management, including pilot in BRB
- Development and planning of new AV architecture for small group teaching rooms in Weill Education Center

Jenzabar

- Tracking and management of data standards and integrity issues for Jenzabar student information system
- Development and implementation of new graduate school processes to allow for the capture and reporting of student lab rotations and student sign up for Admission-to-Doctoral-Candidacy Examination (ACE)
- Technical and administrative support to central education administration and education programs in relation to Jenzabar student information system
- Planning and development of new advising structure and data gathering mechanisms for graduate school students and advisors

Student assessment and support

- Pilot of secure student assessment on mobile devices for CHiP and Physicians Assistants (PA) Program
- Development of web-based National Institutes of Health (NIH) Individualized Development Plan (IDP) pilot for MD-PhD program
- Implementation of technology student interest group for medical students
- Launch of “Lunch & Learn” technology training, communication, and collaboration sessions for medical students and teaching faculty
- Pilot of new interactive small group room teaching technology for first year medical students
- Rollout and program assessment of iPad Minis for medical students in clinical clerkships

Peer demonstrations and symposiums

- Presentation of Weill Cornell educational technology systems and innovations to Washington University School of Medicine, George Washington University School of Medicine, and Cornell University College of Veterinary Medicine
- Hosted first Canvas Professional Education Symposium with participation from Columbia University, University of Pennsylvania, Brown University, and Dartmouth University

Self-service room booking

- Pilot of self-service room booking model for select Belfer Building conference spaces
- Pilot of social view system that allows users to view room availability prior to booking (see below)



Electronic room-booking pads are now outside all BRB conference rooms for on-the-spot reservations

Learning Repository

- Planning for new Learning Repository to support tracking of learning objects built at Weill Cornell, as well as curriculum mapping, effort tracking, indexing, and controlled vocabularies for metadata

Research training at Hamad

- Development, design and support of AHS Advanced Clinical Research Training Course for Hamad Medical Corporation (HMC) faculty in Doha, Qatar

Grand Rounds

- Capture and implementation of streaming access to Department of Medicine Grand Rounds videos

Upcoming Projects for 2014-2015

New Curriculum

- Implementation of new technologies to support the new medical school curriculum launching in Fall 2014
- Implementation of new services related to requirements for supporting Areas of Concentration for the medical school
- Implementation of new faculty development and staff training models specifically identified for the medical school's new curriculum
- Implementation of new instructional design processes to support the medical school new curriculum and administrative training
- Development of instructional design best practices for flipped lectures, active learning, audience response technologies, slide design and other technologies

Central AV Management

- Expand upon the central AV management pilot in Belfer by providing pilot service at 1300 York or 575 Lexington buildings
- Expand upon enterprise remote management pilot (ERM) with a full go-live in the Belfer Building and moving new conference spaces at 575 Lexington to pilot mode
- Expand upon the use of self-service booking and social view functions at 1300 York and 575 Lexington
- Build upon central AV room planning models by dedicating staff resources to capital planning projects related to AV design and implementation

Education Center

- Upgrade of Mac Management for Weill Education Center computers
- Migration of medical education program server infrastructure from existing hardware to virtual servers with Client Services group
- Deployment of new network infrastructure in Weill Education Center with a focus on improved wireless access and implementing AirGroup for Apple TV management with the Network & Communications Services Group

Some improvements already completed, like an updated AppleTV and wireless infrastructure for presenting. ►

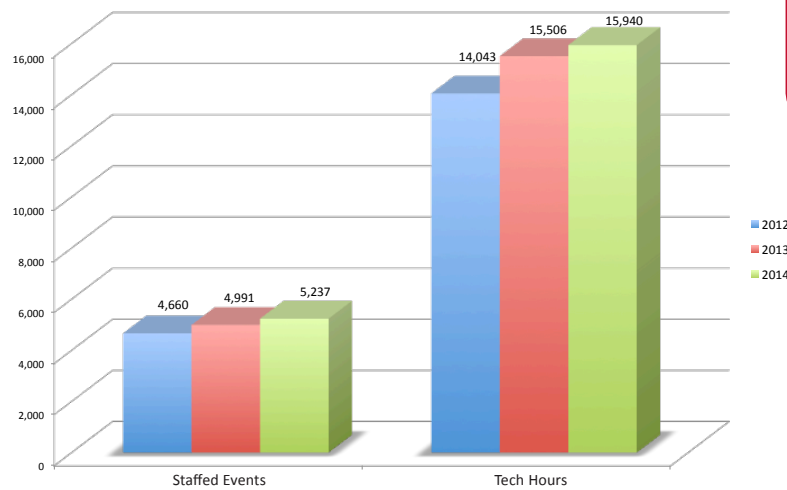


Beyond the New Curriculum

- Implementation of new communication and marketing methods to better reach all teaching faculty
- Move secure student assessments on mobile devices from pilot phase to full implementation for MS and MD programs
- Expand upon offered audience response technologies for MD program to an institution-wide model
- Begin planning data warehousing and educational informatics strategy for medical and graduate education
- Beta go-live of Learning Repository to support tracking of learning objects built at Weill Cornell, as well as curriculum mapping, effort tracking, indexing and controlled vocabularies for metadata
- Build upon Lunch & Learn sessions to include external speakers available to entire institution
- Upgrade of Panopto lecture capture system for both New York and Doha campuses
- Collaborate with Wood Library faculty to develop a IT usage and capabilities sketch for incoming student classes that can be used to determine IT training, requirements and needs for specific classes and programs
- Improve upon governance structure for educational technologies

Key Statistics

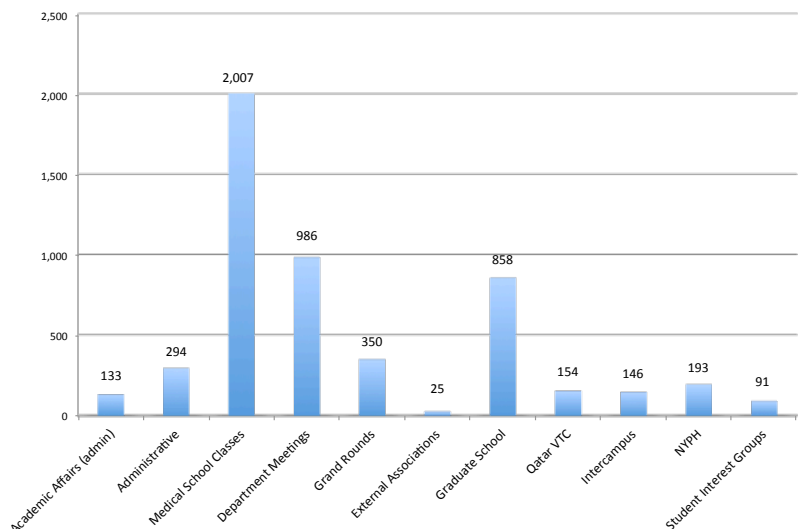
Staff Events & Tech Hours (2012-2014)

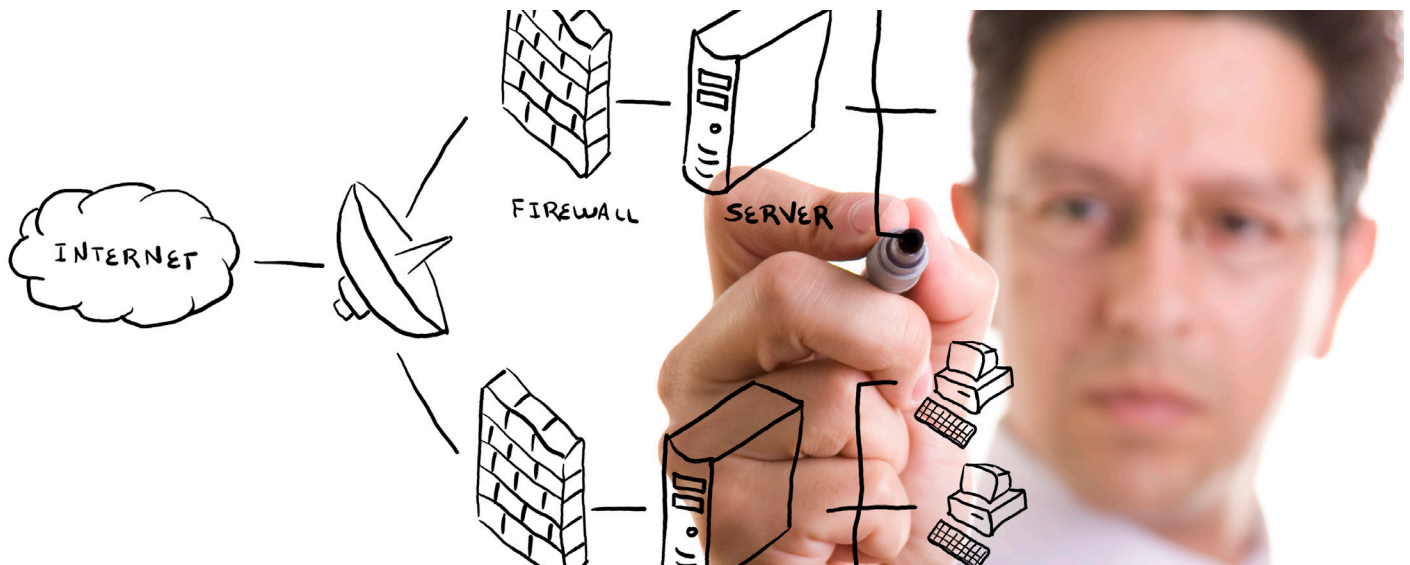


DID YOU KNOW?
 ETG supports a total of 182 courses in Jenzabar, Canvas, and WTMS. It also supports 5,787 Jenzabar accounts for students, faculty, and other users across NYC and Doha, Qatar.
 ETG maintains intercampus lecture support for our medical students in Doha, transferring 737 out of 794 total lectures.

- 2014 iPad Distribution to students and educators: 260
- Support tickets received: 1,466 (up 38% from FY13)

Number of Staffed Events by Group (FY14)





Infrastructure

The Infrastructure team is responsible for the designing and implementation of core systems and services. We engineer the core components that underpin many of the applications and services ITS provides, including Epic, eIRB, email, high performance computing, and SAP.

Highlights from 2013-2014

Expansion of VDI

Virtual Desktop Infrastructure (VDI) is a flexible and secure technology to access data and applications from anywhere on any device. Over 40 percent of ITS has adopted this technology. This technology has complemented our mobile and work-from-home users by providing access to sensitive information from any location, while keeping the data within secure ITS-managed data centers.

Microsoft Lync

Lync is a secure system providing audio and video conferencing, and instant messaging. It is integrated with the Weill Cornell email system and works on any platform, including smartphones and iPads. ▶

Minimizing service disruptions

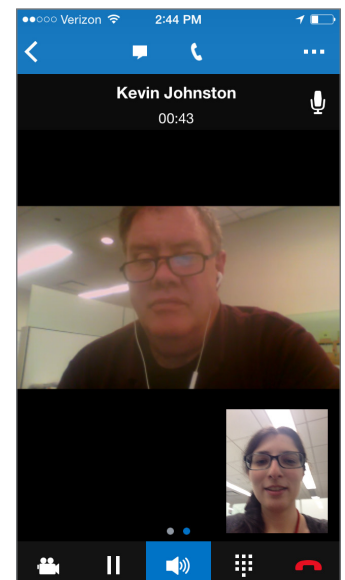
Using automation tools that trigger self-healing when system components fail, we have decreased the number and scope of disruptions to critical services and applications.

VIVO

Re-engineered the infrastructure for VIVO to improve performance, enabling researchers across all disciplines to collaborate more easily.

Other Completed Projects

- EpicCare upgrade



You can use the Lync iPhone or iPad app to chat or make phone calls via Wi-Fi. ▲

Upcoming Projects for 2014-2015

Build a co-located data center for business continuity

- In collaboration with the Center for Advanced Computing (CAC) and Cornell University IT (CUIT), ITS will develop a geographically-diverse datacenter presence in Ithaca, and use this new capability to provide service continuity and recovery in the case of a New York City-based service disruption or disaster. ▶



BRB Data Center migration

- ITS will implement a new, modern, heavily automated and orchestrated IT infrastructure in the recently completed BRB data center. This updated generation of servers, storage, databases, networking, and virtualization will provide the basis for migrating all IT services from our legacy data center at 575 Lexington into a facility with enterprise-class power, cooling, and management, as well improve the deployment speed, performance, and reliability of IT systems.

Office 365 email migration

- As part of our multi-year plan to migrate email services to the cloud, ITS will move email to the same service used by the Ithaca campus. This enhanced email system will feature a modern and fast webmail system, unlimited mailbox sizes, and multi-site disaster resiliency. ▶



Virtual Desktop Infrastructure (VDI) Phase II

- VDI will come in two new flavors – a PCI compliant version for processing Epic credit card transactions, and a custom version that can be built to meet individual department needs.

DID YOU KNOW?
VDI offers data backups and security while delivering your desktop from anywhere on any device.

Implement central monitoring software with self-healing capabilities for all critical services

- One system providing monitoring and alerting for all ITS-managed services
- Make alerts available via email, smartphone, IM, and broadcast email
- Ensure ability to consolidate alerts from diverse, standards based systems: EG Solarwinds, Nagios, and SCOM
- Ensure interfaces or agents for many major applications, such as Oracle, Apache, Tomcat, and SQL Server

Application delivery

- Create streamlined and self-service methods application delivery
- Manage all Windows and Macintosh clients with a single-digit error rate for software deployment and patching
- Expand and enhance the process for building, testing and releasing changes to desktops
- Streamline access to clinical NYP/WCMC applications no mater of location or desktop

Process and operational improvements

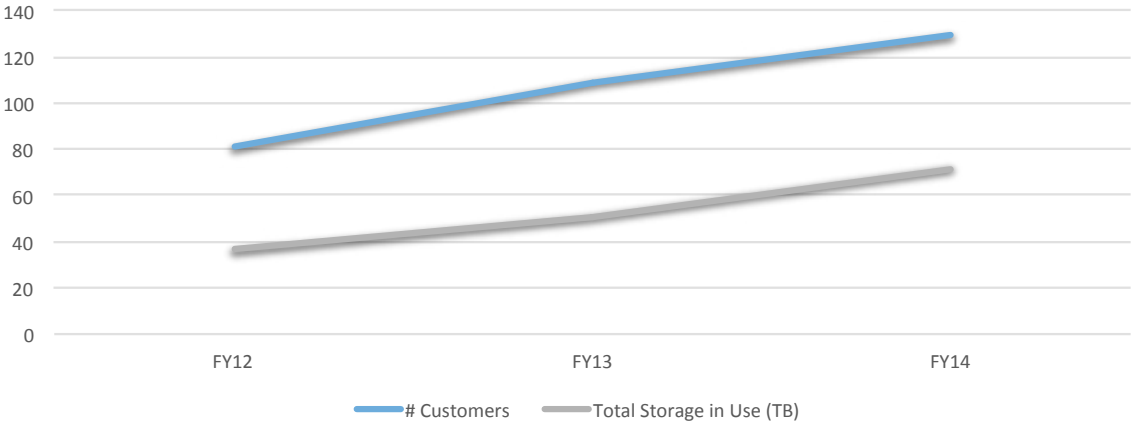
- Develop a light release management process for managing software/infrastructure releases from test/development into production to ensure consistency, reliability, and availability of services
- Develop a capacity planning function that successfully determines the production capacity needed to meet dynamic service demands
- Develop a definitive software library to store and secure all current, authorized versions of all software and configuration items
- Health checks for key systems to improve upon their availability by avoiding undetected problems

Process and operational improvements (continued)

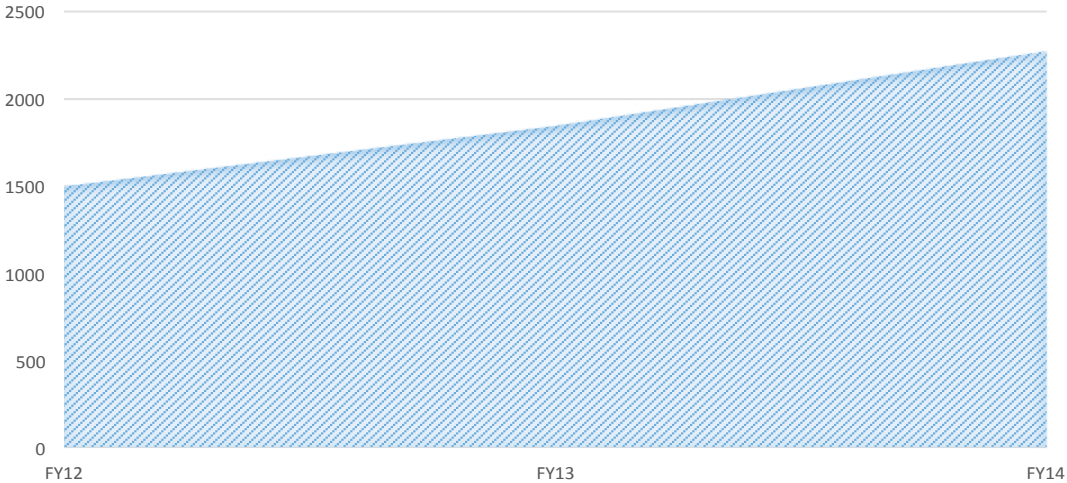
- Buy and build software to automate the execution of tests and the comparison of actual outcomes with predicted outcomes. The goal is to reduce the time required by engineer or business owners to manually test application during or after changes. This helps reduce or avoid problems caused by human error.
- Server lifecycle management to sunset Windows 2003 Server to ensure Microsoft support, which ends July 2015.
- Implement Application Performance Management (APM) system to map interdependencies of applications and proactively receive alerts when an application or service is functioning sub-optimally.

Key Statistics

File Sharing Trends - Customers & Storage (FY13 -FY14)



Epic Max Concurrent Sessions (FY12-FY14)



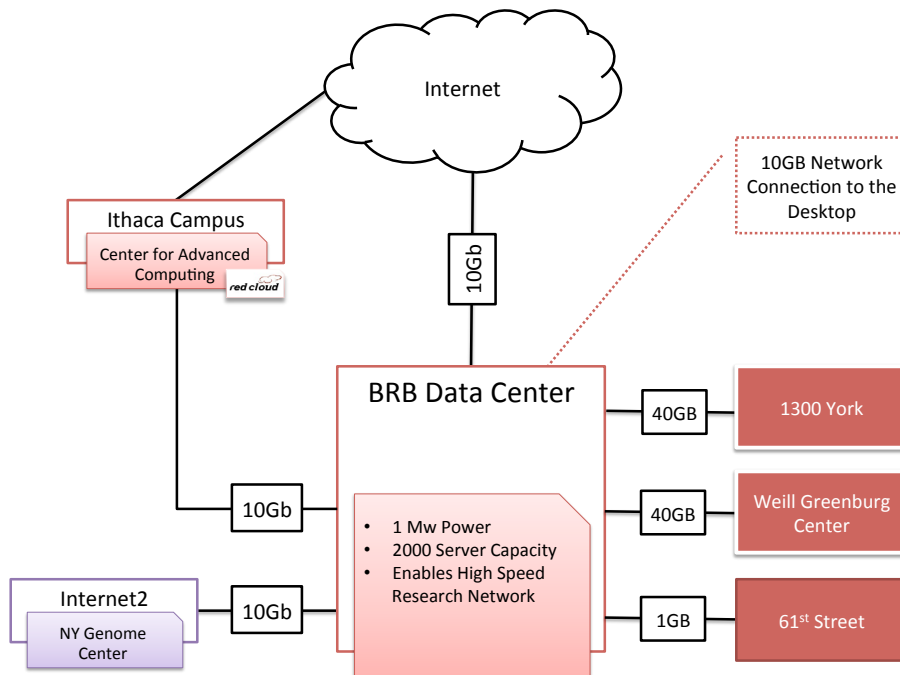


Networking & Communications Services

Networking & Communications Services Group (NCSG) provides networking and communications services to Weill Cornell Medical College, including the wired and wireless networks, the voice over IP (VOIP) phone system, and the Microsoft Lync chat, audio, and video conference system.

Highlights from 2013-2014

Administrative and High Performance Computing networking infrastructure throughout the Belfer Research Building
The research network will support up to 10GB speeds across campus.



A snapshot of how our infrastructure is set up at the BRB Data Center

Implemented new Internet edge network with a new connection at 10 times previous speed

This solution incorporates high-speed firewalls, Internet routers, and service provider carrier connections.

Implemented new wireless networking infrastructure in the BRB

In the coming year, NCSG will replace the old system in the remaining areas of campus with the new system, which is designed to be faster, more reliable, scalable, more secure, and more friendly to guests.

WCMC remote office expansions and upgrades

NCSG deployed data and telephony services in seven new office locations in the New York metropolitan area.

Upgraded IP communications systems, including backup telephony

The audio conferencing system was upgraded for added functionality and backup telephony systems were implemented, which now provides resilient failover capabilities in the event of a main campus outage. We also converted our trunk installation to a newer protocol (SIP) that will lower cost and enable new telephone features.

Launched IP phones over Wi-Fi network

This solution will allow a WCMC user with a registered WCMC IP phone to be able to receive those calls on their mobile smartphones with the Lync client software installed.

Other Completed Projects

- 11 new remote office and campus network expansions completed
- Redundant 10GB connection upgrades to NYP completed
- Added 600 WCMC IP phone users for a total of 3,400 supported sets

Upcoming Projects for 2014-2015

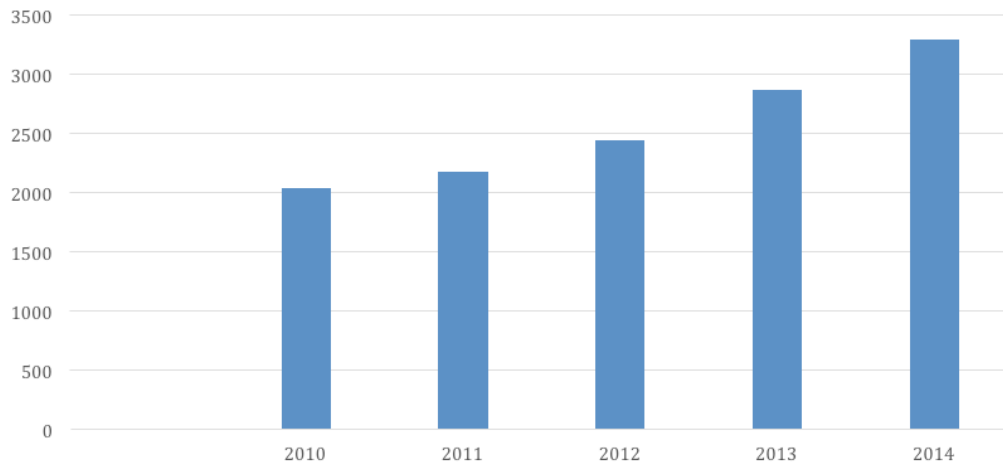
- Replace all Cisco wireless access points with new Aruba wireless access points across WCMC campus
- Upgrade networking infrastructures in Olin and Lasdon Hall dormitories and place new Aruba access points for wireless access within every room
- Upgrade networking infrastructure within the Education Center and expand wireless throughput services with new 802.11 AC capabilities
- Continue remote office network build outs to expand WCMC presence into 12 new office locations
- Expand implementation of the WCMC high speed research network infrastructure
- Production implementation of **eduroam** wireless services
- Upgrade secondary dark fiber ring for 10GB capabilities and incorporate 402 East 61st Street building to support research data transfer needs
- Production implementation of e911 into WCMC's IP telephony system
- Production implementation to utilize redundant SIP trunks for inbound/outbound calling functionality
- Production implementation of network segmentation project working in conjunction with ITS security
- Full Avaya VoIP system upgrade
- Migrate all WCMC IP phone users onto new Avaya IP phone system ▼

**DID YOU KNOW?**

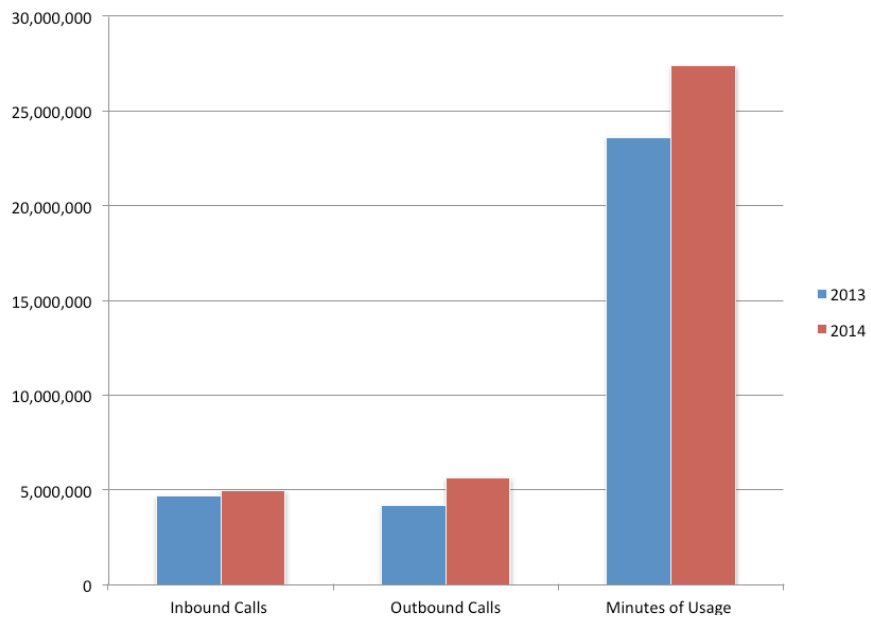
ITS will be transitioning to new Avaya phones shown at left, which include a wealth of great features, like voicemail automatically emailed to your WCMC account, enhanced searching capability to find contacts in the directory, and integration with Lync.

Key Statistics

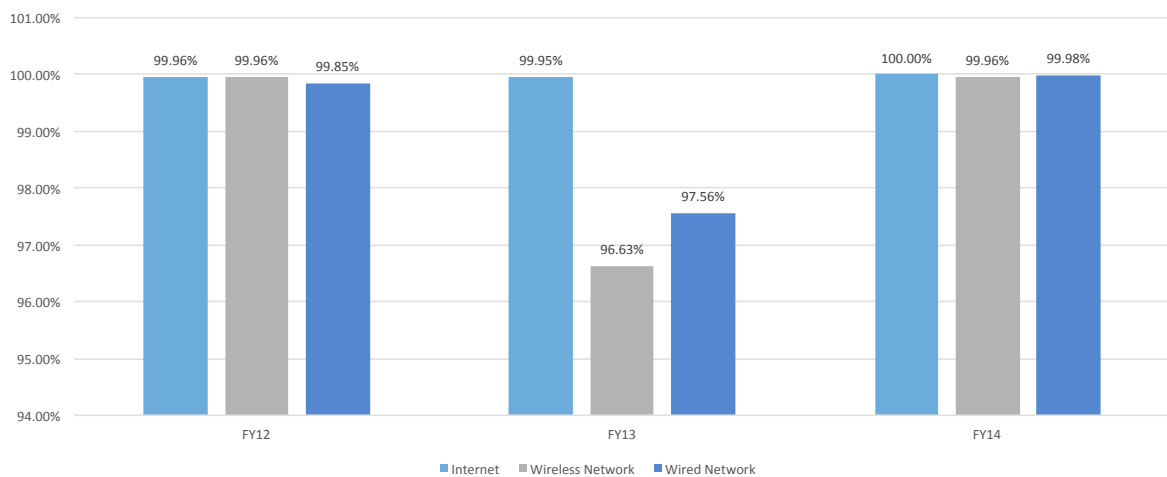
Number of Desk Phones at WCMC (2010-2014)



WCMC Call Volume



Network Trends (Including Partial Outages)





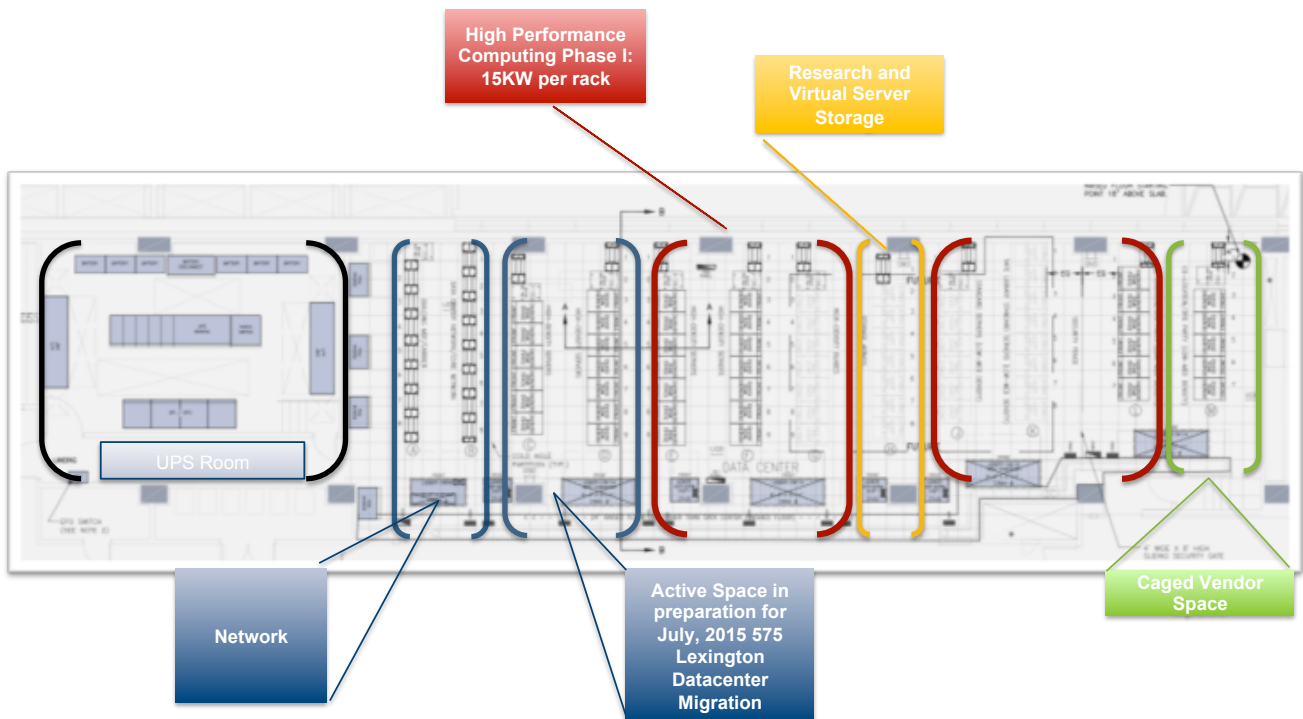
Operations

A new stand-alone group in ITS, Operations is responsible for the day-to-day administration and support of the WCMC IT infrastructure and data centers. The team strives to deliver the highest level of customer service, ensure the integrity of all WCMC data is maintained, and services are continuous and available at all times.

Highlights from 2013-2014

Operationalize the new flagship data center in the Belfer Research Building (BRB)

- The successful implementation of the new data center was aided through the development of documentation, as well as the training and transition of processes and procedures between engineering and administrative teams.



Floorplan of the new BRB Data Center. ▲

Other Completed Projects

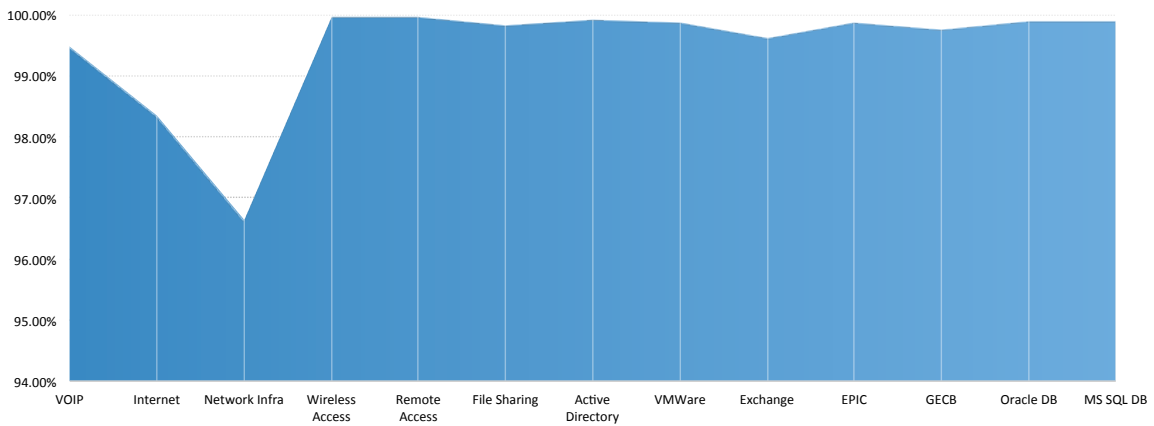
- Uninterruptable Power Supply (UPS) power expansion in the 1300 York Data Center for longer system uptime during a power emergency and graceful shutdown in the event of prolonged outage
- Power shutdown/power up of the 575 Lexington Data Center, allowing Con Edison to upgrade power connectivity to the building

Upcoming Projects for 2014-2015

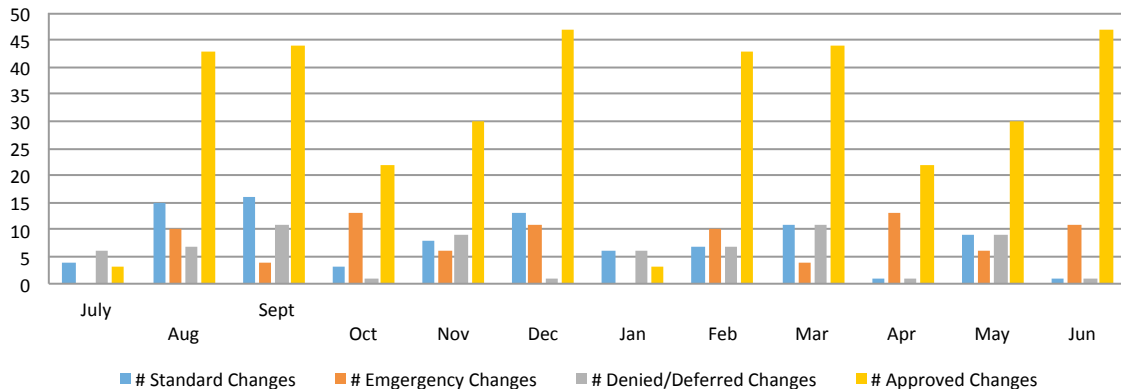
- Migration and decommission of the 575 Lexington Avenue data center
- Build out and staffing of the Network Operations Center at the BRB, which will be staffed 24/7
- Build out of the Disaster Recovery Site at Cornell Ithaca
- Implementation of Security Controls and Rack Level Security Access System in the data center at the BRB to improve data security and make space sharing easier
- Implementation of Data Center Infrastructure Management (DCIM) software for the monitoring of management of the power, cooling, and capacity planning within all the data center(s)

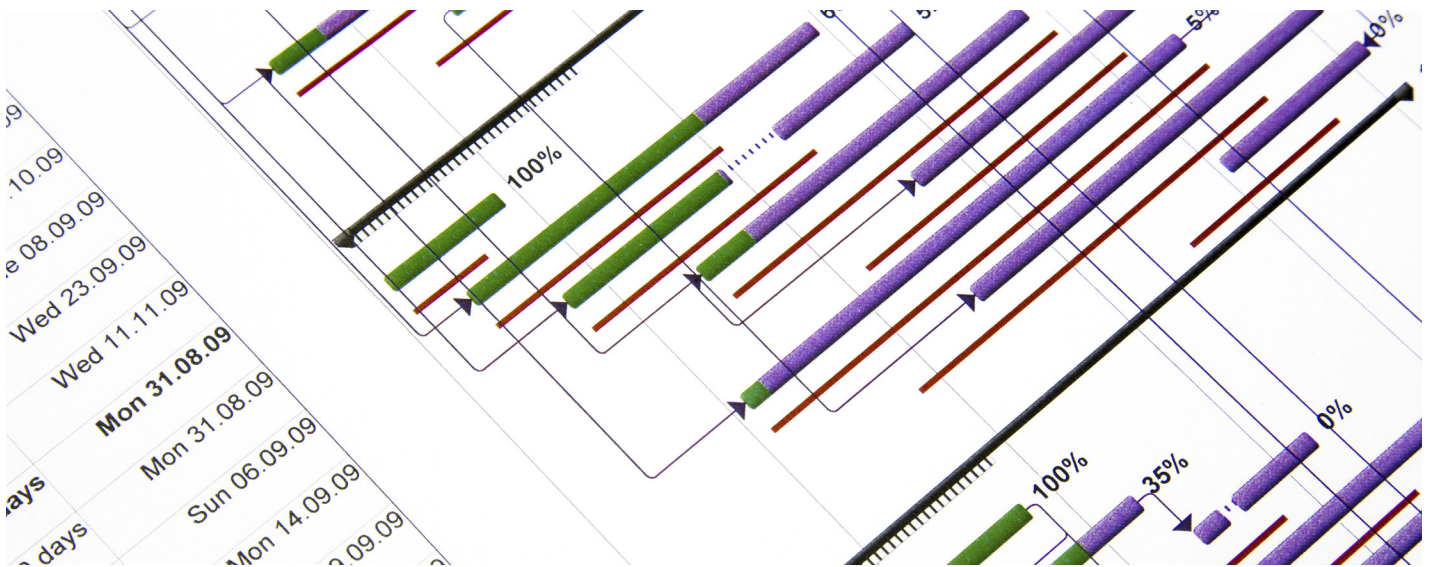
Key Statistics

Average Uptime Percentage (FY14)



Number of Changes by Type (FY14)





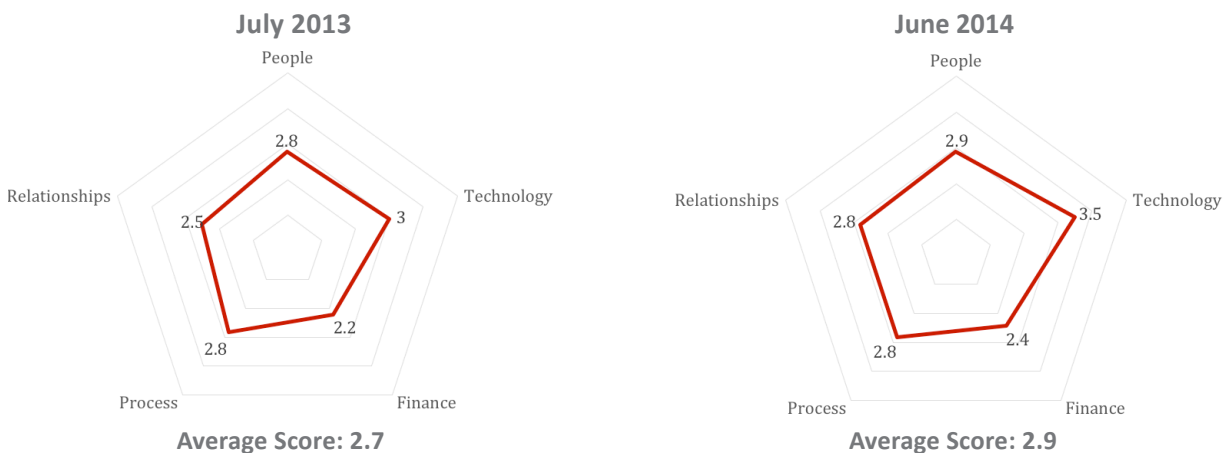
Project Management Office

The Project Management Office (PMO) strives to drive initiatives towards successful completion, on time and on budget through a project management method of best practices. This methodology is focused on securing and managing resources, planning, communication, and organizing the project to achieve specific goals. In addition to the management of projects, the PMO brings visibility and accountability to the ITS project portfolio to ensure alignment with college priorities.

Highlights from 2013-2014

Gartner PPM Maturity

The PMO has matured from 2.7 to 2.9 on the Gartner Project Portfolio Management (PPM) Maturity Model with improvements mostly across the board – most notably within the technology dimension (see below).



Improved capacity planning

The PMO developed an integrated data source for capacity planning in ServiceNow, which has allowed for increased visibility into planned resource consumption through trend spotting and workload balancing.

Improved metrics

Evolved business relevant metrics with trending to better align the portfolio to meet objectives.

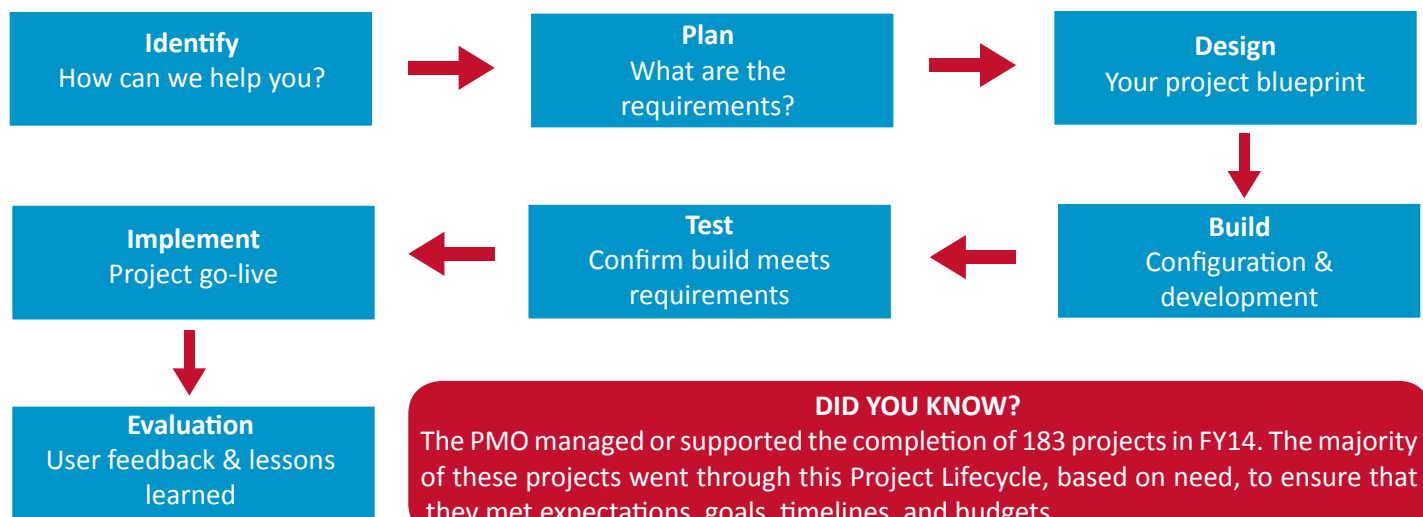
Other Completed Projects

- Enhanced the integration between architectural review and PMO processes by identifying the need for and ensuring that architectural deliverables that are part of the service lifecycle are met.
- Developed sample institutional portfolio for review outside ITS.
- Integrated the Education Technology Group and Administrative Computing Group with the project management processes championed by the PMO to provide a unified project management experience to ITS and its collaborators.
- Implemented flexible project management processes across ITS by building template milestones within ServiceNow to increase efficiency and effectiveness.

DID YOU KNOW?
 The ITS PMO was recognized for its visionary development of the PPM module in ServiceNow. Weill Cornell presented our module at the annual ServiceNow conference. This has led to many collaborations with other schools, such as Boston College and Harvard Business School.

Upcoming Projects for 2014-2015

- Increase visibility of the portfolio for review and consumption by end user community
 - Reduce communication overhead on disseminating status reports
 - Real-time updates facilitating better decision-making
- Establish an awareness program for the WCMC community
 - Training on project management processes
 - Program management processes
 - Services offered by the PMO
- Standardize the resource planning and tracking across ITS
- Begin financial planning and tracking across the portfolio
- Develop optimized process for research-related projects
- Facilitate adoption of standard processes in project planning and execution
 - Architecture review
 - Request for Proposals
 - Software Development Lifecycle
 - Operations transition and post-live evaluation
 - Disaster Recovery compliance
 - Security compliance
 - Communications
- Evolve more business relevant metrics to help better align the portfolio to business and mission objectives
- Strengthen the portfolio process to help make objective decisions about stopping and starting projects based on metrics and key indicators of project health
- Include more end users in PMO internal processes



DID YOU KNOW?
 The PMO managed or supported the completion of 183 projects in FY14. The majority of these projects went through this Project Lifecycle, based on need, to ensure that they met expectations, goals, timelines, and budgets.

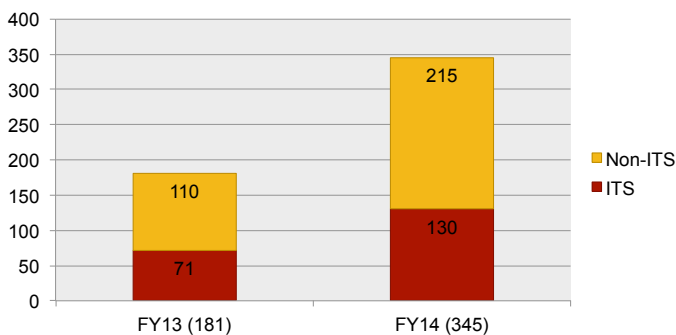
Key Statistics

PMO Score Card for FY14

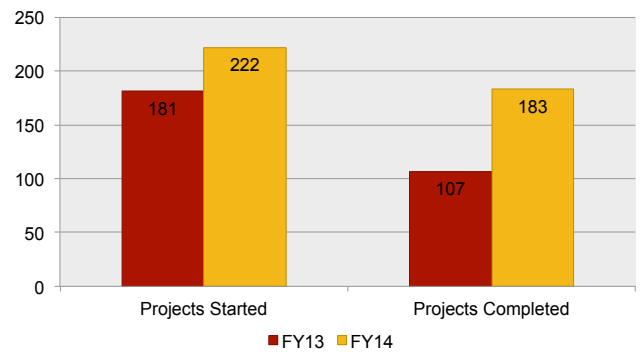
			FY13	FY14	FY15 Goal
Project Management	Delivery	Number of Projects Started	181	222	N/A
		Number of Projects Completed	107	183	N/A
		Number of Projects Cancelled	23	29	N/A
		Projects Planned to Complete vs. Actual Completions	62%	66%	N/A
		Number of New Project Requests	181	345	N/A
	Functional Efficiency	Elapsed Time (in Days) from Submission to Kick-off	64	46	40
		Projected Time (in Days) to Market	189	139	N/A
		Elapsed Time (in Days) from Project Kick-off to Project Delivery	213	159	N/A
Portfolio	Strategic Alignment	Percentage of Projects Aligned to Strategic Initiatives	N/A	48%	N/A
		Success Rate of Strategic Projects Delivered	N/A	61%	N/A
		Percentage of High-Risk Projects Managed by the PMO	66%	91%	100%
		PMO Managed Projects vs. All ITS Projects	42%	52%	N/A
Governance	Compliance	Number of PRFs with Identified Technical Architecture Needs	N/A	2%	N/A
		Number of Staff with Resource Plans	N/A	22%	75%
		Percentage of Project Reviews Completed	N/A	75%	100%
Additional Metrics	Staff	Improve Staff Retention	N/A	60%	80%
		Improve Staff Career Paths - Number of PMs with Development Plans	N/A	77%	100%
	Future Metrics	Number of Project Staff Members Trained in PM Processes	N/A	N/A	100
		Customer Satisfaction Survey Averages	N/A	N/A	3.5
		Missed Milestones	N/A	75%	N/A
		Portfolio Health	N/A	88 (green) 58 (yellow) 1 (red)	N/A

*Note: Under "Portfolio Health," green indicates a project that is on track, yellow indicates a project that is off track but requires no escalation outside of the project team, and red indicates a project that is off track and requires escalation outside the project team.

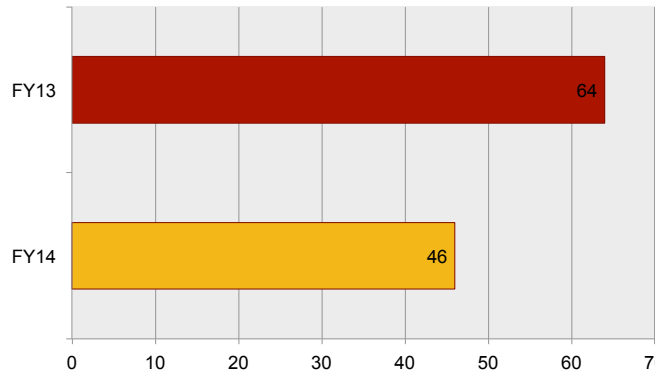
FY14 New Project Requests by Customer



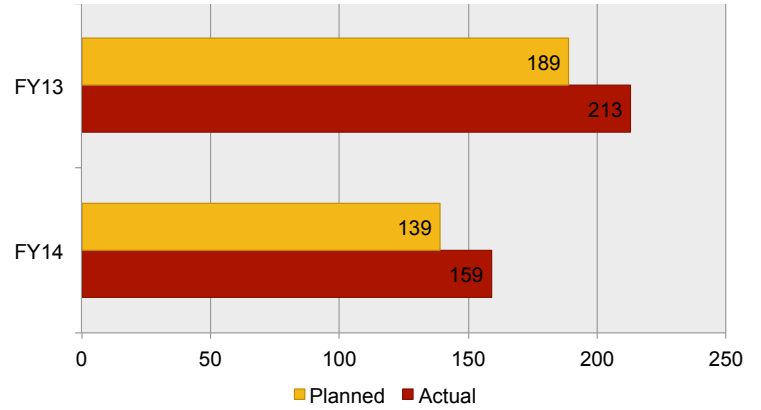
Projects Started & Completed (FY13 vs. FY14)



Elapsed Time from Project Submission to Kick-Off (Days)

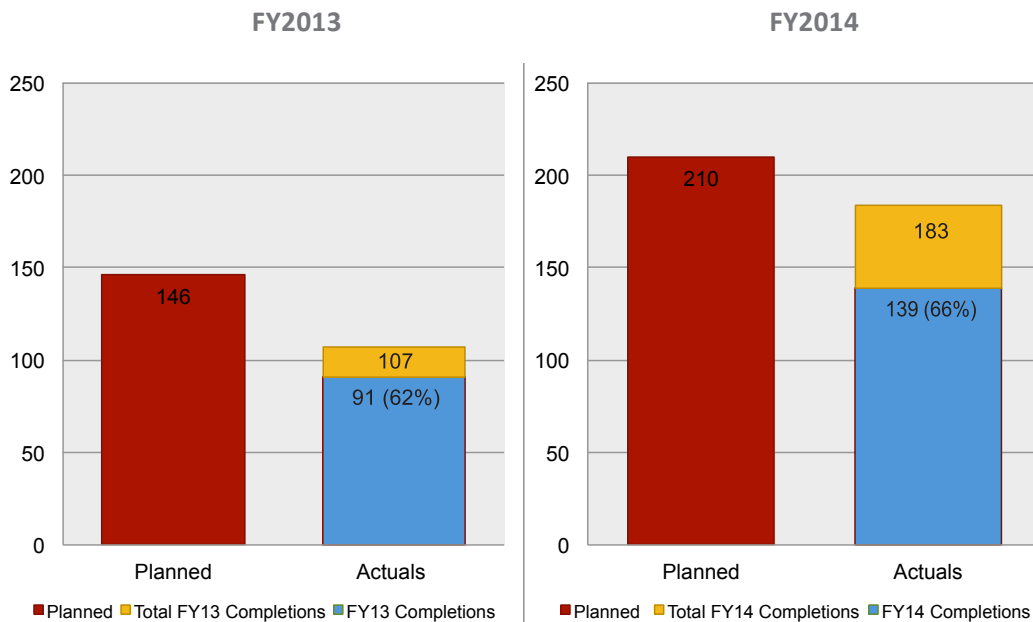


Elapsed Time from Project Kick-off to Delivery (Days)

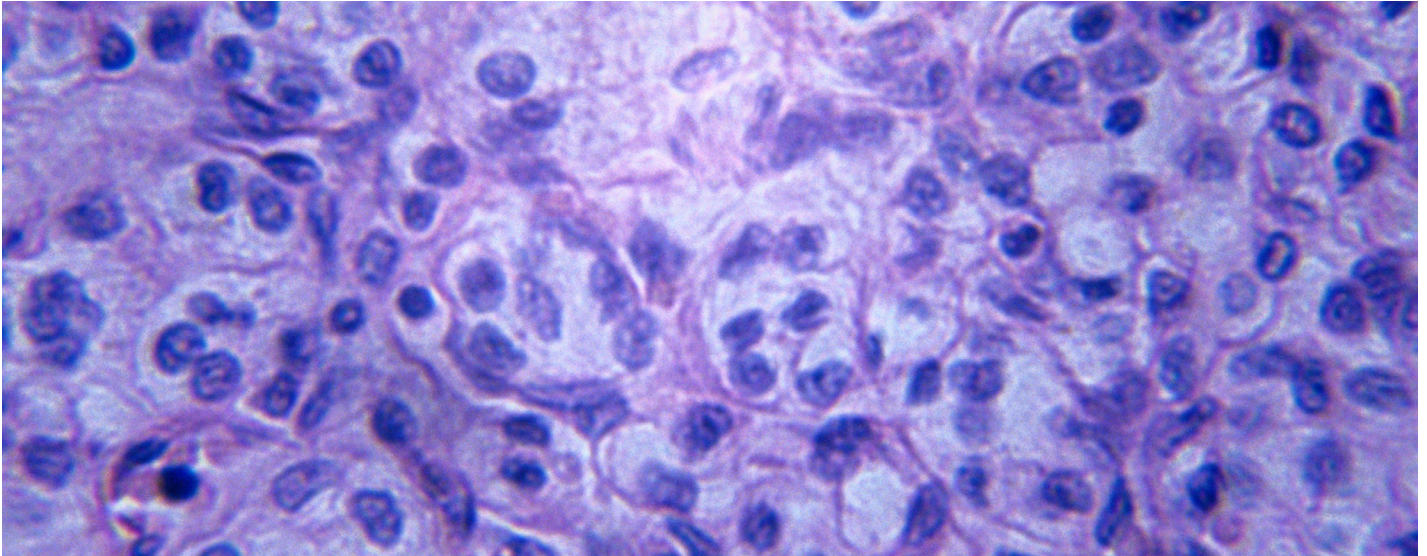


DID YOU KNOW?
 If you have questions about starting a project with the PMO, you can contact the PMO hotline at (646) 962-2247 or email ppmo@med.cornell.edu.

ITS Project Complete Rate



DID YOU KNOW?
 The top four reasons for project delays this past fiscal year were resource constraints, inaccurate project planning, complex issues, and awaiting stakeholders (like a client, vendor, or NYP). As we continue to mature and improve our processes, we expect to see our completion numbers continue to grow.



Research Administrative Computing

Research Administrative Computing (RAC) maintains, supports, and enhances the functionality of various applications used by the research community in the clinical, business, research, and administrative spheres. RAC also works with the business units to improve critical business processes and strive for standard operating procedures and best practices, where possible. In close collaboration with the Research Informatics group, RAC creates and maintains data integration between various research applications, in addition to supplying the research community with reporting data from these applications as needed.

Highlights from 2013-2014

- RAC hosted a full-day retreat with approximately 70 members of the research community to review research administrative systems and related processes in preparation for system replacement.



*Dr. Curtis Cole
(left, standing)
speaks with
researchers
during the RAC
retreat*

- Selection of new overall research administrative system for implementation.
- Stabilized the applications that run the Institutional Review Board (eIRB), Conflicts of Interest (COI), and Electronic Routing Form (ERF), to fewer than 20 combined tickets at any given time.
- Published academic poster and paper regarding Clinical Study Evaluation Committee (CSEC) and Clinical Research Enrollment & Study Tracking (CREST) implementations.

Other Completed Projects

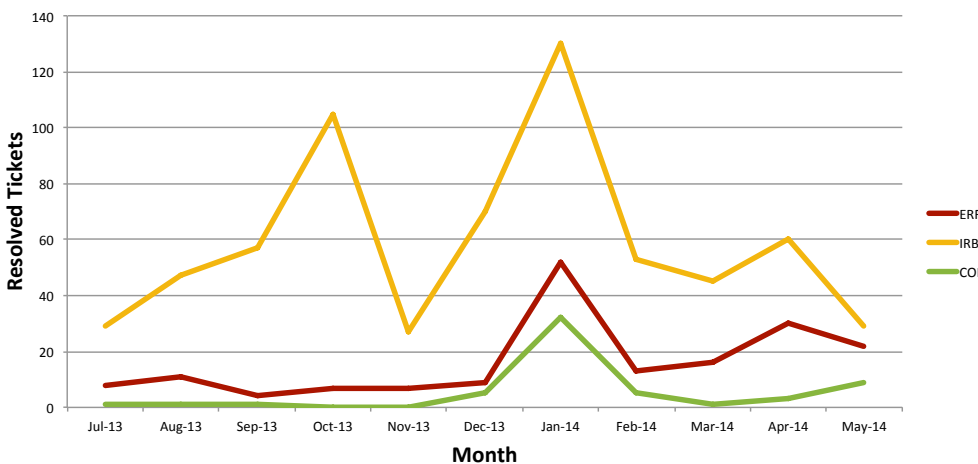
- In order to select a new grants management and compliance system for research administration, RAC created a Request for Information (RFI) and subsequent Request for Proposal (RFP) that included 50+ technical and 200+ functional requirements to solicit information and proposals.
- Assisted with the business process review for both IRB and grants management to ensure that future ideal practices can be technically implemented.
- Launched Clinical Study Evaluation Committee (CSEC) process with the Joint Clinical Trials Office (JCTO) using REDCap, an existing research tool hosted by the Clinical Translational Science Center (CTSC).
- Launched Clinical Research Enrollment & Study Tracking (CREST) system to maintain studies and subjects enrolled in clinical research trials and other research studies, including integration with eIRB, CSEC and Epic.
- Eliminated redundancy by migrating data and processes into CREST, sunsetting the shadow system for Clinical Trials finance.
- Our Core Facility scheduling and billing tool, iLab, was rolled out to 12 Core Facilities and the new Vivarium.
- Worked with MSKCC to launch the enCCoMPass Animal Management system.

Upcoming Projects for 2014-2015

- Begin implementation of InfoEd, the new main research administrative system
- Synchronization of grants management data in Coeus, SAP, and related systems
- Proposal development and federal grants submission system, IRB, COI, and much more
- Create self-service reporting for central business users and departmental users utilizing the Business Objects suite and the Weill Business Gateway (WBG)
- iLab will be rolling out to more than 6 other Core Facilities in the next fiscal year

Key Statistics

RAC Support Tickets FY14



	Created	Resolved
COI FY13	10	13
COI FY14	45	59
eIRB FY13	1,686	1,773
eIRB FY14	642	899
ERF FY13	162	155
ERF FY14	215	254



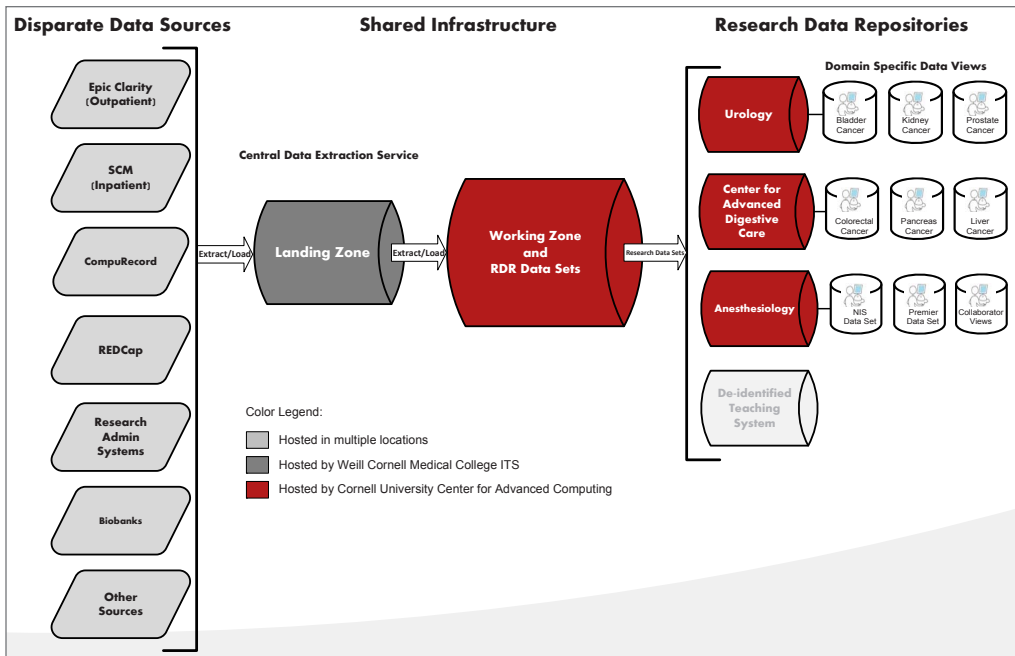
Research Informatics

Research Informatics (RI) facilitates the conduct of clinical and translational research through its Architecture for Research Computing in Health (ARCH) and Data Integration teams. The RI team builds research databases to support exploratory and hypothesis-driven research. RI also works closely with other IT groups to integrate data across research-related systems.

Highlights from 2013-2014

ARCH

- 2013-2014 marked a successful pilot year for ARCH with several activities in-progress or completed for matching investigators with the correct tools and services for research.
- The ARCH team established a governance process for Research Data Repositories (RDR) creation, modification, and data requests with representation from local investigator groups, college-wide scientific leadership, and partner institutions.



*RDR Data Flow
Pilot for Center
for Advanced
Digestive Care
(CADC)*

ARCH (continued)

- In cooperation with NewYork-Presbyterian Hospital, Columbia University College of Physicians and Surgeons, and Weill Cornell Medical College, ARCH developed policies and procedures to enable tri-institutional data sharing.

A shot of the RDR query tool mentioned on the previous page. ▲

Data Integration

- The Data Integration team fulfilled more than 200 requests for reports from Coeus and CREST describing award, protocol, and subject enrollment activity.
- Working closely with RAC, Data Integration successfully migrated data from legacy General Electric, Office of Billing Compliance, and OCTATrax databases to Clinical Research Enrollment and Study Tracking (CREST).
- In cooperation with RAC, Data Integration established a number of interfaces to eliminate double data entry:
 - Coeus-to-CREST
 - CSEC REDCap-to-CREST
 - CSEC REDCap-to-email
 - CREST-to-Epic
 - CREST-to-Finance PDF

Other Projects

- RI and RAC described successful activities in peer-reviewed publications, including a paper and poster presented at the American Medical Informatics Association Joint Summits on Translational Science.
- Other activities for faculty in progress or completed:
 - EHR reporting: 3
 - Electronic data capture: 2
 - New York City Clinical Data Research Network: 1
 - College-wide cohort discovery: 1

Upcoming Projects for 2014-2015

- The ARCH team will enhance and deliver more RDRs as well as match investigator needs with tools.
- A new website for ARCH will provide a front door to data collection and integration for the conduct of research at Weill Cornell.
- The Data Integration team will provide ad hoc reporting services as well as support for special projects including Cancer Center, training grant initiatives, and self-service reporting.
- Facilitate migration from Coeus to InfoEd.

Key Statistics

- The Data Integration team fulfilled more than 200 report requests describing awards, protocols, and subject enrollments for the Office of Sponsored Research Administration, Joint Clinical Trials Office, Office of Billing Compliance, and academic departments.
- The Data Integration team's Research Administrative Computing Integration Environment (RACIE) sent over 2,000 automated email messages based on user input in CSEC REDCap to support the CSEC Submission Process.



Samuel J. Wood Library & C.V. Starr Biomedical Information Center

The Samuel J. Wood Library and C.V. Starr Biomedical Information Center promotes excellence in health through access to information by selecting, organizing, and preserving high quality biomedical information. We make information access as ubiquitous as possible, providing education in its retrieval, management, evaluation, and utilization for problem-solving and decision-making. The Library also includes the Patient Resource Center, Medical Center Archives, and Duplicating Services.

Highlights from 2013-2014

Renovation

To help prepare for the new curriculum and major new research support activities, a significant renovation of the entrance to the library was planned. A new Cornell Store will open this fall. Additionally, a new demonstration and teaching area will provide library and other ITS staff the opportunity to show off new technologies, quick tips or searching resources, and obtain more feedback about services under development. The reference, circulation, and SMARTDesk functions were merged into a renovated front desk with consultation areas and better equipment for servicing patrons. A new security system will protect patrons, employees, and the collection while also providing more data about how the library is used. We also will be upgrading computer desks and other services. The back offices will also be updated to allow more staff to fit in space previously occupied by obsolete services.

Faculty development and recruitment

- A new library director, Terrie Wheeler, was recruited, and started in June 2014 (pictured at right).
- A serious effort was made to recruit an instructional design librarian, but no viable candidates were found. The new director will re-evaluate this position.
- New public services staff was trained in Systematic Reviews and Evidence-Based Medicine (EBM).



Services

- Embedded Research Librarians: In 2013, integration of Translational Science Librarian, Lyubov L. Tmanova, within the Clinical and Translational Science Center (CTSC) led to the implementation of a Research and Scholarly Communication Support service for CTSC investigators and the development of biomedical informatics competencies, information literacy, and research skills in CTSC graduate students. Similarly, Lyubov's integration

as an Embedded Librarian for CHIIP allowed graduate students enrolled in CHIIP's "Research Project in Health Informatics" course to benefit from information and digital literacy instructions, student-focused research consultations, and subject-specific electronic resource education.

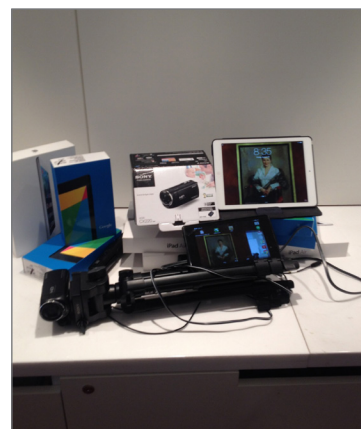
- **Clinical Support:** Joshua Richardson, our Assistant Director of Clinical Services, initiated an outreach through personal and technological service strategies. He has worked with multiple stakeholders within WCMC and at NYP to improve residents' onboarding so that they have remote access to library digital materials (e.g., apps, e-Journals, and e-Books) from day one. He is currently partnering with the Department of Anesthesiology to enable seamless access to library resources on resident-issued iPads.
- **New Curriculum Support:** The library faculty has worked closely with Medical College faculty to design 11 interactive and group learning evidenced-based medicine modules in the Essential Principles of Medicine section, which launches the new curriculum. Recognizing the central role that evidence-based medicine will play in the students' education and practice, the goal of this section is to establish early habits of seeking and evaluating evidence in the literature.
- **Data Services:** Daina Bouquin, our Data Services/Metadata Librarian, has been instrumental in providing support to students, faculty and researchers with their data-related needs, such as:
 1. One-on-one consulting with students, researchers, and faculty members to assess their data-related questions and help them navigate and access appropriate resources for data-intensive research at Cornell and online.
 2. Conducting outreach to improve data literacy and management practices through instruction on data management and visualization for students, faculty, and post-docs.
 3. Co-instructing the Cornell Center for Health Informatics and Policy (CHIIP), and Computational Approaches in Health Informatics courses, and is partnering with CHIIP researchers to develop a study aimed at assessing data literacy needs at the institution.
 4. Remotely serving as an active consultant for Cornell's Research Data Management Services Group based in Ithaca, as well as consulting on data literacy issues within the organization. This includes developing strategies to better integrate data literacy competencies into the curriculum for medical and graduate students.
 5. Consulting on metadata issues within the broader ITS community; regularly meets with Educational Technologies as it develops the Cornell Learning Repository to support the new curriculum, advising on the metadata workflow for the in-development Weill Medical Institutional Repository.
- **Institutional Repository:** A platform recommendation, budget proposal, governance plan, and policy draft have been prepared for review and approval.
- **Copyright:** The new director has identified a faculty member with some experience in copyright who is interested in pursuing more training to further develop that skill set. This will position the Library to take on a larger role in copyright and digital rights management, providing guidance to faculty and Educational Technologies on the use of content they incorporate into learning modules.

Other Completed Projects

Myra Mahon Patient Resource Center (PRC)

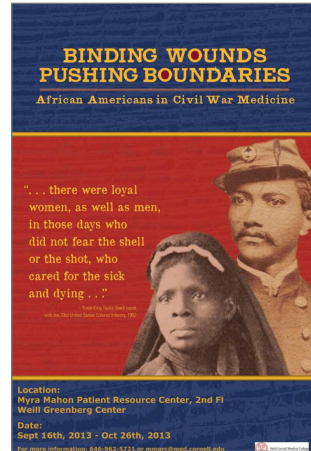
- In January, Judy Stribling and Joshua Richardson were awarded the National Network of Libraries of Medicine, Mid-Atlantic Region (NN/LM MAR) Technology Improvement Award for \$10,000. The award is being used to support the PRC consumer health tablet program.

This equipment was made available through the \$10,000 award the Library received. ▶

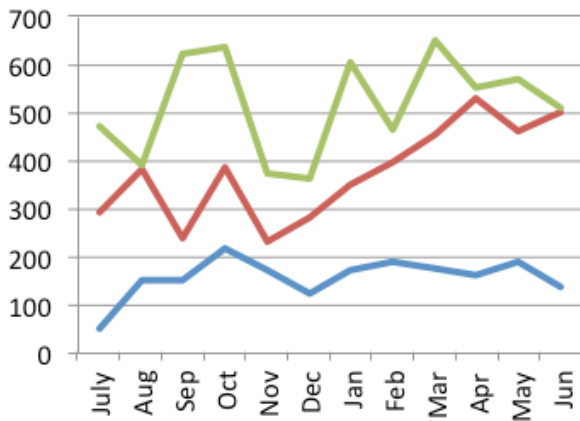


Myra Mahon Patient Resource Center (PRC) (continued)

- In addition to regular health programming, the PRC hosted two of the National Library of Medicine’s traveling exhibits. “Binding Wounds, Pushing Boundaries: African Americans in Civil War Medicine” and “Opening Doors: Contemporary African American Academic Surgeons” were well-received by members of our community. ▶
- PRC popular health seminars can now be viewed by anyone at any time on our PRC YouTube channel. ▼



PRC Patient Use Increase (FY12-FY14)



— FY 12	FY2014	6,187	
— FY 13	FY2013	4,489	> 37%
— FY 14	FY2012	1,864	> 140%

First anniversary of the SMARTDesk

The Library and Client Services celebrated their successful implementation of the SMARTDesk during “SMARTFest” in December 2013. This event included a review of 2013, and a look forward to some of the significant information technology projects planned for 2014. A showcase of services and vendors included Virtual Desktop (VDI), Drupal, VIVO, Microsoft Lync Chat Client, Library Data Consulting and App Lab.



ITS staff explain the new Online Directory to attendees of the first SMARTFest. ▲

Systematic Review Service

Librarians collaborated in 17 reviews during 2013 and 2014 leading to four publications:

- Adelman RD, Tmanova LL, Delgado D, Dion S, Lachs MS. Caregiver burden: a clinical review. JAMA. 2014 Mar 12;311(10):1052-60. PMID: 24618967
- Gupta A, Baradaran H, Schweitzer AD, Kamel H, Pandya A, Delgado D, Wright D, Hurtado-Rua S, Wang Y, Sanelli PC. Oxygen Extraction Fraction and Stroke Risk in Patients with Carotid Stenosis or Occlusion: A Systematic Review and Meta-Analysis. AJNR Am J Neuroradiol. 2014 Feb;35(2):250-5. PMID: 23945227
- Mir DI, Gupta A, Dunning A, Puchi L, Robinson CL, Epstein HA, Sanelli PC. CT Perfusion for Detection of Delayed Cerebral Ischemia in Aneurysmal Subarachnoid Hemorrhage: A Systematic Review and Meta-Analysis. AJNR Am J Neuroradiol. 2013 Dec 5. PMID: 24309123
- Gupta A, Baradaran H, Schweitzer AD, Kamel H, Pandya A, Delgado D, Dunning A, Mushlin AI, Sanelli PC. Carotid Plaque MRI and Stroke Risk: A Systematic Review and Meta-analysis. Stroke. 2013 Nov;44(11):3071-7. PMID: 23988640

Medical Center Archives

This section has done outstanding work this year by making a digital image collection of over 13,000 images available online. The Archives made historical reports available on the web with funding from the Metropolitan New York Library Council.

Weill Cornell Medical College as it was founded in 1898. It opened for classes in 1900, and was located at 477 First Avenue between 27th and 28th Streets. ▶



Medical Education

- First-year medical and graduate students are oriented to the library through their first team building exercises at Weill Cornell. Reflective of the new interactive curriculum being implemented in the fall of 2014, the Library's Treasure Hunt for first-year medical students teaches them to effectively use library resources while competing to solve QR code clues on a treasure map. The graduate students participate in a Murder Mystery, using library resources and QR codes to solve the mystery.



*Students
examine clues
during the
library's annual
treasure hunt*

- Students who participate in the Treasure Hunt or Murder Mystery are administered a survey afterwards to help Library/ITS staff learn about the learning styles of the students, so the training they design will be most effective. Dr. Joshua Richardson led a team of librarians in developing this survey and seeking IRB approval to publish findings.

Duplicating

Duplication increased their output of large-format posters, including event and scientific posters, by over 90% this year, printing 781 posters this year versus 410 last year.

DID YOU KNOW?
New branded templates for scientific posters are now available for download at intranet.med.cornell.edu/logo.

Clinical Course and Hemostasis Strategies in Patients with Severe Hemophilia A and Diffuse Large B-cell Lymphoma: A Single Center Experience and Review of the Literature
Barth C. Halperin, MD, Fred Mann, MD, Steven Kim, MD, PhD, Anna F. D'Onofrio, MD, John Chen, MD
 Dept. of Medicine, Division of Hematology/Oncology, Weill Cornell Medical College, New York, NY; Dept. of Pathology and Laboratory Medicine, Weill Cornell Medical College, New York, NY

DLBCL Course											
PI	Age	Sex	HL	HL-VL	CD4	HLV	HLV-VL	HLV-VL	HLV-VL	HLV-VL	HLV-VL
1	55	Male	N/A	N/A	Yes	231,000	ABC	RM, FL, spleen	20%	IV	4
2	47	Male	0	100,000	Yes	0	ABC	Peritoneum	5%	I	1
3	44	Male	0	254	Yes	1,652,274	immunoblastic	Colon	Unknown	Unknown	Unknown
4	20	Male	214	28	Yes	N/A	ABC	Uls, test, spleen	0%	IV	3

Background

- DLBCL is one of the most frequently diagnosed malignancies in hemophilia patients.
- One third of DLBCL patients are not cured or relapse after initial therapy.
- Management is complicated in this patient population and treatment guidelines have not been established.

Objectives

- To describe the clinical course and hemostasis strategies of 4 severe hemophilia A patients with DLBCL.
- To determine the optimal treatment in hemophilia patients with lymphoma receiving chemotherapy.

Methods

- We retrospectively evaluated the medical records of 4 lymphoma patients followed at the Weill Cornell Regional Hemophilia Treatment Center.
- We performed a systematic review of the literature to identify all cases of lymphoma in hemophilia patients. We searched PubMed, google.com, and reference lists of relevant papers.
- We included only cases that described hemophilia and hemophilia management.

Pathology

Hemophilia Management

- 25 IU/kg factor VIII daily for 1 week after each cycle of R-CHOP.
- 25 IU/kg every other day if pta<30 and 3 times weekly if >30 after relapse.
- Continuous infusion of factor VIII to maintain activity >100% during cycle 1 because of RP bleed at diagnosis.
- 30 IU/kg daily if pta<50 and every other day if >50.
- 25 IU/kg factor VIII daily if pta<50 and 3 times weekly if >50.
- 25 IU/kg daily in between cycles 1 and 2 because of GI bleed.
- 50 IU/kg factor VIII 3 times weekly throughout treatment.

Literature Review

In comprehensive review, only 2 hemophilia patients were identified for which factor use was described during treatment for lymphoma. Both underwent autologous SCT.

Patient 1: Plasmablastic lymphoma

- Prior to SCT: 40 IU/kg factor VIII daily if pta<50 and 2 times weekly if >50.
- During SCT: factor VIII daily to maintain activity >50%.

Patient 2: Mantle cell lymphoma

- Prior to SCT: 20 IU/kg factor VIII daily.
- During SCT: factor VIII daily to maintain activity >50%.

Conclusions

- Available data suggests a low rate of bleeding and
- Treatment of lymphoma in hemophilia patients should not

Upcoming Projects for 2014-2015

Faculty Development and Recruitment

- Hire a clinical medical librarian to fill a present vacancy
- Hire an associate director that can focus on content licensing and content integration into various workflows, as well as increasing access to information by pursuing semantic technologies

Mark Funk, FMLA, nationally known medical librarian and leader, retired August 1, 2014, after 27 years of service to Weill Cornell Medical College. ▶

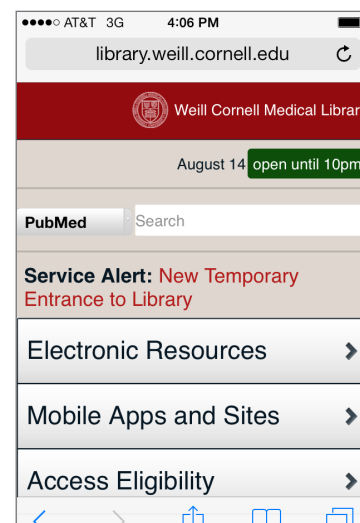


Staff Development

- Provide in-house teambuilding and skills training for staff development. This may include a corporate values exercise, project management training, or what the library director deems most appropriate to build a team and equip them for future challenges.

Services

- Institutional Repository: Develop a WCMC-hosted institutional repository (IR) that will be the central hub for storing any work produced at the college
- Archives: Develop procedures for preserving electronic records, and continue to digitize content and make it available online
- Instruction: Increase instruction to medical students in the curriculum
- Mobile Access: Increase access to content via mobile technologies through tactics such as optimizing the use of Browzine throughout the college (mobile site pictured at right)
- Identify organizational need for a unique new library service, and develop plans to offer it



Proposed Program Initiatives for 2015

- Scholarly Publishing Program: A suite of services to promote scholarly communication. This program would include an editing service with a plagiarism checking component, customized publication strategies, targeted grant writing courses for junior scientists, and targeted scientific editing training for staff. Some components of this service are already available through the library such as: bibliographic management software and training, systematic review support and training, and support for compliance with the NIH open access policy.
- Instructional Design Program: A suite of support services to develop staff training in the Weill Training Management System. This program would include instructional design support, identification of training resources already available in the public domain or commercially, licensing of necessary educational content in keeping with copyright law, copyright consultation, and other pedagogical services.
- Tech Demos: Regular 15-20 minute sessions to showcase new ITS technologies and services in the library's new demo area.
- Research Impact and Evaluation: An exploration of how publication data and bibliometric methods can best represent a researcher, a research group, or an organization's research impact, especially in coordination with already mature VIVO system infrastructure and reporting.

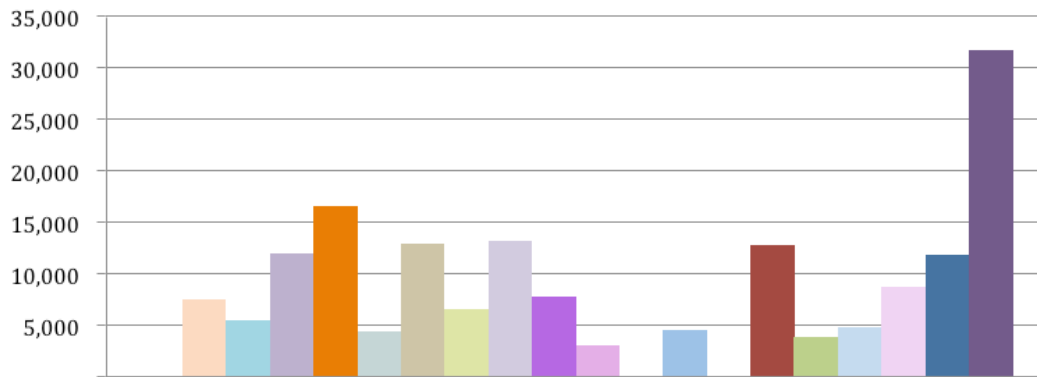
Key Statistics

- Electronic Journals: 12,719
- Electronic Books: 21,167
- Databases: 247





















New database purchases:

- **Browzine**, an iPad and Android tablet app that allows our users to quickly navigate thousands of e-journals and download PDF articles to their device. The user interface resembles the common newsstand format familiar to users. This was a joint purchase with Cornell Ithaca Library.
- **ClinicalKey**, a one-step clinical resource that simultaneously searches journals, books, practice guidelines, and drug information. Because of the large number of e-books included in this resource, we are able to significantly cut back on e-book purchases. This was a joint purchase with Weill Cornell-Qatar.
- **Turnitin**, a database requested by the Dean of the Graduate School that allows teachers to check student papers for improper citation or potential plagiarism.

Number of Journals* - U.S. News Top 20 Major Medical Schools



Legend - Universities by Rank

 1. Harvard University (stopped reporting in 2009)	 8. Columbia University	 15. Weill Cornell Medical College - NYC
 2. Stanford University	 8. Duke University	 15. Vanderbilt University
 3. Johns Hopkins	 10. University of Washington	 17. University of Pittsburgh
 4. University of Pennsylvania	 11. University of Chicago	 18. Northwestern University
 4. University of California - San Francisco	 12. University of California - Los Angeles (stopped reporting in 2009)	 19. New York University
 6. Washington University - School of Medicine	 12. University of Michigan - Ann Arbor	 19. Icahn School of Medicine at Mount Sinai
 7. Yale University	 14. University of California - San Diego (stopped reporting in 2011)	

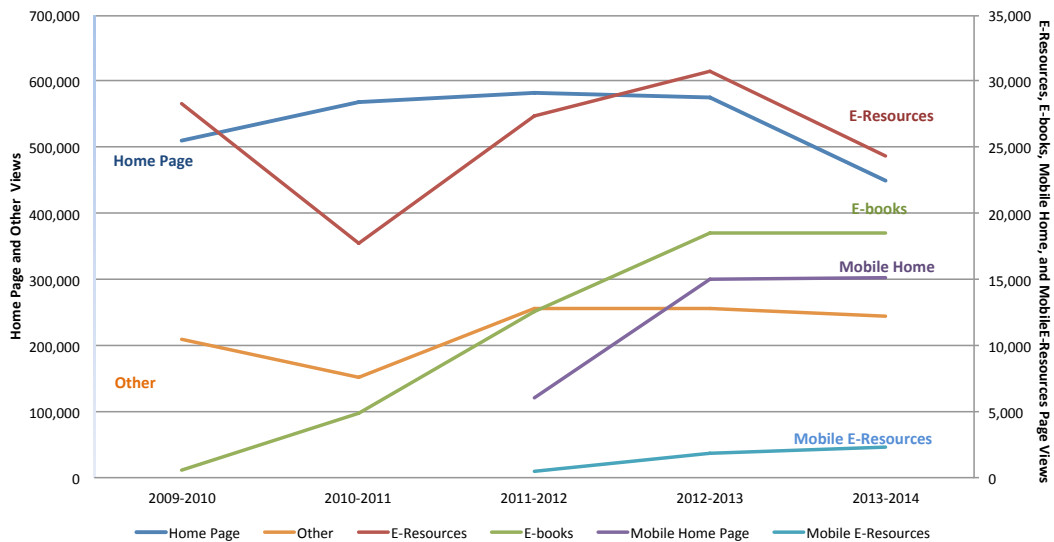
*Data from AAHSL (Association of Academic Health Science Libraries) Annual Report. Only medical library data reported. Most medical libraries share their campus with their parent university, requiring fewer licensed resources.

- Library reference transactions: 2,910
- Average time per transaction: 25 minutes
- Archives reference transactions: 450
- Average time per transaction: 53 minutes
- 40% WCMC/NYP and 60% other
- Number of onsite visitors to the Library: 217,949
- % WCMC: 51.99%, NYP: 33.46%, Other Affiliates: 14.56%
- Patient Resource Center
- Annual visitors: 6,187
- Educational seminars: 19
- Education sessions: 114
51 - Part of the student curriculum
81 - Evidence-Based Medicine education sessions (up from 42 last year)

Website:

- Total yearly views: 754,185
- Sessions (how often a user accesses the site in 30-minute intervals): 377,014
- Users: 129,758

Library Website Pageviews (2009-2014)



Website views over five years for home page, e-resources page, e-books page, mobile home page and mobile e-resources. Please note that many frequent users bookmark pages to access content without using our site, so traffic only reflects users who hit our site.

Most Popular LibGuides

Guide ID	LibGuide Topic	Views
295507	Evidence-Based Medicine	4,304
474835	Data-Intensive Research	2,256
422391	Pediatrics	1,119
452634	Health Informatics	1,006
401060	Translational Medical Research	963

The screenshot shows the 'Evidence-Based Medicine' LibGuide page. The main content area is titled 'Intro to EBM' and contains five steps, each with a brief description:

- ASSESS**: It all begins with a story
- ASK**: Fill in your background knowledge; move to current situation
- ACQUIRE**: Retrieve the best available evidence
- APPRAISE**: Critically review for validity, statistical significance and application
- APPLY**: Put knowledge to work

The sidebar on the right includes a 'Subject Guide' for Joshua Richardson, PhD, MLIS, MS, with contact information (446-962-2564) and links to 'Profile & Guides'. Below that, 'Selected Resources' include 'EBM Cheat Sheet', 'JAMAevidence', 'Master Worksheet', 'PubMed Basics TipSheet', and 'Searching PubMed with MeSH'. A 'Help' section at the bottom provides text and reference question options.

DID YOU KNOW?


LibGuides are handy research assistance, subject guides, and useful resources compiled by your friendly WCMC librarians. Navigate to library.med.cornell.edu to view them (also available in a mobile-friendly format!).

Other Pageviews


	Homepage	eResources	ebooks	Mobile Home Page	Mobile E-Resources
2009-10	510,260	28,277	569	N/A	N/A
2010-11	569,098	17,738	4,924	N/A	N/A
2011-12	582,169	27,375	12,515	5,995	479
2012-13	575,395	30,780	18,535	15,012	1,799
2013-14	448,453	24,353	18,498	15,148	2,312

Duplicating

- Processed 3,769 single/multi-product invoices
- Produced 1.3 million black and white copies
- Produced 260,000 color copies
- Produced over 500 copies of bound confidential reports for the Office of the Secretary
- Produced over 400 copies of bound books for the Department of Medicine
- Produced over 600 copies of bound books for the Office of Student Affairs
- Produced over 300 copies of bound confidential reports for the Office of the Associate Provost/Finance
- Produced 781 posters (scientific, informational/event, special recognition)


Weill Cornell Medical College
DEPARTMENT OF UROLOGY

Thirty Third Annual Victor F. Marshall Visiting Professorship



Ian M. Thompson, Jr., MD
 Professor of Urology
 Director, Cancer Therapy and Research Center
 The University of Texas
 Health Science Center
 San Antonio

**“The Nerves of Some People:
Metabolic Syndrome and LUTS Secondary to BPH”**

Monday, October 5, 2009

Room A-950 at
1300 York Avenue

7:15am-8:15am

WEILL.CORNELL.EDU

DID YOU KNOW?

Duplicating can help with your poster needs! You can visit the WCMC Branding website at intranet.med.cornell.edu/logo and view the available template samples.


VIVO Weill Cornell Medical College Index | Log in

connect • share • discover Search

[Home](#) | [People](#) | [Organizations](#) | [Research](#) | [Support](#)

Katherine A. Hajjar | Professor of Pediatrics

[Publications](#) | [Research](#) | [Background](#) | [Contact](#) | [Other](#)



Phone

(212) 746-2034 (Office)
(212) 746-3400 (Clinical)

- Professor of Pediatrics, Pediatrics, Weill Cornell Medical College 1995 -
- Professor of Pediatrics in Medicine, Joan and Sanford I. Weill Department of Medicine, Weill Cornell Medical College 1996 -
- Professor of Cell and Developmental Biology, Cell and Developmental Biology, Weill Cornell Medical College 2002 -
- Brine Family Professor of Cell and Developmental Biology, Cell and Developmental Biology, Weill Cornell Medical College 2005 -
- Chairman of Cell and Developmental Biology, Cell and Developmental Biology, Weill Cornell Medical College 2002 - 2014
- Stavros S. Niarchos Professor in Pediatric Cardiology, Pediatrics, Weill Cornell Medical College 1997 - 2002

THE BIOLOGY OF ANNEXIN A2-MEDIATED CELL SURFACE PROTEOLYTIC SYSTEM

DID YOU KNOW?

VIVO, an online directory that connects researchers at WCMC, went live in beta in January 2014. This service allows researchers to find colleagues, search by research topics, collaborate with others, and promote their work. Visit vivo.med.cornell.edu for more details.



Security, Identity Management & Compliance

The Security, Identity Management & Compliance group exists to guard Weill Cornell's reputation and brand with one simple credo – protect our systems. The College produces incredible amounts of data on a daily basis involving patients, students, research, accounts, and other sensitive information. This team works to prevent data from being compromised and becoming the next news story.

To do this, Security, Identity Management & Compliance balances security with usability to provide effective, safe services. The team also finds solutions to effectively manage identity information and access to data and systems. This includes using cutting-edge, proactive, and reactive technologies and best-practice processes to ensure a safe and secure computing environment.

Highlights from 2013-2014

Upgrading WCMC's authentication system

This past year, we replaced our outdated password authentication system, RADIUS, in favor of a new system called ClearPass, a robust tool that will be key in upgrading our wireless services so connecting to our network is much easier and faster to use.

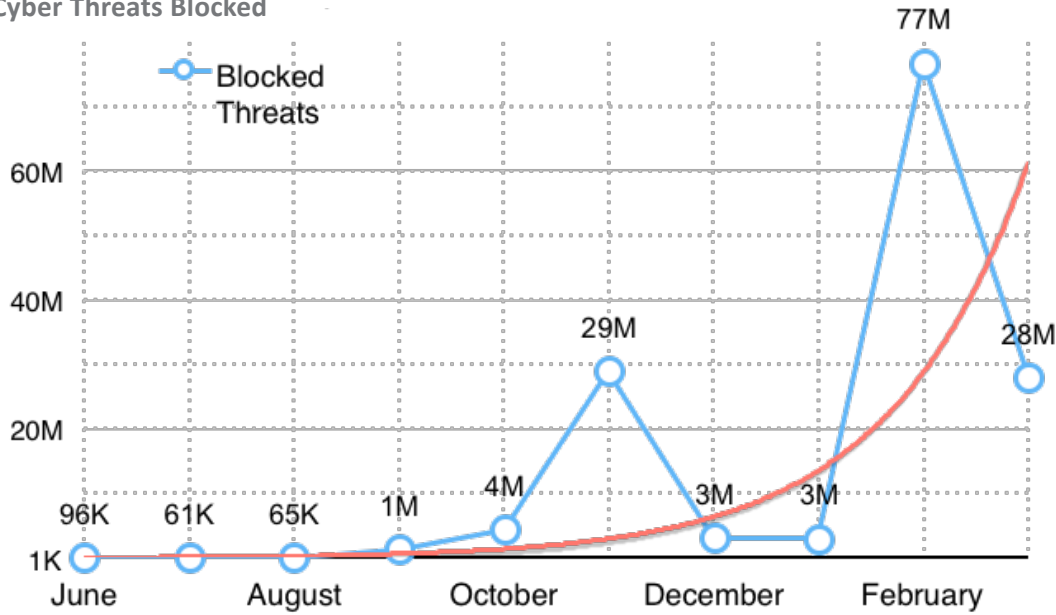
Replacing our firewalls

New Cisco firewalls were installed that are at least 10 times more powerful and help maintain security without interfering with high-speed data transfers and Internet connectivity.

Improving core security infrastructure

To ensure our systems continued to detect and block the latest threats, we implemented new cutting-edge technologies known as "Next Generation Firewalls and Intrusion Prevention Systems" and "Advanced Threat Detection" to detect and block millions of potential cyber threats (see graph on next page).

Cyber Threats Blocked



DID YOU KNOW?
 In less than a year, we have detected an increase in the number of monthly attacks on our network from thousands to millions.

Other Completed Projects

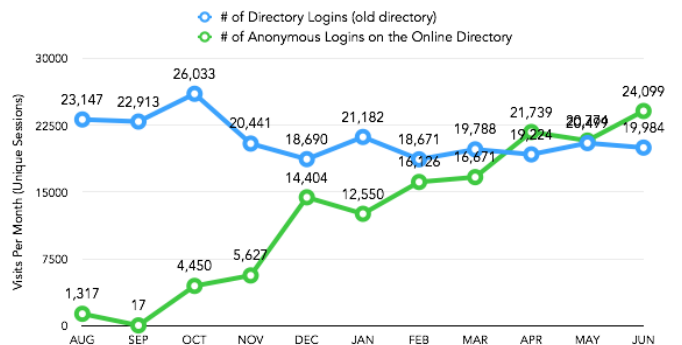
- HIPAA Security and Privacy Program Review (in progress)
- HIPAA Assessment and Methodology Development
- BitLocker Encryption (in progress)
- Secure Remote Data Archive – Implemented a new, cost-effective data storage option for WCMC researchers
- Advanced Malware Protection (in progress)
- Replaced BlueCoat web proxy with inline Intrusion Prevention System (IPS) based URL Filtering
- **eduroam** – New wireless network which will allow WCMC employees to log into wireless services at participating institutions with their own CWID and password for easy access (in progress)

Upcoming Projects for 2014-2015

Online Directory

- Online Directory improvements (onlinedirectory.weill.cornell.edu), including improved user interface, clinical and faculty attributes, photo uploads, delegated profile administration, administrative titles and vanity email addresses, better reporting, and integration with the main WCMC website
- Master Data Management for Online Directory, data integrity, and expansion to other systems to ensure shared data is kept up-to-date

Logins of New Directory vs. Old Directory (8/2013-6/2014)



Authentication

- Password management software to promote the use of highly secured passwords, synchronize across desktops, laptops, and mobile devices
- Multi-factor authentication for securing email and remote access.
- Multi-factor authentication for Epic, which allows physicians to electronically prescribe narcotics
- Improved self-service password resetting
- Registration and authentication system to provide secure access to WCMC systems for non-employees

Data Loss Prevention (DLP)

- Security Incident and Event Monitoring System Redesign with improved log management and reporting
- Data Loss Prevention system upgrades and release of self-service software with Mac compatibility
- Data center network segmentation designed to promote secure network boundaries enabling higher degrees of security for systems with confidential data, and greater autonomy and control for users of systems with less-sensitive data.

Other projects

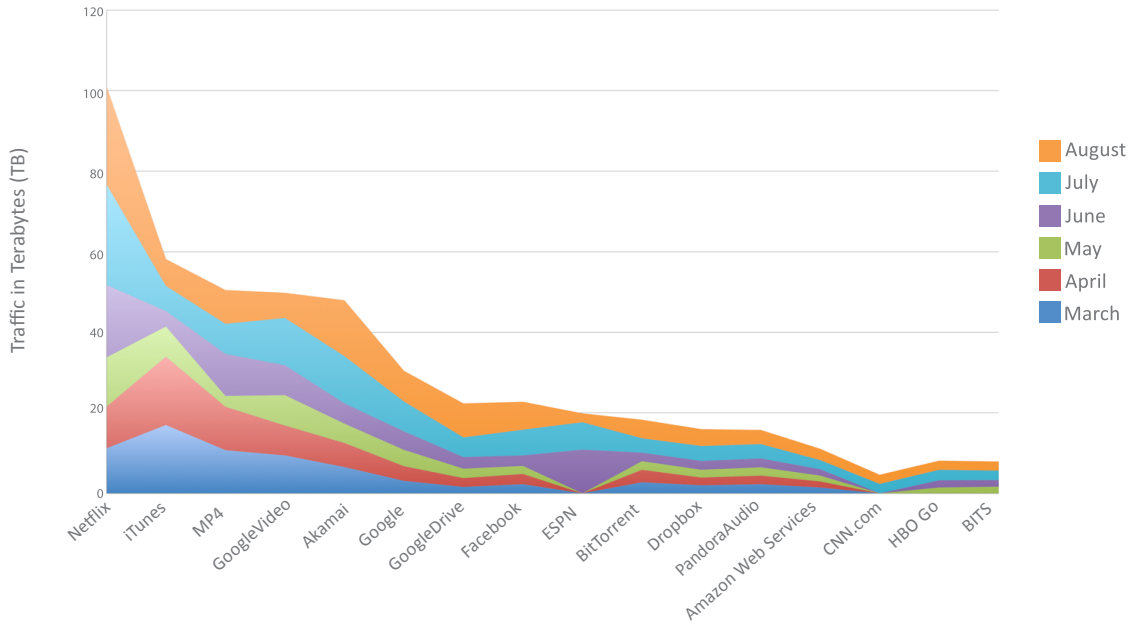
- Improved wireless systems with different levels of guest access with secure and simple provisioning
- Implementation of network and desktop based advanced malware protection
- New BitLocker encryption technology for Windows laptops and desktops

Key Statistics

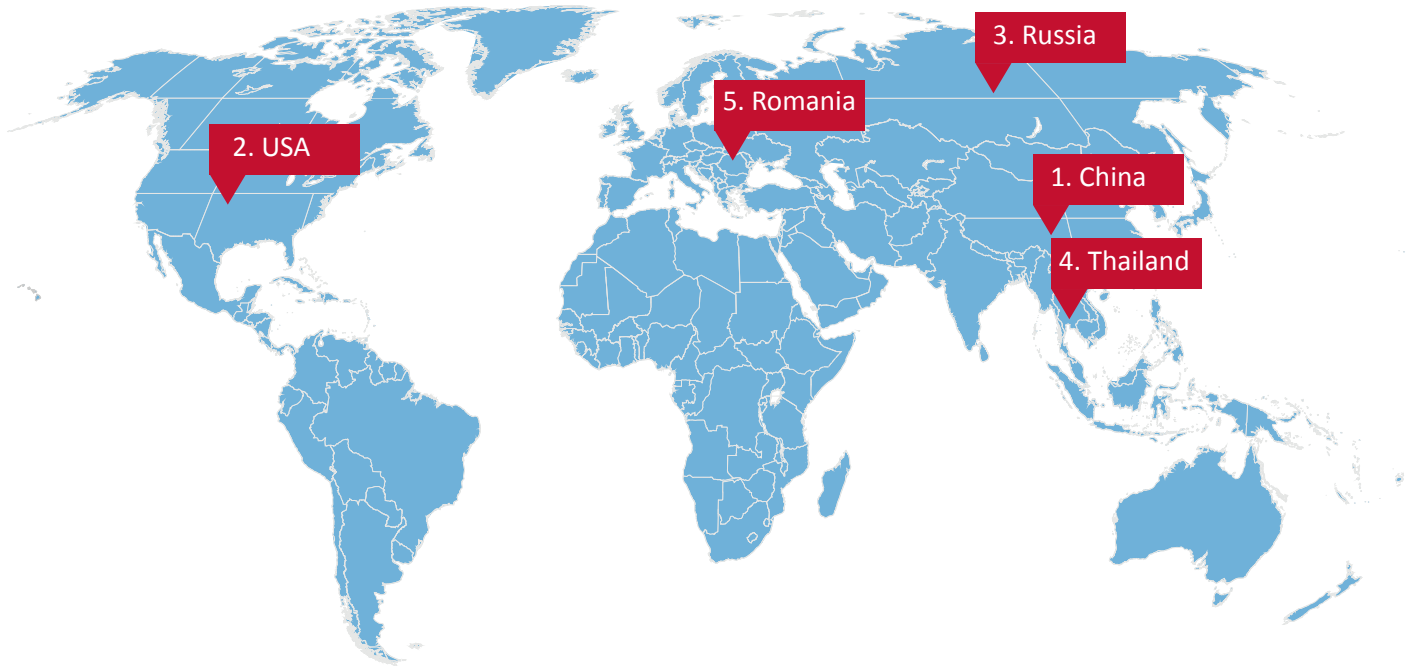
- Percentage of all campus devices encrypted
 - 54% of all laptops (1,581)
 - 75% of all tablets (1,114)
 - 60% of smartphones (1,526)
- Number of security alerts responded to per month
 - 751 total alerts
 - % sent to USG for investigation: 28%
 - % actual security incidents: Less than 1%
- Average number of DMCA* notices for month: 3
- Number of legal or forensic investigations with avg. time spent: 3 per month at 9.4 hours spent on each
- Average number of malicious websites blocked per month: 60,000

**Digital Millennium Copyright Act – criminalizes production and dissemination of technology, devices, and services intended to circumvent measures that control access to copyrighted works.*

Top Services by Bandwidth



Top 5 Countries Sending the Most Malicious Online Attacks to WCMC



DID YOU KNOW?

The Security team is diligent in protecting our systems from online attacks from around the globe. This fiscal year, we experienced attempts to send malicious attacks from 80 different countries!



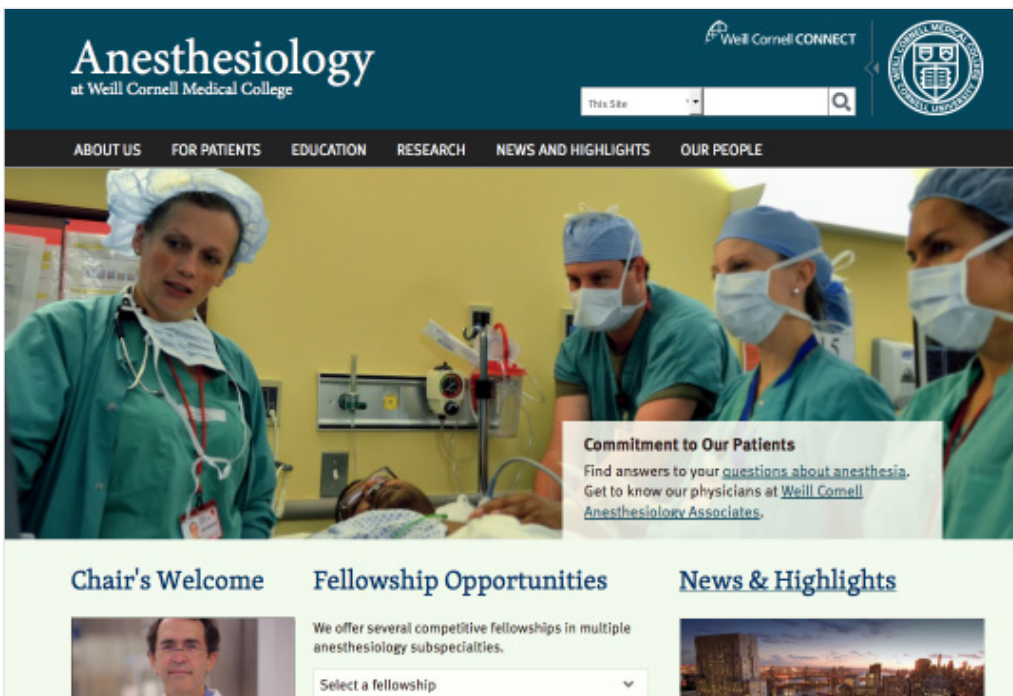
Web Communications

Web Communications offers an array of business, creative, and web development services to help the Weill Cornell community communicate with the world. We create, maintain, and orchestrate nearly all of the College’s public-facing web presence.

Highlights from 2013-2014

Drupal Conversion

Over the last year, ITS has launched nineteen websites on WCMC’s new Drupal infrastructure, with the PO’s web presence, weillcornell.org, launching shortly after the start of FY15. Twelve of these sites were completed using the WCMC Drupal Distribution, our new common framework for College websites. This on-going conversion process provides WCMC with a modern, sustainable, uniform platform for managing and integrating websites.



The new Anesthesiology website was developed using the WCMC Drupal Distribution

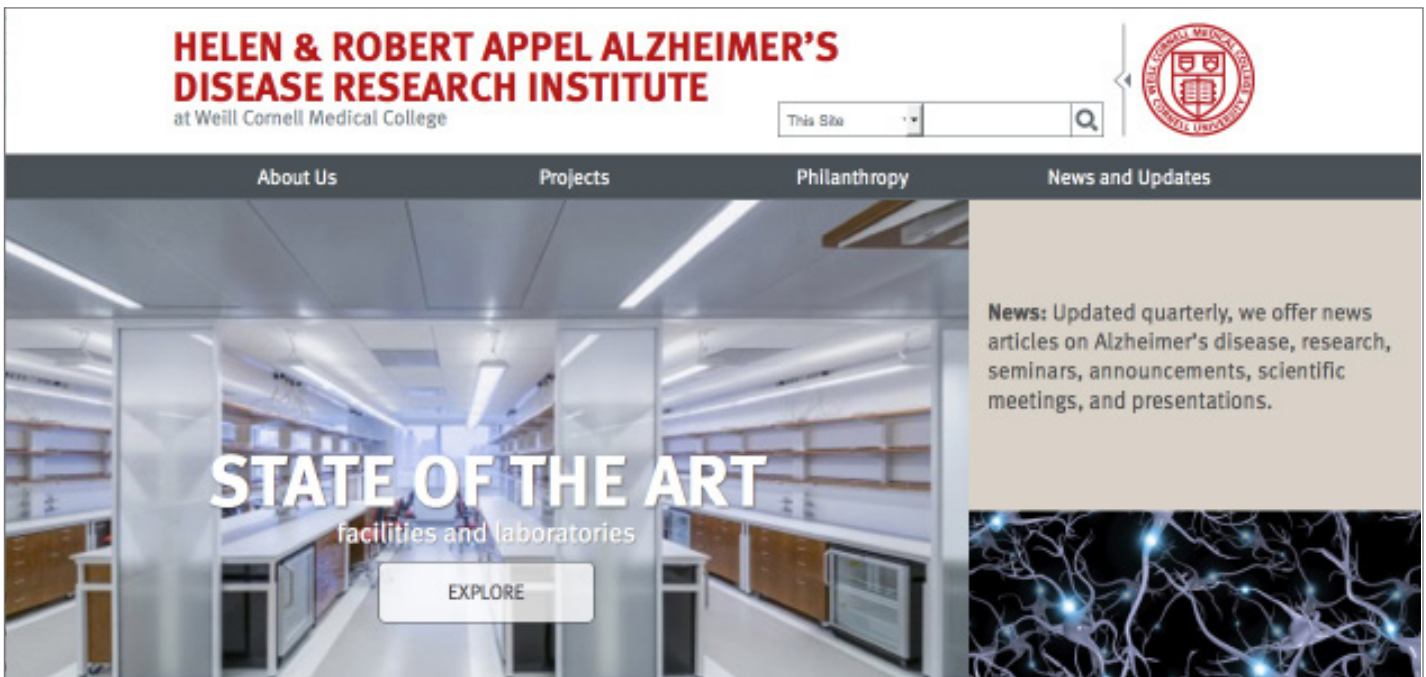
Sites launched on Drupal that were developed by Web Communications included:

- Anesthesiology
- Center for Advanced Study of Brain Injury
- Center for Human Rights
- Emergency Operating Information
- Joint Clinical Trials Office
- Minimally Invasive New Technologies
- Pain Medicine
- Division of Quality & Patient Safety
- Radiation Oncology

An additional nine sites were completed by outside vendors under joint direction of Web Communications and the client department.

Drupal Distribution

The Web Communications team completed three quarterly releases of the WCMC Drupal distribution, our base framework for site building. The platform is used internally by Web Communications, externally by contracted vendors, and on occasion by departments who have the capacity and ability to build their own website. ▼



NYP Separation

Web services were successfully disentangled from being jointly shared with NewYork-Presbyterian without significant impact to the web operations of either institution.

Web Governance

The Web Governance Committee convened seven times in the reporting year, reviewing topics such as social media usage, domain registration standards, branding and logo usage at Weill Cornell, WCMC Drupal, profile systems, site hosting, and web accessibility.

Core Applications

To better foster the connections between the Core Applications team and their primary collaborators – enterprise computing and research administrative computing – the team was spun off into a new unit, lead by Jose Garcia.

Peer & Community Collaboration

The team shared details of its Drupal implementation strategies at three events:

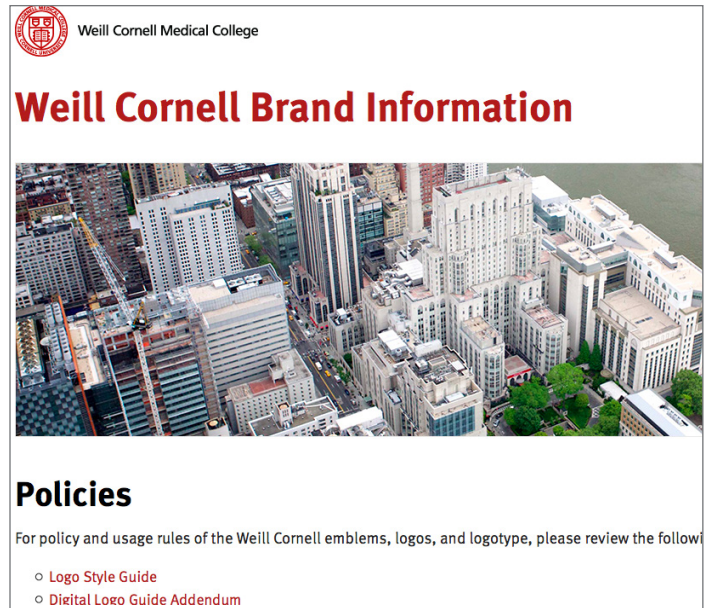
- Cornell Drupal Camp, held December 2013 in Ithaca
- ITS SMARTFest, held December 2013 in the Samuel J. Wood Library
- NYCCamp, held April 2014 at the United Nations

Strategic Plan

We have worked to create a new strategic plan (FY15-16) for Web Communications, which will reposition our resources and services to help deal with rapid college expansion, new institutional brand strategies, and renewed interest in using the web as a conduit for all areas of college business.

Other Completed Projects

- Since its launch in July 2014, the next generation of the clinical profile system, POPS, has been a key project for much of the reporting year. The new version (along with a Drupal-based version of weillcornell.org launching in parallel) will transform POPS from a traditional web profile system to a reusable data repository for multiple systems and sites.
- We launched a new streamlined website for the Research mission of the college to replace the previous Research and Sponsored Programs (RASP) website. Working in conjunction with multiple research administrative units and External Affairs, the new site is a new central hub for information about WCMC's discoveries, cutting-edge centers, and support services.
- We served a guiding role in the creation of "100 Little Things," a crowdsourcing function for ITS staff to suggest small changes that will make our users' lives better. We hope to roll it out to the wider WCMC community in FY15.
- We released revised institutional templates that can be better utilized to create documents, presentations, and posters with correct institutional branding. Our Art & Photography team is available to help departments prepare materials for a variety of purposes.



Redesigned WCMC Brand Information website, which contains official logos, templates, and policies. Available at intranet.med.cornell.edu/logo. ▲

Upcoming Projects for 2014-2015

WCMC Drupal: Continue development and implementation of this critical platform for WCMC's web strategy

- Continue quarterly releases as necessary for feature enhancements for all WCMC websites
- Begin redesign and migration of weill.cornell.edu for Drupal
- Redesign weillcornell.org
- Create turnkey Drupal solutions for research labs and student groups

Standardize & Optimize Projects: Define new processes to streamline our ability to start projects and rapidly complete them

- Integrate new staff roles into project pipelines
- Implement new tools to facilitate rapid collaboration with clients on site deliverables
- Simplify project planning and chartering
- Develop clear policy to deal with project schedule exceptions

Switch to Institutionally Driven Portfolio: Begin the work to transition from a client-request driven project model to one closely aligned with mission-level goals

- Develop standard processes and services for portfolio management/review with mission stakeholders
- Create new client project intake process that ties projects to mission portfolios
- Review web funding model and optimize it for this new model

Enhance Compliance & Consistency: Provide a more uniform experience and stronger brand across all WCMC websites, and increase web policy compliance to improve access to institutional information resources.closely aligned with mission-level goals

- Develop and communicate comprehensive web accessibility policy and strategy
- Re-engineer internal ITS processes for domain name provisioning, SSL certificate requisition, and system branding
- Begin implementing fixes for non-accessible web properties
- Begin implementation of new WCMC and Physicians Organization brand strategies, including efforts to create a unified, consistent design system across all web properties

Create Analytics Architecture: To gauge the effectiveness and value of individual websites, develop a modern process framework to analyze traffic and user engagement

- Build deep web analytics knowledge across the Web Communications team
- Develop and implement analytics architecture

Begin Creation of a WCMC Internal Communications Channel: Better facilitate internal information distribution with a new communications channel, to replace the existing “WCMC Intranet”

- Complete user research, planning, and design project deliverables for a new internal communications channel
- Begin implementation for internal communications channel

Revolutionize Design Culture: Increase value and understanding of good design and usability across the institution to increase productivity and employee/customer satisfaction

- Develop formal processes and services for usability review of ITS systems
- Build design pattern library and best practices for WCMC application user experience

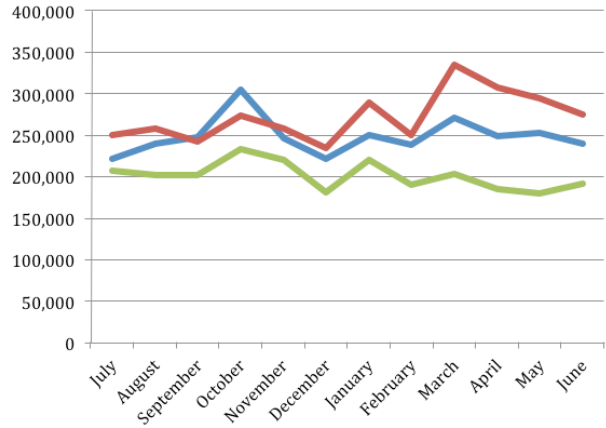
Build a Web Community: Create new channels of communication and knowledge sharing to allow Web Communications to serve not just as a service provider, but as an advisor and a partner to units across the institution

- Increase collaboration and knowledge sharing with peer institutions
- Complete build-out of the WCMC Web Handbook
- Open issue tracking and roadmap for WCMC Drupal to community
- Create WCMC Web special interest group for internal knowledge sharing

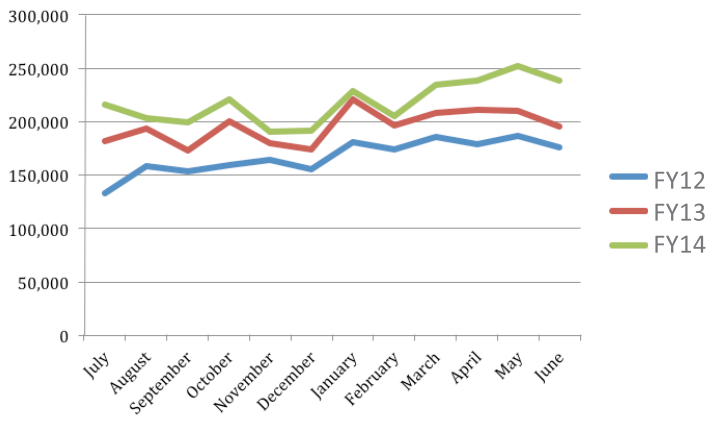
Key Statistics

Traffic to Major WCMC Websites

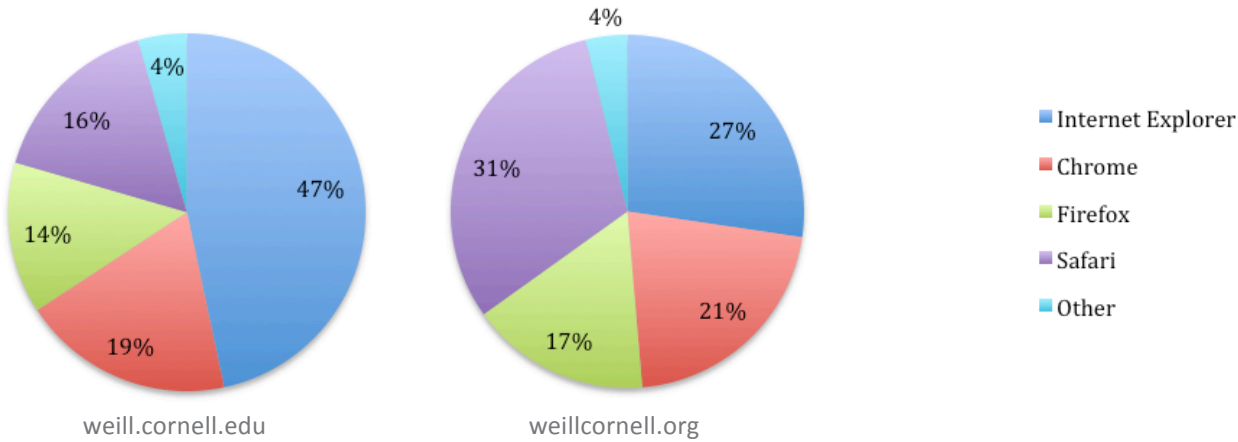
weill.cornell.edu Visits By Month, July 2013 – June 2014



weillcornell.org Visits By Month, July 2013 – June 2014

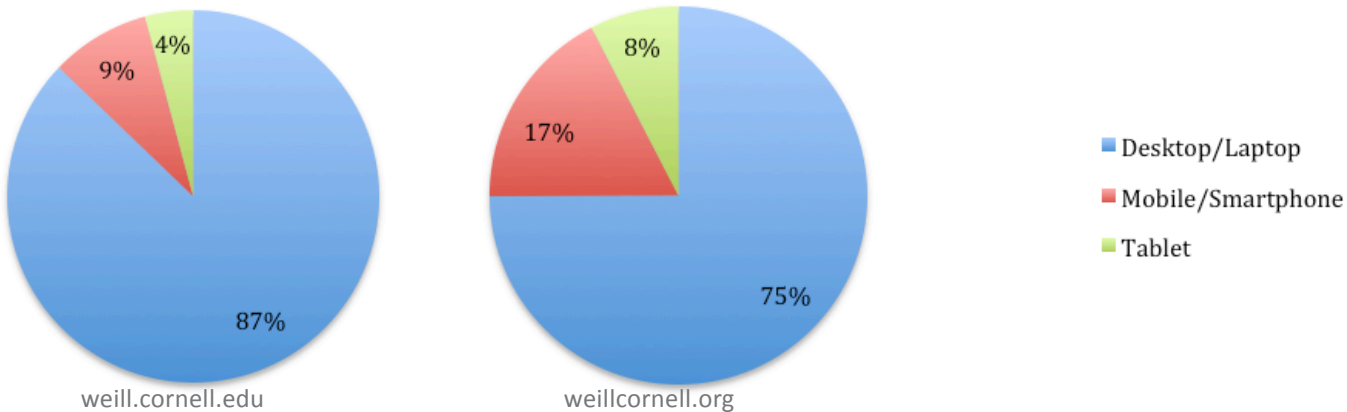


weill.cornell.edu and weillcornell.org Visits by Browser, July 1, 2013 - June 30, 2014



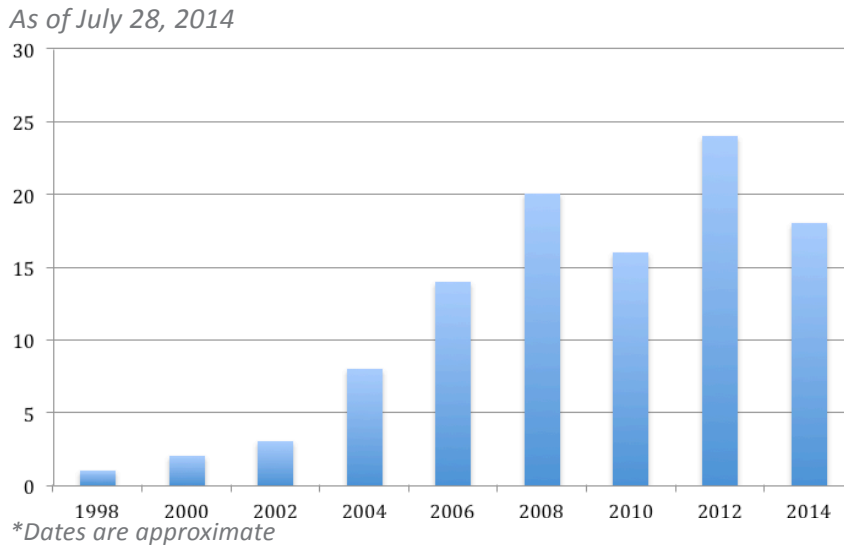
*Use of Internet Explorer and Firefox has been falling while Safari and Chrome are increasing.

weill.cornell.edu and weillcornell.org Visits by Device, July 1, 2013 - June 30, 2014



*Use of mobile browsers is rising for both sites.

WCMC Public-Facing Websites By Last Rebuild Year



WCMC Search (Google Search Appliance)

Top 20 Search Queries To WCMC Search Collection, July 1, 2013 – June 30, 2014

- | | |
|------------------------------|--|
| 1. "human resources" (6,965) | 11. "infonet" (1,770) |
| 2. "jobs" (3,696) | 12. "medical records" (1,767) |
| 3. "insurance" (3,281) | 13. "benefits" (1,597) |
| 4. "library" (2,861) | 14. "human resources department" (1,445) |
| 5. "billing" (2,611) | 15. "employment" (1,429) |
| 6. "careers" (2,588) | 16. "nursing" (1,331) |
| 7. "volunteer" (2,409) | 17. "its" (1,302) |
| 8. "parking" (2,226) | 18. "career" (1,152) |
| 9. "intranet" (2,156) | 19. "tuition" (1,099) |
| 10. "email" (2,015) | 20. "internship" (1,054) |

Top 20 Individual Search Keywords To WCMC Search Collection, July 1, 2013 – June 30, 2014

- | | |
|-----------------------|----------------------|
| 1. human (13,200) | 11. dr (7,394) |
| 2. medical (13,028) | 12. email (7,041) |
| 3. resources (11,769) | 13. weill (6,996) |
| 4. health (9,114) | 14. jobs (6,693) |
| 5. insurance (8,685) | 15. medicine (6,311) |
| 6. department (8,495) | 16. office (6,207) |
| 7. cornell (8,490) | 17. billing (6,047) |
| 8. patient (7,780) | 18. program (5,975) |
| 9. research (7,486) | 19. hospital (5,554) |
| 10. center (7,438) | 20. services (5,109) |

Art & Photo

Print Design & Illustration Jobs, July 2013 – June 2014

Total jobs: 102

Photographic Service Jobs, July 2013 – June 2014

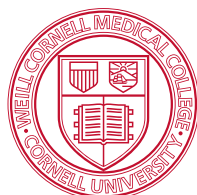
Individual & Group Photos: 928



Appendix: POIS Annual Report

Note that Physicians Organization Information Services (POIS) is not a division of ITS, though we work extremely close together and share many staff. The POIS Annual Report is included here to help provide a more complete picture of IT activities at the college.

1300 York Aveue
New York, NY 10065
Tel: 212-746-4878
weill.cornell.edu/its
support@med.cornell.edu



Weill Cornell Medical College
Information Technologies & Services



Weill Cornell Medical College
Physician Organization

Physician Organization Information Services
Fiscal 2014 Year-End Report



POIS Administration

Accomplishments:

- Recruited new assistant divisional administrator
- Implemented new Epic training enrollment tool
- Transitioned 15 POBO staff/lines to POIS
- Assisted with the Code of Federal Regulations Title 21 Part 11 Certification
- Oversaw facility improvements on third floor of 575 Lexington to create new permanent seating

Key Statistical Snapshot:

- Total '13-'14 allocated budget: \$22M
- Total revenue and recoveries (expected): \$4.8M
- Total POIS staff: 83 Total current vacancies: 12
- Total ITS FTEs funded by Physician Organization: 22
- Staff turnover rates:
 - New Hires: 8
 - Departed Staff: 9
 - Annual staff attrition rate: 11.3%
- Total empty seats at 575 Lexington (3rd floor): 3

Practice Access Initiative

Accomplishments:

- Inside Access Dashboard
 - Revamped and reconfigured the Inside Access Dashboards to migrate from the GE to Epic data model

Key Statistical Snapshot:

- Inside Access Dashboard:
 - Total dashboards distributed: 2,052 (2736 last year)
 - Total recipients: 168 (190 last year)
- Mystery Caller Survey:
 - Total mystery survey calls: 6,077 (6407 last year)
 - Total dashboards distributed: 1,615 (2052 last year)
 - Total recipients: 116 (190 last year)

Accomplishments:

- A total of 175 projects were completed (↑42.6% over last year)
 - 72 Practice Management related projects
 - **Highlights:** Transitioned all departments to Epic practice management system, Enhanced Televox automated appointment reminders, Implemented new billing statement, Multiple optimizations of registration, referral, and revenue cycle work-flows, Implemented new research registration and billing functionality, Optum Claims Manager Upgrade
 - 7 New EHR/PMS implementations--PO practice units:
 - **Highlights:** Internal Medicine at Women's Health Center, Pulmonary PFT, Neurology at 156 William, Executive Physical Program, Student Health Program, Cardiology in Brooklyn, Oral Pathology
 - 7 New EHR/PMS implementations--WCPN sites:
 - **Highlights:** New York Neurological Associates, Manhattan Medical Phase 1, Union Square Rehabilitation, Dr. Lucak, ENT on 5th Ave, Arthritis and Osteoporosis in Brooklyn, Physical Therapy on 78th
 - 51 Practice specific optimizations:
 - **Highlights:** Therapy plans module, Perioperative request workflow, 40 Epic department level moves/splits to account for expansion, Implemented 5 departments on the electronic lab orders interface
 - 22 Operational (system enhancement) projects:
 - **Highlights:** Automated referring provider letters, Discrete prescription instructions, ICD10 Stage 1 conversion, Standardized training request system, Enhanced faxing from Epic, Epic integration with vital sign devices, Ambulatory MAR
 - 16 Meaningful Use and Weill Cornell Connect projects:
 - **Meaningful Use Highlights:** Stage 1, 2 and 3 provider registration and attestations, MU compliance reports (year 1, 2, and 3), Implemented solutions for 4 new MU measures with focus on patient engagement and interoperability
 - **Weill Cornell Connect Highlights:** Access for POBO customer service to provide codes, New implementations at the Pediatric Clinic on HT5 and Men's Health at 61st, Implemented new electronic patient questionnaires
- 90 system maintenance updates/patches implemented (↑15.4% over last year)

Key Statistical Snapshot:

- Support tickets closed: 42,300 (↑54.4% over last year)
 - Cases resolved in one business day: 72.8% (goal of 70%)
- Epic development/configuration items migrated to production: 4,048 (↑45.9% over last year)
- Quality assurance testing/audits: 2,064 hours (↓10.1% from last year)
- Epic Ambulatory users trained: 2,250 (↑11.9% over last year)
- Epic PM users trained: 2,847 (↑225.7% over last year, full PM go-live)
- Active Epic users : Attendings: 1,006 House-officers: 849 Total: 6,465 (↑11.9% over last year)
- 2013 Meaningful User attestations: 419 providers (Year 1, Year 2, and Year 3 groups)
- 2013 Meaningful User incentive dollars: \$3.1M

Accomplishments:

Interfaces

- Newly Implemented Clinical Interfaces:
 - Cardiology procedure results (NYPLMH) from Prosolve to Epic
 - Radiology results (NYPLMH) from ImageCast to Epic
 - Laboratory results (NYPLMH) from Cerner to Epic
 - Vaccine interface from Epic to City Immunization Registry
 - Pulmonary function test results from CareFusion to Epic
 - Prescription fill history from RxHub to Epic
 - Vascular imaging results from Penvasc to Epic
 - Converted laboratory results interface from Cerner to Epic to new MU-compliant standard

- Newly Implemented Practice Management Interfaces:
 - Schedule conversion from GE to Epic PM
 - Automation of payment posting for Global Package Payments in Epic PM
 - Intellicred insurance participation data to Epic PM
 - Scheduling interface from Soarian to Epic PM
 - Calendar interface from Epic PM to Outlook
 - CodeRyte (radiology) charges to Epic PM
 - Charge interface from Copath anatomic pathology to Epic PM
 - Charge interface from Cerner clinical pathology to Epic PM
 - Charge interface from OB imaging to Epic PM
 - Charge interface from IVF EHR to Epic PM
 - Charge interface from TamTron anatomic pathology (NYPLMH) to Epic PM
 - Charge interface from R4 imaging (NYPLMH) to Epic PM
 - 4 registration conversions to support WCPN initiative

- Operational/Development Enhancements:
 - 422 projects/tasks related to general operations including ongoing roll-out of electronic lab orders interface, conversion and new implementation of inpatient charge-capture super-bills

Data Dictionaries, Data Quality, and Content Management

- TruData (clinical data dictionary):
 - Maintained mappings and data dynamics for 20+ clinical entities (Laboratory, Radiology, EHR)
 - Added ~2400 new procedures, committed ~2000 new local mappings
 - Added ~2900 new result components, ~2400 committed LOINC assignments
 - Added ~134,000 local laboratory, radiology, clinical attributes
 - Added new concepts, synonyms, and transformations/relationships (~70,000 changes)
 - Added Syngo, Prosolv cardiology mappings to Epic order catalog
 - Maintained most recent controlled vocabularies – LOINC, SNOMED, CPT/HCPCS
 - Implemented new microbiology mappings for the HL7 2.5.1 MU upgrade
 - Consolidated radiology order catalog with NYPLMH
 - Performed mapping conversion of allergen tests/results for the Labcorp platform upgrade
 - Maintained and facilitated vaccine (CVX) and manufacturer (MVX) mappings for transmission to NYC vaccine registry

- Provider Dictionaries:
 - Added 45,300 provider records into the Master Provider Index
 - Created various summary reports to improve provider data quality/matching
 - Upgraded Intellicred from v11.3 to v12.3 and implemented several system enhancements:
 - Added Medicare/ Medicaid participation status
 - Added model for maintaining non-IPA providers
 - Enhanced workflow for insurance participation information between Intellicred and Epic
 - Incorporated 8 new facilities/insurance into Intellicred - added associated provider data and adjusted internal/Cognos reports.

- Epic Master File Content Management:
 - Maintained core clinical master files within Epic system
 - Performed quarterly/annual RVU, CPT/HCPSC, SNOMED updates
 - Performed various master file/dictionary maintenance and cleanup for the PM upgrade
 - Performed monthly/annual medication updates
 - Implemented NDC/J-code crosswalk and updates
 - Performed NDC and HCPCS code crosstalk mappings for billing
 - Performed oncology and therapy plan medication protocol builds
 - Performed IMO ICD-10 and ICD-9 regulatory code upgrade
 - Adjusted patient identity matching algorithm to reduce duplicate patient records

Key Statistical Snapshot:

- Number of prescriptions transmitted electronically: 647,424 (563,771 last year)
- Number of pharmacy benefit queries: 1,236,907 (1,179,898 last year)
- Number of electronic lab orders: 955,740 (632,418 last year)
- Number of electronic radiology orders: 111,044 (95,581 last year)

Web Presence/Portals

Accomplishments:

WeillCornell.org

- Institutional Portal:
 - Migrated WeillCornell.org to a new content management system (Drupal) and externally-hosted web service (Pantheon) to improve overall web site performance
 - Improved POPS publishing times from daily to hourly
- POPS:
 - Provided support for displaying multiple practice locations at both the practice and provider profiles (v6)
 - Developed and released a brand new profile content editor (v7) to improve the content editing experience, a responsive design, and overall application performance
 - Built a read-only application programming interface (API) to publish content to WeillCornell.org
- Find-A-Physician/Smart Search:
 - Developed an administrative console to manage search configuration settings, including
 - Exclusion lists for non-referable specialties
 - Sensitivity of relevant results from IMO-managed terminology mappings
 - Exclusion lists for non-referable providers or those missing key referral content

WeillCornell.org Visit Statistics, Fiscal Year 2013/2014 Comparison

Visit Category	FY 2012-13 (Google Analytics)	FY 2013-14 (Google Analytics)
Total Sessions	2,361,194	2,614,503
Unique Visitors	1,238,076	1,319,842
Return Visitors	1,123,118	1,294,661
Average Visits per Day	6,469	7,163
Average Visit Duration	00:02:04	00:02:02
International Visits	4.27%	4.21%
Visits of Unknown Origin	0.30%	0.08%
Visits from Your Country: United States (US)	95.43%	95.71%

Top 10 Traffic Sources

	Source / Medium	Sessions	% Sessions
		% of Total: 2,614,503	% of Total: 2,614,503
1	google / organic	1,287,494	49.24%
2	(direct) / (none)	768,700	29.40%
3	weill.cornell.edu / referral	91,574	3.50%
4	bing / organic	78,047	2.99%
5	weillcornell.org / referral	68,678	2.63%
6	yahoo / organic	47,869	1.83%
7	mychart.med.cornell.edu / referral	25,126	0.96%
8	cornellmedicine.com / referral	17,788	0.68%
9	cornellobgyn.org / referral	15,811	0.60%
10	povm-imosrhp01.med.cornell.edu (Smart Search) / referral	15,659	0.60%

Weill Cornell Connect

- Implemented a new user interface for Weill Cornell Connect to improve system navigation
- Activated self-directed on-line scheduling via Weill Cornell Connect within Primary Care
- Activated on-line bill payment via Weill Cornell Connect
- Implemented patient questionnaires via Weill Cornell Connect

Key Statistical Snapshot:

- Total active physician on-line profiles: 1260
- Total active practice on-line profiles: 320
- Total patients enrolled in Weill Cornell Connect: 85,000 (53,500 last year)
 - Average monthly enrollment of new patients: 2,486 (1,506 last year)
 - Activation rate (percentage of patients who use system access code): 53.3% (55% last year)
- Total Weill Cornell Connect participating providers: All Epic providers (592 last year)

Accomplishments:

Reporting

- **User Quality, Operations, and Regulatory Reporting:**
 - HEDIS 2014 measure reports
 - Empire bonus program quality reports
 - United Medicare Advantage reports
 - HIP Medicare/Medicaid diagnosis reports
 - AMGA Hypertension reports
 - Mathematica clinical quality measure data extraction
 - Choosing Wisely metric reports
 - Patient Centered Medical Home reports
 - Care management data extracts
 - PQRS reports from Epic Practice Management system
 - Meaningful use stage I & II reports
 - Patient/Inside Access dashboard project
 - NYP quality reports: ePrescribe rates, diabetes care, cancer registry, Flu vaccine data

- **Department/Division Reporting:**
 - Created 75 + departmental/divisional clinical and practice operations reports
 - *Academic Departments/Divisions Serviced:* Pediatrics, Primary Care, WCIMA, WCCC, Anesthesiology, Hematology/Oncology, Nutrition, Ophthalmology, Surgery, OBGYN, Endocrinology, Wright Center, Adult CSS, CT Surgery, NYP ACN, Center for Liver Disease, Audiology, Sleep Center, Dermatology, Cardiology, Neurology, Neurosurgery, Pathology

- **Research Reporting:**
 - PCORI Clinical Data Research Network reports
 - Medicine – HCC Screening Study, Dual Therapy in Diabetes, AMGEN 145 Patients 40-85 with CVD, MI, PAD, Non Hemorrhagic stroke, Geriatrics House Calls, Scheff Brain Tumor Patients, Darunavir Search of CSS, Novartis Canakinumab, GID Epic Query, Qsymia Epic Query, Leukemia Program database Novartis ETT Potential Subject
 - Public Health – HIV-Lymphoma Quality Measures
 - Pediatrics – Validity of ICD-9 Codes for Epilepsy, Celiac Disease, Pediatric HbA1C , Child Neurology Outpatients under 3, Prevalence of Vitamin D Deficiency among Pediatric Patients
 - Urology – Testosterone/Hypogonadism, Testosterone Levels After Exogenous Treatment
 - Neurological Surgery – Pediatric Patients List
 - Surgery – Surgical Secondary Events
 - CTSC – InfusEHR Project
 - Radiology – Renal Donor Abnormalities

- **Practice Management Reporting:**
 - Trained 200 new Cognos users (300 total active Cognos users)
 - Trained over 140 users on Epic reporting workbench
 - Conducted 25 training webinars with 550 participants

- Cognos cubes – launched 11 cubes reflecting Epic data with over 50 measures
- 1,737 quality and revenue cycle reports have been run via Cognos
 - 758 user reports related to patient quality and the revenue cycle are scheduled to run automatically in Cognos
- 83 Reporting Workbench templates were developed and published
- 3 Epic Radar dashboards published for Epic practice management

Data Warehousing

- Completed Epic Clarity 2014 (database and console) upgrade
- Completed Clarity hardware and SQL software update
- Installed Epic Cogito Data Warehouse
- Pilot NYP Humedica Clarity data extraction for population management
- Pilot NYP Care Manager data extraction for population management
- Extracted Epic data into ITS research data environment
- Extracted Epic data into I2B2 (cohort identification) environment
- Imported Trust Commerce data into Clarity
- Setup MCCM (Managed Care & Care Manager) database environment

Clinical Decision Support (CDS) and Population Management Tools

- Implemented robust tools for patient outreach including: a new encounter type (“Outreach Encounter”) for care management documentation and a method to conduct (via Weill Cornell Connect, telephone or mail) and document patient outreach in “bulk” (multiple patients at once)
- Created a prototype Physician Practice Dashboard that includes key metrics for panel chronic disease management, system proficiency, quality, and revenue cycle/practice management
- Configured reporting tools for all 26 Epic-supported 2014 Meaningful Use EP quality measures
- Built 20 Epic chronic disease registries (diabetes, asthma, hypertension, congestive heart failure, chronic kidney disease, coronary artery disease, obesity, osteoporosis, COPD, and several “wellness” registries)
- Built 5 Epic chronic disease dashboards (Hypertension, Obesity, Diabetes, CHF, and Asthma)
- Several new actionable health maintenance reminders set up and societal guidelines updated to reflect 2013-2014 recommendations including reminders for Hepatitis C screening
- Completed analysis of inappropriately ordered DEXA scans based on choosing wisely guidelines and alert created to mitigate this behavior

Key Statistical Snapshot:

- Supported Quality Measures via EpicCare: 57
- Providers participating in PQRS in CY 2014 (as of June): 668 out of 819 (82%)
 - PQRS bonus incentive paid in 2013: \$281K
- Empire bonus incentive for 2013: \$1.5M
- Aetna bonus incentive for 2013: \$938K

- POIS Faculty Co-authorships:
 - Ancker JS, Osorio SN, Cheriff A, Cole CL, Silver M, Kaushal R. Patient activation and use of an electronic patient portal. *Inform Health Soc Care*. 2014 Apr 30. [Epub ahead of print]
 - Ryskina, KL, Pesko, M, Gossey, JT, Phillips-Caesar, E, Bishop, TF. Brand Name Statin Prescribing in a Resident Ambulatory Practice: Implications for Teaching Cost-Conscious Medicine. *Journal of Graduate Medical Education*, Accepted for Publication on 3/17/2014.
 - Pavlik V, Brown, A, Nash, S, Gossey, JT. Association of Patient Recall, Satisfaction, and Adherence to Content of an Electronic Health Record (EHR)-Generated After Visit Summary: A Randomized Clinical Trial. *The Journal of the American Board of Family Medicine*. 27(2):209-218.
 - Walsh C, Siegler EL, Cheston E, O'Donnell H, Collins S, Stein D, Vawdrey DK, Stetson PD; Informatics Intervention Research Collaboration (I2RC). Provider-to-provider electronic communication in the era of meaningful use: a review of the evidence. *J Hosp Med*. 2013 Oct;8(10):589-97.
 - Ancker JS, Kern LM, Edwards A, Nosal S, Stein DM, Hauser D, Kaushal R; with the HITEC Investigators. How is the electronic health record being used? Use of EHR data to assess physician-level variability in technology use. *J Am Med Inform Assoc*. 2014 Jun 9. [Epub ahead of print]
 - Stein D, Siegler E, Vawdrey D, Sturm M, Sobhani N, Sungupta S, Walsh C, Kuperman G. Physician Know Thyself: EHRs and the Quantified Clinicians. *AMIA Annu Symp Proc*. 2013 Nov 16;2013:1322.
 - Vawdrey DK, Stein DM, Fred MR, Bostwick SB, Stetson PD. Implementation of a computerized patient handoff application. *AMIA Annu Symp Proc*. 2013 Nov 16;2013:1395-400.
 - Sinha S, Uttaro T, Stein D, Carmel A. Follow-up primary care visits in a resident practice after hospital discharge – how are we doing? *Society of General Internal Medicine 37th Annual Meeting*, April 2014.
 - Richardson JE, Malhotra S, Kaushal R, with the HITEC Investigators. A Case Report in Health Information Exchange for Inter-organizational Patient Transfers. *Applied Clinical Informatics*. 2014;5(3):642–50.
- Ongoing POIS Faculty Research Projects:
 - Novel Techniques for Patient-centric Disease Management using Automatically Inferred Behavioral Biomarkers and Sensor-Supported Contextual Self-report
 - Analysis of EHR-based Communication in an Academic, Ambulatory, Multi-specialty Physician Organization
 - Methods and Tools for Making Patient-generated Data Clinically Relevant and Actionable
 - i2b2 Clinical and Research Repository
 - Is Weill Cornell CONNECT Patient Portal Use Associated With Patient Activation?
 - Improving Healthcare Quality With User-Centered Patient Portals
 - The Effect of EHR Default Options on Physician Prescribing of Generic Drugs
 - Contract with AHRQ/Mathematica to Define Meaningful Use Stage 3 Clinical Quality Measures
- Education/Teaching:
 - Faculty and staff participation in Weill Cornell HIT Certificate Program curriculum
 - Executive Planning Committee participation for *Center for HealthCare Informatics and Policy*
 - Trained 8 residents via POIS informatics elective

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