



*We'll get you there.*

CPAs | CONSULTANTS | WEALTH ADVISORS

# Higher Education Virtual Conference

February 27, 2024

# CPE Information

You need to attend 200 minutes to receive the full 4 CPE credits.

- 16 Attendance Markers that read: “I’m Here,” will be launched during this session. You must respond to a minimum of 12 to receive the full 4 CPE credits.



# Today's Agenda

Introduction

Higher Education Regulatory and Compliance Update

Break

A Conversation About Fraud

Break

Cyber Risks and Mitigation Strategies for Higher Education

Break

How to Effectively Leverage Shared Services

Closing





# Opening Message





*We'll get you there.*

CPAs | CONSULTANTS | WEALTH ADVISORS

# Higher Education Regulatory and Compliance Update

February 27, 2024



The information herein has been provided by CliftonLarsonAllen LLP for general information purposes only. The presentation and related materials, if any, do not implicate any client, advisory, fiduciary, or professional relationship between you and CliftonLarsonAllen LLP and neither CliftonLarsonAllen LLP nor any other person or entity is, in connection with the presentation and/or materials, engaged in rendering auditing, accounting, tax, legal, medical, investment, advisory, consulting, or any other professional service or advice. Neither the presentation nor the materials, if any, should be considered a substitute for your independent investigation and your sound technical business judgment. You or your entity, if applicable, should consult with a professional advisor familiar with your particular factual situation for advice or service concerning any specific matters.

CliftonLarsonAllen LLP is not licensed to practice law, nor does it practice law. The presentation and materials, if any, are for general guidance purposes and not a substitute for compliance obligations. The presentation and/or materials may not be applicable to, or suitable for, your specific circumstances or needs, and may require consultation with counsel, consultants, or advisors if any action is to be contemplated. You should contact your CliftonLarsonAllen LLP or other professional prior to taking any action based upon the information in the presentation or materials provided. CliftonLarsonAllen LLP assumes no obligation to inform you of any changes in laws or other factors that could affect the information contained herein.

# Learning Objectives

Identify new regulations that may impact current policies and procedures

Identify compliance changes in higher education

Describe best practice single audit recommendations





# Uniform Grant Guidance





# Uniform Grant Guidance

Proposed revisions  
issued in September



Comment period



Current status



# Uniform Grant Guidance – Why?

## OMB's objectives

Incorporate  
statutory  
requirements  
and  
administrative  
priorities

Reduce  
agency and  
recipient  
burden

Add clarity to  
sections that  
have been  
interpreted  
differently

Using plain  
language and  
addressing  
inconsistent  
use of terms



# Uniform Grant Guidance – Proposed Changes

Increase single audit  
threshold from  
\$750,000 to \$1,000,000

Type A  
threshold remains  
unchanged

Modify the  
definition of  
questioned costs

- Amount, expended or received from a Federal award in the auditor's judgement
  - 1) is noncompliant or suspected noncompliant with federal statutes, regulations, or the terms and conditions of the federal award
  - 2) at the time of the audit lacked adequate documentation to support compliance or
  - 3) appeared unreasonable and did not reflect the actions a prudent person would take in the circumstances



# Uniform Grant Guidance – Proposed changes continued



## Fixed amount subawards

- Previously capped at \$250,000; no cap proposed, federal agency approval still required



## Schedule of Federal Expenditures

- Identify the recipient of the federal award when audits cover multiple recipients
- Recipient defined as departments, agencies, IHEs and other organizational units

# Uniform Grant Guidance – Proposed changes continued

Term non-federal replaced with recipient or subrecipient throughout subparts

Increased de minimus indirect cost rate percentage from 10% to 15%

Threshold used to define a capital expenditure increased from \$5,000 to \$10,000

Section 200.407, 10 items removed from requiring prior approval (Real property, equipment, entertainment...)



# Uniform Grant Guidance - Status

Comment period  
ended December 2023



OMB in the process of  
reviewing comments



Final changes could be  
issued 2024



# Poll: How do you feel the proposed changes to the Uniform Guidance will impact your institution?

I need to read the final version before I decide

Moderate impact to current policies and procedures

Complete re-write of our grant procedures

What is Uniform Guidance?





# Department of Education Developments





# ED Developments

Financial Responsibility,  
Administrative Capability,  
Certification Procedures,  
Ability to Benefit; a Rule by  
the Education Department  
on 10/31/23

Federal Register ::  
Financial Responsibility,  
Administrative Capability,  
Certification Procedures,  
Ability To Benefit (ATB)



# ED Developments

Section 668.23(d)(1) –  
require the reporting  
of **all** related-party  
transactions in the  
notes to the financial  
statements

Requirement to  
disclose in the notes to  
the financial  
statements if there are  
**no** related-party  
transactions



# ED Developments



**Existing regulations require a broader set of disclosures than US GAAP**



**Level of detail that would allow the Secretary to readily identify the related party such as;**

- Name
- Location and description of entity
- Nature and amount of transactions (financial or otherwise)
- Routine de minimis transaction such as meals for board members do not need to be reported (other transactions with individual board members are required)

# ED Developments

Commentors noted that disclosing such information could violate PII rules

ED notes that “no provision of these final regulations involves releasing PII to parties other than the Department”



# ED Developments

Does your institution have the procedures and controls in place to identify all related party transactions for disclosure?

If your institution reports no related party disclosures, are there auditable processes in place to ensure no transactions are missed

Does the level of detail required to be reported available?

Do members of governance need to be educated on the requirements?



# ED Developments - Other matters in the Final Rule



Removed a proposal for institutions to disclose in its financial statements amounts spent on recruiting, advertising and other pre-enrollment expenses



**Amend 668.171, which requires institutions to demonstrate they can meet financial obligations;**

- Adding failure to make debt payment for more than 90 days, failure to make payroll or borrowing from employee benefit plans as events that constitute a failure to meet financial obligations
- Multiple revisions to mandatory and discretionary triggers requiring an institution to post financial protection

# ED Developments - Other matters in the Final Rule – cont'd



Provide institutions 21 days to report triggering events, up from 10 days



Various amendments to the certification procedures contained in section 668.13, 14, and 43

# ED Developments

GENERAL 23-121 –  
Requirement for Institutions  
to Have Certain Calculations  
Related to Institutional and  
Program Eligibility  
Substantiated by an  
Independent Auditor

Requirement for Institutions  
to Have Certain Calculations  
Related to Institutional and  
Program Eligibility  
Substantiated by an  
Independent Auditor |  
Knowledge Center





# ED Developments – Existing Regulations



Each eligible institution must prepare, and their auditors must evaluate and report on the accuracy of certain calculations



Each year, the following calculations on an award year basis must be performed

- % of correspondence courses the institution offers and the % of regular students that enroll in correspondence courses
- % of regular students that are incarcerated
- Completion rates for confined or incarcerated individuals enrolled in non-degree programs at nonprofit institutions



# ED Developments

Each year, the following calculations on an award year basis must be performed (continued)

% of the institution's regular students that lack a high school diploma or equivalent

Completion and placement rates for short-term programs



# ED Developments

Auditors' substantiation of the calculations to be reported on as an attestation engagement or an institution's annual Title IV compliance audit

Exceptions include

- 1) institution is granted a waiver from the annual compliance audit requirement or
- 2) Title IV program does not qualify as a major program under UGG



# ED Developments

An institution of higher education also qualifies as a postsecondary vocational institution if it offers programs that are less than an academic year in length that lead to a certificate or other nondegree recognized credential

Institutions offering short-term programs must perform completion and placement rate calculations each award period, demonstrating compliance with the minimum 70% rate thresholds.



# ED Developments

Completion and placement rates must also have an independent auditor provide a report attesting to the accuracy of the rates calculated

ED does not plan to take action in for violations for award years ending 6/30/25 or earlier



# Poll: The policies and procedures surrounding related-party transactions are

In place to comply with the disclosure requirements

Will work appropriately with some minor revisions

Need some major changes

Do you have an example of one?





FAC



# Poll: Did you know there is a new Federal Audit Clearinghouse?

Yes,  
this is old  
news

Maybe,  
tell me  
more

What is the  
Clearinghouse?





# FAC



## The Federal Audit Clearinghouse (fac.gov)



General Services Administration launched a new Federal Audit Clearinghouse in October 2023



Must have an account with Login.gov  
Create an account | Login.gov



Unique Entity ID (UEI) needed for all submissions  
SAM.gov | Home

# FAC

Series of Excel workbooks to be completed and uploaded

## Single audit workbooks

Complete your single audit submission by completing the workbooks below and uploading them to the FAC. You can download each workbook and find instructions for completing it on the individual pages.

- [Workbook 1: Federal awards](#)
- [Workbook 2: Notes to SEFA](#)
- [Workbook 3: Federal awards findings](#)
- [Workbook 4: Federal awards findings text](#)
- [Workbook 5: Corrective action plan](#)
- [Workbook 6: Additional UEs \(optional\)](#)
- [Workbook 7: Secondary auditors \(optional\)](#)
- [Workbook 8: Additional EINs \(optional\)](#)



# FAC

Award Reference (Read Only)	Federal Agency Prefix	ALN (CFDA) Three Digit Extension	Additional Award Identification	Federal Program Name	Amount Expended	Cluster Name
Cluster, Enter State Name	If Other Cluster, Enter Other Cluster Name	Federal Program Total	Cluster Total	Loan / Loan Guarantee	If yes (Loan/Loan Guarantee), End of Audit Period Outstanding Loan Balance	Direct Award
If no (Direct Award), Name of Passthrough Entity	If no (Direct Award), Identifying Number Assigned by the Pass-through Entity, if assigned	Federal Award Passed Through to Subrecipients	If yes (Passed Through), Amount Passed Through to Subrecipients	Major Program (MP)	If yes (MP), Type of Audit Report	Number of Audit Findings





# Moody's Higher Education Outlook



# HE Outlook

Moody's Investors  
Service issued 2024 report  
in December 2023

Projected a “stable” outlook;  
increased from last report that  
projected a negative outlook

“Revenue gains will materialize  
across multiple sources as the  
residual impacts of the pandemic  
wane”

“Expense growth  
will moderate  
as inflation cools”



# HE Outlook

Projecting revenue  
growth of 4%



“Outlook could be  
positive if revenue  
growth significantly  
overtakes expenses”



“Negative outlook  
could materialize if  
revenue stagnates, and  
expense growth  
fails to slow”



*Moody's Investors Service - 2024 report*





# Cohort Default Rates



# Cohort Default Rates



## Repayment Pause

- Rates dropped significantly



## Factors that could impact rates as repayment has started

- Perkins loans assigned to ED, students must make payments to different servicer
- Potential hold out/hope for forgiveness



**Approximately 9 million borrowers missed their first student loan payment this past fall (40%)**



# Cohort Default Rates



## **Cohort default rate > 30%**

- Institution to establish a default prevention task force (34 CFR 668.217)



## **Work with impacted students**

- Outreach regarding repayment
- Deferment options
- Income-driven repayment plan

Top 10

# Student Financial Assistance Findings



Top 10

10

School Audit –  
Inaccurate disbursement dates  
and amounts reported to COD

Program Review –  
Ineligible student  
(High School Student)



Top 10

School Audit –  
Entrance/exit counseling

Program Review –  
Lack of administrative capability

9



Top 10

8

School Audit –  
Verification violations

Program Review –  
SAP policy not adequately  
developed/monitored



Top 10

School Audit –  
HEERF non-compliance

Program Review –  
Inaccurate record keeping

7



Top 10

6

School Audit –  
Qualified audit report

Program Review –  
Entrance/exit counseling



# Top 10

School Audit –  
Student credit balance  
deficiencies

Program Review –  
Verification violations

# 5





Top 10

4

School Audit –  
R2T4 funds made late

Program Review –  
Student credit balance  
deficiencies



# Top 10

School Audit –  
R2T4 calculation errors

Program Review –  
R2T4 calculation errors

3



Top 10

2

School Audit –  
Inaccurate disbursement dates  
and amounts reported to COD

Program Review –  
Ineligible student  
(High School Student)



# Top 10

School Audit –  
student status –  
inaccurate and late reporting

Program Review –  
Student status –  
inaccurate and late reporting

# 1



*Chrissy Bowman, CPA*

*Principal*

*[christina.bowman@CLAconnect.com](mailto:christina.bowman@CLAconnect.com)*

*Michael Johns, CPA*

*Principal*

*[michael.johns@CLAconnect.com](mailto:michael.johns@CLAconnect.com)*



CLAconnect.com



CPAs | CONSULTANTS | WEALTH ADVISORS

©2024 CliftonLarsonAllen LLP. CLA (CliftonLarsonAllen LLP) is an independent network member of CLA Global. See [CLAglobal.com/disclaimer](https://claglobal.com/disclaimer). Investment advisory services are offered through CliftonLarsonAllen Wealth Advisors, LLC, an SEC-registered investment advisor.

# Break

12 – 12:10 p.m. CT

\*please note, we will be doing a sound check with our speakers during this time - the next session will start at 12:10 p.m. CT





*We'll get you there.*

CPAs | CONSULTANTS | WEALTH ADVISORS

# A Conversation About Fraud

February 27, 2024



The information herein has been provided by CliftonLarsonAllen LLP for general information purposes only. The presentation and related materials, if any, do not implicate any client, advisory, fiduciary, or professional relationship between you and CliftonLarsonAllen LLP and neither CliftonLarsonAllen LLP nor any other person or entity is, in connection with the presentation and/or materials, engaged in rendering auditing, accounting, tax, legal, medical, investment, advisory, consulting, or any other professional service or advice. Neither the presentation nor the materials, if any, should be considered a substitute for your independent investigation and your sound technical business judgment. You or your entity, if applicable, should consult with a professional advisor familiar with your particular factual situation for advice or service concerning any specific matters.

CliftonLarsonAllen LLP is not licensed to practice law, nor does it practice law. The presentation and materials, if any, are for general guidance purposes and not a substitute for compliance obligations. The presentation and/or materials may not be applicable to, or suitable for, your specific circumstances or needs, and may require consultation with counsel, consultants, or advisors if any action is to be contemplated. You should contact your CliftonLarsonAllen LLP or other professional prior to taking any action based upon the information in the presentation or materials provided. CliftonLarsonAllen LLP assumes no obligation to inform you of any changes in laws or other factors that could affect the information contained herein.



# Learning Objectives

Recall Internal  
control  
weaknesses

Recognize  
common red  
flags of fraud

Identify the  
different types  
of individuals  
who may be  
involved in  
fraud



# Why is it important to understand each role?

CFO



External Auditor



Forensic Investigator



# How difficult is it to identify fraud?

- Higher Ed institutions are targets of fraud due to easy access to money
- Knowing when environments are ripe of fraud and how to identify it is critical



# Who can commit fraud?



## Perpetrator's level of authority has been strongly correlated with the size of the fraud

- 23% of frauds were committed by owners/executives, median loss in = \$337,000
- Employees and managers more likely to commit occupational fraud with lower losses



## Correlation between the fraudster's level of authority and the duration of the occupational fraud scheme

- Employee = 8 months
- Owner/executive = 18 months
- Managers = 16 months



# Insider Fraud and Dishonest Employees



# Red Flags

- Missing or edited journal entries
- Changes in work habits or behaviors
- Refusal to take vacation
- Unexpected, large purchases
- Missing inventory, equipment or money
- Claims larger than normal travel expenses



# When should we consult a forensic accountant?

- Something feels “funky”
- Internal controls environment is weak
- Turnover at the Board level and other key leadership roles



# Steps to Consider

Review controls and  
access for the  
accounting system

Determine whether  
one employee can  
initiate and  
complete requests -  
enter and post  
journal entries





Internal Controls weaknesses led to misappropriation of *~\$100,000* of assets



# Recent Forensic Investigations

- A lack of controls and understanding of the budgetary process led to allegations of misappropriations



# Internal Investigations

- Investigations into physical protection and conflicts within university leadership



# Lessons Learned



**ACFE notes**



**Proactive fraud risk assessments and internal controls reviews needed**



**Understand the internal audit, IT, and risk functions**



**It is more cost effective to proactively engage forensic services**



# How can I help?

## Proactive Approach:

- Fraud Risk Assessment
- Request Anti-Fraud training
- Request ethics training
- Request an internal controls assessments

## Reactive Approach:

- Forensic Investigation
- Internal Investigation



# Contact

## VFLI Principal

(Valuations, Forensics, Litigation and Investigations)

Seasoned licensed attorney practicing as a forensic accountant leading fraud investigations, forensic accounting projects, and internal investigations for large fortune 100 companies, credit unions, government agencies and commercial businesses.



**Folashade**

**Abiola-Banjac, Esq.**

[Folashade.Abiola-Banjac@claconnect.com](mailto:Folashade.Abiola-Banjac@claconnect.com)



# Break

1 – 1:10 p.m. CT

\*please note, we will be doing a sound check with our speakers during this time - the next session will start at 1:10 p.m. CT





*We'll get you there.*

CPAs | CONSULTANTS | WEALTH ADVISORS

# Cybersecurity Risks and Mitigation Strategies for Higher Education

February 27, 2024





The information herein has been provided by CliftonLarsonAllen LLP for general information purposes only. The presentation and related materials, if any, do not implicate any client, advisory, fiduciary, or professional relationship between you and CliftonLarsonAllen LLP and neither CliftonLarsonAllen LLP nor any other person or entity is, in connection with the presentation and/or materials, engaged in rendering auditing, accounting, tax, legal, medical, investment, advisory, consulting, or any other professional service or advice. Neither the presentation nor the materials, if any, should be considered a substitute for your independent investigation and your sound technical business judgment. You or your entity, if applicable, should consult with a professional advisor familiar with your particular factual situation for advice or service concerning any specific matters.

CliftonLarsonAllen LLP is not licensed to practice law, nor does it practice law. The presentation and materials, if any, are for general guidance purposes and not a substitute for compliance obligations. The presentation and/or materials may not be applicable to, or suitable for, your specific circumstances or needs, and may require consultation with counsel, consultants, or advisors if any action is to be contemplated. You should contact your CliftonLarsonAllen LLP or other professional prior to taking any action based upon the information in the presentation or materials provided. CliftonLarsonAllen LLP assumes no obligation to inform you of any changes in laws or other factors that could affect the information contained herein.

# Learning Objectives



Describe common cybersecurity attacks



Identify standards and regulatory based mitigation strategies



# Cybercrime and Black-Market Economies

- Black market economy to support cyber fraud
  - Business models and specialization
  - Underground Marketplace (The Dark Web)
- Most common cyber fraud scenarios we see affecting our clients
  - Theft of information
    - Log-in Credentials
    - ePHI, PII, PFI, account profiles, etc.
    - Credit card information
  - Ransomware and interference w/ operations
- Monetization of access...
- ***To the Hackers, we all look the same...***

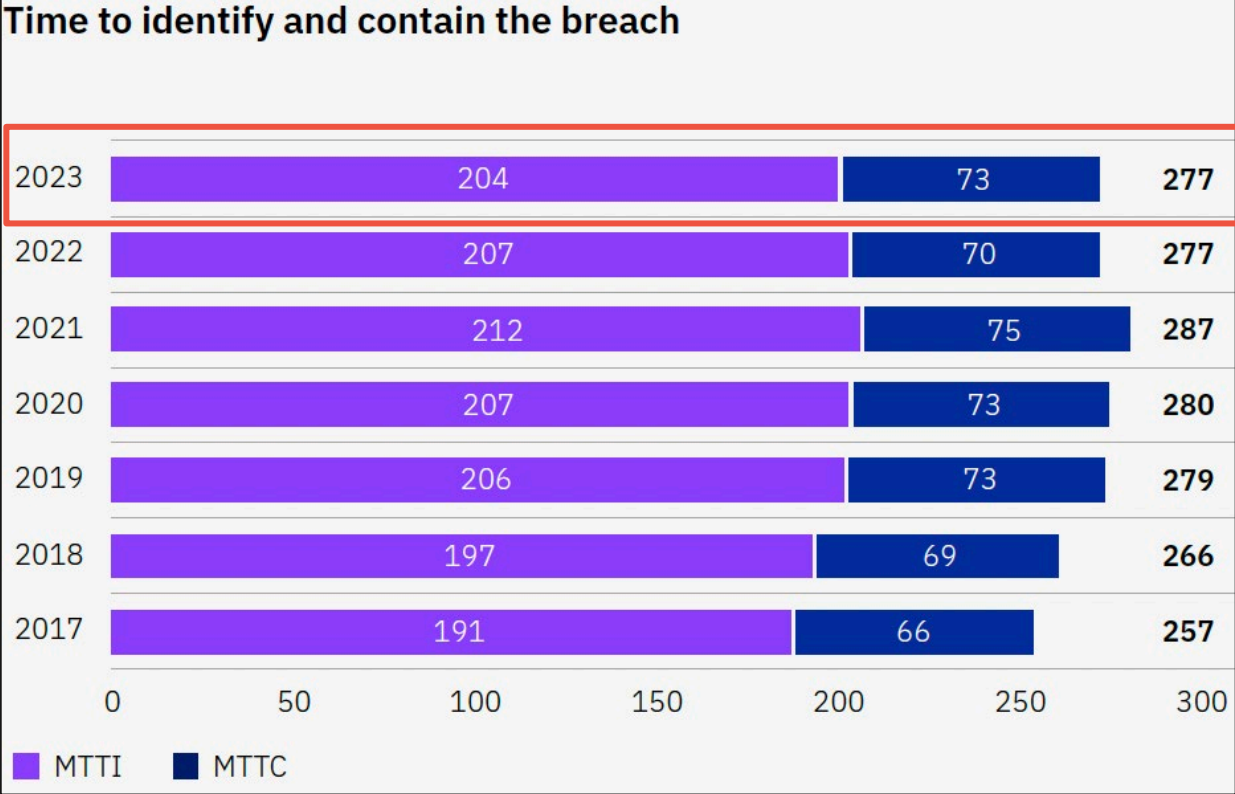


They will hit you with any or all of the following:

1. Email Spear Phishing Attacks
2. Password Guessing and Business Email Account Takeovers
3. Payment and Funds Disbursement Transfer Fraud
4. Data exfiltration
5. Ransomware
6. Extortion to avoid breach disclosure



# Average Days to Identify and Contain a Data Breach



Global average is 277 days

- 204 days to identify a breach
- 73 days to contain the attack

What are the bad guys doing for 204 days?





# Email Spear Phishing

The Root Cause For More Than 85% of Breaches



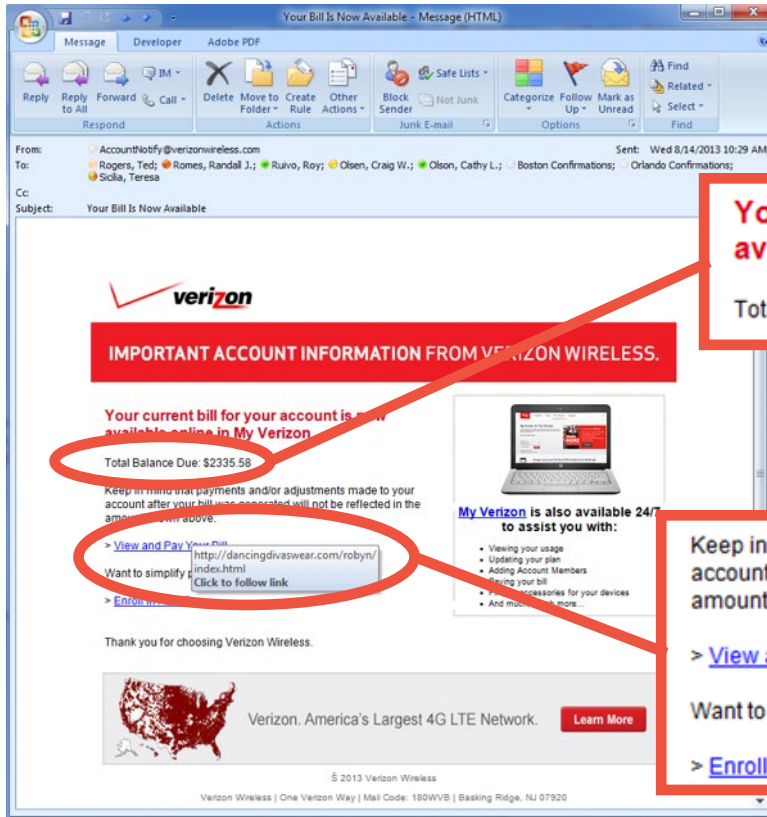
# Microsoft 2022 Digital Defense Report: Attackers are Targeting Businesses

- Microsoft 365 credentials remain one of the most highly sought after account types for attackers
- Once compromised attackers can log in to corporate-tied computer systems
- 1hr 12 m - The median time it takes for an attacker to access your private data if you fall victim to a phishing email
- 1hr 42 m - The median time for an attacker to begin moving laterally within your corporate network once a device is compromised

***Business Email Compromise (BEC) is  
attack of choice for higher payouts***



# Speare Phishing



Your current bill for your account is now available online in My Verizon

Total Balance Due: \$2335.58

Keep in mind that payments and/or adjustments made to your account after your bill was generated will not be reflected in the amount shown above.

> [View and Pay Your Bill](#)

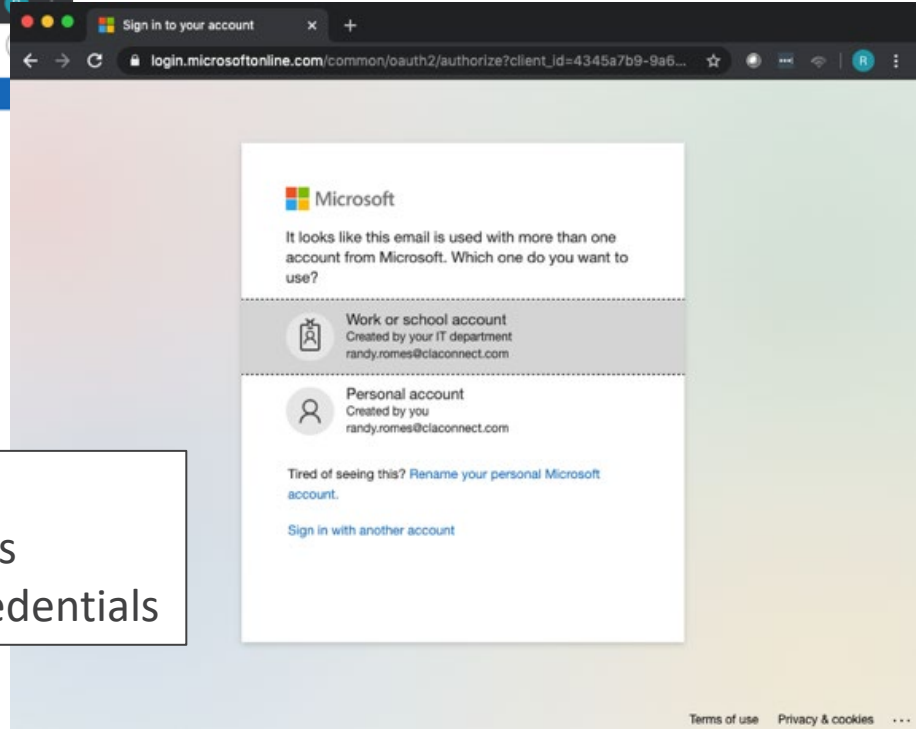
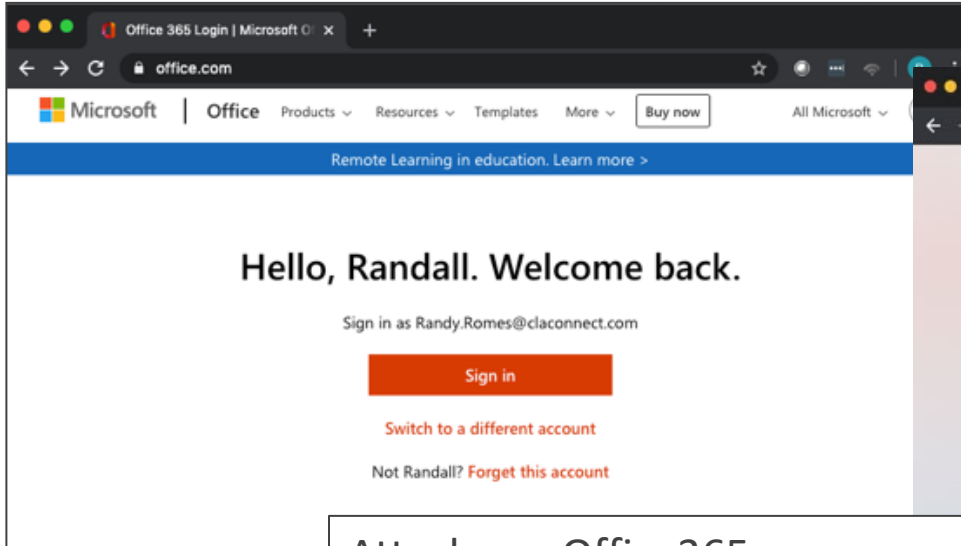
Want to simplify p  
<http://dancingdivaswear.com/robyn/index.html>  
Click to follow link

> [Enroll in Auto Pay](#)





# Credential Harvesting and Password Guessing:



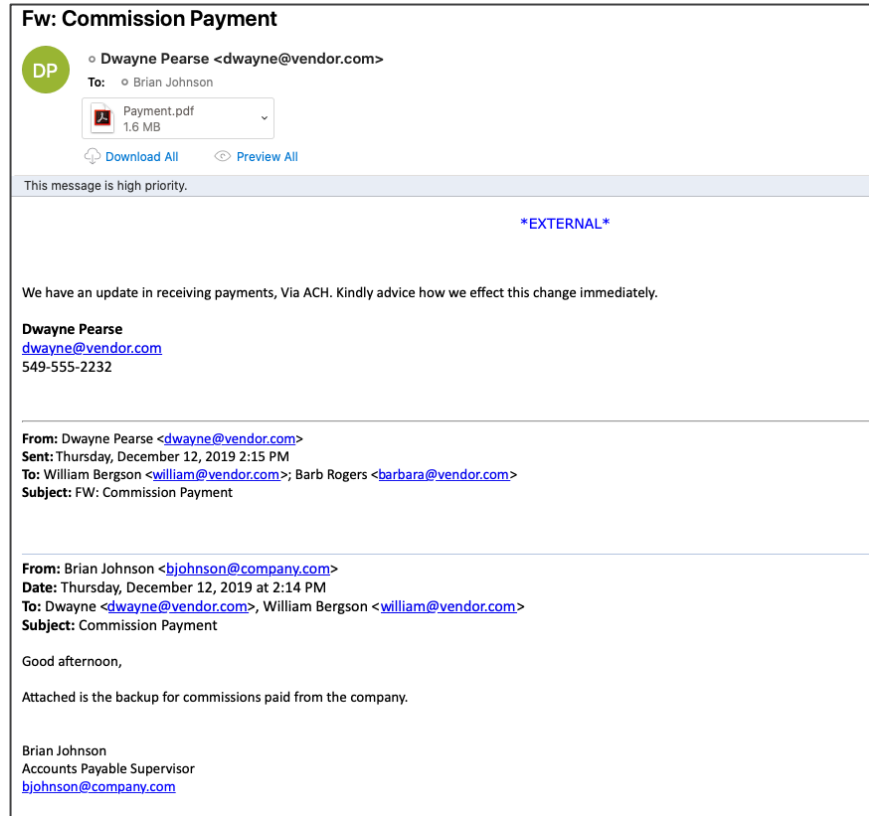
Attacks on Office365

- Password guessing attacks
- Phishing that harvests credentials



# Business Email Compromise - Examples

- Finance person's email account is compromised....
  - Finance person phished
  - ...buy a bunch of gift cards...
  - IT staff "investigated..." / IT staff "shut it down"
  - Governances asks: We are good (right?)
- Issues
  - Retention time and data storage limits
  - Email hardening controls not implemented
  - IT is not equipped to perform incident response



# Does Your Organization Already Use a Phishing Service?

- “We already use \_\_\_\_\_”
  - “IT tests our people every \_\_\_\_”
  - “Click through rate is \_\_\_\_”
  - “Failures are required to take training...”
  - “We report results to the board quarterly...”
- These are important...
- These services are best categorized as training and training effectiveness measurement tools.
- They are NOT penetration testing...
- **There is a “so what factor” that you may be missing...**





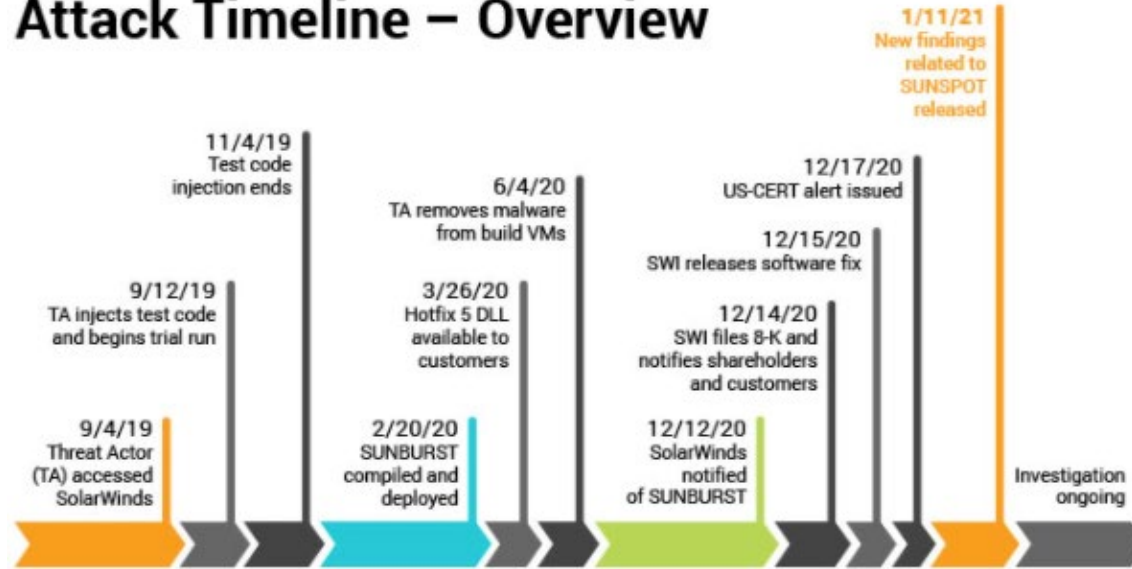
# Attacking the Supply Chain: Enterprise Software

SolarWinds Orion

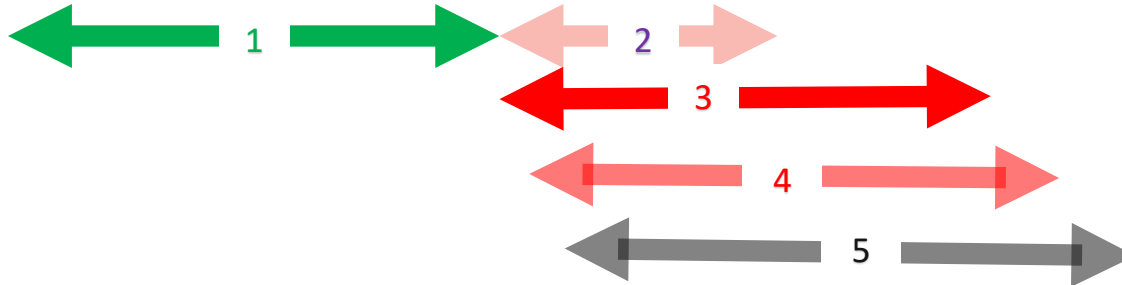


# Timeline of Events

## Attack Timeline – Overview



All events, dates, and times approximate and subject to change, pending completed investigation.



# Take-Aways and To-Dos (ie. on the fly IR)

1. Do we use SolarWinds Orion?
  - If **NO** → Go to 6
  - If YES → What version (Go to 2)?
2. Is our version the affected version (see SW advisory)?
  - If **NO** → Go to 6
  - If YES → Continue
3. Have we created a timeline of potential exposure?
4. What logs do we have and how far back in time do they go?
5. What Indicators of Compromise (IOC's) have we searched for?
  - What resources/references have we used to identify known and potential IOC's?
  - Use 3 and 4 to search for IOC's
6. Do we have any third-party service providers with trusted access?
  - Who has remote access into our environment?
  - Who do we push our data out to?
  - Are there any persistent open connections to or from third parties?
7. Repeat 1-5 for those identified in 6



# Software Vendor/Supply Chain Risk Management

- All software products have bugs/vulnerabilities
  - Key questions:
    - What does this software application have access to?
    - What user account/privileges are given to it?
    - What is the software vendor doing to provide us a level of comfort that they have done their due diligence?
    - What do we need to do for our due diligence?
    - **What impact does this software have on the institution...**
      - **If it is hacked/breached?**
      - **If it is down for... 2 hours? 2 days? 2 weeks? 2 months?**

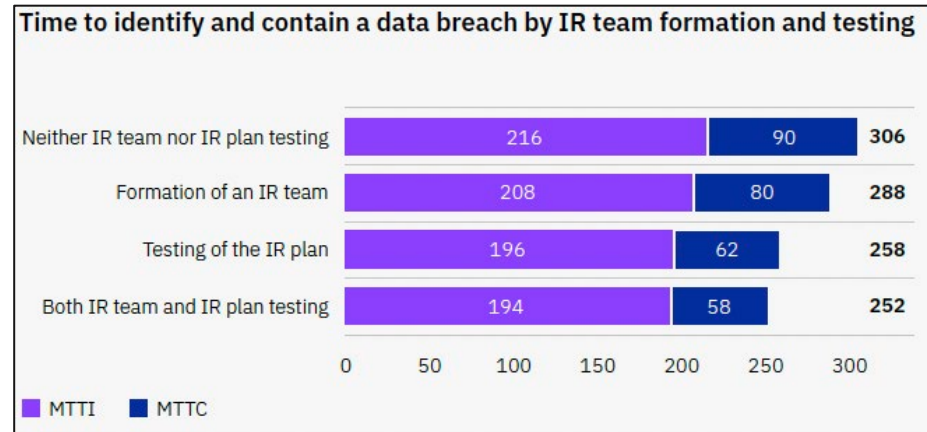
Pick your hosted software vendor:

1. MoveIT
2. Kronos
3. Solarwinds
4. BlackBaud
5. MS Exchange
6. \_\_\_\_\_



# Take-Aways and To-Dos (i.e., IR)

- Have a plan
  - Incident Response Play Book(s)
  - Disaster Recovery Plan and Procedures
  - Business Continuity Plan supported by Business Impact Analysis
- Know how the vendors fit into and support the plan
  - Service provider responsibility matrix
- Practice the plan
  - Tabletop exercises
  - Live exercises
  - Regularly review and update the Plan(s)
  - Having/practicing plan improves...



Source: IBM Security Cost of a Data Breach Report 2023








# The Supply Chain Exposing Us: Embedded / Open-source Software

Log4j and Other Imbedded Software  
Components



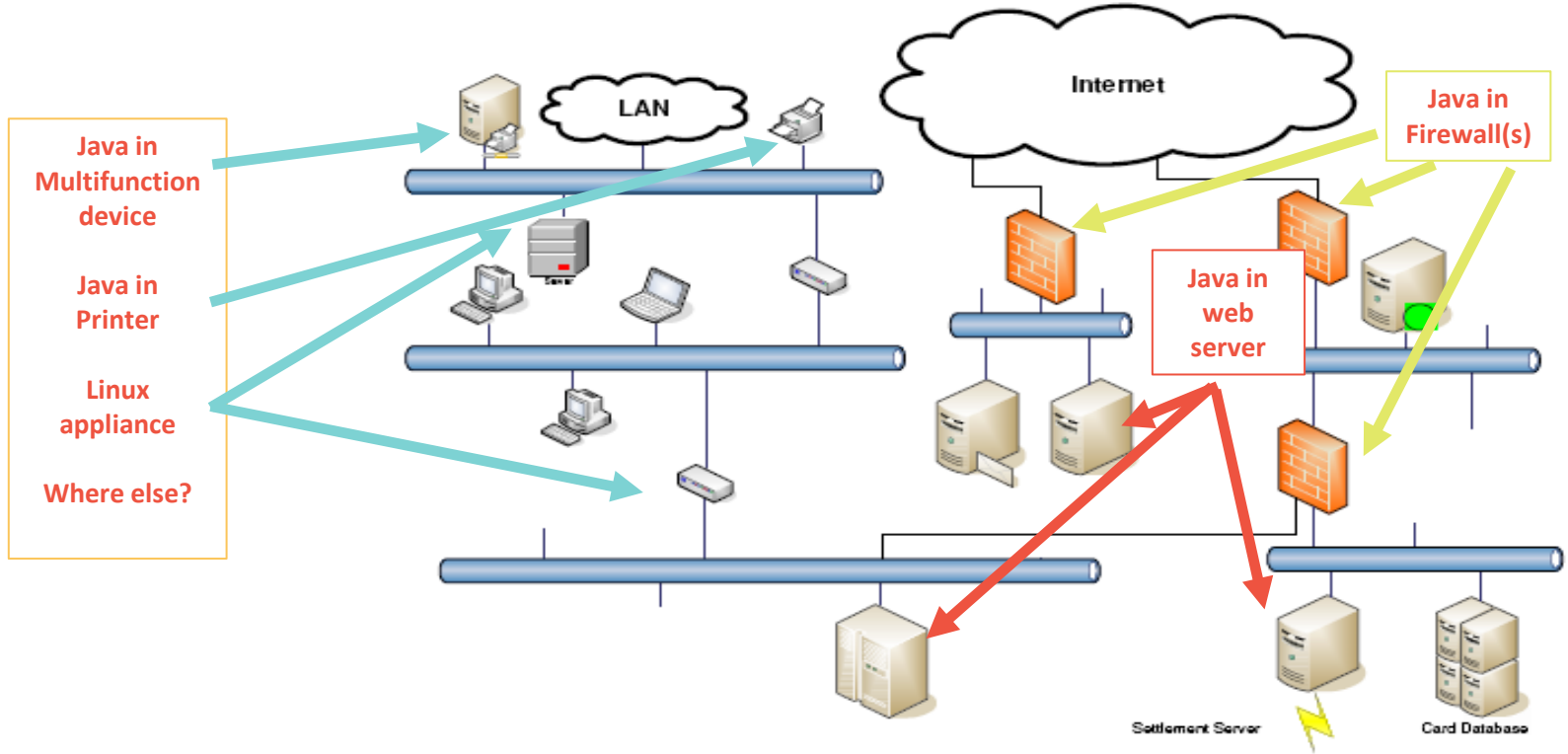
# Software Vendor/Supply Chain Risk Management

- Recent Significant Issues:
  - Common software components with exploitable vulnerabilities.
  - Recent examples include
    - “Log4j” Java vulnerabilities... 
    - Pkexec - CVE-2021-4034 (PwnKit)
    - Python – CVE-2007-4559
      - September 2022
      - 15-Year-Old Python Flaw Slithers into software worldwide
      - An unpatched flaw in more than 350,000 unique open source repositories leaves software applications vulnerable to exploit.

Google:  
Log4j vulnerabilities



# Java Software and Log4j



# Software Vendor/Supply Chain Risk Management

Discipline and “daily business as usual” related to the following:

- Inventory
- Controlled use of Administrative Access
- Secure Standard Builds
- Vulnerability Management
- Logging, Monitoring and Alerting





# Interference With Operations and Extortion

Ransomware is not going away...

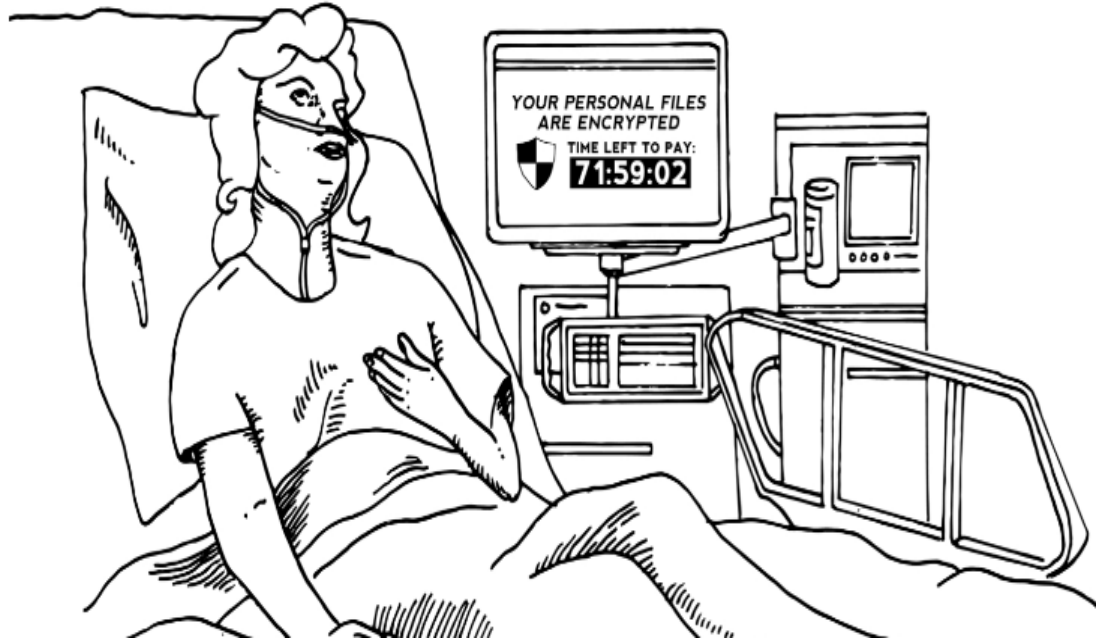


# Ransomware

- Ransomware bursts on the scene more than eight years ago...

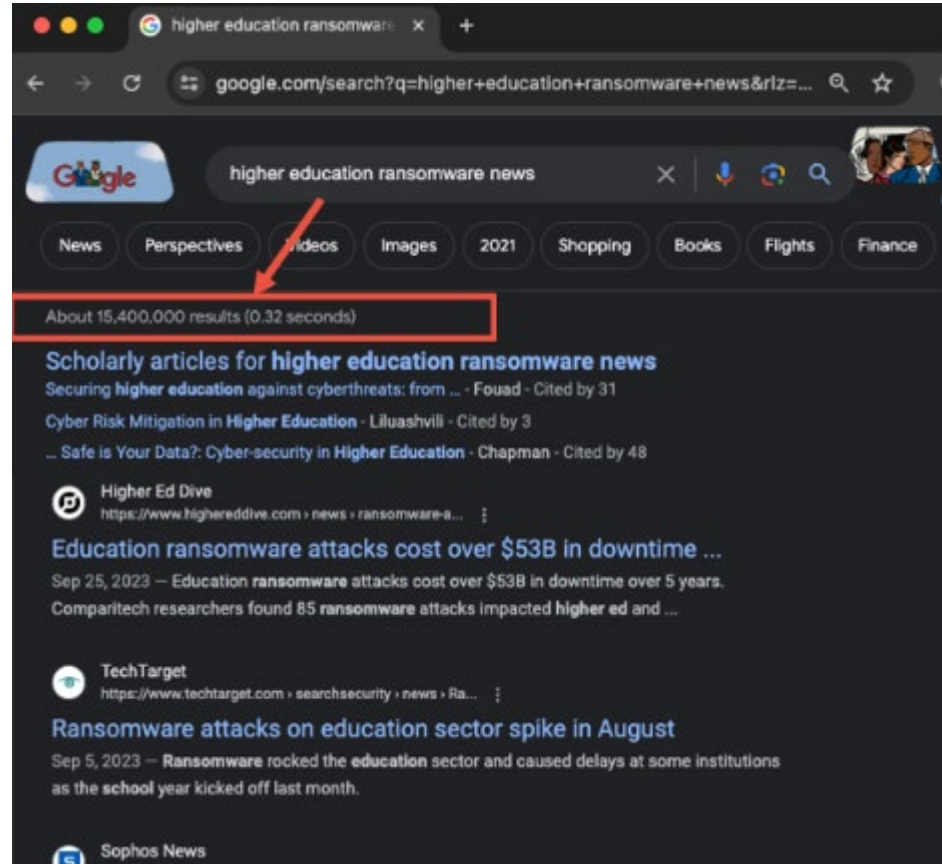
## Hospital ransomware: A chilling wake-up call

Hollywood Presbyterian was forced to pay up, just like everyone else.



# Ransomware in Higher Education

- Interfere with operational up time
  - This costs \$
- Extortion:
  - Pay to release data
  - Pay to avoid exposure
  - Threaten those whose data has been stolen



# Ransomware Attacks Continue to Evolve

- Earliest versions attack consumer availability
- 2nd generation attacked business availability & confidentiality
- Latest versions
  - Successful against all operating systems
  - Search for and encrypt back ups first
  - FINISH with threat of data disclosure (DR is not enough...)
- If you have not tested your susceptibility to Ransomware...???
- If you have not tested your recovery capabilities, from bare metal up...???
- Are you confident your hosted vendor is prepared???







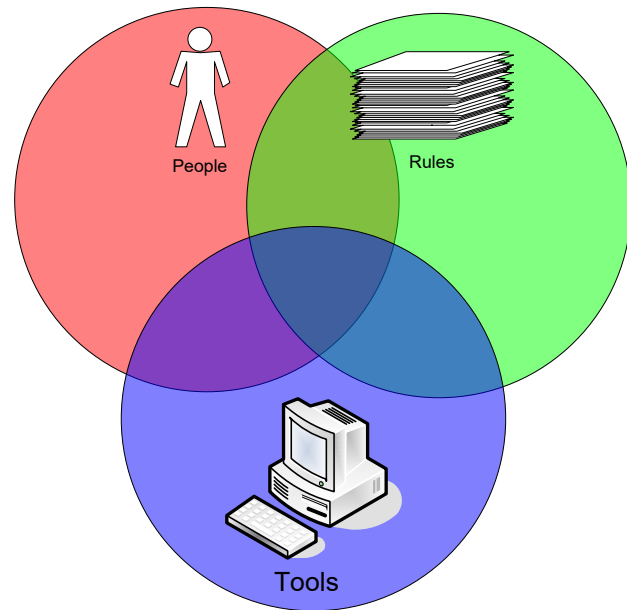
# Standards Based Operations

“People, Rules, and Tools”



# Reliance - It Starts with Policies and Standards

- Security is not a product
- People, Rules and Tools
  - What do we expect to occur?
  - How do we conduct business?
  - Who is responsible for what?
- Standards based operations from a governance or compliance framework:
  - GLBA, FFIEC, (State Laws?) ----- Regulatory
  - PCI – DSS, CMMC ----- Contractual
  - CIS Critical Controls, NIST standards ----- Operational



# Standards Based IT and Cyber Operations



<https://www.cisecurity.org/controls/>



# CIS Benchmarks & Hardening Guides

## CIS Benchmarks

• Checklists and How-to guides for just about everything

• Cloud

• Desktops Software

• Mobile Devices

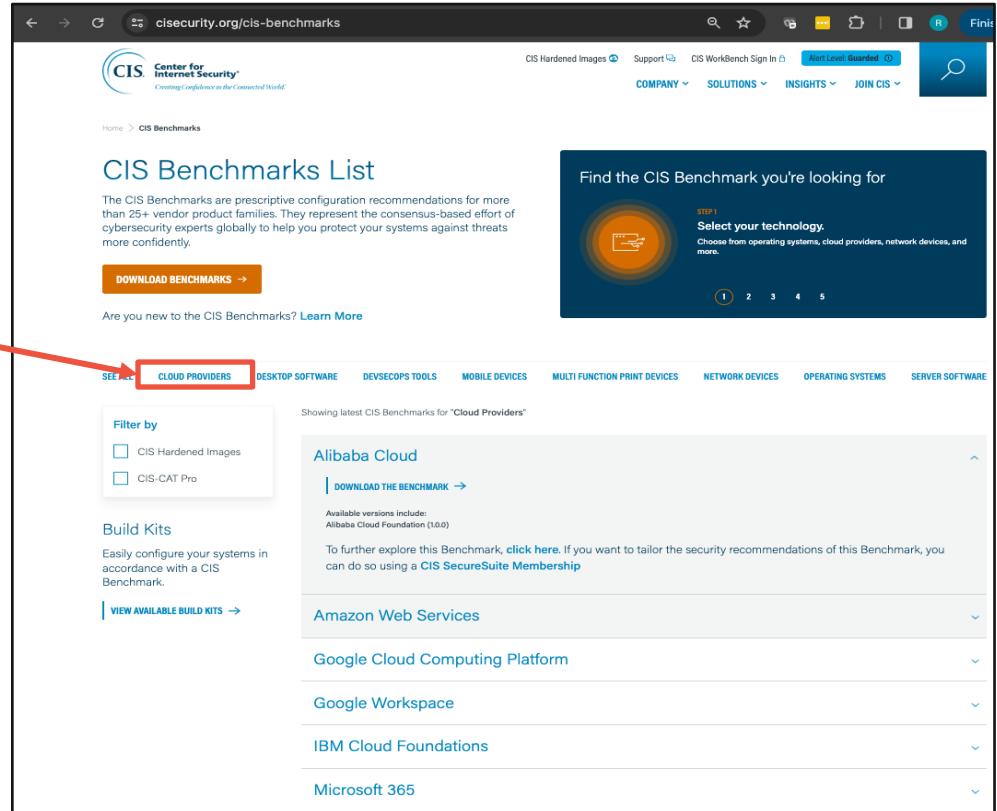
• Multi-function Devices

• Network Devices

• Operating Systems

• Server Software

• Etc.



The screenshot shows the CIS Benchmarks website at [cisecurity.org/cis-benchmarks](https://cisecurity.org/cis-benchmarks). The page title is "CIS Benchmarks List". A navigation menu at the top includes "SEE ALL", "CLOUD PROVIDERS", "DESKTOP SOFTWARE", "DEVSECOPS TOOLS", "MOBILE DEVICES", "MULTI FUNCTION PRINT DEVICES", "NETWORK DEVICES", "OPERATING SYSTEMS", and "SERVER SOFTWARE". The "CLOUD PROVIDERS" menu item is highlighted with a red box, and a red arrow points from the "Cloud" bullet point in the slide to this menu item. Below the navigation menu, there is a "Filter by" section with checkboxes for "CIS Hardened Images" and "CIS-CAT Pro". To the right, a list of benchmarks is displayed under the heading "Showing latest CIS Benchmarks for 'Cloud Providers'". The list includes "Alibaba Cloud", "Amazon Web Services", "Google Cloud Computing Platform", "Google Workspace", "IBM Cloud Foundations", and "Microsoft 365". Each item has a "DOWNLOAD THE BENCHMARK" button.



# Secure Office 365

NOT fully secure by default

- Enable/Turn On security features
- Harden (email) security
- Fine tune logging, monitoring and alerting
- Enforce retention periods
- Security configurations need to be periodically assessed
- Logging is based on license level

Microsoft Ignite  
November 2-4, 2021 | Free digital event

Microsoft 365 Solutions and architecture > Apps and services > Training > Resources >

## Top 10 ways to secure Microsoft 365 for business plans

10/05/2021 • 14 minutes to read

Microsoft recommends that you complete the tasks listed in the following table that apply to your service plan.

Number	Task	Microsoft 365 Business Standard	Microsoft 365 Business Premium
1	Set up multi-factor authentication	✓	✓
2	Train your users	✓	✓
3	Use dedicated admin accounts	✓	✓
4	Raise the level of protection against malware in mail	✓	✓
5	Protect against ransomware	✓	✓
6	Stop auto-forwarding for email	✓	✓
7	Use Office Message Encryption		✓
8	Protect your email from phishing attacks		✓
9	Protect against malicious attachments and files with Safe Attachments		✓
10	Protect against phishing attacks with Safe Links		✓



# Operational Discipline

- Stick to the standards
- Disciplined change management
- Consistent exception control and documentation
  - Should include risk evaluation and acceptance of risk
  - Risk mitigation strategies
  - Expiration and re-analysis of risk acceptance



# Passwords

- Old Rules (NIST – 2005?)
  - Length (8+ characters)
  - Complexity (Aa4@)
  - Forced expiration (every\_\_\_\_\_)
- “New Guidance” (NIST – 2018?)
  - Looooooooong passphrases
  - Don’t enforce complexity
  - **No expiration**
  - MFA and password tools

Password Audit	Total
Number of passwords audited	855
Passwords cracked	794
Passwords that were all letters	63
Passwords that were all numbers	5
Passwords that were an English word	20
<b>Passwords that were a word with numbers appended to it</b>	<b>200</b>
Passwords that were the same as the username	6
Passwords that do not meet Windows complexity	584



# Password Strategies:

- Multi-factor authentication on ALL external systems
- Password management tools
- **Pass Phrases – Loooooong natural language**
  - *Password21* <----- **Unforgiveable!**
  - *Summer21* <----- **Terrible**
  - *N\*78fm/1* <----- **Painful**
  - Wallet Painting lamp <-- **GOOD**
  - **The Packers always beat the Bears!** ← **BEST**
- Audit your passwords





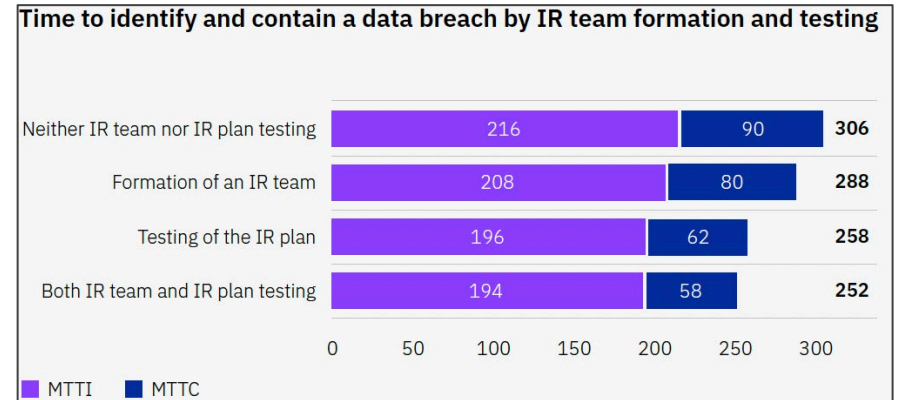
# Disaster Recovery & Business Continuity

- Inventory of assets and results of risk assessment are crucial
  - Hardware and software
  - Critical data elements (“the crown jewels”)
    - Data Retention policies and standards
    - Where is the data (if we know where it is, we know where to apply controls)
  - Critical business processes
- Business impact analysis with definition of recovery point objectives
  - This is another name for a specialized type of risk assessment
  - Defines criticality and priority for restoration
- Disaster Recovery is periodically practiced
  - Need to make sure it works the way you expect
  - IT needs to PRACTICE – prove they can restore in the heat of the moment



# Practice the Plan

- Tabletop exercises- simulations where participants walk through the incident and response procedures
- Two types of tabletop exercises
  - Technical
  - Management
  - Both types should be conducted annually
- Spear phishing tests and other social engineering tests
- Red team penetration testing

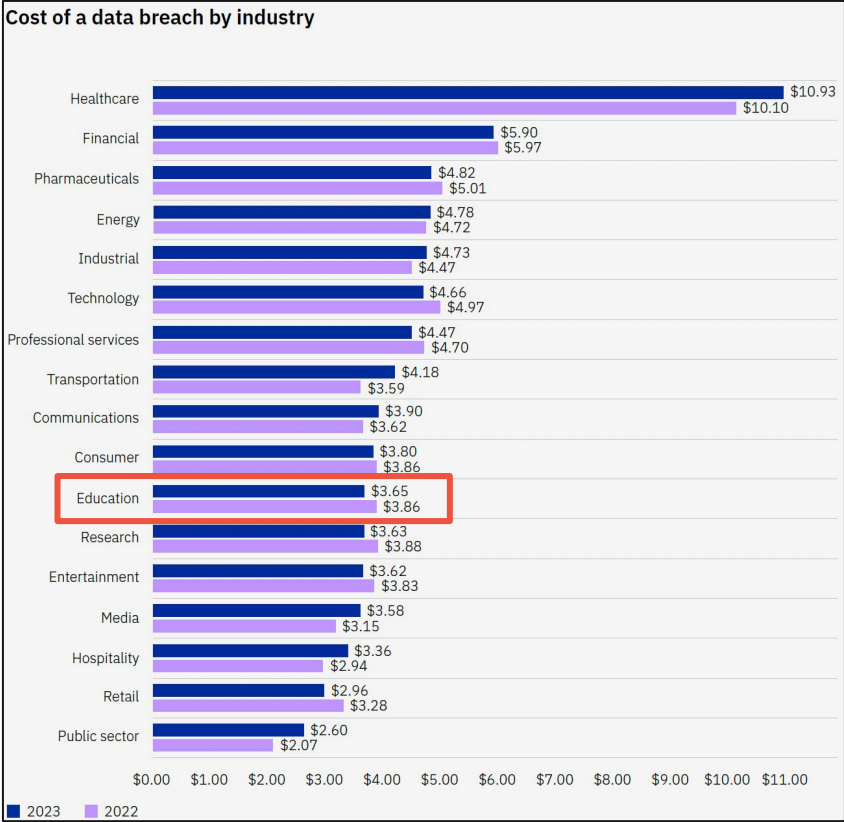


Source: IBM Security Cost of a Data Breach Report 2023



# What does a breach cost?

- 2023 IBM Data Breach Study:
  - Global Average cost is \$4.45M
  - HE Average cost: \$3.65M

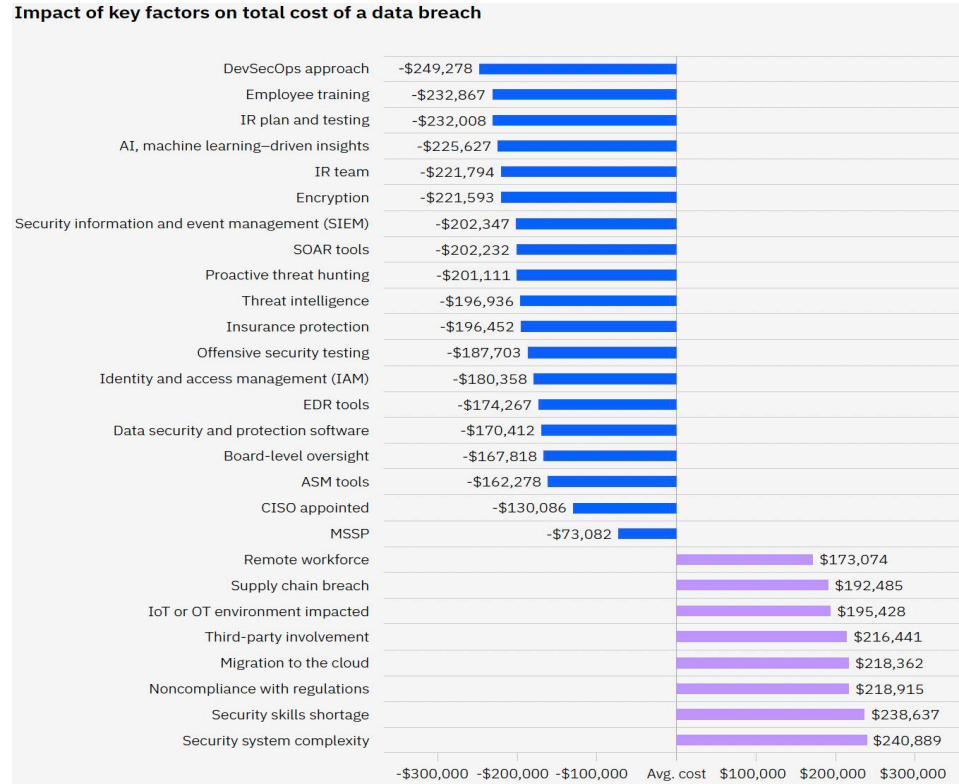


Source: IBM Security Cost of a Data Breach Report 2023



# Incident Response Preparedness: Cost Savings

- Global Average cost is \$4.45M
- HE Average cost: \$3.65M
- The impact of 27 factors on the average cost of a data breach



Source: IBM Security Cost of a Data Breach Report 2023

# Boy Scouts Motto: Be Prepared...



Prepare

Operate

Test

- Standards Based Operations and Exception Management
  - Daily Operational DNA
- Regular/periodic risk assessment:
  - Daily Business as Usual
- Monitor and fine tune:
  - Continuous improvement
- **Practice and Test**
  - Audit your operations controls (against a framework)
  - Review Office 365 (O365) security (periodically)
  - Schedule IR Tabletop and Disaster Recovery exercises
  - Test new systems and after significant change
- Governance - PROVE IT



# Thank you!

## Randy Romes

CISSP, CRISC, CISA, MCP, PCI-QSA

Principal – Cybersecurity

612.397.3114

randy.romes@CLAconnect.com



CLAconnect.com



CPAs | CONSULTANTS | WEALTH ADVISORS

©2024 CliftonLarsonAllen LLP. CLA (CliftonLarsonAllen LLP) is an independent network member of CLA Global. See [CLAglobal.com/disclaimer](https://www.claglobal.com/disclaimer). Investment advisory services are offered through CliftonLarsonAllen Wealth Advisors, LLC, an SEC-registered investment advisor.

# Break

2 – 2:05 p.m. CT

\*please note, we will be doing a sound check with our speakers during this time - the next session will start at 2:05 p.m. CT





*We'll get you there.*

CPAs | CONSULTANTS | WEALTH ADVISORS

# How to Effectively Leverage Shared Services

February 27, 2024





The information herein has been provided by CliftonLarsonAllen LLP for general information purposes only. The presentation and related materials, if any, do not implicate any client, advisory, fiduciary, or professional relationship between you and CliftonLarsonAllen LLP and neither CliftonLarsonAllen LLP nor any other person or entity is, in connection with the presentation and/or materials, engaged in rendering auditing, accounting, tax, legal, medical, investment, advisory, consulting, or any other professional service or advice. Neither the presentation nor the materials, if any, should be considered a substitute for your independent investigation and your sound technical business judgment. You or your entity, if applicable, should consult with a professional advisor familiar with your particular factual situation for advice or service concerning any specific matters.

CliftonLarsonAllen LLP is not licensed to practice law, nor does it practice law. The presentation and materials, if any, are for general guidance purposes and not a substitute for compliance obligations. The presentation and/or materials may not be applicable to, or suitable for, your specific circumstances or needs, and may require consultation with counsel, consultants, or advisors if any action is to be contemplated. You should contact your CliftonLarsonAllen LLP or other professional prior to taking any action based upon the information in the presentation or materials provided. CliftonLarsonAllen LLP assumes no obligation to inform you of any changes in laws or other factors that could affect the information contained herein.

# Learning Objectives



Review shared services concepts in higher education



Identify the benefits of shared service models



Recognize the challenges to successful implementation and learn about best practices

# Today's Panel

**Dave Robydek**

CAAS Principal  
CLA

**Sharon Minnich**

Executive Vice Chancellor for  
Administration and Finance, PASSHE

**Amy Doonan Cronin**

Executive Director  
New York Six Consortium

**Raymond Tymas-Jones**

President  
Cornish College of the Arts





# Pennsylvania State System of Higher Education

Sharon Minnich

Executive Vice Chancellor for Administration and Finance



# PASSHE – Pennsylvania’s State System of Higher Education

- Mission:
  - Provide high-quality education at the lowest possible cost to students
  - increase educational attainment in the Commonwealth of Pennsylvania
  - prepare students at the undergraduate and graduate levels for professional and personal success in their lives
  - contribute to the economic, social, and cultural development of Pennsylvania's communities, the commonwealth, and the nation

**10**  
Universities  
14 universities  
were integrated  
into 10 in 2022

**85,000**  
degree  
seeking  
students

**20**  
member  
Board of  
Governors



# PASSHE – System Office comprised of 2 organizational units:

## Office of the Chancellor:

Board and Policy support –  
23 FTE funded through the  
appropriation

- Academic and Student Affairs
- Administration and Finance  
(Budget, Controller, Treasury,  
Facilities)
- Diversity, Equity, and Inclusion
- Public Affairs

## Shared Services – 117 FTE

- Information Technology – 32 FTE
- Human Resources/Payroll 14 FTE
- HR – 16 FTE for new services  
added in 2022 for integrated  
universities
- Labor Relations – 5 FTE
- Advanced Data Analytics – 15 FTE
- Procurement – new in 2021 –  
35 FTE



# University Shared Services

Cumulative actual and estimated savings

FY 2019/20 through 2022/23 updated as of July 2023

## [Advanced Data Analytics](#)

[Estimated Savings \\$816,932](#)

[Operational and Centralized Reporting](#) | [Advanced Analytics](#) | [Data Use Training](#) | [Data Governance and Policy Support](#)

## [Human Resources/Payroll](#)

[Estimated Savings \\$144,000,482](#)

[HR Payroll](#) | [HR Payroll Accounting](#) | [HR Employee Benefits](#) | [HR Classifications/Compensation](#)

## [Information Technology](#)

[Estimated Savings \\$4,936,013](#)

[Network /SSHNet](#) | [SAP](#) | [IT Contracts](#) | [OOC.IT Support](#)

## [Procurement](#)

[Estimated Savings \\$30,535,650](#)

[Procurement](#) | [Doing Business with the State System](#)

## [Labor Relations](#)

[Estimated Savings Included in HR/Payroll](#)

[Labor Relations](#) | [Union Information](#)

## Other Services Provided through System Office

### [Other Academic and Legal Support](#)

[Estimated Savings \\$2,000,000](#)

[Legal](#) | [Keystone Library Network](#) | [Distance Education](#)

### [Facilities](#)

[Estimated Savings \\$29,129,948](#)

[Construction Support](#) | [Facilities Operations](#)

### [Finance](#)

[Estimated Savings \\$82,907,751](#)

[Accounting](#) | [Treasury](#) | [Budgeting & Accounting \(OOC & Finance Shared Service Center\)](#)

[Shared Services | PA State System of Higher Education \(passhe.edu\)](#)





Change the dashboard by  
clicking a button below

[Shared Services Home](#)

[Advanced Analytics](#)

[HR Connect](#)

[Information Technology](#)

[Labor Relations](#)

[Procurement](#)

[System HR/Payroll](#)

[KPI Definitions](#)

[Download PDF](#)

[Download PowerPoint](#)

Latest  
Updates



Draft

# STATE SYSTEM SHARED SERVICES

## Key Performance Indicator Dashboard - Annual Progress to Date

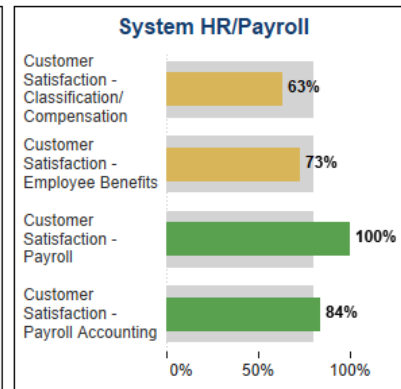
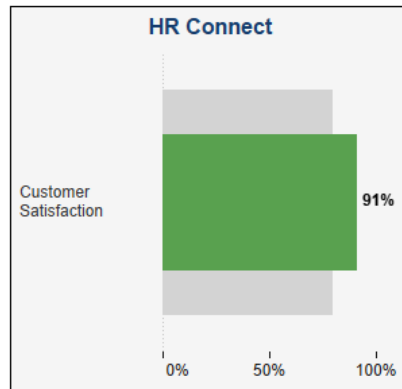
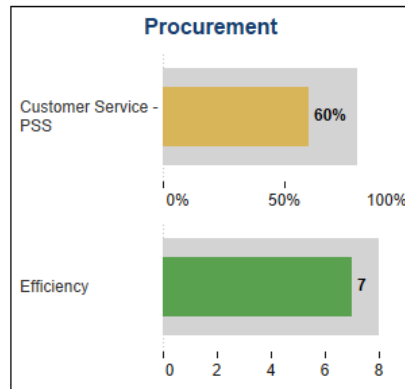
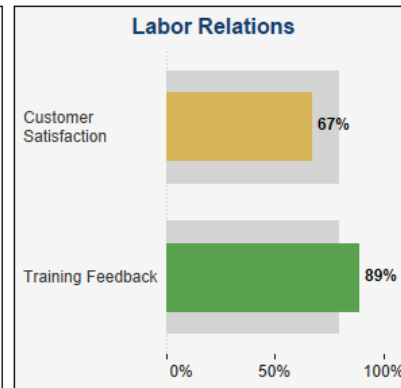
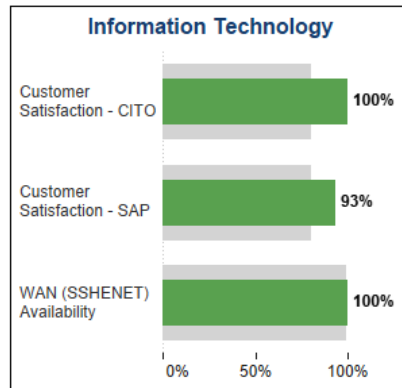
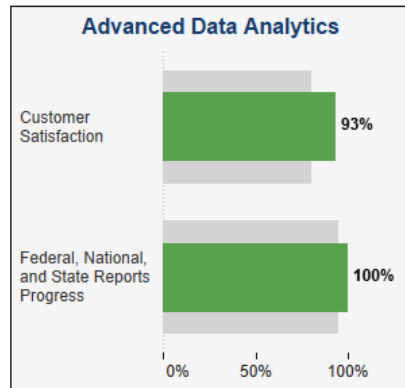
Which Year to View?  
2023

Which Quarter to View? (Progress is YTD through that Quarter)  
Quarter 4



Click any image below to go to the respective dashboard.

\*\*Data Not Collected This Quarter\*\* may be due to these data being reported annually.







Change the dashboard by  
clicking a button below

Shared Service Home

Advanced Analytics

**HR Connect**

Information Technology

Labor Relations

Procurement

System HR/Payroll

KPI Definitions

Download PDF

Download PowerPoint

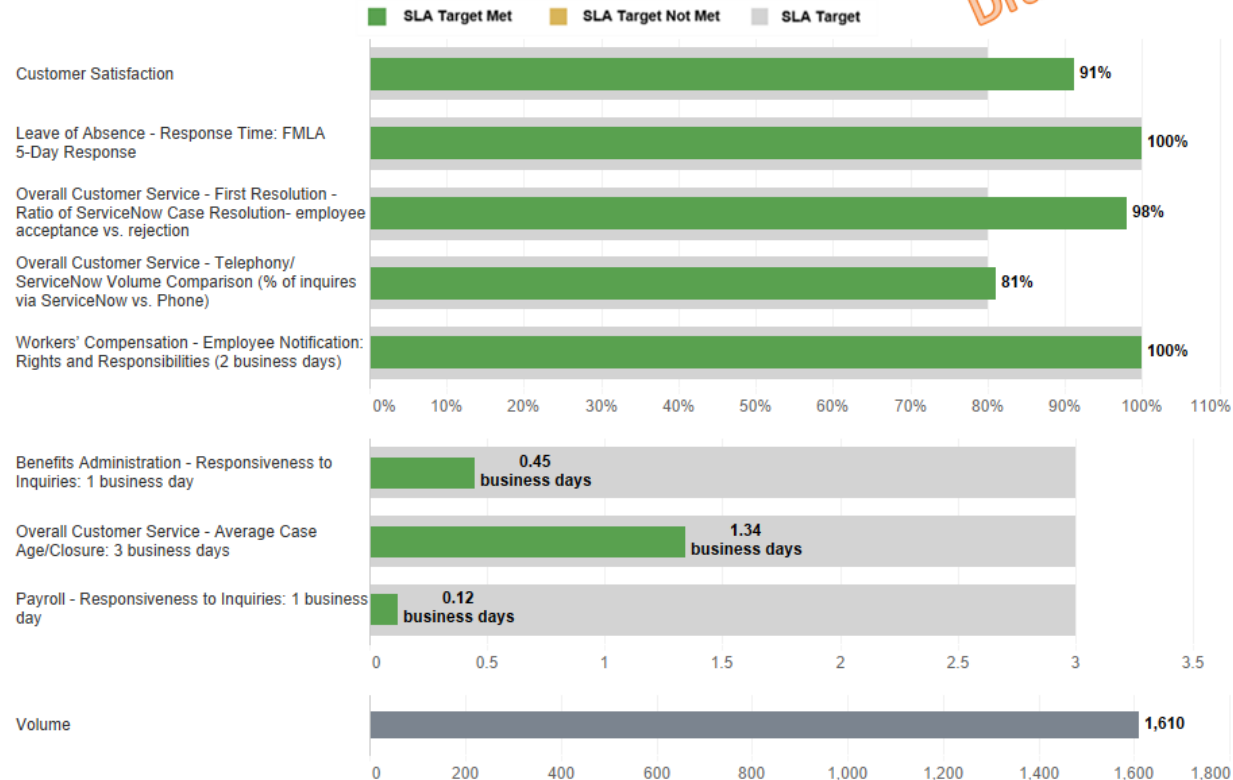
# HR Connect

## Key Performance Indicator (KPI) Overview - Progress to Date Through Quarter 4 2023

Which Year to View?  
2023

Which Quarter to View? (YTD Through This Quarter)  
Quarter 4

### Quarter 4 Metric Overview





# New York Six Consortium

Amy Doonan Cronin  
Executive Director



# About the New York Six

Founded  
in 2010

Six Institutions  
5,100 employees  
14,000 students

2010  
Earliest Shared Service  
Media Archive Project

Other Shared Services:  
Shared service agreements/contracts,  
software, student health insurance,  
office supplies, audit services,  
professional development, health care  
captive, off-campus study exchange  
program

Pipeline Projects  
AI administrative  
applications



# NY6 Shared Contracts Approach

Member schools collectively negotiate, independently contract



Examples include office supplies, software/hardware, and shared services such as cybersecurity consulting



Health4Edu includes TPA management, a stop-loss captive, and membership in a prescription drug purchasing coalition



# Key Factors in Shared Services Success



Shared  
vision  
of  
success



Shared  
services  
aligned with  
institutional  
goals



Support risk  
taking and  
change



Relationships  
build  
trust



Resource  
commitment  
for  
collaborative  
initiatives



# Cornish College of the Arts

Raymond Tymas-Jones  
President





Raymond Tymas-Jones, Ph.D.  
President

**CORNISH** COLLEGE  
OF THE ARTS



**The College's founder Nellie Cornish, and the many teaching artists who followed her, believed in education through exposure to all the arts.**

# Cornish College of the Arts - Mission

The mission of Cornish College of the Arts is to provide students aspiring to become practicing artists with an educational program of the highest possible quality, in an environment that nurtures creativity and intellectual curiosity, while preparing them to contribute to society as artists, citizens, and innovators.





# Visual and Performing Arts Degrees (BFA, BM and BA Degrees)

## Performing Arts

### Dance Department

- BFA Dance
- BA Dance

### Music Department

- BM Music
- BA Music

### Performance Production Department

- BFA Performance Production
- BA Performance Production

### Theater Department

- BFA Acting/Original Works
- BFA Musical Theater

©2024 CliftonLarsonAllen LLP

## Visual Arts

### Art Department

- BFA Art
- BA Studio Art

### Design Department

- BFA Design
- BFA Illustration
- BFA Interaction Design / UX

### Film and Media Department

- BFA Film
- BFA Game Art
- BFA Animation

### Interior Architecture Department

- BFA Interior Architecture





# Core Education Partnership Overview and Pathway to Prosperity: Transformational Strategies

## Core Education PBC

We are a Public Benefit Corporation (PBC) with a mission to **transform the business model** of small and mid-sized institutions.

## Our Methodology

We leverage **our economies of scale** to achieve operational effectiveness, technological efficiency, and market expansion for our institutional partners. We accomplish this through **innovative supporting services** as your **operating partner**.

**15**

Institutional  
partners

**\$700M**

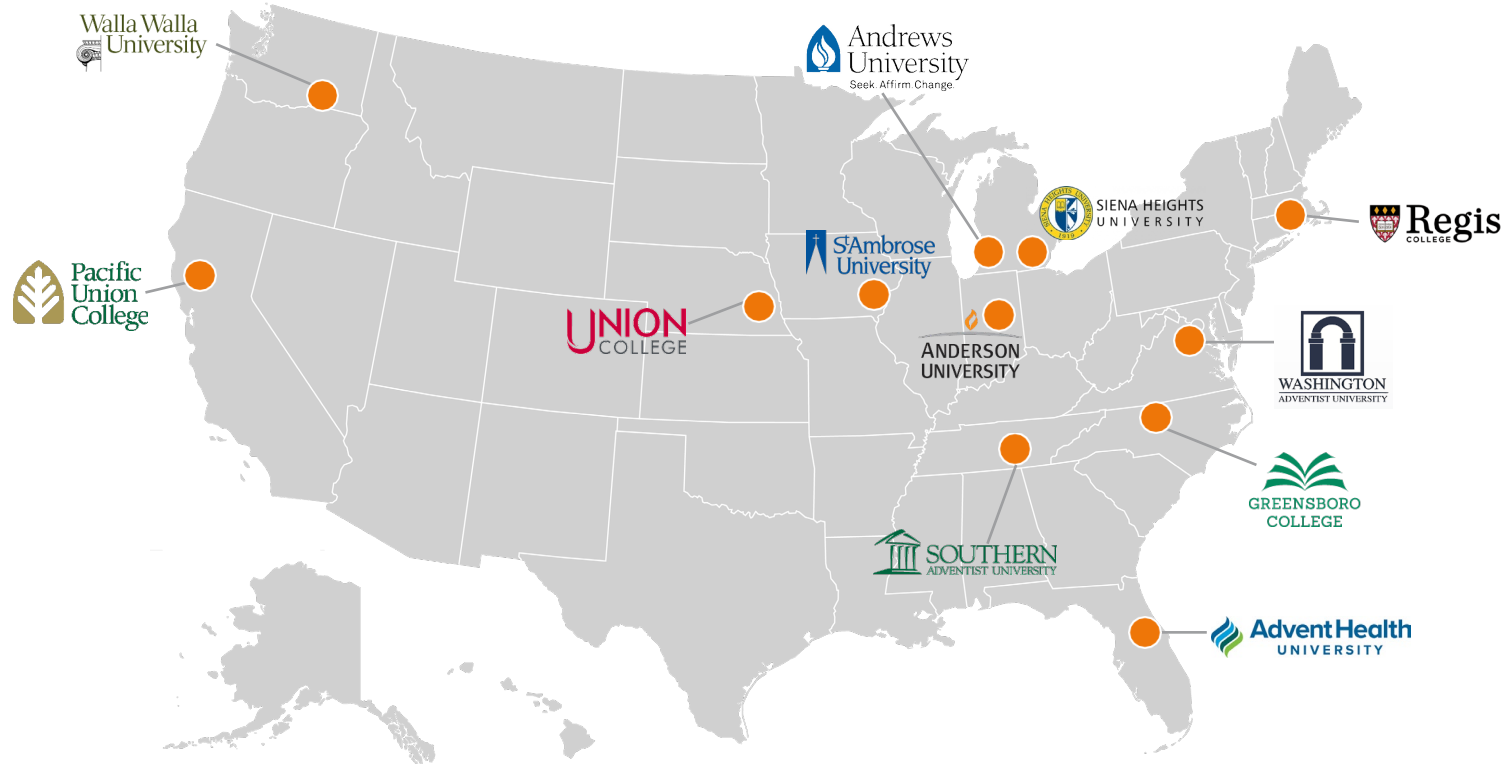
Combined system  
budget

## Cost Recovery Financial Model

Allowing institutional partners to enjoy  
stronger financial returns from services



# Institutional Partners (12)



# Core's Management Models – as an Operating Partner



## Active Management

- We meet the campus where they are and focus on short, medium and long-term improvements
- We provide leadership for selected supporting services – planning, day-to-day execution, operational support
- We hold accountability for execution, supports management of vendors reporting to the institution



## Hybrid Management

- We engage more intensively: Active Management+
- We provide staffing and systems infrastructure for selected supporting services
- Our accountability usually extends to include internal staffing and personnel management for selected supporting services



## Managed Services

- We hold full accountability for all functions of selected supporting services
- We engage in talent management of all resources related to selected supporting services
- We are responsible for all system and infrastructure upgrades and replacements for selected supporting services

Three models depend on extent of immediate gaps, competencies within the institution, internal strategy and bandwidth, and extent of vendor relationships



# A Plan for Prosperity

- Core will allocate selected senior executives to work with Cornish administrative and board leadership on the partnership study addressing a comprehensive financial turnaround plan that can be accepted by NWCCU.
  - Core will support the implementation of the plan along side of and with Cornish Administration.
- Core will document the transformational pathway and
  - The pathway to the future is likely to look different from the past
  - Transformation will require institutional “will and resolve” and leadership from all senior levels including the board of trustees



# Introduction

- Cornish College of the Arts has a long-standing history of over 100 years; however, its financial health is currently at risk. Significant growth is necessary to achieve lasting prosperity.
- Cornish engaged Core Education in March 2023 to conduct an assessment leading to the development of a transformation plan; The plan includes growth strategies for Cornish, a five year financial model, and a roadmap for operational execution.
- During the study, the Core team received outstanding participation and cooperation from numerous Cornish constituents, who provided us with open insights regarding the organization's strengths and challenges.
- The five year plan was approved and work started in July 2023; In this presentation, we will discuss the findings and recommendations of the Core Education and Cornish College of the Arts-led transformation partnership study, provide an overview of the plan, and an update from the past two months of our collective work.



# Transformational Strategies

1. Revenue expansion
2. Capital strategies and refinancing
3. Marketing, Admissions Effectiveness
4. Tech efficiency with CRM, call center and data
5. Venture philanthropy and Corporate development (Cornish)





# Today's Panel

**Dave Robydek**  
CAAS Principal, CLA

**Sharon Minnich**  
Executive Vice Chancellor for  
Administration and Finance, PASSHE

**Amy Doonan Cronin**  
Executive Director  
New York Six Consortium

**Raymond Tymas-Jones**  
President  
Cornish College of the Arts



*Thank you!*

*David Robydek*

david.robbydek@CLAconnect.com



CLAconnect.com



CPAs | CONSULTANTS | WEALTH ADVISORS

©2024 CliftonLarsonAllen LLP. CLA (CliftonLarsonAllen LLP) is an independent network member of CLA Global. See [CLAglobal.com/disclaimer](https://www.claglobal.com/disclaimer). Investment advisory services are offered through CliftonLarsonAllen Wealth Advisors, LLC, an SEC-registered investment advisor.



# Closing

