



The University of Texas System Treasury Best Practices Review Final Report

May 31, 2006





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Executive Summary

Treasury Strategies has completed a comprehensive review of both the Academic and Health institutions of The University of Texas System. Our examination determined that activities performed by each of the fifteen treasury centers are well managed in the areas of collections and disbursements. However, across the majority of the institutions, structure, banking, cash positioning, controls and technology fall short of efficient execution. In applying best practice criteria to the existing U.T. institutional structure, there are obvious successes and clear failings leading to our final recommendations.

Independently, several institutions (U.T. MD Anderson, U.T. HSC Houston and U.T. MB Galveston) perform well from a control, structure and concentration perspective, and require minimal support from the University of Texas System Administration Office of Finance (“UTOF”). Other institutions are strong in some areas, but are significantly deficient in others. For example, several institutions have made strides in the use of P-cards, in collecting tuition payments online and in centralizing A/P processing (through the Define system). However, some of these same institutions have no disaster recovery plan in place, and calculate their cash positions on an adding machine.

Through the course of our review, we identified a number of institution-specific improvement opportunities. These are described in detail throughout our report. However, as we evaluated the system as a whole, we formed some more far-reaching conclusions and recommendations of a more strategic nature.

- 1) The centralization of treasury at UTOF would enhance operational performance, improve governance capabilities, strengthen the treasury control framework and produce cost savings across the entire organization. Furthermore, a centralized treasury is needed to provide the necessary leadership and guidance on key issues such as compliance with Payment Card Industry (PCI) standards, policy formation and governance (including disaster planning), effective balance management and successful utilization of treasury technology.
- 2) Consolidation of banking structure and relationships will lead to consistencies in form, function and processes, thereby reducing fees, bank balances and adding control. As part of the recommended centralized treasury role, UTOF should actively coordinate system-wide efforts to acquire effective services and technology, and leverage U.T. System’s scale to achieve optimal savings in these areas.



Executive Summary

3) The U.T. System has significant opportunities available to enhance balance management and investment practices. At present, the individual institutions perform minimal cash forecasting, and are ineffective in their bank balance management practices. To illustrate, in December of 2005, system-wide collected bank balances totaled over \$9.8M. These funds were held in non-interest bearing bank accounts, in spite of the fact that State institutions are permitted to maintain interest bearing accounts, and UTOF provides institutions access to short and intermediate term investment funds with their Short-Term Funds (“STF”) and Intermediate-Term Funds (“ITF”). We believe that these excess balances are the result of ineffective banking structures and cash management procedures, inadequate organizational policies, limited technology and tools, and poor cash forecasting. Overall, our review confirmed that there is a significant opportunity to improve U.T. treasury processes, procedures, controls and policies. Working independently, U.T. treasury groups have made varying levels of progress in developing effective and efficient treasury processes, procedures and structures.

It is clear that a centralized treasury leadership structure, coupled with effective processes and tools, will allow U.T. to achieve a significantly higher level of performance and control. Furthermore, the expected net benefits from a centralized treasury materially outweigh those available from less centralized structures. By centralizing treasury, restructuring banking, and improving policies, technology and cash forecasting, we believe that UTOF will be well positioned to manage system-wide cash more effectively, reduce idle cash balances, optimize system-wide investment earnings, and properly lead key treasury improvement and control initiatives. As a result of these efforts, we conservatively estimate that U.T. will realize the following annual economic savings:

Potential Annual Savings - Under Three Operating Scenarios			
	Fully Centralized Treasury	Dual Centralization Structure	Modified Practices Under Existing Treasury Structure
Staffing	\$ 750,000	\$ 650,000	\$ -
Banking	\$ 1,293,741	\$ 1,135,034	\$ 344,458
Improved Balance Management	\$ 98,000	\$ 49,000	\$ 24,500
Other	\$ 16,569	\$ 6,055	\$ 3,027
	\$ 2,158,310	\$ 1,840,089	\$ 371,985
Estimated Implementation Cost	\$ (667,287)	\$ (667,887)	\$ (284,353)
Net Potential Savings	\$ 1,491,023	\$ 1,172,202	\$ 87,632

• Centralization of treasury function handled in UTOF and not in the individual institutions

** Two centralized treasury functions: one for academic & one for health institutions

*** No centralization of treasury function. However, changes still made to enhance existing treasury practices where feasible

Project Objectives and Scope

Perform a comprehensive best practices review of the cash management operations at The University of Texas Academic and Health institutions to identify opportunities for improvement in operational quality, technology and controls, cash management processes and banking administration and services. The scope includes:

- » Treasury organization
- » Treasury policies and control
- » Assessment of cash operations efficiency
- » Review of payments, security and control
- » Collections, deposits, disbursements
- » Funds movement, cash positioning and balance management
- » Cash forecasting
- » Banking structure, relationship management and administration
- » Comparison of fees to market average prices
- » Levels of payment automation
- » Appropriate use of treasury technology
- » Assessment of disaster preparedness



Project Methodology

- » To achieve the objectives defined for this project, Treasury Strategies established two separate resource teams to perform the work: one focusing on U.T.'s Health institutions, and the other on U.T.'s Academic institutions. The efforts of both teams were closely coordinated to ensure that they followed consistent methodologies, and leveraged each other's work.

- » Throughout this engagement, Treasury Strategies used a combination of qualitative and quantitative fact-finding, combined with a vigorous analysis process. Our work in each area included:
 - » Qualitative fact-finding:
 - › Interviews with key treasury-related personnel in UTOF and Academic and Health institutions.
 - › Observation of cash management related processes.
 - » Quantitative analysis
 - › Data collection and review of the following:
 - Bank analysis statements
 - Bank statements
 - Account reconciliations
 - Policies/procedures
 - Process flow documents
 - Organizational charts
 - Check processing

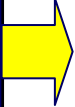
Treasury Best Practices Overview

	Above Average	Average	Below Average
Treasury Organization / Structure			X
Banking			X
Cash Positioning			X
Collections		X	
Disbursements		X	
Controls			X
Technology			X

3. U. T. System: Discussion and appropriate action regarding U. T. System Administration recommendations for banking and treasury services (cont.)

Findings

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Treasury Organization / Structure	
Banking	
Cash Positioning	
Collections	
Disbursements	
Controls	
Technology	

Academic

- » Academic treasury centers are operating without formalized documentation in place and in general, without regular audits or review of treasury functions.
 - » Each academic institution has its own treasury group, although in some cases, there are multiple Bursar functions to serve satellite campuses.
 - » All nine academic institutions have adequate “approved” staffing levels. However, many institutions are operating at lower than normal staffing levels due to open positions.
 - » Academic institution treasury groups are lacking formalized policies to define acceptable operating guidelines for the various treasury related responsibilities. Furthermore, there is minimal written procedural documentation to support major processes and functions within Treasury.

Health


- » The larger Health institutions each have a fully functional treasury group. Their smaller counterparts perform cash management under the mantle of Accounting.
 - » Clearly defined and well documented polices and procedures are in place with the larger Health institutions. These institutions function with a clear understanding of their role as a partner to accounting.
 - » The Health institutions have strong working relationships both with internal departments and external service providers. They play an active role in developing and raising awareness of practices that impact treasury. U.T. HSC Houston has implemented a Cash Control Committee involving a member of each major operation to address on-going treasury needs and issues.
 - » Treasury centers designed as part of an accounting function have focused less time on defining/updating policies, procedures or disaster recovery (business continuity) plans than the larger institutions.

System-Wide

- » The University of Texas Office of Finance (UTOF) does not currently set direction for the rest of the treasury units.

Findings

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Treasury Organization / Structure	
Banking	
Cash Positioning	
Collections	
Disbursements	
Controls	
Technology	

Academic

- » Academic institution practices around selection and management of banking relationships and services are inconsistent and/or ineffective.
 - » Academic institution treasury groups do not coordinate efforts when re-bidding banking services. As a result, several different banks serve the academic institutions (see Table on page 10). In some cases, more than one bank is used, which increases costs, and un-necessarily adds to the complexity of the account structure.
 - » RFP practices are inconsistent across the academic institutions. Some do not re-bid services and others renegotiate services every 5-6 years (or more).
 - » Academic institution treasury groups do not review in detail their bank fees and volumes to ensure accuracy. They only review for reasonableness and benchmark against historical trends.
 - » Academic institution treasury groups have not formally benchmarked its bank fees against the market.

Health

- » Bank account structure and administration at the Health institutions is, for the most part, efficient in the number of accounts and pricing.
 - » Most Health institutions monitor their banking activities closely, although opportunities to streamline account structure and relationships were identified (U.T. MB Galveston's Moody account, U.T. MD Anderson's JPMorgan relationship).
 - » Costs are monitored, though not always consistently. A general awareness across the institutions to the value of bidding out the services has resulted in overall success in maintaining competitive pricing and the use of treasury technology.
 - » As with the Academic institutions, Health institutions do not coordinate efforts when re-bidding banking services. As a result, they too have a variety of banking relationships.

System-Wide

- » Many bank relationships have developed across the System, either due to local relationships or reluctance on the part of institutions to bid/change providers. A lack of unified bidding has led to a costly, cumbersome system-wide banking structure.
 - » The quality, sophistication and pricing of banking services varies widely across the System.
 - » Significant opportunities exist to reduce system-wide bank fees (See Pages 11 & 12).
- » Several of the banks that U.T. uses have sufficient coverage in Texas to serve the entire System.

Banks Currently Used By U.T.

Institution	Bank							
	Frost	Bank of America	Southside	J.P. Morgan	Amegy	Moody	Wells Fargo	American State
U.T. Arlington				X				
U.T. Austin	X			X				
U.T. Brownsville				X				
U.T. Dallas		X						
U.T. El Paso							X	
U.T. Pan American		X						
U.T. Permian Basin	X							X
U.T. San Antonio	X	X						
U.T. Tyler			X					
U.T. HSC San Antonio	X							
U.T. MB Galveston	X	X		X	X	X		
U.T. SWMC Dallas		X						
U.T. HC Tyler		X						
U.T. MD Anderson				X	X			
U.T. HSC Houston				X				
	5	6	1	6	2	1	1	1

Banking Fees Paid By U.T.

U.T. Academic Institutions By Banking Relationship & Service

Services/Processes

Bank & U.T. Institution	Depository	Lockbox	Vault/day	Disbursement/ Controlled Disbursement	Reconciliation	ACH/EDI	Funds Transfer	Information Report/day	International
American Bank U.T. Permian Basin	\$ -			\$ 0.21		\$ 1.12	\$ 6.67	\$ 5.24	
Bank of America U.T. Dallas	\$ 0.03		\$ 11.03	\$ 0.08	\$ 0.06	\$ 0.22	\$ 17.06	\$ 54.69	\$ 21.44
Bank of America U.T. Pan American	\$ 0.09		\$ 10.82	\$ 0.10	\$ 0.13	\$ 0.13	\$ 5.56	\$ 23.01	
Bank of America U.T. San Antonio	\$ 0.07		\$ 15.48	\$ 0.20	\$ 0.15	\$ 0.30	\$ 13.50	\$ 65.18	
Frost Bank U.T. Austin	\$ 0.04	\$ 3.42	\$ 47.49	\$ 0.05	\$ 0.02	\$ 0.08	\$ 8.93	\$ 27.33	
Frost Bank U.T. San Antonio	\$ 0.65	\$ 13.52				\$ 0.13			
J.P. Morgan U.T. Arlington	\$ 0.18	\$ 0.71		\$ 0.23	\$ 0.14	\$ 0.35	\$ 14.03	\$ 106.30	\$ 13.36
J.P. Morgan U.T. Austin	\$ 0.25			\$ 0.15		\$ 0.10	\$ 5.00	\$ 56.60	
J.P. Morgan U.T. Brownsville	\$ 0.29		\$ 14.68	\$ 0.70	\$ 0.12	\$ 0.22	\$ 7.47	\$ 69.95	
Southside Bank U.T. Tyler	\$ 0.11			\$ 0.10		\$ 0.44	\$ 6.25	\$ 1.19	
Wells Fargo U.T. El Paso	\$ 0.08		\$ 49.29	\$ 0.20	\$ 0.07	\$ 0.26	\$ 9.93	\$ 42.22	\$ 3.00

Notes:

- 1) Average cost calculated from Dec. 2005 account analysis total service category divided by unit volume. (Except: Vault & Information Reporting was divided by 21 days).
- 2) Differences in unit cost at the same financial institution may vary based upon the mix of services in that category and volumes which lower fixed cost.
- 3) Some figures appear to be higher than others which is a result of high fixed charges which are being divided by a standard volume.

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Banking Fees Paid By U.T.

U.T. Health Institutions By Banking Relationship & Service


Notes:

- 1) Average cost calculated from Dec. 2005 account analysis total service category divided by unit volume. (Except: Vault & Information Reporting was divided by 21 days).
- 4 2) Differences in unit cost at the same financial institution may vary based upon the mix of services in that category and volumes which lower fixed cost.
- 3) Some figures appear to be higher than others which is a result of high fixed charges which are being divided by a standard volume.

Services/Processes

Bank & U.T. Institution	Depository	Lockbox	Vault/day	Disbursement/ Controlled Disbursement	Reconciliaton	ACH/EDI	Funds Transfer	Information Report/day	International
Amegy Bank U.T. MB Galveston	\$ 0.09	\$ 0.39		\$ 0.10	\$ 0.06	\$ 0.14	\$ 5.09	\$ 31.96	\$ 45.00
Amegy Bank U.T. MD Anderson	\$ 0.05	\$ 0.31		\$ 0.05	\$ 0.05	\$ 0.09	\$ 4.83	\$ 28.29	
Bank of America U.T. MB Galveston	\$ 0.09		\$ 4.20			\$ 0.10	\$ 15.25	\$ 10.75	
Bank of America U.T. SWMC Dallas	\$ 0.06	\$ 0.68	\$ 44.49	\$ 0.06		\$ 0.07	\$ 5.60	\$ 58.82	\$ 30.83
Bank of America U.T. HC Tyler	\$ 0.09	\$ 0.55	\$ 2.42	\$ 0.24	\$ 0.18	\$ 0.32	\$ 9.31	\$ 84.13	
Frost Bank U.T. HSC San Antonio	\$ 0.06	\$ 0.50	\$ 95.19	\$ 0.08	\$ 0.04	\$ 0.13	\$ 10.26	\$ 39.08	\$ 26.33
Frost Bank U.T. MB Galveston	\$ 0.05	\$ 0.69	\$ 17.64			\$ 0.22		\$ 7.26	
J.P. Morgan U.T. MB Galveston	\$ 0.10			\$ 0.15				\$ 2.38	
J.P. Morgan U.T. MD Anderson	\$ 0.04		\$ 132.84	\$ 0.22			\$ 4.02	\$ 13.85	\$26.36
J.P. Morgan U.T. HSC Houston	\$ 0.10	\$ 4.69		\$ 0.10	\$ 0.16	\$ 0.09	\$ 4.69	\$ 58.90	\$ 15.70

Findings

42	Treasury Organization / Structure	
	Banking	
	Cash Positioning	
	Collections	
	Disbursements	
	Controls	
	Technology	


Academic

- » Cash positioning practices are manual and lack consistency across institutions (see page 15).
 - » Treasury's cash positioning is a completely manual process.
 - » Cash positioning practices differ from institution to institution. Some institutions use Excel spreadsheets for cash positioning calculations while others do their cash positioning on paper and calculate transfer amounts on an adding machine. These manual processes increase the chances of human error.
 - » Not all banking relationships and related balances are reported to UTOF (i.e. *Issues in Science & Technology* magazine in U.T. Dallas, P2 card account in U.T. Tyler and many small petty cash accounts in various U.T. academic institutions). Accordingly, all balances may not be properly collateralized.
 - » Cash forecasting processes are inadequate. At best, some institutions forecast levels for the next few business days. These practices do not support liquidity management planning.

Health

- » Cash positioning is still largely a manual process with reports being pulled from bank systems. Balance information and transactions are re-keyed into worksheets.
 - » The Health institutions have home grown cash position spreadsheets to manage and record their cash positioning.
 - » With the exception of those used by U.T. MD Anderson, cash forecasting practices were ineffective. At best, some institutions forecast levels for the next few business days. These practices do not support liquidity management planning.

Findings

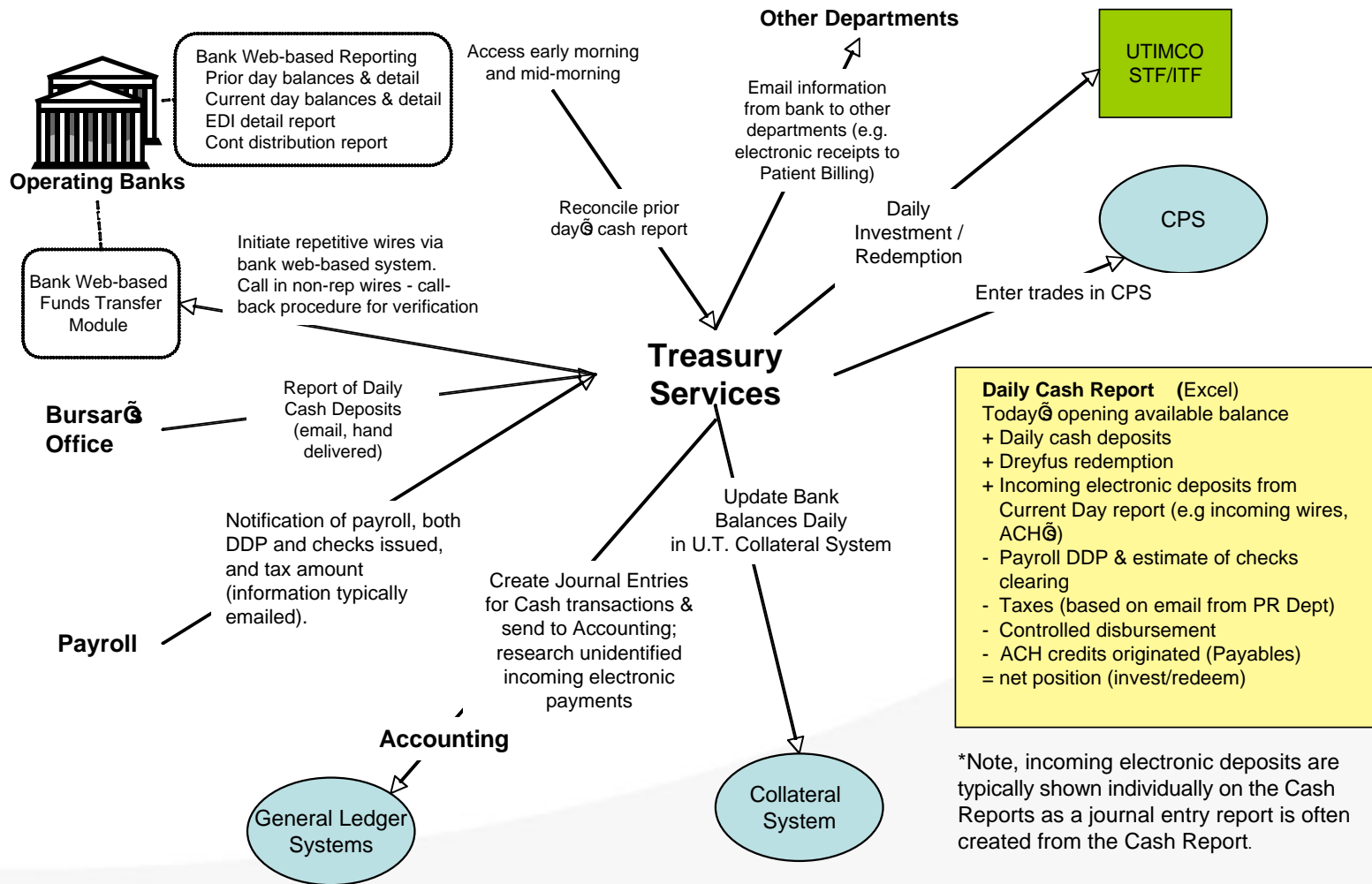
43	Treasury Organization / Structure	
	Banking	
	Cash Positioning	
	Collections	
	Disbursements	
	Controls	
	Technology	

System-Wide

- » Balance management practices are manual, inconsistent and result in buildup of excessive idle cash across the System.
 - » Re-keying errors is possible across the System due to manual input of cash balances.
 - » Cash forecasting practices are ineffective in most U.T. Academic and Health institutions. At best, most only forecast out a few days, if at all.
 - » In general, health institutions applied more sophisticated cash positioning routines.
 - » There is not consistent use of sweep accounts or interest bearing accounts to maximize interest earnings.
 - » Excess collected balances routinely buildup in depository accounts across the U.T. System. In December 2005, collected balances totaled \$9.8M. (see Table on page 16).
 - » Very few of the U.T. institutions utilize interest bearing accounts for management of daily excess balances, even though State guidelines allow this.

Current Cash Positioning Process

Typical U.T. Institution Cash Positioning Process



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Collected Balances


Institution	Bank							Total Collected Balance
	Frost	Bank of America	Southside	J.P. Morgan	Amegy	Wells Fargo	American State	
U.T. Arlington				\$ 223,000				\$ 223,000
U.T. Austin	\$244,000			\$ 82,000				\$ 326,000
U.T. Brownsville				\$2,731,000				\$ 2,731,000
U.T. Dallas		\$ 548,000						\$ 548,000
U.T. El Paso						\$553,000		\$ 553,000
U.T. Pan American		\$ 325,000						\$ 325,000
U.T. Permian Basin	\$104,000						\$ 59,000	\$ 163,000
U.T. San Antonio	\$ 1,900	\$ 54,000						\$ 55,900
U.T. Tyler			\$ 442,000					\$ 442,000
U.T. HSC San Antonio	\$138,000							\$ 138,000
U.T. MB Galveston	\$381,000	\$ 76,000		\$ 21,000	\$ 85,000			\$ 563,000
U.T. SWMC Dallas		\$ 634,000						\$ 634,000
U.T. HC Tyler		\$ 763,000						\$ 763,000
U.T. MD Anderson				\$ 329,000	\$686,000			\$ 1,015,000
U.T. HSC Houston				\$1,354,000				\$ 1,354,000
Total By Bank	\$868,900	\$ 2,400,000	\$ 442,000	\$4,740,000	\$771,000	\$553,000	\$ 59,000	\$ 9,833,900

** Figures given are from December 2005

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Findings

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Treasury Organization / Structure	
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Academic


- » Collections practices at Academic institutions lack consistency (see page 19).
 - » At some institutions, lockboxes are still used to collect tuition, though electronic collection tools are readily available.
 - » Approximately 55% of incoming payments are received by check (see page 20).
 - » Checks deposited are not pre-encoded at most institutions (Bursar offices).
 - » One Bursar's office is currently converting checks to a POP ACH (U.T. El Paso).
 - » Armored car practices are inconsistent across the institutions - each institution has established its own operating and control procedures.
 - » Armored car deposits to the bank typically occur one business day after pick-up.

Health

- » Health institution collection practices are generally strong, and are fairly consistent across the organization.
 - » Health institutions with hospitals are collecting patient insurance and Medicare/Medicaid electronically with EDI to assist in GL updates.
 - » Lockboxes are used across all the Health institutions.
 - » Collections of cash, checks and credit cards receipts are well managed with minor adjustments needed to improve efficiency and security.
 - » Cash, checks and credit card receipts are deposited or credited to operating accounts with very few delays.
 - » Credit card security (data management) policies and controls are inconsistent across the Health institutions.
 - » Not all institutions currently accept credit card or online patient payments from students.
 - » Even with electronic collection methods in place, Health institutions' treasury personnel spend a great deal of time tracking, identifying and booking incoming funds.
 - » A number of institutions use a third party billing service for invoicing and collecting professional fees.

Findings

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Treasury Organization / Structure	
Banking	
Cash Positioning	
Collections	
Disbursements	
Controls	
Technology	

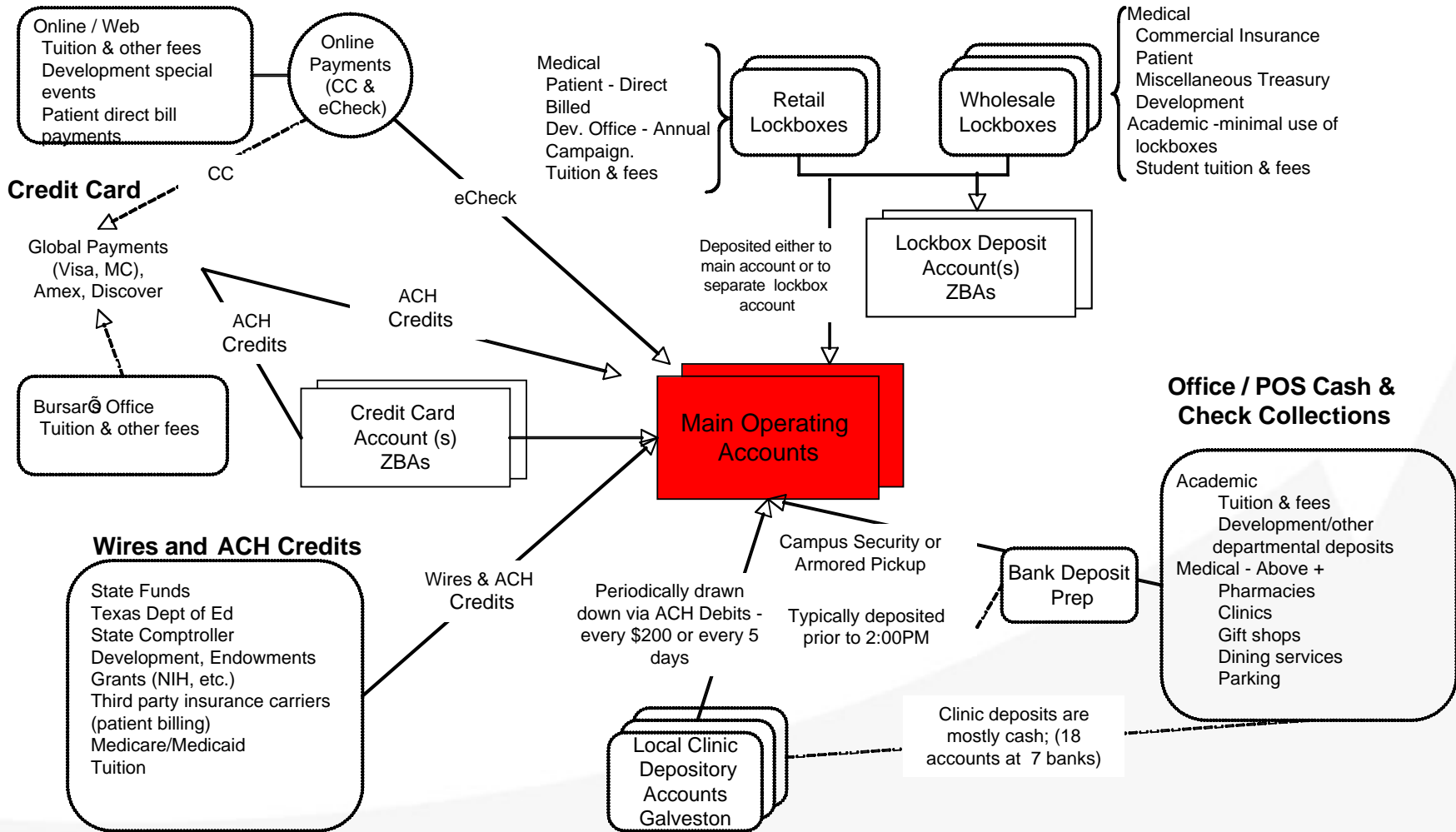
System-Wide

- » Collection practices across the System vary widely.
 - » UTOF has not defined a set of common collection practices to be used by the various institutions (e.g., collection of tuition and fees via the Web).
 - » Both Academic and Health institutions (for the most part) collect student payments. There are significant differences in how a student can pay depending on what institution he/she attends.
 - » Cash collection volumes can vary from institution to institution and security measures are not consistent.
 - » Electronic collection processes are utilized by majority of the institutions (i.e., eCheck, credit card, etc.).
 - » System-wide, there is no negotiated national armored car contract. Instead, each institution makes their own arrangements and establishes their own control procedures. At least three national firms have a presence throughout Texas.

Current Collection Process

U.T. Institutions - Typical Collection Processes

Check Collections - Lockboxes



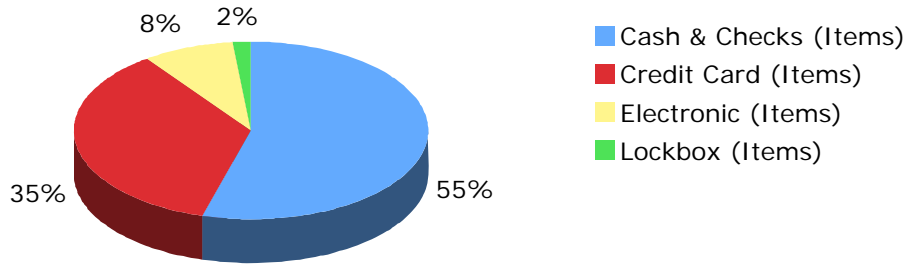
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3. U. T. System: Discussion and appropriate action regarding U. T. System Administration recommendations for banking and treasury services (cont.)

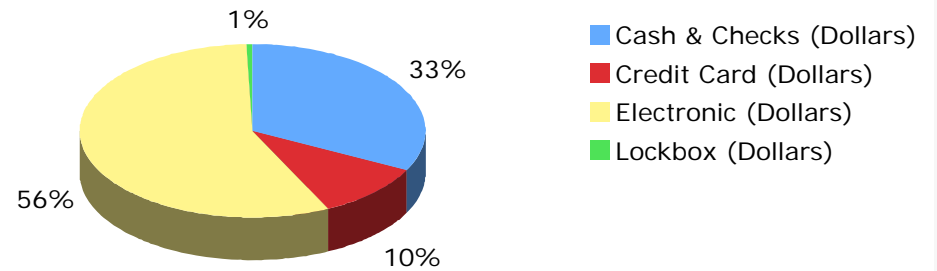


Composition of Incoming Payments Academic Institutions

Types of Payments By Items




Type of Payment By Dollar Value



Note - Charts reflect December 2005 data from Academic institutions

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Findings

50	Treasury Organization / Structure	
	Banking	
	Cash Positioning	
	Collections	
	Disbursements	
	Controls	
	Technology	

Academic

- » Academic institution disbursement practices are consistent and efficient (See page 22).
 - » Direct deposit of payroll is offered by most institutions.
 - » A/P is consolidated into a minimal number of controlled disbursement accounts. AP is centralized for all institutions on the Define system.
 - » P-cards are being utilized in some institutions.
 - » Some institutions are using ACH to pay vendors.
 - » Duties are well segregated at most institutions, and 8 of 9 institutions use positive pay.
 - » Check stock is well controlled in most institutions. However, few conduct random check stock audits, and some have weak physical access controls (i.e., U.T. San Antonio).

Health

- » Disbursement processes are generally cost effective and efficient. Payables processing is consolidated, except in cases where historical relationships have driven local banking practices.
 - » Most Health institutions use controlled disbursement accounts.
 - » Most institutions can disburse by check, wire, ACH or by purchasing card (at several institutions).
 - » With the exception of U.T. MD Anderson, U.T. HC Houston and U.T. MB Galveston, Health institutions do not maintain a formal list of authorized personnel approving payments.
 - » Disbursement roles are well segregated.
 - » Positive pay is used by all institutions except U.T. HC Tyler.
 - » Check processing is secure and check stock is designed to limit fraud.

System-Wide

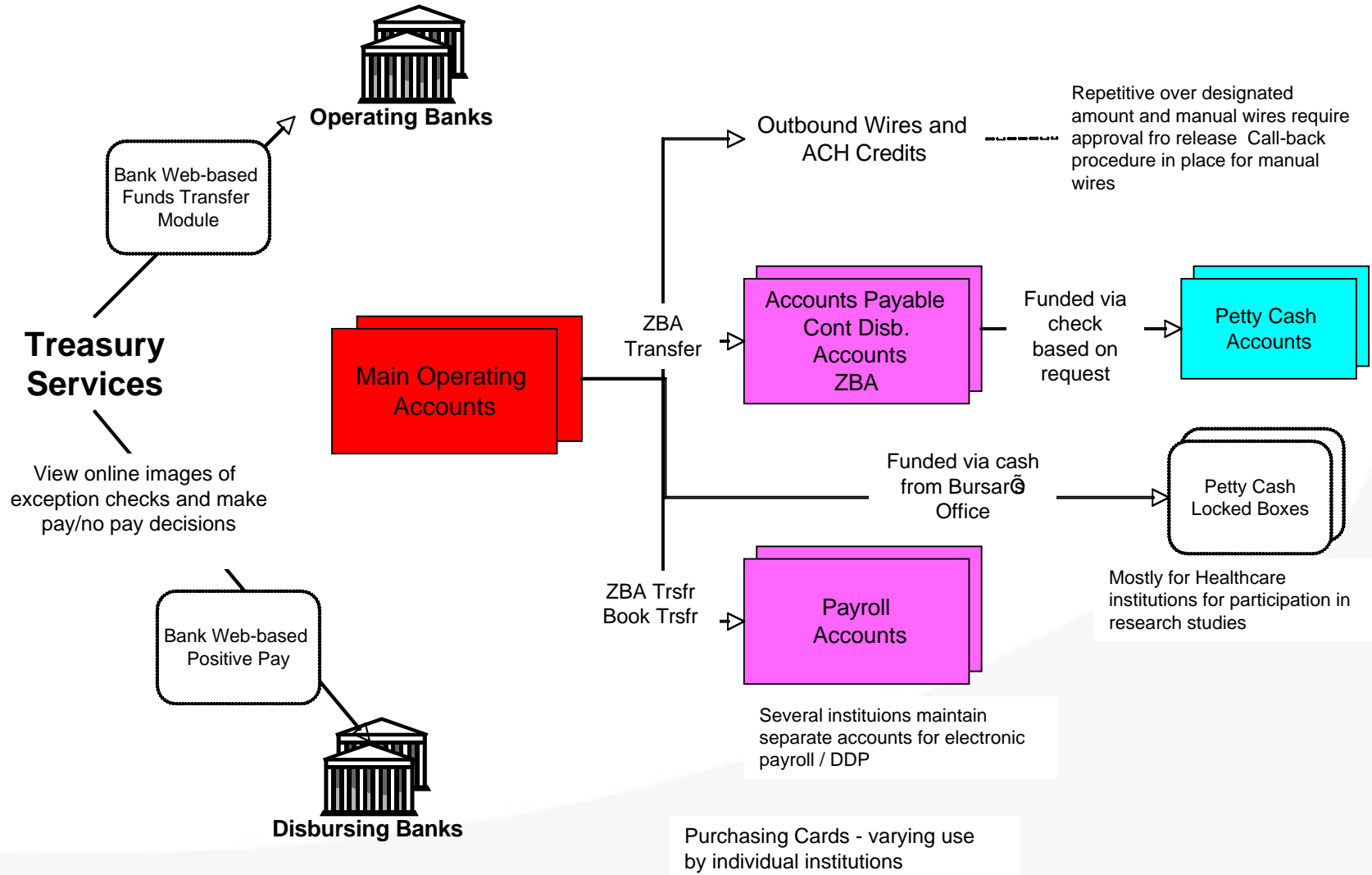
- » The Academic and Health institutions have efficient disbursement practices. However, most institutions do not follow best practice disbursement policies and procedures.
 - » Electronic payment methods lack standardization across the System (P-cards, direct billings, etc.).
 - » Process documentation is inadequate in most institutions across the System. Some institutions lack a documented authorized signatory list as well as signer turnover procedures.



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Current Disbursement Process

U.T. Institutions - Typical Disbursement Processes




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3. U. T. System: Discussion and appropriate action regarding U. T. System Administration recommendations for banking and treasury services (cont.)

Findings

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Treasury Organization / Structure	
Banking	
Cash Positioning	
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Academic


- » Internal controls were found to be inadequate in some areas:
 - » Positive pay is used by most, but not all institutions. Of the 9 institutions, 8 use positive pay.
 - » While check stock is generally secure, some exceptions were noted (e.g., checks kept in a locked file room but the key is readily accessible - U.T. San Antonio).
 - » Check stock is not routinely audited.
 - » Personnel physically delivering cash deposits are not currently escorted (e.g., U.T. Tyler).
 - » Wire transfer controls are strong.
 - » Few of the institutions have a documented disaster recovery policy in place.

Health

- » Treasury controls in place at the Health institutions are generally effective.
 - » The frequency of internal audits is inconsistent across the Health institutions.
 - » Documented treasury policies are not in place at all institutions. U.T. HSC Houston, U.T. MB Galveston and U.T. MD Anderson have excellent documentation in place for controls. Other Health institutions generally practice good controls, but have not formally documented the specific procedures.
 - » Some credit card PCI standard deficiencies were identified (e.g., data security issues).
 - » Check stock is secure in most institutions and most institutions use positive pay.
 - » Few of the institutions have a documented disaster recovery policy in place.

Findings

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Treasury Organization / Structure	
Banking	
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System-Wide

- » UTOF does not currently control system-wide compliance efforts or play an active enough role in treasury governance.
 - » UTOF has not developed treasury-wide written policies to set direction for cash management, banking, disbursement, collection or internal control practices.
 - » UTOF has not provided system-wide guidance on expectations around the establishment of effective treasury disaster recovery planning and testing.
- » Credit Card PCI standards are not strictly enforced.
 - » System-wide deficiencies have been cited relative to PCI standards:
 - › Sensitive data is not always kept in a safe, locked areas or shredded.
 - › CVV numbers are not taken when students pay via telephone.
 - › Credit card information can be taken over email in one institution.
 - » UTOF has not coordinated system-wide efforts to measure and ensure PCI compliance.

Findings

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Treasury Organization / Structure	
Banking	
Cash Positioning	
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Technology	

Academic


- » Academic institutions use basic technology and tools, but they are not being used as efficiently as possible.
 - » Most institutions use bank web services to retrieve balance and transaction details.
 - » No institutions use Treasury Workstation systems (TWS), though U.T. Pan American is exploring one vendor's product (Oracle).
 - » Many institutions use Excel spreadsheets to manually calculate their cash positions and for tracking the amount to transfer to the Dreyfus account (via CPS).
 - » Downloaded bank information is manually keyed into cash positioning Excel worksheets. Given the simplicity of cash flows and tools, re-keying of data is not time consuming but can lead to errors.
 - » A common ERP system isn't used system-wide. Define accounting software is used at most of the institutions (6 out of 9). The other institutions are on Oracle, Colleague (DataTel), and PeopleSoft.

Health

- » Health institutions vary in their need and use of technology due to size and volumes.
 - » Cash positioning is generally managed with the use of Excel spreadsheets, which are manually updated each day.
 - » ERP systems are used at several Health institutions for portions of the cash function (U.T. HSC Houston processes wires directly through PeopleSoft to the bank). The health industry does not have a "one size fits all" ERP system available.
 - » Selkirk/Thomas Financial ASP solution was tested at U.T. MD Anderson but abandoned because detail provided on electronic receipts could not be easily translated into worksheet.

Findings

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Treasury Organization / Structure	
Banking	
Cash Positioning	
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Disbursements	
Controls	
Technology	

System-Wide

- » Academic and Health institution treasury groups utilize technology where possible.
 - » Health institutions could benefit from treasury technology, but information is complex and not easily translated into available systems.
 - » TWS technology may not be cost-effective for a single institution, but may be cost-justified for the entire System.
 - » UTOF does use limited technology to support certain treasury tasks such as bank balance reporting, collateral management and in-house cash pooling (to facilitate liquidity management through CPS System).
 - » The collateral system is very old, and is supported by a single external resource (retired). If access to this individual were disrupted, the system would not be easily sustainable.

Recommendations

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Treasury Organization / Structure	
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- » Centralize treasury at UTOF to enhance operational performance, improve governance, strengthen the treasury control framework and achieve cost savings and higher investment earnings across the entire organization.
 - » Under a centralized approach, UTOF would manage all daily cash positioning, funds movement, banking and perform liquidity/investment decisioning and execution.
 - » A centralized treasury will ensure the necessary leadership and guidance on key issues such as compliance with Payment Card Industry (PCI) standards, policy formation and governance (including disaster planning), implementation of improved forecasting procedures, effective balance management and successful utilization of treasury technology.
 - » A centralized treasury could operate with far fewer personnel than are required under the current decentralized structure. As illustrated in the table below, most centralized academic and health treasury operations require no more than seven FTEs - UTOF now has approximately five.

Benchmark Entity	Treasury FTEs	# Students	Annual Revenue
Indiana University	13.00	98,000	-
Michigan State University	3.63	40,000	-
Ohio State University	5.50	50,000	-
Purdue University	6.50	69,000	-
University of Missouri	4.00	63,000	-
University of Colorado	7.00	50,000	-
University of Illinois	11.00	68,000	-
University of Iowa	1.00	29,000	-
Higher Ed Benchmark Average	6.45	58,375	-
Healthcare Benchmark 1	5.20	-	\$0 to \$1 B
Healthcare Benchmark 2	5.50	-	\$1 B to \$25 B
Healthcare Average	5.40	-	\$0 to \$25 B
UTOF	4.90	-	-

Recommendations


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Treasury Organization / Structure	
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- » While a fully centralized treasury offers the most significant net benefits to the organization, U.T. could implement other structures, or simply modify current procedures under the existing decentralized treasury structure.
 - » Under a dual centralization structure, two centralized treasury functions would replace the 15 separate operations currently in place. One would manage treasury activities for Academic institutions, and the other would manage Health institution treasury activities.
 - » A dual centralization structure would offer many of the overall economic benefits available from full centralization, but would fall short of providing the optimal control, leadership and governance capabilities available from a fully centralized structure. Yet this structure would require as much, or more time and costs to implement.
 - » U.T. could retain its current decentralized treasury structure and still implement a variety of the recommended improvements highlighted through this review. However, as illustrated in the Summary of Potential Savings provided on page 44, this approach is not recommended from a cost/benefit perspective.

Recommendations

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Treasury Organization / Structure	
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- » Work to consolidate banking across the U.T. System. A single bank, or small number of institutions, could effectively serve the entire U.T. System.
 - » See banking provider coverage depicted on page 30).
- » Re-bid system-wide banking services to benefit fully from the System's significant scale.
 - » UTOF should assume responsibility for managing centralized re-bidding of services.
 - » Services should be re-bid every 3 to 5 years.
- » Simplify the banking structure to facilitate effective cash management, cost-effective funds concentration, and access/visibility of information.
 - » The banking structure should support centralized management of treasury.
- » Develop an effective process to monitor fees, service levels and general effectiveness of bank relationships.
 - » Review bank fees in detail each month - examine pricing and volumes.
 - » Conduct formal annual banking reviews with bank relationship officer to discuss the bank's goals and objective for the System. Incorporate report cards to record and track performance issues and resolution status.
 - » Institute service level agreements for all key areas of banking service.
- » The pros and cons of using local providers versus a centralized, regional provider must be carefully weighed.
 - » See comparative chart on page 31.



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Banking Coverage for U.T. Institutions

Institution	Bank							
	Frost	Bank of America	Southside	J.P. Morgan	Amegy	Moody	Wells Fargo	American State
U.T. Arlington	Available	Available		X			Available	
U.T. Austin	X	Available		X			Available	
U.T. Brownsville	Available	Available		X			Available	
U.T. Dallas	Available	X		Available	Available		Available	
U.T. El Paso		Available		Available			X	
U.T. Pan American	Available	X		Available			Available	
U.T. Permian Basin	X*	Available		Available			Available	X
U.T. San Antonio	X	X		Available			Available	
U.T. Tyler		Available	X	Available				
U.T. HSC San Antonio	X	Available		Available			Available	
U.T. MB Galveston	X	X		X*	X	X		
U.T. SWMC Dallas	Available	X		Available			Available	
U.T. HC Tyler		X	Available	Available				
U.T. MD Anderson	Available	Available		X	X	Available	Available	
U.T. HSC Houston	Available	Available		X	Available	Available	Available	
Total:	5 Used 12 Available	6 Used 15 Available	1 Used 2 Available	6 Used 15 Available	2 Used 4 Available	1 Used 3 Available	1 Used 12 Available	1 Used 1 Available

x = used by UT


* = not available geographically but still used by institution

Pros/Cons of Centralizing Banking

Pros:	Cons:
<p>With centralization, U.T. can fully utilize its scale to effectively negotiate fees and services. The institutions that would be considered for centralization are larger, and typically do not have the same strong community ties that could unduly influence effective bank relationship management practices.</p>	<p>Use of a large regional, or national banking provider may project negative signals to the community (e.g., taking business away from the local business base).</p>
<p>Larger, regional banks typically offer more advanced capabilities, services and technology than local banks.</p>	<p>Entities with a single banking provider do not experience the full benefits of competition, and have limited fall back capabilities in a disaster recovery scenario.</p>
<p>Larger banks offer greater staff bench strength and customer support capabilities than many local banks.</p>	<p>A larger regional bank may not be as responsive and attentive as local banks are with their respective institutions. If problems arise, the local bank is quick to help the institution, because oftentimes, the institution is their largest customer.</p>
<p>A consolidated banking structure is less costly from a cash management and cash concentration perspective. It would also offer U.T. the ability to lower fees by avoiding duplicative services and fixed costs.</p>	<p>Centralized banking may not offer U.T. the same customized service solutions that a local bank would. Smaller providers are sometimes more willing to customize product and service offerings, albeit they may rely on manual delivery.</p>
<p>Larger banks may be less susceptible to acquisition and ultimate change than are smaller, local institutions.</p>	<p>A centralized bank may not offer the same advantages in geographic proximity to the individual U.T. institutions as a local bank.</p>

Recommendations


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Treasury Organization / Structure	
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- » A centralized treasury function operates most efficiently when supported by a banking structure that simplifies the cash positioning process.
- » To support cash positioning, U.T. should implement a banking structure that automates concentration and disbursement activities through a single master account.
 - » Optimally, establish a single bank for collection, depository and concentration services.
 - › To the extent multiple collection banks are used, establish automated concentration of deposits.
 - » Establish zero balance sub-concentration accounts for the individual U.T. institutions into which funds are deposited directly via incoming wires and ACH credits, lockboxes, POS deposits (cash and check conversion).
 - › Provide the individual institutions with access to the bank's web-based electronic funds transfer module to initiate and approve wire/ ACH credits at the institution level and release at the U.T. System level.
 - » Establish a single disbursing bank with individual zero balance accounts payables and payroll accounts for U.T. System and the individual institutions.

An illustration of the recommended U.T. banking structure is provided on page 34.

Recommendations

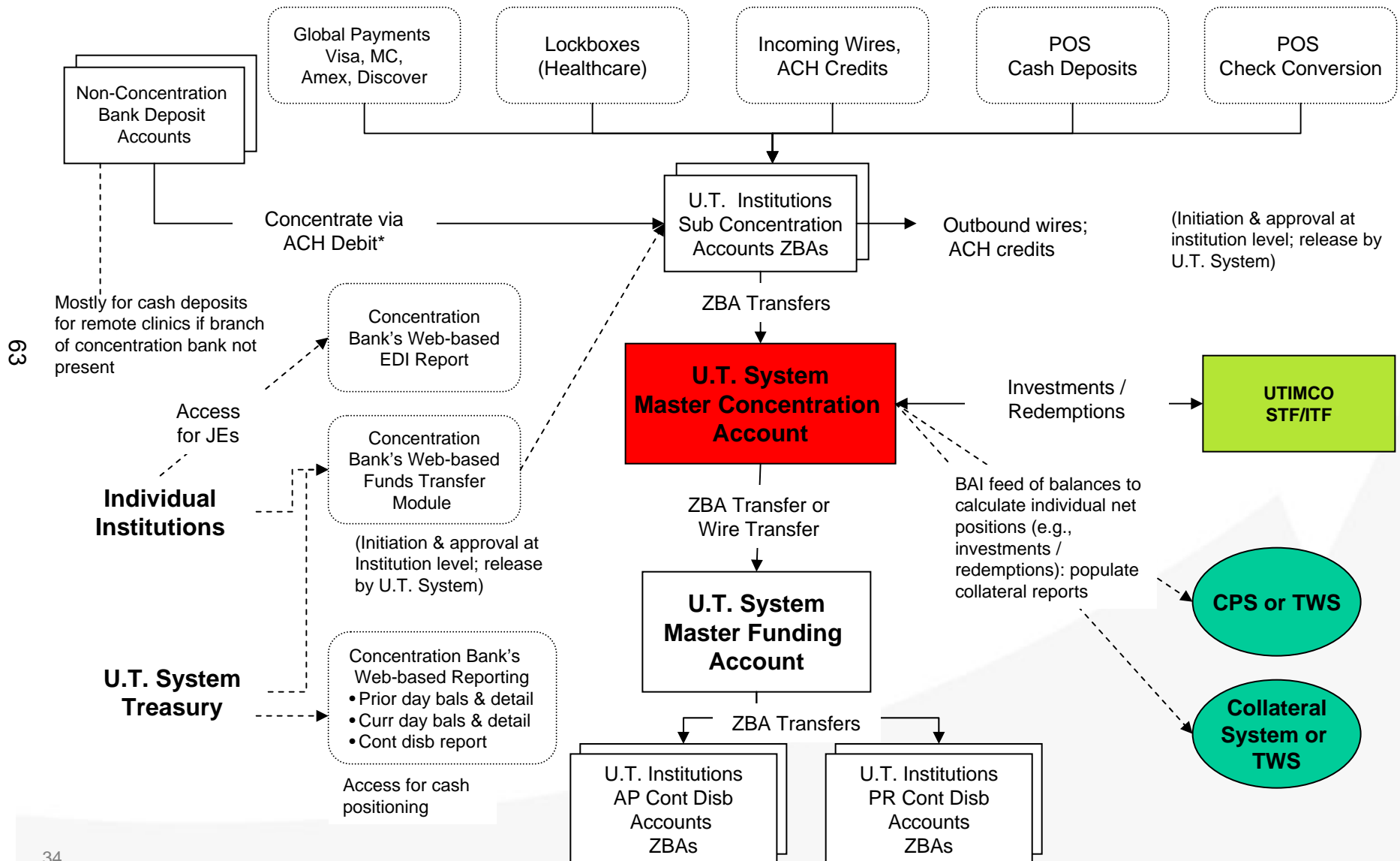
62	Treasury Organization / Structure	
	Banking	
	Cash Positioning	
	Collections	
	Disbursements	
	Controls	
	Technology	

- » If determined to be cost-effective, establish a Treasury Workstation to support optimal cash positioning.
- » TWS technology supports the cash positioning process by performing various tasks efficiently, with minimal manual intervention. These include:
 - » Automated polling of bank balances.
 - » Electronic payment processing.
 - › Including remote access by the institutions for initiation and approval, with release at the U.T. System level.
 - » Cash pool management/In-house banking, potentially replacing the collateral system and the internal pool allocations in the CPS system.
 - » Prior-day cash position reconciliation.
 - » Creation of journal entries and export to the the U.T. System GL.
 - » Provide the institutions online access to their bank information.
 - » Provide a “self-serve” environment to view cash pool transactions, enter request for internal pool allocations and generate journal entries on an as-needed basis.

Note - The chart on page 35 illustrates how a TWS would support these processes.

Proposed Bank Account Structure

Centralized Treasury Model

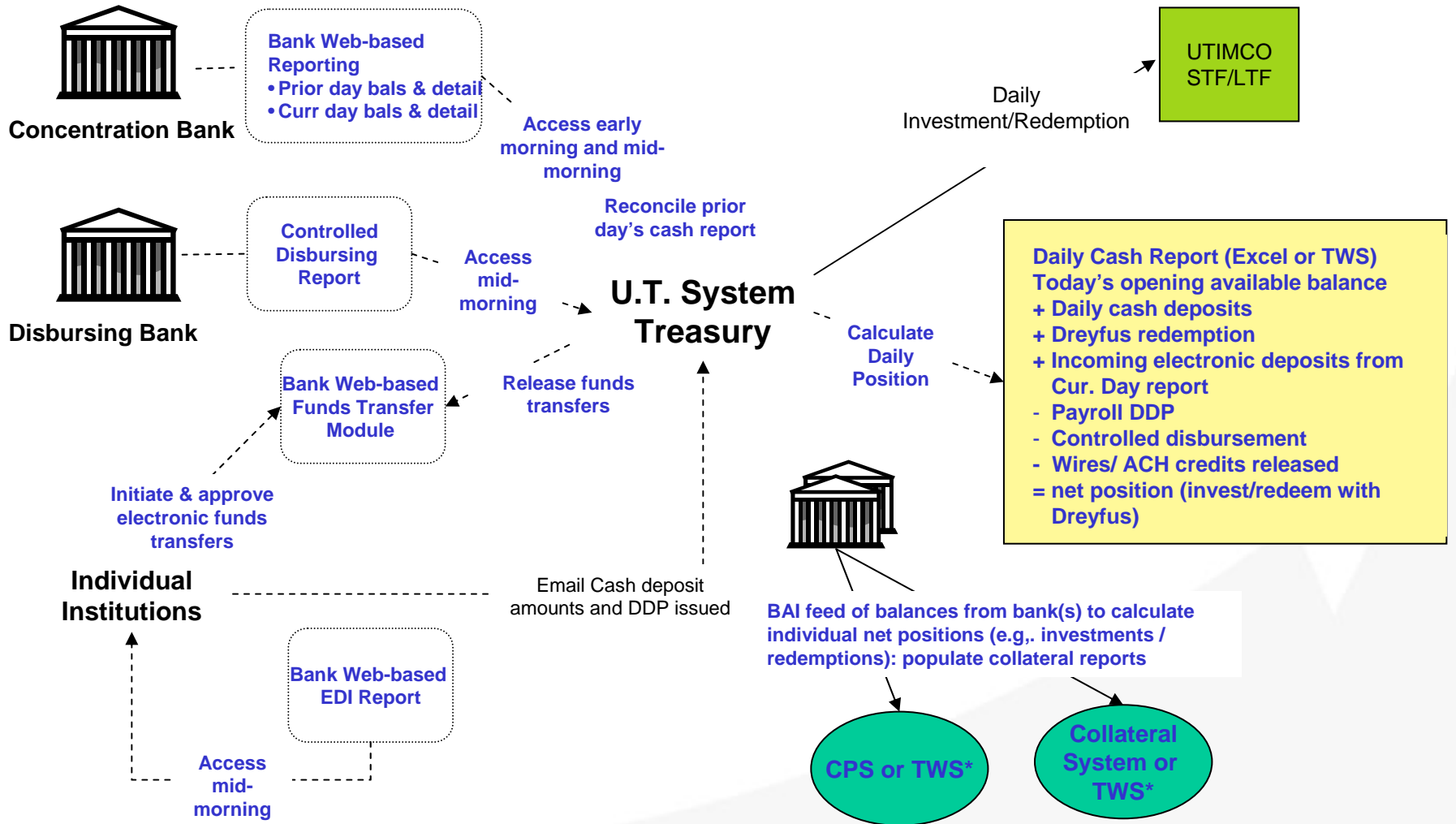


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Proposed Cash Positioning Process




NOTE: The above processes in blue can be automated through the implementation of treasury technology, specifically a Treasury Workstation

3. U. T. System: Discussion and appropriate action regarding U. T. System Administration recommendations for banking and treasury services (cont.)

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Recommendations

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	Disbursements	
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	Technology	


- » Improve collection efficiencies and costs by continuing the shift from cash and paper to electronic.
 - » Emphasize or begin to offer online payments via credit card and eCheck for student tuition payments and fees, patient direct bill payments, and other payments such as alumni contributions.
 - › Implement online eCheck where not currently offered and encourage where currently offered to achieve greater cost efficiencies.

- » Enhance point-of-sale (POS) deposit timing, cost efficiencies and security.
 - » Implement check conversion processes to accelerate the deposit and collection of checks received at POS.
 - » Where check conversion is either not feasible or cost effective, implement check encoding procedures to reduce bank deposit costs and potentially accelerate collection due to later deposit deadlines.
 - » Explore a system-wide armored car contract with virtual deposit capability.
 - » Improve use of armored car services with documented procedures.

- » Monitor lockbox processing, performance, services provided and availability.
 - » Consolidate lockbox services at a single bank, as discussed in the Banking section, to achieve enhanced services and pricing.
 - » Involve patient billing in the selection process to ensure that service is targeted and explored specifically with regard to healthcare providers.

Recommendations

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Treasury Organization / Structure	
Banking	
Cash Positioning	
Collections	
Disbursements	
Controls	
Technology	

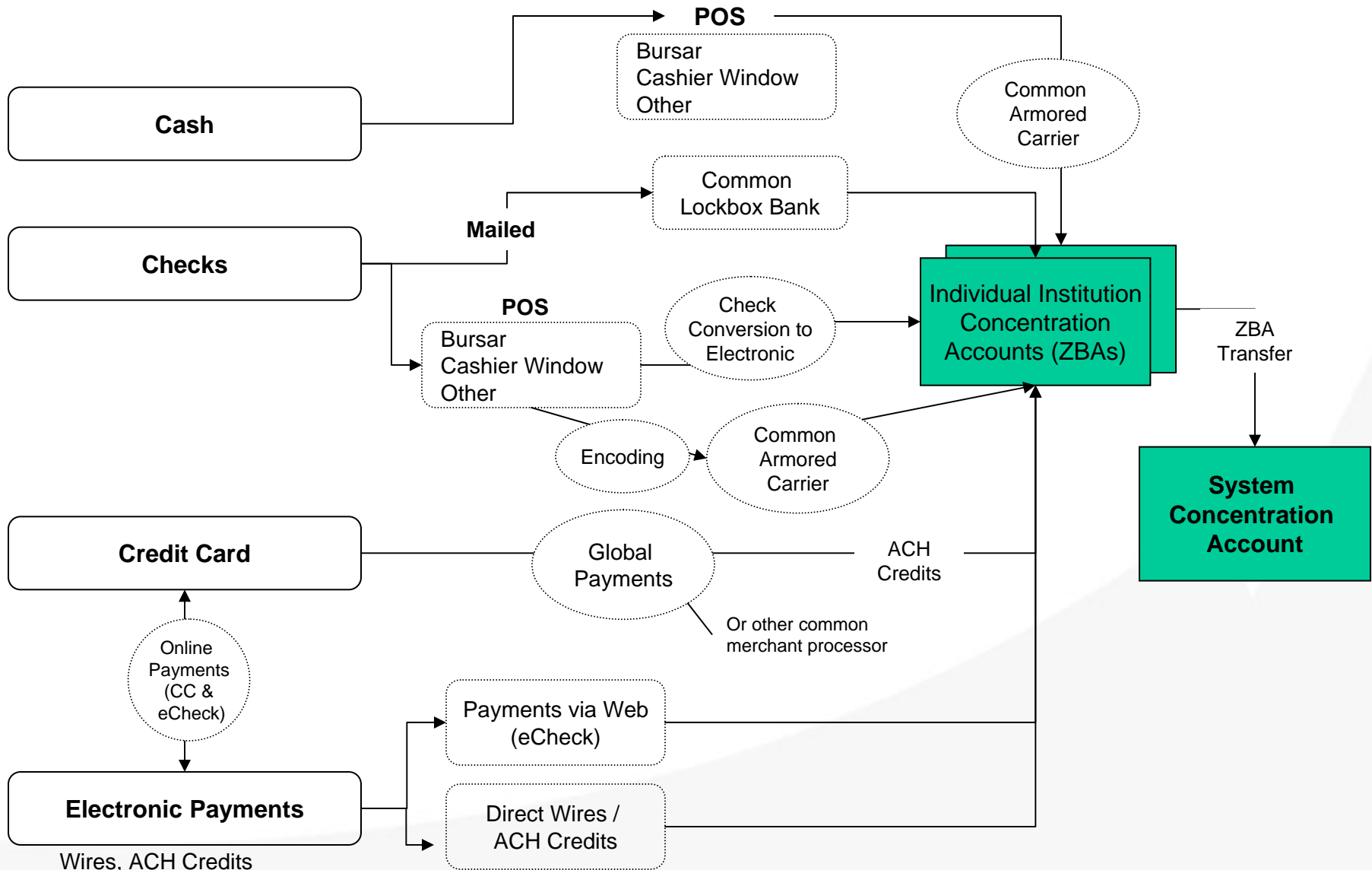
- » Information processing needs to be automated with greater communications from internal departments to treasury.
 - » Improve information flowing to treasury from other departments.
 - » Greater push needed to implement electronic information exchange from customers sending electronic payments.

Note - The proposed collection process for the System is illustrated on page 38.



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Proposed Collection Process




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3. U. T. System: Discussion and appropriate action regarding U. T. System Administration recommendations for banking and treasury services (cont.)

Recommendations

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Treasury Organization / Structure	
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- » Encourage greater centralization of disbursement processing.
 - » Encourage more institutions to move to a centralized disbursement process (similar to the approach used by the Academic institutions on Define).
 - » An effective disbursement structure is depicted on page 40.

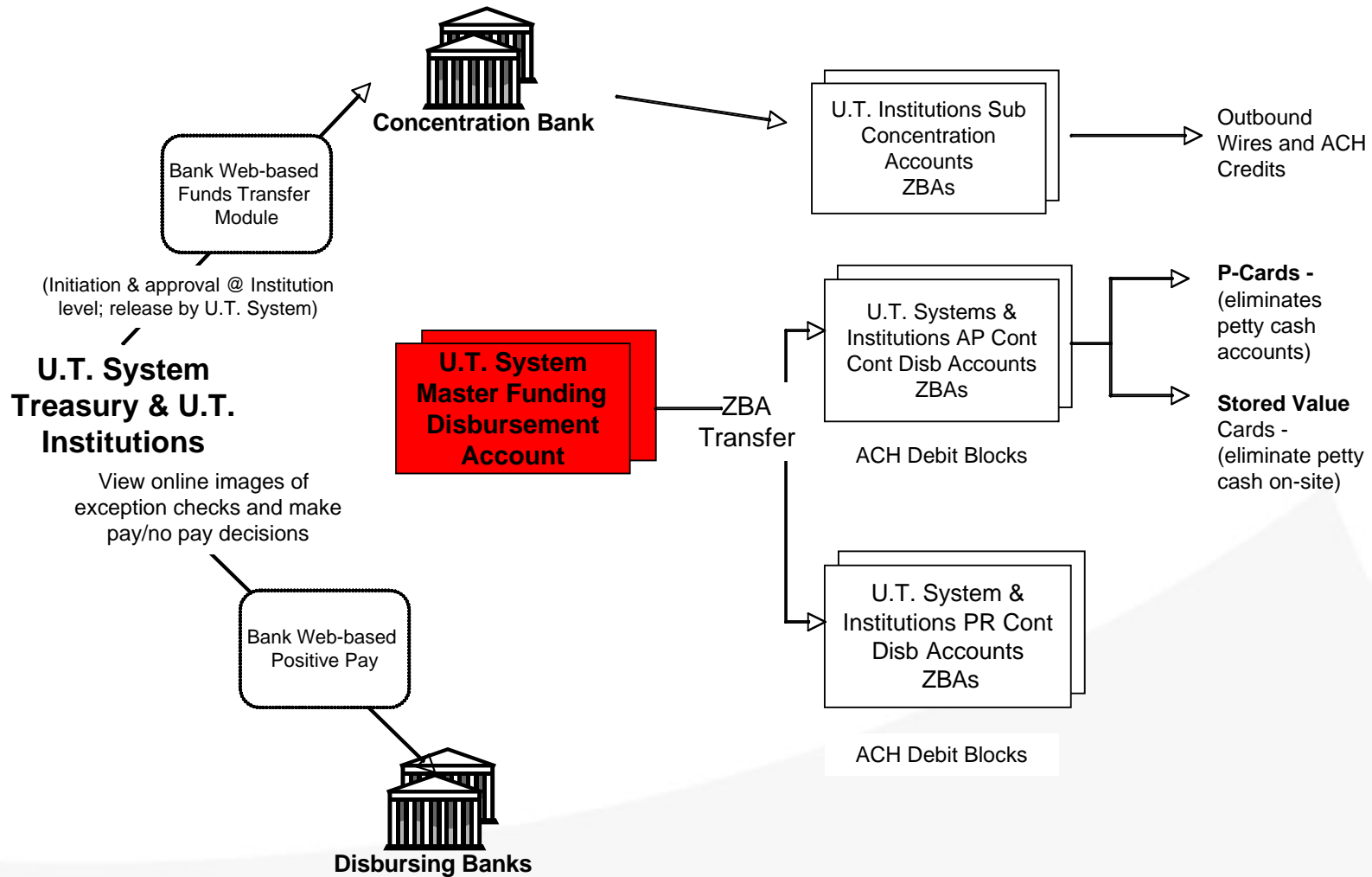
- » Explore opportunities to further streamline the disbursement related banking structure.
 - » Review bank relationships and consolidate disbursement accounts to facilitate a centralized processing approach.

- » To facilitate efficient, cost-effective and timely payments, ensure that system disbursement capabilities allow for multiple payment options.
 - » Increase use of ACH payments wherever possible.
 - » Explore greater use of additional electronic payment methods (direct billing, etc.).
 - » Explore system-wide opportunities to increase the use of P-cards and/or stored value cards for miscellaneous payments (currently paid by check or by cash).

- » Improve system-wide documentation and processes supporting disbursement of funds.
 - » Ensure that an effective process is in place to maintain and distribute timely information on the signers authorized to approve payment requests.
 - » Mandate consistent procedures throughout the System for validating payment requestors names and signatures against a current list of authorized signers before disbursements are made.


Recommendations

Proposed Disbursement Processes



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Recommendations

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- » U.T. should voluntarily adopt the robust control objectives established in the Sarbanes-Oxley Act of 2002 (SOX). The System should focus particular emphasis on implementing COSO (Committee of Sponsoring Organizations) standards, which are the recognized basis for the control elements targeted by SOX. COSO outlines specific controls in five areas:
 - › Control Environment
 - › Risk Assessment
 - › Control Activities
 - › Information & Communication
 - › Monitoring

- » At a more tactical level, UTOF should ensure that basic treasury-related controls are in place throughout the System.
 - » Implement positive pay for all disbursement accounts.
 - » Explore the use of payee match services to further enhance the effectiveness of positive pay.
 - » Implement ACH debit blocks on accounts wherever possible.
 - » Implement standardized requirements for basic controls around check stock:
 - › Secure storage/limited access.
 - › Check stock safety features (e.g., void pantagraph).
 - › Random check stock audits.


Recommendations

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- » Test controls periodically through internal or external audits/assessments.
 - » U.T.'s treasury functions should be audited on a routine, periodic basis. The frequency of review should be a minimum of every two years.
 - » Maintain current documentation of key treasury processes and procedures, policies and controls. These will serve as an effective reference point to ensure organizational standards of performance.
- » Ensure system-wide compliance with credit card PCI standards.
 - » Determine merchant status for entire system.
 - » Complete required testing (IP Scans) and self assessment steps.
 - » Develop rigorous ongoing compliance program, including training for all areas handling cards.

Recommendations

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Treasury Organization / Structure	
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- » U.T. should perform a cost/benefit analysis to determine whether a Treasury Workstation system (TWS) can be economically justified.
 - » While no single U.T. institution would likely cost-justify the purchase of a TWS, if used to support the entire organization, sufficient system-wide benefits may accrue to justify the expenditure.
 - » TWS technology can enhance operational efficiency and play an important part in the organizational control framework.

- » Examine a replacement solution for U.T.'s current collateral system.
 - » Select a suitable replacement tool to support the collateral tracking and reporting needs of the organization.
 - » Ensure that the chosen tool can be easily maintained and supported from an IT perspective.

Summary of Potential Savings

Savings Projections:	Centralization		Decentralization with Modifications		Dual Centralization	
	Savings	Cost	Savings	Cost	Savings	Cost
Banking:						
Reduction in bank fees through UTOF negotiation	\$ 1,080,000		\$ 270,000		\$ 972,000	
Elimination of stop pay charges	\$ 36,000		\$ 9,000		\$ 18,000	
Savings from pre-encoding checks deposited	\$ 34,115		\$ 8,529		\$ 17,058	
Reduction of overall number of bank accounts	\$ 143,626		\$ 56,930		\$ 127,976	
Staffing:						
FTE Savings from Treasury Centralization	\$ 750,000	\$ 84,000			\$ 650,000	\$ 84,000
Balance Management:						
Utilization of interest bearing accounts/sweeps	\$ 98,000		\$ 24,500		\$ 49,000	
Other:						
Formalized Disaster Recovery Plan						
Savings from national armored car service contract	\$ 12,109		\$ 3,027		\$ 6,055	
RFP support		\$ 42,000		\$ 42,000		\$ 42,000
Implementation		\$ 28,000		\$ 28,000		\$ 28,000
Improved collection availability	\$ 4,460			\$ 4,460	\$ -	
RFP support		\$ 112,000		\$ 112,000		\$ 112,000
Implementation		\$ 84,000		\$ 84,000		\$ 84,000
Enhanced Internal Controls						
Estimated cost for positive pay (U.T. Tyler, U.T. HSC Tyler)		\$ 587		\$ 293		\$ 587
Estimated cost for ACH debit blocks per month		\$ 14,100		\$ 8,700		\$ 14,700
Treasury Technology (ASP Technology, Yearly Charge)		\$ 73,000				\$ 73,000
RFP support		\$ 84,000				\$ 84,000
Implementation		\$ 126,000				\$ 126,000
One-time cost for encoding equipment		\$ 19,600		\$ 4,900		\$ 19,600
Total Potential Savings	\$ 2,158,310	\$ 667,287	\$ 371,986	\$ 284,353	\$ 1,840,088	\$ 667,887

****Note: Figures in red represent estimated consulting costs to achieve these tasks.**

Other Notes:

Savings from National Armored Car Service: Estimate of 15% savings is likely.

Improved Collection Availability: Improved collection from standardized processes and increased electrification (Savings @ Arlington without Sallie Mae lockbox).

Reduction of Number of bank accounts to ideal: (155 accounts to 47 in centralization, 49 in dual centralization, 116 in decentralization; Savings in Information Reporting Fees & Acct. Maint.).

ACH Debit Blocks: (\$25/account; Centralization - 47 accounts, Decentralization - 116 accounts, Dual Centralization - 49 accounts).

Treasury Technology: ASP technology: 4,000/month + one-time implementation charge.

Pre-encoding: One-time cost for equip. for 14 sites @ \$1400/device.

Appendices

- Process Flow Charts
- Best Practice Matrices
- Bank Fee Analyses
- Proposed Implementation Sequencing and Timing

Proposed Implementation Sequencing & Timing

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