

OFFICE OF THE CITY CONTROLLER



CITY OF HOUSTON

2018 ENTERPRISE RISK ASSESSMENT

Chris B. Brown, City Controller

Courtney E. Smith, City Auditor



**OFFICE OF THE CITY CONTROLLER
CITY OF HOUSTON
TEXAS**

CHRIS B. BROWN

September 10, 2018

The Honorable Sylvester Turner, Mayor
City of Houston, Texas

**SUBJECT: REPORT #2019-04
CITY OF HOUSTON – 2018 ENTERPRISE RISK ASSESSMENT**

Mayor Turner:

I'm pleased to submit to you the Enterprise Risk Assessment (ERA) performed by the Controller's Office Audit Division during Fiscal Year (FY) 2018. This is a process that supports our efforts in developing the FY 2018 Annual Audit Plan and deploying the necessary resources to execute.

The risk assessment process is performed annually by selecting and updating five to seven departments each fiscal year. This approach provides full coverage of all City Departments over a four to five year period rather than re-perform the entire process every year. Our methodology is consistent with professional standards and considers available resources, cost-benefit, and will allow us to advance the quality of the assessment each cycle.

In selecting the departments to update, we identified and considered several factors, including "Notable Changes since the Previous Risk Assessment" (See Executive Summary, p.2). Based on this, the six departments selected and updated for the FY2018 ERA were:

- Administration and Regulatory Affairs Department (ARA)
- Controller's Office (CTR)
- Houston Airport System (HAS)
- Houston Information Technology Services (HITS)
- Houston Parks and Recreation Department (HPARD)
- Human Resources Department (HR)

The ERA Report contains two sections: Executive Summary and Separate Risk Profiles organized by key business processes within each department. There are two primary perspectives that are graphically presented within the Executive Summary, and shown in detail within each Risk Profile. These perspectives are described as follows:

KEY BUSINESS PROCESSES – analyzed by common functions performed across the organization, which can reveal potential efficiencies, overlap, redundancies, synergies, and leverage of resources. This perspective is looking at activities that the City performs without consideration of its organizational structure; and

DEPARTMENTAL - analyzed in terms of the impact and likelihood of risk associated with the organizational design in executing the City's overall mission and objectives.



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We appreciate the cooperation and professionalism extended to the Audit Division during the project by personnel from ARA, CTR, HAS, HITS, HPARD and HR.

Respectfully submitted,

Chris B. Brown
City Controller

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Marvalette Hunter, Chief of Staff, Mayor's Office
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EXECUTIVE SUMMARY

PURPOSE AND INTRODUCTION

The Audit Division within the Office of the City Controller adheres to professional standards issued by the Government Accountability Office (GAO's *Yellowbook*) and the International Standards of the Professional Practice of Internal Auditing (*Redbook*) per the Institute of Internal Auditors (IIA). Both sets of standards require a risk-based approach to identify the scope and objectives of the audit planning and to properly design audit procedures. The *Redbook* specifically requires an Enterprise Risk Assessment (ERA) process be performed annually as a primary driver to support the annual audit plan, while the *Yellowbook* requires that risk be considered at the engagement/process level.

In adherence to these Standards, the Audit Division applies risk-based methodology in the following manner:

- Annual ERA on all major processes that include five to seven departments, which then provides a basis for input to the Audit Plan.
- Risk Assessment procedures at the Engagement/Audit project level; and
- Risk Consideration in rendering conclusions and determining the impact and magnitude of findings and preparing the final audit report.

BACKGROUND AND METHODOLOGY –

The Audit Division conducts an annual process to update the ERA. Departments are selected on a rotational basis for efficiency and to ensure full coverage of all City Departments over a four to five-year period. The 2018 ERA process includes other considerations in addition to length of time since the previous assessment. The process begins with preliminary planning, a review of prior risk assessment reports, consideration of Audit Reports issued since the departments were last updated, and the following components, as impacted during the fiscal year.

COMPONENTS OF THE ANNUAL ERA PROCESS:

- Notable Changes
 - Significant Events and Operational Changes
 - Structural Changes (new departments, creating new entities, changes to processes, consolidation, etc.)
- Consideration of Significant Information Technology and Systems
- Department Risk Profile Updates

NOTABLE CHANGES

To apply the risk based methodology noted above, the Audit Division considers significant changes of events, operational and/or business processes, as well as changes in departmental leadership that have occurred since the last risk assessment update. These changes, whether individually or collectively, may have an effect on the way the City conducts business operationally and the resources available. The Audit Division considers these factors when preparing the Annual Audit Plan.



SIGNIFICANT EVENTS AND OPERATIONAL CHANGES SINCE THE FY2017 ENTERPRISE RISK ASSESSMENT UPDATE (ERA) – include the following:

- In late August 2017, Hurricane Harvey produced record rainfall and catastrophic flooding, causing over \$29.8 million in damages to public buildings in the Houston area. The flooding caused damage to a record number of homes, apartments, businesses, and roadways, resulting in major shut-downs within the City including local and surrounding area businesses, all area school districts, Houston City Hall, the City Hall Annex, and several Municipal Courts locations. The record flooding necessitated countless high-water rescues, and resulted in numerous fatalities. The Governor's request for a federal disaster declaration was approved, paving the way for federal recovery assistance.
- On May 8, 2018, the Mayor delivered his proposed FY 2019 budget to the City Council after closing a deficit of more than \$114 million. The proposed General Fund budget of \$2.48 billion represents an increase of \$83 million or 3.5 percent from the FY2018 budget.
- In March 2018, the City won a \$9.4 million Transportation Investment Generating Economic Recovery (TIGER) grant from the U.S. Department of Transportation to improve 40 flood-prone traffic intersections with new technology that alerts drivers when high water is present.
- In June 2018, the City was selected to participate in the Transportation for America (T4America) Smart Cities Collaborative program. Houston will join other communities to tackle how new approaches are reshaping the use of the right-of-way and curb space to ensure people and goods move safely and efficiently through cities, such as Houston.
- In August 2017, the City signed an agreement with the Texas Central Railroad Company for development of high-speed train and passenger connections between Houston and North Texas.
- In May 2018, the Mayor announced an alliance between the City and tech giant, Microsoft. The alliance will support the promotion and establishment of initiatives that focus on STEM education, technological innovation, and expanded computer literacy for Houston, its local government and non-profit partners in the area.
- In April 2018, the City adopted new rules for future construction of homes and buildings in flood plains. New construction must sit two feet above the 500-year flood plain instead of one foot above the 100-year flood plain, per the old standard. Rules regarding rainwater retention areas were also updated. The new rules will take effect September 1, 2018.
- In June 2018, the City reached a three-year salary increase agreement with civilian municipal employees. The agreement calls for across the board pay increases in fiscal years 2019 at 3%, 2020 at 2%, and 2021 at 1%. If property taxes and sales taxes reach a threshold in the adopted budget for fiscal year 2021, an additional 1% across the board increase will be granted.
- On November 14, 2017, Moody's Investors Service boosted the City's bond rating to Aa3 "stable," from Aa3 "negative outlook," following approval of all five city bond propositions in the November 7, 2017 election.



SIGNIFICANT EVENTS AND OPERATIONAL CHANGES SINCE THE FY2017 ENTERPRISE RISK ASSESSMENT UPDATE (ERA) CONT.

- On November 20, 2017, the City released its audited Comprehensive Annual Financial Report (CAFR) for FY2017. The Report showed a total net position of \$1.855 billion, a \$1.91 billion increase over the prior year deficit of \$95 million.
- In February 2018, a laptop computer that may have contained personal data including names, addresses, dates of birth, Social Security numbers and other medical information was stolen from the vehicle of a City employee. The breach potentially affected employees, retirees, and their dependents.

STRUCTURAL CHANGES TO THE RISK UNIVERSE -

Changes to the Risk Universe are considered when for example: There are Departmental and/or management structure changes; functions/responsibilities/processes are added, or eliminated; and consolidation, centralization, or decentralization occurs between Departments or on a City-wide basis. In addition, the Audit Division must consider the Risk Universe of the increasing number of Local Government Corporations (LGC) being created on the City's behalf, as well as other forms of Component Units (**See description below**).

AUDITABLE ENTITIES – For risk assessment purposes, Auditable Entities are defined as areas upon which audits or reviews can be conducted by internal or external auditors. These functions or activities may also be considered key business processes or defined organizational structures, as described in more detail below. Changes that occurred in the risk universe included:

- The Mayor's Office created two new Divisions to include: 1) The Office of Public Safety and Homeland Security, which includes Homeland Security, the Office of Emergency Management, the Houston Emergency Center, and Houston Crackdown; and 2) The Office of Trade and International Affairs, which serves as an international liaison to attract foreign trade to and from Houston, promoting bilateral relationships between City leaders and delegates from all over the world.
- Key personnel appointments made during FY2018 included:
 - Stephen Wright – Director, Houston Parks and Recreation Department (July 2017)
 - Carol Ellinger Haddock – Director, Houston Public Works Department (HPW) (January 2018)
 - George Buenik – Director, Mayor's Office of Public Safety and Homeland Security (February 2018)
 - Tantri Erlinawati-Emo – Director, Finance Department (June 2018)
 - Christopher Olson – Director, Office of Trade and International Affairs (June 2018)



COMPONENT UNITS - Component Units are defined by the Governmental Accounting Standards Board (GASB)¹ as related entities, whose leadership/management is controlled and/or appointed by a primary government (e.g. City of Houston) and who are dependent on the primary government financially or who would not exist if the primary government did not exist. In determining whether a particular legally separate entity is a component unit of a primary government, there are three specific tests that involve:

- Appointment of the unit's governing board;
- Fiscal dependence on the primary government; and
- The potential that exclusion would result in misleading financial reporting.

Most Component Units of the City are responsible for obtaining and issuing audited financial statements, which are submitted to the City for reporting purposes. Component Units are reported in the City's Comprehensive Annual Financial Report (CAFR). Blended component units (although legally separate entities) are, in substance, part of the City's operations and they provide services exclusively or almost exclusively for the City. In addition, both discretely presented component units - governmental and business-type- are presented in the CAFR.

A Component Unit is considered major, and thus presented discretely, if assets, liabilities, revenues, or expenses exceed 10% of that Component Unit's class and exceed 5% of all Component Units combined.

ADMINISTRATIVE POLICIES AND PROCEDURES, EXECUTIVE ORDERS, AND MAYOR'S POLICIES

– The City Charter, Article VI gives the Mayor power and the duty to exercise administrative control over all departments of the City, which include the authority to sign into effect Administrative Policies and Procedures (APs), Executive Orders (EOs), and any Mayor's Policies (MPs). The Code of Ordinances states that the Administration & Regulatory Affairs Department (ARA) has been designated by the Mayor as having the responsibility for the development and implementation of City-wide policies, regulations, and procedures. Policy audits are considered when developing the annual Audit Plan.

Two new EOs were established and implemented in FY2018, most notable was 1-56 in October 2017, "Zero Tolerance for Human Trafficking in City Service Contracts and Purchasing." Mayor Turner also approved AP 2-9, "Guidelines for Responding to Requests for Public Information" in February 2018.

Using the risk criteria shown below, the Audit Division performed an initial review and risk ranked the APs, EOs, and MPs based on their significance or level of impact of the policy to City-wide operations. Each department was then risk rated based on the level of the department's operational risk exposure. These ratings were combined to determine the overall risk rating for each of the policies and these policies were then categorized by: 1) Administrative, 2) Public Service, 3) Development and Maintenance, 4) Human & Cultural, and Other. A total of 117 policies were reviewed during the initial assessment:

¹ GASB Statement No. 14, *The Financial Reporting Entity*; GASB Statement No. 39, *Determining Whether Certain Organizations are Component Units*; and GASB Statement No. 61, *The Financial Reporting Entity: Omnibus an amendment of GASB Statements No. 14 and No. 34*.



RISK CRITERIA

- Complexity of Operations
- Council & Public Interest
- Financial Impact/Concerns
- Human Resources Concerns
- Regulatory and/or Compliance Risk/Concerns
- Technology Concerns
- Time Since Last Audit
- Mission Criticality
- Internal Control Consideration (as reported by management)
- Legal Claims
- Public and Employee Safety Concerns

CONSIDERATION OF SIGNIFICANT INFORMATION SYSTEMS

Utilizing a risk-based approach as required by the standards, the Audit Division considered the City's information technology systems that have been implemented, as well as the technology initiatives that are being developed, which affect operational/business processes. The Audit Division took into consideration Information Technology projects and initiatives being developed for City-wide and departmental use. Projects and initiatives in various stages of development are:

- Microsoft Office 365;
- Infor Community Development Regulations (CDR) enhancements and expansion;
- Contact Center Upgrade; and
- Ricoh Multi-function Printers with Enterprise Printing Queue.

DEPARTMENT RISK PROFILE UPDATES

Departmental assessment update candidates were selected based on available resources, time constraints, and cost-benefit considerations. The departmental portion of the ERA performed during FY2018 utilized four professional staff from the Audit Division who performed reviews of the selected Department's responses from prepared questionnaires and any follow-up questions, and interviews with key operational and management personnel from the following six City Departments:

- Administration & Regulatory Affairs Department (ARA)
- City Controller's Office (CTR)
- Houston Airport System (HAS)
- Houston Information Technology Services (HITS)
- Houston Parks and Recreation Department (HPARD)
- Human Resources Department (HR)

The process was performed using three basic components: Data gathering, Analysis, and Output as shown in Table 1 and further explained in the remaining sections.



Table 1 – Department Risk Profile Update - Components

DATA GATHERING	ANALYSIS	OUTPUT
<i>Previous Risk Assessments</i> <i>Changes to the Dept.</i> <i>Structure/Operating Unit Process since Last ERA</i> <i>Mission Statement</i> <i>Organizational Structures</i> <i>Business Objectives</i> <i>Develop Questionnaires</i> Financial Data City and Department Websites <i>Interviews</i>	Analyze Questionnaire responses and follow-up with questions/interviews/discussions Identify Key Business Processes and related changes Identify Potential Risks Identify Risk Management techniques as stated by management Map identified risks to stated risk management techniques Evaluate process significance to the Department and overall City operations Perform Department-level risk assessments and validate with management	Updated City-wide business risk profile Audit Division Planning tool

KEY BUSINESS PROCESSES –

In context of the ERA, “Key Business Process” (KBP) is defined as a vital business procedure, function or activity on which a Department spends a significant amount of financial or personnel resources to perform, or an activity over which they have primary responsibility within the City. KBPs also represent areas upon which audits or reviews can be conducted by internal auditors or external consultants.

While the City-wide analysis identified approximately 145 total key business processes, it was determined that 19 of them were *common* throughout most Departments, so they were grouped together for more efficient analysis. Thus Graph 2 provides a perspective to see potential efficiencies, overlap, redundancies, synergies, and leverage of resources when looking at activities that the City performs without consideration of its organizational structure² (*For a contrasting perspective, see Graph 1*).

The common KBPs are identified as follows:

- Administration
- Communications
- Compliance
- Customer Service
- Disaster Recovery
- Facilities Management
- Financial Management
- Fleet Management
- Grant Management
- Human Resources (HR)
- Inventory/Materials Management
- Information Technology (IT)
- Payroll
- Procurement
- Project/Construction Management
- Public Safety
- Records Management
- Revenue Generation (and Collection)
- Security
- **Specific Operational**

² The ratings were determined by applying each KBP within each Department to the weighted criteria identified in the ERA Process Section. A “High” rating indicates that conditions and events which prevent the City from achieving its objective(s) within that process could have a significant impact. This is measured in terms of disruption to essential services, financial loss, ability to protect public health and safety, impediments to economic development, or negative perception. In contrast, a “Low” rating indicates that the impact of such an occurrence would be minimal or the likelihood of occurrence is remote.



NOTE: *'Specific Operational'* is made up of processes that are unique to the operations of the various Departments (e.g. "Call-Taking" for the Houston Emergency Center (HEC), "Certification" of Minority, Women, and Disadvantaged Business Enterprise (MWD BE) for the Office of Business Opportunity (OBO), "Collection" for Solid Waste Management, etc.). For purposes of the report **'Security'** was combined primarily within **'Public Safety'**.

RISK IDENTIFICATION AND RATINGS –

It is important to clarify the factors used in determining the levels of risk as presented in the departmental risk assessments. For audit purposes, risk is evaluated by distinguishing between types of risk. For purposes of the ERA and its support for the Annual Audit Plan, the following definitions are provided:

INHERENT RISK – the perceived likelihood and impact associated with an entity or activity that exists simply from the perspective of its current environment. This assumes no significant actions taken by management to mitigate (address) those risks. For example, the City has *inherent risks* associated with its geographic location, funding sources, population, global economy, structure of federal and state government, etc. This can then begin to be refined to the Departments within the City government.

CONTROL RISK – the perceived likelihood and impact of deficiencies in management controls put in place to ensure the achievement of objectives, protection of assets, financial reporting, etc. These are based on managerial decision-making, risk management techniques and strategy, which are generally within the accountability and control of operational management.

For example, the design of the organizational chart, structure of reporting lines, and development of major processes to execute the mission and objectives are high-level examples of management controls and risk management techniques.

RESIDUAL RISK – the level of impact and likelihood of an adverse event occurring to impede the City, Department, and/or Key Business Processes from achieving success *after identifying and testing of management (internal) control structure*.

AUDITOR RISK – this is the probability that the Auditor will render erroneous conclusions to the audit objectives based on; insufficient and/or inappropriate evidence, lack of reasonable auditor judgment, lack of proficiency or competency, lack of sufficient resources or tools to perform substantive procedures. This risk category comes into play during audits of Departments, Sections, Divisions, or Key Business Processes.

The ERA considered primarily inherent risks, with limited identification of control risk as self-reported by management. We did not substantively test specific management controls in detail and therefore, do not render an opinion on the effectiveness of design nor the efficiency in implementation or existence. The ratings do not imply a judgment on how management is addressing risk and thus is not a specific assessment of management performance nor concludes on 'Residual Risk'. The actual projects³ performed will allow us to test more comprehensively where necessary. Additionally, as we continue the annual ERA, we will be able to bring the assessment to a deeper level, and thus help us to effectively adjust our course and focus our efforts.

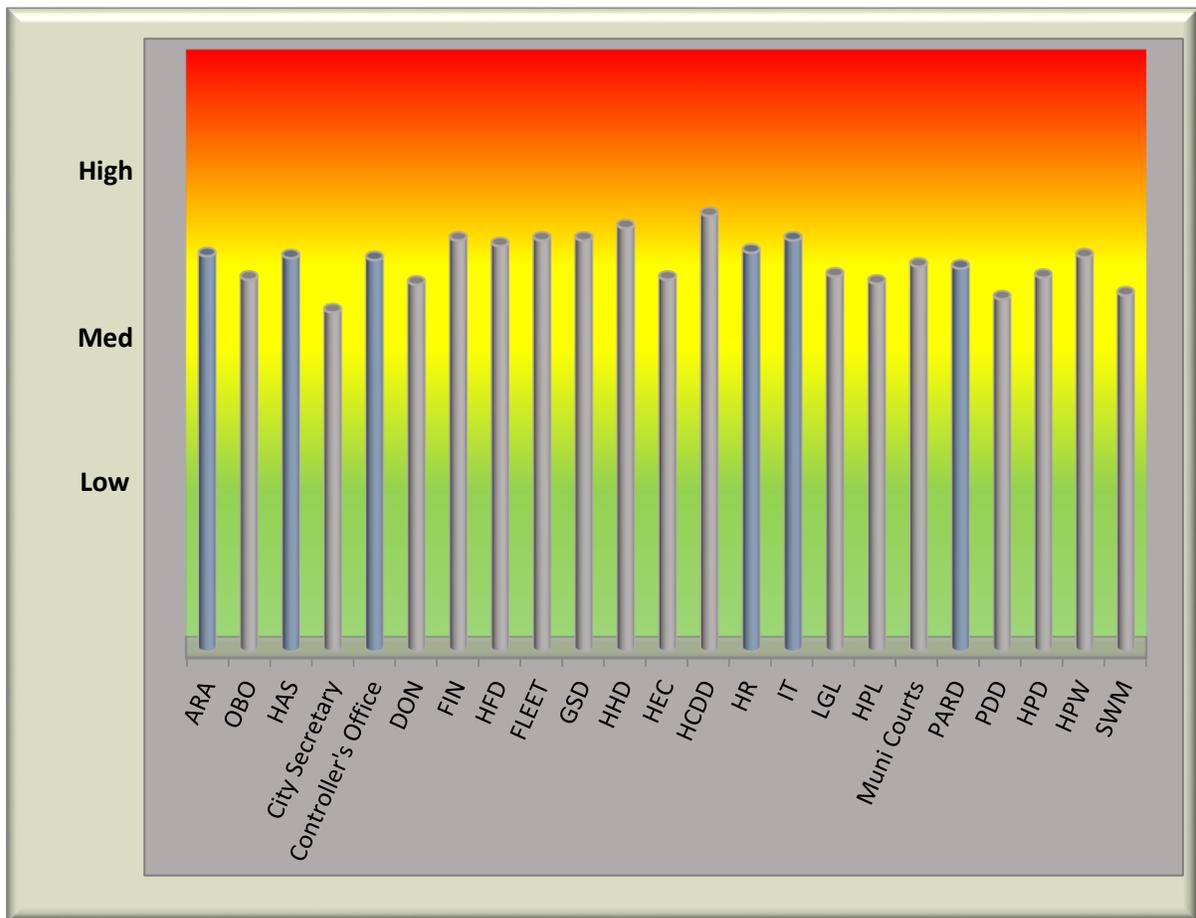
³ NOTE: Where the term 'projects' is used in the Audit Plan, this includes audits, reviews, monitoring, and other ongoing procedures, etc.



The ratings were determined by applying each Key Business Process within each Department to the weighted criteria identified below. For example, a “High” rating indicates that conditions and events which prevent the City from achieving its objective within that process could have a significant impact in terms of disruption to essential services, financial loss, ability to protect public health and safety, impediments to economic development, or negative perception. In contrast, a “Low” rating indicates that the impact of such an occurrence or aggregated occurrences would be minimal.

The following graphs summarize the Audit Division’s assessment of risk from two different perspectives: (1) Department and (2) Key Business Process (KBP). Each KBP was evaluated within each department and then rated based on the same weighted criteria as shown on page 5.

GRAPH 1 –OPERATIONAL RISK PROFILE BY DEPARTMENT⁴ –

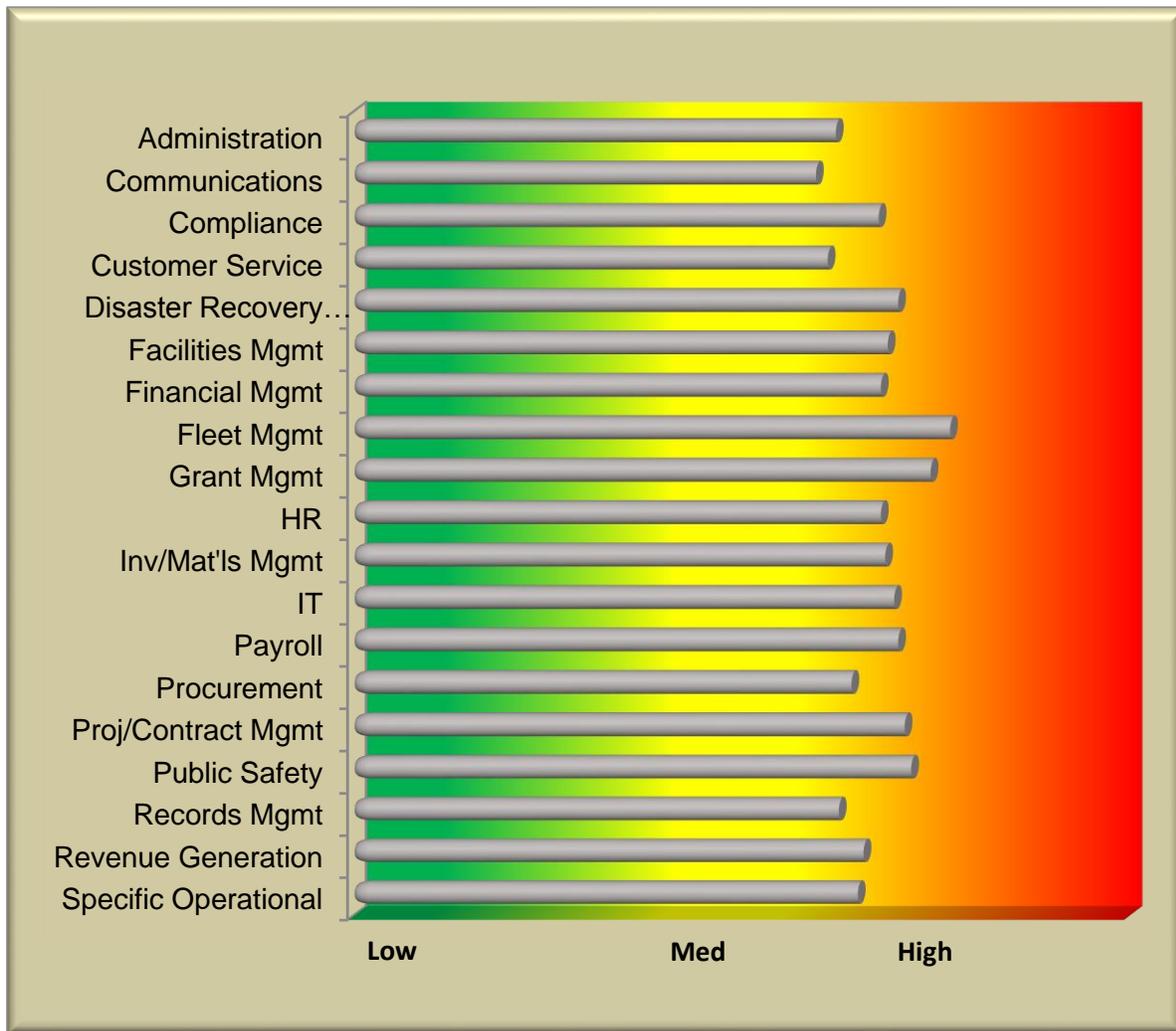


Evaluating all of these various factors provides indicators on prioritizing the potential projects for the upcoming year. In other words, this points us in the direction of “*what*” to audit. We then identify the available resources to determine the volume of activity to include in our plan.

⁴ The blue vertical bars represent the 6 departments updated for the FY2018 ERA.



GRAPH 2 – OPERATIONAL RISK PROFILE BY KEY BUSINESS PROCESS⁵ –



The risk assessment revealed that the areas of Fleet Management, Grant Management, and Public Safety, fall within the high risk category (See *Graph 2 above*).

⁵ **'Specific Operational'** is comprised of those key business processes that are unique to the operations of the various Departments (e.g. "Call-Taking" for the Houston Emergency Center (HEC), "Certification" for Minority, Women, and Disadvantaged Business Enterprise (MWDDBE) for the Office of Business Opportunity (OBO), "Collection" for Solid Waste, etc.).

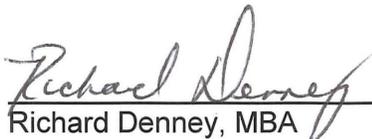


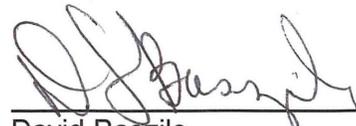
OUTPUT –

The primary output of the ERA is to utilize the risk profile as one of the catalysts in designing the Controller's Office Annual Audit Plan. As the risk profile of the City changes, it is reflected in the selection of some of the Audits to perform for FY2019. Projects identified for inclusion in the Audit Division's FY2019 Updated Annual Audit Plan, released as Report #2019-01⁶, include high risk business processes identified above, for example: Fleet Management which resides with the Fleet Management Department; and Grant Management and Public Safety, which reside within the following Departments: Finance Department, General Services Department, Housing and Community Development Department, Houston Airport System, Houston Fire Department, Houston Health Department, Houston Police Department, Human Resources, Municipal Courts, and the Office of Public Safety and Homeland Security.

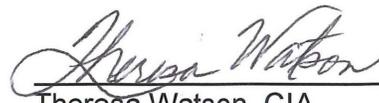
ACKNOWLEDGEMENT AND SIGNATURES –

The Project Team would like to express our appreciation to the participating Departments and their representatives, who gave their time and efforts. Their input was and is critical to the success of this annual assessment by actively responding to questionnaires, interviews, discussions, and review of data presented in this report. It was evident throughout the process that the City continues to have a significant number of qualified professionals, who serve the constituency by providing quality services in an economically challenged environment and who are proud of the work that they do.


Richard Denney, MBA
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City Auditor

⁶ Available from the Audit Division webpage under the City Controller's website:
<http://www.houstontx.gov/controller/audit/auditplan.html>



UPDATED DEPARTMENT RISK PROFILES

Administrative and Regulatory Affairs (ARA)

Mission and Objectives

Administration and Regulatory Affairs (ARA) provides efficient and logical solutions to administrative and regulatory challenges. The goal is to provide increasing value to Houston via a customer-driven team that pursues continual improvement to operational efficiency and service excellence.

Notable Changes since the Previous Risk Assessment

A previous risk assessment of ARA took place in Fiscal Year 2014. Since that assessment the following changes have occurred: **1)** The administration and responsibility of the Office of Sustainability was transferred to ARA in July 2016; **2)** In FY2014, Payroll and Franchise operated independently of each other; however due to staffing reductions, staff are being cross-trained to assist with the work of either division; **3)** Personnel Budget Control (PBC) has been implemented since FY2014 in the finance module of SAP, which has had a significant impact on the biweekly payroll process; **4)** Secured new Insurance Broker of Record professional services contract with McGriff, Seibels & Williams of Texas, Inc.; **5)** With the deregulation of Transportation Network Companies (TNCs) at the state level in 2017, ARA is no longer responsible for the enforcement TNCs such as, Uber and Lyft and the City of Houston has no authority to regulate these entities or collect revenues. As a result, 15 positions in the Regulatory Permitting Division were eliminated in FY2017; **6)** In 2015, Parking Management initiated a deployment to refresh 1,000 parking pay stations in the City with an estimated capital cost of \$10 million over 5 years; **7)** Management of the City's copier contract was transferred to Houston Information Technology Services (HITS) in 2018; and **8)** Regulation of Correctional/Alternate Housing Facilities was added to the Department in 2018.

Significant Activities

ARA provides centralized management of multiple Citywide functions including: payroll, non-emergency call center and information services; property insurance and risk management for non-health City exposures; sustainability; and records management services. Regulatory services include: business permitting and enforcement; vehicle-for-hire permitting and enforcement; franchise administration and utility regulation; management of all on-street parking; and animal control and enforcement. Specific departmental activities include:

- Administration of permitting activities for commercial business and vehicles-for-hire;
- Enforcing compliance with ordinances regulating businesses, whether in their use of the City's rights-of-way or to manage quality of life issues;
- Administering payroll operations and administration for all city employees;
- Providing records management services including archival, retrieval, and disposal in accordance with retention policies;
- Administration of City-wide policies and procedures;
- Managing asset disposal operations;
- Managing the City Animal Shelter and Adoption Facility and Animal Control efforts through BARC;
- Managing 311, the City of Houston's non-emergency department directory and self-service city request line;
- Managing over 9,500 curb side parking spaces and 19 surface parking lots;
- Administering on-street parking regulations as codified in Chapter 26 - *Parking* from the City Code of Ordinances.

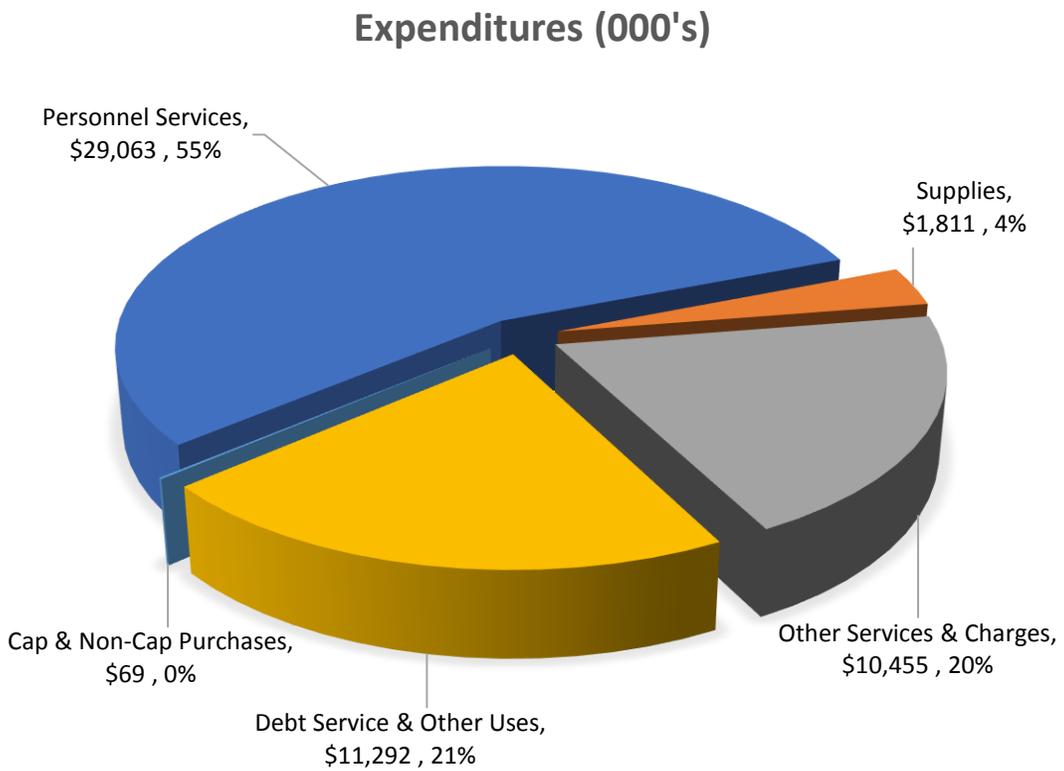
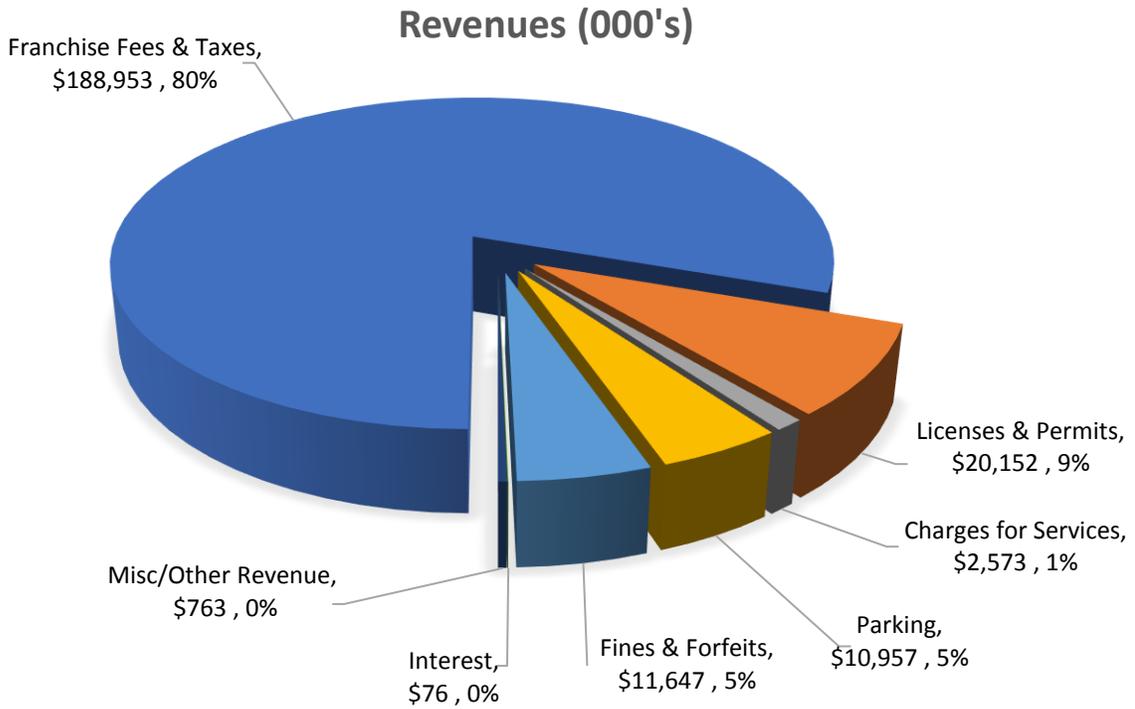
Administrative and Regulatory Affairs (ARA)

- Managing the regulation of utilities such as electricity, natural gas and private water companies;
- Managing franchises for the use of the City's right-of-ways; and
- Managing various public-facing programs for energy efficiency and sustainability initiatives with local energy and utility companies.

Fiscal Year 2017 Financial Data

During fiscal year 2017, the department generated more than \$235 million in revenue for the City of Houston. Revenues consisted of fees from franchises, licensing, permitting, parking, fines, and a variety of other services. Department expenditures for the same period were approximately \$53 million. Graphical representations of the generated revenues and departmental expenditures depict the amount and source of each. The department also managed \$26 million in pass-through transactions (i.e., service Chargeback funds, internal service funds, and transfers from the General Fund) not included in the reported totals.

Administrative and Regulatory Affairs (ARA)



Key Business Risk Areas

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Compliance	<ul style="list-style-type: none"> ▪ Inconsistent and/or non-enforcement of city ordinances and codes/ state statutes ▪ Insurance coverage does not meet bond covenant requirement ▪ Inadequate or expired property/casualty insurance ▪ Insurance claims not adequately managed ▪ Lack of enforcement of COH hiring / contracting policies or procedures ▪ Lack of compliance with Laws & Regulations 	<ul style="list-style-type: none"> ▪ Analytical procedures to monitor contracts and bid procedures ▪ Consultation with Legal Department to ensure bond covenant compliance. ▪ Annual department internal audits are conducted at policy renewal. ▪ Changes in the City's property risk profile are reported to the City's Broker of Record quarterly. ▪ Use of systems controls to assist in monitoring ▪ Annual survey of assets to determine required insurance coverage ▪ In-house training and Learning Development Center seminars 	High
Financial Management	<ul style="list-style-type: none"> ▪ Financial transactions are not entered into SAP ▪ Inconsistent/ lack of timely cash reconciliations ▪ Actual expenditures not reflected properly against budget line items ▪ Grant funds not appropriately administered 	<ul style="list-style-type: none"> ▪ Monthly and weekly account reconciliations ▪ Formal policies and procedures ▪ Monthly accounting and budget reports ▪ Periodic audits ▪ Staff dedicated to grant management 	Medium
Payroll	<ul style="list-style-type: none"> ▪ Failure to report payroll and deposit applicable tax withholding or deductions to appropriate authorities ▪ Payroll fraud ▪ Inaccurate payroll ▪ Unauthorized access to payroll records 	<ul style="list-style-type: none"> ▪ Biweekly Payroll Report ▪ Biweekly meeting with ERP support team ▪ Payroll processes designed to detect changes or errors in payroll runs ▪ Biweekly payroll runs are reconciled 	Medium

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Payroll (cont.)		<ul style="list-style-type: none"> ▪ Kronos (time and attendance system) integrated with SAP ▪ Access controls in place for Payroll system 	
Records Management	<ul style="list-style-type: none"> ▪ Inability to process Open Records or discovery requests ▪ Unauthorized access to confidential records ▪ Failure to adhere to retention policy ▪ Inability to access stored information/ documents per City retention policy ▪ Human error in document scanning process 	<ul style="list-style-type: none"> ▪ Clear procedures and process for record archival and destruction ▪ Staff required to complete and pass the Texas Public Information Act (TPIA) course as well as City Attorney's training Business continuity/ disaster recovery plan in place 	Medium
Revenue Generation	<ul style="list-style-type: none"> ▪ Construction without permits ▪ Non-permitted burglar/ fire alarms ▪ Businesses operating without required permits ▪ Retired or obsolete assets disposed without sale ▪ Franchise fees not collected timely or accurately ▪ Insufficient controls over revenue transactions ▪ Theft of collected cash ▪ Insufficient parking ▪ Irregular and/or lack of parking meter maintenance ▪ Citation reductions ▪ Natural disasters resulting in lost revenue due to economic impact ▪ Alliance contracts not renewed ▪ Available grant funds not applied for 	<ul style="list-style-type: none"> ▪ Department employs Regulatory Investigators and Enforcement personnel to identify missing or expired permits ▪ Personnel are skilled in accounting and collection procedures in franchise administration ▪ Enhanced internal legislative staff ▪ Retired assets offered for sale by Asset Disposition Group ▪ Analysis and reconciliation of periodic franchise fee reports ▪ Regular/consistent reconciliations for revenue generating areas. ▪ Formally documented cash handling procedures ▪ Audit capacity built into systems 	Medium

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Revenue Generation (cont.)		<ul style="list-style-type: none"> ▪ Electronic meters send text alerts when maintenance is needed ▪ Monthly preventative maintenance for meters. ▪ Division guidelines on citation reduction ▪ Staff dedicated to grant management 	

City Controller(CTR)

The City Controller (Controller or Controller's Office) is an independently elected official that serves as the City's Chief Financial Officer. The Controller's Office executes its mission by accurately and timely reporting on the City's current financial condition, assessing the City's future financial condition with accurate forecasts of projected revenues and expenses, certifying to City Council that funds are available for all appropriations and commitments of funds, keeping accurate books of account to reflect these commitments, and ensuring every City dollar is fully and wisely invested.

Notable Changes since the Previous Risk Assessment

A previous risk assessment of the Controller's Office took place in Fiscal Year 2014. Since that assessment, the following changes have occurred: **1)** Chris Brown was sworn in as Houston City Controller in January 2016; **2)** Implemented Hurricane Harvey financial oversight measures; and **3)** The City Controller appointed a new Chief Deputy Controller in the Executive Division and a new Deputy Controller in the Operations Division in 2016.

Significant Activities

The Controller superintends the fiscal responsibilities of the office through management of financial reporting, operational and technical services, investments and debt, and internal audits. Specific activities of the department include:

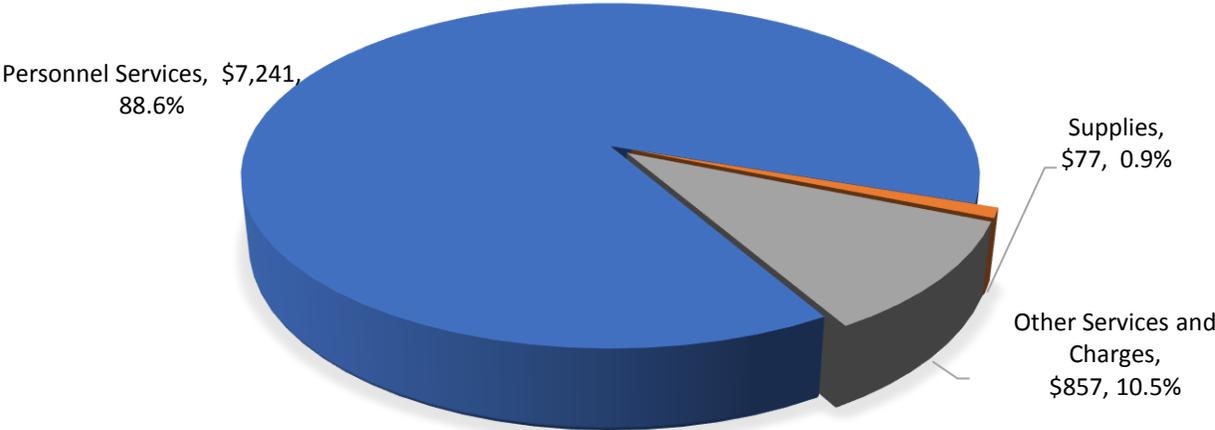
- Certifying the availability of City funds prior to City Council approval of City commitments;
- Performing supplemental allocation of funds prior to actual expenditure;
- Processing and monitoring disbursements exceeding \$1 billion annually;
- Managing all payroll and vendor payments;
- Managing the City's investments and debt;
- Preparing accurate and timely financial statements;
- Providing leadership on policy issues pertaining to the City's financial health;
- Assessing the City's future financial condition with accurate forecasts of projected revenues and expenses, as well as the area's economic outlook;
- Performing bank reconciliation activities;
- Conducting internal audits of City departments and federal grant programs;
- Maintaining the City's official financial book of record;
- Conducting the sale of the City's public improvement and revenue bonds;
- Preparing the Comprehensive Annual Financial Report (CAFR), as well as Monthly Financial and Operational Reports; and
- Responding to public information requests related to contractual or financial matters.

Fiscal Year 2017 Financial Data

During fiscal year 2017, the Controller's Office had expenditures totaling \$8.2 million. Eighty-nine percent of the budget expenditures were for personnel services. A graphical representation of the expenditures is shown below.

City Controller(CTR)

Expenditures (000's)



Key Business Risk Areas

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Compliance	<ul style="list-style-type: none"> ▪ Non-compliance with laws and regulations ▪ Inadequately trained staff ▪ Insufficient audit planning or audit scope ▪ Vague or unclear City-wide policies or procedures ▪ Errors in financial reports ▪ Inadequate review or approval process ▪ Increased reporting or oversight requirements ▪ Non-compliance with debt covenant or arbitrage requirements 	<ul style="list-style-type: none"> ▪ Employees are required to complete between eight and forty hours of CPE each year, based on role and Division. ▪ Training/cross-training for employees ▪ Employ risk-based audit planning ▪ Ability to co-source audit services ▪ Provide input in policy making process ▪ Research original council minutes to confirm policy intent ▪ Annual audit, review of financials ZFIR during preparation, review of indexing of accounts. ▪ Establish review and approval policies and procedures in place ▪ Continuously monitor financial position ▪ Utilize outside legal and financial expertise 	Medium
Financial Management	<ul style="list-style-type: none"> ▪ Loss of access to financial management system ▪ Loss of financial data ▪ Insufficient reporting functionality ▪ Inability to access key financial data ▪ Inefficient processes ▪ Complex debt transactions ▪ Financial data inaccurate or not received timely ▪ Erroneous accounting entries 	<ul style="list-style-type: none"> ▪ Back-ups are conducted twice per week by HITS ▪ Utilize more robust financial management system ▪ Periodically review processes ▪ Treasury employees complete 8 hours of State required Public Funds Investment Act continuing education training every 2 years ▪ Established procedures to analyze financial reports/data 	Medium

Houston Airport System (HAS)

Mission and Objectives

We exist to connect the people, businesses, cultures, and economies of the world to Houston. Objectives include: more direct flights to major cities; improve customer satisfaction; improve critical asset performance; and change to a more collaborative organization culture.

Notable Changes since the Previous Risk Assessment

A previous risk assessment of HAS took place in Fiscal Year 2014. Since that assessment, the following changes have occurred: **1)** Hobby Airport started back providing international air services in FY2016 following a \$250 million expansion and modern terminal complex, a successful partnership with Southwest Airlines, and a one million-square-foot new parking facility and improvements to the existing terminal parking garage and ecopark lot; **2)** Smart restrooms and Automated/Mobile Passport Control were added at airports; **3)** The Spaceport at Ellington Airport was approved; **4)** In the final phase of completing a new Air Traffic Control Tower at Ellington Airport; **5)** The Lone Star Flight Museum relocated to Ellington Airport in 2017; and **6)** Houston is the only U.S. City, that has two airports, that have received 4-Star ratings from Skytrax, a leading global airport quality ratings organization.

Significant Activities

HAS is responsible for the following activities:

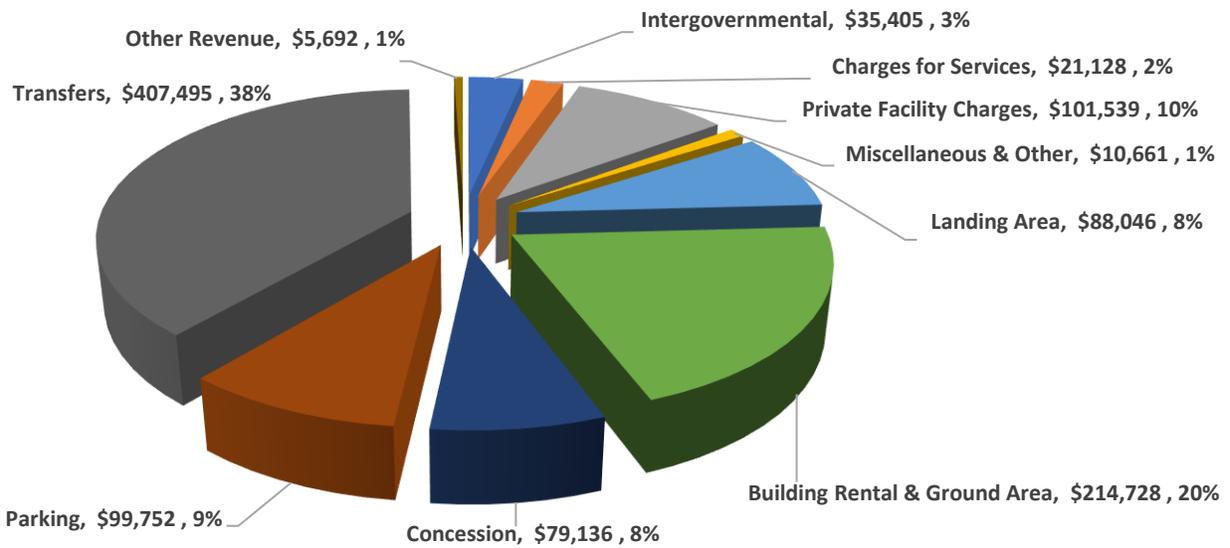
- Maintaining the operational condition of all airport facilities, airfields, and grounds, including electrical support and managing multi-airport maintenance contracts;
- Building and maintaining partnerships and lines of communication with federal agencies to address implementation solutions for new regulation requirements;
- Providing and implementing a risk based audit plan, which includes audits, investigations, and special projects, as requested by management;
- Performing mandated daily inspections of the airside and landside;
- Managing warehousing and inventory for \$1.655 million in commodities and parts for airport system usage;
- Providing IT support for 260 network devices, 206 physical and virtual servers, and Help Desk support for over 950 desktop locations;
- Performing project management oversight services for the scope, design and construction of airport system projects comprised of a capital budget of over \$271 million for FY2017;
- Administering and managing security and emergency preparedness as prescribed by federal regulations;
- Providing financial and accounting stewardship over compliance and reporting activities;
- Ensuring compliance with mandated regulations and training to 1,168 airport personnel; and
- Developing relationships at local, state, federal, and international levels to highlight attributes of HAS and the City of Houston.

Fiscal Year 2017 Financial Data

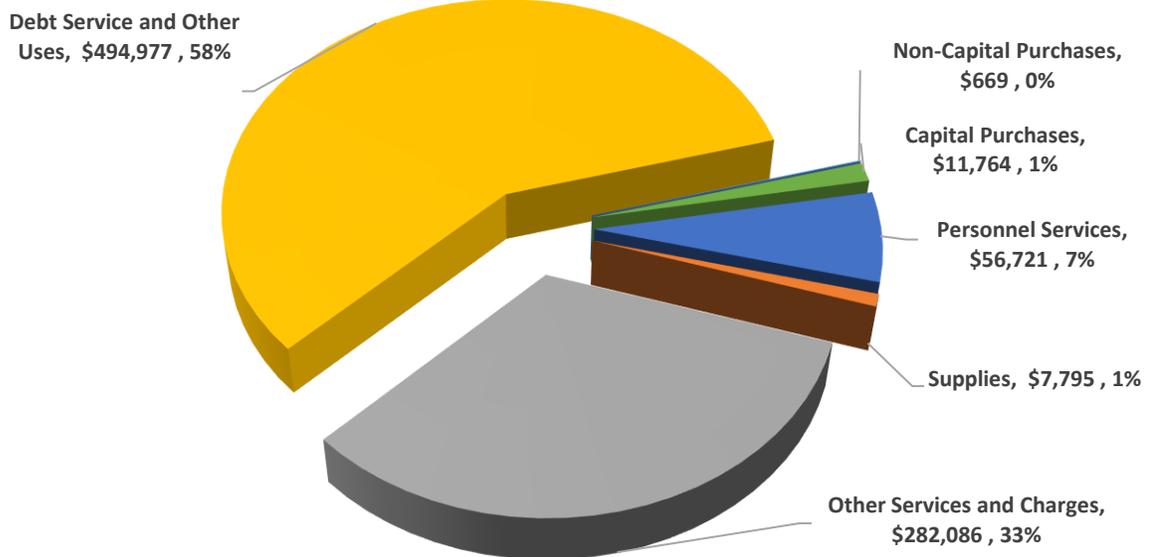
The graphical representation of the financial data reflects the external sources of revenue generated from HAS, as well as the expenses associated with operating the airport system during fiscal year 2017. Actual revenue for the fiscal year was \$1.063 billion. Total expenses were \$854 million.

Houston Airport System (HAS)

Revenue (000s)



Expenditures (000s)



Key Business Risk Areas

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Security</p>	<ul style="list-style-type: none"> ▪ Changes to federally mandated security protocols ▪ Unfunded mandates ▪ Inadequate monitoring ▪ Insufficient staffing ▪ Unidentified/unauthorized persons in secured areas 	<ul style="list-style-type: none"> ▪ Maintain relationships with our Federal partners to facilitate open discourse on protocol changes and plans of action ▪ Work with industry partners and stakeholders to develop standards to mitigate unfunded mandates ▪ Collaboration with other airports ▪ Enhanced security features installed at strategic locations including secured areas, checkpoints, gates, and perimeter locations ▪ Increased emphasis on identification badge validation and display procedures ▪ Installation of upgraded Closed Circuit TV throughout IAH and HOU which is monitored 24/7 and allows audits of entry portals ▪ Implemented browser based application for video management and surveillance ▪ Alarm monitoring and tracking identifies trends/patterns ▪ Telephone Bridge-Line allows simultaneous contact between all Passenger Screening Checkpoints and Airport Communication Center 	<p>High</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Security (cont.)</p>		<ul style="list-style-type: none"> ▪ Proactive IAH security review by 3rd party contractor to evaluate current security measures and recommend future needs ▪ Security personnel assigned to major terminal reconstruction projects to define security measures required of contactors working in construction areas and to ensure security requirements for hardware/programming are met ▪ HPD staffing at 100% of budget allocation ▪ All security personnel trained in Airport Security Coordinator standards via American Association of Airport Executives training module ▪ Training of new protocols and procedures for employees 	
<p>Communication</p>	<ul style="list-style-type: none"> ▪ Insufficient resources ▪ Untimely / inaccurate communication ▪ Computing system / server failure ▪ Non-compliance with City Charter or City Ordinances ▪ Public notification system failure 	<ul style="list-style-type: none"> ▪ Meeting dates and deadlines are communicated ▪ Meetings are recorded ▪ Two personnel attend meetings ▪ In-house trainings are recorded ▪ Communications professionals integrate with communication staff across the City of Houston to communicate as necessary to public ▪ External Affairs Communication's team plays a key role in managing external and 	<p>Medium</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Communication (cont.)</p>		<p>internal messaging during emergency response and in supporting the recovery process</p> <ul style="list-style-type: none"> ▪ Added media tracking, media value tracking, as well as more robust social media messaging and tracking ▪ Communication coordinated through the HAS City Council liaison’s office ▪ External messaging provides daily public outreach through media relations and community events ▪ Annual testing of fire alarm strobes and horns according to NFPA Code ▪ Daily utilization of the Public Address (PA) system by airport personal, and air carrier partners ▪ Testing of PA system approximately 1-2 times per month 	
<p>Compliance</p>	<ul style="list-style-type: none"> ▪ Lack of contract enforcement ▪ Lack of compliance with local, state, and/or federal regulations ▪ Changes to regulations ▪ Inability to monitor contractual performance ▪ Inability to comply with federal mandates ▪ Environmental impact not considered ▪ Insufficient staffing ▪ Lack of grant compliance 	<ul style="list-style-type: none"> ▪ Comprehensive policies and procedures ▪ Inspectors monitor contract compliance ▪ Monitor legislation ▪ Performance measurement process in place ▪ Contract renewal language is reviewed ▪ Audit clause in contracts ▪ Partnerships with federal agencies for implementation solutions ▪ Implementing a unified contracts management system to improve tracking, accountability, 	<p>Medium</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Compliance (cont.)</p>		<p>and make monitoring of schedules and budgets more transparent thus providing a complete tool for managing projects</p> <ul style="list-style-type: none"> ▪ HAS Internal Audit implemented a cursory review process upon project close-out in conjunction with release of any retainage balance ▪ Quarterly grant reviews for compliance ▪ Checks by Regulatory Compliance Group ▪ Contract assigned to Contract Compliance Officer 	
<p>Facilities Management</p>	<ul style="list-style-type: none"> ▪ Unsafe facilities ▪ Untimely repairs ▪ Inadequate comprehensive maintenance ▪ Budgetary constraints ▪ Natural disaster or other catastrophic event 	<ul style="list-style-type: none"> ▪ Landside routine inspections of facilities/roadways/fences ▪ Weekly Terminal walk-through inspections ▪ Irregular Operations Plan (IROP) in place ▪ Contingency Plans for disasters in place ▪ Daily Airfield Part 139 Inspections ▪ Preventive maintenance program and continuous facility enhancements ▪ Implemented “Infor” software system to track trouble tickets ▪ Corrective Maintenance Trouble Tickets monitoring ▪ In-Field inspections for job completeness ▪ Design process considers maintenance needs 	<p>Medium</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Facilities Management (cont.)</p>		<ul style="list-style-type: none"> ▪ Disaster/Continuity of operations plans are reviewed internally and with Air Carriers, tested periodically through drills and exercises to improve and integrate emergency response plans and communication protocols ▪ Designed and constructed an Emergency Operations Center with a response plan and new interconnected computers, redundant phone systems including satellite phones, highly visible display systems, and interactive hardware and software systems ▪ Designed, constructed, and developed response plans for Friends and Relatives Center with capacity to shelter and process 300 people Prepared and updated publicly available evacuation maps 	
<p>Financial Management</p>	<ul style="list-style-type: none"> ▪ Inaccurate or inadequate financial management system ▪ Changes in grant requirements ▪ Inadequate reporting systems ▪ Financial analysis inadequate for management decision making ▪ Destruction of data Alliance contracts not renewed ▪ Available grant funds not applied for 	<ul style="list-style-type: none"> ▪ Monthly Budget vs. Actual analysis ▪ Grant activity and costs are preapproved ▪ Track and reconcile data from SAP reports ▪ Comprehensive budget analysis ▪ Rates & Charges development ▪ Strategic financial planning ▪ Technology safeguards to ensure redundant data exist 	<p>Medium</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Information Technology</p>	<ul style="list-style-type: none"> ▪ Data corruption ▪ Loss of data ▪ Loss of communication services ▪ Outdated systems ▪ Inadequate system interfaces ▪ Inadequate staffing for critical systems ▪ Inadequate funding for upgrades ▪ Unauthorized access to HAS systems 	<ul style="list-style-type: none"> ▪ Implemented malware protection, web filtering and other security measures ▪ HAS Technology Division has reduced administrative privileges to systems; increased IT security, and policy/governance, implemented intrusion detection & prevention, purchased a governance / risk / compliance tool, and implemented application whitelisting ▪ Innovation leader ▪ Extensive redundancy built in to our telecommunications systems and telco circuits ▪ Critical systems and most administrative systems (including desktop PCs and laptops) are on a scheduled replacement cycle and funded ▪ Implemented vulnerability scanning to identify contractor systems connected to our network that are out of compliance or pose significant risk and ensure mitigation steps are taken as needed ▪ Outsource support for certain key systems ▪ Established IT security roles, and continue to recruit for these hard-to-fill positions 	<p>Medium</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Information Technology (cont.)</p>		<ul style="list-style-type: none"> ▪ Increased budget requests for IT Security related efforts ▪ Successfully secured federal funding to contribute to IT security procurement ▪ In the process of finalizing a 3-year IT Security Master Plan ▪ Data reconciliation procedures ▪ Frequent back-ups stored off-site 	
<p>Inventory Management</p>	<ul style="list-style-type: none"> ▪ Ineffective and/or inaccurate inventory verification counts ▪ Inefficient distribution of inventory ▪ Inaccurate inventory records 	<ul style="list-style-type: none"> ▪ Perform cycle counts. ▪ Daily deliveries from warehouse to sites ▪ Inventory records in SAP are accessible by authorized personnel only ▪ On-line inventory reservation system 	<p>Medium</p>
<p>Procurement</p>	<ul style="list-style-type: none"> ▪ Inefficient procurement process ▪ Lack of controls over purchasing ▪ Bid-rigging or bogus bids ▪ Ineffective PCard oversight 	<ul style="list-style-type: none"> ▪ Procurements completed in strict accordance with COH procurement process, AP 5-2, EO 1-14, and Texas Local Government Code ▪ Training is provided to all staff with procurement responsibilities ▪ Review contracts to reduce costs ▪ Purchase orders are reviewed by supervisors prior to release ▪ Pricing for contract purchases are verified and contract spending is monitored on a monthly basis by management ▪ PCard distributed only to those with responsibilities that warrant card use ▪ PCard transactions monitored and reviewed 	<p>Medium</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Project Management</p>	<ul style="list-style-type: none"> ▪ Inadequately trained or licensed personnel ▪ Loss of key personnel ▪ Selection of unqualified professional design firm(s) / contractor(s) ▪ Ineffective project oversight 	<ul style="list-style-type: none"> ▪ Encourage PMP Certification ▪ Manage and deliver projects in alignment with Department’s strategic direction ▪ Firms selected through steering committee ▪ Project managers monitor and manage construction through use of a Risk Management Log, Project Execution Plan, and Risk Mitigation Plan, which results in increased visibility and accountability 	<p>Medium</p>
<p>Revenue Generation</p>	<ul style="list-style-type: none"> ▪ Financial strength (or weakness) of airlines and tenants ▪ Decline in economy ▪ Competition ▪ Ineffective marketing program ▪ Loss of federal funding ▪ Increase in fuel ▪ Untimely deposits 	<ul style="list-style-type: none"> ▪ Contractual agreements ▪ Conduct audits ▪ Proactive marketing and business development groups ▪ Maintain compliance with federal regulations ▪ Reconciliation and checklist(s) of cash collections 	<p>Medium</p>

Houston Information Technology Services (HITS)

Mission and Objectives

The City of Houston is the nation's 4th largest city, and provides a wide range of public services in the broad categories of public safety, utilities, transportation, community services, and central service operations. Houston IT Services provides 24/7/365 enterprise technology services to all 24 departments, and the department's mission is to enhance the lives of Houstonians -- and the 6.5 million who reside in our metro region -- with solutions that serve, protect, and enlighten our citizens.

Notable Changes since the Previous Risk Assessment

A previous risk assessment of HITS took place in Fiscal Year 2014. Since that assessment, the following changes have occurred: **1)** New Chief Information Officer; **2)** New Deputy CIO in Project Management Office and a new Chief Information Security Officer; **3)** The department has taken on responsibility to further consolidate common goods/services contracts into enterprise-wide agreements; **4)** Houston Public Works (HPW) department's IT Security has transitioned to the supervision of HITS Cybersecurity Division; **5)** Controller's Office (CTR) IT functions transitioned from CTR-managed to HITS-managed in FY18; and **6)** Applications Services (EAS) Division is in the process of re-building the Enterprise Data Analytics group.

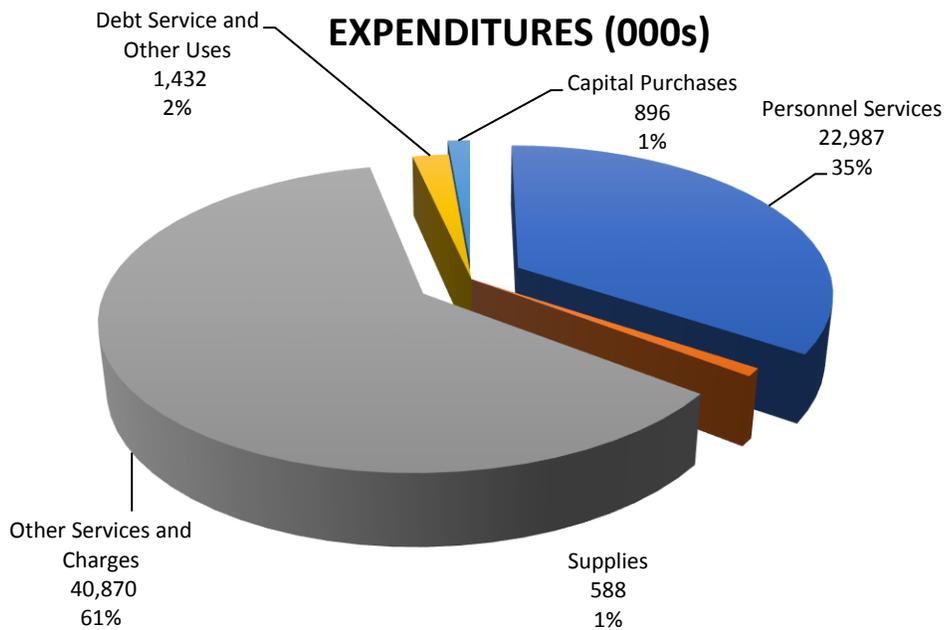
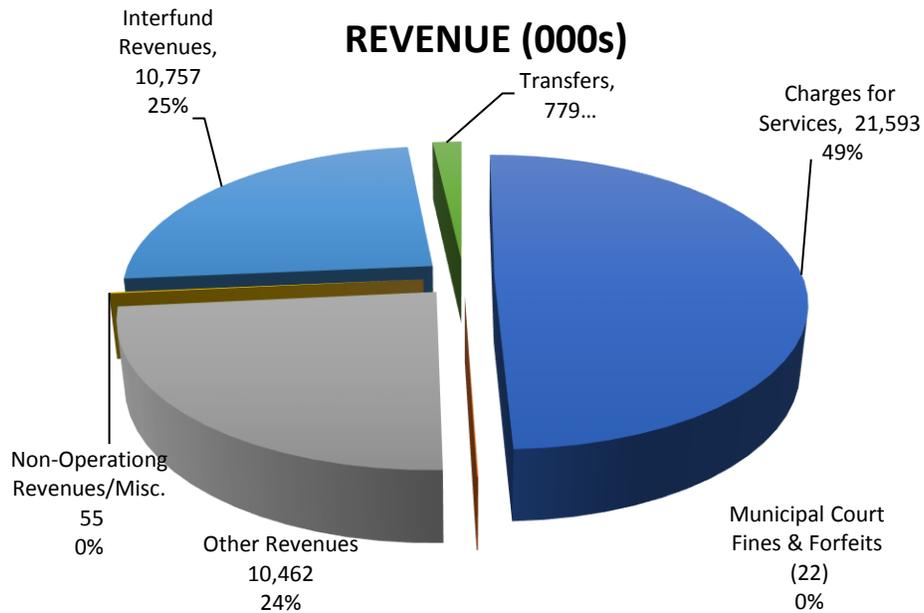
Significant Activities

HITS helps ensure that city-wide the technology needs of the business units and operations are addressed. Activities include:

- Supporting a centralized cloud based e-mail system of over 17,000 users and another federated 7,000 users;
- Development and management of over 100 essential applications within the City;
- Performing desktop and laptop support services;
- Maintaining the infrastructure (switches, servers, routers, storage, etc.) core and campus connections;
- Providing cybersecurity services (security incident management, antivirus & malware protection) and overall management of the City's information security program and activities for information and information systems;
- Providing radio communications interoperability to over 50 radio tower sites, 7 dispatch console sites and more than 20,000 radios in the field for Police, Fire, and Public Works, and 30 external public safety agencies in the region;
- Wide area network connecting over 450 sites across the city including, Library, Airports, Health, Police, Fire and Houston Public Works Departments;
- Supporting the Enterprise Resource Planning (ERP)/SAP system, Data Warehouse, Enterprise GIS, and Application Operations;
- Providing voice, data, wireless, and other telecommunication infrastructure services to all departments;
- City-wide IT strategy, planning, and governance;
- Technology project execution and management;
- Technology capital planning and oversight; and
- Business analysis, process improvement, and technical writing.

Fiscal Year 2017 Financial Data

During fiscal year 2017, HITS reported expenditures of approximately \$66.7 million, which included personnel, and other services. Revenues reported totaled \$43.6 million, which included charges for services, interfund revenues, and other revenues. Graphical representations of the revenues and expenditures depict the amount, percentage, and source of each.



Key Business Risk Areas

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Infrastructure	<ul style="list-style-type: none"> ▪ Loss of inter-connectivity and communication ▪ Loss of access to critical systems ▪ Loss of critical data ▪ Inadequate hardware to support organization objectives ▪ Lack of sufficient capacity ▪ Design / architecture is not defensible (Fragmented and too complicated) ▪ Unsupported/outdated infrastructure components ▪ Offshored access to the infrastructure (SAP support/CSMART support) 	<ul style="list-style-type: none"> ▪ Use of network monitoring tools ▪ Network refresh in progress ▪ Telecommunication audits ▪ New hardware purchased for improved operation functionality ▪ Implement redundancy where needed ▪ Moving to new storage devices which includes upgrades ▪ Improvement of overall maintenance procedures and asset refresh schedules ▪ Performing analysis to determine disk space needs and servers (Analysis of Tier 1 applications completed) ▪ Utilization of third party providers ▪ Collaboration with ARA to establish a risk model ▪ Continuing inclusion of “right to audit” clauses across all applicable City service contracts 	High
Security	<ul style="list-style-type: none"> ▪ Inconsistent application controls ▪ Inconsistent Security Controls ▪ Inadequate security measures ▪ Inconsistent and/or lack of password standards ▪ External vulnerability from hackers ▪ Exposure to virus, malware, ransomware, spam, infections, etc. 	<ul style="list-style-type: none"> ▪ Information Technology Operating Committee oversees, as defined in Executive Orders 1.44 and 1.48 ▪ Departmental Policies and Procedures are stored and accessible on their SharePoint site ▪ Monitoring and changing access permissions ▪ Implementation of 4-year Cyber Master Plan 	High

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Security (cont.)	<ul style="list-style-type: none"> ▪ Unauthorized access ▪ Physical security/ Radio Communications Towers ▪ Use of Personal devices ▪ Inadequate and inconsistent staff vetting process ▪ Data/Information theft ▪ Loss/Use of mobile Devices 	<ul style="list-style-type: none"> ▪ Monitoring of system anomalies and alarms from various information security countermeasure systems ▪ Risk Management and Monthly Vulnerability Reports ▪ Microsoft System Center Configuration Manager with operational calendar ▪ Authorized key card access technology, advanced security cameras, locking internal cages and racks ▪ Insider Threat Program (4-Year Cyber Security Plan) ▪ Multi-factor authentication ▪ MDM (Mobile Device MGMT) ▪ Use of encryption 	
Administration	<ul style="list-style-type: none"> ▪ Inadequate Policies and Procedures ▪ Inadequate funding to compete for technology professionals ▪ Insufficient training ▪ Inaccurate accounting entries ▪ Lack of asset management 	<ul style="list-style-type: none"> ▪ Documented P&P on SharePoint Site ▪ Adhere to existing City policies and procedures ▪ Review and revise internal policies and procedures as needed ▪ Undergoing technical job reclassification ▪ Ensuring Training budget is sufficient ▪ Manually review and correct chargeback metrics/schedules to ensure all financial information is accurate ▪ Purchase requests go through multiple levels of approval in SAP 	Medium

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Applications	<ul style="list-style-type: none"> ▪ Demand exceeds resource capacity ▪ Aging technology supporting legacy applications ▪ Inadequate funding for upgrades and acquisitions ▪ Inadequate funding to keep pace with salary requirements of technology professionals ▪ Insufficient resources ▪ Over dependence on consultants ▪ No city-wide standard for cloud management 	<ul style="list-style-type: none"> ▪ Enterprise Resource Planning Committee prioritizes project selection, funding, and implementation ▪ ITOC provides standardization of technology practices through IT governance ▪ 3-year Information Technology I Continuous Planning, which is aligned to Finance CIP and General Fund processes. ▪ Request funding for staff training ▪ Annual software license reviews are conducted ▪ Provide helpdesk support, In-depth technical support, expert product and service support, including requirements gathering, functional testing, user acceptance test facilitation, and production deployment support ▪ Partner with consultants for Level 3 and Level 4 support ▪ Utilize application managed services, to provide application support and development services ▪ Establish enterprise cloud management strategies and policies to govern city practices 	Medium
Client Services	<ul style="list-style-type: none"> ▪ Insufficient personnel ▪ Unrealistic client demands ▪ Lack of understanding of customer needs ▪ Inconsistent customer satisfaction metrics 	<ul style="list-style-type: none"> ▪ Education and training of employees during implementation of new products and enhancements of existing applications 	Medium

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Client Services (cont.)	<ul style="list-style-type: none"> ▪ Inadequate resources ▪ Inadequate training ▪ Incomplete solutions ▪ Lack of timely resolutions 	<ul style="list-style-type: none"> ▪ Augment helpdesk during heavy call periods ▪ Help desk reporting mechanism to monitor issues and remediation ▪ Monitor SLA open ticket requests 	
Communications (Radio)/Public Safety	<ul style="list-style-type: none"> ▪ Insufficient personnel ▪ Lack of resources and/or training ▪ System/equipment obsolescence ▪ Lack of maintenance on equipment 	<ul style="list-style-type: none"> ▪ Invested in the latest technology ▪ Continue to train and provide professional development to IT professionals ▪ Hire and retain skilled professionals ▪ Weekly testing of the system ▪ Conduct annual preventative maintenance of the system 	Medium
Project Execution	<ul style="list-style-type: none"> ▪ Exceeding projected budget ▪ Lack of alignment with client in achievable, measurable project goals and deliverables ▪ incomplete match of skills, knowledge, and abilities to project need ▪ Insufficient labor capacity ▪ Failure to meet milestones/goals in deliverables 	<ul style="list-style-type: none"> ▪ Structured, proven foundational methodologies for project management, business analysis, and human performance ▪ Availability of tools, templates, and supporting technologies ▪ Completed scope documents between client and HITS ▪ Embedded goals in HEAR plans ▪ Formal project reviews and weekly updates ▪ Projects presented, as appropriate, before ITOC, ITGB, and City Council for approval ▪ The Project Management Playbook ensures structured planning and oversight 	Medium

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Project Execution (cont.)</p>		<ul style="list-style-type: none"> ▪ Contract language structured with incentives / holdbacks ▪ Milestone and deliverables based payment structure ▪ Professional development resources including division training budget, support of role appropriate certifications, and HITS provisioned online training tools ▪ Knowledge transfer to clients and other stakeholders via project deliverables ▪ Staffing solutions matching forecasted utilization with internal capacity and external resources to augment needs. 	

Houston Parks & Recreation Department (HPARD)

Mission and Objectives

Created by city ordinance in 1916, the Houston Parks and Recreation Department's (HPARD) overall mission is to enhance the quality of urban life by providing safe, well-maintained parks and offering affordable programs for the community. The department also seeks to encourage and promote healthy living.

Notable Changes since the Previous Risk Assessment

A previous risk assessment of PARD took place in Fiscal Year 2014. Since that assessment, the following changes have occurred: **1)** Director Joe Turner retired and Stephen Wright was appointed by the Mayor and confirmed by City Council as the new Director of HPARD in July 2017; and **2)** Glenbrook golf course closed April 2018 and will become a Botanical Garden.

Significant Activities

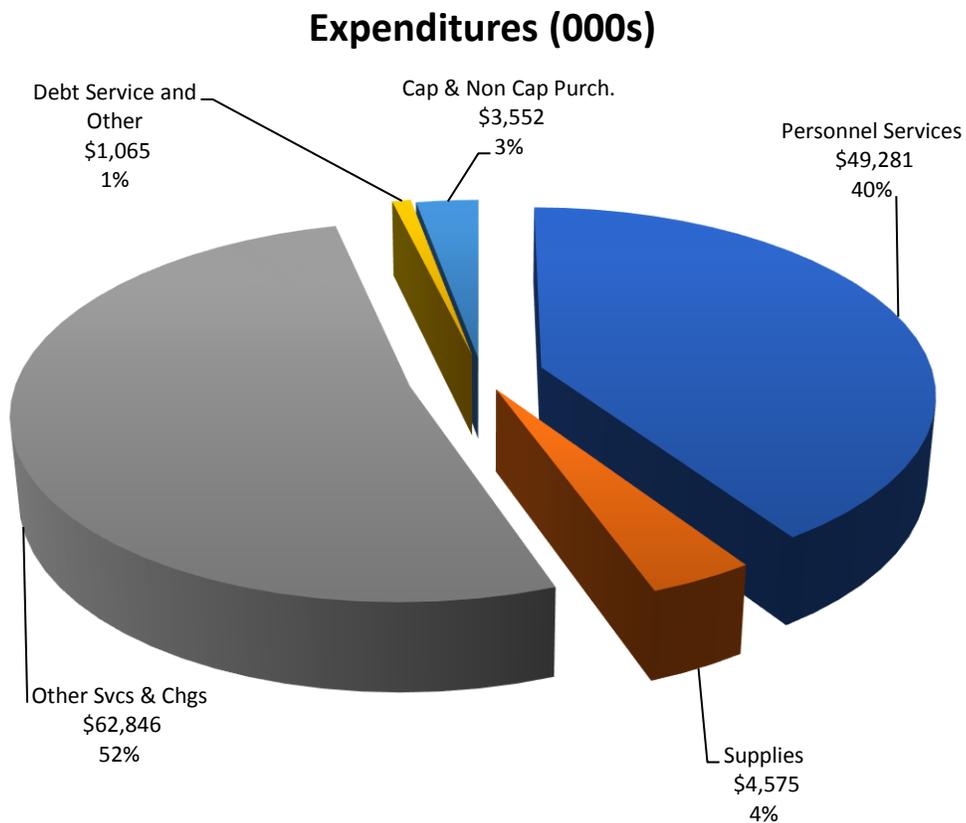
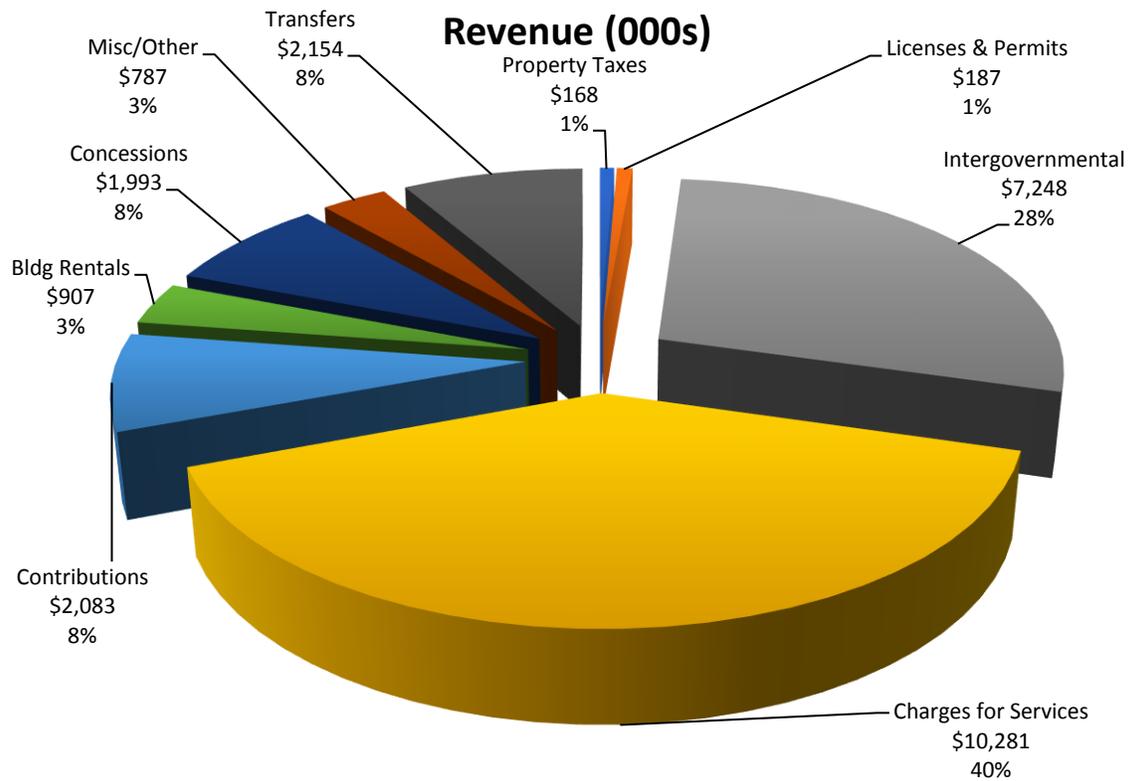
HPARD is responsible for the management, improvement, and maintenance of parks, which encompass parkways, esplanades, playgrounds, community centers, green space, urban forest, and multi-service centers belonging to or under the control of the City of Houston. The department is accredited through the Commission for Accreditation of Park and Recreation Agencies (C.A.P.R.A).

Activities include:

- Managing and maintaining operation of 60 community centers, and green spaces totaling 37,735 acres (over 370 Parks)
- Maintaining the grounds for 39 City Libraries and 16 Multi-Service Centers (MSC)
- Maintaining over 2,200 acres of esplanades
- Operating three city municipal golf courses and three tennis centers
- Operating and maintaining 38 swimming pool sites (including West Gray MSC), water parks, 105 neighborhood tennis courts, 7 skate parks (5 above ground & 2 in ground – Jamail and Burnett-Bayland, a 17,500 square foot in ground skate park), 9 dog parks and over 165 miles of Hike and Bike trails throughout the city
- Operating the Summer and After-School Meal Program (serving over 800,000 meals and snacks annually)
- Managing youth, teen, adult, and senior leisure and sports programs
- Responding to more than 22,000 calls from the City's 311 service each year
- Removing over 4,700 bags of trash from the park system each week
- Managing all mechanical, electrical, carpentry and painting operations for all facilities
- Patrolling and securing Park locations with 24-hours dispatch operation
- Overseeing and coordinating park system improvements and expansion
- Providing Adaptive Recreation services, such as wheelchair basketball, power soccer, sitting volleyball and Aquatics programs year-round for children and adults with disabilities

Fiscal Year 2017 Financial Data

Revenue generated during fiscal year 2017 totaled \$25.8 million, which primarily were from various service fees, e.g., golf, open space, intergovernmental (grants), and concessions. Expenditures reported totaled \$121.3 million, which included personnel, supplies and other service charges. Graphical representations of the revenues and expenditures depict the amount and source of each.



Key Business Risk Areas

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Financial Management</p>	<ul style="list-style-type: none"> ▪ Lack of financial knowledge ▪ Inadequate funding ▪ Increased utilities and materials cost ▪ Inadequate systems and systems support ▪ Noncompliance with grant program requirements ▪ Noncompliance with agreements ▪ Financial system requires much manual intervention 	<ul style="list-style-type: none"> ▪ Training, evaluations, work progress reports and more stringent hiring process ▪ Monitor and analyze expenditures; SAP Reports to Cost Center Managers ▪ Dedicated IT group within department ▪ Adherence to Grant Internal Policy ▪ Contract Compliance monitoring ▪ Financial system allows improved oversight and analysis 	<p>High</p>
<p>Security and Safety</p>	<ul style="list-style-type: none"> ▪ Increase in crime rate ▪ Lack of funding for increased technology ▪ Lack of assistance from outside law enforcement agencies ▪ Insufficient resources for monitoring and/or guarding facilities ▪ No surveillance cameras at all facilities ▪ Unsafe/damaged playground equipment 	<ul style="list-style-type: none"> ▪ Deploy Urban Park Rangers on rotating schedule ▪ Maintain shift schedule to enable park coverage ▪ 20/20 Bike Patrol Program ▪ Utilize newer equipment for self-protection/technology for surveillance / monitoring ▪ Area law enforcement support security efforts ▪ Self-Defense training ▪ All facilities are equipped with intrusion alarms ▪ Increased patrol frequency of “hotspots” ▪ Inspections and replacement of playground equipment 	<p>High</p>
<p>Customer Service</p>	<ul style="list-style-type: none"> ▪ Park facilities or programs do not meet citizen’s expectations ▪ Inability to respond to citizen requests ▪ Increasing acreage and facilities to maintain without 	<ul style="list-style-type: none"> ▪ Solicit community input through evaluations and surveys ▪ Respond to calls from the City’s 311 service in a 3- 	<p>Medium</p>

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Customer Service (cont.)	<ul style="list-style-type: none"> ▪ a commensurate increase in funding ▪ Insufficient resources 	<ul style="list-style-type: none"> ▪ day response turn-around ▪ Greenspace Adoption Program 	
Facilities Management	<ul style="list-style-type: none"> ▪ Insufficient or ineffective preventive maintenance ▪ Increasing number of facilities to maintain without a commensurate increase in funding ▪ Vandalism and theft of City property ▪ Inadequate security ▪ Inability to share electronic data or other information among 100+ satellite sites 	<ul style="list-style-type: none"> ▪ Periodically review existing preventive maintenance schedule to improve system ▪ Greenspace Adoption Program ▪ Manage budget constraints ▪ Deploy Urban Park Rangers on rotating schedule ▪ Implemented 20/20 bike patrol plan ▪ Adopted IT strategy to update systems infrastructure in facilities as needed 	Medium
Grounds Maintenance	<ul style="list-style-type: none"> ▪ Increased acreage to maintain without a commensurate increase in funding ▪ Outdated or inoperable equipment ▪ Insufficient data collection tools ▪ Insufficient work order maintenance scheduling systems ▪ Unaware of need to remove or trim certain trees endangering public safety or posing threat of property loss ▪ Ineffective enforcement of City's tree protection ordinance ▪ Inability to communicate with managers or crews in the field ▪ Insufficient resources/shortage of grounds maintenance staff 	<ul style="list-style-type: none"> ▪ Greenspace Adoption Program ▪ Monitor equipment and repair as needed ▪ Work order system ▪ Maintenance scheduling procedures in place ▪ Follow replacement schedule that lowers amount of obsolete or aged equipment ▪ Respond to requests to remove or trim trees from the City's 311 service ▪ Enforce tree ordinance through permitting process ▪ Provide communication tools for managers ▪ Reviewing vacancies and posting job vacancies asap; ensuring funds are budgeted 	Medium

Key Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Recreation, Wellness, and After School Programs</p>	<ul style="list-style-type: none"> ▪ Lack of programs and services needed or desired by the public ▪ Inadequate funding ▪ Program staff not adequately trained ▪ Hiring process is untimely for seasonal staff ▪ Inadequate equipment 	<ul style="list-style-type: none"> ▪ Conduct and Review survey results ▪ Recruit volunteers to assist, create new partnerships, applying for grants ▪ Weekly staff meeting, coaching & counseling sessions, annual performance reviews ▪ Lifeguards recertify annually ▪ Review and access facilities to ensure ADA compliance 	<p>Medium</p>
<p>Marketing</p>	<ul style="list-style-type: none"> ▪ Inadequate or untimely communication from other departments ▪ Inability to inform citizens of events, programs, or activities ▪ Insufficient resources ▪ Negative perception 	<ul style="list-style-type: none"> ▪ Work with other departments to receive information timely ▪ Project request forms with division head approval ▪ Continuous updates to department website ▪ Increase depts. social media presence to promote programs and services ▪ Respond to citizen questions received through "Ask Parks" 	<p>Low</p>

Mission and Objectives

To be a strategic partner by providing Human Resources (HR) programs that attract, develop, retain, and engage a skilled and diverse workforce. Our vision is to be universally recognized for Human Resources excellence and as a premier employer.

Notable Changes since the Previous Risk Assessment

A risk assessment of HR took place in Fiscal Year 2014. Since that time, the following changes have occurred: **1)** Omar Reid resigned and Jane E. Cheeks was appointed by the Mayor and confirmed by City Council, as the Director in 2016; **2)** HR Operations assumed management and oversight of HR from the Houston Emergency Center (HEC) and Houston Public Works (HPW) departments; **3)** Risk Management was created and combined Safety and Workers' Compensation; **4)** Risk Management assumed management and oversight of Workers' Compensation and Safety from HPW; **5)** Classified Testing moved from the General Fund to the Revolving Fund; **6)** Physical exam and drug testing services moved from Employment Resource and Services (ERS) to Risk Management; **7)** Temporary services was renamed Contingent Workforce Services (CWS); **8)** Talent management (learning and performance) and contingent workforce services applications moved to the cloud; **9)** Troubleshooting Problems Systematically (TPS), CWS, HRIS and Records divisions consolidated into Information Management.

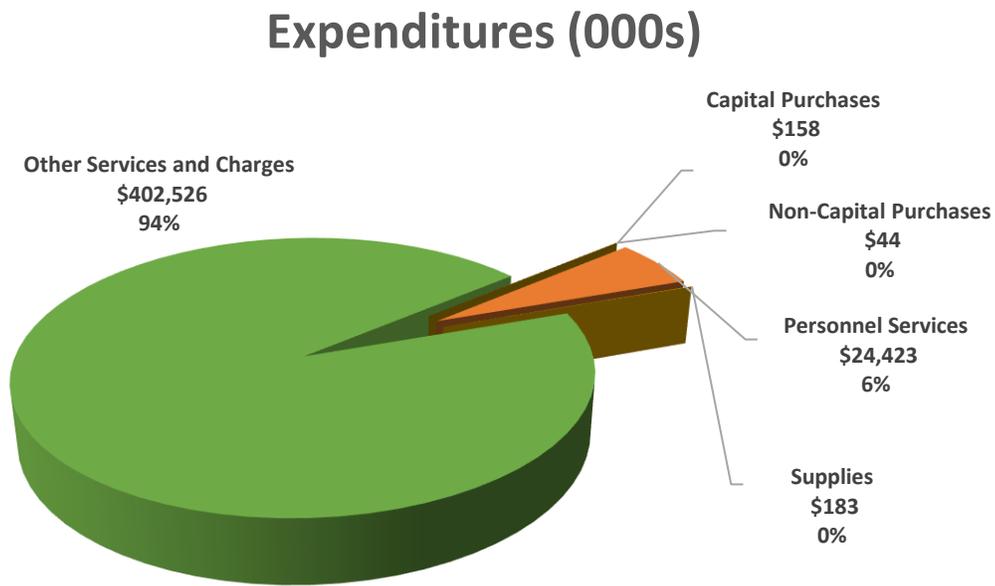
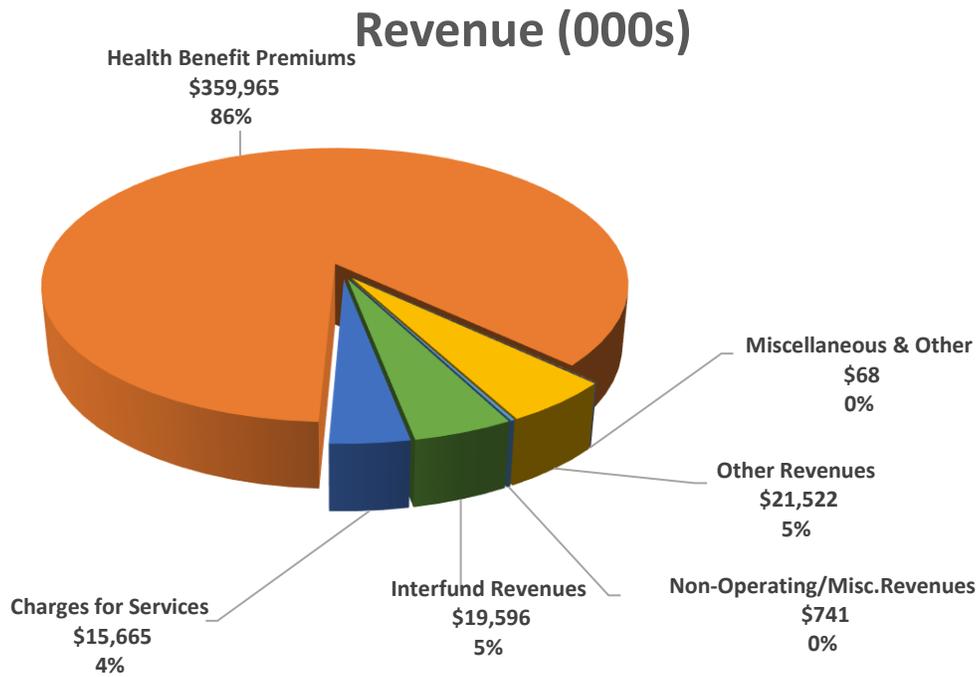
Significant Activities

HR supports each city department by managing the administrative and compliance functions of hiring, coordinating learning and performance, as well as administering benefit and wellness programs. These activities include:

- Managing job postings, applications, and hiring process;
- Maintaining employment, contingent worker, learning, performance, and organizational management applications, as well as personnel data and records;
- Administering salary programs;
- Developing and administering promotional exams for classified members of the Houston Fire Department;
- Maintaining benefit eligibility records for over 68,000 plan members;
- Coordinating training and professional development programs;
- Managing the Learning and Development Center;
- Providing safety training programs;
- Processing motor vehicle record checks for all departments, except Police and Solid Waste Management (SWM) departments;
- Coordinating Civil Service Commission, grievances, Employee Concerns Resolution Program (ECRP), EEO and ADA compliance, and compliance activities of the HOPE union contract.

Fiscal Year 2017 Financial Data

During fiscal year 2017, the department recorded revenue of \$417 million. Eighty-six percent (86%) of the department's revenues represented health benefit premiums. Insurance claims are funded substantially from the City, with the remainder coming from employees via the payroll system and the three pension systems for retirees. Expenditures totaled \$427 million. Graphical representations of the revenues and expenditures depict the amount and source of revenue and expenditures.



Key Business Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Administration</p>	<ul style="list-style-type: none"> ▪ Lack of formal policies and procedures ▪ Non-compliance with policies and procedures ▪ Lack of transparency in decision making process ▪ Lack of monitoring of third-party administered benefits program ▪ Inaccuracy of Eligibility 	<ul style="list-style-type: none"> ▪ Document standard operating procedures (SOPs) for continuity of services ▪ Direct non-compliance issues and complaints to the Office of Inspector General (OIG) for investigation ▪ Provide timely updates to employees through various messaging and social media channels ▪ Collect monthly reports from third-party vendors and review activities and outputs ▪ Annual independent audits of third-party administered benefits programs including pharmacy and claims adjudication and contract performance guarantees ▪ Require supporting documentation for qualifying events and dependents prior to benefit changes ▪ Internal and external audit of eligibility files ▪ Implement program changes to learning and performance applications to better enable the workforce and give leadership more transparency ▪ Continue and maintain the consolidation of HR Worker’s Compensation and Safety Services 	<p>Medium</p>

Key Business Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Compliance</p>	<ul style="list-style-type: none"> ▪ Inability to perform compliance reviews ▪ Noncompliance with contract stipulations ▪ No comprehensive policies ▪ Inaccurate or outdated position descriptions ▪ Posted requirements incompatible with job needs ▪ Noncompliance with HIPAA and other laws and regulations ▪ Changes in laws / regulations ▪ Lack of Training 	<ul style="list-style-type: none"> ▪ Require senior leaders to meet with their teams and reinforce compliance ▪ Incorporate audit clauses in all contracts ▪ Perform internal and external audits ▪ Collaborate with Legal Department on new and revised policies ▪ Include Performance Guarantees in contracts to incentivize compliance and maintain quality services from vendors ▪ Create position descriptions customized and approved for departments ▪ Strengthen compliance with HIPAA and other laws/ regulations ▪ Modify processes and procedures as the department evolves ▪ Strengthen changes in labor and employment regulations ▪ Increase funding to general fund divisions for training and professional development 	<p>Medium</p>
<p>Financial Management</p>	<ul style="list-style-type: none"> ▪ Inadequate funding ▪ Untimely benefit enrollment reconciliations ▪ Financial instability of 3rd party providers ▪ Catastrophic illnesses or injuries 	<ul style="list-style-type: none"> ▪ Reoccurring monthly enrollment reconciliations performed ▪ Vendors financial standing vetted in contracting phase ▪ Reserves held in Fund Balance to mitigate risk involving catastrophic illnesses or injuries 	<p>Medium</p>

Key Business Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
<p>Human Resources</p>	<ul style="list-style-type: none"> ▪ Inability to recruit and retain qualified individuals ▪ Untimely recruiting / hiring process ▪ Noncompetitive compensation ▪ Inadequate training or cross-training ▪ Loss of tenured institutional knowledge (Retirement / resignation) ▪ Reduction in City-wide workforce 	<ul style="list-style-type: none"> ▪ Identify target groups and establish talent pools ▪ Maintain an electronic application platform ▪ Provide face-to-face and online training access as well as cross-training opportunities to staff ▪ Develop a succession management model which supports management and the organization ▪ Develop succession strategies for recruitment, retention, and training to close skill gaps and enhance knowledge management ▪ Increase reach through social media channels to bring awareness to job opportunities 	<p>Medium</p>
<p>Information Technology</p>	<ul style="list-style-type: none"> ▪ Limited ability to produce reports ▪ Lack of processing capacity ▪ Loss of eligibility data ▪ Lack of training on system capability ▪ Inappropriate access ▪ Security breach 	<ul style="list-style-type: none"> ▪ Have redundant back-ups of all application data ▪ Increase the frequency of updates to SAP ▪ Understand business needs, contracts, compliance requirements, and vendor requirements ▪ Stay up-to-date with best practices and industry standards in functional areas ▪ Enhance reporting to aid the organization in making data-driven decisions ▪ Compile data from key systems for a master data repository 	<p>Medium</p>
<p>Records Management</p>	<ul style="list-style-type: none"> ▪ Lack of storage capacity 	<ul style="list-style-type: none"> ▪ Have dedicated space for physical and electronic 	<p>Medium</p>

Key Business Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Records Management (cont.)	<ul style="list-style-type: none"> ▪ Lack of retention policies ▪ Loss/destruction of physical and/or electronic or recorded information ▪ Lack of security of confidential information 	<p>records as well as transcriptions</p> <ul style="list-style-type: none"> ▪ Update retention schedule to ensure adherence to legal, state, and local policies ▪ Continue regular reviews and approvals before records are destroyed ▪ Control access of personnel records 	
Safety	<ul style="list-style-type: none"> ▪ Inadequate safety programs ▪ Inability to provide safety training ▪ Lack of due diligence following an incident 	<ul style="list-style-type: none"> ▪ Comprehensive Safety Program implemented through AP2-21 ▪ Executive Safety Committee meets monthly to capture, discuss and resolve going safety concerns ▪ Distribute safety newsletters and information monthly ▪ Conduct safety audits and assessments ▪ Continuously deliver required and on-demand safety training via internal and external sources ▪ Investigate all safety incidents and accidents and ensure supporting documentation is captured 	Medium
Training	<ul style="list-style-type: none"> ▪ Inadequate staff training ▪ Lack of adequate/qualified trainers/instructors ▪ Insufficient number of instructors/trainers ▪ Inadequate scheduling 	<ul style="list-style-type: none"> ▪ Provide comprehensive training solutions for the workforce and external clients ▪ Require mandatory group training for various target audiences ▪ Employ professional and skilled trainers/instructors 	Medium

Key Business Process	Potential Risks	Reported Risk Management Techniques	Risk Rating
Training (cont.)		<ul style="list-style-type: none"> ▪ Develop online, external training and SHRM symposiums ▪ Have a state-of-the-art training facility 	



DEPARTMENT RISK ASSESSMENT DATES



CITY OF HOUSTON DEPARTMENTS

LAST ASSESSMENT

ADMINISTRATION & REGULATORY AFFAIRS	2018
CITY SECRETARY	2015
CONTROLLER'S OFFICE	2018
FINANCE	2016
FIRE	2017
FLEET MANAGEMENT	2017
GENERAL SERVICES	2015
HEALTH AND HUMAN SERVICES	2017
HOUSING AND COMMUNITY DEVELOPMENT	2015
HOUSTON AIRPORT SYSTEM	2018
HOUSTON EMERGENCY CENTER	2015
HOUSTON INFORMATION TECHNOLOGY SERVICES	2018
HOUSTON PARKS AND RECREATION	2018
HUMAN RESOURCES	2018
LEGAL	2015
LIBRARY	2017
MUNICIPAL COURTS	2017
NEIGHBORHOODS	2017
OFFICE OF BUSINESS OPPORTUNITY	2015
PLANNING AND DEVELOPMENT	2016
POLICE	2016
PUBLIC WORKS AND ENGINEERING	2016
SOLID WASTE MANAGEMENT	2016



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Audit Division

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