



2018 Budget Presentation Information Technology

Jeff Eckhart

IT Director

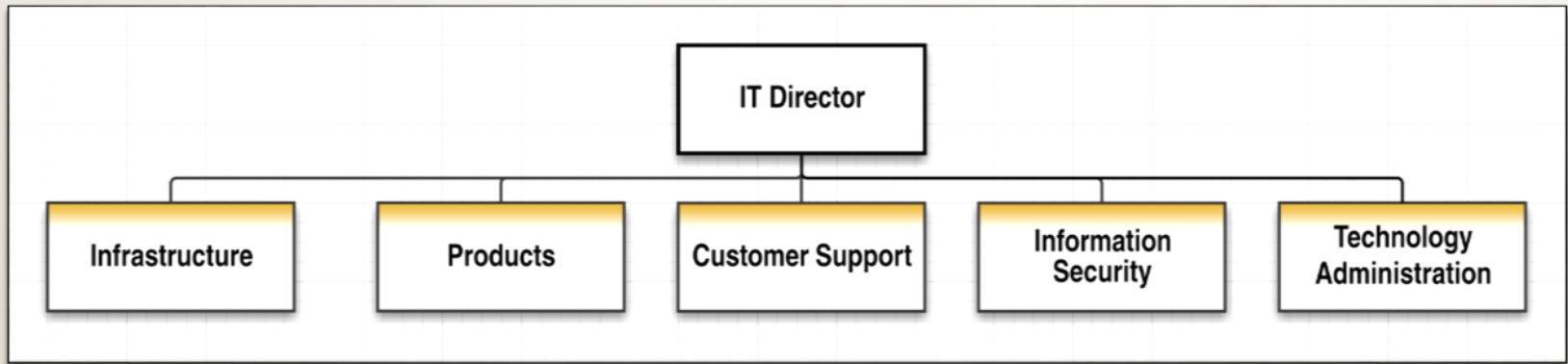
November 14, 2017

Mission

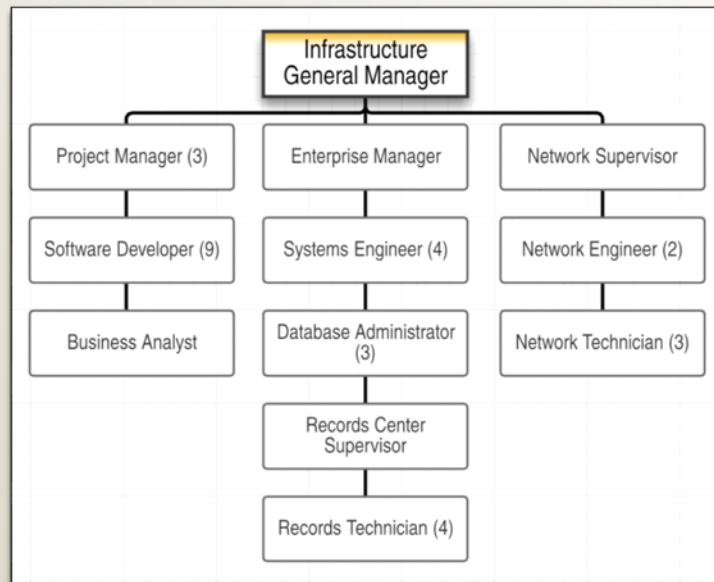
The Information Technology Department is an internal service organization chartered to provide foundational technology services and support to El Paso County Offices and Departments



Information Technology Organizational Overview



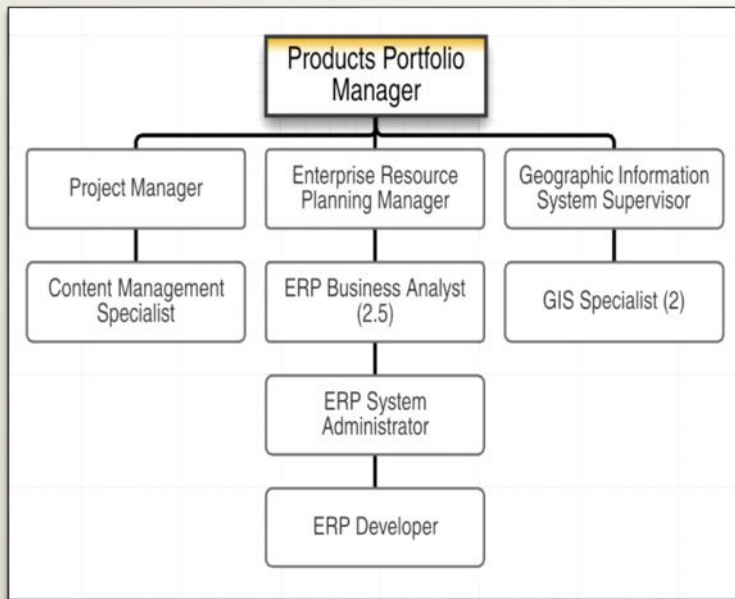
Infrastructure



- Email
- Internet
- Telephones
- Network Storage
- Connectivity
- Backup / Recovery
- Database Management
- Records Center
- Application Hosting



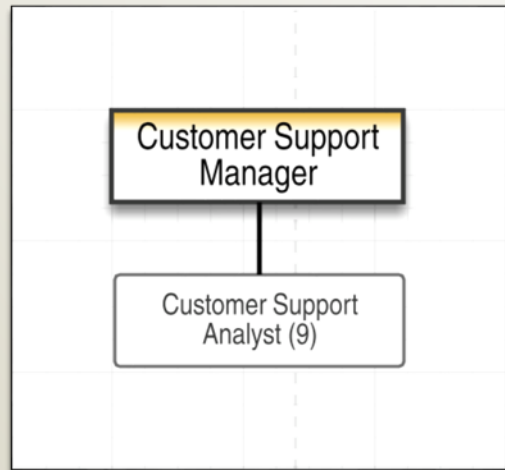
Products



- Centralized Operational Systems
 - Budget / Financials
 - Human Resources
 - Work Order / Inventory
 - Time & Attendance
- Digital Mapping
- Document Management
- Websites
- Employee Portal
- Citizen Engagement



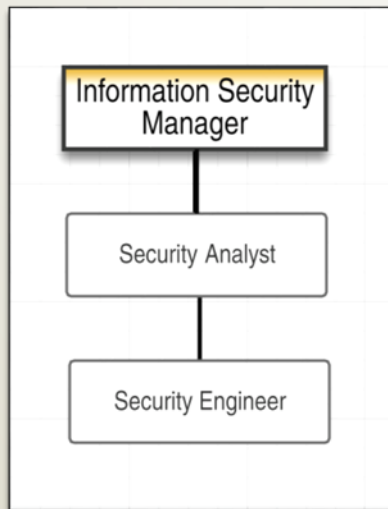
Customer Support



- 24 X 7 Help Desk
- PC Support
- PC Replacement Program
- Software Replacement Program
- Printer/Scanner Device Support
- Mobile Device Support
- Telephone Programming & Support



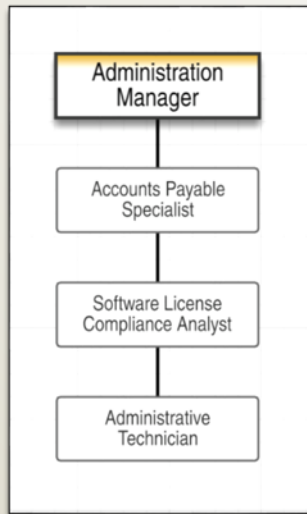
Information Security



- Cyber Security
- Firewalls / Intrusion Protection
- Patch Management
- PC Virus Protection
- Vulnerability Management
- PCI Compliance
- Remote Network Access / VPN



Technology Administration



- Software License Compliance
- Inventory Control
- Software Maintenance Contracts
- Technology Cost Optimization
- Technology Contracts / Purchasing
- Staffing
- Capital Asset Management



Compliance Mandates

- **Criminal Justice Information Services (CJIS) Security Policy**

FBI mandate to protect sensitive information gathered by local, state, and federal criminal justice and law enforcement agencies with specific requirements for wireless networking, remote access, encryption, certification of cryptographic modules, and minimum key lengths

- **Health Insurance Portability and Accountability Act (HIPAA)**

Federal mandate for data privacy and security provisions for safeguarding medical information; establishes national standards for securing patient data that is stored or transferred electronically requiring physical and electronic safeguards to ensure the secure passage, maintenance and reception of protected health information

- **Payment Card Industry Data Security Standard (PCI DSS)**

Security standards designed to ensure that all entities that accept, process, store or transmit credit card information maintain a secure environment



Strategic Plan Objectives

Goal 3, Strategy B: provide cooperative general technology services through a secure and modern operating infrastructure, current and sustainable software products, innovation and a qualified professional workforce

1. Develop mobile applications for direct public access to County programs, services and information
2. Implement a 311 type web-based information system
3. Implement comprehensive technology security program
4. Expand fiber optic networks to improve operational continuity through redundancy
5. Replaced unsupported analog telephone system with next generation network based phone system



Strategic Plan Objectives

Goal 3, Strategy B: provide cooperative general technology services through a secure and modern operating infrastructure, current and sustainable software products, innovation and a qualified professional workforce

6. Define and implement acceptable use policies for technology systems, devices and operations
7. Retire legacy software products and transition operations to sustainable software architectures
8. Design and implement sustainable replacement programs for PCs, software, and technology capital assets
9. Leverage existing software platforms to enable efficient and interoperable operations



IT Budget Drivers

1. COUNTYWIDE PRODUCTIVITY AND EFFICIENCY GAINS ARE REALIZED THROUGH IT INVESTMENTS

- IT's contribution to improving productivity accounts for 54% of annual labor productivity gains¹
- IT is second only to people as the enterprise's most critical resource
- It is difficult to think of any business function, Office or Department that can reach its goals and objectives without technology

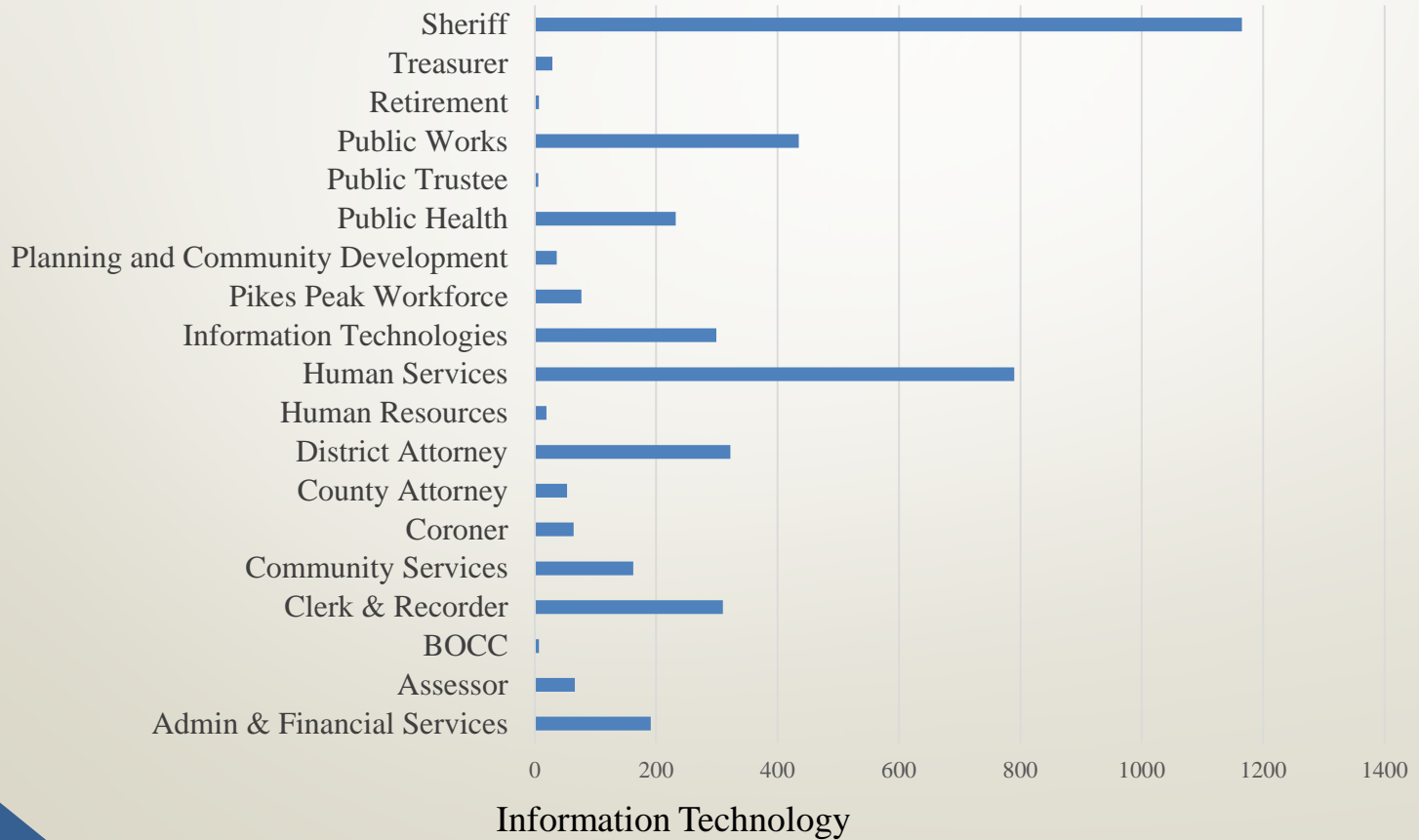
¹Gartner
21st Century IT Budgeting: Distributing Responsibility for IT Spending
Michael Smith | Debra Curtis | Jim McGittigan,
01 September 2017



IT Budget Drivers

2. IT INVESTMENTS ACCRUE OUTSIDE THE IT DEPARTMENT

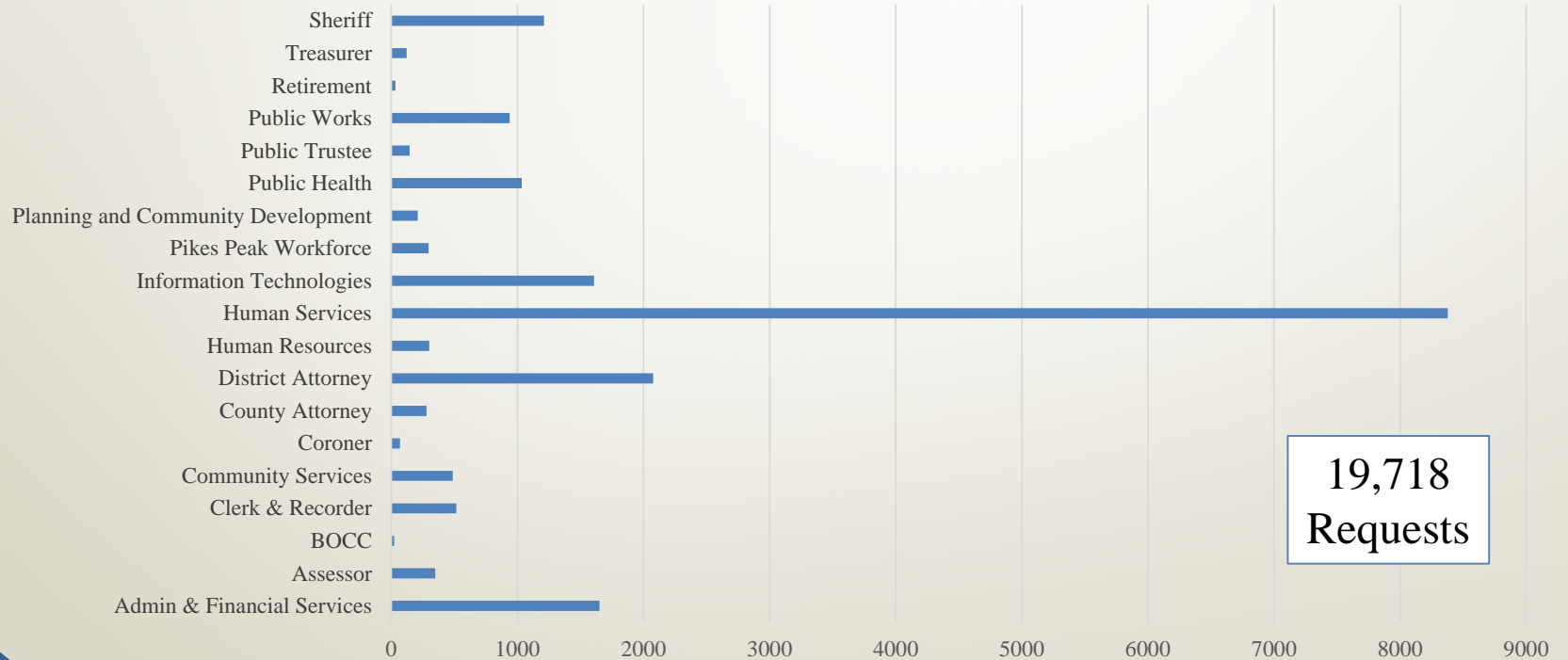
Network Accounts by Department/Office



IT Budget Drivers

2. IT INVESTMENTS ACCRUE OUTSIDE THE IT DEPARTMENT

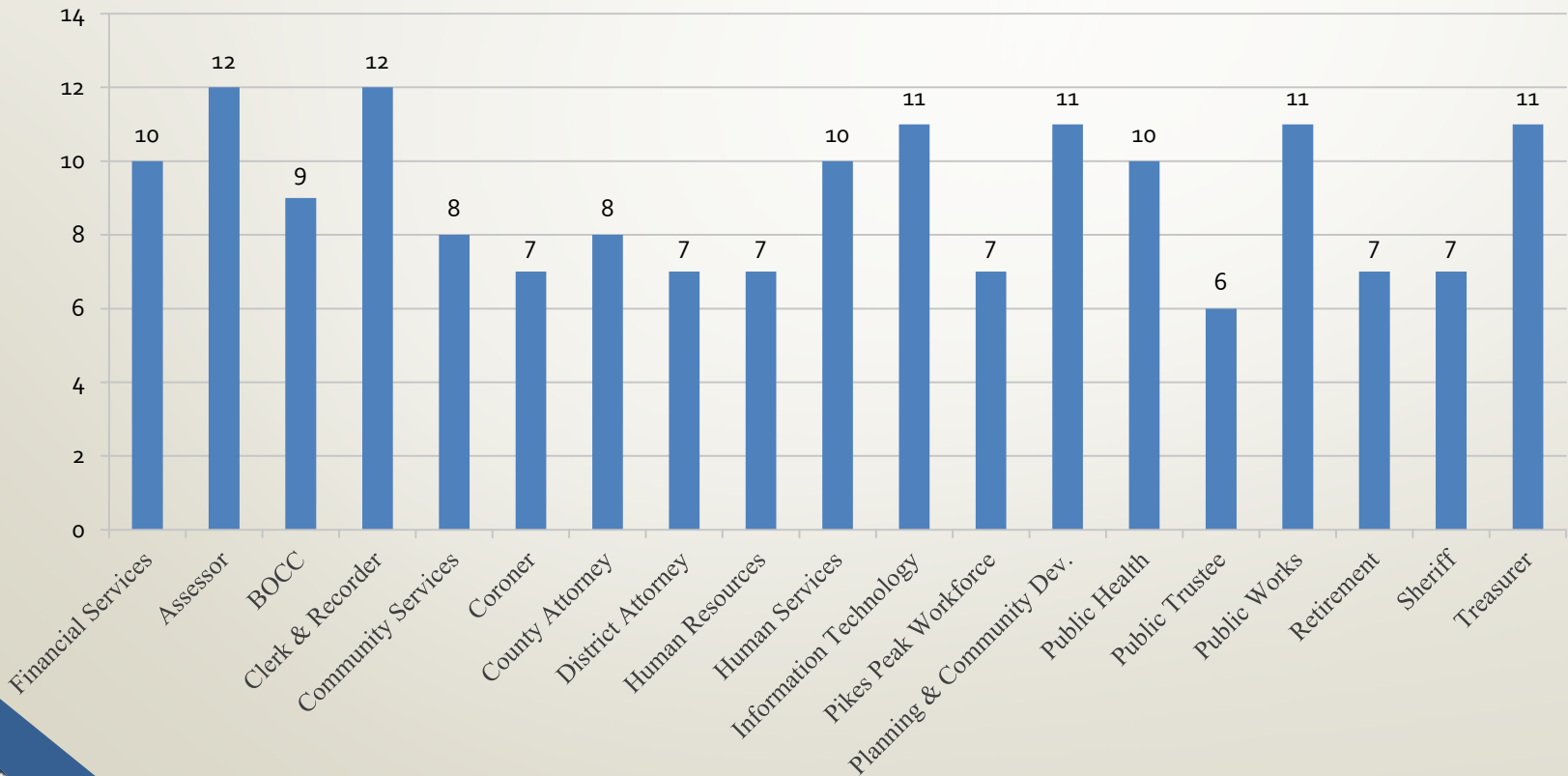
Service Requests by Department/Office
10/1/2016 through 10/1/2017



IT Budget Drivers

2. IT INVESTMENTS ACCRUE OUTSIDE THE IT DEPARTMENT

Centralized Applications used by Department



Information Technology



IT Budget Drivers

3. THE COUNTY REALIZES THE GREATEST VALUE THROUGH INVESTMENTS IN CENTRALIZED IT

- Economies of scale produce cost advantages, with cost per IT commodity or service decreasing with increasing utilization as fixed costs are spread over more business units
- Underfunding central IT increases shadow IT costs because the Office/Department will always find a way, normally by non-IT business managers seeking alternatives to meet their needs
- Shadow IT does not offer any economies of scale and introduces more risk into the enterprise because security, licensing, compliance, and business continuity issues are not properly vetted



IT Budget Drivers

4. DEMAND FOR IT IS EXCEEDING SUPPLY

- Demand for new and improved IT capabilities is exceeding the ability of all known cost optimization concepts to hold or reduce the overall level of IT spending
- The annual increase in IT operating expense can be conservatively estimated at 20% of a new project's implementation costs¹
- There are huge investments in digital operations occurring right now that will dramatically increase the operating portion of IT spend

¹Gartner
21st Century IT Budgeting: Distributing Responsibility for IT Spending
Michael Smith | Debra Curtis | Jim McGittigan,
01 September 2017



IT Budget Drivers

4. DEMAND FOR IT IS EXCEEDING SUPPLY

IT Demand

≧

IT Supply

- Mobile
- Social
- Storage
- Security
- Analytics
- Processing
- Bandwidth
- Internet of Things (IoT)
- Digital technology

- Capped spending
- Flat operating budgets
- Shadow IT increases
- Lost economies of scale
- Lost productivity
- Increased cost in the rest of the business



IT Budget Drivers

4. DEMAND FOR IT IS EXCEEDING SUPPLY

- Cyber security program created through operational savings, deferred capital replacements, and software contract optimization; no new budget or positions allocated for this expensive and high demand discipline
- As the Internet of Things accelerates and everything is connected to our networks, a more proactive engagement in risk and security will be required
- Daily emerging threats and the increased capabilities of adversaries will require additional funding to maintain or reduce our cyber risk



IT Budget Drivers

5. INCREASINGLY DIFFICULT TO RECRUIT AND RETAIN QUALIFIED IT PROFESSIONALS

- 2.5% technology unemployment rate versus 4.5% overall¹
- 12 months to successfully recruit our first full-time Information Security resource
- El Paso County directly competes for technology talent against the local private sector, front range governments, and the military/defense industry
- The County missing out on top technology talent due to compensation inequities with peer organizations

¹Gartner
2017 NA Mercer/Gartner IT Jobs and Skills Survey
Mercer LLC, Marsh & McLennan Companies
October 2017



Base Budget and Critical Needs

2017 Original
Adopted
Budget
11,324,050

Increases
200,000

Decreases
(43,097)

2018
Preliminary
Budget
11,480,953



(Microsoft
Office
Upgrade)



(Transfer FTE
to another
County Dept.)



Questions?

