

**MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION**

**Commission-Wide Information Technology Spend**

**Management Advisory  
Report Number: CW-002-2020**

**February 24, 2020**

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# Information Technology Spend

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## I. Background

Technology investments represent a growing percentage of Maryland-National Capital Park and Planning Commission (Commission or M-NCPPC) spending. Technology is interwoven into every business function. The Commission's current Information Technology (IT) governance structure supports a hybrid model that includes the Office of the Chief Information Officer (OCIO), led by the Commission's Chief Information Officer (CIO), three quasi-independent IT Divisions, led by three Chief Technology Officers (CTO), the Enterprise Information Technology Division (Enterprise) and Executive Office Building IT, also led by the CIO. The analysis also includes three functional sections that provide technical and administrative support to the Commission's Enterprise Resource Planning (ERP) system and Enterprise Asset Management (EAM) system.

Additional details, such as roles and responsibilities and business objectives for the OCIO, three IT divisions, and the functional sections are included within the respective sections of the advisory.

The three IT divisions include:

- Prince George's County Department of Parks and Recreation, Information Technology and Communication Division (**ITC**)
- Prince George's County Planning Department, Information Management Division (**IMD**)
- Montgomery County Planning Department and Montgomery County Department of Parks, Information Technology & Innovation Division (**ITI**)

The three functional sections include:

- Prince George's County Department of Parks and Recreation EAM Administration (**ParkStat**)
- Montgomery County Department of Parks EAM (**SmartParks**)
- Department of Finance ERP Business Operations

The OCIO and Bi-County IT Operations is comprised of the following sections:

- Office of the CIO (**OCIO**)
- Enterprise Information Technology Division (**Enterprise**)
- Executive Office Building (**EOB**) IT

## II. Methodology, Scope, and Objective of Advisory

### Methodology and Scope:

The data presented in this report was obtained through Infor Enterprise Financial Management (EFM) and Lawson Budget and Planning (LBP) queries. For the Commission's primary IT divisions/sections<sup>1</sup>, specific account codes were analyzed to identify IT costs reflected in the advisory. **Exhibit A** contains a summary of the various account codes used in the analysis.

In addition to the primary IT divisions/sections, individual Commission departments (e.g. maintenance & development, human resources, etc.) may purchase IT goods and services. The OIG identified 17 expense codes (**defined in Exhibit A**) used by Commission departments that were also included in total IT spend calculations.

The amounts depicted in this advisory report represent actual expenditures, not transfers to the Commission-wide IT initiative Internal Service Fund (ISF), internal rent/capital equipment fund, departmental chargebacks and transfers, or non-cash expenses (e.g. depreciation/amortization).

### Scope Limitations:

- **Use of Analysis**

It is important for the report reader to have a full understanding of the Commission's IT governance model. Each IT division/section is responsible for different applications and functions. As such, comparisons between department and divisions based solely on these figures does not provide a reliable basis for policy decisions.

For example, Prince George's County Department of Parks and Recreation's (DPR) total IT spend consists of expenses from the Information Management Division (IMD) and the Enterprise Asset Management (EAM) Administrative Section. EAM is part of the Management Services Division and is not part of IMD. Whereas, in Montgomery County, EAM expenses are reflected in the Information Technology & Innovation Division (ITI) expenses.

- **Identification of Expenses**

The report does not include expenses charged to Prince George's County Department of Parks and Recreation or Montgomery County Department of Parks Help Desk sections. Both sections provide administrative and technical support for the Departments point-of-sale systems (RecTrac and

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<sup>1</sup> ITC, IMD, ITI, OCIO, Enterprise IT, EOB, CSD, ERP Business Operations, DPR EAM

ActiveMONTGOMERY) as well as other administrative functions. Please see footnote below for additional information<sup>2</sup>.

Personnel costs of staff performing IT functions (e.g. IT Audit Manager, Park Police Technical Services) outside of the identified IT divisions/sections are not included in the analysis.

The analysis covers fiscal years 2017 – 2019.

**Objective:**

The objective of the advisory is to provide Commission leadership with a high-level summary of total IT spend to assist in decision making and oversight. The advisory does not include specific audit recommendations, rather, the OIG has offered comments, based on external benchmarks and other observations, that may warrant additional investigation by Commission management.

This report is being provided as a management advisory. It was not completed in accordance with government auditing standards.

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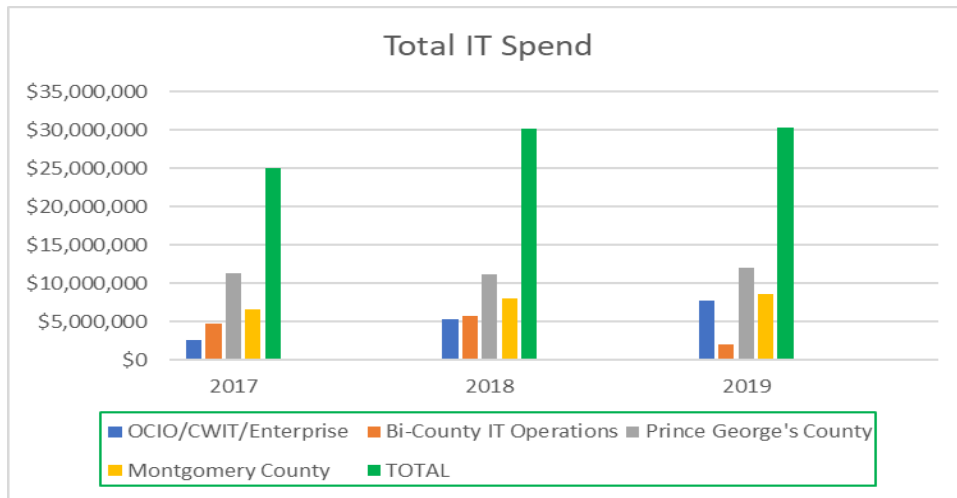
<sup>2</sup> DPR's Help Desk within the Management Services Division is referred to as the Customer Service Help Desk (located within the Parks and Recreation Administration Building). They perform minor technical activities such as password resets but triage other technical issues to ITC. They are primarily responsible for other administrative functions such as RecTrac registration. The Customer Service Help Desk expenses are not included in the analysis.

Montgomery County has three help desks, expenses for one (IT Help Desk) are reflected in ITI Montgomery Parks expenses. However, the ActiveMONTGOMERY Help Desk is not included in the analysis as their expenses are shared with Montgomery County. A third Help Desk within Public Affairs is also not included in the analysis.

### III. Total IT Spend by Department

#### Commission-Wide

|                         | 2017                |        | 2018                |        | 2019                |        |
|-------------------------|---------------------|--------|---------------------|--------|---------------------|--------|
| OCIO/CWIT/Enterprise    | \$2,581,277         | 10.29% | \$5,248,042         | 17.36% | \$7,682,378         | 25.35% |
| Bi-County IT Operations | \$4,735,323         | 18.88% | \$5,695,179         | 18.84% | \$1,955,481         | 6.45%  |
| Prince George's County  | \$11,255,420        | 44.87% | \$11,212,919        | 37.09% | \$12,059,992        | 39.80% |
| Montgomery County       | \$6,510,453         | 25.96% | \$8,076,361         | 26.71% | \$8,604,541         | 28.40% |
| <b>TOTAL</b>            | <b>\$25,082,473</b> |        | <b>\$30,232,501</b> |        | <b>\$30,302,392</b> |        |



OCIO/CWIT/Enterprise expenses include the Office of the Chief Information Officer, Enterprise IT Division and expenses charged to support Commission-wide IT initiatives.

Bi-County IT Operation expenses include the Computer Service Division and ERP Business Operations expenditures; Executive Office Building IT, as well as general IT expenses incurred by the Corporate Offices<sup>3</sup>.

Prince George's County expenses include ITC and IMD expenditures, EAM Administration, as well as general IT expenses incurred by the divisions and sections within Prince George's County Department of Parks and Recreation and Prince George's County Planning Department.

Montgomery County expenses include ITI expenditures, as well as general IT expenses incurred by the divisions and sections within Montgomery County Department of Parks and Montgomery County Planning Department.

<sup>3</sup> Department of Human Resources and Management, Department of Finance, Legal Department, Office of the Inspector General, and Merit System Board.

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The Commission spent **\$30,302,392** for IT expenditures in fiscal year 2019 (FY19). Total expenditures remained fairly stable between FY18 and FY19. However, total IT expenses in FY18 increased 20.5% over FY17. This is primarily attributed to increased CWIT expenses resulting from the creation of the Program Management Office and the completion of additional Commission-wide IT projects. Completed projects include Active Directory (4 phases), IT security assessment, IT penetration testing, and an upgrade to Kronos (the Commission's time and attendance system).

Total dollar increases (\$5,220k) in IT spend over the 3 years by department/division equated to:

- OCIO, CWIT, Enterprise IT - \$5,101k
- Bi-County IT Operations – (\$2,780k)  
     Subtotal                      **\$2,321k**
- Prince George's County -       **\$805k**
- Montgomery County -           **\$2,094k**

A subtotal for OCIO, CWIT, Enterprise IT, and Bi-County IT Operations provides a smoothing of expenditures to allow for representative comparisons.

The following table reflects Commission-wide IT general operating costs, excluding personnel services, by expense code<sup>4</sup>.

(Thousands)

| Expenditures                        | FY17            | FY18            | FY19            |
|-------------------------------------|-----------------|-----------------|-----------------|
| 7100 – Computer Supplies            | \$87.6          | \$262.9         | \$187.8         |
| 7108 – PC Software                  | 1,572.9         | 462.0           | 430.0           |
| 7111 – Computer Equip <\$10k        | 1,777.8         | 2,253.9         | 1,738.4         |
| 7112 – Control Items                | 37.6            | 12.2            | 13.1            |
| 7124 – Audio/Visual Hardware        | 1.2             | 23.7            | 14.7            |
| 7224 – Repairs/Mnt. Comp Hardware   | 136.3           | 178.9           | 251.2           |
| 7264 – Mnt. Agree Comp Equip        | 155.2           | 231.7           | 80.7            |
| 7265 – Mnt. Agree Computer Hardware | 332.7           | 384.7           | 317.7           |
| 7266 – Mnt. Agree Computer Software | 2,382.3         | 2,547.5         | 3,342.2         |
| 7308 – Data Proc Info Mgmt. Serv    | 360.5           | 323.5           | 223.7           |
| 7375 – Software Licenses/Renewals   | 616.0           | 1,157.0         | 1,568.1         |
| 7398 – Web Support                  | 85.9            | 56.0            | 125.3           |
| 7420 – Computer Rental              | 4.2             | 5.7             | 11.1            |
| 8445 – Computer Hardware            | 991.4           | 1,152.7         | 1,256.9         |
| 8450 – Computer Software            | 451.2           | 149.0           | 74.8            |
| <b>TOTAL</b>                        | <b>\$8,993k</b> | <b>\$9,201k</b> | <b>\$9,636k</b> |

<sup>4</sup> Amounts reflected were obtained per Infor Lawson Budget & Planning query, Company 100

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Maintenance agreements computer software (expense code 7266) account for the highest portion of total IT costs. In FY19, they totaled \$3,342k and accounted for 11.3% of total IT costs, followed by computer equipment (account code 7111) which totaled \$1,738k and accounted for 5.9% of total IT costs.

As reflected in the following table, total IT expenses as a percentage of Commission-wide operating expenses<sup>5</sup> have remained fairly stable, increasing from 5.0% in FY17 to 5.5% in FY19.

(Millions)

| <b>Commission-Wide Expenditures</b>    | <b>FY17</b>     | <b>FY18</b>     | <b>FY19</b>     |
|--|-----------------|-----------------|-----------------|
| Personnel Services                     | \$257.7         | \$274.3         | \$284.8         |
| Good for Resale                        | 1.5             | 1.5             | 1.6             |
| Supplies and Material                  | 28.2            | 28.0            | 27.8            |
| Communications                         | 3.9             | 3.7             | 3.2             |
| Utilities                              | 9.8             | 9.1             | 10.0            |
| Repairs & Maint.                       | 15.2            | 22.9            | 19.0            |
| Maint. Agreements                      | 4.0             | 4.7             | 5.5             |
| Professional Svc.                      | 16.0            | 13.6            | 16.4            |
| Contractual                            | 30.6            | 46.7            | 42.0            |
| Other Services & Charges               | 90.0            | 89.3            | 101.0           |
| Debt Service                           | 15.7            | 16.6            | 16.6            |
| Capital Assets                         | 29.1            | 17.4            | 19.6            |
| <b>TOTAL</b>                           | <b>\$501.7M</b> | <b>\$527.8M</b> | <b>\$547.5M</b> |
|  |                 |                 |                 |
| <b>IT Expenses as Percent of Total</b> | <b>5.0%</b>     | <b>5.7%</b>     | <b>5.5%</b>     |

<sup>5</sup> Commission-wide operating expenses per Infor Lawson Budget & Planning query, Company 100



**OIG Comment:** The Commission spends in excess of \$30M per year for IT operations. Based on Computer Economic and Deloitte Insights benchmarks (**Exhibit B**) Commission spend exceeds the following metrics:

- Total IT spend per user
- Spending for IT infrastructure
- IT personnel costs
- IT costs as a percentage of revenue

At this time, it appears that a decentralized IT governance model best meets the needs of the agency. However, Commission management may want to complete additional assessments to identify options that support a common infrastructure and economies of scale while still adhering to a decentralized model. Examples include, but are not limited to:

- develop policies and procedures that support a common infrastructure (e.g. LANs, firewall policies, services, subscriptions, etc.)
- develop policies and procedures that promote consistent security practices (e.g. logging requirements, defined APT testing, etc.)
- single source (i.e. - same for all departments) applications for helpdesk administration, resulting in a reduction of reporting costs
- elimination of redundant responsibilities (e.g. privileged Global and Exchange administrators)
- consolidated datacenters
- assessment of maintenance agreements for computer software
- assessment of professional service contracts

## **OCIO and Enterprise Information Technology**

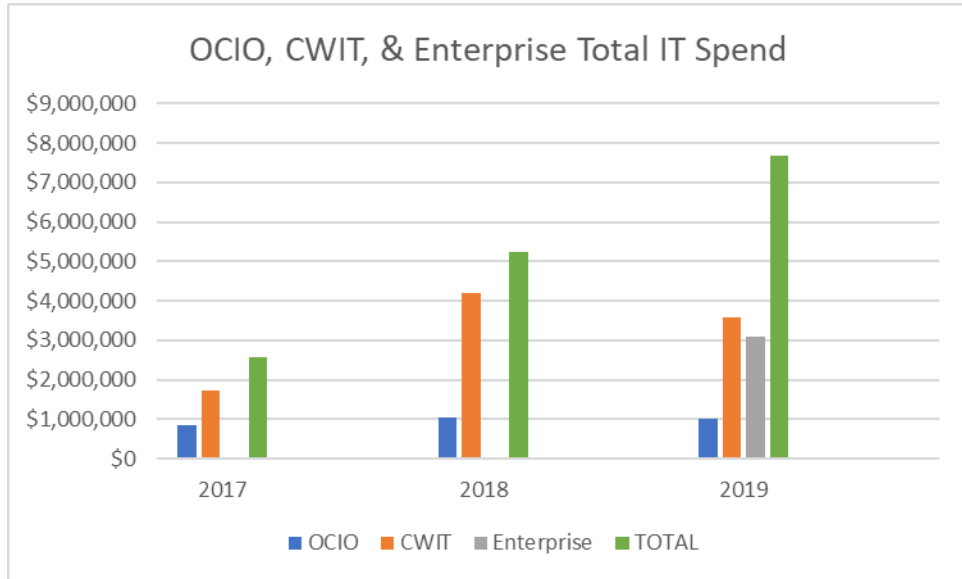
The **Office of the CIO** (OCIO) provides management of the Commission-wide IT function. The OCIO includes the CIO, Program Management Office, and as of November 2019, the Information Security Officer. The Program Management Office (PMO) supports the achievements of M-NCPPC strategic objectives by providing a full set of professional PMO services. Over the last three years, the PMO was able to achieve project management maturity at the organizational level through partnering with department sponsors, stakeholders, and project teams.

The **Enterprise Information Technology Division** (Enterprise) provides the architecture, design, and support for the technology used to advance M-NCPPC's missions and goals. They implement and support Enterprise IT plans and programs while maintaining a fast, agile and secure network. Examples of applications supported include: ERP, Kronos, EnergyCap, Active Directory, and O365. Enterprise IT is primarily funded by Montgomery County and Prince George's County Administration Funds and chargebacks.

- The **Commission-wide IT Initiative** fund provides multi-year funding for Commission-wide IT initiatives, software licenses, and IT infrastructure projects. For this advisory, it is important to note that the amounts reflected represent actual expenditures, not transfers from the supporting departments.

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|                   | 2017               |       | 2018               |       | 2019               |       |
|-------------------|--------------------|-------|--------------------|-------|--------------------|-------|
| <b>OCIO</b>       | \$859,302          | 33.3% | \$1,039,030        | 19.8% | \$995,079          | 13.0% |
| <b>CWIT</b>       | \$1,721,975        | 66.7% | \$4,209,012        | 80.2% | \$3,593,933        | 46.8% |
| <b>Enterprise</b> | \$0                | 0.0%  | \$0                | 0.0%  | \$3,093,366        | 40.3% |
| <b>TOTAL</b>      | <b>\$2,581,277</b> |       | <b>\$5,248,042</b> |       | <b>\$7,682,378</b> |       |



Total OCIO and Enterprise expenses increased from \$2.6M in FY17 to \$7.7M in FY19. The increase is primarily attributed to the creation of the Enterprise Information Technology Division and Program Management Office within the OCIO. Enterprise was established with the formation of the OCIO, however, funding for Enterprise did not transfer from the Department of Finance until FY19.

FY17 and FY18 Computer Service Division (CSD) expenses (\$4.0M and \$3.9M) are presented on page 15.

Note: CWIT is reflected as a separate entity in the tables, however, it is a funding source for Commission-wide initiatives (i.e. not a division or section). The fund is funded by internal service charges to Commission Departments.

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Summary of OCIO, CWIT, and Enterprise Expenditures:

|   | <b>FY17</b>        | <b>FY18</b>        | <b>FY19</b>        |
|---|--------------------|--------------------|--------------------|
| <b>Personnel Services</b>                         |                    |                    |                    |
| Office of the CIO                                 | 540,307            | 790,342            | 808,508            |
| CWIT  | 0                  | 2,234              | 27,071             |
| Enterprise  | 0                  | 0                  | 1,916,953          |
| <b>Total Personnel Services</b>                   | <b>540,307</b>     | <b>792,576</b>     | <b>2,752,532</b>   |
| Percent Increase                                  |                    | 46.7%              | 247.3%             |
| <b>Supplies and Materials<br/>(7100-7168)</b>     |                    |                    |                    |
| Office of the CIO                                 | 41,008             | 20,547             | 15,974             |
| CWIT  | 1,092,810          | 280,820            | 67,409             |
| Enterprise  | 0                  | 0                  | 61,136             |
| <b>Total Supplies and Material</b>                | <b>1,133,818</b>   | <b>301,367</b>     | <b>144,519</b>     |
| Percent Increase/(Decrease)                       |                    | (73.4%)            | (52.0%)            |
| <b>Other Services and Charges<br/>(7200-7479)</b> |                    |                    |                    |
| Office of the CIO                                 | 277,987            | 228,141            | 170,597            |
| CWIT  | 541,935            | 3,925,958          | 3,499,453          |
| Enterprise  | 0                  | 0                  | 1,055,256          |
| <b>Total Other Services and<br/>Charges</b>       | <b>819,922</b>     | <b>4,154,099</b>   | <b>4,725,306</b>   |
| Percent Increase                                  |                    | 406.6%             | 13.8%              |
| <b>Capital Assets (8450-8445)</b>                 |                    |                    |                    |
| CWIT  | 87,230             | 0                  | 0                  |
| Enterprise  | 0                  | 0                  | 60,021             |
|   | <b>87,230</b>      | <b>0</b>           | <b>60,021</b>      |
| <b>TOTAL</b>                                      | <b>\$2,581,277</b> | <b>\$5,248,042</b> | <b>\$7,682,378</b> |
| Percent Increase                                  |                    | 103.3%             | 46.4%              |

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Personnel Services

Personnel services includes salary, benefits, FICA, and retirement for all merit and contractual employees. For consistency/comparison purposes, OPED is not reflected in total personnel services expenditures.

Within the OCIO, the largest change in personnel costs incurred in FY18. Total expenses increased \$250k from FY17. This can be attributed to increased staffing within the OCIO, specifically, the Program Management Office and OCIO administrative support.

Enterprise personnel costs transferred from the Department of Finance in FY19.

Supplies and Materials

| OCIO/CWIT/Enterprise |                         | 2017                | 2018              | 2019             |
|----------------------|-------------------------|---------------------|-------------------|------------------|
| 7100                 | Computer Supplies       | \$224,774           | \$228,840         | \$58,323         |
| 7103                 | Furniture/Fixtures      | \$20,155            | \$13,399          | \$3,483          |
| 7105                 | Office Machines         | \$3,460             | \$0               | \$0              |
| 7106                 | Minor Equipment         | \$0                 | \$572             | \$1,195          |
| 7107                 | Office Supplies         | \$5,034             | \$4,979           | \$2,263          |
| 7108                 | PC Software             | \$869,227           | \$16,989          | \$12,015         |
| 7110                 | Communication Equipment | \$0                 | \$0               | \$26             |
| 7111                 | Computer Equipment      | \$6,958             | \$31,968          | \$47,377         |
| 7112                 | Control Items           | \$0                 | \$0               | \$6,888          |
| 7115                 | Horticultural Tools     | \$0                 | \$0               | \$5,760          |
| 7124                 | Audio Visual Hardware   | \$0                 | \$0               | \$4,721          |
| 7136                 | Food & Beverage         | \$4,210             | \$3,017           | \$4,322          |
| 7158                 | Supplies/Miscellaneous  | \$0                 | \$1,303           | -\$1,854         |
| 7168                 | Web Support             | \$0                 | \$300             | \$0              |
| <b>TOTAL</b>         |                         | <b>\$ 1,133,818</b> | <b>\$ 301,367</b> | <b>\$144,519</b> |

The increase in supply and material expenses in FY17 can be primarily attributed to Microsoft License Enterprise Renewal costs purchased with CWIT funds.

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Other Services and Charges

| OCIO/CWIT/Enterprise |                              | 2017             | 2018               | 2019               |
|----------------------|------------------------------|------------------|--------------------|--------------------|
| 7200                 | Communication, Other         | \$1,066          | \$1,170            | -\$24,641          |
| 7208                 | Telephone Cellular           | \$1,375          | \$1,980            | \$8,181            |
| 7216                 | Telecommunications           | \$348            | \$252              | \$0                |
| 7222                 | Repairs/Maint./Building      | \$29,460         | \$0                | \$0                |
| 7239                 | Repairs/Maint./Other         | \$0              | \$10,857           | \$0                |
| 7265                 | Mnt. Agree Computer Hardware | \$0              | \$0                | \$1,299            |
| 7266                 | Mnt. Agree Computer Software | \$0              | \$869,227          | \$1,063,475        |
| 7275                 | Mnt. Agree Other             | \$0              | \$0                | \$266,542          |
| 7308                 | Data Processing              | \$31,680         | \$41,445           | \$22,835           |
| 7310                 | Education Training Serv.     | \$94,438         | \$1,943            | \$52,600           |
| 7316                 | Legal Serv.                  | \$0              | \$0                | \$350              |
| 7325                 | Professional Serv General    | \$536,899        | \$2,353,934        | \$2,109,131        |
| 7333                 | Catering Serv.               | \$0              | \$108              | \$711              |
| 7336                 | Const. Serv.                 | \$2,225          | \$2,225            | \$2,225            |
| 7338                 | Electrical Serv.             | \$0              | \$0                | \$1,500            |
| 7356                 | Misc. Serv.                  | \$450            | \$2,004            | \$450              |
| 7375                 | Software Licenses/Renewals   | \$60,277         | \$691,961          | \$1,020,877        |
| 7376                 | Subscriptions/Publications   | \$50,078         | \$9,280            | \$43,142           |
| 7380                 | Temp Agency Fees             | \$0              | \$0                | \$20,000           |
| 7398                 | Web Support                  | \$0              | \$17,640           | \$8,295            |
| 7405                 | Advertising/Want Ads         | \$0              | \$2,822            | \$605              |
| 7430                 | Flexible Benefits            | \$0              | \$30               | \$0                |
| 7447                 | Other Expenses               | \$10,000         | \$60               | \$35               |
| 7465                 | Real Property Rent/Lease     | \$0              | \$135,124          | \$109,964          |
| 7475                 | Training/Workshop Costs      | \$1,626          | \$7,870            | \$149              |
| 7477                 | Travel Training              | \$0              | \$4,167            | \$17,581           |
| <b>TOTAL</b>         |                              | <b>\$819,922</b> | <b>\$4,154,099</b> | <b>\$4,725,306</b> |

As reflected in the Summary of OCIO, CWIT, and Enterprise Expenditures chart (page 10), most other services and charges were paid from CWIT funds (FY17 – 66%, FY18 – 95%, and FY19 – 74%). The costs supported Commission-wide PMO projects.

Three expense codes incurred significant increases in the three years reviewed:

- Maintenance Agreements Computer Software (7266)
- Professional Services General (7325)
- Software Licenses/Renewals (7375)

In FY19, maintenance agreement costs included charges for Microsoft EA renewal, Civic Plus and a change order for Adobe Creative Cloud.

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FY19 Professional services expenses (\$2,109k) are primarily attributed to the ERP upgrade, Kronos’s upgrade, and Active Directory project.

**OIG Comment:** Commission management may want to assess professional service contract expenditures. Additional details are included in each section, however, at a macro level, FY19 expenses appear high (\$4,119k).

FY19 Professional Service Expenditures (Expense Code 7325)

- OCIO/CWIT/Enterprise - \$2,109k
- Bi-County - \$37k
- ITI - \$1,043k
- ITC - \$295k
- IMD - \$635k

Capital Assets

| OCIO/CWIT/Enterprise |                          | <u>2017</u>     | <u>2018</u> | <u>2019</u>     |
|----------------------|--------------------------|-----------------|-------------|-----------------|
| 8445                 | Computer Hardware >\$10k | \$0             | \$0         | \$0             |
| 8450                 | Computer Software >\$10k | <u>\$87,230</u> | <u>\$0</u>  | <u>\$60,021</u> |
| <b>TOTAL</b>         |                          | <b>\$87,230</b> | <b>\$0</b>  | <b>\$60,021</b> |

Capital asset costs do not appear to account for a significant amount of IT spend within OCIO and Enterprise for the years reviewed.

## **Bi-County IT Operations<sup>6</sup>**

Prior to FY18, the **Computer Service Division (CSD)** was a division within the Commission's Finance Department. Upon the establishment of the OCIO, the CSD was dissolved and divided into two sections, Enterprise Information Technology Division and EOB IT. ERP Business Operations remained in the Administrative Division within the Department of Finance. The restructuring was completed operationally in FY18 and budget-wise in FY19.

**Enterprise Information Technology Division** costs were included in the preceding analysis as the division supports Commission-wide IT projects. However, page 5 includes a subtotal for OCIO, CWIT, Enterprise IT, and Bi-County IT Operations to provide a smoothing of expenditures to allow for representative comparisons.

The **Executive Office Building (EOB) IT** provides computer, telephone and network services to the Corporate departments in the Executive Office Building and the Office of the Inspector General on Walker Drive, Greenbelt. After chargebacks, EOB IT is funded by the Montgomery County and Prince George's County Administration funds.

**ERP Business Operations** continues to be a part of the Administrative Division within the Finance Department to ensure users of Commission enterprise systems that support central operations (e.g. Payroll, Accounting, Purchasing, etc.) received the necessary functional support. ERP Business Operations personnel have working knowledge of the systems and are able to provide the required operational support (e.g. trouble shooting, reporting, system training, user access, etc.)

**Bi-County Departments** include the Department of Human Resources, Finance Department, Legal Department, Office of the Inspector General, and Merit System Board.

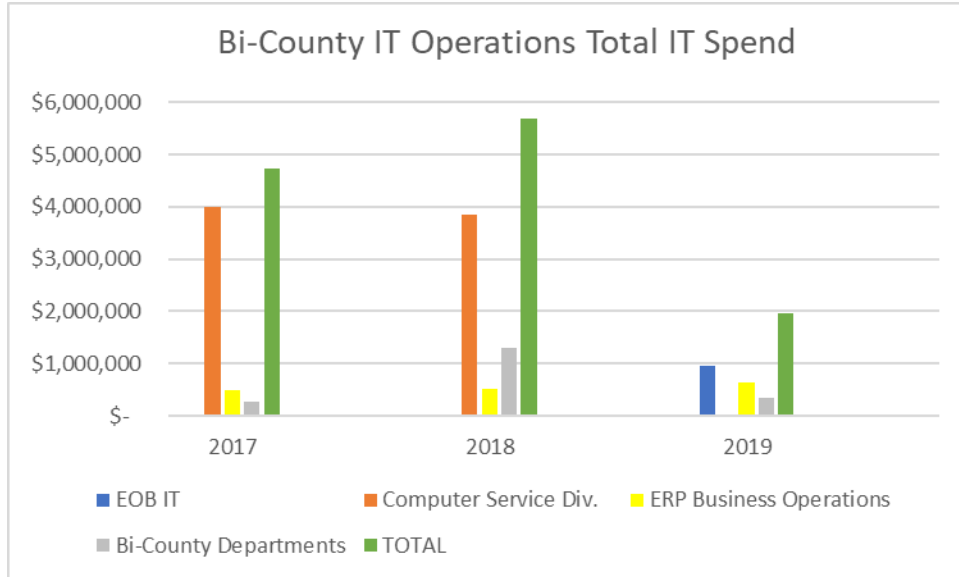
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<sup>6</sup> Aka Central Administrative Services



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|                                | 2017                |       | 2018                |       | 2019                |       |
|--------------------------------|---------------------|-------|---------------------|-------|---------------------|-------|
| <b>EOB IT</b>                  | \$ -                | 0.0%  | \$ -                | 0.0%  | \$ 954,420          | 48.8% |
| <b>Computer Service Div.</b>   | \$ 3,988,501        | 84.2% | \$ 3,860,274        | 67.8% | \$ -                | 0.0%  |
| <b>ERP Business Operations</b> | \$ 488,437          | 10.3% | \$ 521,469          | 9.2%  | \$ 639,800          | 32.7% |
| <b>Bi-County Departments</b>   | \$ 258,385          | 5.5%  | \$ 1,313,436        | 23.1% | \$ 361,262          | 18.5% |
| <b>TOTAL</b>                   | <b>\$ 4,735,323</b> |       | <b>\$ 5,695,179</b> |       | <b>\$ 1,955,482</b> |       |



Total Bi-County IT Operations' expenses decreased from \$4.7M in FY17 to \$2.0M in FY19. This is primarily attributed to the establishment/reorganization of CSD and the OCIO. CSD expenses (FY17 and FY18) include personnel and other expenses that were transferred to the Enterprise Information Technology Division and EOB IT.

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Summary of Total Bi-County Expenditures:

|   | <b>FY17</b>        | <b>FY18</b>        | <b>FY19</b>        |
|---|--------------------|--------------------|--------------------|
| <b>Personnel Services</b>                         |                    |                    |                    |
| Computer Service Division                         | 2,243,652          | 2,360,675          | 0                  |
| EOB IT  | 0                  | 0                  | 513,789            |
| ERP Business Operations                           | <u>488,437</u>     | <u>521,469</u>     | <u>591,132</u>     |
| <b>Total Personnel Services</b>                   | <b>2,732,089</b>   | <b>2,882,144</b>   | <b>1,104,921</b>   |
| Percent Increase/(Decrease)                       |                    | 5.5%               | (61.7%)            |
| <b>Supplies and Materials<br/>(7100-7168)</b>     |                    |                    |                    |
| Computer Service Division                         | 257,000            | 310,601            | 0                  |
| EOB IT  | 0                  | 0                  | 206,592            |
| ERP Business Operations                           | 0                  | 0                  | 3,250              |
| Corporate Departments                             | <u>16,294</u>      | <u>385,698</u>     | <u>526</u>         |
| <b>Total Supplies and Material</b>                | <b>273,294</b>     | <b>696,299</b>     | <b>210,368</b>     |
| Percent Increase/(Decrease)                       |                    | 154.8%             | (69.8%)            |
| <b>Other Services and Charges<br/>(7200-7479)</b> |                    |                    |                    |
| Computer Service Division                         | 969,463            | 1,188,998          | 0                  |
| EOB IT  | 0                  | 0                  | 234,038            |
| ERP Business Operations                           | 0                  | 0                  | 45,418             |
| Corporate Departments                             | <u>242,091</u>     | <u>466,895</u>     | <u>65,768</u>      |
| <b>Total Other Services and<br/>Charges</b>       | <b>1,211,554</b>   | <b>1,655,893</b>   | <b>345,224</b>     |
| Percent Increase/(Decrease)                       |                    | 36.7%              | (79.2%)            |
| <b>Capital Assets (8450-8445)</b>                 |                    |                    |                    |
| Computer Service Division                         | 518,386            | 0                  | 0                  |
| Corporate Departments                             | <u>0</u>           | <u>460,843</u>     | <u>294,967</u>     |
| Percent Increase/(Decrease)                       | <b>518,386</b>     | <b>460,843</b>     | <b>294,967</b>     |
|   |                    | (11.1%)            | (36.0%)            |
| <b>TOTAL</b>                                      | <b>\$4,735,323</b> | <b>\$5,695,179</b> | <b>\$1,955,482</b> |
| Percent Increase/(Decrease)                       |                    | 20.2%              | (65.7%)            |

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Personnel Services

| Bi-County IT Operations     | <u>2017</u>  | <u>2018</u>  | <u>2019</u>  |
|-----------------------------|--------------|--------------|--------------|
| Personnel Services          | \$ 2,732,089 | \$ 2,882,144 | \$ 1,104,921 |
| Percent Increase/(Decrease) |              | 5.5%         | (61.7%)      |

The decrease in personnel costs in FY19 can be attributed to the transfer of Enterprise personnel costs (\$1.9M) to the OCIO.

Supplies and Materials

Supplies and materials expenditures include computer supplies and equipment, and PC software.

| Bi-County IT Operations         | <u>2017</u>       | <u>2018</u>       | <u>2019</u>      |
|---------------------------------|-------------------|-------------------|------------------|
| Office Supplies/Minor Furniture | \$ 212,794        | \$ 171,038        | \$15,659         |
| Equipment Minor                 | \$ 46,894         | \$ 516,111        | \$191,916        |
| Activities                      | \$ 13,606         | \$ 9,150          | \$ 2,793         |
| <b>TOTAL</b>                    | <b>\$ 273,294</b> | <b>\$ 696,299</b> | <b>\$210,368</b> |

The increase in supply and material costs in FY18 can be primarily attributed to \$309.7k of departmental equipment costs. The Department of Finance spent \$220k on servers and domain controllers, DHRM spent \$75k on laptops, and the Legal Department spent \$16k on laptops.

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Other Services and Charges

Other services and charges is a broad category and includes maintenance agreements, professional services, and contractual services (e.g. software licenses).

| Bi-County IT Operations |                              | 2017               | 2018               | 2019             |
|-------------------------|------------------------------|--------------------|--------------------|------------------|
| 7200                    | Communication, Other         | -\$38,444          | \$13,176           | \$5,627          |
| 7207                    | Telephone                    | \$3,287            | \$2,720            | \$46,126         |
| 7208                    | Telephone Cellular           | \$23,461           | \$500              | \$1,050          |
| 7210                    | Electricity                  | \$2,470            | \$2,340            | \$0              |
| 7216                    | Telecommunications           | \$24,922           | \$0                | \$0              |
| 7222                    | Repairs/Maint./Building      | \$6,144            | \$0                | \$0              |
| 7224                    | Repairs/Maint./Compuer HW    | \$2,913            | \$0                | \$445            |
| 7239                    | Repairs/Maint./Other         | \$16,471           | \$20,430           | \$0              |
| 7265                    | Mnt. Agree Computer Hardware | \$176,289          | \$343,572          | \$1,820          |
| 7266                    | Mnt. Agree Computer Software | \$471,825          | \$544,444          | \$213,984        |
| 7275                    | Mnt. Agree Other             | \$0                | \$10,919           | \$0              |
| 7308                    | Data Proc Info Mgmt Serv     | \$83,076           | \$0                | \$0              |
| 7310                    | Education Training Serv.     | \$21,275           | \$0                | \$0              |
| 7325                    | Professional Serv General    | \$133,515          | \$128,968          | \$37,390         |
| 7338                    | Electrical Serv.             | \$0                | \$5,938            | \$0              |
| 7356                    | Misc. Serv.                  | \$2,697            | -\$572             | \$0              |
| 7375                    | Software Licenses/Renewals   | \$186,827          | \$101,414          | \$33,694         |
| 7376                    | Subscriptions/Publications   | -\$1,245           | \$224,101          | \$480            |
| 7380                    | Temp Agency Fees             | \$0                | \$193,700          | \$0              |
| 7405                    | Advertising/Want Ads         | \$250              | \$0                | \$0              |
| 7475                    | Training/Workshop Costs      | \$55,587           | \$39,086           | \$3,000          |
| 7476                    | Travel/Mileage               | \$47               | \$48               | \$513            |
| 7477                    | Travel Training/Workshops    | \$38,770           | \$24,994           | \$1,095          |
| 7479                    | Tuition Assistance           | \$1,417            | \$115              | \$0              |
| <b>TOTAL</b>            |                              | <b>\$1,211,554</b> | <b>\$1,655,893</b> | <b>\$345,224</b> |

The sharp decrease in FY19 can be attributed to the transfer of Computer Service Division expenses to the Enterprise IT Division and EOB IT. In FY19 Enterprise incurred \$1,055k of other services and charges.

Five (5) expense codes make up the majority of other service and charges expenditures:

- Maintenance Agreements Computer Hardware (7265)
- Maintenance Agreements Computer Software 7266)
- Subscriptions and Publications (7376)

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- Professional Services General (7325)
- Software Licenses/Renewals (7375)

In FY18, Corporate departments incurred \$461k in maintenance agreement expenditures. Significant expenditures included:

- CardConnect hardware - \$196k
- Samaritan software - \$20k
- Hosting and maintenance for EAM - \$69k
- Government Jobs - \$19k
- Ecounsel Software - \$133k
- Oracle renewal support - \$9k

Capital Assets

| Bi-County IT Operations     | <u>2017</u> | <u>2018</u> | <u>2019</u> |
|-----------------------------|-------------|-------------|-------------|
| Capital Assets              | \$ 518,386  | \$ 460,843  | \$ 294,967  |
| Percent Increase/(Decrease) |             | (11.1%)     | (36.0%)     |

In FY17, the Corporate Service Division purchased a pair of Palo Alto firewalls for \$518k.

In FY18, Corporate departments purchased \$461k of capital assets. Expenditures can be attributed to the purchase of a storage area network (SAN) server for the EOB at a cost of \$420k and a workstation blade (\$41k).

In FY19, Corporate departments incurred \$295k of capital expenses. Some of the expenses included SSD (solid-state drive) storage (\$119.8k) and Synergy GPU Computer Nodes (\$168.8k).

## **Montgomery County**

Total Montgomery County IT spend analysis includes the following sections:

- Information Technology & Innovation Division (**ITI**)
  - MC Planning
  - MC Parks/Enterprise Asset Management (**EAM**)/Geographic Information System (**GIS**)
- Montgomery Department of Parks (non-ITI)
- Montgomery Planning Department (non-ITI)

ITI is an inter-departmental division, serving both Montgomery Department of Parks and Montgomery Planning Department. The ITI Division staff members are located within the Planning headquarters, the Parks headquarters, and numerous MC Parks facilities throughout Montgomery County.

ITI's IT Strategic Plan encompasses five overarching goals:

1. Accessibility and Mobility
2. Robustness, Sustainability, and Scalability
3. Nimbleness, Focus, and Proactivity
4. Ensuring Informed, Safe, and Satisfied Consumers and Citizens
5. Continuity of Operations and Disaster Recovery.

ITI provides performance and continuity for MC Parks and Planning employees and the public, as well as synchronicity with Montgomery County government with which they collaborate on several key fronts, including WiFi in the Parks with camera security for park patrons.

ITI also provides 24x7 information technology infrastructure and services and IS/GIS systems and support to Commission employees and the public which relies heavily upon access to ITI's user-friendly GIS applications. ITI's network backbone is Montgomery County's established fiber infrastructure, called FiberNet.

ITI's migration to Windows 10 throughout Montgomery County Parks and Planning necessitated a refresh of PCs. This PC refresh is conducted on a rolling basis in order to prevent obsolescence across the end-user base, in compliance with Montgomery County inter-agency best practices.

Migration to Microsoft Teams is underway to provide Montgomery County Parks and Planning employees with an all-in-one solution with: talk, text, audio, video, and file sharing for enhanced collaboration and productivity.

The Enterprise Asset Management (EAM) and Geographic Information System (GIS) section of the Management Services Division of Montgomery Parks

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provides computerized systems which help support and better manage work programs of the department. The EAM system includes preventative maintenance and reactive work orders, facility condition assessments, park asset/amenity inventory, a GIS interface, data collection and analysis on several department-wide efforts, and more. This section oversees the administration of the EAM and GIS systems.

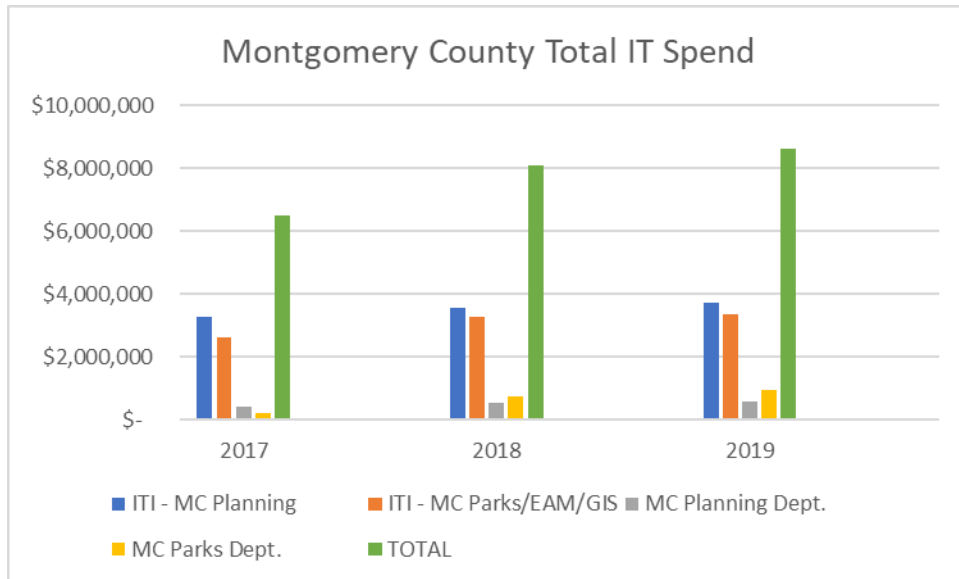
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Montgomery County total IT spend has increased \$2.1M over the three years reviewed. Total IT spend during FY18 increased 24.1% over FY17. Total FY19 spend of \$8.6M increased 6.5% over FY18 expenditures of \$8.0M.

| FY17                       | FY18        | FY19        |
|----------------------------|-------------|-------------|
| \$6,510,454                | \$8,076,362 | \$8,604,541 |
| % Increase from prior year | 24.1%       | 6.5%        |

As reflected below, ITI (MC Planning and Parks) account for the majority of IT spend, 91%, 84%, and 82% for FY17 – FY19 respectfully.

|                               | 2017                |       | 2018                |       | 2019                |       |
|-------------------------------|---------------------|-------|---------------------|-------|---------------------|-------|
| <b>ITI - MC Planning</b>      | \$ 3,272,196        | 50.3% | \$ 3,569,274        | 44.2% | \$ 3,735,343        | 43.4% |
| <b>ITI - MC Parks/EAM/GIS</b> | \$ 2,622,249        | 40.3% | \$ 3,248,826        | 40.2% | \$ 3,345,409        | 38.9% |
| <b>MC Planning Dept.</b>      | \$ 427,768          | 6.6%  | \$ 534,974          | 6.6%  | \$ 573,407          | 6.7%  |
| <b>MC Parks Dept.</b>         | \$ 188,241          | 2.9%  | \$ 723,288          | 9.0%  | \$ 950,382          | 11.0% |
| <b>TOTAL</b>                  | <b>\$ 6,510,454</b> |       | <b>\$ 8,076,362</b> |       | <b>\$ 8,604,541</b> |       |





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Summary of Total IT Expenditures for Montgomery County:

|   | <b>FY17</b>        | <b>FY18</b>        | <b>FY19</b>        |
|---|--------------------|--------------------|--------------------|
| <b>Personnel Services</b>                         |                    |                    |                    |
| ITI – MC Planning                                 | 1,994,485          | 2,113,080          | 2,171,078          |
| ITI – MC Parks/EAM/GIS                            | <u>1,237,010</u>   | <u>1,735,570</u>   | <u>1,757,199</u>   |
| <b>Total Personnel Services</b>                   | <b>3,231,495</b>   | <b>3,848,650</b>   | <b>3,928,277</b>   |
| Percent Increase                                  |                    | 19.1%              | 2.1%               |
| <b>Supplies and Materials<br/>(7100-7168)</b>     |                    |                    |                    |
| ITI – MC Planning                                 | 308,490            | 620,371            | 307,403            |
| ITI – MC Parks/EAM/GIS                            | 462,598            | 260,668            | 297,680            |
| MC Planning Departments                           | 14,727             | 107,927            | 199,803            |
| MC Parks Departments                              | <u>67,279</u>      | <u>40,512</u>      | <u>241,069</u>     |
| <b>Total Supplies and Material</b>                | <b>853,094</b>     | <b>1,029,478</b>   | <b>1,045,955</b>   |
| Percent Increase                                  |                    | 20.7%              | 1.6%               |
| <b>Other Services and Charges<br/>(7200-7479)</b> |                    |                    |                    |
| ITI – MC Planning                                 | 847,950            | 835,885            | 1,256,861          |
| ITI – MC Parks/EAM/GIS                            | 937,281            | 1,252,588          | 1,290,529          |
| MC Planning Departments                           | 73,040             | 153,344            | 113,761            |
| MC Parks Departments                              | <u>120,962</u>     | <u>298,419</u>     | <u>285,547</u>     |
| <b>Total Other Services and<br/>Charges</b>       | <b>1,979,233</b>   | <b>2,540,236</b>   | <b>2,946,698</b>   |
| Percent Increase                                  |                    | 28.3%              | 16.0%              |
| <b>Capital Assets (8450-8445)</b>                 |                    |                    |                    |
| ITI – MC Planning                                 | 121,272            | -62                | 0                  |
| ITI – MC Parks/EAM/GIS                            | -14,640            | 0                  | 0                  |
| MC Planning Departments                           | 340,000            | 273,703            | 259,844            |
| MC Parks Departments                              | <u>0</u>           | <u>384,357</u>     | <u>423,766</u>     |
| <b>Total Capital Assets</b>                       | <b>446,632</b>     | <b>657,998</b>     | <b>683,610</b>     |
| Percent Increase                                  |                    | 47.3%              | 3.9%               |
| <b>TOTAL</b>                                      | <b>\$6,510,454</b> | <b>\$8,076,362</b> | <b>\$8,604,541</b> |
| Percent Increase                                  |                    | 24.1%              | 6.5%               |

**Information Technology Division (ITI) MC Parks/EAM/GIS**

Personnel Services

| ITI MC Parks/EAM/GIS | <u>2017</u>  | <u>2018</u>  | <u>2019</u>  |
|----------------------|--------------|--------------|--------------|
| Personnel Services   | \$ 1,237,010 | \$ 1,735,570 | \$ 1,757,199 |
|                      |              | 40.3%        | 1.2%         |

The personnel services costs reflected above represent IT personnel expenditures necessary to support ITI MC Parks/EAM/GIS departments/divisions. In FY17, ITI MC Parks had four (4) vacancies, which resulted in lower total personnel costs. FY18 costs increased \$498.6k (40.3%) as the vacancies were filled, including four (4) in ITI Parks, and adding two (2) ITI Parks Support Specialist II Techs in FY19 which replaced 2 contractors, as well as approved COLA (1.5%) and merit increases (3.5%). Also, in FY19, departmental GIS support was transferred from another division into the EAM section under the Management Services Division and included the transfer of a GIS Specialist III position.

Supplies and Materials

| ITI MC Parks/EAM/GIS                | <u>2017</u>      | <u>2018</u>      | <u>2019</u>      |
|-------------------------------------|------------------|------------------|------------------|
| Office Supplies/Minor Furniture     | \$9,857          | \$11,924         | \$11,462         |
| Equipment Minor                     | \$452,425        | \$248,744        | \$286,085        |
| Supplies for Spec. Dept. Activities | \$316            | \$0              | \$133            |
| <b>TOTAL</b>                        | <b>\$462,598</b> | <b>\$260,668</b> | <b>\$297,680</b> |

In FY17, ITI MC Parks/EAM/GIS incurred \$462.6k of supply and material expenditures, consisting of \$394k of computer equipment charges. MC Parks is on a 3-year laptop refresh cycle with increased spending occurring in FY17 in conjunction with planned upgrades to Windows 10 and other hardware upgrades needed in preparation for the ERP upgrade.

FY18 and FY19 equipment expenditures decreased to \$249k and \$286k respectfully. Similar to FY17, most of the charges are attributed to computer equipment expenses. Equipment expenses include laptops, desktops, tablets, printers, plotters, docking stations, monitors, keyboards, mice, cell phones and other mobile devices, and other computer supplies.

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Other Services and Charges

| ITI MC Parks/EAM/GIS    | <u>2017</u>       | <u>2018</u>         | <u>2019</u>        |
|-------------------------|-------------------|---------------------|--------------------|
| Communications          | \$ 8,421          | \$ 14,215           | \$11,394           |
| Repairs and Maintenance | \$ 61,136         | \$ 8,129            | \$69,995           |
| Maintenance Agreements  | \$ 134,233        | \$ 376,741          | \$503,022          |
| Professional Services   | \$ 536,720        | \$ 581,891          | \$510,310          |
| Contractual             | \$ 177,652        | \$ 262,178          | \$181,247          |
| Other                   | \$ 19,119         | \$ 9,434            | \$14,561           |
| <b>TOTAL</b>            | <b>\$ 937,281</b> | <b>\$ 1,252,588</b> | <b>\$1,290,529</b> |

ITI MC Parks/EAM/GIS other services and charges increased steadily over the three years reviewed. FY18 increased 33.6% over FY17 levels, and FY19 increased 3.0% over FY18 levels.

Maintenance agreements and professional services charges accounted for 71.6%, 76.5%, and 78.5% of the charges respectfully (FY17, FY18, FY19).

FY19 maintenance agreement expenses include Microsoft EA for \$242k, Microsoft SQL for \$36k, SmartNet for \$29k, UPS, Kronos, Avaya, and Whatsup.

FY18 professional services expenditures include WAN/LAN support of network infrastructure, telecom engineering support, Avaya telephone system upgrade, IT help desk and inventory management, Windows 10 migration, and telecom expense auditing.

In FY18, \$100,000 of funding was added for services to pilot the Wi-Fi in the Parks program initiative to expand free public wireless access to various parks in the County. The costs for this project were offset by revenue from the Montgomery County Cable Fund. The funding for this program continued in FY19.

Some of ITI MC Parks/EAM/GIS' professional services expenditures are due to the Division's outsourcing of functions to support the network infrastructure, help desk, and inventory management. Network infrastructure engineering is outsourced to obtain specialized expertise. Help Desk and inventory management is outsourced to a single service provider to help ensure superior end-user support.

**OIG Comment:** ITI Parks/EAM/GIS incurs over \$500k in professional service contracts each year. To decrease costs and develop internal succession plans, management may want to consider utilizing Merit or Contract employees for ongoing (i.e. not one time) functions.

**Information Technology Division (ITI) MC Planning**

Personnel Services

| ITI Montgomery Planning | 2017         | 2018         | 2019         |
|-------------------------|--------------|--------------|--------------|
| ITI Personnel Services  | \$ 1,994,485 | \$ 2,113,080 | \$ 2,171,078 |
| Percent Increase        |              | 5.9%         | 2.7%         |

ITI personnel services costs represent IT personnel expenditures necessary to support the Planning Department. Fluctuations in personnel costs can be primarily attributed to internal vacancies and hiring, coupled with approved COLA (1.5%) and merit (3.5%) increases.

Supplies and Materials

| ITI Montgomery Planning             | 2017              | 2018              | 2019             |
|-------------------------------------|-------------------|-------------------|------------------|
| Office Supplies/Minor Furniture     | \$ 4,922          | \$ 16,120         | \$8,596          |
| Equipment Minor                     | \$ 303,459        | \$ 603,941        | \$298,488        |
| Supplies for Spec. Dept. Activities | \$ 109            | \$ 310            | \$319            |
| <b>TOTAL</b>                        | <b>\$ 308,490</b> | <b>\$ 620,371</b> | <b>\$307,403</b> |

FY18 reflected slightly higher supply and material costs due to \$512k of expenditures charged to computer equipment under \$10,000. Migration to Windows 10 necessitated technology upgrade to new laptops, desktops and tablets. Other years, similar expenses were between \$255k and \$287k.

Other Services and Charges

| ITI Montgomery Planning | 2017              | 2018              | 2019               |
|-------------------------|-------------------|-------------------|--------------------|
| Communications          | \$ 50,363         | \$ 68,851         | \$49,817           |
| Repairs and Maintenance | \$ 63,030         | \$ 8,523          | \$135,958          |
| Maintenance Agreements  | \$ 204,980        | \$ 276,739        | \$362,667          |
| Professional Services   | \$ 349,122        | \$ 351,116        | \$532,642          |
| Contractual             | \$ 137,470        | \$ 115,659        | \$83,460           |
| Other                   | \$ 42,985         | \$ 14,997         | \$92,317           |
| <b>TOTAL</b>            | <b>\$ 847,950</b> | <b>\$ 835,885</b> | <b>\$1,256,861</b> |

ITI Montgomery Planning's other services and charges remained stable in FY17 and FY18, but FY19 expenses increased by approximately \$420k. This is primarily attributed to increases maintenance agreement costs. FY19 maintenance agreement costs included renewals for Microsoft EA for \$161k, Microsoft SQL for \$83k, Cisco SmartNet for \$29k, Whatsup, and Sketchup.

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GIS maintenance expenses include ArcGIS for \$89k, Infor Hansen for \$55k, and Avolve ProjectDox for \$13k.

**OIG Comment:** ITI Planning incurred over \$500k in professional service contracts in FY19. To decrease costs and develop internal succession plans, management may want to consider utilizing Merit or Contract employees for ongoing (i.e. not one time) functions.

Capital Assets

ITI MC Planning spent \$121k on capital assets in FY17. It appears that most capital expenditures occurred at the department level (discussed in subsequent sections.)

**Montgomery County Departments (Non-ITI)**

The following expenditures were incurred by various Montgomery County Parks and Montgomery County Planning Departments, outside of ITI. The costs include expenses charged to the 17 expense codes identified in Exhibit A.

Supplies and Materials

| MC Planning Department (non-ITI)    | <u>2017</u>      | <u>2018</u>       | <u>2019</u>      |
|-------------------------------------|------------------|-------------------|------------------|
| Office Supplies/Minor Furniture     | \$ -             | \$ -              | \$7,593          |
| Equipment Minor                     | \$ 14,727        | \$ 107,927        | \$192,210        |
| Supplies for Spec. Dept. Activities | \$ -             | \$ -              | \$0              |
| <b>TOTAL</b>                        | <b>\$ 14,727</b> | <b>\$ 107,927</b> | <b>\$199,803</b> |

| MC Department of Parks (non-ITI)    | <u>2017</u>      | <u>2018</u>      | <u>2019</u>      |
|-------------------------------------|------------------|------------------|------------------|
| Office Supplies/Minor Furniture     | \$ 9,447         | \$ 5,740         | \$19,103         |
| Equipment Minor                     | \$ 57,832        | \$ 24,561        | \$219,700        |
| Supplies for Spec. Dept. Activities | \$ -             | \$ 10,211        | \$2,266          |
| <b>TOTAL</b>                        | <b>\$ 67,279</b> | <b>\$ 40,512</b> | <b>\$241,069</b> |

In FY19, Montgomery County Planning departments spent \$148k on laptops and \$44k on GIS server equipment. In FY19, Montgomery County Park Police Department spent \$200k on laptops.

Other Services and Charges

| MC Planning Department (non-ITI) | <u>2017</u>      | <u>2018</u>       | <u>2019</u>      |
|----------------------------------|------------------|-------------------|------------------|
| Communications                   | \$ -             | \$ -              | \$0              |
| Repairs and Maintenance          | \$ -             | \$ -              | \$89,894         |
| Maintenance Agreements           | \$ 72,290        | \$ 136,044        | \$6,518          |
| Professional Services            | \$ -             | \$ -              | \$0              |
| Contractual                      | \$ -             | \$ 17,300         | \$17,349         |
| Other                            | \$ 750           | \$ -              | \$0              |
| <b>TOTAL</b>                     | <b>\$ 73,040</b> | <b>\$ 153,344</b> | <b>\$113,761</b> |

| MD Department of Parks (non-ITI) | <u>2017</u>       | <u>2018</u>       | <u>2019</u>      |
|----------------------------------|-------------------|-------------------|------------------|
| Communications                   | \$ -              | \$ -              | \$0              |
| Repairs and Maintenance          | \$ (4,276)        | \$ -              | \$0              |
| Maintenance Agreements           | \$ 118,210        | \$ 255,527        | \$186,361        |
| Professional Services            | \$ -              | \$ 6,464          | \$0              |
| Contractual                      | \$ 7,028          | \$ 36,428         | \$99,186         |
| Other                            |                   | \$ -              | \$0              |
| <b>TOTAL</b>                     | <b>\$ 120,962</b> | <b>\$ 298,419</b> | <b>\$285,547</b> |

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Repair and maintenance costs can be attributed to repairs to computer hardware. Maintenance agreement costs can be attributed to computer hardware and computer software agreements.

Capital Equipment

| MC Planning Department (non-ITI) | <u>2017</u>       | <u>2018</u>       | <u>2019</u>      |
|----------------------------------|-------------------|-------------------|------------------|
| Capital Equipment                | \$ 340,000        | \$ 273,703        | \$259,844        |
| <b>TOTAL</b>                     | <b>\$ 340,000</b> | <b>\$ 273,703</b> | <b>\$259,844</b> |
|                                  |                   |                   |                  |
| MD Department of Parks (non-ITI) | <u>2017</u>       | <u>2018</u>       | <u>2019</u>      |
| Capital Equipment                | \$ -              | \$ 384,357        | \$423,766        |
| <b>TOTAL</b>                     | <b>\$ -</b>       | <b>\$ 384,357</b> | <b>\$423,766</b> |

In FY17, Planning departments spent \$340k for backbone server upgrades.

In FY18, the Planning department spent \$93k for Cisco hardware, \$158k for equipment for the new data center, and \$21k on an IPS switch. New equipment was purchased for the data center to support the Department’s move to the Wheaton Headquarters (HQ). The decision to purchase new equipment for the data center ensures the Department doesn’t have any service interruption when they move. Since much of the existing equipment was older, it will be used as a back-up data center.

Similarly, in FY18, Department of Parks departments spent \$140k for Cisco hardware, \$158k for equipment for the new data center, and \$21k on an IPS switch. They also spent an additional \$64k on a Storage Area Network (SAN) upgrade.

In FY19, spending for the new data center continued with the Planning department spending \$199k on Cisco routers and switches, \$34k for data center firewall upgrades, and \$27k for a three partition SAN.

In F19, Department of Parks department also spent \$298k on Cisco routers and switches, \$34k for data center firewall upgrades, \$70k for a three-partition SAN needed for the new data center for the Wheaton HQ move.

## Prince George's County

Total Prince George's County IT spend analysis is made up of the following sections:

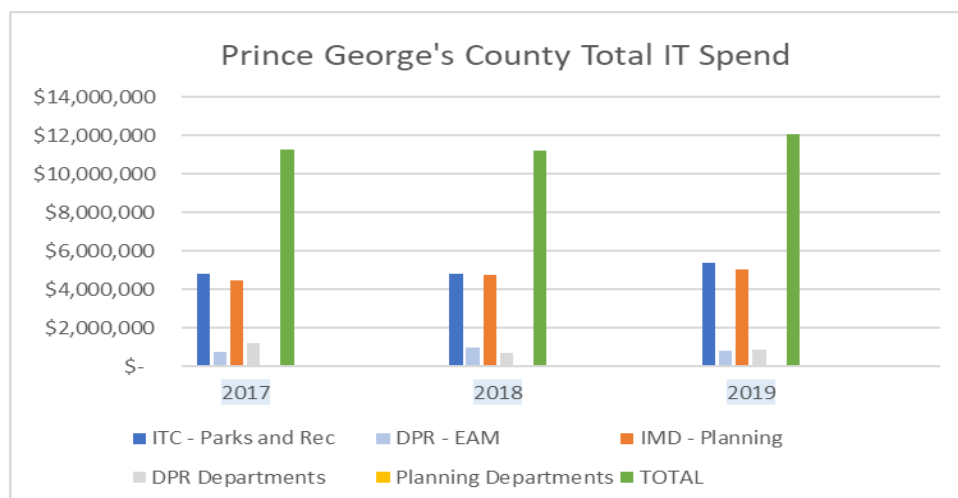
- Information Technology & Communication Division (**ITC**)
  - Prince George's County Department of Parks and Recreation
- EAM Administration (**EAM**)
  - Prince George's County Department of Parks and Recreation
- Information Management Division (**IMD**)
  - Prince George's County Planning Department
- Department of Parks and Recreation
- Planning Department

Prince George's County total IT spend has increased \$806k over the three years reviewed. Total IT spend for FY19 was \$12.1M, up 7.6% over FY18 expenditures of \$11.2M.

| FY17                                  | FY18         | FY19         |
|---------------------------------------|--------------|--------------|
| \$11,255,420                          | \$11,212,919 | \$12,059,992 |
| % Increase/(decrease) from prior year | (.4%)        | 7.6%         |

As reflected below, ITC and ITD accounts for the majority of IT spend, 82%, 85%, and 86% for FY17, FY18, FY19 respectfully.

|                             | 2017                 |       | 2018                 |       | 2019                 |       |
|-----------------------------|----------------------|-------|----------------------|-------|----------------------|-------|
| <b>ITC - Parks and Rec</b>  | \$ 4,819,621         | 42.8% | \$ 4,819,488         | 43.0% | \$ 5,386,415         | 44.7% |
| <b>DPR - EAM</b>            | \$ 758,334           | 6.7%  | \$ 952,723           | 8.5%  | \$ 810,554           | 6.7%  |
| <b>IMD - Planning</b>       | \$ 4,457,587         | 39.6% | \$ 4,722,349         | 42.1% | \$ 5,022,730         | 41.6% |
| <b>DPR Departments</b>      | \$ 1,205,194         | 10.7% | \$ 710,290           | 6.3%  | \$ 831,106           | 6.9%  |
| <b>Planning Departments</b> | \$ 14,684            | 0.1%  | \$ 8,069             | 0.1%  | \$ 9,187             | 0.1%  |
| <b>TOTAL</b>                | <b>\$ 11,255,420</b> |       | <b>\$ 11,212,919</b> |       | <b>\$ 12,059,992</b> |       |





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Summary of Total IT Expenditures for Prince George's County:

|   | <b>FY17</b>         | <b>FY18</b>         | <b>FY19</b>         |
|---|---------------------|---------------------|---------------------|
| <b>Personnel Services</b>                     |                     |                     |                     |
| ITC – Parks and Rec                           | 2,989,476           | 2,855,923           | 2,952,325           |
| IMD - Planning                                | 3,051,447           | 3,172,973           | 3,370,334           |
| EAM Administration                            | 720,920             | 773,634             | 667,358             |
| <b>Total Personnel Services</b>               | <b>6,761,843</b>    | <b>6,802,530</b>    | <b>6,990,017</b>    |
| Percent increase/(decrease)                   |                     | .6%                 | 2.8%                |
| <b>Supplies and Materials (7100-7168)</b>     |                     |                     |                     |
| ITC – Parks and Rec                           | 1,198,727           | 1,042,749           | 1,250,189           |
| IMD - Planning                                | 294,858             | 274,477             | 215,358             |
| EAM Administration                            | 16,879              | 13,917              | 5,875               |
| PGC – DPR                                     | 109,955             | 123,255             | 66,335              |
| PGC - Planning                                | 9,659               | 2,301               | 2,551               |
| <b>Total Supplies and Material</b>            | <b>1,630,078</b>    | <b>1,456,699</b>    | <b>1,540,308</b>    |
| Percent increase/(decrease)                   |                     | (10.6%)             | 5.5%                |
| <b>Other Services and Charges (7200-7420)</b> |                     |                     |                     |
| ITC – Parks and Rec                           | 605,543             | 920,816             | 1,183,901           |
| IMD - Planning                                | 758,061             | 1,151,207           | 1,266,371           |
| EAM Administration                            | 20,534              | 165,172             | 137,322             |
| PGC – DPR                                     | 957,489             | 587,035             | 756,031             |
| PGC - Planning                                | 5,025               | 5,768               | 6,636               |
| <b>Total Other Services and Charges</b>       | <b>2,346,652</b>    | <b>2,829,998</b>    | <b>3,350,261</b>    |
| Percent increase                              |                     | 20.6%               | 18.4%               |
| <b>Capital Assets (8450-8445)</b>             |                     |                     |                     |
| ITC – Parks and Rec                           | 25,875              | 0                   | 0                   |
| IMD – Planning                                | 353,221             | 123,692             | 170,667             |
| PGC - DPR                                     | 137,750             | 0                   | 8,740               |
| <b>Total Capital Assets</b>                   | <b>516,846</b>      | <b>123,692</b>      | <b>179,407</b>      |
| Percent increase/(decrease)                   |                     | (76.3%)             | 45.0%               |
| <b>TOTAL</b>                                  | <b>\$11,255,420</b> | <b>\$11,212,919</b> | <b>\$12,059,992</b> |

**Information Technology & Communication Division (ITC)**

The Prince George’s County Department of Parks and Recreation, Information Technology and Communications Division coordinates IT and Communication services for all agency divisions and reports to the Deputy Director of Administration and Development.

ITC’s core responsibilities include ensuring network security and integrity; managing the Department’s wide-area voice and data communication networks; administering Department-wide database management systems; providing authorized access to client server and web-based applications and portals; implementing and managing electronic security systems; hardware, software, telephone and peripheral installation, management and maintenance. The unit also maintains and provides support for various applications such as Microsoft Office; Windows, Macintosh and Linux based operating systems; mobile devices; various databases, and other specific business applications. The Division also serves as the tactical and administrative lead for the Department’s Strategic Plan initiatives such as document imaging and archiving; IT and Communications-related policy and procedure creation and enforcement; disaster recovery; business continuity; and education and enterprise maintenance management systems and reporting.

**Personnel Services**

| ITC                | <u>2017</u>  | <u>2018</u>  | <u>2019</u>  |
|--------------------|--------------|--------------|--------------|
| Personnel Services | \$ 2,989,476 | \$ 2,855,923 | \$ 2,952,325 |
| Percent Increase   |              | -4.5%        | 3.4%         |

Personnel costs for ITC have remained fairly stable over the three years reviewed. The Commission had approved COLA (1.5%) and Merit (3.5%) increases in FY18 and FY19. Fluctuations in personnel costs can be attributed to internal vacancies and hiring.

**Supplies and Materials**

| ITC                                 | <u>2017</u>         | <u>2018</u>         | <u>2019</u>         |
|-------------------------------------|---------------------|---------------------|---------------------|
| Office Supplies/Minor Furniture     | \$ 551,847          | \$ 394,336          | \$395,551           |
| Equipment Minor                     | \$ 627,692          | \$ 639,342          | \$834,347           |
| Supplies for Spec. Dept. Activities | \$ 8,616            | \$ 9,071            | \$20,276            |
| Motor Vehicle Parts                 | \$ 10,572           | \$ -                | \$15                |
| <b>TOTAL</b>                        | <b>\$ 1,198,727</b> | <b>\$ 1,042,749</b> | <b>\$ 1,250,189</b> |

ITC supply and material charges primarily consist of office supply and equipment expenses. In FY19 equipment expenses increased 30.5% to \$834k due to

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Windows 10 hardware refresh which required hardware replacement and new facility start-ups like Southern Area Aquatics & Recreation Complex (SARC).

Other Services and Charges

| ITC          |                               | 2017           | 2018           | 2019             |
|--------------|-------------------------------|----------------|----------------|------------------|
| 7200         | Communication, Other          | 45             | 0              | 0                |
| 7207         | Telephone                     | 320            | 780            | 0                |
| 7208         | Telephone Cellular            | 330            | 1,595          | 2,090            |
| 7224         | Repairs/Maint./ComputerHW     | 3,253          | 71,981         | 43,801           |
| 7227         | Repairs/Maint./Equipment      | 2,873          | 0              | 0                |
| 7237         | Repairs/Maint./Motor Vehicles | 0              | 939            | 3,200            |
| 7245         | Repairs/Maint./Recycling      | 0              | 548            | 0                |
| 7265         | Mnt. Agree Computer Hardware  | 99,947         | 12,595         | 230,722          |
| 7275         | Mnt. Agree Other              | 10,940         | 12,551         | 13,014           |
| 7308         | Data Proc Info Mgmt Serv      | 408,153        | 256,279        | 244,550          |
| 7310         | Education Training Serv.      | 382            | 5,545          | 8,303            |
| 7320         | Mgmt. Consulting Services     | 0              | 0              | 4,851            |
| 7325         | Professional Serv General     | 17,005         | 301,788        | 294,726          |
| 7345         | HVAC Services                 | 0              | 3,153          | 1,082            |
| 7356         | Misc. Serv.                   | 287            | 163            | 3,793            |
| 7375         | Software Licenses/Renewals    | 49,789         | 238,005        | 150,560          |
| 7380         | Temp Agency Fees              | 0              | 0              | 152,047          |
| 7405         | Advertising/Want Ads          | 0              | 0              | 1,247            |
| 7407         | Awards Employees              | 824            | 730            | 5,172            |
| 7467         | Rents/Leases/Other            | 3,600          | 4,097          | 4,744            |
| 7475         | Training/Workshop Costs       | 5,400          | 5,763          | 10,546           |
| 7476         | Travel/Mileage                | 104            | 0              | 106              |
| 7477         | Travel Training/Workshops     | 2,291          | 4,304          | 9,347            |
| <b>TOTAL</b> |                               | <b>605,543</b> | <b>920,816</b> | <b>1,183,901</b> |

ITC other services and charges increased steadily over the 3 years reviewed, up 95.5% from FY17 to FY19. FY19 saw significant increases in maintenance agreements, up \$218k from FY18, and temporary agency fees of \$152k.

FY19 maintenance agreements, computer hardware included:

- Hewlett Packard - \$74k (2018 paid in 2019)
- Hewlett Packard - \$81k
- Aerohive Support - \$63k

Temporary agency fees of \$152k can primarily be attributed to two (2) temporary projects that required additional staffing, 1) domain migration project, and 2) Windows 10 refresh.

**EAM Administration (EAM)**

DPR’s EAM system (ParkStat) is a web-based application. EAM Administration is part of the Management Services Division within DPR. EAM allows DPR management to track and report time and material spent by staff in routine preventive maintenance, service requests, and major maintenance projects. Information from EAM is used to support budget preparations, impacts of new park development, track performance measures, and to help calculate the operation costs of amenities within the parks systems.

| <b>EAM</b>         | <b><u>2017</u></b> | <b><u>2018</u></b> | <b><u>2019</u></b> |
|--------------------|--------------------|--------------------|--------------------|
| Personnel Services | \$ 720,920         | \$ 773,634         | \$ 667,358         |
| Percent Increase   |                    | 7.3%               | -13.7%             |
| Percent of Total   | 95.1%              | 81.2%              | 82.3%              |

The majority of EAM expenses can be attributed to salary and benefit costs. FY17 personnel services costs were 95.1% of total expenses; FY19 personnel service costs were 82.3% of total expenses. The decrease in personnel services expenses in FY19 can be attributed to a long-term vacancy for the EAM Manager. The EAM Manager position was repurposed to include oversight of additional units and has recently been filled.

Other significant costs included maintenance agreements/computer software, \$139k in FY18 and \$126k in FY19.

### **Information Management Division (IMD)**

The Prince George's County Planning Department's Information Management Division includes three sections – Network and Technology Services (NTS), Geographic Information Systems (GIS) and Data Systems.

The Network and Technology Services Section is responsible for maintaining and enhancing the Department and the Planning Board's IT hardware, software and network infrastructure. Recent major projects have included migration to a new Active Directory environment, upgrading their network, and supporting IT security/network assessment and enhancement projects.

The GIS Section maintains and continuously enhances over 250 GIS layers. It maintains IMD's Open Data Portal which typically supports over 15,000 data downloads annually. They also maintain an internal and public facing GIS website (PGAtlas). This is a robust website that supports over 12,000 monthly page views. In addition to their PGAtlas site, they have over 20 other web mapping applications that are customized for specialized purposes. Recent major projects have included 3D mapping, updating planimetric and topographic base mapping data, developing a mobile version of PGAtlas, and supporting Census 2020 outreach activities. In addition to the data maintenance and enhancement effort, IMD also supports spatial analysis requests to support County economic development, environmental, and planning related activities.

The Data Systems Section is responsible for maintaining major Department-wide applications such as Permit Tracking, Development Activity, and Historic Preservation applications, among others. This section is also responsible for management of the Document Imaging System. IMD has recently completed multiple major scanning projects in anticipation of a future move to Largo. This section is also responsible for maintaining the land data file, and for updating and maintaining dwelling unit and public lands inventories. Special data analysis and mailing lists requests are also supported.

In addition to these core functions, the Division is also tasked with supporting census related data collection and analysis including outreach for the 2020 census and providing technical analysis in support of special projects such as the Zoning rewrite.

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Personnel Services

| IMD                | 2017         | 2018         | 2019         |
|--------------------|--------------|--------------|--------------|
| Personnel Services | \$ 3,051,447 | \$ 3,172,973 | \$ 3,370,334 |
| Percent Increase   |              | 4.0%         | 6.2%         |

IMD personnel services costs exceeded \$3M for all years reviewed. FY18's 4.0% increase can be attributed to approved COLA (1.5%) and Merit (3.5%) increases. FY19 personnel services increased 6.2% as one IT position, was unfrozen in FY19.

Supplies and Materials

| IMD                                 | 2017              | 2018              | 2019              |
|-------------------------------------|-------------------|-------------------|-------------------|
| Office Supplies/Minor Furniture     | \$ 65,584         | \$ 40,348         | \$64,021          |
| Equipment Minor                     | \$ 227,290        | \$ 234,107        | \$151,337         |
| Supplies for Spec. Dept. Activities | \$ 1,984          | \$ 22             | \$0               |
| <b>TOTAL</b>                        | <b>\$ 294,858</b> | <b>\$ 274,477</b> | <b>\$ 215,358</b> |

IMD supply and material costs have decreased slightly each year reviewed. FY19 was the lowest, down \$59k from the prior fiscal year.

Other Services and Charges

| IMD          |                                | 2017             | 2018               | 2019               |
|--------------|--------------------------------|------------------|--------------------|--------------------|
| 7200         | Communication, Other           | -\$18,999        | \$0                | \$0                |
| 7222         | Repairs/Maint./Building        | -\$3,120         | \$0                | \$0                |
| 7232         | Repairs/Maint./Janitorial Svc. | \$0              | \$30,709           | \$0                |
| 7239         | Repairs/Maint./Other           |                  | \$1,675            | \$1,969            |
| 7265         | Mnt. Agree Computer Hardware   | \$6,255          |                    | \$598              |
| 7266         | Mnt. Agree Computer Software   | \$319,602        | \$395,685          | \$445,783          |
| 7270         | Mnt. Agree Office Equipment    | -\$1,119         | \$1,213            | \$1,181            |
| 7275         | Mnt. Agree Other               | -\$260           | \$760              | \$0                |
| 7325         | Professional Serv General      | \$418,023        | \$726,420          | \$634,507          |
| 7355         | Memberships                    | \$695            | \$483              | \$673              |
| 7356         | Misc. Serv.                    | \$7,388          | -\$21,500          | \$101,243          |
| 7375         | Software Licenses/Renewals     | \$21,797         | \$3,117            | \$58,942           |
| 7475         | Training/Workshop Costs        | \$2,724          | \$1,834            | \$13,350           |
| 7476         | Travel/Mileage                 | \$448            | \$192              | \$51               |
| 7477         | Travel Training/Workshops      | \$4,627          | \$10,619           | \$7,765            |
| 7479         | Tuition Assistance             | \$0              | \$0                | \$309              |
| <b>TOTAL</b> |                                | <b>\$758,061</b> | <b>\$1,151,207</b> | <b>\$1,266,371</b> |

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IMD's other services and charges increased steadily during the three years reviewed, with FY19 expenses up 37% over FY17 expenses. Most costs can be attributed to maintenance agreements and professional services.

Most of the maintenance agreement/computer software (7266) costs were for HP maintenance and support as well as annual costs for ESRI Enterprise licenses and maintenance. FY 2017 and 2019 also had substantial costs for IBM FileNet maintenance renewals.

The cause for the big (51.8%) jump in expenditures for professional services (7325) between FY2017 and FY2018 is primarily related to an increase in funding support for on-site programming and File Net support being encumbered under a consultant contract with Tech Global Inc. There was also a new contract with Technology Trends executed in FY 2017 for consulting services to develop requirements to build out a new server room for anticipated offices in Largo.

The expenses charged under miscellaneous services (7356) are a misrepresentation of costs associated with IMD as there were Historic Preservation Grant agreements erroneously charged to the IMD budget. Most of the expenses charged to IMD accounting units that were correct, were for pest control services at their Lakeside Office location.

Capital Assets

| IMD              | <u>2017</u> | <u>2018</u> | <u>2019</u> |
|------------------|-------------|-------------|-------------|
| Capital Assets   | \$ 353,221  | \$ 123,692  | \$ 170,667  |
| Percent Increase |             | -65.0%      | 38.0%       |

FY17 capital assets costs were higher than subsequent years, as expenses included costs for the replacement of the Department's IT storage system and a backup unit that costed approximately \$280k.

**Prince George's County Department of Parks and Recreation and Planning Departments (Non-ITC and IMD)**

The following expenditures were incurred by various Prince George's County Departments, outside of ITC and IMD. The costs include expenses charged to the 17 expense codes identified in Exhibit A.

**Supplies and Materials**

| Prince George's County DPR          | <u>2017</u>       | <u>2018</u>       | <u>2019</u>      |
|-------------------------------------|-------------------|-------------------|------------------|
| Office Supplies/Minor Furniture     | \$ 33,210         | \$ 34,030         | \$27,691         |
| Equipment Minor                     | \$ 74,213         | \$ 84,669         | \$35,710         |
| Supplies for Spec. Dept. Activities | \$ 2,532          | \$ 7,462          | \$2,934          |
| <b>TOTAL</b>                        | <b>\$ 109,955</b> | <b>\$ 126,161</b> | <b>\$ 66,335</b> |

| Prince George's County Planning Dep | <u>2017</u>     | <u>2018</u>     | <u>2019</u>     |
|-------------------------------------|-----------------|-----------------|-----------------|
| Office Supplies/Minor Furniture     | 7290            | \$ -            | \$ 1,995        |
| Equipment Minor                     | 2369            | \$ 2,301        | \$ 556          |
| Supplies for Spec. Dept. Activities | 0               | \$ -            | \$ -            |
| <b>TOTAL</b>                        | <b>\$ 9,659</b> | <b>\$ 2,301</b> | <b>\$ 2,551</b> |

Prince George's County Department of Parks and Recreation and Planning departments incurred minor IT supply and material charges.

**Other Services and Charges**

| Prince George's County DPR           | <u>2017</u>      | <u>2018</u>      | <u>2019</u>      |
|--------------------------------------|------------------|------------------|------------------|
| 7224 Repairs/Maint./ComputerHW       | \$568            | \$1,202          | \$1,533          |
| 7264 Mnt. Agree communication Equip. | \$114,170        | \$34,577         | \$74,597         |
| 7265 Mnt. Agree Computer Hardware    | \$10,085         | \$660            | \$0              |
| 7266 Mnt. Agree Computer Software    | \$815,219        | \$475,884        | \$549,818        |
| 7308 Data Proc Info Mgmt Serv        | \$0              | \$31,858         | \$786            |
| 7375 Software Licenses/Renewals      | \$8,173          | \$38,594         | \$246,378        |
| 7420 Computer Rental                 | \$6,018          | \$5,116          | \$10,117         |
| <b>TOTAL</b>                         | <b>\$954,233</b> | <b>\$587,891</b> | <b>\$883,229</b> |

| Prince George's County Planning Dept. | <u>2017</u>    | <u>2018</u>    | <u>2019</u>    |
|---------------------------------------|----------------|----------------|----------------|
| 7265 Mnt. Agree Computer Hardware     | \$0            | \$120          | \$0            |
| 7266 Mnt. Agree Computer Software     | \$5,025        | \$5,237        | \$5,506        |
| 7375 Software Licenses/Renewals       | \$0            | \$411          | \$1,130        |
| <b>TOTAL</b>                          | <b>\$5,025</b> | <b>\$5,768</b> | <b>\$6,636</b> |

Prince George's County Department of Parks and Recreation departments spent between \$476k and \$815k in maintenance agreements for software during the



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three years reviewed. FY17 reflected the largest expenditures (\$815k). Some of the expenses included: RecTrac Implementation costs of \$290k, Class support and maintenance costs of \$235k and Keystone software maintenance costs of \$100k.

Some FY19 other services and charges by DPR departments included:

|  |        |
|--|--------|
| Park Police -                          | \$273k |
| EAM Administration -                   | \$127k |
| Support Services (Microsoft Renewal) - | \$208k |

**Exhibit A**  
**Account Codes Used in Analysis**

**IT DEPARTMENTS ACCOUNT CODES USED IN ANALYSIS**

|  |             |
|--|-------------|
| <b>Bi-County IT</b>  |             |
| Enterprise IT Division   | 37000       |
| EOB IT   | 37002       |
| Computer Service Division  | 32100       |
| ERP Business Operations  | 32002       |
| <b>Office of the CIO</b>   |             |
| Office of the CIO  | 53300       |
| Commission-wide IT Interest                                      | 53500       |
| Commission-wide IT Initiative 2004 - 2016                        | 53504-53516 |
| Commission-wide IT Faster  | 53600       |
| Commission-wide IT Lawson ERP                                    | 53610       |
| Commission-wide IT   | 53700       |
| Commission Wide IT Debt Service                                  | 53705       |
| <b>Montgomery County Planning Department</b>                     |             |
| Planning Information Tech & Innovation                           | 21400       |
| IS/GIS   | 21405       |
| <b>Montgomery County Department of Parks</b>                     |             |
| Information Technology & Innovation                              | 22180       |
| SmartParks   | 22105       |
| <b>Prince George's County Department of Parks and Recreation</b> |             |
| <b>Information Technology and Communication Division</b>         |             |
| Info Tech & Communications                                       | 12350       |
| Desktop/Server/App Support                                       | 12360       |
| Messaging/Voice/Data Services                                    | 12365       |
| Voice Network Security Infrastructure                            | 12370       |
| <b>EAM Administration</b>  | 12153       |
| <b>Prince George's County Planning Department</b>                |             |
| <b>Information Management Division</b>                           |             |
| Data Systems System  | 11250       |
| Geographic Information System                                    | 11255       |
| Network Support Section  | 11260       |

**Exhibit A**  
**Account Codes Used in Analysis**

**NON-IT DEPARTMENTS**  
**Expense Codes Included in Analysis**

|      |                                |
|------|--------------------------------|
| 7100 | Computer Supplies              |
| 7108 | PC Software                    |
| 7111 | Computer Equip/Related         |
| 7112 | Control Items/Computer Equip   |
| 7124 | Audio/Visual Hardware <10k     |
| 7168 | Web Support                    |
| 7224 | Repairs/Maint. Comp Hardware   |
| 7264 | Maint. Agree Computer Equip    |
| 7265 | Maint. Agree Computer Hardware |
| 7266 | Maint. Agree Computer Software |
| 7308 | Data Proc Info Mgmt Serv       |
| 7375 | Software Licenses/Renewals     |
| 7398 | Web Support                    |
| 7420 | Computer Rental                |
| 8445 | Computer Hardware >\$10k       |
| 8450 | Computer Software >\$10k       |
| 8478 | Web Support HW, SW >\$10k      |

The analysis does not include transfers made to the OCIO Internal Service Funds (7448) by each Department.

**Exhibit B**  
**External Benchmarks**

**Computer Economics**

The following data was obtained from the Computer *Economics IT Spending and Staffing Benchmarks* study (Study), which is in its 30<sup>th</sup> year of publication. The study is based on a survey of 232 IT organizations. It provides composite statistics of IT spending and staffing data, a segmentation of the same statistics by organization size. Benchmarks are based on three years of survey data.

The OIG obtained statistics for the “Government Agency” subsector. The category includes public health agencies, courts and law enforcement agencies, organizations that provide IT services to government agencies, social service agencies, state parks, lotteries, and other federal, state, and regional government units.

The Study broke the respondents into three demographics (25<sup>th</sup> percentile, Median, and 75<sup>th</sup> percentile). Based on the table below<sup>7</sup>, the Commission falls into the 25<sup>th</sup> percentile.

| <b>Metric</b>          | <b>25<sup>th</sup> Percentile</b> | <b>Median</b> | <b>75<sup>th</sup> Percentile</b> |
|------------------------|-----------------------------------|---------------|-----------------------------------|
| Organizational Revenue | \$337M                            | \$2,445M      | \$4,895M                          |
| Employees              | 2,000                             | 4,764         | 11,077                            |
| Revenue per Employee   | \$170,489                         | \$251,936     | \$967,487                         |

The Study defines IT spending as all IT expenditures incurred for the internal support of the business. It includes IT operational spending, IT capital spending, and depreciation for IT investments. The OIG’s analysis includes all of these categories, except depreciation for IT investments.

**Metric: Total IT Spending Per User**

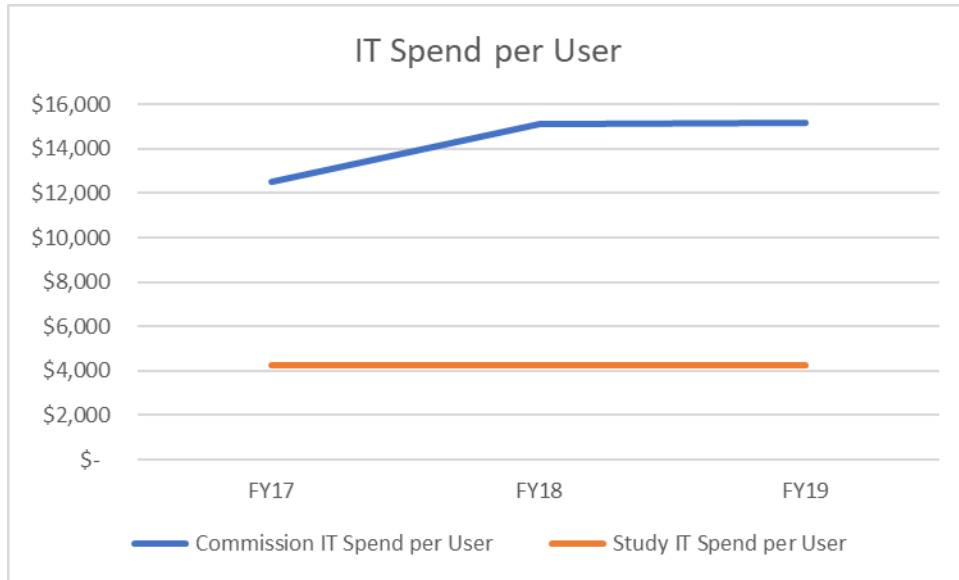
Per the Study, governmental agencies within the 25<sup>th</sup> percentile spend \$4,232 of IT spending per user. A user is defined as a person who has a login account. For benchmarking, the OIG assumed 2,000 Commission users.

As reflected below, the Commission’s total IT spend per user increased from \$12,541 in FY17 to \$15,151 in FY19. **This is well above the Study’s metric of \$4,232.** Per the study, the Commission’s spending per user was closer to agencies in the 75<sup>th</sup> percentile (\$15,364).

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<sup>7</sup> Computer Economics, 2019 – Figure 29-1

**Exhibit B  
External Benchmarks**



Metric: IT Infrastructure

| Infrastructure Demographics | 25 <sup>th</sup> Percentile | Median | 75 <sup>th</sup> Percentile |
|-----------------------------|-----------------------------|--------|-----------------------------|
| Data Centers                | 1                           | 2      | 2                           |
| Network Sites               | 10                          | 29     | 55                          |
| Business Applications       | 12                          | 50     | 288                         |

The Commission operates 4 full data centers and 2 “partial” centers<sup>8</sup>. In addition, ITI leases data center space from Montgomery County College. **It is reasonable to deduce, consolidation of data centers would provide cost savings to the Commission.**

Metric: Spending by Type (New Initiatives)

| Percentage of IT Spending by Type | 25 <sup>th</sup> Percentile | Median     | 75 <sup>th</sup> Percentile |
|-----------------------------------|-----------------------------|------------|-----------------------------|
| Ongoing Support                   | 53%                         | 75%        | 3%                          |
| <b>New Initiatives</b>            | <b>47%</b>                  | <b>25%</b> | <b>17%</b>                  |
| Outsourcing                       | 4.4%                        | 7.2%       | 13.8%                       |
| Outside of IT Budget              | 0.0%                        | 2.7%       | 10.8%                       |

In FY19 CWIT total IT spend of \$3.6M accounted for 11.9% of total Commission-wide IT spend (\$30.3M), as compared to 47% (new initiatives) reflected above. **The percentage of CWIT expenses as compared to total IT expenses is significantly under the metric**, however, the OIG was not able to determine how much of Departmental IT spend supported new initiatives.

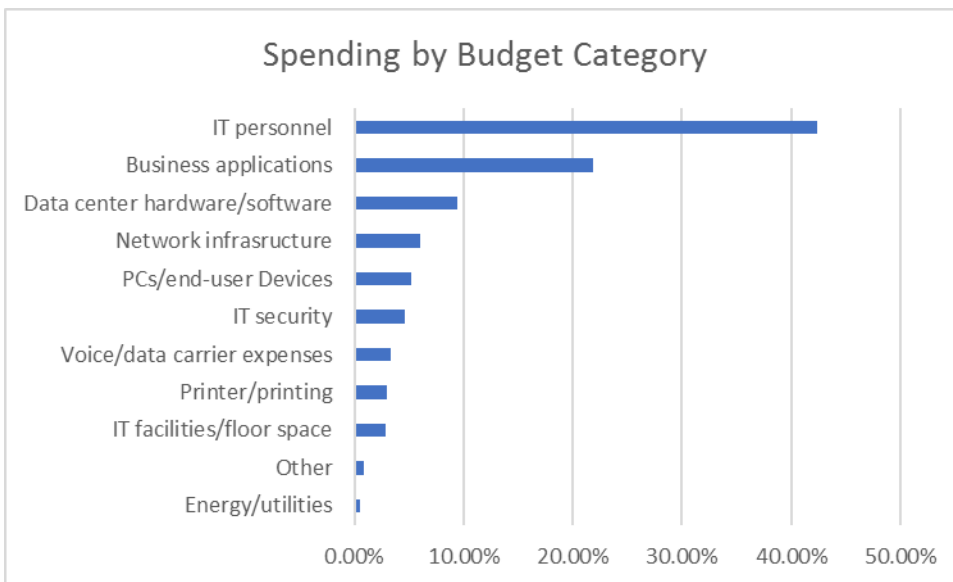
<sup>8</sup> EOB, Prince George’s County DPR, Prince George’s County Planning, Montgomery County Planning Department, Montgomery County Park Police (limited data center), Wheaton (limited data center).

**Exhibit B  
External Benchmarks**

Metric: Spending by Budget Category

The following table was included in the Study. IT personnel costs were calculated at 42.4% of total IT costs in the Study. In FY19, the Commission’s total IT personnel Services costs equaled \$14.1M or 46.6% of total IT Costs. OCIO personnel costs appear to be under benchmark, Montgomery County appear to be in-line with the Study, while Bi-County IT Operations and Prince George’s County IT personnel costs are over benchmark.

It should be noted that the Study does not have a category for professional services. If these expenses were added to Commission salary expenses, **Commission IT personnel costs would be significantly over benchmark for all Departments/Sections.**



|                         | <b>Total FY19 Spend</b> | <b>Total FY Personnel Service Costs</b> | <b>Percentage</b> |
|-------------------------|-------------------------|---|-------------------|
| OCIO/CWIT/Enterprise    | \$7,682,378             | \$2,752,532                             | 35.8%             |
| Bi-County IT Operations | \$1,955,482             | \$1,104,921                             | 56.5%             |
| Montgomery County       | \$8,604,541             | \$3,928,277                             | 45.7%             |
| Prince George’s County  | \$12,059,992            | \$6,990,017                             | 58.0%             |
| <b>TOTAL</b>            | <b>\$30,302,392</b>     | <b>\$14,108,389</b>                     | <b>46.6%</b>      |

**Exhibit B  
External Benchmarks**

**Deloitte Insights**

In a recent study, Deloitte Insights found that companies spend on average 3.28% of their revenue on IT. Their study did not include governmental agencies, and the percentages varied between 7.16% for banking and security industries to 1.51% for construction industries.

Although this analysis doesn't reflect revenues, it appears that Commission IT expenditures average 5.4% of total expenses, **which appear to be over the average percentage of 3.28%.**

**Prince George's and Montgomery County Government**

Prince George's County reported the following expenditures in their Information Technology Internal Service fund and general fund.

| Prince George's County            | <b><u>FY18 Actual</u></b> | <b><u>FY19 Adopted</u></b> |
|-----------------------------------|---------------------------|----------------------------|
| Personnel                         | \$9,046,089               | \$11,390,400               |
| Operating Expenses                | 21,005,543                | 22,607,100                 |
| <b>Total ISF</b>                  | <b>\$30,051,632</b>       | <b>\$33,948,900</b>        |
|                                   |                           |                            |
| Office of Technology General Fund | \$556,300                 | \$2,038,100                |

Montgomery County reported the following expenditures in their Comprehensive Annual Financial Statements (CAFR).

| Montgomery County                      | <b><u>FY17 Actual</u></b> | <b><u>FY18 Actual</u></b> | <b><u>FY19 Actual</u></b> |
|--|---------------------------|---------------------------|---------------------------|
| Technology Services Personnel          | \$19,315,512              | \$20,102,507              | \$20,234,944              |
| Operating Expenses                     | 24,769,893                | 25,223,429                | 24,731,519                |
| <b>Total Technology Services Costs</b> | <b>\$44,085,405</b>       | <b>\$45,325,936</b>       | <b>\$44,966,463</b>       |

**Exhibit C**  
**Statement of Appreciation**

This advisory required input and assistance from several individuals throughout the Commission. Its completion would not be possible without their assistance. The OIG would like to thank the following individuals for their time and assistance:

- Chip Bennett
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Thank you,



Renee Kenney, CPA, CIA, CISA, CIG  
Inspector General  
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