

D53T00
Maryland Institute for Emergency Medical Services Systems

Operating Budget Data

(\$ in Thousands)

	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Working</u>	<u>FY 16</u> <u>Allowance</u>	<u>FY 15-16</u> <u>Change</u>	<u>% Change</u> <u>Prior Year</u>
Special Fund	\$14,768	\$23,540	\$16,072	-\$7,468	-31.7%
Deficiencies and Reductions	0	0	-276	-276	
Adjusted Special Fund	\$14,768	\$23,540	\$15,797	-\$7,743	-32.9%
Federal Fund	1,180	1,286	2,950	1,664	129.5%
Adjusted Federal Fund	\$1,180	\$1,286	\$2,950	\$1,664	129.5%
Reimbursable Fund	860	302	279	-24	-7.8%
Adjusted Reimbursable Fund	\$860	\$302	\$279	-\$24	-7.8%
Adjusted Grand Total	\$16,808	\$25,128	\$19,025	-\$6,103	-24.3%

Note: The fiscal 2015 working appropriation reflects deficiencies and the Board of Public Works reductions to the extent that they can be identified by program. The fiscal 2016 allowance reflects back of the bill and contingent reductions to the extent that they can be identified by program.

- The Governor's fiscal 2016 allowance decreases by \$6.1 million, or 24.3%, from the fiscal 2015 working appropriation when adjusted for back of the bill reductions. This decrease largely reflects an \$8.5 million decrease in special funds for the communication system upgrade and maintenance costs.
- Federal funds increase by \$1.7 million, or 129.5%, primarily due to additional funds for the Emergency Response System (ERS) program.

Note: Numbers may not sum to total due to rounding.

For further information contact: Laura M. Vykol

Phone: (410) 946-5530

Personnel Data

	<u>FY 14 Actual</u>	<u>FY 15 Working</u>	<u>FY 16 Allowance</u>	<u>FY 15-16 Change</u>
Regular Positions	94.10	95.00	96.00	1.00
Contractual FTEs	<u>9.88</u>	<u>14.55</u>	<u>19.55</u>	<u>5.00</u>
Total Personnel	103.98	109.55	115.55	6.00

Vacancy Data: Regular Positions

Turnover and Necessary Vacancies, Excluding New Positions	4.74	4.99%
Positions and Percentage Vacant as of 1/1/15	3.00	3.16%

- The fiscal 2016 allowance reflects 1 new position, an information technology systems technical specialist, to maintain communication systems.
- Contractual full-time equivalents increase by 5 in fiscal 2016 due to additional federal funding for the ERS program. Additional funding is provided for 2 instructional system designers, 2 medical reserve corps positions, and 1 financial specialist.
- As of January 1, 2015, there were 3.0 vacant positions, accounting for 3.2% of the agency’s workforce. The vacancy rate is lower than the 5.0% budgeted turnover rate.

Analysis in Brief

Major Trends

Maryland Trauma Care: Maryland continues to demonstrate consistent outcomes above the national norm as measured by the survivability rate of trauma care center admissions.

County Hospital Alert Tracking System: The County Hospital Alert Tracking System is a real-time computerized monitoring system of emergency department status throughout Maryland. Hospital emergency departments that are temporarily unable to accept ambulance-transported patients due to overcrowding or hospital overload are identified so that ambulances can be diverted to other, less crowded emergency department facilities. In calendar 2014, both yellow and red alerts increased.

Recommended Actions

1. Concur with Governor's allowance.

Updates

Statewide Implementation of eMEDS© Expected in Calendar 2015: The Maryland Institute for Emergency Medical Services Systems (MIEMSS) is responsible for coordinating and monitoring pre-hospital care delivered by emergency medical service (EMS) providers in the field. In order to improve the quality of data and data sharing by EMS providers, MIEMSS transitioned from the Electronic Maryland Ambulance Information System to the Electronic Maryland Emergency Medical Services Data System (eMEDS©) in fiscal 2011. The eMEDS© is a software program used by EMS first responders to record patient information and symptoms before they arrive at the hospital. The goal is for 100% of Maryland counties to utilize eMEDS©, which MIEMSS expects to achieve in calendar 2015.

D53T00 – Maryland Institute for Emergency Medical Services Systems

Analysis of the FY 2016 Maryland Executive Budget, 2015

D53T00

Maryland Institute for Emergency Medical Services Systems

Operating Budget Analysis

Program Description

The Maryland Institute for Emergency Medical Services Systems (MIEMSS) oversees and coordinates all components of the State's emergency medical services (EMS) system in accordance with State statute and regulations. MIEMSS provides guidance on medical direction, conducts EMS educational programs, licenses commercial ambulance services, and participates in EMS-related public education and prevention programs. Chapter 592 of 1993, known as the EMS Law, established MIEMSS as an independent State agency under the direction of the EMS Board. Prior to Chapter 592, MIEMSS was housed within the Department of Health and Mental Hygiene (DHMH) and, subsequently, the University of Maryland, Baltimore.

Chapter 592 also established the EMS Board, consisting of 11 members appointed by the Governor to serve four-year terms. The EMS Board oversees the State's EMS plan and appoints the executive director of MIEMSS, who serves as the administrative head of the State's EMS system. The EMS Board prepares an annual budget proposal, taking into account the estimated income of the Maryland Emergency Medical System Operations Fund (MEMSOF), MIEMSS' primary fund source, and budget requests from MIEMSS and other agencies that participate in the State's EMS system.

MIEMSS coordinates a statewide EMS system that includes over 30,000 licensed or certified EMS providers. MIEMSS works to integrate the delivery of pre-hospital emergency care with the State's 48 hospital emergency departments, 11 trauma centers, specialty referral centers, primary stroke centers, and perinatal centers.

The EMS system is divided into five regions:

- Region I: Allegany and Garrett counties;
- Region II: Frederick and Washington counties;
- Region III: Central Maryland, including Baltimore City;
- Region IV: the Eastern Shore; and
- Region V: Metropolitan Washington.

MIEMSS operates a complex network communication system that facilitates communication between ambulances, helicopters, dispatch centers, hospital emergency departments, trauma centers, and law enforcement. The communications system includes (1) the Emergency Medical Resource Center (EMRC), which is a medical channel radio communications system that links EMS providers in the field with hospital-based medical consultation; and (2) the System Communications Center (SYSCOM), which is responsible for helicopter dispatch and monitoring of the transport of critically

ill or injured patients by helicopter to area hospitals. The MIEMSS communication system handles nearly 400,000 telephone and radio calls annually.

Performance Analysis: Managing for Results

1. Maryland Trauma Care

A key goal of MIEMSS is to provide high-quality, systematic medical care to individuals receiving emergency medical services. The agency measures the achievement of this goal by maintaining the system’s trauma patient care performance above the national norm and monitoring the survivability rate of patients that are admitted to a trauma center, as shown in **Exhibit 1**.

Exhibit 1
Trauma Care Performance
Calendar 2009-2013

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Maryland Trauma Patient Care Exceeds National Norm	Yes	Yes	Yes	Yes	Yes
Survivability Rate for Trauma Center Admissions (%)	96.5%	96.5%	96.6%	96.7%	96.3%

Source: Maryland Institute for Emergency Medical Services Systems

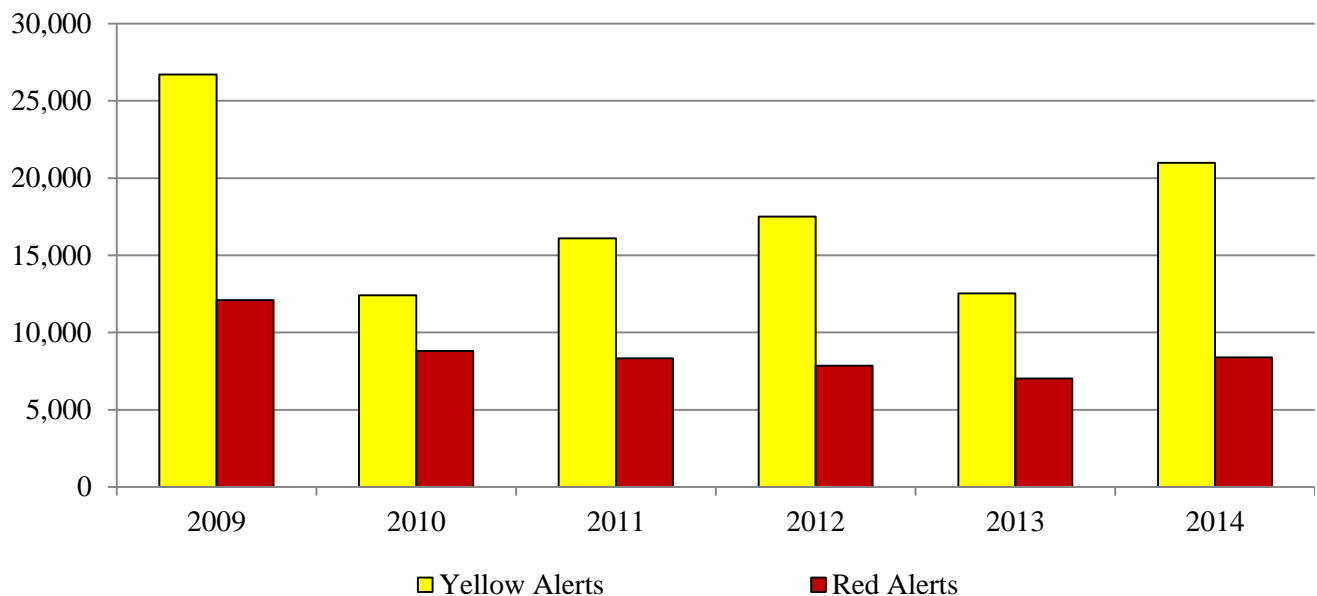
Maryland’s 11 trauma centers maintain electronic registry data on all patients transported for trauma care services. Patients are coded according to a Trauma and Injury Severity Score (TRISS). TRISS data is used to run reports to show mortality/morbidity among trauma center patients. These reports are reviewed by both the hospitals and MIEMSS to monitor trends in outcomes and to identify any deviations. Notable deviations are flagged and reviewed with the respective trauma center.

2. County Hospital Alert Tracking System

The County Hospital Alert Tracking System (CHATS) is a real-time computerized monitoring system of emergency department status throughout Maryland. Hospital emergency departments that are temporarily unable to accept ambulance-transported patients due to overcrowding or hospital overload are identified so that ambulances can be diverted to other, less crowded emergency department facilities.

MIEMSS utilizes the CHATS to determine hospital bed availability. While participation is not mandatory, the reporting system aids MIEMSS in diverting ambulances to hospitals with adequate capacity. MIEMSS tracks “yellow” alerts, when an emergency room requests to receive absolutely no patients in need of urgent medical care by ambulance with the exception of certain priority cases, and “red” alerts, when a hospital has no inpatient electrocardiogram monitored beds available. **Exhibit 2** shows the total number of hours of yellow and red alerts across the State from calendar 2009 through 2014. Hospitals in Washington, DC are not included in this chart, though MIEMSS does track and report this information as well. In calendar 2014, Region III and Region V made up 94.4% of all yellow and red alerts in the State.

Exhibit 2
Total Hours of Yellow and Red Alerts in the State
Calendar 2009-2014



Source: Maryland Institute for Emergency Medical Services Systems

From calendar 2009 to 2010, the number of yellow alert hours for emergency room requests decreased significantly. MIEMSS credits the reduced level to improvement in hospital procedures to facilitate the movement of patients from emergency rooms to other parts of the hospital in order to keep space available for new patients that need emergency room care. Despite increases in yellow alerts in calendar 2011 and 2012, alerts remained well below the pre-2010 level through calendar 2013. In calendar 2014, yellow alerts showed a substantial increase to 21,000 alert hours. Red alerts had shown a slow, steady decrease from calendar 2009 to 2013 but showed a slight increase in calendar 2014. MIEMSS believes a nationwide influenza epidemic impacted alert utilization. The first flu case was confirmed in Maryland on October 2, 2014. Flu cases increased until the first week in January 2015, after which reported cases have continued to slowly decline.

Proposed Budget

The fiscal 2016 allowance decreases by \$6.1 million, or 24.3%, as shown in **Exhibit 3**. Special funds decrease by \$7.7 million, or 32.9%, when adjusted for back of the bill reductions. Federal funds increase by \$1.7 million, or 129.5%. The most significant budget change is a decrease of \$8.5 million in special funds for the communication system upgrade and maintenance costs in fiscal 2016.

Exhibit 3
Proposed Budget
Maryland Institute for Emergency Medical Services Systems
(\$ in Thousands)

How Much It Grows:	Special Fund	Federal Fund	Reimb. Fund	Total
Fiscal 2014 Actual	\$14,768	\$1,180	\$860	\$16,808
Fiscal 2015 Working Appropriation	23,540	1,286	302	25,128
Fiscal 2016 Allowance	<u>15,797</u>	<u>2,950</u>	<u>279</u>	<u>19,025</u>
Fiscal 2015-2016 Amt. Change	-\$7,743	\$1,664	-\$24	-\$6,103
Fiscal 2015-2016 Percent Change	-32.9%	129.5%	-7.8%	-24.3%

Where It Goes:

Personnel Expenses

New positions: 1 IT technical specialist	\$80
Section 20: abolition of prior year 2% general salary increase	-147
Section 21: abolition of employee increments.....	-129
Increments and general salary increase annualization (prior to cost containment)	189
Employee and retiree health insurance	276
Retirement	125
Other fringe benefit adjustments	30

Other Changes

Communication system upgrade and maintenance costs.....	-8,470
ERS Program funding.....	1,664
Telecommunications.....	182
Applications software	140
Other	-43

Total **-\$6,103**

ERS: Emergency Response System

IT: information technology

Note: Numbers may not sum to total due to rounding. The fiscal 2015 working appropriation reflects deficiencies and the Board of Public Works reductions to the extent that they can be identified by program. The fiscal 2016 allowance reflects back of the bill and contingent reductions to the extent that they can be identified by program.

Cost Containment

In fiscal 2016, the Administration has implemented several across-the-board reductions. This includes a general 2% reduction, elimination of employee increments, and a revision to the salary plan, which reflect the abolition of the 2% general salary increase provided on January 1, 2015. This agency's share of these reductions is \$275,768 in special funds.

Personnel Expenses

Personnel expenses increase by a net \$424,000 from the fiscal 2015 working appropriation. Regular salaries increase by \$189,000, prior to cost containment reductions totaling -\$276,000. Health insurance increases by \$276,000, and employee retirement increases by \$125,000. A new position to maintain the communication system adds \$80,000 in fiscal 2016.

Communication System Replacement and SYSCOM Renovation Project

After an evaluation found the MIEMSS communication system obsolete and in jeopardy of failure, a conceptual design to replace the system was proposed, which would cost roughly \$12.2 million and take five years to install. The process to replace the communication system was initiated by a budget amendment in fiscal 2013, which authorized funding from MEMSOF for the first year of the project. The bulk of the upgrade costs would be experienced in years two and three, which correspond to fiscal 2014 and 2015. Chapter 429 of 2013 expressed intent that funds for this project and ongoing maintenance be provided from MEMSOF.

In fiscal 2014, costs were anticipated to be \$3.2 million for the upgrade, but only \$1.7 million was actually spent because the project has been delayed in order to renovate SYSCOM to accept console equipment for the State's 700 megahertz (MHz) radio system. Approximately \$1.5 million in maintenance costs budgeted in fiscal 2014 resulted in cost savings to MEMSOF. The fiscal 2016 allowance shows a substantial decrease in funding for the project from fiscal 2015 as a reflection of originally estimated costs. A budget amendment has not yet been processed to reauthorize the cancelled fiscal 2014 funds, but an amendment request is expected. At this time, the overall cost and timeline of the project have not changed, and the upgrade is expected to be complete by fiscal 2017. **Exhibit 4** shows the Department of Legislative Services' (DLS) estimated costs and timeline for the project, assuming cancelled funds in fiscal 2014 are reauthorized in fiscal 2016 instead.

Exhibit 4
MIEMSS Communication System Upgrade and Maintenance Costs
Department of Legislative Services' Estimated Costs
2014 Session Assumptions vs. 2015 Session Assumptions

	Upgrade Costs <u>2014 Session</u>	Maintenance Costs <u>2014 Session</u>	Revised Upgrade Costs <u>2015 Session</u>	Revised Maintenance Costs <u>2015 Session</u>
Fiscal 2013	\$344,292	\$0	\$344,292	\$0
Fiscal 2014	3,226,950	1,548,421	1,680,887	0
Fiscal 2015	8,555,803	1,594,874	8,555,803	1,594,874
Fiscal 2016	37,500	1,642,720	1,583,563	1,642,720
Fiscal 2017	12,500	1,692,001	12,500	1,692,001
Total Costs	\$12,177,045		\$12,177,045	

MIEMSS: Maryland Institute for Emergency Medical Services Systems

Note: The fiscal 2016 allowance does not reflect these estimated costs. A budget amendment to reauthorize cancelled fiscal 2014 funds is expected but has not yet been requested.

DLS requests that MIEMSS update the budget committees on the status of the communication system upgrade, explain why this renovation has caused delay to the project, and discuss whether further delay is anticipated at this time.

Emergency Response System Program

The Emergency Response System (ERS) program, formerly known as the Metropolitan Medical Response System program, is funded through the Urban Area Security Initiative federal grant. The ERS program seeks to create an operational system at the local level to respond to a terrorist incident or other emergency requiring mass casualty response or special care of casualties. State funding for the ERS program is administered by MIEMSS and covers intangible procurement (*e.g.* staff salaries, offices, technology, training, exercises, conferences, *etc.*). ERS State projects include digital EMS telephone expansion, EMRC enhancement, and mobile applications for first responders. The fiscal 2016 allowance increases by \$1.7 million to reflect additional federal funds for the ERS program.

DLS requests that MIEMSS provide further detail on the ERS program and discuss current and anticipated program funding.

Recommended Actions

1. Concur with Governor's allowance.

Updates

1. Statewide Implementation of eMEDS© Expected in Calendar 2015

MIEMSS is responsible for the coordination and public health oversight of the Maryland EMS system. As part of its duties, MIEMSS licenses and certifies pre-hospital care, and monitors trauma and specialty hospitals. In order to determine how well the Maryland EMS system is functioning, MIEMSS must gather and analyze appropriate data. To that end, MIEMSS transitioned from the Electronic Maryland Ambulance Information System to the Electronic Maryland Emergency Medical Services Data System (eMEDS©) to create a new electronic medical records system that improves the quality of data and data sharing by EMS providers.

The new eMEDS© is a software system that Maryland jurisdictions can access in order to more efficiently and fully report pre-hospital patient care data. The Department of Information Technology approved the project, and funds were provided in fiscal 2011 to secure a vendor to administer the new system. The system is currently deployed in almost every county statewide after a successful pilot in Cecil, Harford, and Queen Anne’s counties. The goal is for 100% of Maryland counties to implement eMEDS©. Currently, only Montgomery County is not using eMEDS©. MIEMSS is actively working with Montgomery County and is hopeful implementation will occur in calendar 2015.

Current and Prior Year Budgets

Current and Prior Year Budgets Maryland Institute for Emergency Medical Services Systems (\$ in Thousands)

	<u>General</u> <u>Fund</u>	<u>Special</u> <u>Fund</u>	<u>Federal</u> <u>Fund</u>	<u>Reimb.</u> <u>Fund</u>	<u>Total</u>
Fiscal 2014					
Legislative Appropriation	\$0	\$13,040	\$129	\$502	\$13,671
Deficiency Appropriation	0	-176	0	0	-176
Budget Amendments	0	4,980	1,156	860	6,995
Reversions and Cancellations	0	-3,076	-105	-501	-3,682
Actual Expenditures	\$0	\$14,768	\$1,180	\$860	\$16,808
Fiscal 2015					
Legislative Appropriation	\$0	\$23,466	\$1,286	\$302	\$25,054
Cost Containment	0	0	0	0	0
Budget Amendments	0	74	0	0	74
Working Appropriation	\$0	\$23,540	\$1,286	\$302	\$25,128

Note: Numbers may not sum to total due to rounding. The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies.

Fiscal 2014

The budget for MIEMSS closed at approximately \$16.8 million in fiscal 2014, which is \$3.1 million greater than the legislative appropriation.

The special fund appropriation increased by a net \$1.7 million. A budget amendment for the communication system upgrade project increased the appropriation by \$4.8 million, which was largely offset by \$3.1 million in cancelled funds, primarily for the upgrade. The agency has decided to delay certain parts of the upgrade in order to finish renovation of SYSCOM to accept equipment required for the statewide 700 MHz Radio Project. MIEMSS will request the unspent appropriation in the future to complete the upgrade. Additionally, withdrawn appropriations for health insurance and retirement decreased the appropriation by \$176,000 while budget amendments for a cost-of-living adjustment (COLA), increments, and an annual salary review added \$204,000.

The federal fund appropriation increased by a net \$1.1 million in fiscal 2014, primarily due to an amendment authorizing \$1.2 million for the ERS program. The appropriation decreased by \$105,000 in cancelled funds as a result of timing differences with the federal fiscal year.

The agency's reimbursable fund appropriation increased by a net of \$358,000. The Maryland Emergency Management Agency provided \$350,000 to support patient tracking and a mass casualty grant application program, and DHMH awarded \$510,000 in grant funds for hospital preparedness. Due to timing differences between when grant applications are received and requests for reimbursement, \$501,000 of hospital preparedness funds were cancelled in fiscal 2014; MIEMSS anticipates a budget amendment in the following fiscal year to reauthorize those funds.

Fiscal 2015

The fiscal 2015 budget increased by \$74,000 to \$25.1 million due to special funds provided for a COLA.

**Object/Fund Difference Report
Maryland Institute for Emergency Medical Services Systems**

<u>Object/Fund</u>	<u>FY 14 Actual</u>	<u>FY 15 Working Appropriation</u>	<u>FY 16 Allowance</u>	<u>FY 15 - FY 16 Amount Change</u>	<u>Percent Change</u>
Positions					
01 Regular	94.10	95.00	96.00	1.00	1.1%
02 Contractual	9.88	14.55	19.55	5.00	34.4%
Total Positions	103.98	109.55	115.55	6.00	5.5%
Objects					
01 Salaries and Wages	\$ 8,358,687	\$ 8,868,155	\$ 9,568,231	\$ 700,076	7.9%
02 Technical and Spec. Fees	761,193	1,148,673	1,866,348	717,675	62.5%
03 Communication	1,577,133	1,002,361	1,191,795	189,434	18.9%
04 Travel	311,243	137,325	632,913	495,588	360.9%
06 Fuel and Utilities	125,146	111,417	128,903	17,486	15.7%
07 Motor Vehicles	258,163	242,392	235,004	-7,388	-3.0%
08 Contractual Services	3,682,227	12,264,939	4,378,159	-7,886,780	-64.3%
09 Supplies and Materials	177,446	138,358	120,837	-17,521	-12.7%
10 Equipment – Replacement	131,444	99,843	122,278	22,435	22.5%
11 Equipment – Additional	52,268	62,300	39,050	-23,250	-37.3%
12 Grants, Subsidies, and Contributions	1,263,136	944,000	905,000	-39,000	-4.1%
13 Fixed Charges	109,745	107,996	112,273	4,277	4.0%
Total Objects	\$ 16,807,831	\$ 25,127,759	\$ 19,300,791	-\$ 5,826,968	-23.2%
Funds					
03 Special Fund	\$ 14,767,570	\$ 23,540,098	\$ 16,072,477	-\$ 7,467,621	-31.7%
05 Federal Fund	1,179,879	1,285,500	2,949,776	1,664,276	129.5%
09 Reimbursable Fund	860,382	302,161	278,538	-23,623	-7.8%
Total Funds	\$ 16,807,831	\$ 25,127,759	\$ 19,300,791	-\$ 5,826,968	-23.2%

Note: The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies. The fiscal 2016 allowance does not reflect contingent or across-the-board reductions.

Fiscal Summary
Maryland Institute for Emergency Medical Services Systems

<u>Program/Unit</u>	<u>FY 14 Actual</u>	<u>FY 15 Wrk Approp</u>	<u>FY 16 Allowance</u>	<u>Change</u>	<u>FY 15 - FY 16 % Change</u>
01 General Administration	\$ 16,380,318	\$ 25,127,759	\$ 19,300,791	-\$ 5,826,968	-23.2%
02 Information Technology Project	427,513	0	0	0	0%
Total Expenditures	\$ 16,807,831	\$ 25,127,759	\$ 19,300,791	-\$ 5,826,968	-23.2%
Special Fund	\$ 14,767,570	\$ 23,540,098	\$ 16,072,477	-\$ 7,467,621	-31.7%
Federal Fund	1,179,879	1,285,500	2,949,776	1,664,276	129.5%
Total Appropriations	\$ 15,947,449	\$ 24,825,598	\$ 19,022,253	-\$ 5,803,345	-23.4%
Reimbursable Fund	\$ 860,382	\$ 302,161	\$ 278,538	-\$ 23,623	-7.8%
Total Funds	\$ 16,807,831	\$ 25,127,759	\$ 19,300,791	-\$ 5,826,968	-23.2%

Note: The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies. The fiscal 2016 allowance does not reflect contingent or across-the-board reductions.