

WAYNE COUNTY AIRPORT AUTHORITY

APPROVED BUDGET FISCAL YEAR

2017



DETROIT METRO • WILLOW RUN  
WAYNE COUNTY AIRPORT AUTHORITY

WAYNE COUNTY AIRPORT AUTHORITY

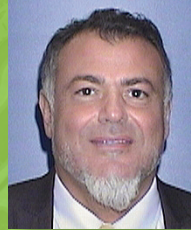
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# FISCAL YEAR 2017 BUDGET

APPROVED BY THE WAYNE COUNTY AIRPORT AUTHORITY BOARD  
SEPTEMBER 22, 2016

PREPARED BY FINANCIAL PLANNING & ANALYSIS





GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Wayne County Airport Authority  
Michigan**

For the Fiscal Year Beginning

**October 1, 2015**

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented an Award for Distinguished Budget Presentation to the Wayne County Airport Authority for its annual budget for the Fiscal Year 2016 beginning October 1, 2015.

In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan and as a communications device. The award is valid for a period of one year. We believe our current budget again conforms to program requirements and we are submitting it to GFOA for review.



# FISCAL YEAR 2017 BUDGET RESOLUTION

APPROVED BY THE WAYNE COUNTY AIRPORT AUTHORITY BOARD ON SEPTEMBER 22, 2016

## RESOLUTION

No. 16 - 110

### APPROVAL OF WAYNE COUNTY AIRPORT AUTHORITY FISCAL YEAR 2017 BUDGET

By Board Member Ronald Hall

WHEREAS, the Wayne County Airport Authority (the "Authority"), pursuant to the Aeronautics Code of the Michigan Public Airport Authority Act, being MCL 259.108 – 259.125c, (the "Aeronautics Code") is vested with the power and authority to undertake the management and operation of the Detroit Metropolitan Wayne County Airport and Willow Run Airport (the "Airports"); and

WHEREAS, the Wayne County Airport Authority is governed by the Wayne County Airport Authority Board (the "Board"); and

WHEREAS, the Aeronautics Code requires that prior to the beginning of each fiscal year, the Board shall prepare a budget containing an itemized statement of the estimated current operational expenses and the expenses for capital outlay including funds for the operation and development of the Airports under the jurisdiction of the Board, and the amount necessary to pay the principal and interest of any outstanding bonds or other obligations of the Authority maturing during the ensuing fiscal year or which have previously matured and are unpaid, and an estimate of the revenue of the Authority from all sources for the ensuing fiscal year; and

WHEREAS, the Aeronautics Code further requires that money of the Authority be deposited, invested, and paid by the Chief Financial Officer only in accordance with policies, procedures, ordinances or resolutions adopted by the Board; and

WHEREAS, the Aeronautics Code further requires that a vote of a majority of the members of the Board serving at the time of the vote is necessary to approve or amend the annual budget; and

WHEREAS, the Board desires to, among other things, approve the annual budget for fiscal year 2017;

NOW THEREFORE, BE IT RESOLVED, that the Wayne County Airport Authority Board hereby approves:

1. The annual operating budgets for the Detroit Metropolitan Airport Fund, the Willow Run Airport Fund and the Westin Hotel Fund for the fiscal year beginning October 1, 2016 and ending September 30, 2017, as prepared by the Chief Financial

Officer of the Authority and reviewed by the Board, copies of which are attached to this Resolution;

2. The Wayne County Airport Authority Five-Year Capital Improvement Plan for Detroit Metropolitan Airport and Willow Run Airport for fiscal years 2017-2021, a copy of which is attached to this Resolution.

All prior Resolutions and parts of prior Resolutions insofar as they conflict with the provisions of this Resolution hereby are rescinded.

This Resolution was supported by Board Member Michael Garavaglia and carried by the following vote:

AYES: Clark-Coleman, Garavaglia, R.Hall, S.Hall, Ivery

NAYS: None

DATE: September 22, 2016



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# READER'S GUIDE

The Budget Book represents the Authority's best effort to provide a thorough summary of the financial, strategic and operational information for Fiscal Year 2017. The summary below describes each section of the book to help the reader find and understand the information contained within.

## ORGANIZATION OF THE BUDGET BOOK

**Executive Summary** – Summarizes the factors that influenced the preparation of the budget.

**Wayne County Airport Authority at a Glance** – Describes the organization and its leadership, includes profiles and statistical data for both airports and the hotel. Includes information about the communities the Authority serves and corresponding supplemental statistical data.

**State of the Aviation Industry** – Analyzes industry trends and profiles of the travelling public, directly linking this information to commercial aviation activity at the Airport, including enplanement information and destinations served.

**Strategic Plan & Balanced Scorecard** – Provides a cohesive explanation of organization-wide priorities and how the Authority uses the balanced scorecard approach to measure success.

**Budget Process & Financial Policies** – Details the process for preparing, reviewing and adopting the budget along with a summary of all financial policies and guidelines.

**Budget Overview** – Presents detailed financial summaries for all budgeted funds. Revenue and expenditure profiles are illustrated for each entity along with a discussion of the assumptions used to develop the budget.

**Cost Center, Division & Department Summaries** – Detailed three-year financial schedules, including charts and lists of responsibilities for each department.

**Capital Improvement Program** – Provides a summary of the Authority's Capital Improvement Plan and a comprehensive listing of all the capital projects spanning the next five years.

**Debt Profile** – Provides an overview of the Airport's indebtedness alongside schedules of outstanding principal and debt service requirements.

**Five-Year Financial Outlook** – Discussion of the Authority's financial goal to maintain cost competitive rates. Includes financial and statistical information and forecasts through FY 2021.

## AVIATION TERMINOLOGY

Throughout the budget book is aviation industry terminology, technical information and references to organizations that may not be familiar to the lay-person. A complete glossary and list of common acronyms is located in the Appendix on page APDX-8. Here are a few that might be most helpful to know:

**Enplanements** – The total number of passengers boarding an aircraft at an airport. Includes both originating and connecting passengers.

**Landed Weights** – The weight of an aircraft on touch-down. Maximum landing weight for a specific aircraft is a fixed figure from the aircraft's limitations manual in which the aircraft manufacturer specifies the weight of the aircraft

depending on build specifications. The weight also represents the aircraft's 'zero fuel weight'. Landing fees are charged to airlines for use of the airfield based on per thousand pounds of landed weight.

**Origin & Destination (O&D)** – Passengers who travel point-to-point to a destination, rather than connecting through a central hub to reach their destination.

**Residual Airport** – A rate and fee setting methodology that sets charges to the Airlines based on the net revenue an airport needs to cover expenses including debt service. At the end of the fiscal year airlines are charged for any operating shortfalls or receive a refund if there is a surplus. Detroit Metropolitan Airport's rate structure is residual whereas Willow Run Airport is compensatory.

**Federal Aviation Administration (FAA)** – The national aviation authority of the United States of America. As an agency of the US Department of Transportation, it has authority to regulate and oversee all aspects of American civil aviation. The FAA's roles include regulating US commercial space transportation, airport facilities' geometry and flight inspection standards, aircraft noise control and administration of the Airport Capital Improvement Plan (ACIP) grant program.

**IATA Airport Codes** – Throughout the budget book are charts and graphs that use the three-letter International Air Transport Association (IATA) Airport Codes. A comprehensive list of all IATA codes used in the document may be found in Appendix C on page APDX-7.

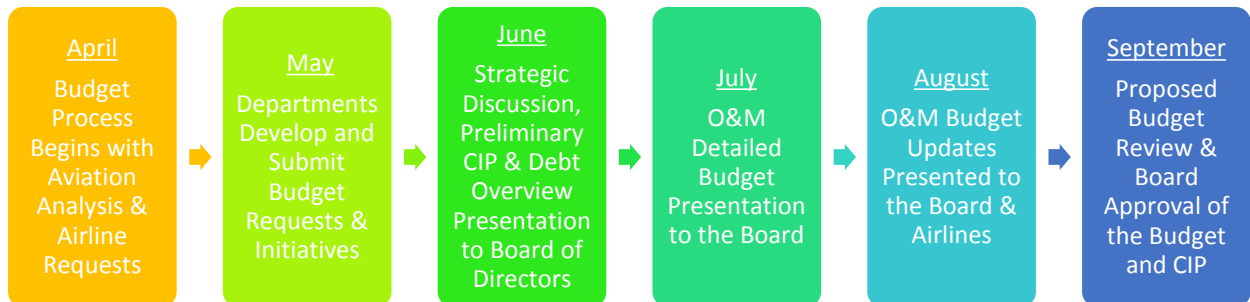
# EXECUTIVE SUMMARY

On September 22, 2016 the Wayne County Airport Authority Board of Director's approved the Fiscal Year 2017 Budget for Detroit Metropolitan Airport (the Airport or DTW), Willow Run Airport (YIP) and the Airport Westin Hotel. The \$362.5 million budget is the financial plan for the Authority and focuses on operational excellence and investment for future growth.

## INTRODUCTION

In any great organization, reengineering efficiencies paves the way for reinvestment and the ability to achieve the organization's highest priorities. The Authority's goals will be achieved through implementing process improvements, enhancing the customer experience, focusing on economic growth and professional development of employees, all while maintaining the safety and security of the Airport.

The following represents the Authority's budget process for FY 2017.



## AVIATION INDUSTRY SUMMARY

Maintaining a financially competitive cost structure is a critical component of the Authority's financial strategy. Airports compete with each other for new routes, connecting passengers and regional market share. The Airport benefits from stability in the aviation industry, thus it is important to analyze macro and microeconomic trends that could impact the organization. There continues to be significant change in airlines' business strategies that directly and indirectly impact the business of the Authority and these trends become the basis for the fiscal outlook. The outlook for the aviation industry is positive as airlines have returned to profitability following a period of consolidation and mergers. Growth in the global and US economies has fueled an increased demand for travel, allowing for year-over-year airline profitability.

The following outlines key factors used in developing the FY 2017 Budget:

- **The outlook for the US airport sector is positive** – Moody's outlook for the US airport sector is positive driven by an increase in seat capacity for US airlines, US economic expansion supporting travel demand and increased profitability throughout the airline industry.
- **Higher passenger demand increases airline and airport revenues** – As the economy continues to grow and travel demand continues, the airlines will continue to see profitability. The passenger traffic growth also drives airport revenues such as parking, car rental and concessions.
- **Smaller airlines are aggressively growing** – The anticipated network capacity change forecasted by the legacy carriers is modest, ranging from no to 3 percent growth. However, smaller airlines such as Alaska Airlines, JetBlue Airways and Spirit Airlines are expected to outpace the legacy carriers' seat capacity growth.

- **The Airport’s role in Delta Air Lines’ system** – The Airport is one of Delta’s eight US hubs. Delta considers the Airport as a key connecting hub and one of its primary international gateways, with flights to Asia, Europe and Latin America. Because of the Airport’s large O&D base and mid-continent geographic location, Delta is able to effectively route passengers (local and connecting) to various international destinations, as well as move passengers travelling from the US East Coast to US West Coast. Delta currently provides non-stop service to 135 destinations from the Airport including more seats to Asia than any of its other hubs, signifying the Airport as Delta’s Asian Gateway.

STRATEGIC FOCUS FOR FISCAL YEAR 2017

Stability and profitability in the aviation industry has driven growth at the Authority by introduction of new airlines, new routes and additional passenger traffic that directly impacts non-airline revenues such as parking, car rental and concessions. The Authority’s long term strategy focuses on five perspectives.



**Customer Satisfaction** – While Passengers appreciate the Airport’s modern terminal facilities as evidenced by strong Airport Service Quality (ASQ) survey scores, the Authority continues its commitment to providing increasing levels of customer service. The initiative for FY 2017 is to attain an overall ASQ customer satisfaction score of 4.35 out of 5.0. There continues to be a budgetary commitment to both maintain and enhance the ambience and comfort of the terminals, with funds needed to refresh terminal amenities.

**Financial** – There is a focus on developing a comprehensive plan for Willow Run Airport to address the long-term financial viability of the reliever, including identifying both operational and capital funding sources. There will be a plan for infrastructure sustainability and efficiency, while stimulating development on and around the airport.

**Operational Excellence** – The Authority has been dedicated to environmental sustainability for a number of years, including dedicating personnel and budgetary funds to understand how to become a “greener” organization. During FY 2016, the Airport achieved ACI’s accreditation Level 1 (i.e. tracking/measuring DTW’s carbon footprint). For FY 2017, the target is to achieve ACI’s Carbon Management Accreditation Level 2 by implementing a reduced energy use policy, establishing energy reduction targets (primarily for gas/electric consumption) and continuing all practices associated with Level 1 certification.

**Regional Development and Engagement** – During FY 2016, the Authority focused on a number of initiatives in this category that are being expanded upon in FY 2017, with the overarching goal to strengthen the Authority’s regional collaboration. The first initiative ties to Project Oasis, which developed an airport campus design criteria and

standards, creating a cohesive and welcoming sense of place consistently across the campus. The goal for this fiscal year is to improve landside access and facilities. In FY 2016, the Authority enlisted the support of regional organizations and entities to foster opportunities for Small Business Enterprises (SBE) and Disadvantaged Business Enterprises (DBE). During the upcoming year, the Authority would continue to lower barriers for SBEs by implementing programs that make it easier to do business with the Authority. Additionally, the Authority is planning on partnering with airport and local stakeholders on business opportunities and developing a communication strategy to support outreach to the regional community.

**People** – Human capital is the Authority’s greatest asset. Dedicated employees drive operational excellence and customer service standards. The focus is to adopt a continuous improvement culture by training employees to methodically reduce waste, simplify existing processes and add more value to the services we provide. The Authority strives to recognize significant results that reduce time, costs and other resources, while improving service delivery to travelers or customers.

#### FY 2017 DETROIT METROPOLITAN AIRPORT OPERATING BUDGET

Aviation activity and passenger traffic create a starting point for developing the Operating & Maintenance (O&M) budget. Enplanements and landed weights both increased approximately 3 percent during FY 2016, and additional growth is expected during FY 2017. Enplanements and landed weights are forecasted to be 17.3 million and 21.7 millions of thousands of pounds, respectively. This growth is attributed to airline fleet changes to larger aircraft and higher load factors.

Following the refinancing of the Hotel Bonds in October 2015, The Airport Westin Hotel was incorporated into Detroit Metropolitan Airport’s O&M fund. It has been included in DTW’s operating budget for the first time in FY 2017. This refinancing is discussed in more detail in the ‘Authority at a Glance’ chapter on page B-17.

Non-airline revenue, not including the hotel for comparative purposes, is budgeted to increase by 7.2 percent from \$145.6 million in FY 2016 to \$156.1 million in FY 2017. The majority of the increase is attributable to upward revenue trends in parking and concessions and is consistent with the growth in enplaned passengers.

The budget’s focus is to remain cost competitive among peer airports while sustaining operational excellence and achieving the Authority’s initiatives. Excluding the hotel, the O&M budget for the Airport is \$328.5 million as compared to \$317.8 million in FY 2016, a 3.4 percent increase. The three largest components of the budget are salaries and benefits (23.1 percent), contractual services (16.5 percent) and debt service (24.2 percent) which together, comprise 63.8 percent of the total. With regard to debt, during the past five years the Authority has been aggressive in managing debt costs through strategic debt management and this is discussed in detail in the ‘Debt Profile’ chapter.

As a residual airport, revenues and expenses must balance. The FY 2017 Budget for revenues generated directly from the airlines stayed flat to FY 2016. As illustrated in Figure A - 1 below, strong revenue growth from non-airline sources offset the financial impact of increased expenses to the airlines.

Figure A - 1: FY 2017 Detroit Metropolitan Airport O&amp;M Budget

(\$ in thousands)	FY 2015		FY 2016		FY 2017		FY 2016 to FY 2017 Change		
	Actual		Budget		Budget		\$	%	
Airline Revenues	\$	167,747	\$	171,303	\$	171,280	\$	(22)	0.0%
Non-Airline Revenues		144,837		145,584		187,089		41,505	28.5%
Non-Operating Revenues		1,970		919		1,103		184	20.0%
<b>Total Revenues</b>		<b>314,554</b>		<b>317,806</b>		<b>359,473</b>		<b>41,667</b>	<b>13.1%</b>
Operating Expenses		211,576		211,093		246,379		35,287	16.7%
Non-Operating Expenses		102,979		106,714		113,094		6,380	6.0%
<b>Total Expenses</b>	<b>\$</b>	<b>314,554</b>	<b>\$</b>	<b>317,806</b>	<b>\$</b>	<b>359,473</b>	<b>\$</b>	<b>41,667</b>	<b>13.1%</b>

May not sum to total due to rounding

FY2017 includes Westin Hotel

#### FY 2017 WILLOW RUN AIRPORT OPERATING BUDGET

While passenger airline activity is stable, general aviation and air cargo originating from and destined to Southeast Michigan continues to decline. This creates a considerable financial challenge for Willow Run Airport. In 2013, Willow Run lost its second largest rent tenant, National Airlines, who relocated out-of-state resulting in a 10.0 percent decline of total revenue (\$0.3 million). While maintaining operational excellence and safety, operating expenses were responsibly reduced to compensate for revenue losses. The FY 2017 Budget forecasts revenues to be \$3.0 million compared to operating expenses of \$4.8 million. Financial sustainability is Willow Run's long-term goal; cost containment, business development and airfield "rightsizing" is the three-pronged strategy to achieving it.

Figure A - 2: FY 2017 Willow Run Airport O&amp;M Budget

(\$ in thousands)	FY 2015		FY 2016		FY 2017		FY 2016 to FY 2017 Change		
	Actual		Budget		Budget		\$	%	
Airline Revenues	\$	1,325	\$	1,205	\$	1,305	\$	100	8.3%
Non-Airline Revenues		1,788		1,769		1,690		(79)	- 4.5%
Non-Operating Revenues		226		23		22		(1)	(0)
<b>Total Revenues</b>		<b>3,339</b>		<b>2,996</b>		<b>3,016</b>		<b>20</b>	<b>0.7%</b>
Operating Expenses		4,776		4,244		4,787		543	12.8%
Non-Operating Expenses		(1,357)		(1,248)		(1,772)		(523)	41.9%
<b>Total Expenses</b>	<b>\$</b>	<b>3,419</b>	<b>\$</b>	<b>2,996</b>	<b>\$</b>	<b>3,016</b>	<b>\$</b>	<b>20</b>	<b>0.7%</b>

May not sum to total due to rounding

#### FY 2017 WESTIN HOTEL OPERATING BUDGET

The Airport Westin Hotel's focus is maintaining its award-winning service among regional and national luxury hotels. The Hotel's FY 2017 Budget for operating revenues is \$30.9 million, offset by operating expenses of \$19.3 million, forecasting an operating margin of \$11.6 million. Taking into account non-operating expenses, which primarily include debt service and fund transfers, the budgeted net position for FY 2017 is \$3.5 million.



Figure A - 3: FY 2017 Westin Hotel Operating Budget

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Revenues	\$ 30,027	\$ 31,078	\$ 30,901	\$ (176)	- 0.6%
Non-Operating Revenues	27	26	72	46	>100%
<b>Total Revenues</b>	<b>30,054</b>	<b>31,104</b>	<b>30,973</b>	<b>(131)</b>	<b>- 0.4%</b>
Operating Expenses	19,206	20,001	19,286	(715)	- 3.6%
Non-Operating Expenses	10,270	9,166	8,190	(976)	- 10.6%
<b>Total Expenses</b>	<b>29,477</b>	<b>29,167</b>	<b>27,476</b>	<b>(1,691)</b>	<b>- 5.8%</b>
<b>Change in Net Assets</b>	<b>\$ 577</b>	<b>\$ 1,936</b>	<b>\$ 3,497</b>	<b>\$ 1,560</b>	<b>80.6%</b>

May not sum to total due to rounding

#### FY 2017 – FY 2021 CAPITAL IMPROVEMENT PLAN

Projects intended to sustain and improve operations comprise the majority of the CIP. The FY 2017 – FY 2021 CIP includes \$464.9 million (58 percent) for airfield improvement projects. Projects aimed at creating opportunities to generate additional revenue and help cultivate economic development total \$7.9 million for cargo, hangar and commercial development with an additional \$27.8 million for demolitions and site redevelopment.

Willow Run's \$175.1 million CIP is separate from the Airport. It is primarily composed of reconstructing runways and taxiways and updating facilities and infrastructure to attract new tenants.

Below is the approved FY 2017 – FY 2021 Five Year Plan for both airports.

Figure A - 4: FY 2017 - FY 2021 Capital Improvement Plan

(\$ in thousands)	Total Cost	Estimate to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
Detroit Metropolitan Airport	\$ 803,878	\$ 113,266	\$ 158,237	\$ 164,284	\$ 99,618	\$ 227,275	\$ 41,199
Willow Run Airport	175,119	2,419	15,663	15,118	12,788	43,638	85,494
<b>Wayne County Airport Authority Total</b>	<b>\$ 978,997</b>	<b>\$ 115,685</b>	<b>\$ 173,900</b>	<b>\$ 179,402</b>	<b>\$ 112,405</b>	<b>\$ 270,912</b>	<b>\$ 126,693</b>

May not sum to total due to rounding

#### DEBT SERVICE

The Airport funds the majority of its capital improvements through the issuance of General Airport Revenue Bonds (GARBs). The total principal amount of outstanding GARBs is approximately \$2.2 billion. The Airport's gross debt service obligation for FY 2017 is \$180.1 million which is primarily funded through two sources: (1) airline rates and charges and (2) Passenger Facility Charges (PFCs) – a \$4.50 fee charge to each eligible enplaned passenger. The forecast for enplanement growth in FY 2017 drives an increase in PFC revenue which helps to mitigate an increase in net debt service charged to the airlines. The FY 2017 budget for net debt service (charged through airline rates and charges) is \$87.0 million as compared to \$92.4 million budgeted in FY 2016.

In FY 2017, the Authority will explore the need for issuing new money to fund portions of the DTW FY 2017 – FY 2021 CIP for projects starting within the next two years. As market conditions dictate, there is an opportunity to analyze refunding the Authority's 2007 Senior and Junior Lien Series Bonds which will become callable during the beginning

of FY 2018. Stability in the aviation industry combined with the Airport's recent track record of growing non-airline revenues and cost containment continues to put the organization in a favorable position to finance current and future capital needs.

## CONCLUSION

In light of the numerous economic and industry specific challenges that have occurred over the past few years, the Authority has taken these headwinds in stride and improved its financial position. Through fiscal responsibility, the Authority has managed operating expenses and achieved an extremely conservative compounded annual growth rate of 2.7 percent since FY 2007.

By maintaining focus on long-term strategies in conjunction with impacts of the economy and industry, the Authority has developed the budget in an informed environment. The budget is the tactical roadmap and tool that defines funding for the Authority's most important goals. Supporting and accomplishing these annual goals helps achieve the Authority's highest priorities and sets the foundation for long-term success of the organization.

## AIRPORT AUTHORITY CONSOLIDATED BUDGET

(\$ in thousands)	Detroit Metropolitan Airport	Willow Run Airport	Authority Total
<b>Airline Revenues</b>			
Landing Fees	\$ 80,399	\$ 723	\$ 81,122
Rent	83,038	262	83,299
Facility Use Fees	7,843	320	8,163
<b>Total Airline Revenues</b>	<b>171,280</b>	<b>1,305</b>	<b>172,585</b>
<b>Non-Airline Revenues</b>			
Parking	76,000	-	76,000
Car Rental	23,600	-	23,600
Concessions	37,179	-	37,179
Ground Transportation	4,849	-	4,849
Shuttle Bus	2,362	-	2,362
Utility Service Fee	4,650	119	4,768
Rent	3,827	902	4,728
Other Revenue	1,881	19	1,900
Charges For Services	1,769	650	2,419
Hotel Revenues	30,973	-	30,973
<b>Total Non-Airline Revenues</b>	<b>187,089</b>	<b>1,690</b>	<b>188,779</b>
<b>Non-Operating Revenues</b>			
Grants	1,003	21	1,024
Interest Income	100	0	100
<b>Total Non-Operating Revenues</b>	<b>1,103</b>	<b>22</b>	<b>1,125</b>
<b>Total Revenues</b>	<b>\$ 359,473</b>	<b>\$ 3,016</b>	<b>\$ 362,488</b>
<b>Operating Expenses</b>			
Salaries & Wages	\$ 52,358	\$ 953	\$ 53,311
Employee Benefits	30,744	505	31,250
Materials & Supplies	9,821	191	10,012
Parking Management	8,641	-	8,641
Shuttle Bus	8,600	-	8,600
Janitorial	12,517	30	12,547
Security	4,992	-	4,992
Contractual Services	24,488	903	25,391
Insurance	2,199	30	2,229
Utilities	24,168	663	24,831
Buildings & Grounds	16,173	724	16,897
Equipment Repair	19,812	252	20,064
Other Operating Expense	4,210	482	4,692
O&M Capital	8,369	55	8,424
Hotel Expenses	19,286	-	19,286
<b>Total Operating Expenses</b>	<b>246,379</b>	<b>4,787</b>	<b>251,167</b>
<b>Non-Operating Expenses</b>			
Debt Service & Coverage	87,030	-	87,030
Funding Requirements	17,873	(1,772)	16,102
Hotel Funding Requirements	8,190	-	8,190
<b>Total Non-Operating Expenses</b>	<b>113,094</b>	<b>(1,772)</b>	<b>111,322</b>
<b>Total Expenses</b>	<b>\$ 359,473</b>	<b>\$ 3,016</b>	<b>\$ 362,488</b>
<b>Change in Net Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

May not sum to total due to rounding

Detroit Metropolitan Airport budget includes Westin Hotel

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# STATE OF THE AVIATION INDUSTRY

The outlook for the aviation industry is positive. US economic growth has stimulated consumer spending, a key driver to enplanement growth, and the airlines have responded by increasing seat capacity. As history has demonstrated, the industry is still vulnerable to geo-political events and fuel cost volatility. Nonetheless, the outlook for FY 2017 is positive.

The demand for air transportation is, to a large degree, dependent upon the demographic and economic characteristics of the geographical area served by an airport (i.e., the Air Trade Area), particularly for the origin and destination (O&D) portion of an airport's passenger traffic. Although O&D passengers are slightly less than a majority of the Airport's total traffic, primarily as a result of hubbing activity by Delta, the strength and characteristics of the Airport's underlying economic base remain significant with regard to expectations of continued growth in its O&D demand.

In this chapter are the findings of the Authority's on-going analysis of the commercial airline industry, the Air Trade Area's demographic composite and trends at peer North American airports. The analysis indicates that the Air Trade Area has an economic base capable of supporting increased demand for air travel. In tandem with the commercial air carriers' capacity growth, the Authority expects gains in enplanements and landed weights in FY 2017.

## FACTORS AFFECTING AVIATION DEMAND

### STATE OF THE AIRLINES

The industry is susceptible to world events and global economic conditions. In the aftermath of the events of September 11, 2001 the US airline industry saw a material adverse shift in the demand for air travel. The result was five years of reported industry operating losses between 2001 and 2005, totaling more than \$28 billion (excluding extraordinary charges and gains). The airline industry finally gained ground in 2007 with virtually every US airline posting a profit. In 2008 and through the first half of 2009, the combination of record high fuel prices, weakening economic conditions and a weak dollar resulted in many of the domestic network competitors announcing changes in business strategies. These included mergers, significant capacity reductions and increases in fares and fees to mitigate these challenges.

Following a period of consolidations and mergers the airlines have returned to profitability. Building upon earnings of \$13.7 billion in net post-tax profits for the global airline industry in 2014 and \$35.3 billion in 2015, the International Air Transport Association (IATA) forecasts the airlines' net profit will be \$39.4 billion in 2016. Global passenger departures grew 5.6 percent and 7.2 percent in 2014 and 2015, respectively. IATA forecasts passenger traffic to grow by 6.0 percent in 2016. Performance among the industry is uneven across global regions. Over the past two years, North American airlines have fared best with profits of approximately \$21.5 billion in 2015 and a forecast of \$22.9 billion in 2016. Latin American airlines have fared the worst with weak home markets and currencies, despite a degree of consolidation and some long-haul success. A net profit of just \$0.1 billion is forecast for 2016, following losses of \$1.5 billion in 2015.

### AIRFARE & AIRLINE YIELDS

In addition to the availability of service to meet the domestic and international O&D demand of the market area, air service at an airport can also be characterized by the availability of competitive air fares and airline yields. At airports where hubbing carriers maintain a significant market share of activity like DTW, service provided by low-cost carriers can complement overall air service and also stimulate demand.

Figure C - 1 provides a comparison of average outbound domestic fares and yields for CY 2015 for US East/West Airline Hub Airports identified as peer airports. Based on these comparisons, competitive fares are offered at the Airport as compared to airports both in the region and peer connecting hubs. Being the largest airport in the region with a high degree of non-stop air service and competitive fares, the Airport is price competitive for both local and connecting passengers. The Airport also compares well in terms of domestic yield per coupon mile making it an attractive market to commercial air carriers.

Figure C - 1: Comparison of US East/West Airline Hub Airports

(CY 2015)	AVERAGE OUTBOUND DOMESTIC FARE <sup>1</sup>	OUTBOUND DOMESTIC YIELD PER COUPON MILE
<b>AIRPORT</b>		
Denver (DEN)	\$152.41	\$0.1470
Phoenix (PHX)	\$167.91	\$0.1421
Chicago-O'Hare (ORD)	\$168.52	\$0.1662
Atlanta (ATL)	\$169.83	\$0.1899
Dallas/Fort Worth (DFW)	\$173.60	\$0.1682
<b>Detroit (DTW)</b>	<b>\$182.00</b>	<b>\$0.1766</b>
Salt Lake City (SLC)	\$184.17	\$0.1672
Minneapolis/St. Paul (MSP)	\$193.85	\$0.1832
Charlotte-Douglas (CLT)	\$200.31	\$0.2309
Cincinnati (CVG)	\$200.36	\$0.2132
Houston-Intercontinental (IAH)	\$200.61	\$0.1807
<b>Total</b>	<b>\$177.81</b>	<b>\$0.1692</b>

NOTE:

<sup>1</sup> Includes zero-fares, but excludes non-revenue passengers.

SOURCE: US DOT Origin & Destination Survey of Airline Passenger Traffic, October 2016.

## AIRLINE SCHEDULED SEAT CAPACITY

Cutting capacity during the economic downturn has been a key strategy to the airlines' return to profitability in recent years. In response to changes in demand, airlines have selectively added back domestic and international seat capacity over the past two years.

To take advantage of strong demand for air travel, domestic air carriers are adding capacity that was trimmed over the past decade following a series of mergers and economic recession. The capacity growth is a result of additional seats on fewer flights. To accomplish this:

- The major airlines are up-gauging equipment by replacing smaller aircraft with larger aircraft
- Small airlines are adding new planes to their fleets

As measured on a 12-month rolling sum, Figure C - 2 and Figure C - 3 chart the year-over-year change of scheduled flights and seats on all US domestic flights and domestic flights from DTW, respectively. The system-wide growth in domestic capacity is consistent with capacity growth from DTW. The change does not correlate proportionately as seat growth outpaces operations, demonstrating the effect of the airlines' equipment up-gauging. DTW experienced a 3.8 percent decline in flights in the twelve months ending December 31, 2015 (FY 2016 Q1) as compared to -0.6 percent nationally. However, seat growth at DTW (2.9 percent) was comparable to the growth in US domestic capacity (3.4 percent) expansion during that period. By the conclusion of FY 2016 (Q4), scheduled capacity from DTW will outpace US domestic growth for every quarter.

Figure C - 2: US Domestic Capacity 12-Month Sum Year-over-Year Change

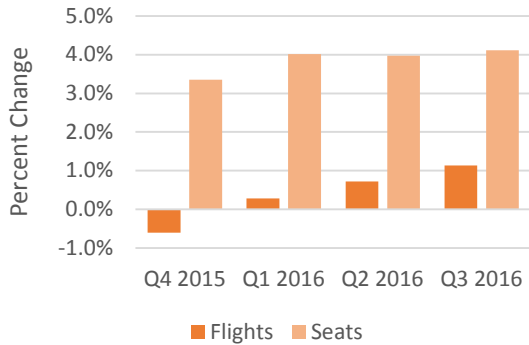
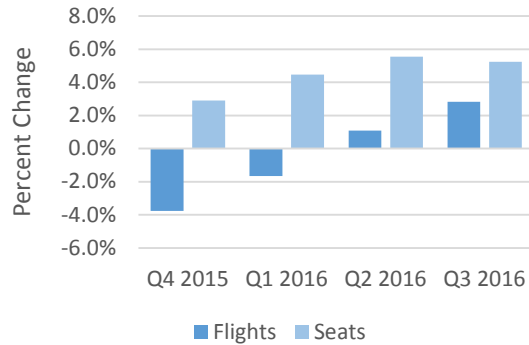


Figure C - 3: DTW Domestic Capacity 12-Month Sum Year-over-Year Change



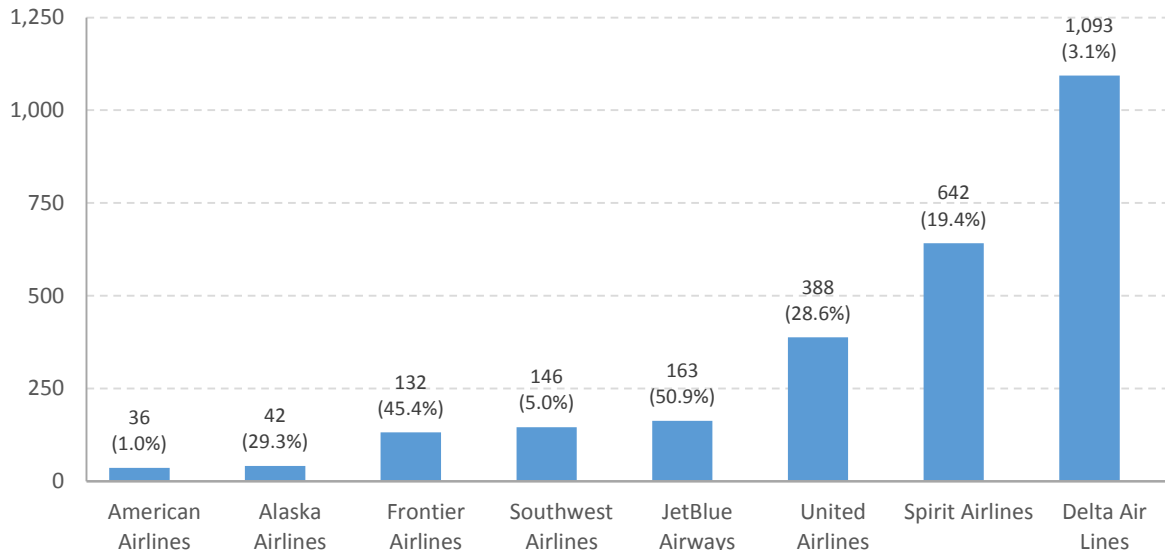
Source: Diio Mi

AGGRESSIVE GROWTH FROM SMALL AIRLINES

Based on airline investor calls, three of the four largest domestic airlines expect to keep growth at or below 3.0 percent, approximately the rate of US economic growth. However, smaller airlines such as Alaska Airlines, JetBlue Airways and Spirit Airlines expect to increase seat capacity by 7.0 percent in 2016. Overall, seat capacity growth would likely be 3.1 percent to 4.6 percent in 2016.

Figure C - 4 illustrates the year-over-year change in seats-out by carrier at DTW for the 12-months ending June 30, 2016. For low cost carriers, Spirit and Southwest, the growth at DTW is very consistent with what the carriers communicated to investors about network capacity; 20 percent (high end) and 5 percent (low end), respectively. JetBlue’s network capacity is estimated to increase 7 percent to 9 percent (locally, the carrier added a route from DTW to Fort Lauderdale as part of their growth strategy).

Figure C - 4: Average Daily Seats DTW Year-over-Year Change (12-months ending June 30, 2016)



Source: Diio Mi

## PASSENGER DEMOGRAPHICS

The demographic analysis summarizes data and trends with respect to population, diversity and age distribution in the Air Trade Area. In addition to providing a general overview of the Air Trade Area, these factors, to varying degrees, also impact the demand for air travel.

## POPULATION

With over 50 percent of Michigan's population residing in the Air Trade Area, it is reasonable to conclude that a significant portion of the growth in population that occurred on a statewide basis is directly or indirectly tied to activities occurring within the Air Trade Area.

Population in the Air Trade Area is 5.3 million according to the 2010 US Census. Population since 1990 has fluctuated from 5.2 million to 5.5 million people in 2000 and then retreating to 5.3 million people in 2014. The overall population in the Air Trade Area between 1990 and 2014 grew at a Compounded Annual Growth Rate (CAGR) of 0.1 percent, slightly below Michigan's CAGR of 0.3 percent, and below the United States' CAGR of 1.0 percent, during this same period. For the purpose of the budget and long-term financial planning, it's important to note that the population projection for the Air Trade Area is expected to remain stable between 2014 and 2020.

Figure C - 5: Historical and Projected Population

AREA	HISTORICAL			PROJECTED	COMPOUNDED ANNUAL GROWTH RATE			
	1990	2000	2014	2020	1990-2000	2000-2014	1990-2014	2014-2020
Genesee County	430,938	436,965	412,895	412,574	0.1%	-0.4%	-0.2%	0.0%
Lapeer County	75,118	88,271	88,153	92,058	1.6%	0.0%	0.7%	0.7%
Lenawee County	91,753	99,069	99,047	100,405	0.8%	0.0%	0.3%	0.2%
Livingston County	116,655	158,345	185,596	200,695	3.1%	1.1%	2.0%	1.3%
Macomb County	718,280	790,846	860,112	879,649	1.0%	0.6%	0.8%	0.4%
Monroe County	133,892	146,364	149,824	155,531	0.9%	0.2%	0.5%	0.6%
Oakland County	1,086,685	1,196,165	1,237,868	1,261,452	1.0%	0.2%	0.5%	0.3%
St. Clair County	146,333	164,621	160,078	164,400	1.2%	-0.2%	0.4%	0.4%
Washtenaw County	283,987	324,372	356,874	373,572	1.3%	0.7%	1.0%	0.8%
Wayne County	2,107,915	2,057,255	1,764,804	1,700,675	-0.2%	-1.1%	-0.7%	-0.6%
Air Trade Area	5,191,556	5,462,273	5,315,251	5,341,011	0.5%	-0.2%	0.1%	0.1%
State of Michigan	9,311,319	9,952,450	9,909,877	10,075,375	0.7%	0.0%	0.3%	0.3%
United States	249,622,814	282,162,411	318,856,967	336,690,447	1.2%	0.9%	1.0%	0.9%

SOURCE: Woods and Poole Economics, Inc., 2016 Complete Economic and Demographic Data Source (CEDDS), April 2016.

PREPARED BY: Ricondo & Associates, Inc., October 2016.

## AGE DISTRIBUTION

The Air Trade Area has a higher percentage of residents in the age ranges most likely to travel. According to the US Travel Association, air travel frequency in the United States varies by age group. Persons between the ages of 35 and 54, which makes up approximately 28.1 percent of the population in the Air Trade Area, tend to travel the most by air. This represents an important source of demand for air service at the Airport.



**PERSONAL INCOME**

Another key indicator regarding demand for air travel is wealth, which can be measured by assessing levels of personal income. Personal income is defined as a composite measurement of market potential and indicates the general level of affluence of local residents. This indicator directly corresponds to an area’s ability to afford air travel, as well as an area’s attractiveness to business and leisure travelers.

A high percentage of households in the Air Trade Area are in the top income categories. In 2014, 40.6 percent of households had incomes of \$60,000 or more which was higher than the 38.2 percent of households in this income category for Michigan and slightly less than the 42.3 percent of households in this income category nationwide.

**Figure C - 6: Per Capita Personal Income**

PER CAPITA PERSONAL INCOME (2009 DOLLARS)			
YEAR	AIR TRADE AREA	STATE OF MICHIGAN	UNITED STATES
<b>Historical</b>			
2010	\$36,935	\$34,627	\$39,622
2011	\$38,283	\$35,855	\$40,762
2012	\$39,098	\$36,422	\$41,713
2013	\$39,005	\$36,438	\$41,310
2014	\$40,018	\$37,340	\$42,207
<b>Projected</b>			
2020	\$44,497	\$41,289	\$46,375
<b>Compounded Annual Growth Rate</b>			
2014-2020	1.8%	1.7%	1.6%

PERCENTAGE OF HOUSEHOLDS IN INCOME CATEGORIES (2014)			
INCOME CATEGORY (IN 2009 DOLLARS)	AIR TRADE AREA	STATE OF MICHIGAN	UNITED STATES
Less than \$29,999	31.9%	32.8%	30.3%
\$30,000 to \$59,999	27.5%	29.0%	27.3%
\$60,000 to \$74,999	9.8%	10.2%	10.2%
\$75,000 to \$99,999	12.0%	11.8%	12.1%
\$100,000 or More	18.8%	16.2%	20.0%

NOTE: As household income increases, air transportation becomes more affordable and, therefore, is used more frequently.

SOURCE: Woods and Poole Economics, Inc., 2016 Complete Economic and Demographic Data Source (CEDDS), April 2016.

PREPARED BY: Ricondo & Associates, Inc., October 2016.

**POPULATION DIVERSITY**

The Air Trade Area has an ethnically diverse population, a characteristic that contributes to demand for international air travel. In a global economy, ethnic diversity within a region’s labor force is a distinct economic advantage because employees with cultural and linguistic ties to international markets give companies an edge in establishing trade and investment opportunities. Key sectors in the Air Trade Area’s regional economy are manufacturing, technology and R&D. These are impacted by the contribution of labor and investment from immigrant communities and entrepreneurs. An ethnically diverse population also retains family ties that create demand for air travel services to and from homeland countries.

**Figure C - 7: World Region of Birth of Foreign-Born Population in Air Trade Area (2014)**

REGION	POPULATION	PERCENT
Asia	228,001	52.1%
India	46,745	10.7%
Iraq	45,295	10.3%
China <sup>1</sup>	23,621	5.4%
Lebanon	18,521	4.2%
Philippines	14,494	3.3%
Korea	12,393	2.8%
Europe	103,733	23.7%
Germany	12,603	2.9%
United Kingdom	10,500	2.4%
Americas <sup>2</sup>	87,885	20.1%
Mexico	37,433	8.5%
Canada	29,005	6.6%
Africa	16,846	3.8%
Oceania	1,379	0.3%
<b>Total</b>	<b>437,844</b>	<b>100.0%</b>

<sup>1</sup> Includes Hong Kong and Taiwan.

<sup>2</sup> Includes Latin America and Northern America regions.

SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community

PREPARED BY: Ricondo & Associates, Inc., October 2016.

**AIR TRAFFIC AT THE AIRPORT**

**AIRLINES SERVING THE AIRPORT**

As of September 2016, the Airport has 23 US flag carriers, comprising of four legacy/mainline carriers, four low-cost carriers and 13 regional carriers. Additionally, five foreign flag carriers offer scheduled passenger service. The Airport also has three all-cargo carriers.

**Figure C - 8: Airlines Serving the Airport**

As of September 30, 2016

<b>LEGACY/MAINLINE CARRIERS (4)</b>	<b>LOW COST CARRIERS (4)</b>	<b>REGIONAL CARRIERS (13)</b>
Alaska Airlines	Frontier Airlines	Air Wisconsin (d/b/a American Eagle)
American Airlines *	JetBlue	Compass (d/b/a Delta Connection)
Delta Air Lines *	Southwest Airlines *	Endeavor Air (d/b/a Delta Connection)
United Airlines *	Spirit Airlines *	Envoy (d/b/a American Eagle)
		ExpressJet (d/b/a Delta Connection & United Express)
		GoJet (d/b/a Delta Connection & United Express)
		Mesa (d/b/a United Express)
		Piedmont Airlines (d/b/a American Eagle)
		PSA (d/b/a American Eagle)
		Republic Airlines (d/b/a American Eagle & United Express)
		Shuttle America (d/b/a Delta Connection & United Express)
		SkyWest (d/b/a Delta Connection & United Express)
		Trans States (d/b/a American Eagle & United Express)
<b>FOREIGN FLAG CARRIERS (5)</b>	<b>ALL-CARGO CARRIERS (3)</b>	
Air Canada	Atlas Air (d/b/a DHL)	
Air France *	Federal Express *	
Lufthansa German Airlines *	United Parcel Service *	
Royal Jordanian		
Virgin Atlantic		

NOTES:

\* Signatory Airline.

SOURCES: Wayne County Airport Authority; Diio Mi, October 2016

## PASSENGER ACTIVITY

Figure C - 9 presents the historical share of enplanements by airline at the Airport between FY 2014 and FY 2016. In each year shown, Delta maintains the greatest market share ranging from 77.8 percent in FY 2014 to 74.0 percent in FY 2016. A corresponding increase in market share was gained from the North Terminal airlines which gained 3.6 percentage points since FY 2014. Spirit has gained the most market share climbing from 5.5 percent in FY 2014 to 7.7 percent in FY 2016. All other carriers (including their regional affiliates, as applicable) are presented in a descending order according to FY 2016 enplanements.

Figure C - 9: Historical Total Enplaned Passengers by Airline

(Fiscal Years Ending September 30)

	FY 2014		FY 2015		FY 2016		FY 2017 Budget	
	ENPLANED PASSENGERS	SHARE	ENPLANED PASSENGERS	SHARE	ENPLANED PASSENGERS	SHARE	ENPLANED PASSENGERS	SHARE
<b>South Terminal</b>								
Delta Air Lines	12,620,392	77.8%	12,475,818	75.9%	12,673,112	74.0%	12,728,300	73.6%
Air France	73,512	0.5%	75,576	0.5%	71,642	0.4%	75,300	0.4%
Virgin Atlantic	-	0.0%	20,442	0.1%	47,380	0.3%	21,100	0.1%
<b>Subtotal South Terminal</b>	<b>12,693,904</b>	<b>78.3%</b>	<b>12,571,836</b>	<b>76.5%</b>	<b>12,792,134</b>	<b>74.7%</b>	<b>12,824,700</b>	<b>74.1%</b>
<b>North Terminal</b>								
Spirit Airlines	898,449	5.5%	1,118,682	6.8%	1,311,599	7.7%	1,370,500	7.9%
American Airlines <sup>1</sup>	1,118,803	6.9%	1,135,751	6.9%	1,143,158	6.7%	1,194,000	6.9%
Southwest Airlines <sup>2</sup>	840,850	5.2%	784,365	4.8%	845,604	4.9%	840,800	4.9%
United Airlines	398,315	2.5%	455,206	2.8%	547,571	3.2%	557,600	3.2%
Frontier Airlines	98,958	0.6%	99,869	0.6%	149,124	0.9%	174,200	1.0%
JetBlue Airways	46,011	0.3%	105,591	0.6%	146,799	0.9%	143,200	0.8%
Lufthansa	77,650	0.5%	76,694	0.5%	71,472	0.4%	72,900	0.4%
Alaska Airlines	3,927	0.0%	57,636	0.4%	66,040	0.4%	67,200	0.4%
Air Canada (Jazz)	21,253	0.1%	23,980	0.1%	32,392	0.2%	29,900	0.2%
Royal Jordanian	14,755	0.1%	12,225	0.1%	13,403	0.1%	13,600	0.1%
Other	3,798	0.0%	1,943	0.0%	11,391	0.1%	11,400	0.1%
<b>Subtotal North Terminal</b>	<b>3,522,769</b>	<b>21.7%</b>	<b>3,871,942</b>	<b>23.5%</b>	<b>4,338,553</b>	<b>25.3%</b>	<b>4,475,300</b>	<b>25.9%</b>
<b>Airport Total</b>	<b>16,216,673</b>	<b>100.0%</b>	<b>16,443,778</b>	<b>100.0%</b>	<b>17,130,687</b>	<b>100.0%</b>	<b>17,300,000</b>	<b>100.0%</b>

NOTE: Figures may not add due to rounding; Includes regional affiliated carriers, as applicable

<sup>1</sup> American Airlines and U.S. Airways merged on December 9, 2013, and a single Operating Certificate for the two airlines was issued by the Federal Aviation Administration (the "FAA") on April 8, 2015. Historical enplanements for these carriers are combined in this table.

<sup>2</sup> Southwest and AirTran finalized its merger in December 2015, historical enplanements for these carriers are combined in this table.

SOURCE: Wayne County Airport Authority, October 2016

Source: WCAA

Figure C - 10 illustrates the Airport’s historical trends related to the domestic and international passenger activity. Over the ten-year span since 2005, total enplanements have decreased by a 0.6 percent CAGR. However, there are two distinct periods. First, coinciding with a global economic recession, enplanements contracted between FY 2005 and FY 2010 by 2.8 CAGR. Since 2010, total enplanements have grown by 1.0 percent CAGR.

Figure C - 10: Historical Domestic and International Enplanements

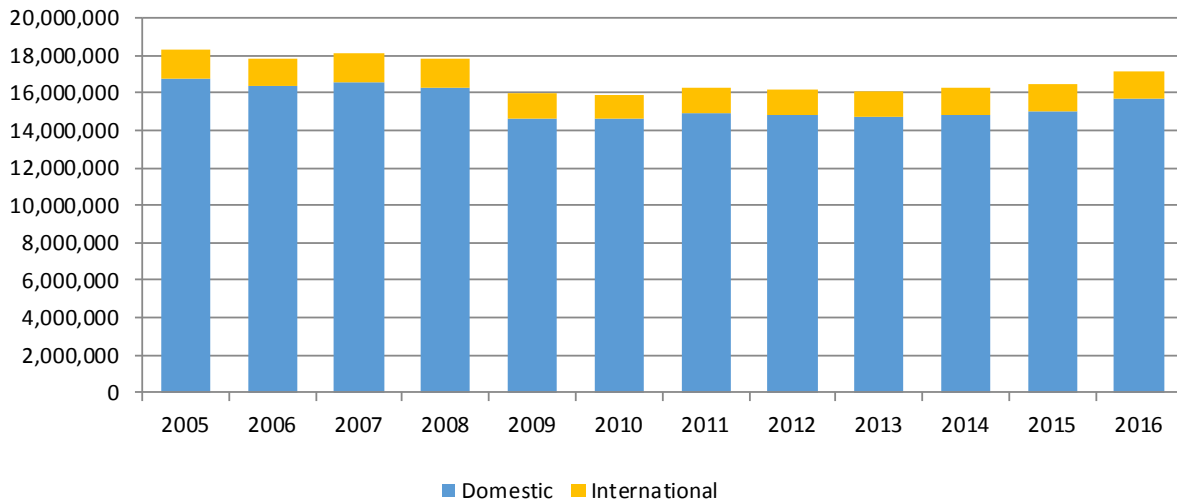
(Fiscal Years Ending September 30)

YEAR	DOMESTIC ENPLANEMENTS	ANNUAL GROWTH	INTERNATIONAL ENPLANEMENTS	ANNUAL GROWTH	TOTAL ENPLANED PASSENGERS	ANNUAL GROWTH	INTERNATIONAL ENPLANEMENT SHARE
2005	16,758,421	5.3%	1,527,861	9.0%	18,286,282	5.6%	8.4%
2006	16,321,812	(2.6%)	1,478,120	(3.3%)	17,799,932	(2.7%)	8.3%
2007	16,581,322	1.6%	1,526,768	3.3%	18,108,090	1.7%	8.4%
2008	16,271,128	(1.9%)	1,560,103	2.2%	17,831,231	(1.5%)	8.7%
2009	14,622,391	(10.1%)	1,318,741	(15.5%)	15,941,132	(10.6%)	8.3%
2010	14,614,045	(0.1%)	1,262,336	(4.3%)	15,876,381	(0.4%)	8.0%
2011	14,912,532	2.0%	1,313,669	4.1%	16,226,201	2.2%	8.1%
2012	14,802,280	(0.7%)	1,367,304	4.1%	16,169,584	(0.3%)	8.5%
2013	14,665,317	(0.9%)	1,412,335	3.3%	16,077,652	(0.6%)	8.8%
2014	14,773,126	0.7%	1,443,547	2.2%	16,216,673	0.9%	8.9%
2015	15,032,279	1.8%	1,411,499	(2.2%)	16,443,778	1.4%	8.6%
2016	15,711,948	4.5%	1,418,739	0.5%	17,130,687	4.2%	8.3%

**Compound Annual Growth Rate**

2005 - 2010	(2.7%)	(3.7%)	(2.8%)
2010 - 2015	1.0%	1.0%	1.0%
2005 - 2016	(0.6%)	(0.7%)	(0.6%)

**Enplaned Passengers**



SOURCE: Wayne County Airport Authority, October 2016

## DOMESTIC O&amp;D MARKETS

An important airport characteristic is the distribution of its O&D markets, which is a function of air travel demands and available services and facilities. Figure C - 11 illustrates the Airport's top 20 domestic O&D markets for CY 2015, as measured by the number of passengers. As shown, the top 20 markets accounted for approximately 47.8 percent of total domestic O&D passengers. All top 20 markets have non-stop service from the Airport. With the exception of Dallas, Delta is the primary carrier for all 20 top markets and the sole provider of non-stop service to the San Francisco bay area. The remaining 19 markets are served by at least one additional carrier.

Figure C - 11: Top 20 O&amp;D Markets

(Passengers in thousands for Calendar Year 2015)

RANK	MARKET	TOTAL O&D PASSENGERS	PERCENTAGE OF O&D PASSENGERS	PRIMARY CARRIER	MARKET SHARE	SECONDARY CARRIER	MARKET SHARE
1	New York <sup>1</sup>	1,015	6.9%	Delta	52.4%	Spirit	17.3%
2	Florida South <sup>2</sup>	994	6.8%	Delta	58.0%	Spirit	21.3%
3	Orlando	778	5.3%	Delta	64.2%	Spirit	24.7%
4	Los Angeles <sup>3</sup>	705	4.8%	Delta	50.5%	Spirit	15.6%
5	Las Vegas	696	4.8%	Delta	44.6%	Spirit	38.9%
6	Washington D.C. <sup>4</sup>	678	4.6%	Delta	63.4%	Southwest	18.5%
7	Atlanta	560	3.8%	Delta	60.8%	Southwest	18.2%
8	Tampa	537	3.7%	Delta	57.8%	Spirit	29.1%
9	Boston	517	3.5%	Delta	56.7%	JetBlue	25.5%
10	Dallas <sup>5</sup>	488	3.3%	American	34.1%	Delta	31.6%
11	Denver	477	3.3%	Delta	35.5%	Southwest	25.2%
12	Chicago <sup>6</sup>	475	3.2%	Delta	52.1%	Southwest	18.2%
13	Fort Myers	467	3.2%	Delta	57.8%	Spirit	35.4%
14	San Francisco <sup>7</sup>	464	3.2%	Delta	64.6%	Southwest	11.2%
15	Phoenix	398	2.7%	Delta	48.0%	Southwest	21.2%
16	Houston <sup>8</sup>	347	2.4%	Delta	31.4%	Spirit	30.0%
17	Seattle	289	2.0%	Delta	66.5%	Alaska	22.0%
18	Nashville	248	1.7%	Delta	61.8%	Southwest	33.5%
19	Philadelphia <sup>9</sup>	243	1.7%	Delta	37.4%	Frontier	27.2%
20	Minneapolis	242	1.7%	Delta	68.2%	Spirit	18.5%
<b>Other O&amp;D Markets</b>		<b>4,003</b>	<b>27.4%</b>				
<b>Domestic O&amp;D Passengers</b>		<b>14,621</b>					
<b>O&amp;D % of Domestic Passengers</b>		<b>47.8%</b>					

NOTE: Figures may not add due to rounding

<sup>1</sup>Includes John F. Kennedy (JFK), LaGuardia (LGA), and Newark, NJ (EWR).<sup>2</sup>Includes Fort Lauderdale International Airport (FLL) and Miami International Airport (MIA).<sup>3</sup>Includes Los Angeles International (LAX), Burbank (BUR), Ontario International (ONT), and Long Beach Municipal (LGB).<sup>4</sup>Includes Baltimore/Washington International Airport (BWI), Washington Dulles International Airport (IAD), and Washington National Airport (DCA).<sup>5</sup>Includes Dallas-Ft. Worth Airport (DFW) and Dallas Love Field (DAL).<sup>6</sup>Includes Chicago/O'Hare (ORD) and Chicago/Midway (MDW).<sup>7</sup>Includes San Francisco International (SFO), Oakland International (OAK) and San Jose International (SJC).<sup>8</sup>Includes Houston Intercontinental (IAH) and Houston Hobby (HOU).<sup>9</sup>Includes Philadelphia International Airport (PHL) and Trenton-Mercer County Airport (TTN).

SOURCE: US DOT Origin &amp; Destination Survey of Airline Passenger Traffic, Domestic, October 2016

## INTERNATIONAL O&amp;D MARKETS

Figure C - 12 illustrates data on the Airport's top 25 international markets for O&D passengers. Non-stop (including seasonal service) is provided to 23 of these markets. Cancun is the most popular international destination for the Airport's O&D passengers, serving approximately 195,000 passengers in CY 2015.

Figure C - 12: Top 25 International O&amp;D Markets

(Calendar Year 2015)

RANK	MARKET	CODE	TOTAL INTERNATIONAL	NON-STOP
			O&D PASSENGERS	SERVICE
1	Cancun, Mexico	CUN	195,477	●
2	London, United Kingdom	LHR	99,179	●
3	Punta Cana, Dominican Republic	PUJ	89,709	●
4	Frankfurt, Germany	FRA	85,251	●
5	Shanghai, China	PVG	74,169	●
6	Mexico City, Mexico	MEX	66,411	●
7	Tokyo, Japan	NRT	59,464	●
8	Montego Bay, Jamaica	MBJ	59,183	●
9	Beirut, Lebanon	BEY	52,087	
10	Monterrey, Mexico	MTY	48,736	●
11	Paris, France	CDG	44,454	●
12	Seoul, South Korea	ICN	35,644	●
13	Beijing, China	PEK	35,471	●
14	San Jose del Cabo, Mexico	SJD	31,794	●
15	Sao Paulo, Brazil	GRU	30,523	●
16	Nagoya, Japan	NGO	29,847	●
17	Amsterdam, Netherlands	AMS	29,212	●
18	Rome, Italy	FCO	29,061	●
19	Vancouver, Canada	YVR	28,973	●
20	Montreal, Canada	YUL	28,166	●
21	Nassau, Bahamas	NAS	27,985	●
22	Toronto, Canada	YYZ	25,563	●
23	Aruba, Aruba	AUA	25,300	
24	Puerto Vallarta, Mexico	PVR	25,008	●
25	Amman, Jordan	AMM	22,948	●

SOURCE: IATA/Diio FMdg, October 2016

## PEER AIRPORTS

## AIRPORTS KEY INDICATORS

## ▲ AIRPORTS FINANCIAL POSITION

Enplanement growth will support limited revenue increases

## ▲ ENPLANEMENT GROWTH LOWERS CPE

Increasing debt service offset with enplanement growth

## ▼ FEDERAL FUNDING

AIP grants and PFCs Uncertainty

In December 2014, Moody's Investor Services upgraded its outlook for the US airport industry to "positive" from "stable" citing the fundamental business conditions of economic growth and seat capacity discussed above. Their positive outlook was reaffirmed in December 2015. They write:

*We expect that airports will report higher revenue in 2015-16, given that enplanements will surpass budgeted expectations. The increased revenue will lead to stronger debt-service coverage and liquidity, while lowering the airport-related cost to airlines per enplaned passenger.*

Enplanement growth generates more revenue from parking fees and concessions sales along with providing additional Passenger Facility Charges (PFCs) revenue to pay debt service.

## TERMINAL REDEVELOPMENT

The airlines' fleet reconfigurations de-emphasize the need for airports to increase airfield capacity but instead focus capital improvements on terminal redevelopment. The switch to larger aircraft for increased seat capacity and fewer flights relieves runway and taxiway congestion. Broadly speaking, enplanements will grow at most large airports without requiring intensive airfield capital projects.

On the other hand, enplanement growth will put pressure on terminal capacity. The switch to larger planes potentially requires larger hold rooms than residing in existing terminal areas that are designed for small regional jets. Enplanement growth may also necessitate the need for additional concession space in terminals. Further, larger aircraft may require some airports to add or reconfigure apron space to accommodate parking for larger jets. Many capital improvement plans at peer airports are focusing on terminal redevelopment.

## EXISTING PROJECTS AT PEER AIRPORTS

A few notable terminal redevelopment projects that are underway at large hub airports with obsolete facilities include:

- San Francisco International Airport (SFO) \$2.4 billion redeveloping Terminal 1, one of its oldest terminals built in the early 1960's; the expected completion date is 2024
- Bush Intercontinental Airport (IAH) \$1.5 billion plan to modernize and expand Terminal D to 15 gates
- Proposed \$3.6 billion replacement of the central terminal building at LaGuardia Airport (LGA)
- Salt Lake City International Airport (SLC) \$1.8 billion, three story terminal and linear concourse will be under construction for the next eight to ten years to replace the current terminal; the plans include new parking facilities and half of the new terminal concourse to be completed by 2019



Rendering of LaGuardia Airport Terminal Redevelopment Project

- Orlando International Airport (MCO) \$1.8 billion terminal expansion opening 2019 will include between 16 to 21 new gates
- New Orleans Louis Armstrong Airport (MSY) \$807 million terminal redevelopment project set to open in 2018 with 30 gates

Potential Projects:

- Kansas City International (MCI) plans for a new terminal are on hold for the near future as public support is lacking; identified by the airport’s master plan, a new terminal is estimated to cost \$1 billion



Salt Lake City International Airport Terminal Redevelopment Project



New Orleans Louis Armstrong International Airport Terminal Redevelopment Project

CAPITAL NEEDS AT DTW

With two relatively new terminals, the Airport has a competitive CPE advantage to peer airports with massive terminal redevelopment projects that are planned or are currently underway. The current five-year capital improvement plan (CIP) addresses runway reconstruction and infrastructure improvements that sustain operational excellence.

However, enplanement growth and fleet reconfigurations may necessitate additional gates at the North Terminal as aggressive growth from Alaska, JetBlue and Spirit put pressure on common use gate availability. The terminal was designed to accommodate an expansion of four future gates following the demolition of the L.C. Smith and Berry terminals. The economic downturn that began in 2008 coincided with the terminal’s opening and the need to expand has not been warranted since. The environment has changed and the Authority is exploring the build-out of the additional gates, however the scale of the project is substantially less than the massive redevelopment projects at peer airports listed above.

Figure C - 13: North Terminal Enplanements FY 2009 to FY 2015



Enplanements at the North Terminal have grown from 2.9 million in FY 2009 to 3.9 million in FY 2015, a CAGR of 5.0 percent. The FY 2017 Budget forecasts North Terminal enplanements to approach 4.5 million. The Authority will start construction on a three-gate expansion at the terminal’s north end. The addition of a wide-body gate at the southern end cannot begin until the L.C. Smith Terminal is demolished (planned for FY 2018).

FAA REAUTHORIZATION

The agency’s current authorization, including funding for the Airport Improvement Program, expires in September 2017. The reauthorization bill did not include an increase of the federal cap on PFCs from \$4.50 to \$8.50 per flight segment as sought by the participating airports. “Today’s passage of the Senate FAA bill is a step in the right direction for providing airports with needed certainty to tackle important safety and security projects funded through the essential Airport Improvement Program,” says Airports Council International – North America President and CEO,

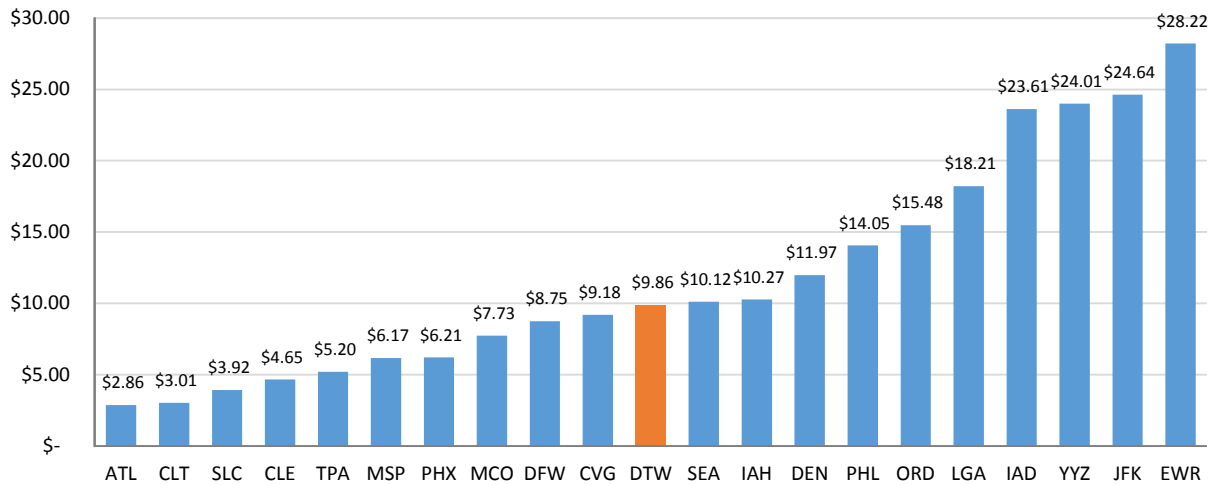


Kevin M. Burk. “We look forward to continuing our work with Congress to advance airport priorities, like modernizing the locally set Passenger Facility Charge user fee, as the bill moves through the legislative process.”

**COST PER ENPLANEMENT**

The Authority’s financial goal focuses on remaining cost competitive among peer airports which compete for connecting passengers. Across the airport industry, substantial capital improvements and the associated rise of debt expense are driving CPE increases. With two relatively new terminals, DTW is at a competitive advantage to peers undergoing massive terminal projects and assuming more debt. As illustrated in Figure C - 14 the Airport’s CPE is reasonable as compared to other carriers and affordable for airlines. A plan of financial austerity that manages operating costs will help the Airport sustain its competitiveness.

Figure C - 14: Cost per Enplanement to the Airlines FY 2015



Source: ACI-NA 2016 (FY 2015) Benchmarking Survey

**INDUSTRY OUTLOOK**

The financial outlook for the aviation industry is positive. Driven by US economic growth and consumer spending, demand for air service is very strong pushing system-wide enplanement growth between 3 to 4 percent in the coming year according to Moody’s investor services. To airports, enplanement growth translates into higher parking and concessions revenue.

While the outlook is optimistic, the landscape for the year ahead is not without challenges or risk. Hub airports vie for connecting passengers in a financially competitive landscape among peers as measured by CPE. Capital needs are requiring airports to take on more debt which in turn is driving up CPE system-wide. Federal grants and PFCs contribute substantial resources toward airport capital improvements, however, the future of these programs is uncertain. The Authority’s financial goal focuses on remaining cost competitive among peer airports which compete for connecting passengers. A holistic plan of financial austerity that manages operating costs will help the Airport sustain its competitiveness.

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# THE WAYNE COUNTY AIRPORT AUTHORITY

## AT A GLANCE

The Wayne County Airport Authority (the Authority) is an independent public benefit agency and considered an agency of the Charter County of Wayne, Michigan (Wayne County) for the purposes of federal and state laws, but is not subject to any county charter requirements or the direction or control of either the Wayne County Executive or Commission. Pursuant to Public Act 90 (the Authority Act), Michigan Public Acts of 2002 (effective March 26, 2002), the Authority has operational jurisdiction of Detroit Metropolitan Wayne County Airport, Willow Run Airport and the Airport Westin Hotel, with the exclusive right, responsibility and authority to occupy, operate, control and use them.

### WAYNE COUNTY AIRPORT AUTHORITY BOARD

The Authority is managed by an independent, seven-member Board of Directors. Four members are appointed by the Wayne County Executive, two members are appointed by the Governor and one member is appointed by the Wayne County Commission. Profiles for the Board Members who participated in the development and approval of the budget are illustrated below.

**Michael Garavaglia** is Vice Chairperson of the Wayne County Airport Authority Board. Garavaglia is President and founder of Capitol Relations, LLC, a Farmington Hills-based lobbying and consulting agency. The firm represents a wide range of clients in the health care and insurance industries as well as county and municipal governments. Prior to establishing his firm, he served as the Chief Administration Officer for the Michigan Department of Attorney General under former Michigan Attorney General Mike Cox. He also was the Director of Legislative Affairs for Attorney General Cox. Licensed by the State of Michigan as both a real estate builder and a real estate broker, Garavaglia was president and CEO of his own real estate development company for more than a decade. He previously worked in key accounting and financial positions for Turner Construction and General Motors. Garavaglia is a director on the boards of the Detroit Medical Center and Forgotten Harvest. He holds a bachelor's degree in Accounting and a master's degree in Economics, both from the University of Detroit-Mercy. A resident of Livonia, he was appointed to the Wayne County Airport Authority Board by Wayne County Executive Robert A. Ficano. His term on the Airport Authority Board expires September 30, 2020.

**Ronald E. Hall, Jr.** is Secretary of the Wayne County Airport Authority Board. Hall is CEO/President at Bridgewater Interiors, where he previously served as Vice President & General Counsel after having joined the company in 2007. Prior to joining Bridgewater, Hall spent five years at Johnson Controls, Inc., first as an attorney in its Law Department, and later in various positions of increasing responsibility in operations and program management. Before joining Johnson Controls, he practiced corporate law for several years at a prominent Detroit regional law firm. Hall earned his Juris Doctor degree at the University of Michigan Law School, where he was an associate editor on the Michigan Journal of International Law, and a recipient of the Dean's Scholarship Award and other awards. Prior to his career in law, Hall was a professional soldier. A West Point graduate, he was commissioned into the Army's field artillery branch, and was decorated for meritorious service with the 1st Cavalry Division in the Persian Gulf. He attained the rank of Captain before resigning from active duty. Hall sits on one corporate and several nonprofit boards, holding several leadership positions therein, and is an alumnus of Leadership Detroit. He was appointed to the Wayne County Airport Authority Board by Governor Rick Snyder. His term on the Airport Authority Board expires September 30, 2020.

**Nabih H. Ayad Esq.** was appointed to the Wayne County Airport Authority Board by Wayne County Executive Robert Ficano in November 2014. Ayad is a private practice attorney from Dearborn with law offices in Canton,

Michigan. Ayad is Chairman of the Board for the Arab American Civil Rights League (ACRL). From December of 2008 to December of 2011, Ayad was a Michigan Civil Rights Commissioner, appointed by former Governor Granholm. He is a member of the Advisory Counsel on Arab and Chaldean Affairs for the State of Michigan since 2007. Ayad was Vice President of the Arab-American Political Action Committee (AAPAC); on the Detroit NAACP Legal Redress Committee; Chairman of the NAACP Western Wayne County Legal Redress Committee for 18 cities in Western Wayne County and on the ACLU Lawyers Committee for the State of Michigan since 2002. Ayad was on the National Executive Board for the American-Arab Anti-Discrimination Committee (ADC) and also served as Chairman of the ADC Advisory Board for the State of Michigan for over 7 years. Ayad was also Co-Chair of ALPACT (Advocates and Leaders for Police and Community Trust) an organization made up of 100 law enforcement and civil rights groups where he co-chaired with the head of the FBI in Detroit. Ayad received his Juris Doctorate from the Detroit College of Law at MSU and B.S. in Accounting from Wayne State School of Business in Detroit. His term on the Airport Authority Board expires September 30, 2020.

**Irma Clark-Coleman**, Wayne County Commissioner, was appointed to the Wayne County Airport Authority Board by her peers in February 2015. She is in her third two-year term on the Commission and has served since 2011. Prior to that, she served for eight years in the Michigan Senate and four years in the Michigan House of Representatives. Before going to Lansing, she worked for Wayne County for 31 years, starting with the Road Commission in 1967. While working for the county, she served for seven years on the Detroit Public Schools Board of Education. In 2004, Gov. Jennifer Granholm appointed Clark-Coleman to the National Education Commission of the States as well as the Cherry Commission on Higher Education. She is also a former member of the National School Board Association Board of Directors, Michigan Association of School Boards Board of Directors and National Alliance of Black School Educators. Clark-Coleman graduated from Pershing High School in Detroit and went on to earn bachelor's and master's degrees from Wayne State University. Her term on the Airport Authority Board will expire September 30, 2018.

**Dr. Curtis L. Ivery** became Chancellor of Wayne County Community College District (WCCCD) on September 1, 1995. As the Chief Executive Officer, Ivery directs the five campus, multi-cultural institution serving more than 72,000 students. He is currently serving on the Board of Directors for the American Association of Community Colleges (AACCC). Ivery oversees an operating budget of \$100 million and a \$650 million capital improvement program. Prior to becoming Chancellor of WCCCD, Ivery served as Vice President of Instruction and acting President at Mountain View College of the Dallas County Community College District (DCCCD). In 1996, the Life Extension Foundation selected Ivery as the "Community College President of the Year", and in 2004 he received the Walter E. Douglas Humanitarian Award from Detroit Omega Foundation Inc. In 2010, Ivery was chosen as one of the first recipients of the Dr. Charles H. Wright Vision Awards in celebration of higher education. Ivery is an accomplished author publishing books, "Journeys of Conscience", "Reclaiming Integration and the Language of Race in the Post-Racial Era", and others, along with publishing over 600 articles for weekly and monthly metropolitan newspapers in the United States. Ivery was appointed to the Wayne County Airport Authority Board by Wayne County Executive Warren Evans. His term on the Airport Authority Board expires September 30, 2018.

**Michael J. Jackson, Sr.** is Executive Secretary/Treasurer of the Michigan Regional Council of Carpenters and Millwrights. In this role, he serves as Chief Operating Officer for the organization representing more than 20,000 carpenters, millwrights, resilient floor layers and pile drivers in public and private workplaces through ten locals across Michigan. Prior to his election to the union's highest state office in 2009, he served as the Council's Political Director. Jackson began his career as a Journeyman Field Carpenter in 1989, and has since held a number of progressively responsible positions within the organization from organizer and business agent to office manager. Throughout his career, Jackson has become a nationally recognized labor and civic leader. He has been honored with the Spirit of Detroit Award by Detroit City Council in recognition of outstanding achievement and service to the City. He served as president of a Central Labor Council of the AFL-CIO, and on the boards of the Robert Ficano Hope Foundation and Wayne County Business Development Corporation. Jackson was also appointed by Michigan

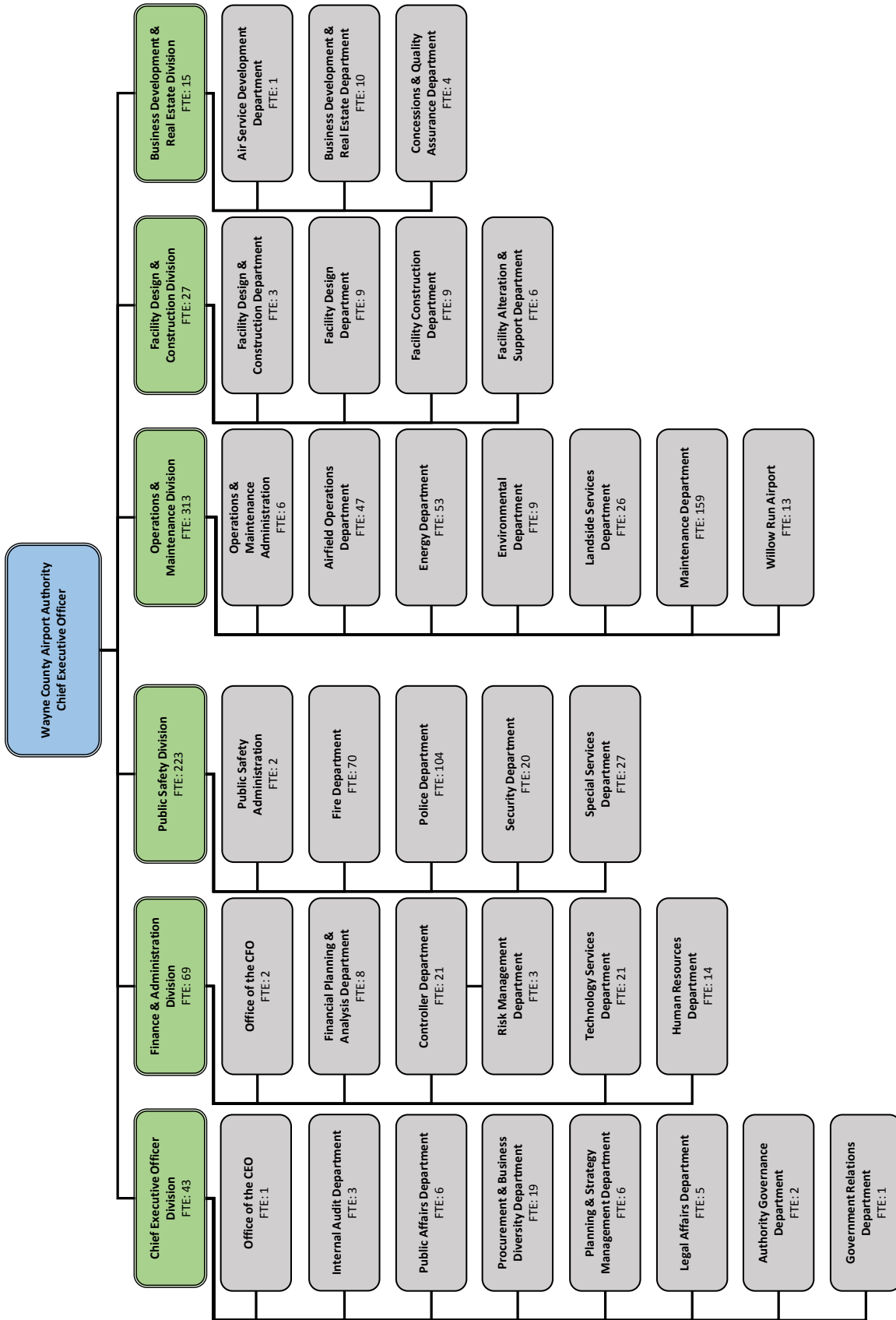
Governor Rick Snyder to serve on his Economic Development Transition Team and as a board member of the Michigan Economic Growth Authority. He is a resident of Dearborn and appointed to a six-year term on the Airport Authority Board by Wayne County Executive Robert A. Ficano expiring September 30, 2017.

#### CHANGES TO THE BOARD SINCE APPROVAL OF THE BUDGET

On October 1, 2016, Suzanne K. Hall's term on the Wayne County Airport Authority Board expired.

Michigan Governor Rick Snyder, announced the selection of Mark Ouimet for an appointment to the Airport Authority Board effective October 1, 2016. Ouimet, an Ann Arbor resident, currently serves as a member of the Board of Directors of Hantz Bank and Hantz Holding Company. Ouimet is a former member of the Michigan House of Representatives and the Washtenaw County Board of Commissioners. He also served as Chief Operating Officer of his alma mater, Northwood University, from 1991 to 2002. Ouimet holds a bachelor's degree in Business and Finance from Northwood. His term on the Airport Authority Board will expire October 1, 2022.

WAYNE COUNTY AIRPORT AUTHORITY ORGANIZATIONAL CHART



DETROIT METROPOLITAN AIRPORT

The Airport is the primary air carrier and cargo airport serving Southeast Michigan, including Detroit and the ten-county surrounding areas. Furthermore, as a hub airport in Delta’s route network, the Airport serves a key role as a domestic connection point and an international gateway that attracts passengers from beyond its primary catchment area due to the level of airline service offered. The Airport is Delta’s second busiest hub in terms of its scheduled departures behind only Hartsfield-Jackson Atlanta International Airport (ATL), the busiest airport in the world and third busiest in total enplaned passengers and seats.

NATIONAL PERSPECTIVE

According to preliminary Airports Council International (ACI) traffic data for calendar year (CY) 2015, the Airport ranked 18th in the US for total passengers, with approximately 33.4 million passengers. Also in CY 2015, the Airport ranked 17th nationwide in total aircraft operations, with approximately 379,000 takeoffs and landings.

As a major hub airport, origin and destination (O&D) and connecting passengers are almost equal in terms of enplanements. As shown in Figure B - 1, for CY 2015, 48 percent of the Airport’s total domestic enplanements were O&D passengers and the remaining 52 percent were connecting passengers which were mostly serviced by Delta and the Delta Connection Carriers.

As shown in Figure B - 2, for FY 2016, Delta and the Delta Connection Carriers totaled approximately 74.7 percent of the Airport’s enplanements. The Airport also plays the role of an international gateway for Delta, attributing 1.3 million of the total 1.4 million international enplaned passengers to the air carrier and their partners. Spirit Airlines, Southwest Airlines and American Airlines were the next three largest carriers in terms of enplanements at the Airport, however a much smaller percentage of the market share. Even though Delta and the Delta Connection Carriers account for approximately 75 percent of the passenger activity at the Airport, the other air carriers, including low cost carriers, foreign flag carriers, charter carriers and regional carriers provide service to many of the Airport’s top O&D markets. During FY 2016, the airlines serving the Airport had approximately 516 scheduled departures with non-stop service to 139 destinations. The following maps illustrate the Airport’s non-stop service to 116 domestic and 23 international destinations, including some markets on a seasonal demand basis.

Figure B - 1: DTW Domestic Originating & Connection Passengers

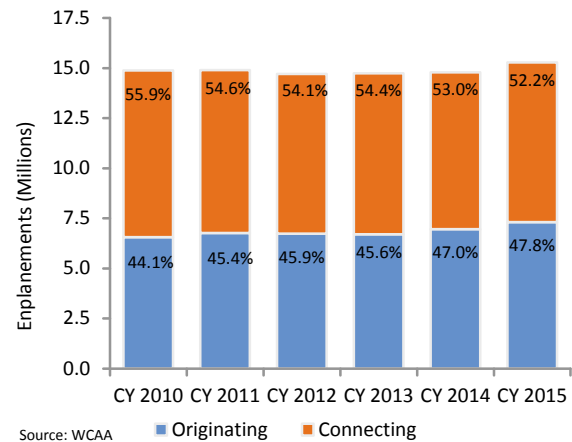


Figure B - 2: FY 2016 Enplanement Market Share by Airline at DTW

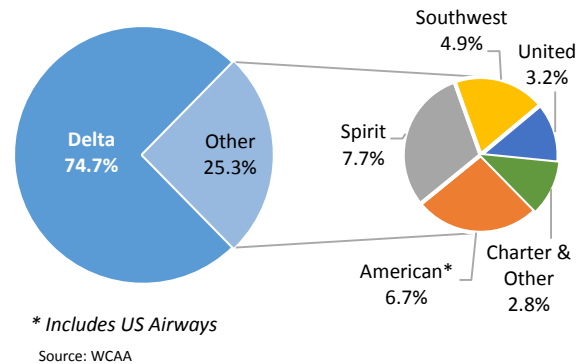


Figure B - 3: Scheduled Non-stop Domestic Destinations

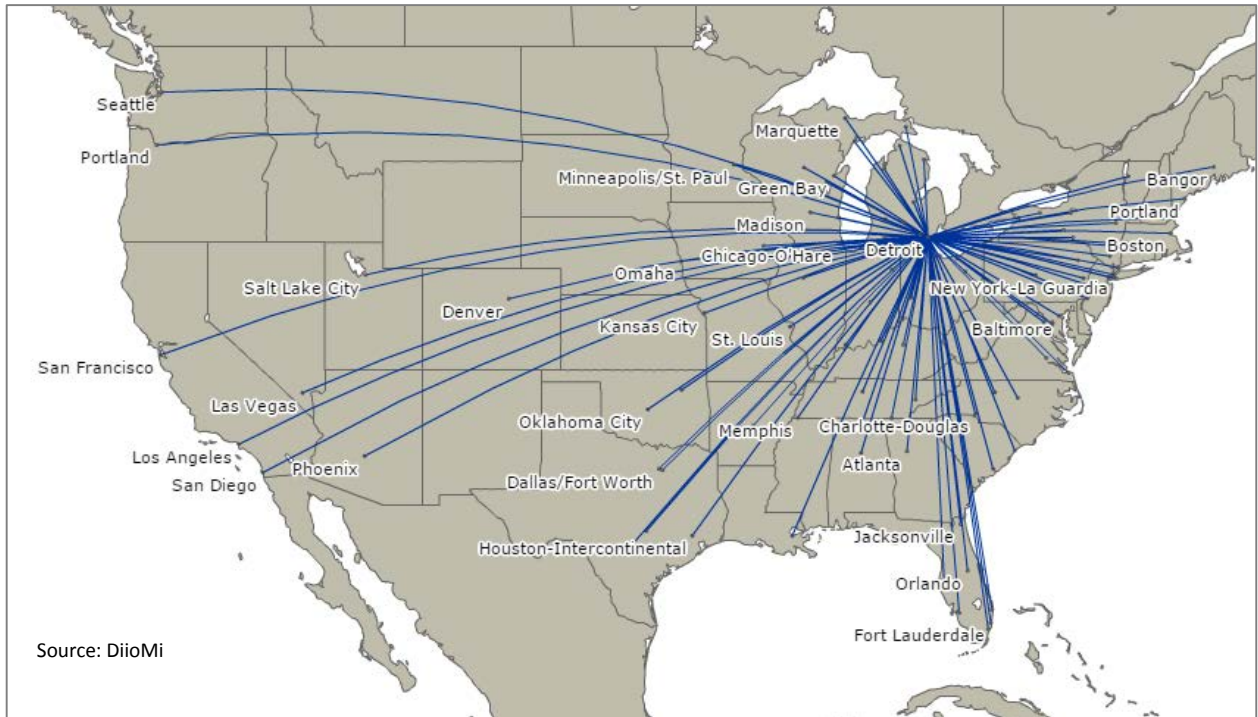
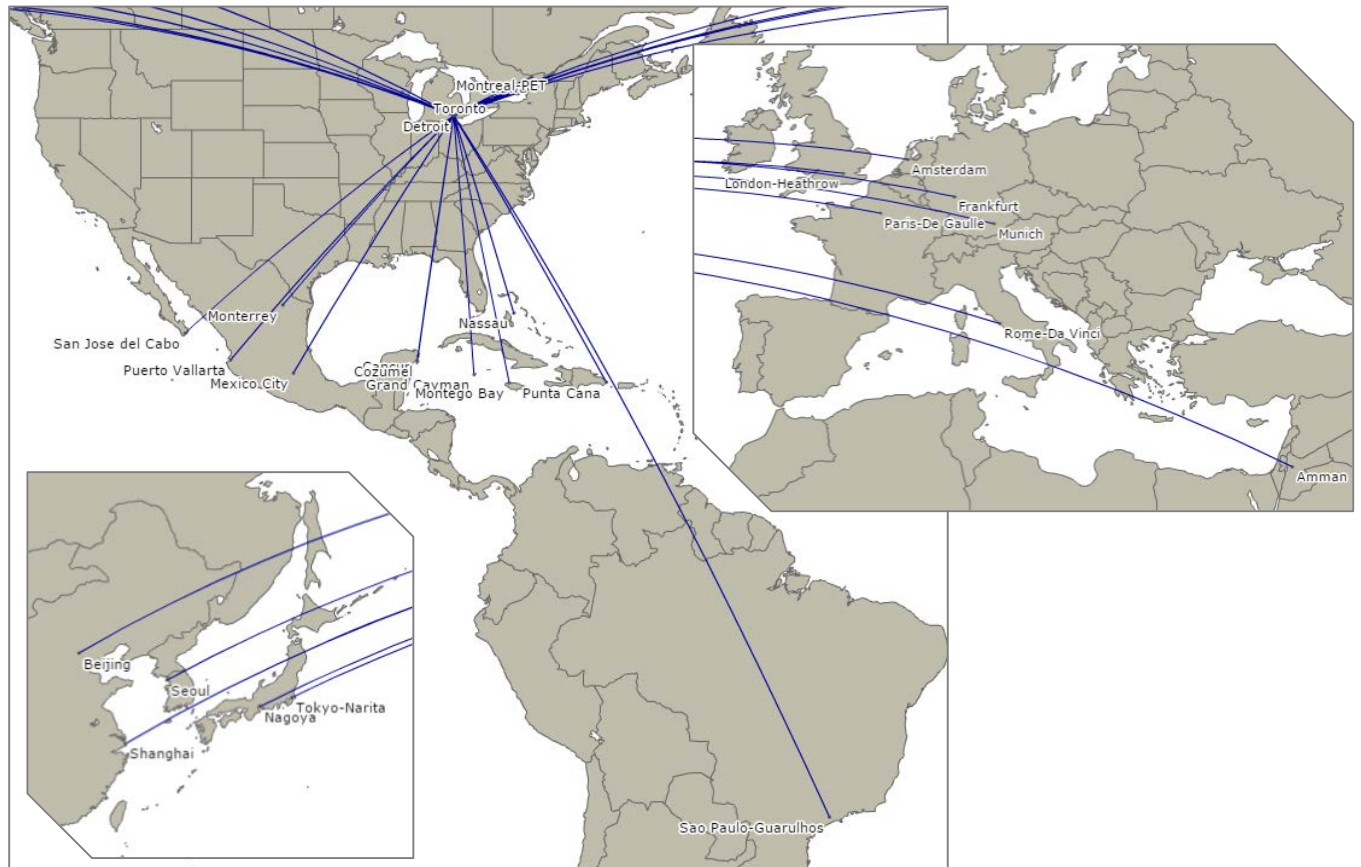


Figure B - 4: Scheduled Non-stop International Destinations



Source: DiiMi



**AIR TRADE AREA**

Not only is the Airport a key component of the US air transportation system, it is also the primary air carrier airport serving the City of Detroit and the ten-county Air Trade Area, which encompasses the counties of Genesee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw and Wayne. The Airport is also accessible and within close geographical proximity to Ontario, Canada and Northwest Ohio, which serves as an extended secondary Air Trade Area. It is the economic strength of the ten counties encompassing the primary Air Trade Area that provides the principal base for supporting O&D air travel at the Airport. However, the number of non-stop domestic and international destinations served by the Airport and the frequency with which those

Figure B - 5: Map of the Air Trade Area



SOURCE: Map Resources, 2007 (vector map graphics); Ricondo & Associates, Inc, May 2012.  
 PREPARED BY: Ricondo & Associates, Inc., May 2012.

destinations are served, tends to attract passengers from a broader geographic region who may prefer to use the Airport instead of an airport located closer to their residence.

Based on location, accessibility and services available at other commercial service airports within nearby service areas, the borders of the Air Trade Area are generally established by Toledo Express Airport (TOL) to the south, Fort Wayne International Airport (FWA) to the southwest, Lansing Capital City Airport (LAN) to the west and Bishop International Airport (FNT) to the north. The closest large hub airport to the Air Trade Area is Cleveland-Hopkins International Airport (CLE), which, despite experiencing activity reductions, primarily serves its own Air Trade Area approximately 150 miles southeast of the Airport across Lake Erie. CLE had approximately 5.1 million scheduled seats in CY 2015, representing approximately 26 percent of the scheduled departing seat capacity at the Airport. Among the remaining airports in the Air Trade Area or nearby, FNT had the most scheduled departing seats in CY 2015, approximately 518,000 seats, or approximately 3 percent of the total scheduled departing seat capacity at the Airport in the same year.

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## LOCAL ECONOMY

According to the Detroit Regional Chamber, the Air Trade Area has approximately 300,000 existing businesses including 13 Fortune 500 companies. With its high concentration of Fortune 500 companies, high-capacity transportation infrastructure, skilled workforce and research and development (R&D) facilities, the Air Trade Area has been gaining recognition as one of the best places in the nation for new and expanded business according to the Detroit Regional Chamber. The Detroit Regional Chamber's 2014 "State of the Region" publication notes that the Detroit region remains one of the fastest growing in the nation, ranked second only to Dallas for GDP growth against peer metropolitan areas and has experienced GDP growth each of the past five years greater than 1.3 percent.

In addition to post-recession growth in manufacturing, the technology sector is a growing contributor to the Air Trade Area's recovery. This growth in the technology sector has occurred as automobile makers and their suppliers are recruiting, often in competition with Silicon Valley, computer programmers and other workers with the technological skills necessary in the modern automobile manufacturing environment. The relocation of major high-tech operations of Quicken Loans and CompuWare, among others, to downtown Detroit has also attracted high-tech workers to the Air Trade Area. The Air Trade Area's technology sector growth is illustrated in a 2013 report by *Dice.com*, an information technology and engineering career website, which identifies Detroit as one of the fastest growing metropolitan areas for technology jobs. In that report, the Detroit metropolitan area was cited as having 10 percent year-over-year growth in technology jobs being posted behind only St. Louis, Charlotte, Austin and Phoenix.

A study conducted by a team from the University of Michigan-Dearborn College of Business titled "The Economic Impact of Detroit Metropolitan Airport 2013" documents the importance of Detroit Metropolitan Wayne County Airport to the economies of Michigan and the metropolitan Detroit region. The study concluded that through both the immediate impact of air transportation and the effects of visitor's spending money in Michigan, the Airport has an economic impact of approximately \$10.2 billion, which includes \$3 billion in income to businesses and workers in the area. This economic activity is responsible for 86,000 jobs and almost \$300 million in state and local tax revenue.

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## PROMINENCE OF THE AUTOMOTIVE INDUSTRY

Detroit and the surrounding area is well known as "The Automotive Capital of the World," as it is home to three of the world's largest automakers: General Motors Company, Ford Motor Company and Fiat Chrysler Automobiles. In addition to the "Big Three" US automakers, the Air Trade Area is home to important facilities of foreign

manufacturers including research and development (R&D) centers of Toyota Motor North America Inc., Hyundai Motor Company, Nissan North America Inc. and KIA Motors America, Inc. Furthermore, 63 of the top 100 automotive suppliers to North America are headquartered in Michigan. Michigan’s automotive factories accounted for 22.9 percent of total US vehicle production in 2013, more than any other state in the nation and was the state’s highest US vehicle production share since 2003.

**AIR TRADE AREA PROFILE**

**Population by County**

County	1990	2000	2014
Genesee	430,938	436,965	412,574
Lapeer	75,118	88,271	92,058
Lenawee	91,753	99,069	100,405
Livingston	116,655	158,345	200,695
Macomb	718,280	790,846	879,649
Monroe	133,892	146,364	155,531
Oakland	1,086,685	1,196,165	1,261,452
St. Clair	146,333	164,621	164,400
Washtenaw	283,987	324,372	373,572
Wayne	2,107,915	2,057,255	1,700,675
Air Trade Area	5,191,556	5,462,273	5,341,011

**Median Age (2015)** 39.6 years

**Percent of Population aged 35-54 years (2015)** (age range most likely to travel) 26.6%

**Per Capita Personal Income (2014)**

Air Trade Area	\$44,497
State of Michigan	\$41,289
United States	\$46,375

**World Region of Birth of Foreign-Born Population In Air Trade Area (2014)**

Asia	228,001	52.1%
Europe	103,733	23.7%
Americas	87,885	20.1%
Africa	16,846	3.8%
Oceania	1,379	0.3%
Total	437,844	100.0%

**Gross Regional/Domestic Product** (millions of 2009 dollars)

Year	Air Trade Area	State of Michigan	United States
2005	\$267,831	\$429,508	\$14,114,806
2006	\$259,003	\$419,402	\$14,548,185
2007	\$255,555	\$414,399	\$14,820,647
2008	\$235,033	\$384,958	\$14,617,100
2009	\$219,397	\$365,191	\$14,320,111
2010	\$226,608	\$379,526	\$14,618,135
2011	\$230,062	\$382,958	\$14,792,276
2012	\$236,289	\$390,173	\$15,116,011
2013	\$242,175	\$401,294	\$15,384,326
2014	\$249,290	\$413,483	\$15,894,995

**2005-2014 Compounded Annual Growth Rate**

2.6%      2.5%      2.1%

**Air Trade Area Nonagricultural Employment by Sector (2015)**

(in thousands)	Amount	Percent
Construction	76	3%
Manufacturing	270	12%
Trade	348	15%
Transportation/Utilities	77	3%
Information	37	2%
Financial	72	12%
Services	1,116	48%
Government	284	12%
Total	2,331	100.0%

**Unemployment Rates (June 2016)**

Air Trade Area	5.1%
State of Michigan	4.9%
United States	5.5%

**ROLE WITHIN DELTA AIR LINES' SYSTEM**

The Airport is a key connecting hub and one of the primary international gateways in the Delta Air Lines' system. Offering 109 non-stop domestic destinations and 22 international destinations, Delta along with Delta Connection Carriers enplanes approximately 75 percent of the Airport's enplaned passengers.

**DELTA AIR LINES HUB SYSTEM**

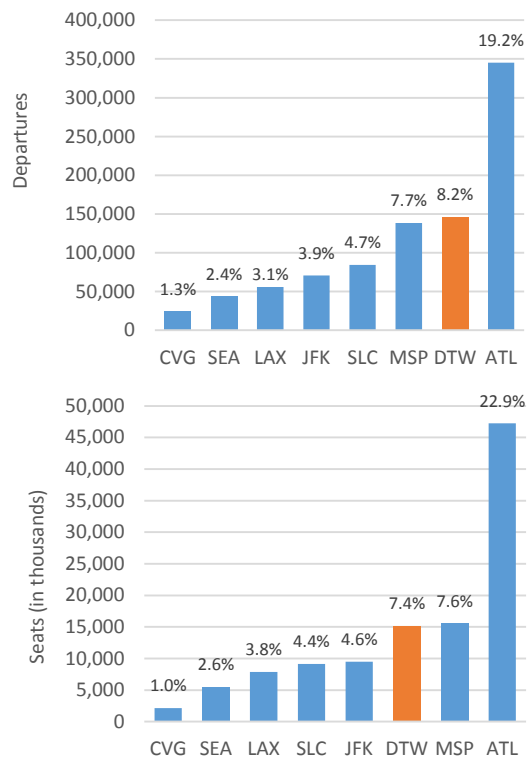
Delta's hub system network consists of the following domestic hub airports: the Airport (DTW), Cincinnati/Northern Kentucky International Airport (CVG), Hartsfield-Jackson Atlanta International Airport (ATL), Los Angeles International Airport (LAX), New York John F. Kennedy (JFK), Minneapolis-St. Paul (MSP), Salt Lake City International Airport (SLC) and Seattle-Tacoma International Airport (SEA).

Due to the Air Trade Area's large O&D base and the Airport's ideal geographical location, Delta is able to move passengers from the US Midwest to anywhere in the world as well as move passengers traveling from the US east coast to the US west coast or vice versa. For FY 2016, based on scheduled departures, the Airport has the second most operations in the Delta system. The Airport is third in Delta's system for departing seat capacity, narrowly behind MSP.

**ASIAN GATEWAY**

The Airport provides the largest departing seat capacity to Asia in Delta's network from the continental US. Currently Delta serves five Asian destinations with daily non-stop service from the Airport. The Airport is geographically positioned well to serve Asian destinations by utilizing polar routing that traverse Canada and the Arctic Circle. It's a shorter distance for passengers connecting from central and eastern time-zones than connecting through a west coast hub like Los Angeles or Seattle. In FY 2016, 28 percent of all Delta flights to Asia from the Continental US departed from DTW. Scheduled seats-out in FY 2016 were 32 percent of Delta's capacity to Asia.

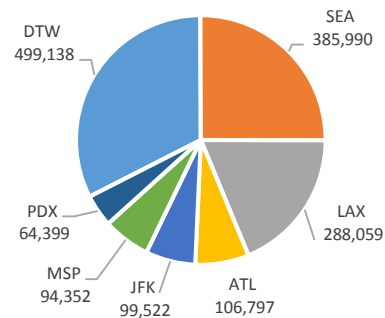
**Figure B - 6: Delta Departures & Seats-Out at Hub Airports FY 2016**



*With Percent of Departures and Seats from all U.S. Airports*

Source: Diio Mi

**Figure B - 7: FY 2016 Delta's Scheduled Seats to Asia**



Source: Diio Mi

## AIRPORT FACILITIES

### TERMINAL FACILITIES

The Airport currently has 131 aircraft gates within its two passenger terminal facilities; the North Terminal and the Edward H. McNamara Terminal (also referred to as the McNamara Terminal or, for the purposes of Authority cost center accounting, the South Terminal). The McNamara Terminal opened on February 24, 2002 and currently serves Delta, the Delta Connection Carriers, Air France and Virgin Atlantic. The North Terminal opened on September 17, 2008 replacing the Smith and Berry Terminals, which were retired as passenger facilities on the same date. The North Terminal is used for non-hubbing carrier operations at the Airport. The Authority has invested over \$2.1 billion in terminal development since FY 2000. With the McNamara Terminal and the North Terminal, the Airport has two of the most modern and efficient terminal facilities of any airport in the US with capacity to accommodate future growth.

Airports Council International's (ACI) 2015 Airport Service Quality (ASQ) Awards recognized the Airport's terminals as among the best in North America. ASQ is a passenger service benchmarking program for airports delivering over 550,000 in-depth passenger surveys at over 300 airports across more than 80 countries worldwide last year. The 2015 results represent the world's best in class airports where improving the customer experience is concerned, appraised by passengers while they are traveling and the experience is fresh in their minds.

Each terminal has a dedicated staff of volunteers called Airport Ambassadors whose mission is to provide a helping hand to travelers along their journey, and enhance their experience while visiting the airport. The Ambassadors serve as resource specialists to assist passengers finding their way and, perhaps most importantly, demonstrate the best of the Metro Detroit community. In April, 2016, 80 Airport Ambassadors were recognized by the President of the United States' Volunteer Service Award. "Volunteer service demonstrates the kind of commitment to your community that moves America a step closer to its great promise," said President Obama in his letter to the awardees.

### MCNAMARA TERMINAL

The McNamara Terminal currently serves Delta, the Delta Connection Carriers, Air France and Virgin Atlantic. The airline space in the terminal is leased by Delta under an Airport Use and Lease Agreement which extends through 2032. The McNamara Terminal was opened in February 2002 and expanded in FY 2005, adding 25 gates to Concourses B and C, facilitating increased mainline and regional aircraft activity. Included as part of the expansion were luggage handling system modifications, additional moving walkways, escalators and hydrant fueling pits. In 2015, 16 gates at Concourse C were closed for operations due to Delta's up-gauging model resulting in a reduction of regional flights. The McNamara Terminal has approximately 2.4 million square feet of gross building space, including 105 aircraft gates in three concourses (i.e., Concourses A, B and C) and a Federal Inspection Station (FIS) facility of approximately 105,000 square feet, which can process up to 3,200 passengers per hour. The centralized passenger terminal has over 100 ticket



Photo: McNamara Terminal Center Link

counter positions and an automated passenger train that travels across the mile-long Concourse A. Additionally, the terminal includes over 75 shops and restaurants encompassing over 147,000 square feet of concessions space and three Delta Sky Clubs. There is an underground tunnel that provides access between the concourses and serves as a utility and luggage handling system corridor.

The Authority and its tenants continue to invest in the McNamara Terminal to improve customer service. From 2013 to 2016, the Authority initiated a program to restructure both the retail and the food and beverage concession programs featuring new agreements and new stores and restaurants. As a result, two of the newest retailers have received national recognition at the Airports Council International-North America 2015 Airport Concessions Awards ceremony in Phoenix, Arizona. The Wall Street Journal/Starbucks travel store won first place in the “Best New News and Gift Concept” category and the Estee Lauder Beauty Boutique received a second place award in the category of “Best New Retail Concept” and an honorable mention in the category of “Best Innovative Consumer Experience”. The retail concessions program was also recognized in USA Today’s 10 Best Readers’ Choice Awards 2016 ‘Best Airport for Shopping’ category.

Connected to the McNamara Terminal is a 404-room and 10-suite luxury-class Westin Hotel. The hotel is accessible from the curb front roadway or the ticket lobby of Concourse A and offers a security checkpoint for direct access to Concourse A. The Westin Hotel was chosen as one of the top three airport hotels in North America in the 2011 Skytrax World Airport Survey.

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## NORTH TERMINAL

The North Terminal was opened on September 17, 2008 and replaced the Smith and Berry Terminal facilities for non-hubbing carrier operations at the Airport, including international operations. The North Terminal includes over 850,000 square feet of gross building space including a central terminal facility, a 26-aircraft gate airside concourse, approximately 50,000 square feet of concessions space and a FIS facility of approximately 26,000 square feet with facility capacity to process up to 800 passengers per hour. Five of the gates are common use and four of the five common use gates can serve both international and domestic flights. The facility is designed to be expandable by another four gates as demand warrants. Key features of the facility include related airside apron, dual taxi lanes, hydrant fueling, luggage handling facilities and loading bridges with 400 Hz power and preconditioned air. Internal features include numerous ticket counters, airline offices, an airline club for Lufthansa German Airlines and a pedestrian bridge connecting the terminal to the adjacent parking structure. The facility includes a full in-line explosive detection system (EDS) for improved luggage security screening operations. Upper and lower level roadways provide access to the “arrivals” and “departures” levels of the terminal and encompass a ground transportation facility for public transportation. The North Terminal serves all domestic and foreign flag passenger airlines at the Airport except Delta, the Delta Connection Carriers, Air France and Virgin Atlantic.



Photo: North Terminal

Commencing in early 2017, the North Terminal will start changing out its concessions program starting with retail. Significant investment will result in new concession agreements and new, state-of-the-art, shopping options. The restructuring of the food and beverage program is scheduled to follow in FY 2018.

**PUBLIC PARKING**

Public parking at the Airport currently consists of 18,174 spaces, including structured facilities and surface lots. The structured parking facilities, the Big Blue Deck and the McNamara Parking Deck, are located adjacent to each of the terminals to allow for convenient pedestrian access. Both parking facilities have Ground Transportation Centers for car rental, hotel, on and off airport parking shuttles, taxis, luxury sedans, etc.



Photo: Electric Vehicle (EV) Charge Ports at the Big Blue Deck

Green Lot and Green Lot #2 (seasonal) are located along the East Service Drive and provide additional economy surface parking for the Airport.

In addition to the above parking facilities, approximately 13,875 additional parking spaces are estimated to be available off-airport through third-party operators.

**AIRFIELD**

The major airfield facilities at the Airport consist of six runways, four of which are north/south parallels for prevailing wind conditions and two of which are east/west crosswind parallels, an extensive taxiway system which provides aircraft access to terminal areas, aircraft parking aprons and other cargo, maintenance and hangar areas.

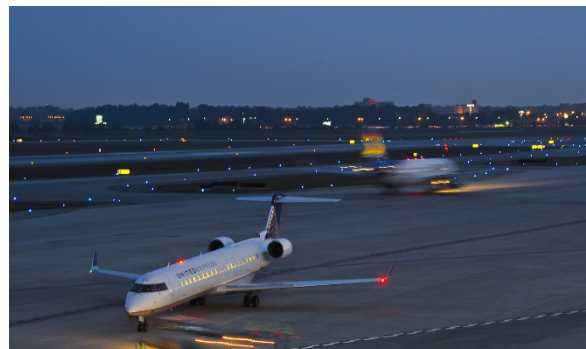


Photo: Aircraft Taxi across the North Terminal Apron

Primary characteristics of each runway are as follows:

**Runway 4L/22R** – This runway is 10,000 feet long by 150 feet wide and is equipped with high intensity runway edge lights (HIRL) and in-pavement centerline lights. Both runway ends have precision runway markings with the Runway 4L end having Category III instrument landing system (ILS) capability and the Runway 22R end having ILS capability with a medium intensity approach lighting system (MALSR). Runway 4L/22R and the majority of its associated taxiways were rehabilitated in FY 2016.

**Runway 4R/22L** – This runway is 12,003 feet long by 200 feet wide and is equipped with HIRL and in-pavement centerline lights. Both runway ends have precision runway markings with the Runway 4R end having Category III instrument landing system (ILS) capability and the Runway 22L end having ILS capability with a MALSR. Runway 4R/22L was reconstructed in FY 2012 and 2013.

**Runway 3L/21R** – This runway is 8,501 feet long by 200 feet wide and is equipped with HIRL and in-pavement centerline lights. Both runway ends have non-precision runway markings. The south portion of Runway 3L/21R was rehabilitated in FY 2009, and reconditioned in FY 2015.

**Runway 3R/21L** – This runway is 10,001 feet long by 150 feet wide and is equipped with HIRL and in-pavement centerline lights. Both runway ends have precision runway markings with the Runway 3R end having Category III instrument landing system (ILS) capability and the Runway 21L end having ILS capability with a MALSR. Runway 3R/21L was reconstructed in FY 2006 and 2007.

**Runway 9L/27R** – This crosswind runway is 8,708 feet long by 150 feet wide and is equipped with HIRL and pavement centerline lights. Both runway ends have precision runway markings with the Runway 27R end having ILS capability with a MALSR. The majority of Runway 9L/27R was reconstructed in FY 2009 and 2013.

**Runway 9R/27L** – This crosswind runway is 8,500 feet long by 150 feet wide and is equipped with HIRL and pavement centerline lights. Both runway ends have precision runway markings with the Runway 27L end having ILS capability with a MALSR.

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#### OTHER ANCILLARY/SUPPORT FACILITIES

**General Aviation** – General aviation and corporate aviation facilities are generally located on the southern portion of the Airport with one facility on the northern end. The fixed base operator (FBO) at the Airport is Signature Flight Support Corporation and accommodates aircraft parking, fuel, hangars, catering and other flight support services.

**Air Cargo/Mail Facilities** – Air cargo facilities at the Airport are located in three general areas of Airport property. The largest air cargo tenants, FedEx and United Parcel Service, are located in different areas of the airfield. FedEx is located in the northwest area of the Airport adjacent to Taxiway Z. United Parcel Service’s facility is located on the southern portion of the Airport between the Runway 27R and 27L ends. Several passenger airline and smaller cargo facilities are also located in the northern area of the Airport with access from Merriman Road.



Photo: Delta Hangar

**Aircraft Maintenance Facilities** – Several aircraft maintenance operation facilities are based at the Airport. These facilities are located in various areas of the Airport. Some of these include facilities for Delta Air Lines, United Parcel Service and FedEx. Aircraft serviced at these facilities include large wide-body aircraft (i.e., Boeing 747s) to smaller general aviation type aircraft. Spirit Airlines is constructing a new maintenance hangar for its aircraft and anticipates it will add more than 80 new jobs to the area. The 126,000 square foot hangar will be the lead maintenance facility for Spirit Airlines and is scheduled to be completed by the third quarter of 2017.

**Fuel Farm** – The fuel farm at the Airport is located in the northwestern section of the airfield and consists of four 20,000-barrel fuel storage tanks and two 65,000-barrel fuel storage tanks. The fuel farm has a capacity of over four million gallons, an estimated five days of storage capacity. The fuel facilities at the Airport also include a truck load rack, underground pipelines and underground hydrant systems that serve the McNamara Terminal and North Terminal. Delta is the lessee of the entire fuel system at the Airport, which it operates for its benefit as well as the benefit of the other air carriers at the Airport, under an Operating Agreement with Shell/Servisair.

Other Airport support facilities include, but are not limited to, Aircraft Rescue and Firefighting Facilities (ARFF), flight kitchens and an airport traffic control tower (ATCT). The primary ARFF station is located just north of the McNamara Terminal and south of Runway 9L/27R. The Airport also has a smaller secondary facility located near Taxiway V adjacent to the FedEx cargo apron. Additionally, the Airport has a landside ARFF station serving the roadways and terminals located along Rogell Drive to the north of the North Terminal. LSG Sky Chefs prepares meals for flights departing from the Airport and operates out of the one flight kitchen facility at the Airport (Building 505), which is leased to Delta and subleased to LSG Sky Chefs. The ATCT is located adjacent to the McNamara Terminal and houses the Terminal Radar Approach Control (TRACON) facility that serves the Airport and other regional airports.



DETROIT METROPOLITAN AIRPORT AT A GLANCE

AVIATION ACTIVITY

	FY 2015	FY 2016	FY 2017 Budget
<b>Enplaned Passengers</b> (in thousands)			
<i>Domestic</i>			
South Terminal	11,281	11,493	11,519
North Terminal	3,752	4,219	4,355
<b>Total</b>	<b>15,032</b>	<b>15,712</b>	<b>15,874</b>
<i>International</i>			
South Terminal	1,292	1,299	1,306
North Terminal	120	119.4	120
<b>Total</b>	<b>1,411</b>	<b>1,419</b>	<b>1,426</b>
<b>Grand Total</b>	<b>16,444</b>	<b>17,131</b>	<b>17,300</b>
<b>Scheduled Aircraft Operations</b>	368,088	377,602	382,022
<b>Landed Weight (1,000 lbs.)</b>	20,625,652	21,466,594	21,700,000

AIRPORT OPERATIONS AREA

<b>Airfield (Acres)</b>	
Runways	225
Taxiways	405
Shoulder & Blast Pad	250
Ramps/Aprons	375
<b>Overall Airport</b>	<b>6,130</b>
<b>Runway Length</b>	
<i>North-south runways in the primary wind direction</i>	
Runway 4R - 22L	12,003 ft.
Runway 4L - 22R	10,000 ft.
Runway 3L - 21R	8,501 ft.
Runway 3R - 21L	10,001 ft.
<i>East-west crosswind runways</i>	
Runway 9L - 27R	8,708 ft.
Runway 9R - 27L	8,500 ft.

TERMINALS

<b>Gates</b>	
South Terminal	
Concourse A	63
Concourse B	17
Concourse C	25
<b>Total</b>	<b>105</b>
North Terminal	26
<b>Grand Total</b>	<b>131</b>

Square Footage of Terminal Space by Concourse

South Terminal	
Concourse A	1,939,005
Concourse B	252,591
Concourse C	166,914
South Terminal Ramp Tower	2,416
<b>Total</b>	<b>2,360,926</b>
North Terminal	851,049
<b>Grand Total</b>	<b>3,211,975</b>

Square Footage of Concession Space

South Terminal	147,796
North Terminal	50,233
<b>Total</b>	<b>198,029</b>

PUBLIC PARKING

On-Airport Parking Spaces (WCAA Operated)

McNamara Deck	9,840
Blue Deck	5,788
Green Lot #1 & Green Lot #2	2,546
<b>Total</b>	<b>18,174</b>

Off-Airport Parking Spaces (Independently Owned/Operated) 13,875

FINANCES

**WCAA Net Position** \$271,684,570  
*Year Ended September 30, 2015*

Credit Ratings

Standard & Poor's	A	Outlook Stable
Fitch	A-	Outlook Positive
Moody's	A2	Outlook Stable

WILLOW RUN AIRPORT

Willow Run has a rich history, dating back to 1941 when Henry Ford and Charles Lindbergh built the world's largest bomber facility at the airport. During World War II, nearly 8,700 B-24 "Liberator" bombers were built at Willow Run. During its peak production, the plant employed 42,000 people including "Rosie the Riveter." After the war, Hangar 1 was converted into a luxury passenger terminal. Commercial airline traffic was transferred from Detroit City Airport and Willow Run became Detroit's principal airport.

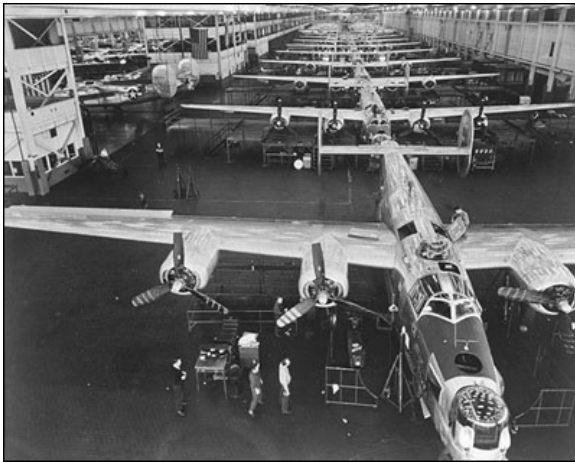


Photo: B-24 Final Assembly, Willow Run Plant, 1944

In 1947, the Federal Government sold Willow Run to the University of Michigan for \$1.00. Soon after, commercial air traffic began moving from Willow Run to Detroit Metropolitan Airport. By 1966, all commercial airline operations at Willow Run ceased. It has been a cargo, general and executive aviation airport since. In 1977, the University of Michigan sold Willow Run to Wayne County for \$1.00.

Willow Run offers three runways, 24-hour FAA Tower and US Customs operations, to provide ease of access for its users. Willow Run's runways include ILS all-weather runways. The airport accommodates small private planes as well as international 747 cargo jets. In FY 2016, Willow Run had nearly 65,000 operations and 3,000 landings related to cargo, making it the third largest reliever airport in Michigan.

AVIATION ACTIVITY

	FY 2015	FY 2016	FY 2017 Budget
<b>Aircraft Operations</b>	59,987	64,628	59,800
<b>Cargo Landings</b>	3,604	2,944	3,300
<b>Fuel Sold (Gallons)</b>	6,388,421	6,595,503	6,461,000
<b>US Customs Transactions</b>	1,772	1,162	1,400

Landed Weight (in thousand pounds)

Cargo	183,672	176,187	182,000
General Aviation	103,369	125,521	118,000
<b>Total</b>	<b>287,041</b>	<b>301,708</b>	<b>300,000</b>

AIRPORT OPERATIONS AREA

Airfield Size in Acres

Runways	75
Taxiways	53
Ramps/Aprons	132
<b>Overall Airport</b>	<b>2,600</b>

Runway Length

Runway 5R/23L	7,526 ft.
Runway 5L/23R	6,655 ft.
Runway 9/27	7,294 ft.



Photo: Hangar 1, Willow Run Airport

**AIRPORT WESTIN HOTEL**

The Westin is a luxury upscale hotel located at the Detroit Metropolitan Airport and operated by Starwood Hotels and Resorts Worldwide, Inc., a subsidiary of Marriott International. It offers guests a private security entrance and access into the McNamara Terminal, as well as complimentary 24 hour shuttle services to the North Terminal. The Westin has 404 guest rooms and ten luxury suites. Amenities within the hotel include a workout fitness studio, an indoor pool, high speed internet access, in-room dining and a refreshment center. The hotel has 28 meeting rooms spanning 26,000 square feet of space, along with a restaurant and bar that offer health enhancing dining options. A major renovation project, including updating guest rooms, meeting rooms and public spaces, is planned for FY 2017, with investment estimated to be approximately \$13.8 million.

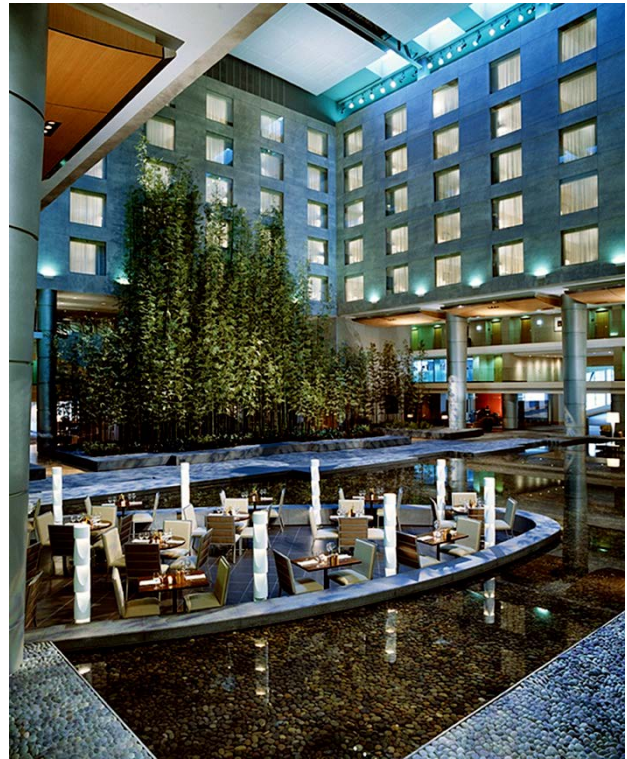


Photo: Westin Hotel Lobby

The Westin was the top-rated airport hotel in the Starwood system and guest satisfaction was rated in the top ten of all hotels in North America for 2014. In 2016, it was awarded Gold Level in TripAdvisor’s Green Leaders Program highlighting the hotel’s eco-friendly practices.

In March 2001, the County of Wayne issued \$110.9 million in Airport Hotel Revenue Bonds, Series 2001A and Series 2001B. The 2001A Bonds, \$99.6 million, were issued for the purpose of paying the cost of acquiring, constructing, equipping and furnishing an airport hotel (the Westin) and related improvements at the new McNamara Terminal.

The Wayne County Airport Authority issued Series 2015G-H Bonds in October 2015 to refund the Series 2001A Airport Hotel Revenue Bonds and convert the debt to General Airport Revenue Bonds (GARBS). The Signatory Airlines provided weighted majority approval to refinance the Hotel Bonds, relieving the County of its responsibility for credit enhancement, and necessitating and permitting the restructuring and simplification of the flow of funds along with the fund and account structure to be consistent with general airport revenue bond financing. The Authority successfully negotiated a new Hotel Management Agreement with Starwood Hotels & Resorts Worldwide, Inc. and it was incorporated into the Detroit Metropolitan Airport’s Operations and Maintenance Fund in FY 2016.

**HOTEL OPERATING METRICS**

	FY 2014 Actual	FY 2015 Actual	FY 2016 Actual	FY 2017 Budget
Average Daily Rate	\$159.40	\$162.47	\$171.84	\$175.40
Revenue Per Available Room	\$125.58	\$127.93	\$130.51	\$132.86
Occupancy	78.6%	78.7%	76.1%	75.7%
Operating Margin	43.4%	44.2%	42.4%	42.4%

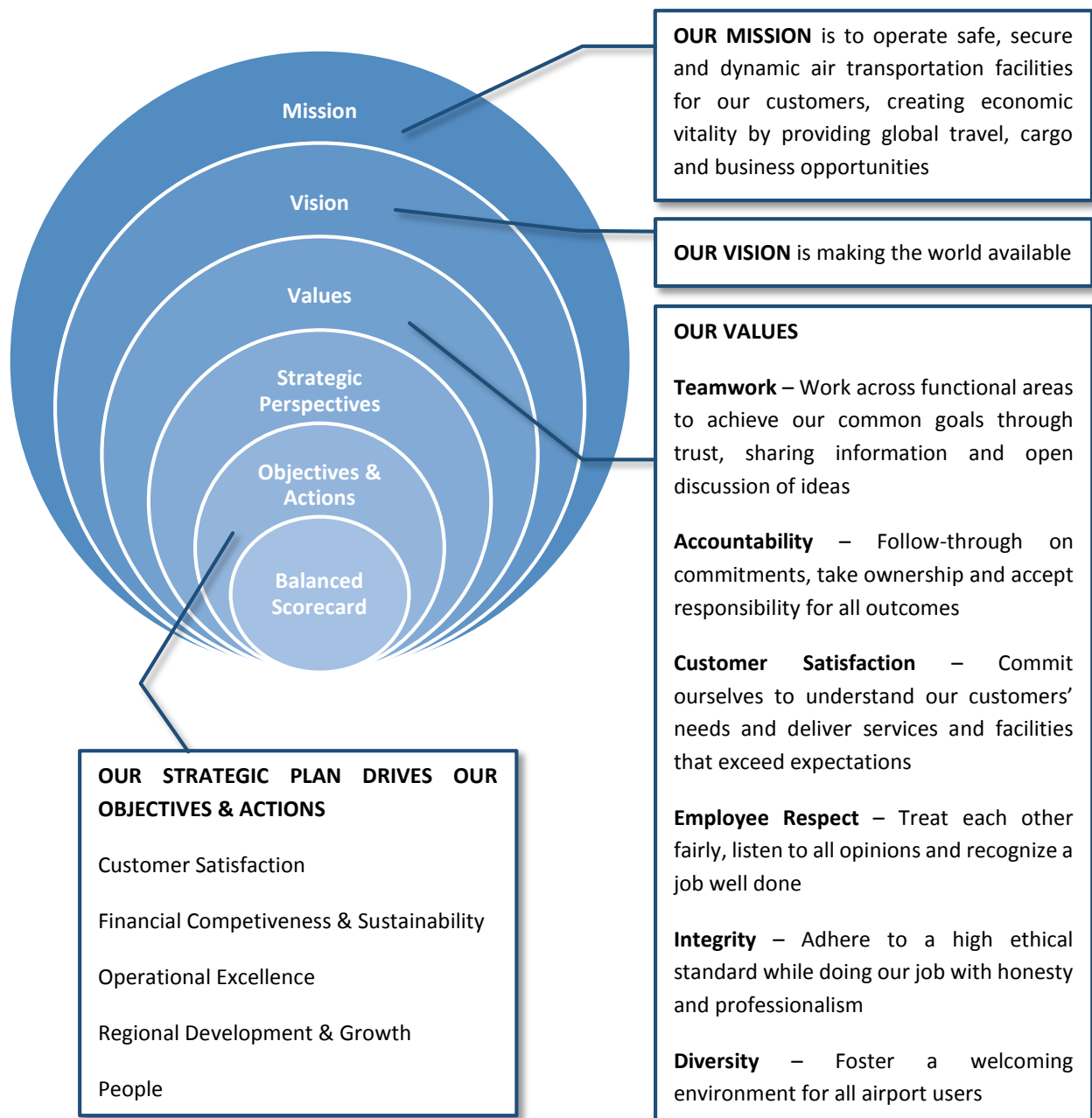
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# STRATEGIC PLAN & BALANCED SCORECARD

This section provides a cohesive explanation of the Authority’s strategy including the Mission, Vision and Values. It includes a complete description of the organization’s goals and the short and long term initiatives to achieve them.

## STRATEGIC PLAN

The Authority’s Mission, Vision, and Values drives the Strategic Plan and identifies five strategic focus areas used to align objectives with actions. The Strategic Plan provides a balanced approach, focusing on the current and future needs of customers and stakeholders to provide exceptional facilities, allows future growth and a gateway to the world. Airlines and travelers have many options regarding airports, routes, destinations and facilities to conduct their business. The Authority focuses on providing safe and secure facilities, world class amenities and services aimed at retaining current customers, attracting new ones and making Detroit Metropolitan Airport the airport of choice.



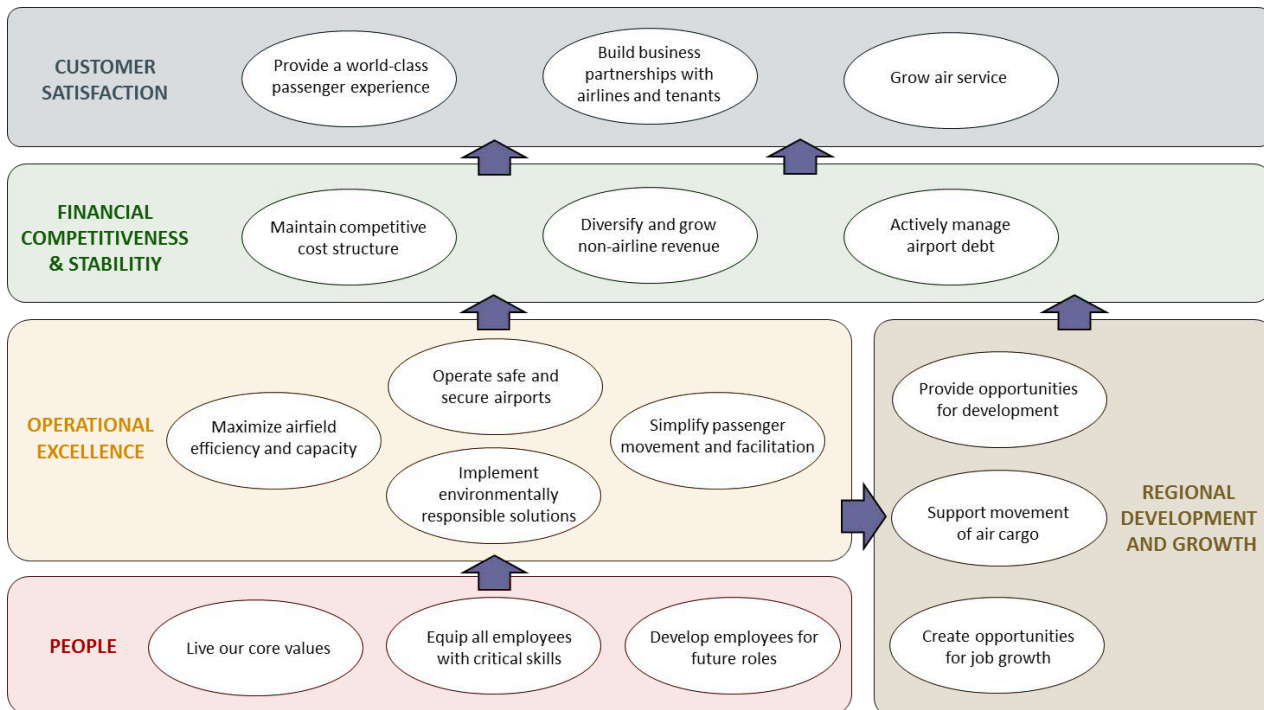
FY 2017 CEO PERFORMANCE GOALS

The Airport Authority’s CEO has developed performance goals to guide the organization in FY 2017. The goals are focused on customer satisfaction, financial, operational excellence, regional development/engagement and people.

- 1) **Customer Satisfaction:** Improve the Detroit Metropolitan Airport passenger experience within the terminals through an emphasis on customer service and operational excellence.
- 2) **Financial Competitiveness & Stability:** Develop a comprehensive plan for Willow Run Airport that addresses its long-term financial viability, infrastructure, sustainability, efficiency and stimulates development on and around the airport.
- 3) **Operational Excellence:** Achieve ACI’s Carbon Management Accreditation Level 2 by implementing a reduced energy use policy, establishing energy reduction targets and continuing all practices associated with Level 1 Certification. The Airport Authority achieved ACI’s Accreditation Level 1 in September 2016.
- 4) **Regional Development/Engagement:** Strengthen the Airport Authority’s regional collaboration by improving landside access and facilities, partnering with airport and local stakeholders on business opportunities, developing a communication strategy to support outreach to local stakeholders and lowering barriers for small business enterprises (SBEs).
- 5) **People:** Adopt a continuous improvement culture by training employees to methodically reduce waste, simplify existing processes and add more value to the services we provide. Recognize significant results that reduce Airport Authority time, costs and resources, while improving service delivery to travelers and customers.

STRATEGIC PERSPECTIVES & GOALS

Developed by the Senior Leadership Team, the Authority has identified five strategic perspectives to guide and shape the organization’s philosophy, culture and goals. The chart below illustrates the Authority’s goals by perspective and interconnectivity.



The Authority's FY 2017 goals are grouped by strategic perspective and illustrated below.

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CUSTOMER SATISFACTION

**Provide a World-Class Passenger Experience**

- Establish a cohesive "Oasis" airport campus
- Incorporate a sense of place in the terminals
- Advance airport wayfinding through use of mobile/digital means
- Concessions redevelopment and expanded customer amenities

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FINANCIAL COMPETITIVENESS AND STABILITY

**Maintain Competitive Cost Structure**

- **Engage and support national Passenger Facility Charge (PFC) reauthorization**
- **Advocate aviation fuel tax changes**
- **Actively manage and control employee pension plans and funding obligations**

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OPERATIONAL EXCELLENCE

**Operate Safe and Secure Airports**

- Build digital workplace; leverage digital technology in airport operations

**Implement Environmentally Responsible Solutions**

- Reduce carbon footprint
- Expand recycling program

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REGIONAL DEVELOPMENT AND GROWTH

**Provide Opportunities  
for Development**

- Enhance readiness of development sites and make real estate available for development

**Create Opportunities  
for Job Growth**

- Expand regional engagement and involvement (e.g., SBE/DBEs, internships, local community)

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PEOPLE

**Equip All Employees  
with Critical Skills**

- Adopt a continuous improvement methodology

**Develop Employees  
for Future Roles**

- Manage succession planning and employee development programs



THE BALANCED SCORECARD APPROACH

The Balanced Scorecard methodology was developed in the early 1990’s by Harvard professor Robert Kaplan and Boston-area consultant David Norton. It was originally devised as a performance measurement system that encompassed not only financial metrics, but also non-financial measures such as customer service, process improvement and learning and growth. Most organizations have separate strategic planning and budget development processes. Often, resources are allocated to meet financial goals but bear little relation to the strategic plan. Since its introduction, the Balanced Scorecard has evolved to become a widely-used method of linking an organization’s vision to its day-to-day operations.

The Authority utilizes the Balance Scorecard method to ensure success in achieving long term goals and maintaining balance of the strategic perspectives. The Authority has selected measures of progress from five scorecard perspectives: (1) customer satisfaction, (2) financial competitiveness and sustainability, (3) operational excellence, (4) regional development and (5) people. Performance targets for each measure are set for the coming years and the Authority’s performance targets are determined by the following:

- Benchmarking peer airports or comparable organizations
- Acknowledging the current fiscal year budget
- Improving upon historical performance
- Meeting an industry or comparable standard
- Recognizing current fiscal year projects that may impact performance
- Ensuring longer-term progress toward strategic objectives

A key component of the Balanced Scorecard is the integration of the budgeting and strategic planning processes so that resource allocation supports the organization’s strategic directions. Utilizing the Balanced Scorecard, the budget process focuses on (1) analyzing which actions or initiatives will be necessary to reach the above mentioned targets and (2) establishing the short-term milestones that will illustrate progress. The result establishes a link between strategic and financial decisions. Throughout the fiscal year, the Balanced Scorecard is reviewed by leadership to make strategic or financial management adjustments. Further, the Authority has implemented performance based incentives for staff and the Balanced Scorecard is used as a tool to determine merit pay.

The Authority first began using the Balanced Scorecard approach in FY 2008 and revised its strategic projections and goals during FY 2013. Implementation of the revised Scorecard was completed during FY 2014 and expansion of new measures that cascade down from the Authority and Division levels into the Department levels will continue in FY 2017. The Key Performance Measures are illustrated below. The FY 2017 Target is subject to change.

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
<b>Customer Satisfaction</b>			
Passengers: ASQ Survey - Overall Customer Satisfaction Rating (Out of Five)	4.36	4.35	4.35
Region/Community: # of Scheduled Non-Stop Travel Opportunities	188	186	TBD
<b>Financial Competitiveness &amp; Sustainability</b>			
Airline Cost per Enplaned Passenger	\$10.20	\$10.32	\$9.90

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
Airport Debt Rating (S&P)	A Stable	A Stable	A Stable
Gross Parking Revenue per O&D Passenger	\$11.54	\$10.54	\$11.64
Gross Food, Beverage & Retail Revenue per Enplanement	\$10.74	\$10.82	\$10.51
Operating Cost per Enplanement (DTW) – FY 2017 Target now includes Westin Hotel expenses	\$12.48	\$12.47	\$14.24
Net Debt Service as % of Operating Revenue	28%	29%	29%
<b>Operation Excellence</b>			
Airfield Efficiency: Average On-Time Airport Departure	82.1%	81.7%	83.0%
Airfield Safety: Number of Airfield Incidents (DTW)	62	64	TBD
Employee Safety: WCAA OSHA Incident Rating	2.8	3.0	3.0
Passenger Facilitation: Average Customs & Border Patrol (CBP) Wait Time (in minutes)	16.4	15.5	16.7
<b>Regional Development</b>			
Overall cargo tonnage handled at DTW	190,658	191,703	203,950
Overall cargo tonnage handled at YIP	83,298	81,788	79,903
Job creation as measured by the number of badged employees	18,905	19,000	19,000
<b>People</b>			
Core Values: Employee Satisfaction Survey	3.4	3.5	3.5
Employee Development: Time spent per employee on development for future roles (hours)	14.7	10.0	10.0
Employee Development: Total % execution on critical Skill Development Plans	114.5%	64.0%	TBD
Succession Planning: Total % of positions with Succession Plans	28.5%	46.0%	TBD

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# BUDGET PROCESS & FISCAL POLICIES

This section contains an overview of the budget process followed by a detailed review of the Airport's revenues, expenses and assumptions used to develop the FY 2017 Budget.

As required by the Master Bond Ordinance and Public Act 90, the Authority is required to prepare and adopt a budget for the Airport, Willow Run Airport and the Airport Hotel prior to the commencement of each fiscal year (October 1 to September 30). The budget covers operation and maintenance expenses, debt service and other known monetary requirements of the Master Bond Ordinance and the Airport for each Operating Year.

## BUDGET PROCESS

### OVERVIEW

Budgeting serves as an important management tool to plan, control and evaluate the operations of the Authority. The Airport, Airport Hotel and Willow Run O&M budgets create the Authority's annual financial plan. These budgets must be sufficient to cover the operation and maintenance expenses of the Airports, Hotel, debt service payable on bonds and other known financial requirements for the ensuing fiscal year. The Five-Year Capital Improvement Plan (CIP) is developed and approved on the same timeline.

### BUDGET PROCESS FOR FISCAL YEAR 2017

The Financial Planning & Analysis Department (FP&A) began the budget process by developing a White Paper to communicate the state of the aviation industry including economic challenges and opportunities. The White Paper also focused on the Authority's operational challenges for the year ahead and was presented to the Authority Board and Senior Leadership Team in May as a primer to the FY 2017 Budget.

The next step was to reach out to the Airlines for their forecasted FY 2017 activity including airplane landed weight and enplaned passenger information. This information determines landing fee requirements and non-airline revenue projections for the Airport. The submitted landed weight and enplanement projections were validated against the published airline schedules, current load factors, Federal Aviation Administration (FAA) forecasts and historical trends for reasonableness.

Cooperatively, FP&A and the Authority's operating divisions developed a base budget to estimate revenues and expenses. The base budget:

- Assumed all Authority departments would enhance their level of service and find operational and process improvement efficiencies
- Provided for known contractual or staffing changes
- Developed non-airline revenues (e.g. parking, car rental, concessions, etc.) with the assumption that rates, charges and fees would either stay consistent with the current fiscal year or include growth assumptions based on new contracts or historical trends
- Included input from both McNamara and North Terminal tenants, along with their representatives, for terminal related expenses

Once the preliminary budget was established, it was presented to representatives from each of the Airlines at the annual budget meeting to help them understand the financial priorities and plan for the upcoming fiscal year and, most importantly, to inform them of the preliminary rates and charges. The landing fees and rental rates are used by the Airlines to help determine their respective fiscal budgets. The meeting provides a forum to discuss concerns

and suggestions that the Airlines may have in relation to the operation of the Airport. Recommendations from the Airlines were taken into consideration and modifications to the budget were made, where necessary.

The final budget and resolution was presented to the Board on September 22<sup>nd</sup> for their review and adoption. The new fiscal year landing fees and rental rates were mailed to the Signatory Airlines on September 23<sup>rd</sup>.

**BUDGET PROCESS CALENDAR**

The following chart summarizes the budget process:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Budget Preparation</b>												
Leadership Strategy session			→									
Develop White Paper on the State of the Aviation Industry for the upcoming year				→								
Submit request to Airlines for Aviation Enplaned Passenger and Landed Weight forecast				→								
Departments prepare draft budgets & forms				→								
<b>Budget Development</b>												
Enplanements & Landed Weights forecasts used to develop Revenue budgets					→							
Department meetings & Budget Initiative review					→							
5-year Capital Improvement Plan review & update					→							
Preparation of Budget documentation & presentations					→							
Monthly Budget review with the Board & Airlines					→							
<b>Budget Finalization and Adoption</b>												
CFO finalizes recommendations								→				
Calculate Rates & Charges								→				
Proposed Budget presented to Board in accordance with the "Open Meetings Act" & Adoption of the Budget									→			
Notice to Airlines of new monthly rates & charges									→			

**FISCAL POLICIES**

The financial operation of the Authority is governed primarily by the Master Bond Ordinance and by the Airline Use and Lease Agreements (the Agreements). The Master Bond Ordinance provides conditions for the issuance of bonds and the application of revenues to the payment of operating expenses and debt service.

**BASIS OF BUDGETING**

The Airport’s basis of budgeting is the same as the basis of accounting, except that the budget strictly conforms to the applicable provisions of the Master Bond Ordinance, Public Act 90 and the Agreements with the Airlines, which defines the full cost recovery or residual rate setting methodology of the Airport. Airport budget methodologies

throughout the United States are usually characterized as either compensatory or residual, although some airports have a hybrid model that combines features from both. The Airport does not budget for depreciation and has additional funds that are audited, but only the Operation and Maintenance funds are budgeted.

For consistency, the basis of budgeting for the Airport’s O&M Fund, Willow Run’s O&M Fund and the Airport Hotel’s O&M Fund are the same, and the budget for each entity is approved and adopted by the Board. However, Willow Run Airport is a compensatory airport, meaning it does not have Signatory Agreements and therefore no year-end adjustments are made for their airlines.

The main purpose of the annual budget is to prepare an itemized statement of the estimated current operational expenses and the expenses for capital outlay including amounts necessary to pay the principal and interest of any outstanding bonds or other obligations of the Airport, as well as estimate the revenue generated from non-airline sources to ultimately determine the additional airline revenue needed to balance revenues to expenses. Airline revenues are comprised of airline rental rates, international facility use fees and landing fees.

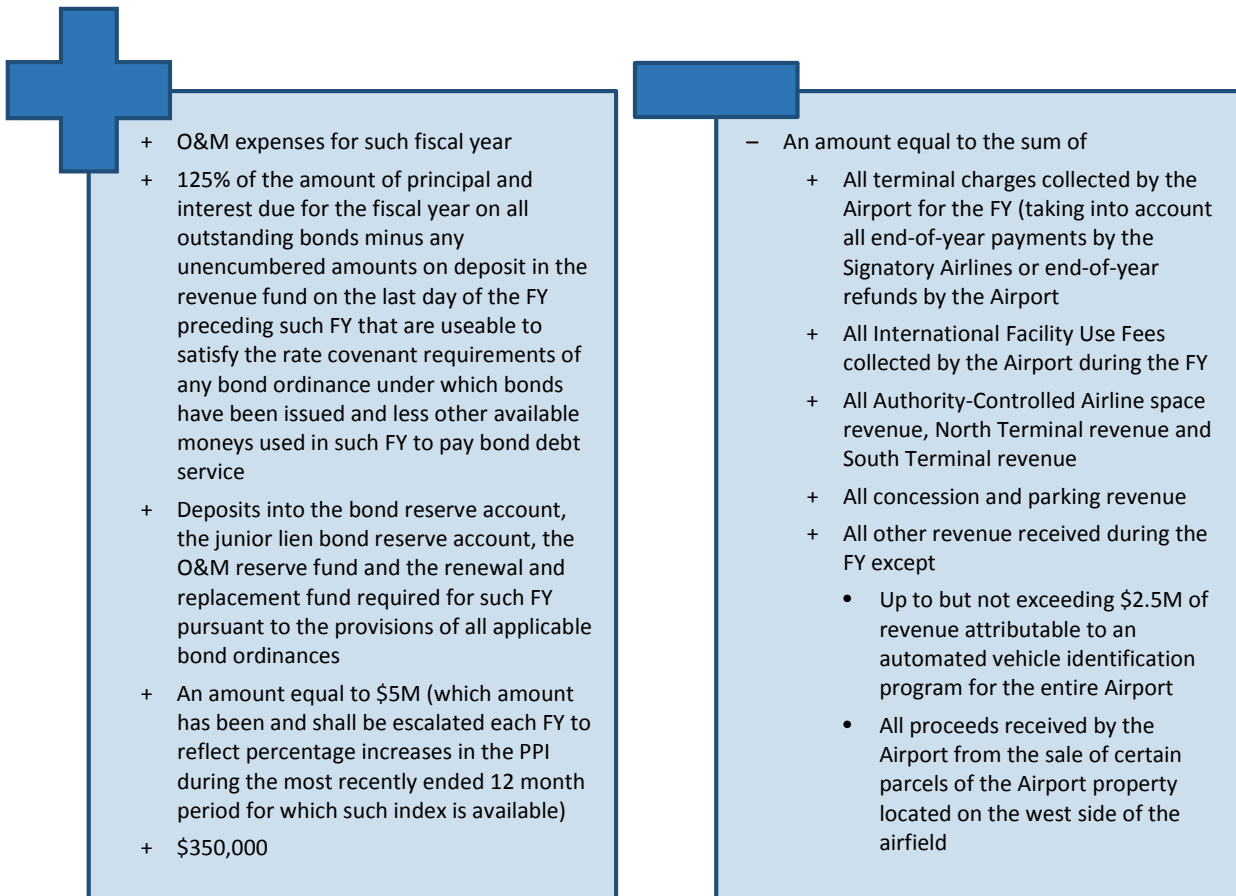
The airline rental rates are determined by a cost center allocation methodology as defined in Exhibit E of the Airport Use and Lease Agreement (Figure E - 1) for the purpose of allocating the cost of O&M expenses, bond debt service and other available money each year between the South Terminal, North Terminal and Airport cost centers.

Figure E - 1: Exhibit E of the Airport Use and Lease Agreement - Cost Center Allocation Methodology

North Terminal	South Terminal	Rest of Airport
<p>O&amp;M expenses attributable to the operations and maintenance of the North Terminal (Preferential, Shared Use, public and Authority controlled airline space), including any passenger bridges and connectors to parking garages as well as immediate curbside. These expenses include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Costs of janitorial services, cleaning and minor repairs of all North Terminal space and the mechanical equipment therein (including conveyance systems and baggage handling systems)</li> <li>• Costs of operation and maintenance of all building-wide services such as heating, cooling, lighting, and electrical services</li> <li>• Costs of maintenance and repairs of the interior and exterior floors, walls, ceilings and roof</li> <li>• Property insurance costs</li> </ul>	<p>O&amp;M expenses attributable to the operations and maintenance of the South Terminal (Preferential, Shared Use and public space), including any passenger bridges and connectors to parking garages as well as immediate curbside. These expenses include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Costs of janitorial services, cleaning and minor repairs of all South Terminal space and the mechanical equipment therein (including conveyance systems and baggage handling systems)</li> <li>• Costs of operation and maintenance of all building-wide services such as heating, cooling, lighting, and electrical services</li> <li>• Costs of maintenance and repairs of the interior and exterior floors, walls, ceilings and roof</li> <li>• Costs of utilities (includes HVAC, water, sewage, electric, etc.)</li> <li>• Property insurance costs</li> </ul>	<p>O&amp;M expenses not allocated to either the North Terminal Cost Center or the South Terminal Cost Center. These expenses include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>▪ Payroll and fringe benefit costs of Authority employees</li> <li>▪ Costs associated with all parking garages, lots and facilities</li> <li>▪ All costs associated with Airport access roadways, including Airport signage</li> <li>▪ Shuttle bus costs</li> <li>▪ General Airport costs (i.e. landscaping, insurance not allocated to the North Terminal Cost Center or the South Terminal Cost Center, fire &amp; rescue, etc.)</li> <li>▪ Cost of utilities (including HVAC, water, sewage, electric, etc.) not allocated to the North Terminal Cost Center or the South Terminal Cost Center</li> <li>▪ County chargebacks</li> <li>▪ Cost of capital items procured from O&amp;M budget</li> <li>▪ All airfield costs, including expense attributable to the North Terminal and South Terminal aprons and taxiways</li> <li>▪ Professional services contracts and costs</li> </ul>

Landing fee revenue is defined as the “Revenue Requirement” in the Airport Use and Lease agreement and is the amount of revenue needed to produce total net revenue equal to the sum of:

Figure E - 2: Airport Use and Lease Agreement - Revenue Requirement



**Revenue Requirement**

The Airport divides the Revenue Requirement by the aggregate amount of approved maximum landing weight of aircraft of all Signatory Airlines for the fiscal year to determine the Landing Fee to be paid by the Signatory and Non-Signatory Airlines.

At the conclusion of each fiscal year, the Authority must provide the Signatory Airlines with a report of terminal rentals and landing fee revenues. If the revenues do not adequately cover the operational expenses and debt obligations, the Signatory Airlines are required to pay the difference. Alternatively, if the revenues exceed expenses after all operational and debt needs are met, the Authority is required to refund airline overpayments.

**BASIS OF ACCOUNTING**

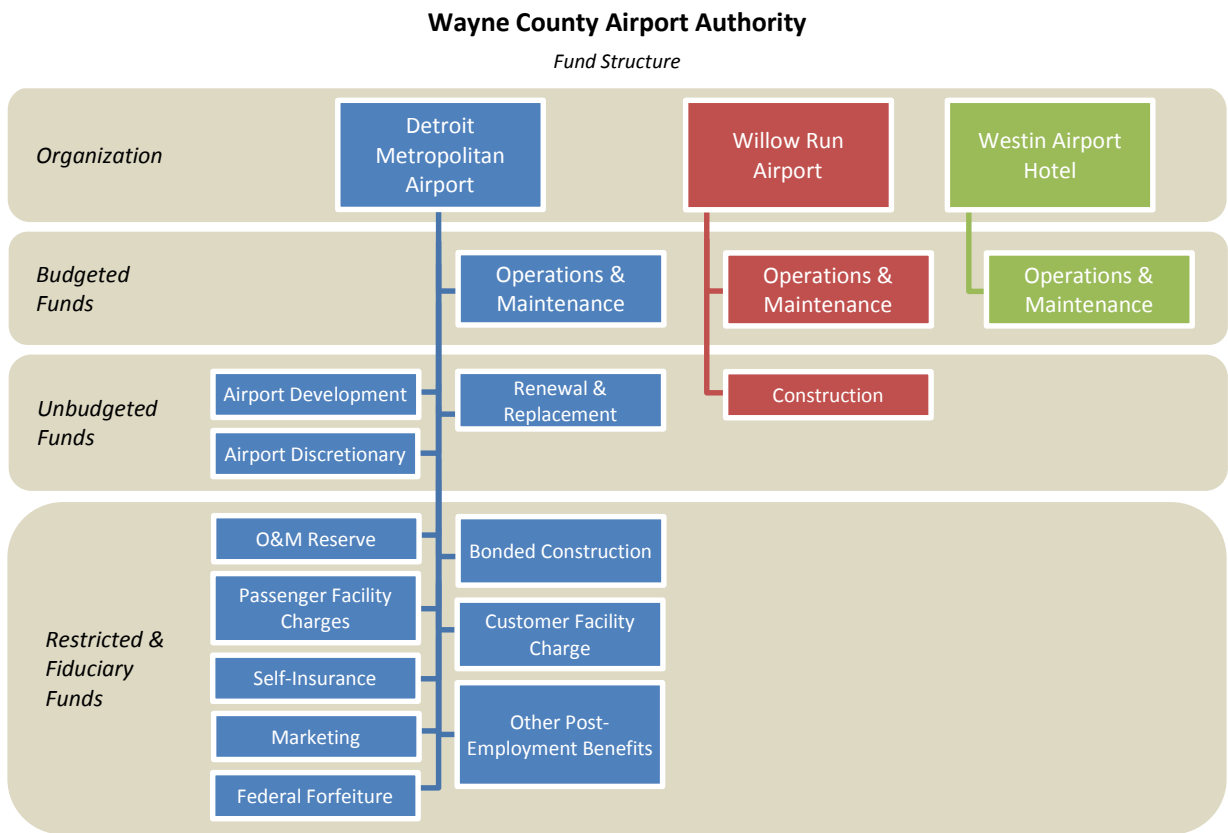
The Authority’s financial statements are prepared in accordance with Generally Accepted Accounting Principles (GAAP) as promulgated by Governmental Accounting Standards Board (GASB) principles. The financial statements of the Authority are presented on the full accrual basis of accounting and are accounted for on the flow-of-economic-resources measurement focus as applicable to governmental units; revenues are recorded when earned and expenses are recorded as incurred.

FUND STRUCTURES & DEFINITIONS

There are three separate operating funds used to manage the Authority’s day-to-day finances: the Airport O&M Fund, the Willow Run Airport O&M Fund and the Airport Hotel O&M Fund. The largest fund is the Airport O&M Fund which covers the operations of the Airport and accounts for 100 percent of all of the Airport’s departmental expenses. The Board of Directors approve budgets only for the three O&M funds.

The Authority manages various designated and construction funds to account for specific activities and projects. The terms “designated” and “construction funds” are categories used internally for the management and operation of the Authority. The matrix below illustrates the relationships between the Authority’s fund structures. As noted, the major funds are used to account for all financial transactions and resources for the Authority for all divisions and departments.

Figure E - 3: WCAA Fund Structure



REVENUE FUND

The Master Bond Ordinance defines “Revenues” to mean the general revenues derived from the operation of the Airport, which includes all amounts deposited in the Revenue Fund, from whichever source, and all income derived from, but not necessarily limited to, the following:

- Charges, fees, rentals, and rates, charged for services, facilities, and commodities furnished by the Airport, whether such income is derived from its function as an Airport or not
- Concessions, rentals, auto parking fees, service charges derived from the operation of the terminal complex buildings and facilities
- Airplane landing fees



- Non-airline gasoline fees
- Miscellaneous charges and rentals from other facilities and services
- Investment earnings or general revenues derived from the operation of the Airport accumulated by the Authority prior to deposit to the Revenue Fund

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#### O&M RESERVE FUND

The O&M Reserve Fund is funded to an amount equal to one-twelfth of estimated annual O&M expenses in the most recent Authority budget for the Airport. Via transfers from the Revenue Fund, the fund is adjusted to reflect changes in O&M expenses as they are estimated by the Authority in its budget for the Airport.

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#### BOND FUND

Except as otherwise provided in the Master Bond Ordinance, moneys on deposit in the Bond Fund are used for the purpose of paying the principal, redemption price, or interest on bonds.

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#### RENEWAL AND REPLACEMENT FUND

The Renewal and Replacement Fund is intended for paying:

- Costs of completing or replacing capital improvements at the Airport
- Making repairs, replacements, or renovations at the Airport

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#### AIRPORT DISCRETIONARY FUND

At the discretion of the CEO, and subject to applicable agreements, balances in the Airport Discretionary Fund can be applied to the payment of any cost or expense of the Authority incurred for any lawful purpose at the Airport or Willow Run Airport.

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#### AIRPORT DEVELOPMENT FUND

At the written discretion of the CEO, balances in the Airport Development Fund can be applied to the payment of any capital cost or expense of the Authority incurred for any lawful airport system related purposes.

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#### MARKETING FUND

The Marketing Fund represents fees paid to the Authority on a monthly basis equal to 0.25 percent of each Concessionaire's gross sales which can be used for advertising, publicity and/or other promotional materials and activities to market concessions and other services offered at the Airport.

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#### FEDERAL FORFEITURE FUND

Federal Forfeiture Fund represents receipts for asset forfeitures and can be used for specific expenses that are allowable under the guide to equitable sharing for state and local law enforcement agencies.

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#### OTHER POSTEMPLOYMENT BENEFITS FUND

In accordance with GASB Statement No. 43, 'Financial Reporting for Postemployment Benefit Plans Other than Pension Plans' and GASB No. 45, 'Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions', the Authority created in September 2008 an Act 149 Health Care Trust. This trust provides a funding mechanism for post-2002 retiree health, dental, and life insurance coverage and other postemployment

benefits other than pensions. The Authority began funding the trust and fully implemented GASB Statements No. 43 and No. 45 in September 2008. In September 2012, the Authority transferred these funds into a Municipal Employees' Retirement System (MERS) of Michigan Retiree Health Funding Vehicle, which is held in a separate reserve, but invested on a pooled basis by MERS with other governmental units.

## REVENUE RECOGNITION

Operating revenues are recorded as revenues at the time that services are rendered. Non-exchange transactions, in which the Authority receives value without directly giving equal value in return, include grants and capital contributions. Federal and state grants and capital contributions are recognized as revenues when the eligibility requirements, if any, are met.

## OPERATING & NON-OPERATING REVENUES AND EXPENDITURES

The Authority has classified its revenues and expenses as either operating or non-operating according to the following criteria:

**Operating** – Operating revenues and expenses include activities that have the characteristics of exchange transactions such as revenues from landing and related fees, concession fees and expenses paid to employees and vendors for goods and services.

**Non-operating** – Non-operating revenues and expenses include activities that have the characteristics of non-exchange transactions that are defined as non-operating by GASB No. 9, Reporting Cash Flows of Proprietary and Nonexpendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting, such as revenue from federal and state grants, contributions, investment income and expenses for capital debt.

## NET POSITION

Net position equity is displayed in three components as follows:

- **Net Investment in Capital Assets** – This consists of capital assets, net of accumulated depreciation, less the outstanding balances of any bonds, notes or other borrowings that are attributable to the acquisition, construction or improvement of those assets.
- **Restricted** – This consists of net position that is legally restricted by outside parties or by law through constitutional provisions or enabling legislation. When both restricted and unrestricted resources are available for use, generally it is the Authority's policy to use restricted resources first and then unrestricted resources when they are needed.
- **Unrestricted** – this consists of net position that does not meet the definition of "restricted" or "net investment in capital assets".

Assets and liabilities are generally measured using current values. One exception is capital assets, which are stated at historical cost less an allowance for depreciation. Figure E - 4 presents the forecast for FY 2017 operating results of the Authority, including restricted and unrestricted resources, non-operating revenues and expenses and revenues and expense estimates of funds that are not budgeted (i.e. discretionary, fiduciary and restricted). The estimate also includes all funds in the Authority's audited financial statements including, but not limited to, the O&M funds for the Airport, Willow Run and Airport Westin Hotel.

The Authority's estimated change in net position for FY 2017 is a decrease of \$13.8 million (-5.9 percent).

Figure E - 4: Estimated Change in Net Position FY 2017

<i>(\$ in thousands)</i>	Detroit Metropolitan Airport Fund <sup>1</sup>	Willow Run Airport Fund	Wayne County Airport Authority Total
<b>Estimated Net Position - Start of the Year (10/1/2016)</b>	\$ 153,456	\$ 81,562	\$ 235,019
<b>Airline Revenue</b>			
Landing Fees	80,399	723	81,122
Airline Rentals	83,038	262	83,299
Facility Use Fees	7,843	320	8,163
<b>Non-Airline Revenue</b>			
Parking	76,000	-	76,000
Car Rental	23,600	-	23,600
Concessions	37,621	-	37,621
Ground Transportation	4,849	-	4,849
Shuttle Bus	2,362	-	2,362
Utility Service Fees	4,650	119	4,768
Non-Airline Rentals	3,827	902	4,728
Charges For Services & Other Revenue	3,832	669	4,501
Hotel Operating Revenue	30,901	-	30,901
<b>Total Operating Revenue</b>	<b>358,921</b>	<b>2,994</b>	<b>361,915</b>
<b>Operating Expenses by Category</b>			
Salaries, Wages & Employee Benefits	83,775	1,459	85,233
Materials & Supplies	10,020	191	10,211
Professional & Contractual Services	62,602	933	63,535
Hotel Operating Expenses	19,286	-	19,286
Insurance	2,199	30	2,229
Utilities	23,873	663	24,536
Repair & Maintenance	45,713	976	46,689
Other Operating Expense	3,704	482	4,185
Depreciation	141,881	4,560	146,441
<b>Total Operating Expenses</b>	<b>393,053</b>	<b>9,292</b>	<b>402,345</b>
<b>Operating Income (Loss)</b>	<b>(34,131)</b>	<b>(6,298)</b>	<b>(40,429)</b>
<b>Non-Operating Revenue (Expenses)</b>			
Passenger Facility Fees (PFCs)	66,764	-	66,764
Customer Facility Charges (CFCs)	4,260	-	4,260
Interest Income	1,784	2	1,785
Interest & Financing	(87,589)	-	(87,589)
State & Federal Grants <sup>2</sup>	14,198	21	14,219
<b>Total Non-Operating Revenues (Expenses)</b>	<b>(583)</b>	<b>23</b>	<b>(560)</b>
Capital Contributions	27,154	-	27,154
Transfers In (Out)	(3,000)	3,000	-
<b>Change in Net Position</b>	<b>(10,561)</b>	<b>(3,275)</b>	<b>(13,836)</b>
<b>Estimated Net Position - End of Year (9/30/2017)</b>	<b>\$ 142,895</b>	<b>\$ 78,287</b>	<b>\$ 221,183</b>

May not sum to total due to rounding

Schedule encompasses all funds in the Authority's audited financial statements including, but not limited to, the O&M funds.

<sup>1</sup> Includes the Airport Westin Hotel

<sup>2</sup> Includes the State of Michigan Aviation Fuel Tax revenue

## CAPITAL IMPROVEMENT PLAN GUIDELINES

### ALIGNMENT

The Authority coordinates the development of the Capital Improvement Plan (CIP) with the development of the 20 Year Master Plan, Strategic Plan and O&M Budget. Projects are selected based on their alignment to the long-term goals and strategic priorities.

### CAPITAL BUDGET DEVELOPMENT

The five-year plans for the Capital Improvement Program at the Airport and Willow Run Airport are analyzed and updated to reflect active and future capital projects that are scheduled to begin within the next five years. They proactively plan for the replacement or reconstruction of essential infrastructure components that are nearing the end of their service life and take advantage of scheduling and coordinating execution of multiple projects to minimize operational impact and maximize fiscal efficiency. The plans are important tools used for formulating future bond issues and maximizing federal and state grant opportunities.

This is discussed further in the Capital Improvement Program chapter (page H-1).

## DEBT FINANCING PRINCIPLES

### ISSUANCE

The Authority issues General Airport Revenue Bonds (GARBs) to finance a major portion of the CIP. The bonds are revenue obligations of the Authority and do not constitute indebtedness to the County of Wayne or the State of Michigan within the meaning of any constitutional, statutory or charter provision or limitation. Neither the credit nor the taxing power of the County or the State is pledged for the payment of principal, premium (if any) or interest on the bonds. The Authority pledges its net revenues, as defined in the Authority's Master Airport Revenue Bond Ordinance, toward the repayment of the bonds.

The Authority has established the following guidelines for managing the long-term debt program:

- Debt financing is undertaken for required capital projects after all reasonable financing alternatives, including the use of Passenger Facility Charges (PFCs) and grants are considered
- Pay-as-you-go mode of financing is utilized to fund capital improvement projects to the extent feasible
- Long-term debt is not used to finance current non-capital expenditures
- Debt issues are structured based on attributes of the types of projects financed and market conditions at the time of issuance
- Financial advisors are retained for advice on debt structuring
- Policy on required continuing disclosure is maintained, including filing certain financial information and operating data with Nationally Recognized Municipal Securities Information Depositories and with the relevant State Information Depository
- The Authority defers the difference between the reacquisition price and the net carrying amount of the old debt in refundings in accordance with the provisions of GASB Statement No. 23, Accounting and Financial Reporting for Refundings of Debt Reported by Proprietary Activities. The deferred amount is amortized and recorded as a component of interest expense in accordance with the standard.

## DEBT LIMITS

The Authority has no legal debt limit, however, GARBs cannot be issued without Weighted Majority approval of the Signatory Airlines.

## FINANCIAL RESERVE POLICIES

The Authority maintains financial reserves to:

- Have funds available for an emergency or unexpected event
- Maintain or enhance the Authority's financial position and bond ratings
- Provide cash flow for operations prior to the receipt of airline and non-airline revenues

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## THE AIRPORT FUND RESERVES

The Detroit Metropolitan Airport Operating Fund is required (pursuant to Michigan Public Act 90) to maintain an operating reserve equal to one-twelfth of operating expenses. The reserve must be funded quarterly as needed and based on budgeted operating expenses.

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## WILLOW RUN AIRPORT FUND RESERVES

The Willow Run Airport Operating Fund is not required to maintain any operating reserve.

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## AIRPORT HOTEL FUND RESERVES

The Airport Hotel Operating Fund is required (pursuant to Michigan Public Act 90) to maintain three reserves. The first is an operating reserve of \$3.0 million, the second allows for centralized service fees equal to one-twelfth of the fixed centralized service fees for any year and the third covers the replacement of furniture, fixtures and equipment equal to 5.0 percent of hotel gross revenue for the year.

## SURPLUS & DEFICIT PROCEDURES

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### THE AIRPORT FUND

The residual funding methodology stipulates that Signatory Airlines are required to fund any deficit of the Airport and the Authority is required to refund any surplus each fiscal year.

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### WILLOW RUN AIRPORT FUND

Excess operational surpluses may be used to pay down debt, fund capital improvement projects or support ongoing operations. If need be, operational deficits are made whole by transfers from Authority discretionary funds.

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### AIRPORT HOTEL FUND

After the Airport Hotel funds operating needs, Furniture, Fixtures & Equipment (FF&E) investments, reserve requirements and debt obligations, excess proceeds may be transferred to the Airport Development Fund (ADF). The Airport Hotel Fund will draw on reserve balances to manage cash short-falls if there is an operational deficit.

## INVESTMENT POLICIES

### CASH & INVESTMENTS

Cash resources of the individual funds of the Authority, except as specifically stated by ordinance, are pooled and invested. Interest on pooled investments is allocated monthly among the respective funds based on average investment balances. Interest earned, but not received, at year end is accrued. Investments are stated at fair market value, which is based on quoted market prices.

Michigan Compiled Laws Section 129.9 1 (Public Act 20 of 1943, as amended), authorizes the Authority to make deposits and invest in the accounts of federally insured banks, credit unions and savings and loan associations that have offices in Michigan. The Authority may invest in bonds, securities and other direct obligations of the United States or any agency or instrumentality of the United States, repurchase agreements, bankers' acceptances of United States banks, commercial paper rated within the two highest classifications, which matures not more than 270 days after the date of purchase, obligations of the State of Michigan or its political subdivisions, which are rated as investment grade and mutual funds composed of investment vehicles that are legal for direct investment by local units of government in Michigan.

The investment policy adopted by the Authority in accordance with Public Act 20 of 1943, as amended, authorizes investments in US Treasuries, US agencies and instrumentalities (date specific maturities only), non-negotiable certificates of deposits, commercial paper (rated A2/P2 or above), bankers' acceptances, repurchase agreements, overnight deposits or mutual funds. For overnight deposits, the treasurer may invest in overnight or short-term liquid assets to cover cash flow requirements in the following types of pools: investment pools organized under the Surplus Funds Investment Pool Act of 1982, PA 367, 1 MCL 129.111 to MCL 129.118 or investment pools organized under the Urban Cooperation Act of 1967, PA 7, MCL 124.501 to 124.512. For mutual funds, the treasurer may invest in no-load fixed income mutual funds composed of investment vehicles, which are legal for direct investment by local units of government in Michigan, either taxable or tax-exempt. This authorization is limited to mutual funds whose intent is to maintain a net asset value of \$1.00 per share.

### CASH FLOWS

For purposes of the statement of cash flows, the Authority considers all highly liquid investments, including restricted assets, with a maturity of three months or less when purchased to be cash equivalents. All pooled investments qualify as cash equivalents.

## FIXED ASSET ACCOUNTING PROCEDURES

### DEFINITION OF A FIXED ASSET

Capital assets are stated at the estimated historical cost. Depreciation is computed using the straight line method over the following estimated useful lives of the assets:

- Buildings & Improvements 10 – 50 years
- Equipment & Vehicles 3 – 12 years
- Infrastructure 10 – 40 years

Expenditures with a cost of \$5,000 or more for capital assets and for major renewals and betterments that extend the estimated useful life of the assets are capitalized; routine maintenance and repairs are charged to expense as incurred. All costs relating to the construction of property and equipment owned by the Authority are capitalized, including salaries, employee benefits and interest costs during construction. At the time fixed assets are sold, retired

or disposed of, the costs of such assets and related accumulated depreciation are removed from the accounts and any gain or loss is reflected in the results of operations.

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#### ACQUISITION OF FIXED ASSETS

Assets may be acquired through many methods including purchases, project construction, capital leases, donations, exchanges, fabrication, loans, grants, contract receipts or rent credits.

Capital items (fixed assets) are identified as either:

- **New** – Through the initiative of the approved budget and/or the Capital Improvement Plan that justifies its purchase and alignment with the Authority’s strategic plan
- **Replacement** – Through capital asset maintenance programs or, as budgeted funds allow, for items already in the inventory
- **Emergency** – Ad-hoc needs are addressed at the discretion of the Chief Executive Officer

The procedures for purchasing fixed assets are:

- New and replacement capital items must be identified in the approved budget or the Capital Improvement Plan (CIP)
- The departments must coordinate with the Department of Financial Planning & Analysis to ensure that funding is secured before initiating the procurement sequence
- The departments initiate the purchase of an item in accordance with the Authority’s procurement ordinance

Once the item has been ordered or received, the vendors forward any invoices to accounts payable. The capitalization and subsequent addition to the inventory is made on payment date.

# BUDGET OVERVIEW

This section contains detailed information about the Airport's revenues, expenses and assumptions used to develop the FY 2017 Budget. It begins with the Airport Authority's Three Year Consolidated Financial Summary followed by the Summary of DTW Revenues and Expenses. An explanation of the assumptions used to develop the FY 2017 Budget and an Airport Authority Staffing Summary that rounds out the chapter.



AIRPORT AUTHORITY THREE YEAR CONSOLIDATED FINANCIAL SUMMARY

	Detroit Metropolitan Airport			Willow Run Airport			Westin Hotel			Total		
	FY 2015 Actual	FY 2016 Budget	FY 2017 Budget	FY 2015 Actual	FY 2016 Budget	FY 2017 Budget	FY 2015 Actual	FY 2016 Budget	FY 2017 Budget	FY 2015 Actual	FY 2016 Budget	FY 2017 Budget
<i>(In thousands)</i>												
<b>Revenues</b>												
<b>Airline Revenues</b>												
Landing Fees	\$ 73,268	\$ 76,795	\$ 80,399	\$ 621	\$ 642	\$ 723	\$ -	\$ -	\$ -	\$ 73,888	\$ 77,436	\$ 81,122
Rent	86,414	86,726	83,038	402	267	262	-	-	-	86,816	86,993	83,299
Facility Use Fee	8,065	7,782	7,843	302	297	320	-	-	-	8,367	8,078	8,163
<b>Total Airline Revenues</b>	<b>167,747</b>	<b>171,303</b>	<b>171,280</b>	<b>1,325</b>	<b>1,205</b>	<b>1,305</b>	-	-	-	<b>169,072</b>	<b>172,507</b>	<b>172,585</b>
<b>Non-Airline Revenues</b>												
Parking	68,018	68,887	76,000	-	-	-	-	-	-	68,018	68,887	76,000
Car Rental	22,429	22,700	23,600	-	-	-	-	-	-	22,429	22,700	23,600
Concessions	34,788	35,000	37,179	-	-	-	-	-	-	34,788	35,000	37,179
Ground Transportation	5,429	5,149	4,849	-	-	-	-	-	-	5,429	5,149	4,849
Shuttle Bus	2,101	2,150	2,362	-	-	-	-	-	-	2,101	2,150	2,362
Utility Service Fee	4,601	5,151	4,650	121	126	119	-	-	-	4,722	5,277	4,768
Rent	3,655	3,304	3,827	989	937	902	-	-	-	4,643	4,241	4,728
Other Revenue	1,641	1,280	1,881	29	19	19	-	-	-	1,670	1,299	1,900
Charges For Services	2,177	1,964	1,769	649	687	650	-	-	-	2,826	2,651	2,419
Hotel Revenues*	-	-	30,973	-	-	-	30,027	31,078	-	30,027	31,078	30,973
<b>Total Non-Airline Revenues</b>	<b>144,837</b>	<b>145,584</b>	<b>187,089</b>	<b>1,788</b>	<b>1,769</b>	<b>1,690</b>	<b>30,027</b>	<b>31,078</b>	<b>-</b>	<b>176,653</b>	<b>178,431</b>	<b>188,779</b>
<b>Non-Operating Revenues</b>												
Grants	1,332	819	1,003	8	21	21	-	-	-	1,339	840	1,024
Interest Income	110	100	100	0	1	0	27	26	-	137	127	100
Insurance Recovery	529	-	-	218	-	-	-	-	-	747	-	-
<b>Total Non-Operating Revenues</b>	<b>1,970</b>	<b>919</b>	<b>1,103</b>	<b>226</b>	<b>23</b>	<b>22</b>	<b>27</b>	<b>26</b>	<b>-</b>	<b>2,223</b>	<b>968</b>	<b>1,125</b>
<b>Total Revenues</b>	<b>\$ 314,554</b>	<b>\$ 317,806</b>	<b>\$ 359,473</b>	<b>\$ 3,339</b>	<b>\$ 2,996</b>	<b>\$ 3,016</b>	<b>\$ 30,054</b>	<b>\$ 31,104</b>	<b>\$ -</b>	<b>\$ 347,948</b>	<b>\$ 351,906</b>	<b>\$ 362,488</b>
<b>Expenses</b>												
<b>Operating Expenses</b>												
Salaries & Wages	\$ 49,221	\$ 48,191	\$ 52,358	\$ 915	\$ 908	\$ 953	\$ -	\$ -	\$ -	\$ 50,136	\$ 49,099	\$ 53,311
Employee Benefits	34,357	29,644	30,744	515	497	505	-	-	-	34,872	30,141	31,250
Materials & Supplies	9,334	9,206	9,821	115	174	191	-	-	-	9,449	9,380	10,012
Parking Management	7,882	7,193	8,641	-	-	-	-	-	-	7,882	7,193	8,641
Shuttle Bus	6,540	6,839	8,600	-	-	-	-	-	-	6,540	6,839	8,600
Janitorial	11,948	12,125	12,517	19	45	30	-	-	-	11,968	12,170	12,547
Security	2,558	2,793	4,992	-	-	-	-	-	-	2,558	2,793	4,992
Contractual Services	19,970	21,815	24,488	915	811	903	-	-	-	20,884	22,626	25,391
Insurance	2,145	2,184	2,199	31	34	30	-	-	-	2,176	2,218	2,229
Utilities	24,105	26,465	24,168	658	710	663	-	-	-	24,762	27,175	24,831
Buildings & Grounds	15,298	17,265	16,173	690	314	724	-	-	-	15,988	17,579	16,897
Equipment Repair	17,269	19,158	19,812	284	279	252	-	-	-	17,553	19,437	20,064
Other Operating Expense	4,638	4,066	4,210	547	450	482	-	-	-	5,185	4,516	4,692
O&M Capital	6,311	4,148	8,369	87	22	55	-	-	-	6,398	4,170	8,424
Hotel Expenses*	-	-	19,286	-	-	-	19,206	20,001	-	19,206	20,001	19,286
<b>Total Operating Expenses</b>	<b>211,576</b>	<b>211,093</b>	<b>246,379</b>	<b>4,776</b>	<b>4,244</b>	<b>4,787</b>	<b>19,206</b>	<b>20,001</b>	<b>-</b>	<b>235,558</b>	<b>235,338</b>	<b>251,167</b>
<b>Non-Operating Expenses</b>												
Net Debt Service	87,085	92,101	87,030	-	-	-	-	-	-	87,085	92,101	87,030
Funding Requirements	15,894	14,613	17,873	(1,357)	(1,248)	(1,772)	-	-	-	14,537	13,365	16,102
Hotel Funding Requirements*	-	-	8,190	-	-	-	10,270	9,166	-	-	9,166	8,190
<b>Total Non-Operating Expenses</b>	<b>102,979</b>	<b>106,714</b>	<b>113,093</b>	<b>(1,357)</b>	<b>(1,248)</b>	<b>(1,772)</b>	<b>10,270</b>	<b>9,166</b>	<b>-</b>	<b>111,892</b>	<b>114,631</b>	<b>111,322</b>
<b>Total Expenses</b>	<b>\$ 314,554</b>	<b>\$ 317,806</b>	<b>\$ 359,473</b>	<b>\$ 3,419</b>	<b>\$ 2,996</b>	<b>\$ 3,016</b>	<b>\$ 29,477</b>	<b>\$ 29,167</b>	<b>\$ -</b>	<b>\$ 347,450</b>	<b>\$ 349,970</b>	<b>\$ 362,488</b>
<b>Change in Net Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (80)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 577</b>	<b>\$ 1,936</b>	<b>\$ -</b>	<b>\$ 498</b>	<b>\$ 1,936</b>	<b>\$ -</b>

\*FY 2017 Detroit Metropolitan Airport budget includes Westin Hotel

## SUMMARY OF DTW AIRPORT REVENUES AND EXPENSES

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Revenues</b>					
<b>Airline Revenues</b>					
Landing Fees	\$ 73,268	\$ 76,795	\$ 80,399	\$ 3,605	4.7%
Rent	86,414	86,726	83,038	(3,688)	- 4.3%
Facility Use Fees	8,065	7,782	7,843	62	0.8%
<b>Total Airline Revenues</b>	<b>167,747</b>	<b>171,303</b>	<b>171,280</b>	<b>(22)</b>	<b>0.0%</b>
<b>Non-Airline Revenues</b>					
Parking	68,018	68,887	76,000	7,113	10.3%
Car Rental	22,429	22,700	23,600	900	4.0%
Concessions	34,788	35,000	37,179	2,179	6.2%
Ground Transportation	5,429	5,149	4,849	(300)	- 5.8%
Shuttle Bus	2,101	2,150	2,362	212	9.9%
Utility Service Fee	4,601	5,151	4,650	(501)	- 9.7%
Rent	3,655	3,304	3,827	522	15.8%
Other Revenue	1,641	1,280	1,881	601	47.0%
Charges For Services	2,177	1,964	1,769	(194)	- 9.9%
Hotel Revenues	-	-	30,973	30,973	n/a
<b>Total Non-Airline Revenues</b>	<b>144,837</b>	<b>145,584</b>	<b>187,089</b>	<b>41,505</b>	<b>28.5%</b>
<b>Non-Operating Revenues</b>					
Grants	1,332	819	1,003	184	22.5%
Interest Income	110	100	100	-	0.0%
Insurance Recovery	529	-	-	-	n/a
<b>Total Non-Operating Revenues</b>	<b>1,970</b>	<b>919</b>	<b>1,103</b>	<b>184</b>	<b>20.0%</b>
<b>Total Revenues</b>	<b>\$ 314,554</b>	<b>\$ 317,806</b>	<b>\$ 359,473</b>	<b>\$ 41,667</b>	<b>13.1%</b>
<b>Expenses</b>					
<b>Operating Expenses</b>					
Salaries & Wages	\$ 49,221	\$ 48,191	\$ 52,358	\$ 4,167	8.6%
Employee Benefits	34,357	29,644	30,744	1,101	3.7%
Materials & Supplies	9,334	9,206	9,821	615	6.7%
Parking Management	7,882	7,193	8,641	1,448	20.1%
Shuttle Bus	6,540	6,839	8,600	1,761	25.8%
Janitorial	11,948	12,125	12,517	392	3.2%
Security	2,558	2,793	4,992	2,199	78.7%
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Utilities	24,105	26,465	24,168	(2,297)	- 8.7%
Buildings & Grounds	15,298	17,265	16,173	(1,092)	- 6.3%
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Other Operating Expense	4,638	4,066	4,210	144	3.6%
O&M Capital	6,311	4,148	8,369	4,221	101.8%
Hotel Expenses	-	-	19,286	19,286	n/a
<b>Total Operating Expenses</b>	<b>211,576</b>	<b>211,093</b>	<b>246,379</b>	<b>35,287</b>	<b>16.7%</b>
<b>Non-Operating Expenses</b>					
Interest & Financing	107	124	120	(4)	- 2.8%
Debt Service & Coverage	87,085	92,101	87,030	(5,071)	- 5.5%
Funding Requirements	15,786	14,490	17,753	3,264	22.5%
Hotel Funding Requirements	-	-	8,190	8,190	n/a
<b>Total Non-Operating Expenses</b>	<b>102,979</b>	<b>106,714</b>	<b>113,094</b>	<b>6,380</b>	<b>6.0%</b>
<b>Total Expenses</b>	<b>\$ 314,554</b>	<b>\$ 317,806</b>	<b>\$ 359,473</b>	<b>\$ 41,667</b>	<b>13.1%</b>

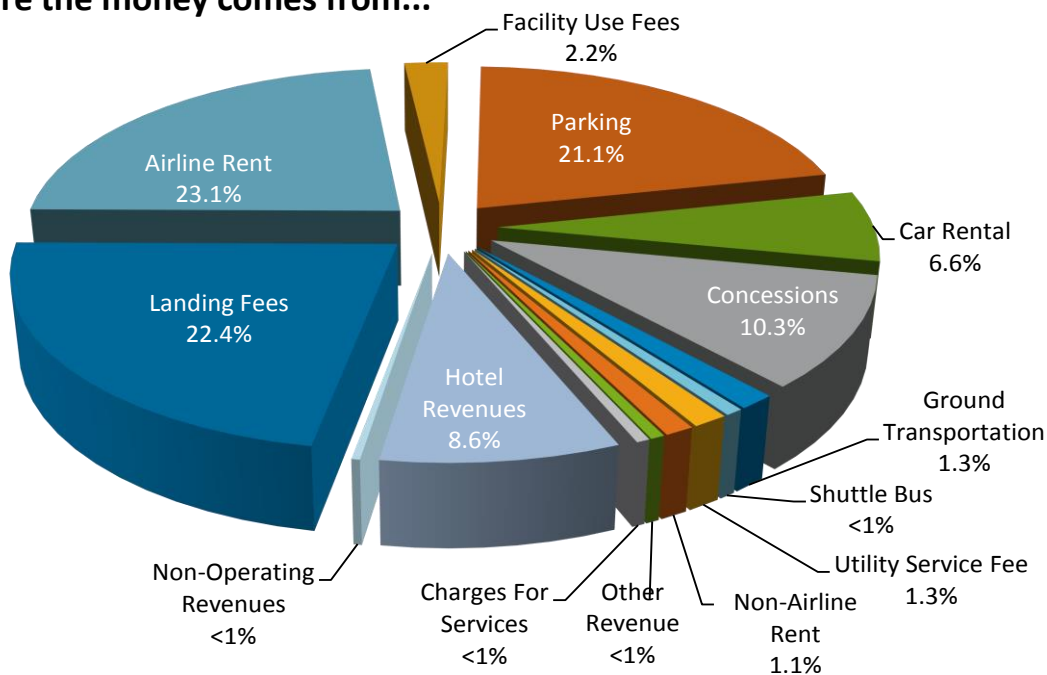
May not sum to total due to rounding

**REVENUE PROFILE**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Revenues</b>					
<b>Airline Revenues</b>					
Landing Fees	\$ 73,268	\$ 76,795	\$ 80,399	\$ 3,605	4.7%
Rent	86,414	86,726	83,038	(3,688)	- 4.3%
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<b>Total Airline Revenues</b>	<b>167,747</b>	<b>171,303</b>	<b>171,280</b>	<b>(22)</b>	<b>0.0%</b>
<b>Non-Airline Revenues</b>					
Parking	68,018	68,887	76,000	7,113	10.3%
Car Rental	22,429	22,700	23,600	900	4.0%
Concessions	34,788	35,000	37,179	2,179	6.2%
Ground Transportation	5,429	5,149	4,849	(300)	- 5.8%
Shuttle Bus	2,101	2,150	2,362	212	9.9%
Utility Service Fee	4,601	5,151	4,650	(501)	- 9.7%
Rent	3,655	3,304	3,827	522	15.8%
Other Revenue	1,641	1,280	1,881	601	47.0%
Charges For Services	2,177	1,964	1,769	(194)	- 9.9%
Hotel Revenues	-	-	30,973	30,973	n/a
<b>Total Non-Airline Revenues</b>	<b>144,837</b>	<b>145,584</b>	<b>187,089</b>	<b>41,505</b>	<b>28.5%</b>
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Grants	1,332	819	1,003	184	22.5%
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<b>Total Revenues</b>	<b>\$ 314,554</b>	<b>\$ 317,806</b>	<b>\$ 359,473</b>	<b>\$ 41,667</b>	<b>13.1%</b>

May not sum to total due to rounding

**Where the money comes from...**



ACTIVITY ASSUMPTIONS

ENPLANED PASSENGERS

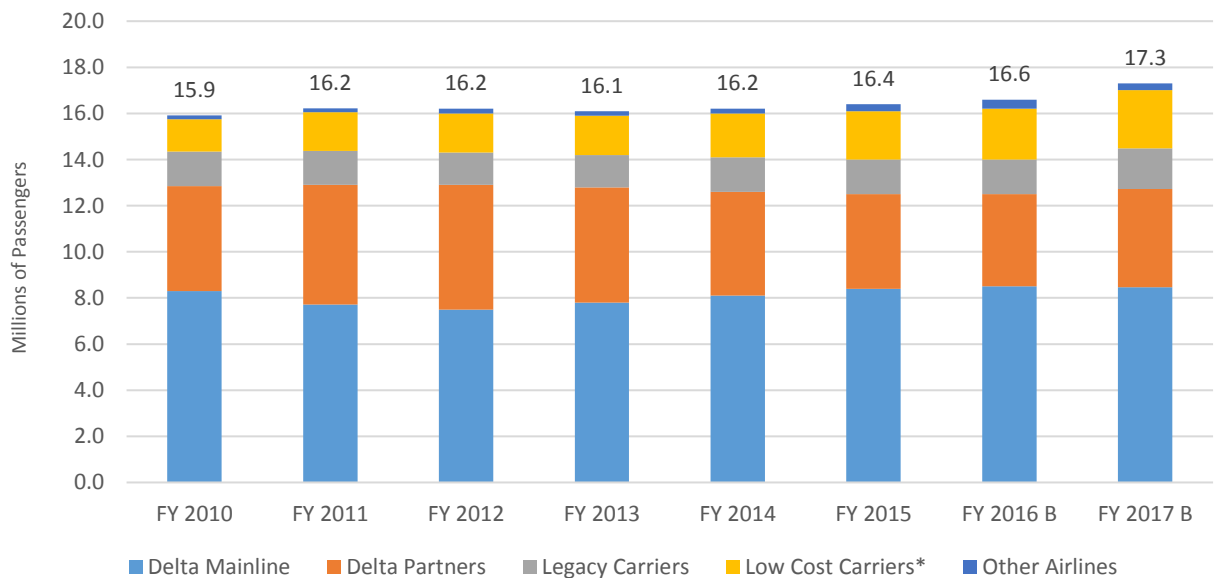
Driven by new routes added since FY 2014 and equipment “up-gauging”, the FY 2017 Budget assumes passenger enplanements will grow by 700,000 (4.2 percent) over the FY 2016 Budget. As illustrated in Figure 1, enplanements at the Airport were stable between FY 2010 and FY 2014 with a compounded average growth rate (CAGR) of 0.4 percent. The forecast for FY 2017 is growth of more than one million enplanements since FY 2014, a CAGR of 2.2 percent.

In the period between FY 2012 and FY 2014, a trend of airline mergers and “capacity discipline”, as termed by former Delta Air Lines’ CEO Richard Anderson, resulted in route consolidation among airlines and fewer operations system-wide. The strategy has been successful as increased load factors have contributed to higher airline profit margins. The Airport experienced a drop in total enplanements over this same period.

Demand for air travel since FY 2015 has been resilient and the airlines have added back seats and flights. In FY 2014, the Airport attracted three new carriers – JetBlue, Air Alaska and Virgin Atlantic, providing non-stop service to Boston, Seattle and London-Heathrow, respectively. Spirit added service, and expanded current service, to Atlanta, Kansas City, Los Angeles, Minneapolis and New Orleans in FY 2014 and in FY 2015 also added routes to Boston. In June 2015, Southwest added service to Dallas-Love Field, a non-stop destination previously not served. The additional routes added competition to the local O&D market, lowering fares and increasing enplanements (see the State of the Aviation Industry chapter for greater detail).

The second driver to enplanement growth is equipment “up-gauging”, whereby the airlines have been phasing-out small, regional jets (50 seats or less) in favor of larger and more fuel efficient aircraft. Consequently, the total number of operations have decreased, however seat capacity increased. This practice has reduced frequency to some small markets but added seat capacity to others. The net impact to the Airport is enplanement growth.

Figure F - 1: DTW Enplanements FY 2010 to FY 2017 Budget

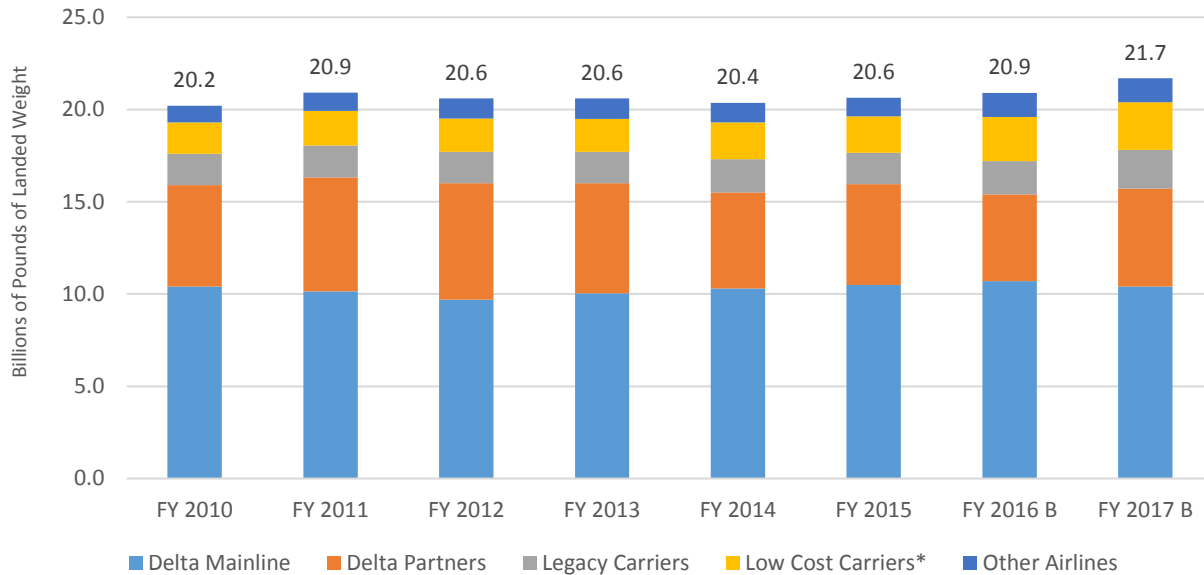


\* Low Cost Carriers include Frontier Airlines, Southwest Airlines, Spirit Airlines, JetBlue  
 Source: WCAA

## LANDED WEIGHTS

The FY 2017 budget forecasts an increase in landed weights of eight hundred million pounds (3.8 percent) over the FY 2016 budget. Similarly, the growth is attributed new routes and carriers added since FY 2014 and larger aircraft as a result of “up-gauging”.

Figure F - 2: DTW Landed Weight FY 2010 to FY 2017 Budget



\* Low Cost Carriers include Frontier Airlines, Southwest Airlines, Spirit Airlines, JetBlue

Source: WCAA

## REVENUE ASSUMPTIONS

### AIRLINE REVENUES

#### LANDING FEES

As a residual airport, landing fee revenue is determined by the total budgeted operating expenses of the airport less rent, non-airline and non-operating revenues. The overall landing fee requirement for FY 2017 is \$80.4 million, a 4.7 percent increase over prior year.

#### AIRLINE RENT

Rent paid by the airlines includes lease agreements for terminal and non-terminal facilities. Terminal rent is paid on a residual basis. Rental rates are based on the total expense to operate each terminal and debt service requirements, less facility use fees and other non-airline revenues. The rental requirements for the South and North Terminals are \$53.2 million and \$23.8 million, respectively.

Budget assumptions for non-terminal airline revenue, primarily the facilities rented by the airlines for cargo, maintenance and other operational needs, are based on known rental space lease agreements in place. For FY 2017 this amount is \$6.0 million.

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## FACILITY USE FEES

The airlines pay a Facility Use Fee of \$5.50 for each international passenger who deplanes at Detroit Metro Airport for use of the Federal Inspection Station (FIS), the holding area that includes customs processing. Revenue is estimated by multiplying the budgeted FY 2017 international deplanements by \$5.50. For FY 2017, this results in \$7.8 million.

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## NON-AIRLINE REVENUES

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### PARKING

Parking revenue assumptions are based on a forecast for parking transactions, average length of stay and rates at the parking facilities. Revenues are expressed net of the 27 percent State of Michigan Airport Parking Tax. The budget assumes that credit card transaction fees are 3 percent of gross revenues and an offsetting expense for credit card processing is budgeted in Other Operating Expenses.

The FY 2017 Budget assumes an increase of \$7.1 million (10.3 percent) over prior year. This is driven by a rise in originating passengers and the \$1.00 per day rate increase across all lots and decks that was introduced on December 19, 2015. Despite this rate increase, parking transactions and average length of stay have continued to grow, as they did following the \$1.00 increases on May 19, 2014 and February 1, 2015.

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### CAR RENTAL

Car rental agencies based at the Airport pay 10.0 percent of gross revenue or a minimum annual guarantee (MAG), whichever is greater.

The FY 2017 Budget assumes a car rental revenue increase of \$0.9 million (4.0 percent) which is in-line with the budgeted FY 2017 deplanements increase of 4.2 percent.

During FY 2016, Sixt, who was based off-airport, ceased operations at DTW. It is assumed that this will have no impact on the FY 2017 budget as the revenue generated by Sixt will be absorbed by the other rental car companies. Any potential loss of revenue is offset by the 0.5 percent increase in gross revenue percentage (Sixt paid 9.5 percent versus 10.0 percent for on-airport companies).

Of the \$23.6 million budgeted for car rental revenue, MAGs represent \$19.2 million (81.5 percent of the total) and excess revenue above the MAGs is \$4.4 million (18.5 percent of the total).

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### CONCESSIONS

The FY 2017 concessions revenue budget assumes a \$2.2 million (6.2 percent) increase over prior year. The most significant factor driving this increase is the first full-year impact of the new food and beverage program at the McNamara Terminal. The program, which completed in March 2016, saw the opening of 24 new concepts plus the addition of two new locations. Food and beverage revenue generation at the McNamara Terminal was forecasted to exceed expectations during FY 2016 and the strong performance is forecasted to continue into FY 2017 with a 16.3 percent increase.

Retail during FY 2016 at the McNamara Terminal is forecasted to underperform driven mostly by the closure of the Duty Free store. FY 2017 reflects a 0.9 percent decrease from FY 2016 due, in part, to the success of food & beverage program as the two programs compete for passenger dollars. Two new retail concepts are opening in FY 2017, one unit to replace the premises formerly occupied by the smaller Duty Free store, and the other, to occupy space that has been vacant since November 2014.

FY 2017 will also see new Duty Free concessions opening at both terminals. Construction is due to commence in October 2016 and a four month build program has been assumed. During this time, temporary Duty Free stores will be in operation and it is anticipated that these will generate 25 percent of full revenue.

At the North Terminal, the retail program changeover will begin in FY 2017, and a 15.9 percent decrease in revenue is forecast. It is assumed that six units will be changing over in three phases commencing January 2017. The food and beverage program at the North Terminal has been performing very strongly and will continue to increase in-line with enplanement growth.

Below is an outline of 'how it works during a changeover':

- i. Concessionaires operate the space under the old concept until their 'phase' of construction commences
- ii. The amount paid to the Authority is based on a percentage of gross sales for the given time period until the new concept is fully in place. No MAG is paid during changeover, as applicable
- iii. Once construction starts for their 'phase', the concept location is closed down completely for 120 days
- iv. Upon construction completion, the Concession Agreement, which includes details of the MAG and revenue component payable, is signed and the new concept is ready for business

The FY 2017 concessions budget is also boosted by the renewal of the pouring rights contract at both terminals with PepsiCo Inc. This is offset by a decrease in advertising revenue from Clear Channel due to a reduction in the number of advertising locations, and also in Wi-Fi revenue as DTW now offers free Wi-Fi to passengers. Both initiatives are designed to enhance the passenger airport experience.

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## GROUND TRANSPORTATION

Ground Transportation revenues are comprised of the concession fees and permits paid by taxi and limousine services, and a monthly access fee paid by off-airport parking lot and hotel shuttles. For FY 2017, a decrease of 5.8 percent (\$0.3 million) is projected due to a new contract for taxis.

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## SHUTTLE BUS

The Authority operates a shuttle bus service to transport both airline passengers between parking decks and lots and on-airport employees from designated employee parking lots to their work locations. Revenue is collected from the purchase of decals by employers for employees who require the shuttle bus services. The FY 2017 Budget assumes an increase of 9.9 percent (\$0.2 million) due to employees relocating from the Big Blue Parking Deck - Level 6 (decal cost is \$25.00) to the North Terminal Employee Lot (decal cost is \$45.00).

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## UTILITY SERVICE FEES

Utility services fees are collected from concessionaires and other parties who operate on airport property for utility consumption. The FY 2017 Budget assumes a decrease of 9.7 percent (\$0.5 million) due to lower consumption and rates.

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## NON-AIRLINE RENT

Non-airline rent includes rental revenue collected from non-airline tenants on airport property including, but not limited to, hangars, cargo facilities, rental car locations and office space.

The FY 2017 Budget has increased by 15.8 percent over prior year (\$0.5 million) mainly due to additional rent from Signature Flight Support and a new lease for Building 425.

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#### OTHER REVENUES & CHARGES FOR SERVICES

Other Revenue is comprised of miscellaneous revenue collected by the Authority such as employee credential fees and revenue from traffic violation tickets. FY 2017 is forecast to grow from \$1.3 million to \$1.9 million due to an increase in badging fees and auction proceeds.

Charges for services includes reimbursements from third-parties for the use of Authority resources. Examples include maintenance work orders and ambulance services. For FY 2017 a 9.9 percent (\$0.2 million) decrease from FY 2016 is assumed.

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#### GRANTS

The budget for grant revenue only includes grants which the Authority has received commitments from federal, state or other granting entities. The FY 2017 budget is anticipated to increase by 22.5 percent (\$0.2 million) to \$1.0 million due to additional funding for screening checkpoints.

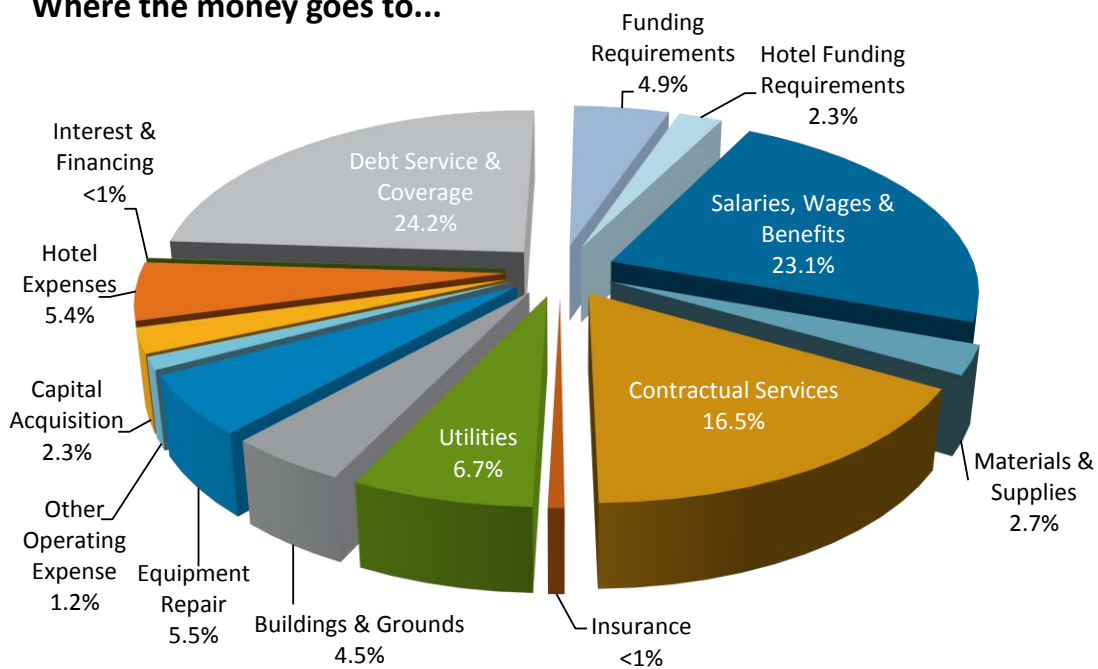


**EXPENDITURE PROFILE**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Expenses</b>					
<b>Operating Expenses</b>					
Salaries & Wages	\$ 49,221	\$ 48,191	\$ 52,358	\$ 4,167	8.6%
Employee Benefits	34,357	29,644	30,744	1,101	3.7%
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Parking Management	7,882	7,193	8,641	1,448	20.1%
Shuttle Bus	6,540	6,839	8,600	1,761	25.8%
Janitorial	11,948	12,125	12,517	392	3.2%
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Utilities	24,105	26,465	24,168	(2,297)	- 8.7%
Buildings & Grounds	15,298	17,265	16,173	(1,092)	- 6.3%
Equipment Repair	17,269	19,158	19,812	654	3.4%
Other Operating Expense	4,638	4,066	4,210	144	3.6%
O&M Capital	6,311	4,148	8,369	4,221	101.8%
Hotel Expenses	-	-	19,286	19,286	n/a
<b>Total Operating Expenses</b>	<b>211,576</b>	<b>211,093</b>	<b>246,379</b>	<b>35,287</b>	<b>16.7%</b>
<b>Non-Operating Expenses</b>					
Interest & Financing	107	124	120	(4)	- 2.8%
Debt Service & Coverage	87,085	92,101	87,030	(5,071)	- 5.5%
Funding Requirements	15,786	14,490	17,753	3,264	22.5%
Hotel Funding Requirements	-	-	8,190	8,190	n/a
<b>Total Non-Operating Expenses</b>	<b>102,979</b>	<b>106,714</b>	<b>113,094</b>	<b>6,380</b>	<b>6.0%</b>
<b>Total Expenses</b>	<b>\$ 314,554</b>	<b>\$ 317,806</b>	<b>\$ 359,473</b>	<b>\$ 41,667</b>	<b>13.1%</b>

May not sum to total due to rounding

**Where the money goes to...**



## EXPENDITURE ASSUMPTIONS

Operating expenses are budgeted with an assumption that all departments will provide a level of service consistent with the current fiscal year. The budget is adjusted for:

- All known contractual increases or decreases
- Economic enhancements specified in bargaining unit contracts
- Shifting trends in the consumption or rates for goods and services
- Adjustments for CEO Initiatives
- Removal of funding for one-time expenses from the prior fiscal year

The financial impact of changes to the level of service provided by the Authority, whether they are enhancements, modifications, or discontinuations, are added or subtracted after the base budget is established.

## OPERATING EXPENSES

### SALARIES & WAGES

The Salaries & Wages budget for FY 2017 assumes an 8.6 percent increase over prior year which equates to \$4.2 million. This increase reflects an 8.7 percent increase in the DTW staffing plan (623 employees in the FY 2016 Budget to 677 in FY 2017) and also provides for economic enhancements. Overtime is budgeted as a percentage of total salaries of classified employees who are eligible for overtime pay.

### EMPLOYEE BENEFITS

Employee benefits budget for FY 2017 increases by 3.7 percent (\$1.1 million) above FY 2016. It includes expenses for active and retired employee health care, pension contributions, Federal Insurance Contributions Act (FICA) taxes, workers compensation insurance, disability insurance, unemployment insurance and tuition reimbursements.

Health care insurance costs for the Authority, which is self-insured, are budgeted based on the results of actuarial analysis. The budget takes into account cost saving measures, including active employee co-pays. Pursuant to Public Act 54 of 2011, effective June 8, 2011, municipal employees are obligated to pay for 100 percent of the increase in their health insurance benefit cost upon the expiration of a collective bargaining agreement (with the exception of Local 3317 and Local 324).

Employee and retiree healthcare plans cost sharing includes:

- \$500 Individual/\$1,000 Family Deductible In-Network; \$1,000 Individual/\$2,000 Family Deductible Out-of-Network
- 15 percent In-Network Co-insurance after Deductible is met with \$1,000 Individual/\$2,000 Family Annual Out-of-Pocket Maximum; 25 percent Out-of-Network Coinsurance after Deductible is met with \$2,000 Individual/\$4,000 Family Annual Out-of-Pocket Maximum
- \$20 Office Visit Co-pay In-Network - \$200 Emergency Room Co-pay (waived if admitted)
- 50 percent Mental Health Co-pay
- Prescription Drug Co-pay: \$10 Generic/\$30 Formulary Brand/\$50 Non-Formulary Brand and Managed Pharmacy Program (Mandatory generic, Prior Authorization and Step-Therapy)

Funding for Other Post-Employment Benefits (OPEB) is budgeted in employee benefits at \$4.3 million for FY 2017.

Pension obligations are budgeted based on an actuarial study that estimates the Authority's required contribution.

## MATERIALS & SUPPLIES

The Materials & Supplies budget assumes that the Authority will provide a level of service consistent with the current year.

The most significant components of the materials and supplies budget are bulk chemicals for snow and ice removal, gasoline and diesel fuel, and janitorial supplies for the terminals.

The FY 2017 Budget is assumed to grow 6.7 percent (\$0.6 million) over prior year. This can be attributed to technology life-cycle management (new laptops, tablets, etc.) estimated to cost \$0.6 million and a \$0.4 million increase in liquid deicer expense due to a higher price per gallon and additional areas being treated. These increases are offset by \$0.4 million savings in gasoline and diesel fuel based on three-year averages of price and consumption.

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## PARKING MANAGEMENT

Operation of all public parking facilities is contracted to a third party who provides professional services, janitorial and some maintenance functions. The budget provides for annual increases for salaries in accordance with the terms of the current contract.

The FY 2017 Budget assumes an increase of 20.1 percent (\$1.4 million). This can be attributed to the year-round utilization of Green Lot #2 which was previously only open seasonally. This is to handle additional passenger demand, particularly during periods of planned construction and maintenance at the Big Blue Parking Deck. In addition to this, snow removal, power washing and defined general maintenance is a responsibility of the parking management contractor.

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## SHUTTLE BUS

Shuttle Bus service includes transportation for employees (both airside and landside) and passengers between parking locations, terminals and the Airport Westin Hotel. The FY 2017 Budget anticipates an increase of 25.8 percent (\$1.8 million). This can be attributed to the purchase of four new vehicles and additional service due to Green Lot #2 opening year-round.

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## JANITORIAL SERVICES

Janitorial Services covers cleaning for the terminals, ground transportation center and all Authority administration buildings and support facilities. Additional passengers, particularly at the North Terminal, has resulted in greater scope and frequency of service and this is reflected in the 3.2 percent (\$0.4 million) increase for FY 2017.

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## SECURITY

The budget for Security covers guard services provided by a contractor across the whole airport campus. FY 2017 sees a significant 78.7 percent increase (\$2.2 million) due to the introduction of employee screening at both terminals. This is in addition to the annual contractual increases.

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## CONTRACTUAL SERVICES

Contractual Services is one of the highest expense categories for the Authority and covers a wide range of specialist and professional functions both operational and administrative. The largest components are technology services, management and dockmaster for both terminals, and snow and liquid deicer removal.

FY 2017 sees a 12.3 percent increase of \$2.7 million. The main driver of this increase is technology services initiatives such as Maximo enhancements (Maintenance management system), Cornerstone enhancements (HR software) and the development of new websites. In addition, there is an increase in contract and scope for snow removal and a new contract for the collection and removal of liquid deicer.

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#### INSURANCE

Insurance covers both property and liability insurance at the Airport. The FY 2017 budget remains consistent to prior year, showing a slight increase of 0.7 percent.

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#### UTILITIES

Utility expenses for electricity, gas, water and HVAC are budgeted based on the three year average for rate and volume. The FY 2017 Budget assumes an 8.7 percent decrease (\$2.3 million) and this can be attributed to a reduction in electricity rates and lower consumption achieved by converting to LED lighting.

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#### BUILDINGS & GROUNDS

The FY 2017 Budget includes costs associated with the Authority's five-year infrastructure plan for bridges and non-AOA roads on the Airport's campus.

Due to a number of one-time expenses in FY 2016, the FY 2017 Budget assumes a 6.3 percent decrease which equates to \$1.1 million.

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#### EQUIPMENT REPAIR & MAINTENANCE

Corrective maintenance expenses are budgeted by identifying necessary projects prior to the budget formulation while preventative maintenance expenses are budgeted at known contractual amounts. There is also a provision for unexpected repairs which is based on historical trends.

For FY 2017, the Equipment Repair budget has increased by 3.4 percent (\$0.7 million) to \$19.8 million. The main drivers are maintenance and changes to the security card access system, planned improvements to the North Terminal baggage handling system and contractual increases for elevator and escalator maintenance.

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#### OTHER OPERATING EXPENSES

The Other Operating Expenses category includes miscellaneous expenses not specified in the aforementioned categories. Among these expenses are property taxes, telephone charges, travel, professional development and advertising.

For FY 2017, a 3.6 percent (\$0.1 million) increase is assumed and this can be attributed to credit card transaction fees at the parking facilities, the largest expense in this cost category. The budget assumes that these fees are 3.0 percent of gross parking revenues and will therefore increase in-line with the growth in parking revenue.

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#### CAPITAL ACQUISITION

The Capital Acquisition category includes expenditures to either: (1) buy fixed assets with an individual unit value of \$5,000 or greater and a useful life beyond one year, or (2) add to the value of an existing fixed asset with a useful life that extends beyond one year. The Capital Acquisition budget is developed through the estimated cost of specific projects or fixed asset acquisitions, including routine life-cycle replacements.

The FY 2017 Budget anticipates a significant increase of \$4.2 million (101.8 percent) to \$8.4 million. The main drivers are:

- Information technology life-cycle management including replacement of servers and network equipment
- New initiative for an Electronic Document Management System
- Rolling stock including vehicles, trailers, mowers and other equipment
- Renovations to the McNamara Terminal (Delta initiatives)

## NON-OPERATING EXPENSES

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### NET DEBT SERVICE

Debt service expenses budgeted in the O&M fund represent the transfer requirement from airline rates and charges to the Bond Fund for payment of interest and principal on existing debt minus other sources of funding from the gross debt service obligation. The greatest among these other sources of funding are Passenger Facility Charges (PFCs) which are collected on a per enplanement basis by the airlines, who pass the funds through to the Authority less an administrative fee.

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### FUNDING REQUIREMENTS

The budgeted annual transfer from the O&M fund to the Airport Development Fund (ADF) is adjusted annually by the Producer Price Index (PPI). Based on current trending, the budget assumes the PPI will remain relatively flat. The additional transfer of \$2.5 million contribution to ADF from Automated Vehicle Identification (AVI) revenues is consistent with FY 2016.

Transfers for the Renewal & Replacement Fund and the Discretionary Fund are fixed amounts of \$0.5 million and \$0.35 million, respectively.

Included in the funding requirements line is \$1.1 million of post-retirement healthcare costs for County employees who retired prior to the Transfer Date with service credit in the County's former Division of Airports (the "Pre-2002 Airport Retirees"). These employee costs are pooled with the post-retirement healthcare costs of all other County retirees who retired prior to September 1, 2002. The Authority's estimated Actuarial Accrued Liability (AAL) does not include an estimate of the post-retirement healthcare costs for the Pre-2002 Airport Retirees, who are recognized on the books of the County; however, the Authority pays 11.25 percent of the actual costs of this pool of retirees on a pay-as-you-go basis. As this pool is a closed group, and the retirees whose healthcare costs are in the pool are approaching 100 percent Medicare eligibility. The Authority expects its annual required payments to the County for this closed pool to decrease over time.

In addition to healthcare costs, the Authority is also responsible for a portion of the pension funding for the Pre-2002 Retirees. Based upon an actuarial evaluation and County historical payroll data, the Authority has determined that its share of the pension funding requirements for the Pre-2002 Retirees is 10.25 percent of the actuarial required contribution. The Authority has budgeted \$4.4 million for this obligation in FY 2017.

## AIRPORT AUTHORITY STAFFING SUMMARY

Full-Time Employees (FTEs)	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	Five-Year CAGR
<b>Detroit Metropolitan Airport</b>						
Office of the Chief Executive Officer	1	1	1	1	1	0.0%
Public Affairs	5	5	6	8	6	3.7%
Internal Audit	3	3	3	3	3	0.0%
Legal Affairs	5	5	5	5	5	0.0%
Authority Governance	2	2	2	2	2	0.0%
Government Relations	-	-	-	-	1	N/A
Planning & Strategic Management	9	11	4	5	6	-7.8%
Procurement & Business Diversity	13	14	15	17	19	7.9%
<b>Total Chief Executive Officer Division</b>	<b>38</b>	<b>41</b>	<b>36</b>	<b>41</b>	<b>43</b>	<b>2.5%</b>
<b>Finance &amp; Administration Division</b>						
Office of the Chief Financial Officer	2	2	2	2	2	0.0%
Financial Planning & Analysis	6	7	8	8	8	5.9%
Human Resources	11	11	13	13	14	4.9%
Controller	21	21	18	19	21	0.0%
Risk Management	2	2	3	3	3	8.4%
Technology Services	13	15	14	18	21	10.1%
<b>Total Finance &amp; Administration Division</b>	<b>55</b>	<b>58</b>	<b>58</b>	<b>63</b>	<b>69</b>	<b>4.6%</b>
<b>Operations &amp; Maintenance Division</b>						
Operations & Maintenance Administration	2	2	3	3	6	24.6%
Airfield Operations	40	39	41	46	47	3.3%
Landside Services	23	23	23	23	26	2.5%
Environmental	5	5	9	9	9	12.5%
Energy	12	12	41	43	53	34.6%
Maintenance	161	161	142	150	159	-0.2%
<b>Total Operations &amp; Maintenance Division</b>	<b>243</b>	<b>242</b>	<b>259</b>	<b>274</b>	<b>300</b>	<b>4.3%</b>
<b>Public Safety Division</b>						
Public Safety Administration	3	3	3	3	2	-7.8%
Police	107	107	107	98	104	-0.6%
Fire	60	61	61	61	70	3.1%
Security	30	30	31	17	20	-7.8%
Special Services	3	3	3	26	27	55.2%
<b>Total Public Safety Division</b>	<b>203</b>	<b>204</b>	<b>205</b>	<b>205</b>	<b>223</b>	<b>1.9%</b>

<b>Full-Time Employees (FTEs)</b>	<b>FY 2013 Budget</b>	<b>FY 2014 Budget</b>	<b>FY 2015 Budget</b>	<b>FY 2016 Budget</b>	<b>FY 2017 Budget</b>	<b>Five-Year CAGR</b>
<b>Facilities Design &amp; Construction</b>						
Facilities & Development Administration	1	1	1	-	-	-100.0%
Infrastructure & Engineering	12	14	-	-	-	-100.0%
Facilities Design & Construction	10	13	3	3	3	-21.4%
Facility Design	5	5	7	8	9	12.5%
Facility Construction	-	-	9	9	9	N/A
Facility Alteration & Support	-	-	5	6	6	N/A
<b>Total Facilities Design &amp; Construction</b>	<b>28</b>	<b>33</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>-0.7%</b>
<b>Business Development &amp; Real Estate Division</b>						
Business Development and Real Estate	3	3	8	9	10	27.2%
Air Service Development	1	1	1	1	1	0.0%
Airline Real Estate	-	-	-	-	-	N/A
Concessions and Quality Services	4	4	4	4	4	0.0%
<b>Total Business Development &amp; Real Estate Division</b>	<b>8</b>	<b>8</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>13.4%</b>
<b>Total Detroit Metropolitan Airport</b>	<b>575</b>	<b>586</b>	<b>596</b>	<b>623</b>	<b>677</b>	<b>3.3%</b>
<b>Willow Run Airport</b>						
Administration	3	3	3	4	3	0.0%
Operations	1	1	1	1	1	0.0%
Maintenance	7	7	7	7	9	5.2%
<b>Total Willow Run Airport</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>3.4%</b>
<b>Total Airport Authority</b>	<b>586</b>	<b>597</b>	<b>607</b>	<b>635</b>	<b>690</b>	<b>3.3%</b>

# COST CENTER, DIVISION & DEPARTMENT SUMMARIES

This chapter contains summaries of all Authority Cost Centers, Divisions and the Department sub-divisions.

## COST CENTER SUMMARIES

A cost center is any unit of activity, group of employees, line of products, etc., isolated or arranged in order to allocate and assign costs more easily. Cost center accounting attempts to report results in such a way that:

- Significant variances from planned performance can be identified
- Reasons for variances can be determined
- Responsibility can be fixed
- Timely action can be taken to correct problems

The five basic components of cost center accounting are:

1. Labor (personnel)
2. Contractual Services
3. Materials & Supplies
4. Equipment Expenses
5. Overhead or Indirect Costs

### Detroit Metropolitan Airport Cost Centers

- North Terminal
- South Terminal
- Airfield
- Facilities & Maintenance
- North Power Plant
- Cargo & Hangar
- Ground Transportation
- Public Safety
- Fire & EMS
- Administration

## DIVISION & DEPARTMENT SUMMARIES

Each Division summary includes an organizational chart and historical employee chart by Department. The Department summaries include the following:

- Overview of functions and responsibilities
- Description of resource allocation
- Three-year financial tables with budget to budget variance explanations
- Operating expense pie chart by budget category
- Three-year bar chart of total operating expenses

For the purposes of this chapter, Willow Run Airport and the Westin Hotel are treated like operating divisions and are also included.



**COST CENTER SUMMARIES**

**NORTH TERMINAL COST CENTER**

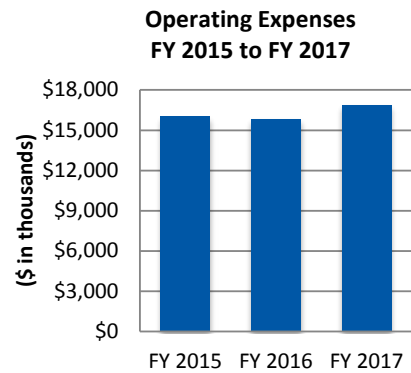
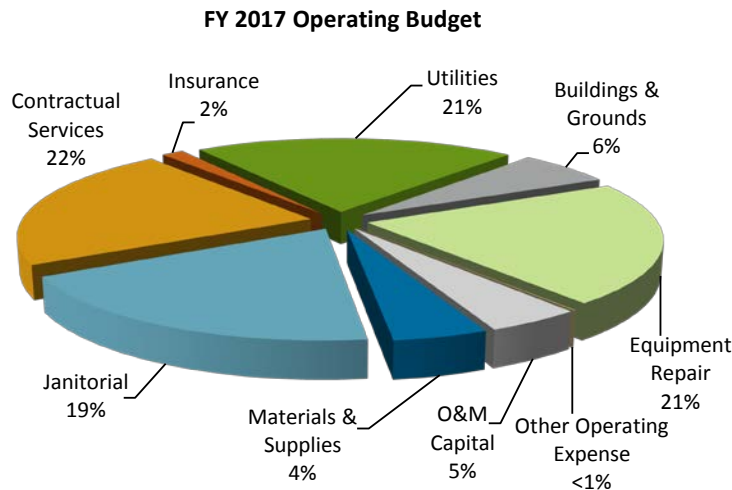
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Materials & Supplies <sup>1</sup>	\$ 471	\$ 585	\$ 739	\$ 154	26.2%
Janitorial <sup>1</sup>	2,782	2,869	3,223	354	12.3%
Contractual Services	3,435	3,524	3,695	171	4.8%
Insurance	217	241	245	4	1.7%
Utilities	3,831	3,695	3,573	(122)	-3.3%
Buildings & Grounds	1,421	1,024	1,042	18	1.8%
Equipment Repair <sup>2</sup>	3,287	3,897	3,611	(286)	-7.3%
Other Operating Expense	20	31	8	(22)	-72.7%
O&M Capital <sup>3</sup>	575	-	747	747	n/a
<b>Total</b>	<b>\$ 16,039</b>	<b>\$ 15,866</b>	<b>\$ 16,884</b>	<b>\$ 1,017</b>	<b>6.4%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 increase in janitorial supplies and service due to additional passenger traffic

<sup>2</sup> FY 2016 budget included one-time expense for painting and carpeting of the jet bridges

<sup>3</sup> FY 2017 increase due to upgrade of DANTEc's technology systems



**Key Performance Measures: North Terminal**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Terminal Enplanement	\$ 4.14	\$ 4.06	\$ 3.77	\$ (0.29)	-7.1%
Operating Expense per Square Foot of Terminal Space	\$ 18.85	\$ 18.64	\$ 19.84	\$ 1.20	6.4%

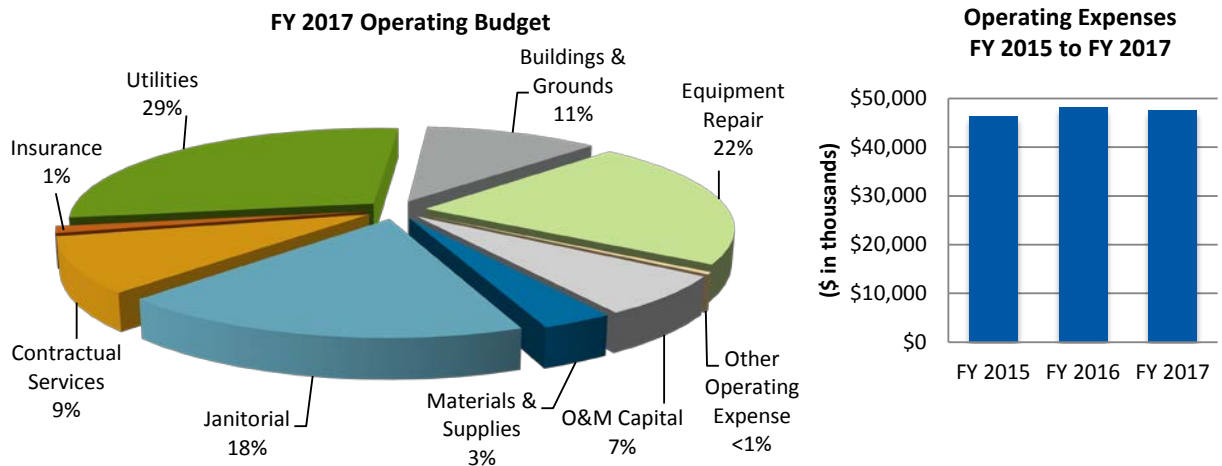
**SOUTH TERMINAL COST CENTER**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Materials & Supplies	\$ 1,783	\$ 1,575	\$ 1,488	\$ (87)	-5.5%
Janitorial	8,493	8,504	8,543	38	0.5%
Contractual Services	4,395	4,286	4,380	94	2.2%
Insurance	473	502	547	45	9.0%
Utilities <sup>1</sup>	13,990	15,713	13,691	(2,022)	-12.9%
Buildings & Grounds	6,721	5,013	5,280	267	5.3%
Equipment Repair	9,625	10,120	10,329	209	2.1%
Other Operating Expense	144	167	176	9	5.7%
O&M Capital <sup>2</sup>	666	2,282	3,128	846	37.1%
<b>Total</b>	<b>\$ 46,291</b>	<b>\$ 48,161</b>	<b>\$ 47,561</b>	<b>\$ (600)</b>	<b>-1.2%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 decrease can be attributed to consumption savings due to LED conversion and lower rates

<sup>2</sup> FY 2017 increase due to Delta initiatives



**Key Performance Measures: South Terminal**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Terminal Enplanement	\$ 3.68	\$ 3.79	\$ 3.71	\$ (0.09)	-2.2%
Operating Expense per Square Foot of Terminal Space	\$ 19.07	\$ 19.84	\$ 19.60	\$ (0.25)	-1.2%

**AIRFIELD COST CENTER**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 12,594	\$ 12,336	\$ 13,505	\$ 1,168	9.5%
Materials & Supplies <sup>2</sup>	2,647	2,415	2,907	492	20.4%
Contractual Services <sup>3</sup>	3,265	3,682	4,429	747	20.3%
Utilities	2,778	3,097	3,096	(1)	0.0%
Buildings & Grounds <sup>4</sup>	4,350	5,765	4,771	(994)	-17.2%
Equipment Repair	735	688	790	102	14.9%
Other Operating Expense	(75)	136	143	8	5.6%
O&M Capital	2,127	-	86	86	n/a
<b>Total</b>	<b>\$ 28,421</b>	<b>\$ 28,119</b>	<b>\$ 29,727</b>	<b>\$ 1,608</b>	<b>5.7%</b>

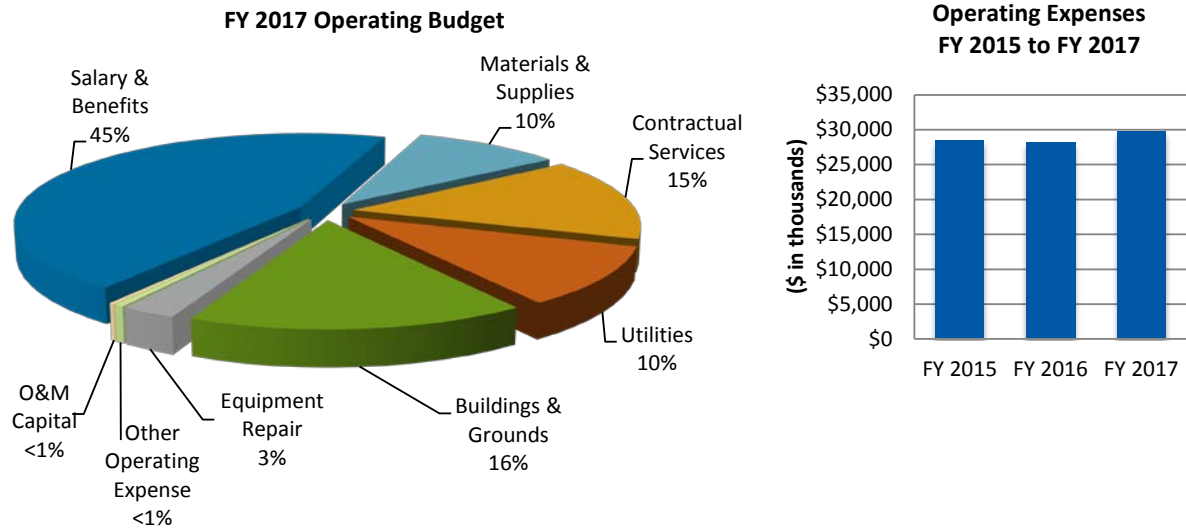
May not sum to total due to rounding

<sup>1</sup> FY 2017 includes seven additional employees

<sup>2</sup> FY 2017 increase in deicing fluid cost

<sup>3</sup> FY 2017 increase due to a new contract for the collection and removal of deicing fluid and an increase in the snow removal contract

<sup>4</sup> FY 2016 included expenditure for pond dredging



**Key Performance Measures: Airfield**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 1.73	\$ 1.69	\$ 1.72	\$ 0.02	1.4%
Operating Expense per Airfield Acre	\$ 21,162	\$ 20,937	\$ 22,135	\$ 1,197	5.7%
Operating Expense per Operation	\$ 74.79	\$ 73.97	\$ 75.35	\$ 1.39	1.9%

FACILITIES & MAINTENANCE COST CENTER

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 9,439	\$ 9,399	\$ 10,211	\$ 812	8.6%
Materials & Supplies <sup>2</sup>	1,219	1,657	1,435	(221)	-13.3%
Janitorial	462	557	557	-	0.0%
Contractual Services <sup>3</sup>	1,049	1,320	1,916	596	45.1%
Utilities	423	503	469	(34)	-6.7%
Buildings & Grounds	773	1,805	1,726	(79)	-4.4%
Equipment Repair <sup>4</sup>	1,192	1,231	1,416	185	15.0%
Other Operating Expense	125	262	253	(9)	-3.3%
O&M Capital	1,606	1,437	1,515	78	5.4%
<b>Total</b>	<b>\$ 16,289</b>	<b>\$ 18,172</b>	<b>\$ 19,499</b>	<b>\$ 1,327</b>	<b>7.3%</b>

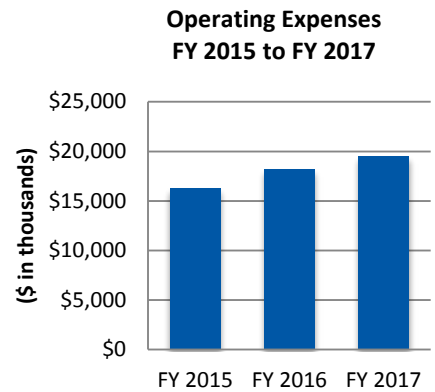
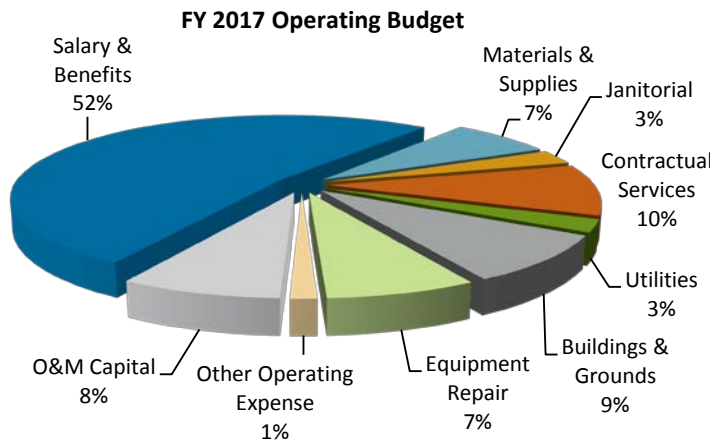
May not sum to total due to rounding

<sup>1</sup> FY 2017 includes seven additional employees

<sup>2</sup> FY 2017 decrease due to a reduction in fuel and diesel prices

<sup>3</sup> FY 2017 increase includes pond dredging survey, bridge inspections, and paving design

<sup>4</sup> FY 2017 increase includes maintenance for portable generators, emergency vehicle lighting, and security turnstile repairs



Key Performance Measures: Facilities & Maintenance

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 0.99	\$ 1.09	\$ 1.13	\$ 0.03	3.0%

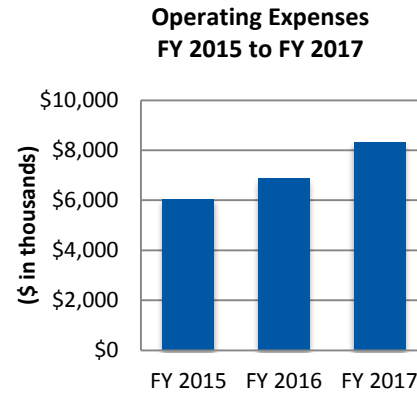
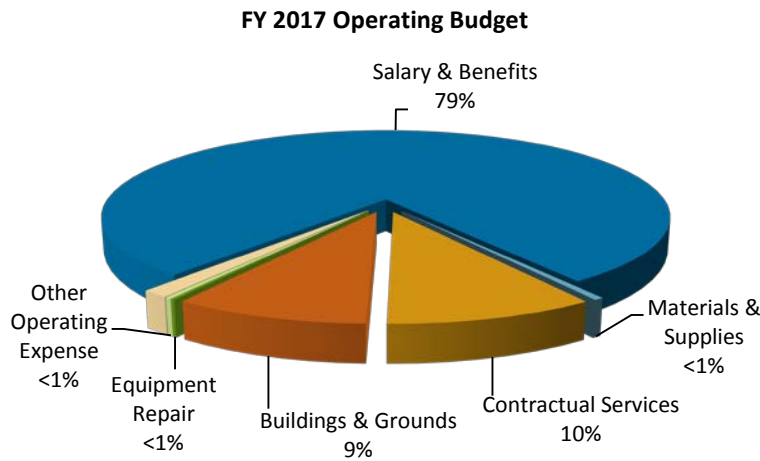
**NORTH POWER PLANT COST CENTER**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 6,340	\$ 6,027	\$ 7,370	\$ 1,343	22.3%
Materials & Supplies	45	27	42	15	54.5%
Contractual Services	638	871	897	26	3.0%
Utilities	(1,179)	(979)	(979)	-	0.0%
Buildings & Grounds	409	850	835	(15)	-1.8%
Equipment Repair	8	18	18	-	0.0%
Other Operating Expense	(194)	22	27	6	27.4%
O&M Capital <sup>2</sup>	-	41	120	80	>100%
<b>Total</b>	<b>\$ 6,066</b>	<b>\$ 6,877</b>	<b>\$ 8,331</b>	<b>\$ 1,454</b>	<b>21.1%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes nine additional employees

<sup>2</sup> FY 2017 includes the addition of a portable trailer mounted generator



**Key Performance Measures: North Power Plant**

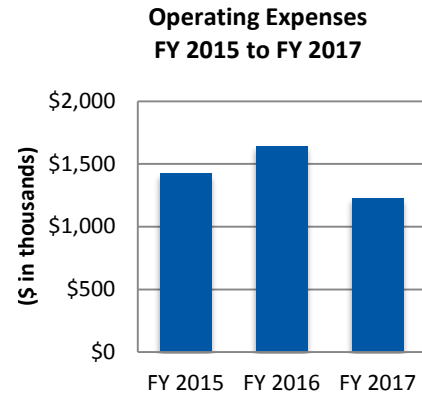
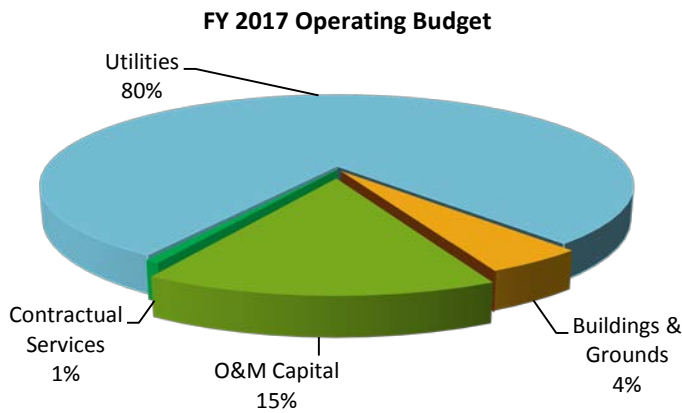
Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 0.37	\$ 0.41	\$ 0.48	\$ 0.07	16.2%
Operating Expense per Square Foot	\$ 1.85	\$ 2.10	\$ 2.54	\$ 0.44	21.1%

CARGO & HANGAR COST CENTER

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Contractual Services	\$ 12	\$ 7	\$ 8	\$ 1	12.0%
Utilities <sup>1</sup>	1,227	1,324	978	(346)	-26.1%
Buildings & Grounds	2	56	56	-	0.0%
Other Operating Expense	1	-	-	-	n/a
O&M Capital	182	256	187	(69)	-26.9%
<b>Total</b>	<b>\$ 1,425</b>	<b>\$ 1,643</b>	<b>\$ 1,229</b>	<b>\$ (414)</b>	<b>-25.2%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 decrease can be attributed to consumption savings due to LED conversion and lower rates



**Key Performance Measures: Cargo & Hangar**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 0.09	\$ 0.10	\$ 0.07	\$ (0.03)	-30.3%
Operating Expense per Square Foot	\$ 0.43	\$ 0.50	\$ 0.37	\$ (0.13)	-25.9%

**GROUND TRANSPORTATION COST CENTER**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 2,520	\$ 2,235	\$ 2,487	\$ 252	11.3%
Materials & Supplies	490	719	715	(4)	-0.6%
Parking Management <sup>2</sup>	7,882	7,193	8,641	1,448	20.1%
Shuttle Bus <sup>3</sup>	6,540	6,839	8,600	1,761	25.8%
Janitorial	206	195	195	-	0.0%
Contractual Services <sup>2</sup>	1,309	2,405	1,475	(930)	-38.7%
Utilities <sup>4</sup>	2,135	2,209	1,882	(327)	-14.8%
Buildings & Grounds <sup>2</sup>	1,583	2,797	2,122	(675)	-24.1%
Equipment Repair	643	737	737	-	0.0%
Other Operating Expense	2,153	2,008	2,166	158	7.9%
O&M Capital <sup>5</sup>	49	-	450	450	n/a
<b>Total</b>	<b>\$ 25,509</b>	<b>\$ 27,337</b>	<b>\$ 29,470</b>	<b>\$ 2,133</b>	<b>7.8%</b>

May not sum to total due to rounding

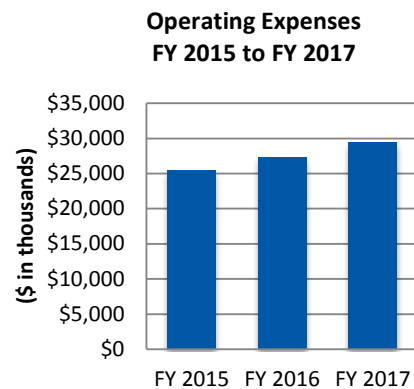
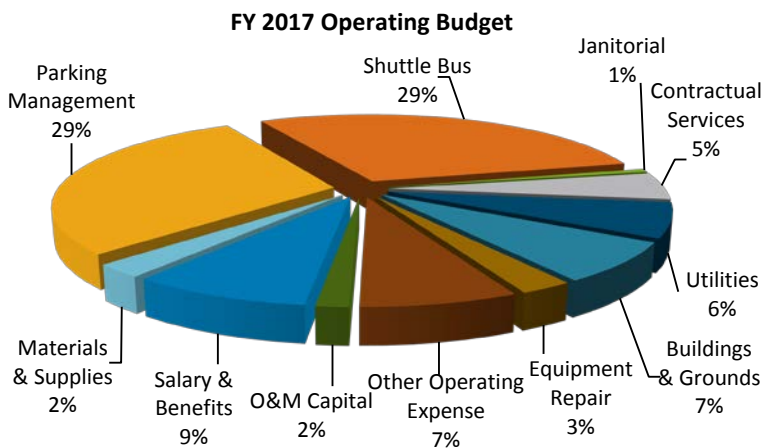
<sup>1</sup> FY 2017 includes three additional employees

<sup>2</sup> FY 2017 increase due to the realignment of snow removal, power washing and maintenance from Contractual Services and Buildings & Grounds to Parking Management

<sup>3</sup> FY 2017 increase due to a change in contract scope and the addition of four new vehicles

<sup>4</sup> FY 2017 decrease can be attributed to consumption savings due to LED conversion and lower rates

<sup>5</sup> FY 2017 increase due to the demolition of TSA screening equipment at the McNamara Deck and new digital parking signs



**Key Performance Measures: Ground Transportation**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 1.55	\$ 1.65	\$ 1.70	\$ 0.06	3.4%
Parking Expense per Parking Space	\$ 433.71	\$ 395.81	\$ 475.46	\$ 79.66	20.1%



**PUBLIC SAFETY COST CENTER**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 18,061	\$ 16,888	\$ 18,014	\$ 1,127	6.7%
Materials & Supplies	600	569	616	47	8.3%
Janitorial	5	-	-	-	n/a
Security <sup>2</sup>	2,557	2,793	4,992	2,199	78.7%
Contractual Services	376	718	772	54	7.5%
Utilities	127	117	149	31	26.8%
Buildings & Grounds <sup>3</sup>	39	25	336	311	>100%
Equipment Repair <sup>4</sup>	1,591	2,309	2,672	363	15.7%
Other Operating Expense	285	136	138	2	1.3%
O&M Capital	136	-	72	72	n/a
<b>Total</b>	<b>\$ 23,777</b>	<b>\$ 23,554</b>	<b>\$ 27,761</b>	<b>\$ 4,206</b>	<b>17.9%</b>

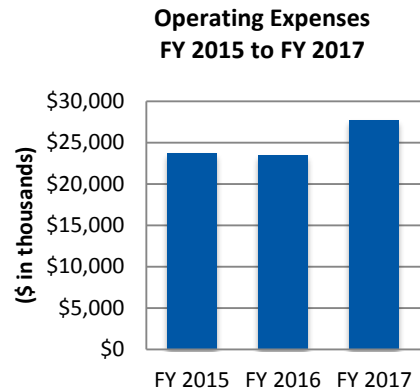
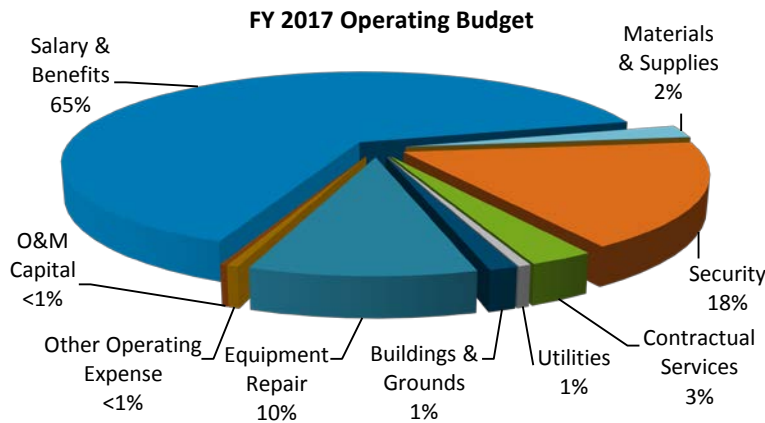
May not sum to total due to rounding

<sup>1</sup> FY 2017 includes nine additional employees

<sup>2</sup> FY 2017 increase due to the employee screening initiative

<sup>3</sup> FY 2017 increase due to maintenance to security checkpoints

<sup>4</sup> FY 2017 increase due to maintenance and changes to the Security Card Access System



**Key Performance Measures: Public Safety**

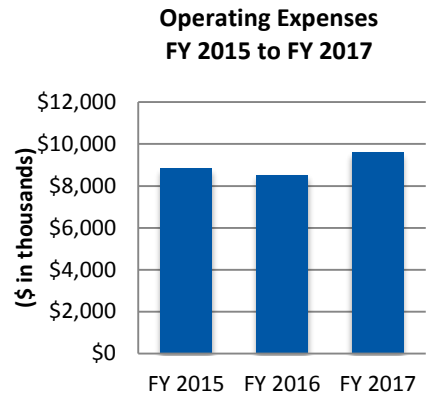
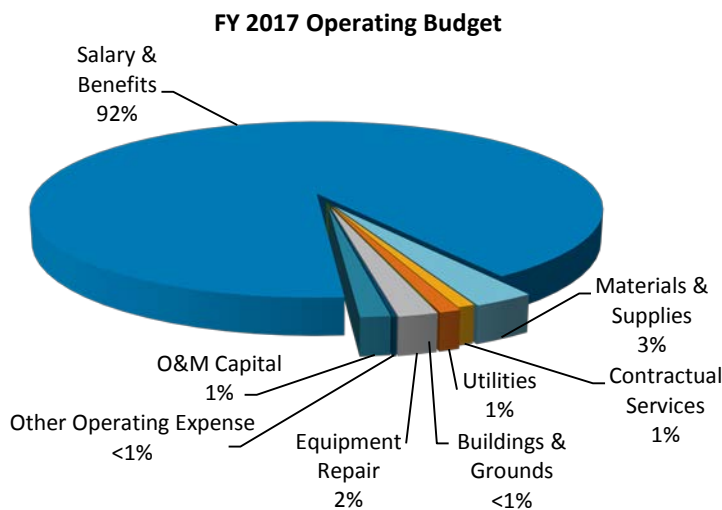
Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 1.45	\$ 1.42	\$ 1.60	\$ 0.19	13.1%
Operating Expense per Square Foot	\$ 7.25	\$ 7.19	\$ 8.47	\$ 1.28	17.9%

FIRE & EMS COST CENTER

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 8,217	\$ 7,877	\$ 8,811	\$ 933	11.8%
Materials & Supplies	293	257	275	18	7.0%
Contractual Services	24	43	78	35	82.2%
Utilities	90	95	94	(1)	-0.9%
Buildings & Grounds	1	3	3	-	0.0%
Equipment Repair	65	115	176	61	53.2%
Other Operating Expense	22	31	19	(12)	-39.8%
O&M Capital	124	107	134	27	25.2%
<b>Total</b>	<b>\$ 8,835</b>	<b>\$ 8,529</b>	<b>\$ 9,590</b>	<b>\$ 1,061</b>	<b>12.4%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes nine additional employees



**Key Performance Measures: Fire & EMS**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 0.54	\$ 0.51	\$ 0.55	\$ 0.04	7.8%
Operating Expense per Square Foot	\$ 2.70	\$ 2.60	\$ 2.93	\$ 0.32	12.4%

ADMINISTRATION COST CENTER

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 26,407	\$ 23,072	\$ 22,704	\$ (367)	-1.6%
Materials & Supplies <sup>2</sup>	1,787	1,402	1,604	201	14.4%
Contractual Services <sup>3</sup>	5,468	4,958	6,837	1,879	37.9%
Insurance	1,394	1,375	1,340	(35)	-2.5%
Utilities	681	691	1,213	522	75.6%
Buildings & Grounds	-	(75)	-	75	-100.0%
Equipment Repair	124	43	63	20	46.5%
Other Operating Expense	2,155	1,275	1,280	5	0.4%
O&M Capital <sup>4</sup>	846	25	1,930	1,905	>100%
<b>Total</b>	<b>\$ 38,863</b>	<b>\$ 32,766</b>	<b>\$ 36,971</b>	<b>\$ 4,205</b>	<b>12.8%</b>

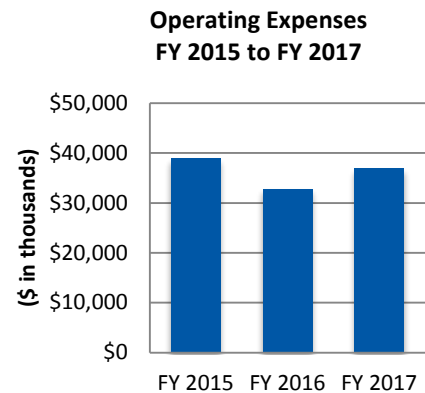
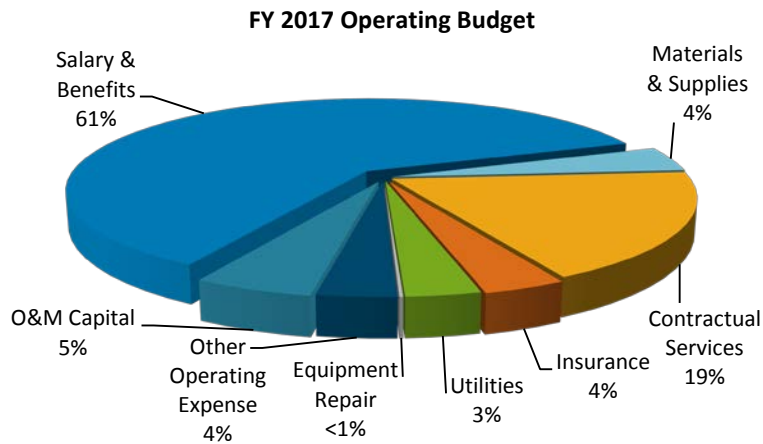
May not sum to total due to rounding

<sup>1</sup> FY 2017 includes ten additional employees

<sup>2</sup> FY 2017 increase due to life-cycle management including new laptops and tablets

<sup>3</sup> FY 2017 increase due to technology initiatives such as mobile technology and website update

<sup>4</sup> FY 2017 increase includes Electronic Document Management system and Windows 10 migration



Key Performance Measures: Administration

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Operating Expense per Enplanement	\$ 2.36	\$ 1.97	\$ 2.14	\$ 0.16	8.3%
Operating Expense per Square Foot	\$ 11.86	\$ 10.00	\$ 11.28	\$ 1.28	12.8%
Operating Expense per FTE	\$ 62,682	\$ 51,600	\$ 53,815	\$ 2,215	4.3%

**WILLOW RUN AIRPORT**

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Revenues</b>					
<b>Airline Revenues</b>					
Landing Fees	\$ 621	\$ 642	\$ 723	\$ 82	12.7%
Airline & Non-Airline Rent	1,391	1,204	1,163	(41)	- 3.4%
Customs Inspection Fees	302	297	320	23	7.9%
Utility Service Fee	121	126	119	(7)	- 5.6%
Other Revenue	29	19	19	0	1.6%
Fuel Flow Fees	649	687	650	(37)	- 5.4%
<b>Total Non-Airline Revenues</b>	<b>3,113</b>	<b>2,974</b>	<b>2,994</b>	<b>21</b>	<b>0.7%</b>
Non-Operating Revenues	226	23	22	(1)	- 4.4%
<b>Total Revenues</b>	<b>\$ 3,339</b>	<b>\$ 2,996</b>	<b>\$ 3,016</b>	<b>\$ 20</b>	<b>0.7%</b>
<b>Expenses</b>					
<b>Operating Expenses</b>					
Salaries, Wages & Benefits	\$ 1,430	\$ 1,405	\$ 1,459	\$ 53	3.8%
Materials & Supplies	115	174	191	17	9.7%
Janitorial	19	45	30	(15)	- 33.3%
Contractual Services	915	811	903	92	11.3%
Insurance	31	34	30	(4)	- 12.0%
Utilities	658	710	663	(47)	- 6.6%
Buildings & Grounds	690	314	724	410	130.4%
Equipment Repair	284	279	252	(27)	- 9.7%
Other Operating Expense	547	450	482	32	7.1%
O&M Capital	87	22	55	33	150.6%
<b>Total Operating Expenses</b>	<b>4,776</b>	<b>4,244</b>	<b>4,787</b>	<b>543</b>	<b>12.8%</b>
<b>Non-Operating Expenses</b>					
Interest & Financing	-	-	-	-	n/a
Debt Service & Coverage	-	-	-	-	n/a
Funding Requirements	(1,357)	(1,248)	(1,772)	(523)	41.9%
Non-Operating Expenses	(1,357)	(1,248)	(1,772)	(523)	41.9%
<b>Total Expenses</b>	<b>\$ 3,419</b>	<b>\$ 2,996</b>	<b>\$ 3,016</b>	<b>\$ 20</b>	<b>0.7%</b>

May not sum to total due to rounding

**Key Performance Measures: Willow Run Airport**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Annual Operations	59,987	54,500	59,800	5,300	9.7%
Cargo Landings	3,604	3,890	3,300	(590)	-15.2%
Annual Landed Weights (in thousands)	287,041	292,905	300,000	7,095	2.4%
Fuel Sold (gallons)	6,388,421	6,831,100	6,461,000	(370,100)	-5.4%

**AIRPORT WESTIN HOTEL**

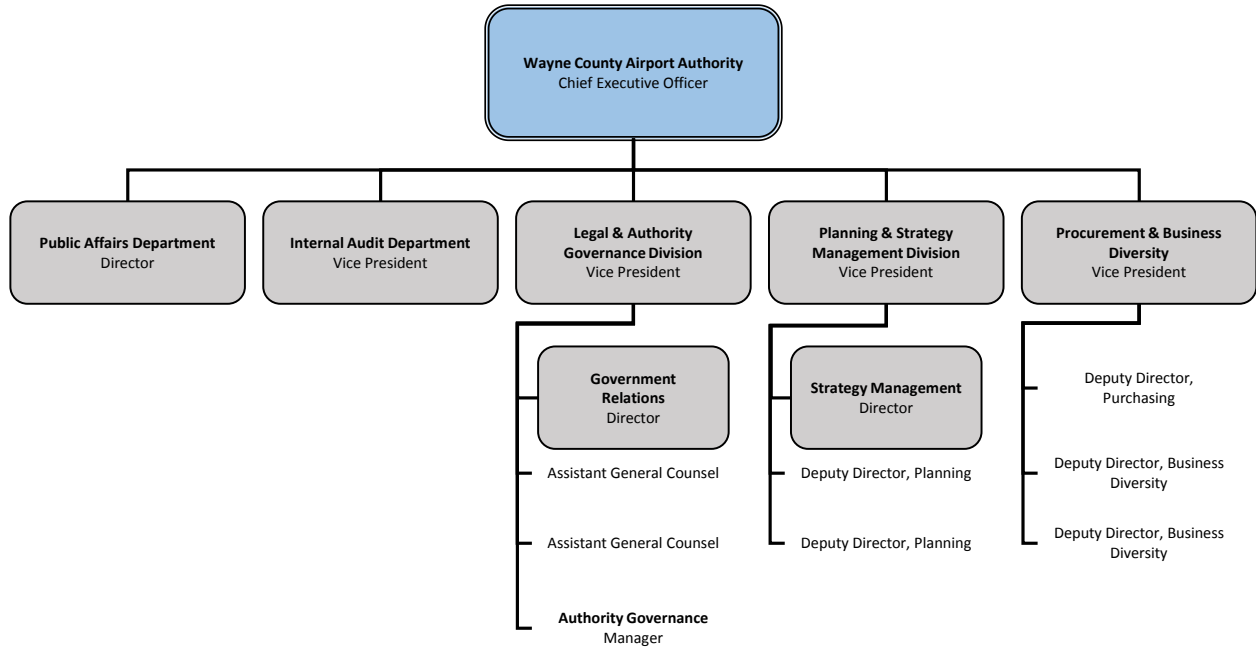
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Revenues</b>					
<b>Operating Revenues</b>					
Rooms	\$ 18,834	\$ 19,610	\$ 19,591	\$ (19)	- 0.1%
Food & Beverages	9,627	10,062	9,622	(440)	- 4.4%
Minor Operating Departments & Other	1,566	1,405	1,688	283	20.1%
<b>Total Operating Revenues</b>	<b>30,027</b>	<b>31,078</b>	<b>30,901</b>	<b>(176)</b>	<b>- 0.6%</b>
Non-Operating Revenues	27	26	72	46	174.6%
<b>Total Revenues</b>	<b>\$ 30,054</b>	<b>\$ 31,104</b>	<b>\$ 30,973</b>	<b>\$ (131)</b>	<b>- 0.4%</b>
<b>Expenses</b>					
<b>Operating Expenses</b>					
Department Operating Expenses	\$ 10,755	\$ 10,998	\$ 10,641	\$ (357)	- 3.2%
Administrative & General	1,839	1,891	2,590	699	37.0%
Marketing	2,189	2,410	2,456	47	1.9%
Information & Telecom Systems	429	568	599	31	5.5%
Repair & Maintenance	916	912	916	4	0.5%
Utilities	633	669	581	(88)	- 13.1%
Management Fee	2,263	2,371	1,252	(1,119)	- 47.2%
Rent, Taxes & Insurance	182	184	251	67	36.5%
<b>Total Operating Expenses</b>	<b>19,206</b>	<b>20,001</b>	<b>19,286</b>	<b>(715)</b>	<b>- 3.6%</b>
Non-Operating Expenses	10,270	9,166	8,190	(976)	- 10.6%
<b>Total Expenses</b>	<b>\$ 29,477</b>	<b>\$ 29,167</b>	<b>\$ 27,476</b>	<b>\$ (1,691)</b>	<b>- 5.8%</b>
<b>Change in Net Assets</b>	<b>\$ 577</b>	<b>\$ 1,936</b>	<b>\$ 3,497</b>	<b>\$ 1,560</b>	<b>80.6%</b>

May not sum to total due to rounding

**Key Performance Measures: Westin Hotel**

Objectives & Measures	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
Occupancy Rate	78.6%	81.9%	75.7%	-6.2 pts	
Average Daily Rate	\$ 162.56	\$ 161.99	\$ 175.40	\$ 13.41	8.3%
Revenue Per Available Room	\$ 127.72	\$ 132.62	\$ 132.86	\$ 0.24	0.2%
Westin Hotel EBITDA	\$ 11,086,830	\$ 11,102,469	\$ 11,687,069	\$ 584,600	5.3%

CHIEF EXECUTIVE OFFICER DIVISION



	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	Five-Year CAGR
<b>Full-Time Employees (FTEs)</b>						
<b>Detroit Metropolitan Airport</b>						
Office of the Chief Executive Officer	1	1	1	1	1	0.0%
Public Affairs	5	5	6	8	6	3.7%
Internal Audit	3	3	3	3	3	0.0%
Legal Affairs	5	5	5	5	5	0.0%
Authority Governance	2	2	2	2	2	0.0%
Government Relations	-	-	-	-	1	N/A
Planning & Strategic Management	9	11	4	5	6	-7.8%
Procurement & Business Diversity	13	14	15	17	19	7.9%
<b>Total Chief Executive Officer Division</b>	<b>38</b>	<b>41</b>	<b>36</b>	<b>41</b>	<b>43</b>	<b>2.5%</b>

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 5,692	\$ 5,823	\$ 6,137	\$ 314	5.4%
Materials & Supplies	556	586	532	(54)	-9.2%
Contractual Services	1,587	1,881	1,836	(45)	-2.4%
Equipment Repair	1	0	0	-	0.0%
Other Operating Expense	319	455	494	39	8.7%
<b>Total</b>	<b>\$ 8,156</b>	<b>\$ 8,745</b>	<b>\$ 8,999</b>	<b>\$ 254</b>	<b>2.9%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 30	\$ -	\$ -	\$ -	n/a
South Terminal	47	-	-	-	n/a
Administration	8,079	8,745	8,999	254	2.9%
<b>Total</b>	<b>\$ 8,156</b>	<b>\$ 8,745</b>	<b>\$ 8,999</b>	<b>\$ 254</b>	<b>2.9%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes two additional employees

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
<b>Customer Satisfaction</b>			
Passengers: ASQ Survey - Overall Customer Satisfaction Rating (Out of Five)	4.36	4.35	4.35

CHIEF EXECUTIVE OFFICER

OVERVIEW

The Office of the Chief Executive Officer (CEO) consists of the CEO and oversees several departments that report directly to the CEO. These functions consist of Internal Audit, General Counsel, Public Affairs, Government Affairs, Purchasing, and Planning and Strategy Management.

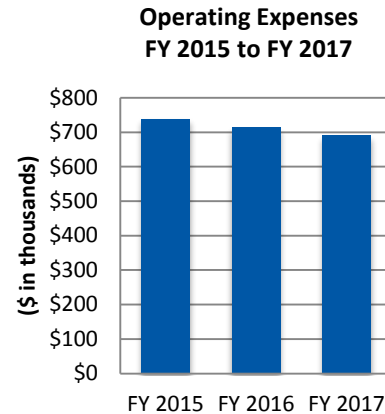
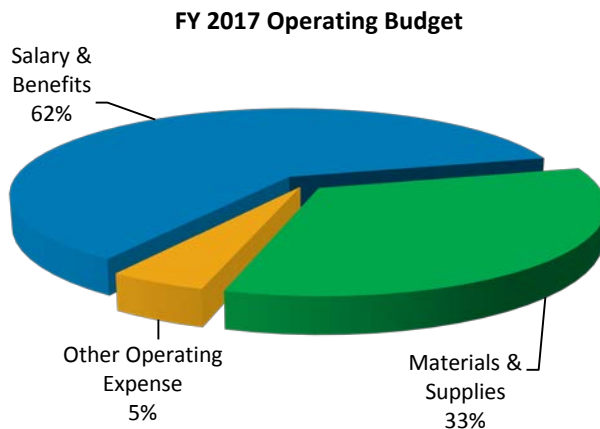
RESOURCE ALLOCATION

Salary & Benefits support a staff of one full-time employee.

Funds budgeted for Materials & Supplies are primarily used for membership dues and subscriptions. The Authority’s membership in the Airports Council International – North America (ACI-NA) costs approximately \$165,000 per year.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 462	\$ 432	\$ 428	\$ (4)	-0.9%
Materials & Supplies	241	251	231	(20)	-8.0%
Other Operating Expense	36	32	32	(0)	-0.3%
<b>Total</b>	<b>\$ 739</b>	<b>\$ 715</b>	<b>\$ 691</b>	<b>\$ (24)</b>	<b>-3.4%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 739	\$ 715	\$ 691	\$ (24)	-3.4%
<b>Total</b>	<b>\$ 739</b>	<b>\$ 715</b>	<b>\$ 691</b>	<b>\$ (24)</b>	<b>-3.4%</b>

May not sum to total due to rounding





**PUBLIC AFFAIRS**

**OVERVIEW**

Public Affairs is responsible for managing the Authority’s relationship with internal and external stakeholders. They accomplish this by providing the public and airport users with accurate and helpful information, managing media relations, managing the public’s involvement in Authority-related projects (e.g. airfield and terminal improvements, etc.), coordinating commercial filming and special events, providing community outreach and facilitating an excellent customer experience for all airport users including oversight of the Airport Ambassador volunteer program.

**RESOURCE ALLOCATION**

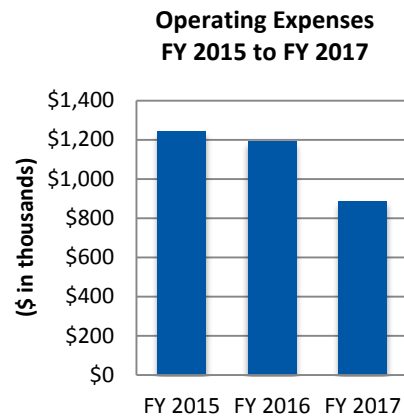
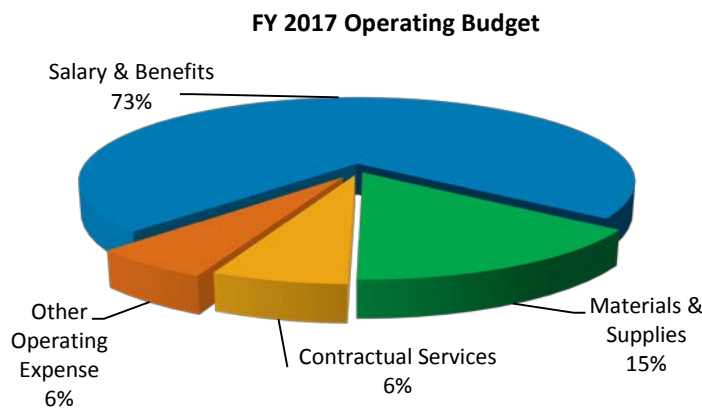
**Salary & Benefits** support a staff of six full-time employees.

Funds budgeted for **Materials & Supplies** provide for the printing and posting of promotional materials, media monitoring, subscriptions to various publications, and other miscellaneous items.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 890	\$ 964	\$ 646	\$ (317)	-32.9%
Materials & Supplies	168	117	134	17	14.6%
Contractual Services	139	56	56	-	0.0%
Equipment Repair	1	-	-	-	n/a
Other Operating Expense	42	55	50	(5)	-9.1%
<b>Total</b>	<b>\$ 1,240</b>	<b>\$ 1,191</b>	<b>\$ 886</b>	<b>\$ (305)</b>	<b>-25.6%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 30	\$ -	\$ -	\$ -	n/a
South Terminal	47	-	-	-	n/a
Administration	1,162	1,191	886	(305)	-25.6%
<b>Total</b>	<b>\$ 1,240</b>	<b>\$ 1,191</b>	<b>\$ 886</b>	<b>\$ (305)</b>	<b>-25.6%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes two less employees



INTERNAL AUDIT

OVERVIEW

Internal Audit provides independent and objective assurance and consulting services designed to add value and improve the Authority’s operations. Internal audit performs audit and consulting engagements, reports observations, makes recommendations and follows up on the implementation status of those recommendations. Internal audit is responsible for developing and implementing a comprehensive risk-based annual internal audit plan covering the Authority’s operations.

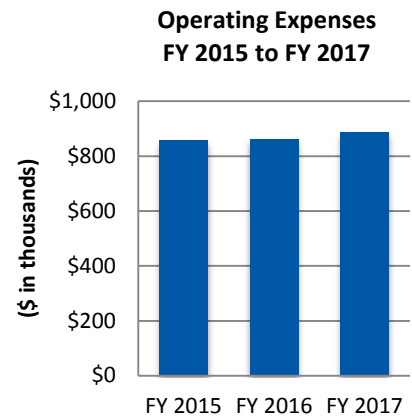
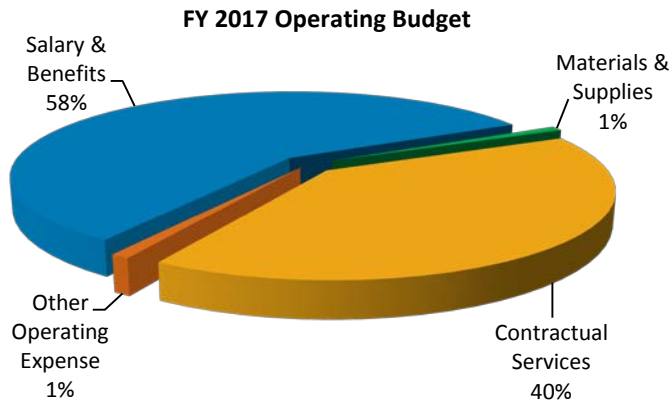
RESOURCE ALLOCATION

**Salary & Benefits** support a staff of three full-time employees.

Funds budgeted for **Contractual Services** are used for both external and internal audit services. External independent audit services are a mandatory requirement for the Authority’s financial reporting. Internal audit services are used to supplement the Authority’s staff with special expertise as needed.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 518	\$ 496	\$ 517	\$ 21	4.2%
Materials & Supplies	8	4	8	4	>100%
Contractual Services	323	354	354	-	0.0%
Other Operating Expense	8	8	8	-	0.0%
<b>Total</b>	<b>\$ 857</b>	<b>\$ 862</b>	<b>\$ 887</b>	<b>\$ 25</b>	<b>2.9%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 857	\$ 862	\$ 887	\$ 25	2.9%
<b>Total</b>	<b>\$ 857</b>	<b>\$ 862</b>	<b>\$ 887</b>	<b>\$ 25</b>	<b>2.9%</b>

May not sum to total due to rounding



LEGAL AFFAIRS & GOVERNMENT RELATIONS

OVERVIEW

Legal Affairs serves all Authority departments by preparing all contracts, operating agreements and leases between the Authority and third parties, provides legal counsel as requested, handles litigation and other legal proceedings against or by the Authority, coordinates legal services provided by outside counsel, manages federal legislative consulting services and handles all legal matters related to the governance of the Authority.

RESOURCE ALLOCATION

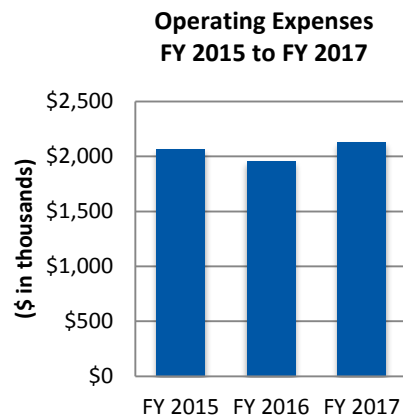
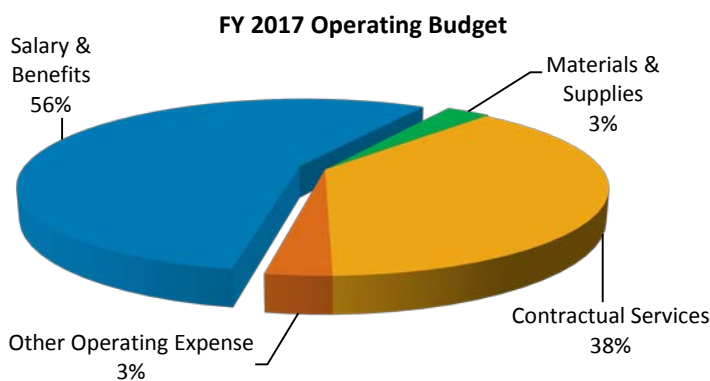
**Salary & Benefits** support a staff of six full-time employees.

Funds budgeted for **Contractual Services** are used for outside legal counsel and federal and state government affairs services.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 1,153	\$ 1,101	\$ 1,192	\$ 92	8.3%
Materials & Supplies <sup>1</sup>	32	34	66	32	95.6%
Contractual Services	862	800	810	10	1.3%
Other Operating Expense <sup>1</sup>	24	23	67	44	>100%
<b>Total</b>	<b>\$ 2,071</b>	<b>\$ 1,957</b>	<b>\$ 2,135</b>	<b>\$ 178</b>	<b>9.1%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 2,071	\$ 1,957	\$ 2,135	178	9.1%
<b>Total</b>	<b>\$ 2,071</b>	<b>\$ 1,957</b>	<b>\$ 2,135</b>	<b>\$ 178</b>	<b>9.1%</b>

May not sum to total due to rounding

<sup>1</sup> Increase due to the creation of the Government Relations department in FY 2016



**AUTHORITY GOVERNANCE**

**OVERVIEW**

Authority Governance coordinates Authority Board and committee meeting logistics and planning (including details of locations, schedules, agendas, correspondence, creation of resolution and minutes and follow up to the Board, management and staff) while supporting the CEO on a variety of matters in advance of meetings to ensure effective communication to all involved. Staff also coordinates Freedom of Information Act (FOIA) compliance activities by working with appropriate divisions to provide the required documents within prescribed deadlines.

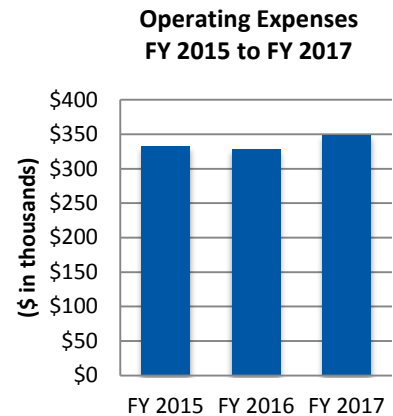
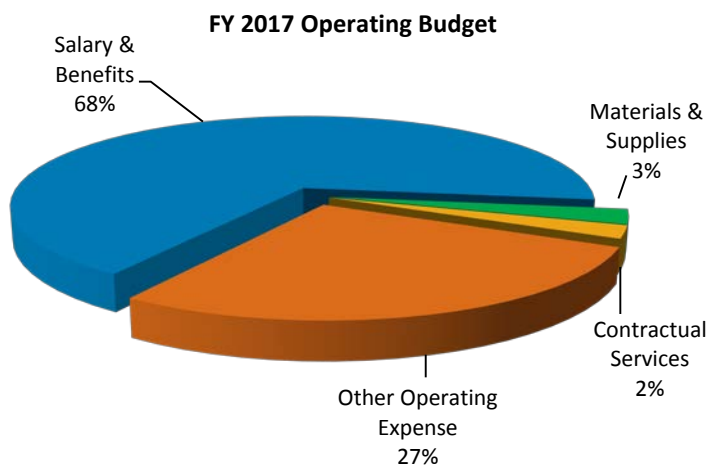
**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of two full-time employees.

All funds budgeted in **Other Operating Expense** are used for monthly Board Meetings.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 226	\$ 217	\$ 237	\$ 20	9.1%
Materials & Supplies	6	9	9	1	5.8%
Contractual Services	5	8	8	-	0.0%
Other Operating Expense	95	95	95	-	0.0%
<b>Total</b>	<b>\$ 333</b>	<b>\$ 329</b>	<b>\$ 349</b>	<b>\$ 20</b>	<b>6.1%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 333	\$ 329	\$ 349	\$ 20	6.1%
<b>Total</b>	<b>\$ 333</b>	<b>\$ 329</b>	<b>\$ 349</b>	<b>\$ 20</b>	<b>6.1%</b>

*May not sum to total due to rounding*



**PLANNING & STRATEGY MANAGEMENT**

**OVERVIEW**

Planning and Strategy Management is responsible for the long-term planning of airport property and strategic organizational and performance planning.

Planning is responsible for updating the airport’s master plans, managing airport layout plans, land use and development plans, completing airport zoning analysis, and developing strategies, concepts and criteria associated with airport physical improvements.

Strategy Management is responsible for overseeing the overall strategy of the Authority, including developing the Authority’s scorecards, facilitating the initiative and business planning process, collecting and benchmarking passenger satisfaction data and developing organization-wide performance improvement programs.

**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of six full-time employees.

The **Contractual Services** budget includes funding for the DTW Master Plan definition, participation in the annual ACI-Airport Service Quality survey, and online customer experience analytics.

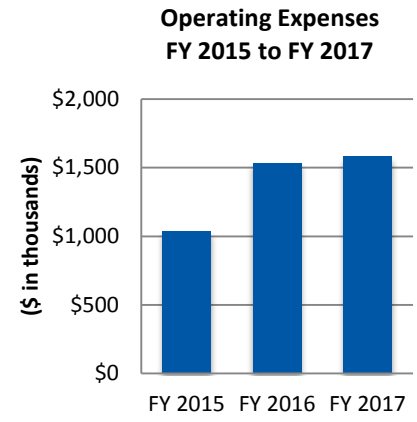
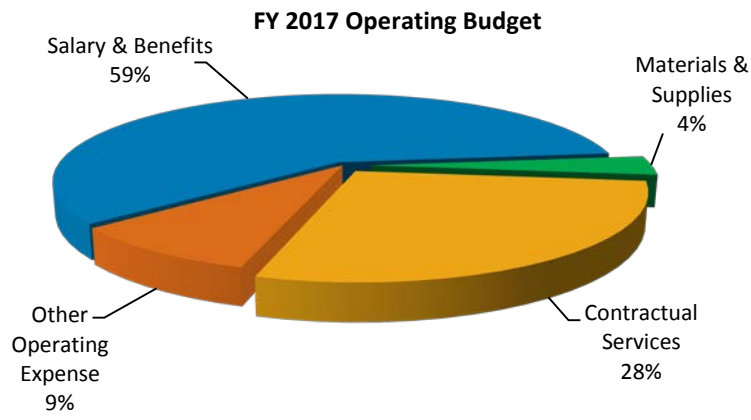
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 740	\$ 799	\$ 939	\$ 141	17.6%
Materials & Supplies <sup>2</sup>	86	156	56	(100)	-64.4%
Contractual Services	150	496	441	(56)	-11.2%
Other Operating Expense <sup>3</sup>	61	85	147	62	73.0%
<b>Total</b>	<b>\$ 1,036</b>	<b>\$ 1,535</b>	<b>\$ 1,582</b>	<b>\$ 47</b>	<b>3.0%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 1,036	\$ 1,535	\$ 1,582	\$ 47	3.0%
<b>Total</b>	<b>\$ 1,036</b>	<b>\$ 1,535</b>	<b>\$ 1,582</b>	<b>\$ 47</b>	<b>3.0%</b>

*May not sum to total due to rounding*

<sup>1</sup> FY 2017 includes one additional employee

<sup>2</sup> Decrease due to one-time AAAE Conference sponsorship in FY 2016

<sup>3</sup> FY 2017 increase due to additional travel & training



**PROCUREMENT & BUSINESS DIVERSITY**

**OVERVIEW**

The Procurement Department is responsible for overseeing and managing the process for purchasing goods and services, including contract and regulatory compliance matters, handling surplus property disposal and managing the business diversity programs related to airport authority contracts.

**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of 19 full-time employees.

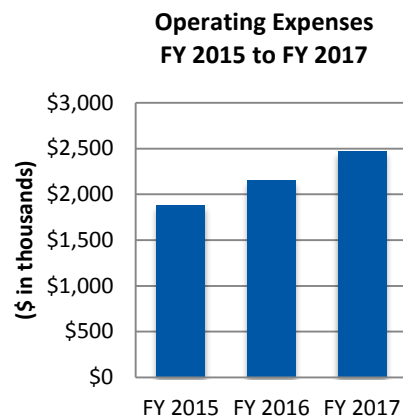
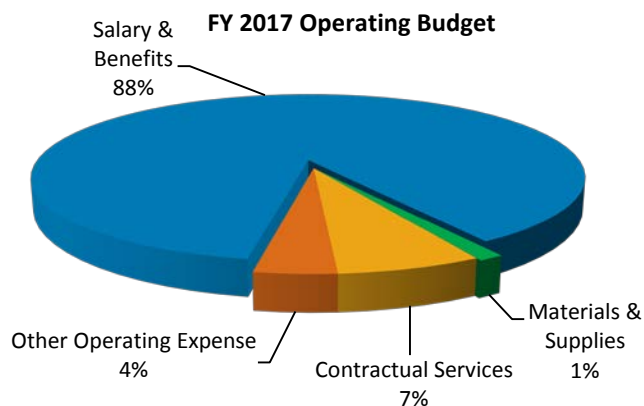
Funds budgeted for **Contractual Services** include payment to Wayne County for Disadvantage Business (DBE) and Small Business Enterprise (SBE) Certification services.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 1,704	\$ 1,814	\$ 2,176	\$ 362	20.0%
Materials & Supplies	16	18	30	13	71.4%
Contractual Services	108	168	168	1	0.3%
Other Operating Expense <sup>2</sup>	53	157	96	(62)	-39.1%
<b>Total</b>	<b>\$ 1,881</b>	<b>\$ 2,157</b>	<b>\$ 2,470</b>	<b>\$ 314</b>	<b>14.5%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 1,881	\$ 2,157	\$ 2,470	314	14.5%
<b>Total</b>	<b>\$ 1,881</b>	<b>\$ 2,157</b>	<b>\$ 2,470</b>	<b>\$ 314</b>	<b>14.5%</b>

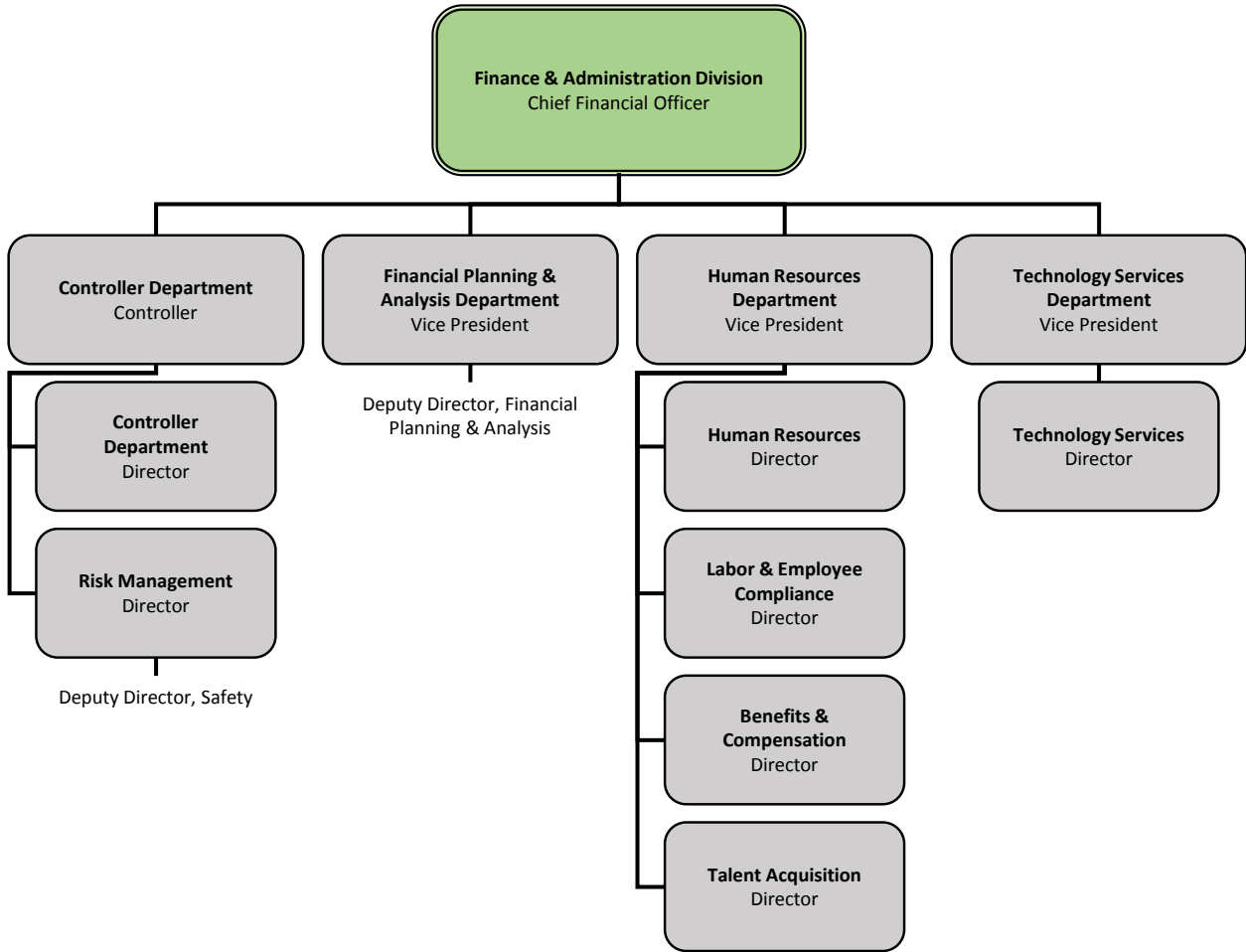
*May not sum to total due to rounding*

<sup>1</sup> FY 2017 includes two additional employees

<sup>2</sup> Decrease due to one-time hosting of the Airport Minority Advisory Council meeting in FY 2016



FINANCE & ADMINISTRATION DIVISION



	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	Five-Year CAGR
<b>Full-Time Employees (FTEs)</b>						
<b>Detroit Metropolitan Airport</b>						
<b>Finance &amp; Administration Division</b>						
Office of the Chief Financial Officer	2	2	2	2	2	0.0%
Financial Planning & Analysis	6	7	8	8	8	5.9%
Human Resources	11	11	13	13	14	4.9%
Controller	21	21	18	19	21	0.0%
Risk Management	2	2	3	3	3	8.4%
Technology Services	13	15	14	18	21	10.1%
<b>Total Finance &amp; Administration Division</b>	<b>55</b>	<b>58</b>	<b>58</b>	<b>63</b>	<b>69</b>	<b>4.6%</b>



(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 8,987	\$ 8,890	\$ 9,861	\$ 971	10.9%
Materials & Supplies <sup>2</sup>	1,135	571	1,219	648	>200%
Contractual Services <sup>3</sup>	4,316	5,028	6,564	1,536	30.5%
Insurance	2,069	2,093	2,108	15	0.7%
Equipment Repair	163	283	331	48	16.9%
Other Operating Expense	628	825	923	99	12.0%
O&M Capital <sup>4</sup>	867	25	2,130	2,105	>200%
<b>Total</b>	<b>\$ 18,164</b>	<b>\$ 17,715</b>	<b>\$ 23,135</b>	<b>\$ 5,420</b>	<b>30.6%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 140	\$ 150	\$ 154	\$ 4	2.7%
South Terminal	473	502	547	45	9.0%
Ground Transportation	824	1,246	1,175	(70)	-5.7%
Administration	16,436	15,199	20,751	5,552	36.5%
Public Safety	229	552	441	(111)	-20.1%
Westin Hotel	61	66	67	1	1.5%
<b>Total</b>	<b>\$ 18,164</b>	<b>\$ 17,715</b>	<b>\$ 23,135</b>	<b>\$ 5,420</b>	<b>30.6%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes six additional employees

<sup>2</sup> FY 2017 increase due to life-cycle management including new lap-tops and tablets

<sup>3</sup> FY 2017 increase due to technology initiatives such as mobile technology and website update

<sup>4</sup> FY 2017 increase due to Electronic Document Management system, Window 10 migration and digital parking sign replacement

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
<b>Operational Excellence</b>			
Employee Safety: WCAA OSHA Incident Rating	2.8	3.0	3.0
<b>Financial Competiveness &amp; Sustainability</b>			
Airline Cost per Enplaned Passenger	\$10.20	\$10.32	\$9.90
Airport Debt Rating (S&P)	A Stable	A Stable	A Stable
Operating Cost per Enplanement (DTW) – FY 2017 Target now includes Westin Hotel expenses	\$12.48	\$12.47	\$14.24

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
Net Debt Service as % of Operating Revenue	28%	29%	29%
<b>People</b>			
Core Values: Employee Satisfaction Survey	3.4	3.5	3.5
Employee Development: Time spent per employee on development for future roles (hours)	14.7	10.0	10.0
Employee Development: Total % execution on critical Skill Development Plans	114.5%	64.0%	TBD
Succession Planning: Total % of positions with Succession Plans	28.5%	46.0%	TBD

**CHIEF FINANCIAL OFFICER**

**OVERVIEW**

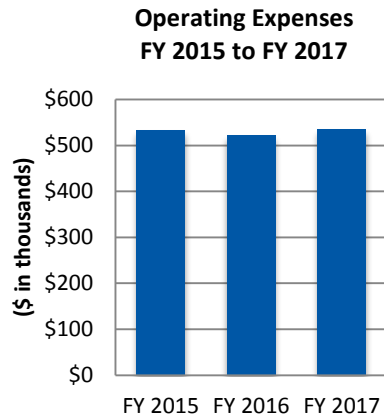
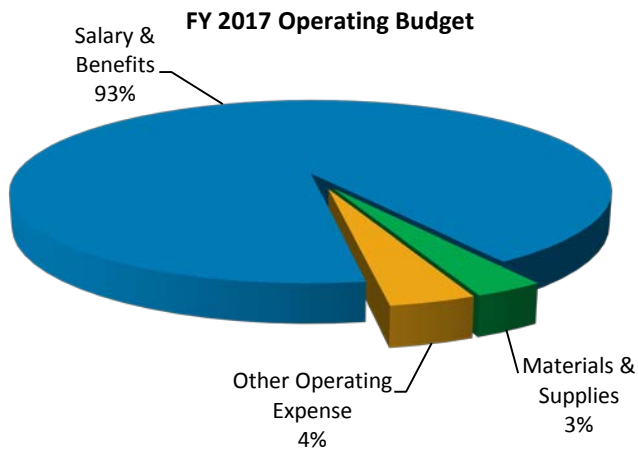
As head of the Finance & Administration Division, the Chief Financial Officer is responsible for the overall budgetary, fiscal and financial management of the Authority’s activities, including financial administration of the Capital Improvement Program (CIP), the annual operating budget, cash and debt management, risk management and payroll. The CFO also oversees the management of human resources, technology services and the Airport Westin Hotel.

**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of two full-time employees.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 508	\$ 477	\$ 499	\$ 22	4.5%
Materials & Supplies	11	25	16	(9)	-35.9%
Other Operating Expense	14	20	20	-	0.0%
<b>Total</b>	<b>\$ 533</b>	<b>\$ 522</b>	<b>\$ 535</b>	<b>\$ 13</b>	<b>2.4%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 533	\$ 522	\$ 535	\$ 13	2.4%
<b>Total</b>	<b>\$ 533</b>	<b>\$ 522</b>	<b>\$ 535</b>	<b>\$ 13</b>	<b>2.4%</b>

*May not sum to total due to rounding*



CONTROLLER

OVERVIEW

The Controller’s Department is responsible for providing concise, accurate and timely financial information through accounting activities (e.g., general ledger, fixed asset, accounts receivable, accounts payable and grant management), disbursement management, billing and collection management, payroll, and coordination of the annual financial audit with the Authority’s external auditors. The Controller’s Department is also responsible for cash and debt management.

RESOURCE ALLOCATION

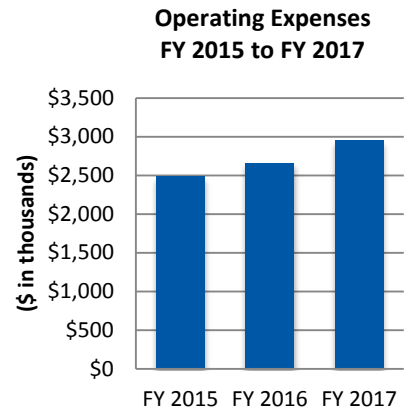
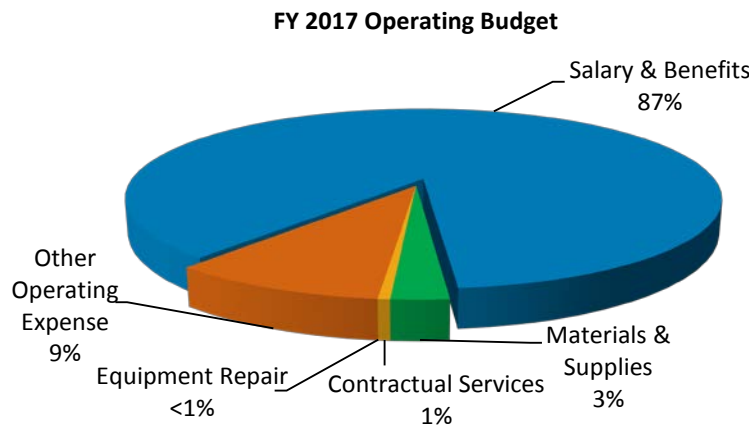
Salary & Benefits support a staff of 21 full-time employees.

Other Operating Expenses includes funding for property tax expenses where applicable.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 2,152	\$ 2,268	\$ 2,583	\$ 315	13.9%
Materials & Supplies	53	73	74	1	1.4%
Contractual Services	20	15	15	1	3.4%
Equipment Repair	-	1	1	-	0.0%
Other Operating Expense	263	305	280	(25)	-8.2%
<b>Total</b>	<b>\$ 2,488</b>	<b>\$ 2,661</b>	<b>\$ 2,953</b>	<b>\$ 292</b>	<b>11.0%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 2,488	\$ 2,661	\$ 2,953	\$ 292	11.0%
<b>Total</b>	<b>\$ 2,488</b>	<b>\$ 2,661</b>	<b>\$ 2,953</b>	<b>\$ 292</b>	<b>11.0%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes two additional employees



**RISK MANAGEMENT**

**OVERVIEW**

Risk Management is responsible for the planning, organizing and administration of risk, safety and insurance programs to safeguard DTW's & YIP's assets through the use of various risk management techniques.

**RESOURCE ALLOCATION**

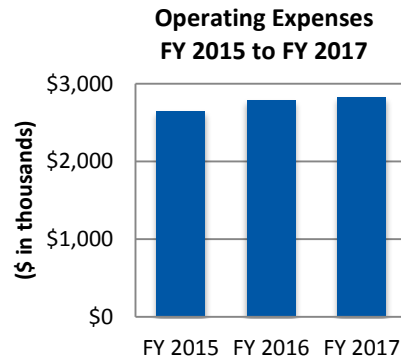
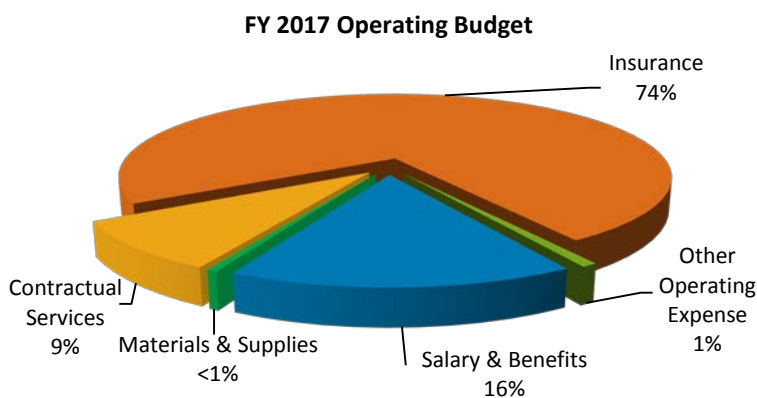
**Salary & Benefits** support a staff of three full-time employees.

Funds budgeted for **Contractual Services** provide for professional services contracts for general liability legal and claims services.

**Insurance** covers property and liability insurance at the Airport.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 451	\$ 403	\$ 441	\$ 38	9.5%
Materials & Supplies	7	13	14	1	4.7%
Contractual Services	112	262	250	(12)	-4.7%
Insurance	2,069	2,093	2,108	15	0.7%
Other Operating Expense	12	20	21	1	5.0%
<b>Total</b>	<b>\$ 2,650</b>	<b>\$ 2,791</b>	<b>\$ 2,834</b>	<b>\$ 42</b>	<b>1.5%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 140	\$ 150	\$ 154	\$ 4	2.7%
South Terminal	473	502	547	45	9.0%
Administration	1,975	2,073	2,066	(8)	-0.4%
Westin Hotel	61	66	67	1	1.5%
<b>Total</b>	<b>\$ 2,650</b>	<b>\$ 2,791</b>	<b>\$ 2,834</b>	<b>\$ 42</b>	<b>1.5%</b>

May not sum to total due to rounding



FINANCIAL PLANNING & ANALYSIS

OVERVIEW

Financial Planning & Analysis is responsible for the development and administration of the Authority’s budgets, setting airline rates and charges and for determining long term capital financing needs. The group routinely provides detailed financial and operational information to the Senior Leadership Team and the Authority Board, including the annual operating budgets, monthly management reports, aviation industry statistical reports, financial analysis and special studies. The group also helps maximize the operational and financial performance of the Airport Westin Hotel.

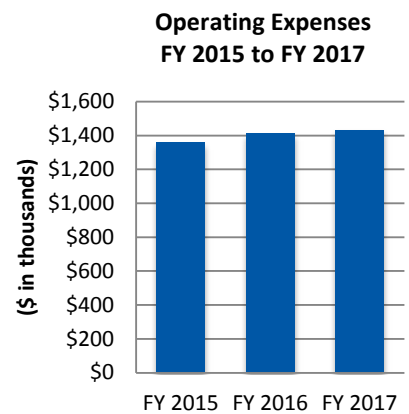
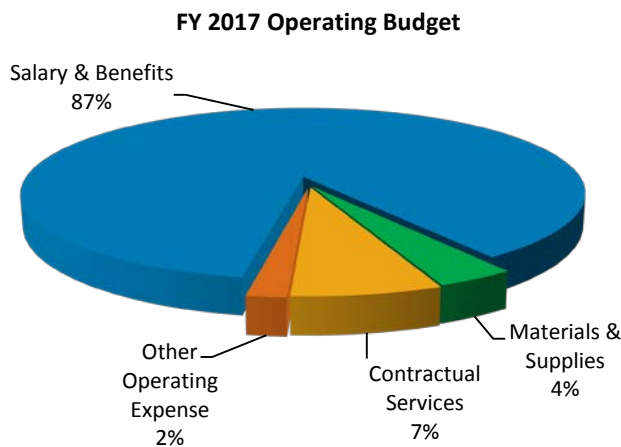
RESOURCE ALLOCATION

Salary & Benefits support a staff of eight full-time employees.

Funds budgeted for **Contractual Services** are primarily used for financial feasibility consulting services.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 1,280	\$ 1,236	\$ 1,254	\$ 17	1.4%
Materials & Supplies	68	52	53	1	1.9%
Contractual Services	161	100	100	-	0.0%
Other Operating Expense	(149)	27	27	-	0.0%
<b>Total</b>	<b>\$ 1,360</b>	<b>\$ 1,415</b>	<b>\$ 1,433</b>	<b>\$ 18</b>	<b>1.3%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 1,360	\$ 1,415	\$ 1,433	\$ 18	1.3%
<b>Total</b>	<b>\$ 1,360</b>	<b>\$ 1,415</b>	<b>\$ 1,433</b>	<b>\$ 18</b>	<b>1.3%</b>

May not sum to total due to rounding



**HUMAN RESOURCES**

**OVERVIEW**

Human Resources manages Labor and Employee Relations, Talent Acquisition and Management, Organizational Development, and Benefits and Compensation for the WCAA and its employees. Human Resources supports talent development, and new approaches for increasing the performance of individuals; conducts employee assessments/coaching (DiSC & Strengths Finder), negotiates and administers Collective Bargaining Agreements; ensures compliance with federal and state labor and employment laws; sources, attracts, recruits, interviews, and on-boards employees; supports employees learning, performance management and succession planning; and administers benefits, retirement processing, workers compensation, leave and total compensation.

**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of 14 full-time employees.

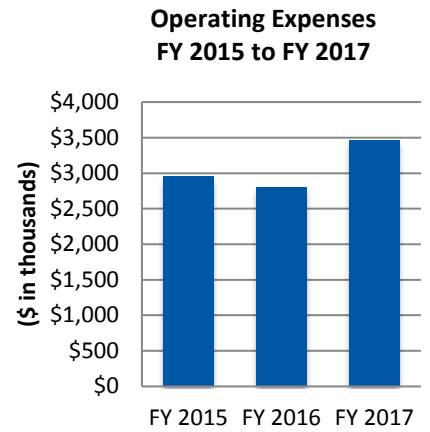
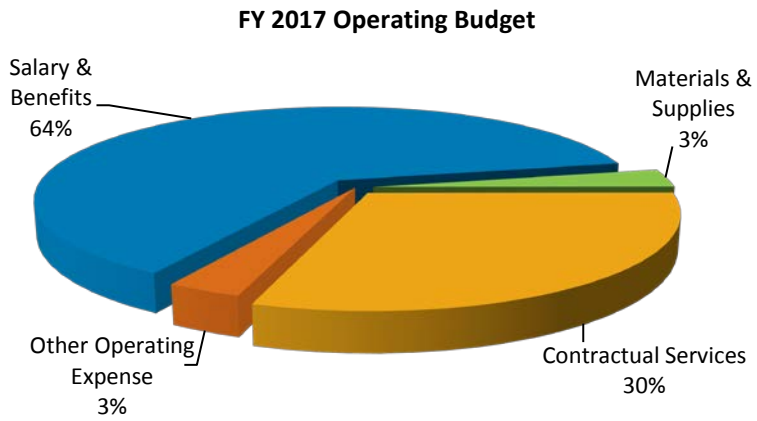
Funds budgeted in **Contractual Services** are used for legal and associated services for employment related matters and labor negotiations, new-employee occupational health services, the employee assistance program, employee development software (Cornerstone On Demand) hosting and technical support, compensation and benefits analysis and other related services.

<i>(\$ in thousands)</i>	<b>FY 2015 Actual</b>	<b>FY 2016 Budget</b>	<b>FY 2017 Budget</b>	<b>FY 2016 to FY 2017 Change</b>	
				\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 1,961	\$ 1,955	\$ 2,205	\$ 250	12.8%
Materials & Supplies	70	77	108	31	41.0%
Contractual Services <sup>2</sup>	827	680	1,046	366	53.7%
Other Operating Expense	98	93	114	21	22.6%
<b>Total</b>	<b>\$ 2,956</b>	<b>\$ 2,805</b>	<b>\$ 3,473</b>	<b>\$ 668</b>	<b>23.8%</b>
<b>Operating Expenses by Cost Centers</b>					
Administration	\$ 2,956	\$ 2,805	\$ 3,473	\$ 668	23.8%
<b>Total</b>	<b>\$ 2,956</b>	<b>\$ 2,805</b>	<b>\$ 3,473</b>	<b>\$ 668</b>	<b>23.8%</b>

*May not sum to total due to rounding*

<sup>1</sup> FY 2017 includes one additional employee

<sup>2</sup> FY 2017 increase due to HR software enhancement





TECHNOLOGY SERVICES

OVERVIEW

Technology Services is responsible for providing technology support to the business departments of the Airport Authority to enable them to effectively and efficiently conduct their business. Working in partnership with the departments, the areas of responsibility include design, implementation and maintenance of the technology infrastructure, developing and supporting software solutions and providing technical support 24 hours a day, 7 days a week for all technology and communications systems.

RESOURCE ALLOCATION

**Salary & Benefits** support a staff of 21 full-time employees.

**Materials & Supplies** fund computer equipment life-cycle replacement purchases less than \$5,000.

**Contractual Services** includes help desk and computer support services, support and maintenance for the Authority’s public safety, parking management and financial systems, terminal Wi-Fi, time and material staffing for projects and other technology needs.

**Other Operating Expense** includes telephone and associated telecommunications circuitry expenses.

**O & M Capital** includes lifecycle replacement management of hardware and software acquisitions over \$5,000.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 2,635	\$ 2,552	\$ 2,880	\$ 328	12.9%
Materials & Supplies <sup>2</sup>	927	331	954	622	>100%
Contractual Services <sup>3</sup>	3,196	3,971	5,153	1,182	29.8%
Equipment Repair	163	282	330	48	16.9%
Other Operating Expense	390	360	462	102	28.3%
O&M Capital <sup>4</sup>	867	25	2,130	2,105	>100%
<b>Total</b>	<b>\$ 8,177</b>	<b>\$ 7,521</b>	<b>\$ 11,908</b>	<b>\$ 4,387</b>	<b>58.3%</b>
<b>Operating Expenses by Cost Centers</b>					
Ground Transportation	\$ 824	\$ 1,246	\$ 1,175	\$ (70)	-5.7%
Administration	7,124	5,723	10,292	4,568	79.8%
Public Safety	229	552	441	(111)	-20.1%
<b>Total</b>	<b>\$ 8,177</b>	<b>\$ 7,521</b>	<b>\$ 11,908</b>	<b>\$ 4,387</b>	<b>58.3%</b>

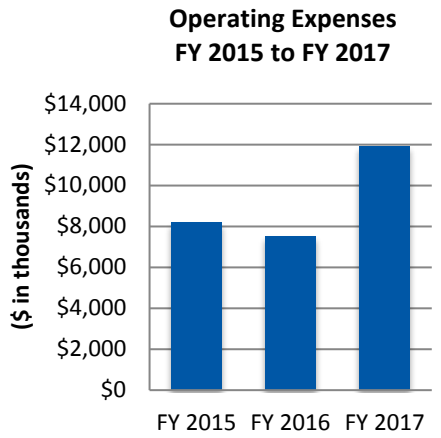
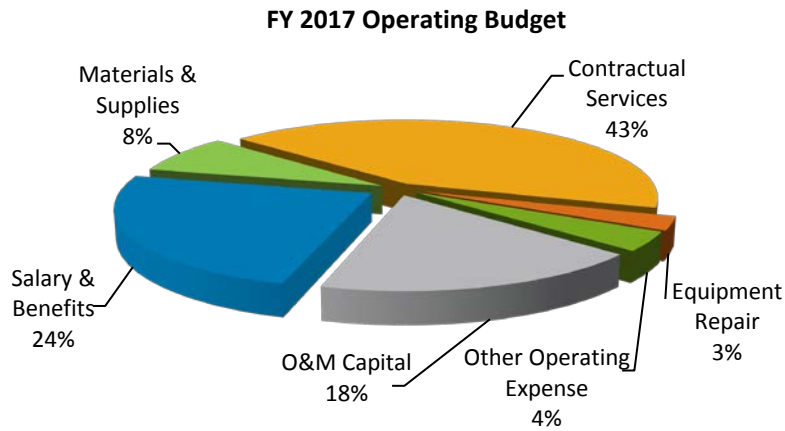
May not sum to total due to rounding

<sup>1</sup> FY 2017 includes three additional employees

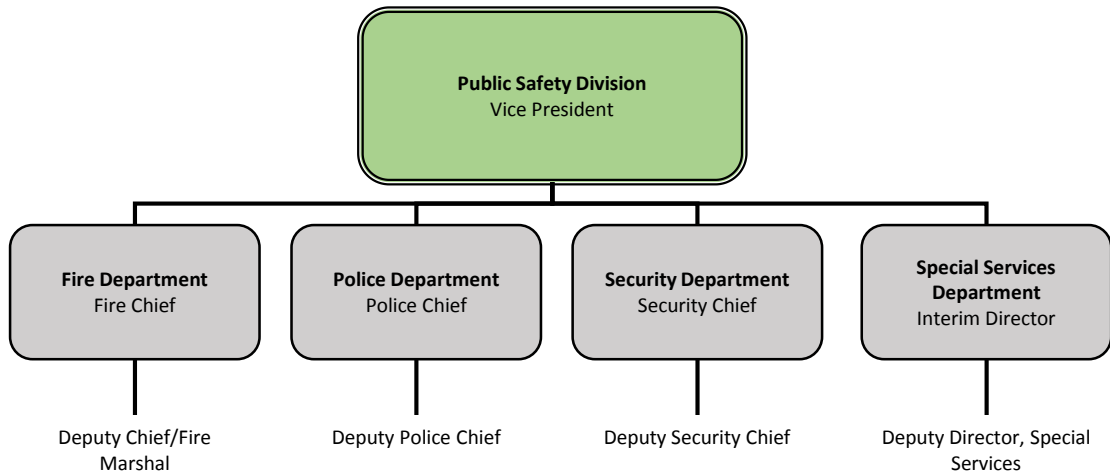
<sup>2</sup> FY 2017 increase due to life-cycle management including new laptops and tablets

<sup>3</sup> FY 2017 increase due to technology initiatives such as mobile technology and internal website update

<sup>4</sup> FY 2017 increase due to Electronic Document Management system initiative, Window 10 migration and digital parking sign replacement



**PUBLIC SAFETY DIVISION**



Full-Time Employees (FTEs)	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	Five-Year CAGR
<b>Detroit Metropolitan Airport</b>						
<b>Public Safety Division</b>						
Public Safety Administration	3	3	3	3	2	-7.8%
Police	107	107	107	98	104	-0.6%
Fire	60	61	61	61	70	3.1%
Security	30	30	31	17	20	-7.8%
Special Services	3	3	3	26	27	55.2%
<b>Total Public Safety Division</b>	<b>203</b>	<b>204</b>	<b>205</b>	<b>205</b>	<b>223</b>	<b>1.9%</b>

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 26,278	\$ 24,765	\$ 26,825	\$ 2,060	8.3%
Materials & Supplies	858	813	878	66	8.1%
Security <sup>2</sup>	2,557	2,793	3,292	499	17.9%
Contractual Services <sup>3</sup>	294	464	691	227	49.0%
Buildings & Grounds	17	3	3	-	0.0%
Equipment Repair <sup>4</sup>	1,538	2,035	2,448	413	20.3%
Other Operating Expense	306	163	152	(11)	-6.5%
O&M Capital <sup>5</sup>	212	107	206	99	92.3%
<b>Total</b>	<b>\$ 32,060</b>	<b>\$ 31,143</b>	<b>\$ 34,496</b>	<b>\$ 3,353</b>	<b>10.8%</b>
<b>Operating Expenses by Cost Centers</b>					
Public Safety	\$ 23,321	\$ 22,750	\$ 25,033	\$ 2,283	10.0%
Fire & EMS	8,739	8,393	9,463	1,070	12.8%
<b>Total</b>	<b>\$ 32,060</b>	<b>\$ 31,143</b>	<b>\$ 34,496</b>	<b>\$ 3,353</b>	<b>10.8%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes 18 additional employees

<sup>2</sup> FY 2017 increase due to the employee screening initiative

<sup>3</sup> FY 2017 increase due to a new contract for emergency bussing and a full-scale active shooter exercise

<sup>4</sup> FY 2017 increase due to changes to the Security Card Access System

<sup>5</sup> FY 2017 increase due to the addition of security checkpoint booths

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
<b>Customer Satisfaction</b>			
Job creation as measured by the number of badged employees	18,905	19,000	19,000

**PUBLIC SAFETY ADMINISTRATION**

**OVERVIEW**

Public Safety Administration oversees the Public Safety division which provides safety and security for all airport users and preserves Authority assets through deployment of police, fire, security and special services.

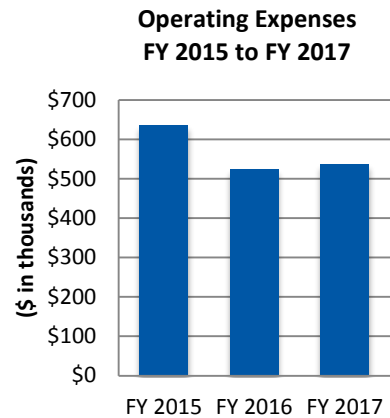
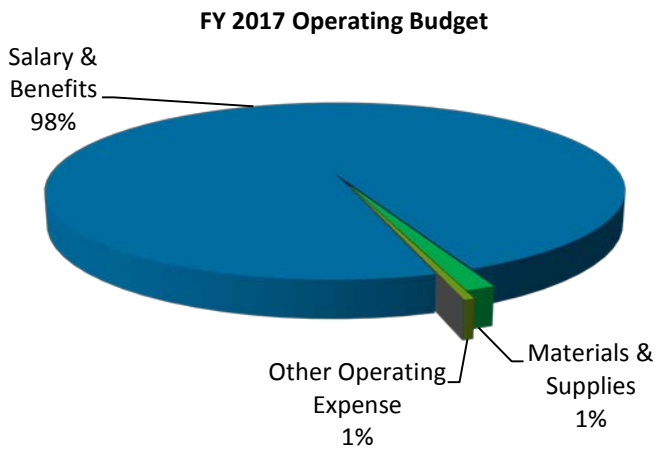
**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of two full-time employees.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 532	\$ 502	\$ 527	\$ 26	5.1%
Materials & Supplies	23	16	7	(9)	-55.2%
Contractual Services	25	-	-	-	n/a
Buildings & Grounds	13	-	-	-	n/a
Other Operating Expense	12	6	3	(4)	-58.3%
O&M Capital	31	-	-	-	n/a
<b>Total</b>	<b>\$ 635</b>	<b>\$ 524</b>	<b>\$ 537</b>	<b>\$ 13</b>	<b>2.5%</b>
<b>Operating Expenses by Cost Centers</b>					
Public Safety	\$ 635	\$ 524	\$ 537	\$ 13	2.5%
<b>Total</b>	<b>\$ 635</b>	<b>\$ 524</b>	<b>\$ 537</b>	<b>\$ 13</b>	<b>2.5%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes one less employee



FIRE

OVERVIEW

The Fire Department is internationally accredited and provides for delivery of Aircraft Rescue and Fire Fighting, structural fire suppression, emergency medical services, fire prevention and education in order to maintain the safest environment possible for travelers and airport employees.

RESOURCE ALLOCATION

**Salary & Benefits** support a staff of 70 full-time employees.

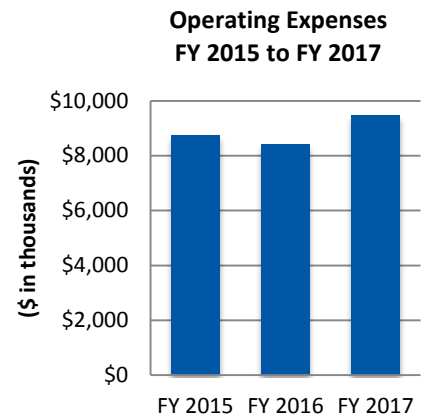
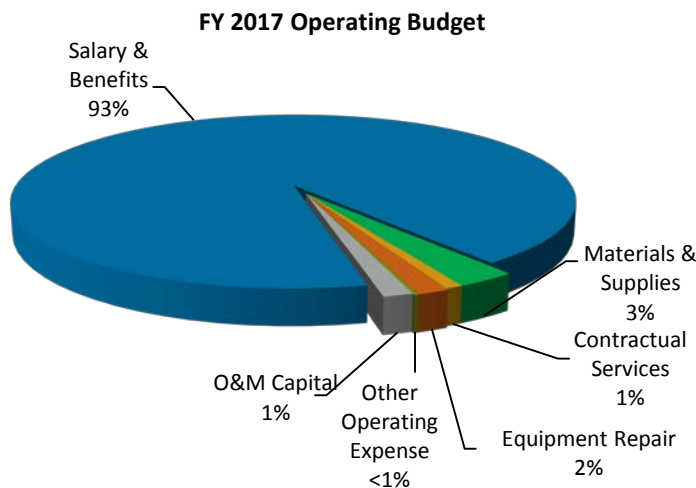
Funds budgeted for **Materials and Supplies** are primarily used to purchase fuel for the ARFF simulator, extinguishing agents, medical supplies and uniform allowances.

**Equipment Repair** budget includes expenses associated with the maintenance of the fuel spill simulator, medical and rescue equipment, hydraulic tools and fire hoses.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 8,217	\$ 7,877	\$ 8,811	\$ 933	11.8%
Materials & Supplies	293	257	275	18	7.0%
Contractual Services	22	43	78	35	82.2%
Equipment Repair	61	77	146	69	89.8%
Other Operating Expense	22	31	19	(12)	-39.8%
O&M Capital	124	107	134	27	25.2%
<b>Total</b>	<b>\$ 8,739</b>	<b>\$ 8,393</b>	<b>\$ 9,463</b>	<b>\$ 1,070</b>	<b>12.8%</b>
<b>Operating Expenses by Cost Centers</b>					
Fire & EMS	\$ 8,739	\$ 8,393	\$ 9,463	\$ 1,070	12.8%
<b>Total</b>	<b>\$ 8,739</b>	<b>\$ 8,393</b>	<b>\$ 9,463</b>	<b>\$ 1,070</b>	<b>12.8%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes nine additional employees



**POLICE**

**OVERVIEW**

The Authority’s internationally accredited Police department provides traditional law enforcement and supports the passenger screening function of the TSA.

**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of 104 full-time employees.

**Materials and Supplies** includes uniforms for officers, patrol firearms allowance, vests and ammunition.

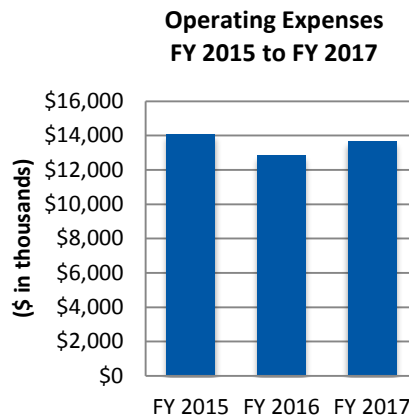
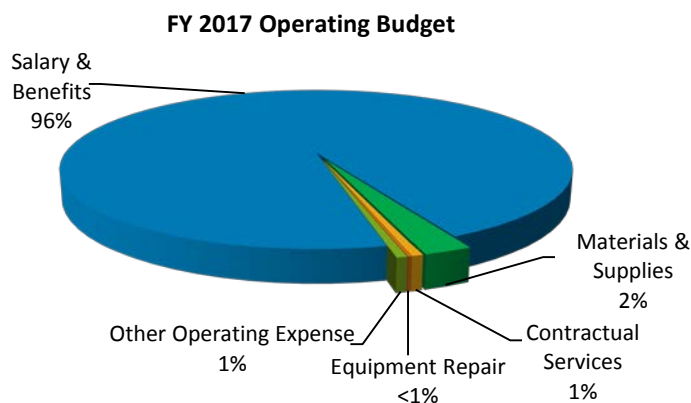
**Contractual Services** include on-site professional development services and veterinary services for police dogs.

Police Department expenses are offset by federal grants for eligible law enforcement activities. These grants are recorded under non-operating revenues.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 13,618	\$ 12,296	\$ 13,155	\$ 858	7.0%
Materials & Supplies	346	352	342	(10)	-2.9%
Contractual Services	55	88	78	(11)	-12.0%
Equipment Repair	5	15	22	7	42.8%
Other Operating Expense	48	64	76	12	19.5%
<b>Total</b>	<b>\$ 14,072</b>	<b>\$ 12,816</b>	<b>\$ 13,672</b>	<b>\$ 856</b>	<b>6.7%</b>
<b>Operating Expenses by Cost Centers</b>					
Public Safety	\$ 14,072	\$ 12,816	\$ 13,672	\$ 856	6.7%
<b>Total</b>	<b>\$ 14,072</b>	<b>\$ 12,816</b>	<b>\$ 13,672</b>	<b>\$ 856</b>	<b>6.7%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes seven additional employees



SECURITY

OVERVIEW

The Security Department is responsible for the systems and procedures to keep the passengers and airport employees safe while maintaining compliance with federal regulations and the Airport Security Program.

RESOURCE ALLOCATION

Salary & Benefits support a staff of 20 full-time employees.

Security includes guard services that are contracted to a third party security firm and covers employee screening.

Funds budgeted for Equipment Repair includes maintenance and changes to the security card system access system.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 2,386	\$ 1,762	\$ 2,089	\$ 328	18.6%
Materials & Supplies	84	92	130	38	41.5%
Security <sup>2</sup>	2,557	2,793	3,292	499	17.9%
Contractual Services	192	333	289	(44)	-13.3%
Equipment Repair <sup>3</sup>	1,471	1,941	2,278	337	17.4%
Other Operating Expense	201	12	20	8	62.0%
O&M Capital <sup>4</sup>	58	-	72	72	n/a
<b>Total</b>	<b>\$ 6,949</b>	<b>\$ 6,932</b>	<b>\$ 8,170</b>	<b>\$ 1,237</b>	<b>17.8%</b>
<b>Operating Expenses by Cost Centers</b>					
Public Safety	6,949	6,932	8,170	1,237	17.8%
<b>Total</b>	<b>\$ 6,949</b>	<b>\$ 6,932</b>	<b>\$ 8,170</b>	<b>\$ 1,237</b>	<b>17.8%</b>

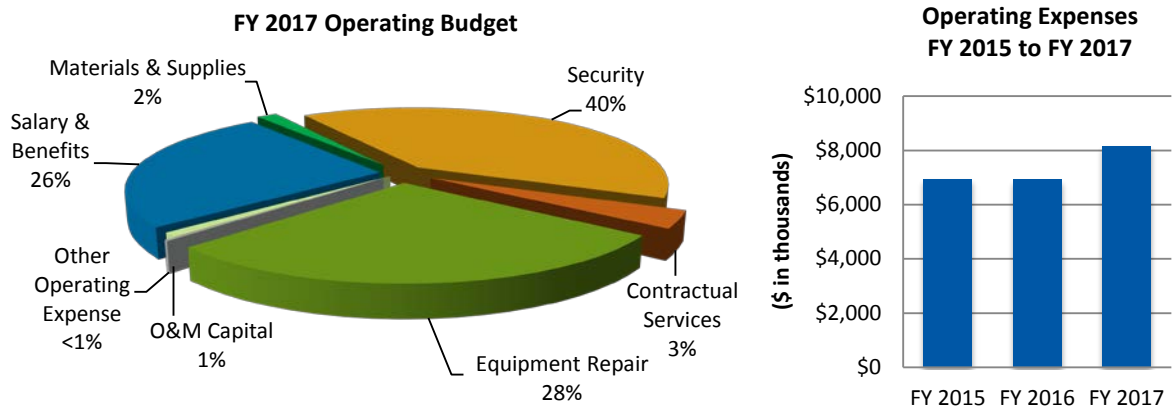
May not sum to total due to rounding

<sup>1</sup> FY 2017 includes three additional employees

<sup>2</sup> FY 2017 increase due to the employee screening initiative

<sup>3</sup> FY 2017 increase due to maintenance and changes to the security card access system

<sup>4</sup> FY 2017 increase due to the addition of security checkpoint booths





**SPECIAL SERVICES**

**OVERVIEW**

The Special Services department is responsible for the emergency management function at the Airport, Public Safety 911 communications, security access control and accreditation of the departments of the Public Safety Division.

**RESOURCE ALLOCATION**

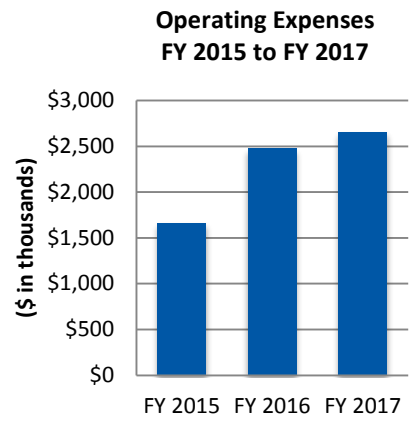
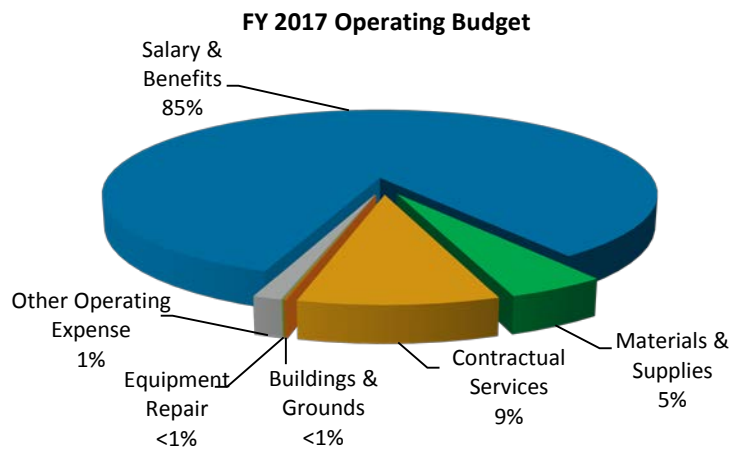
**Salary & Benefits** support a staff of 27 full-time employees.

Funds budgeted in **Materials and Supplies** contains funds for maintaining the airport’s Public Safety accreditations, mutual aid memberships and various subscriptions.

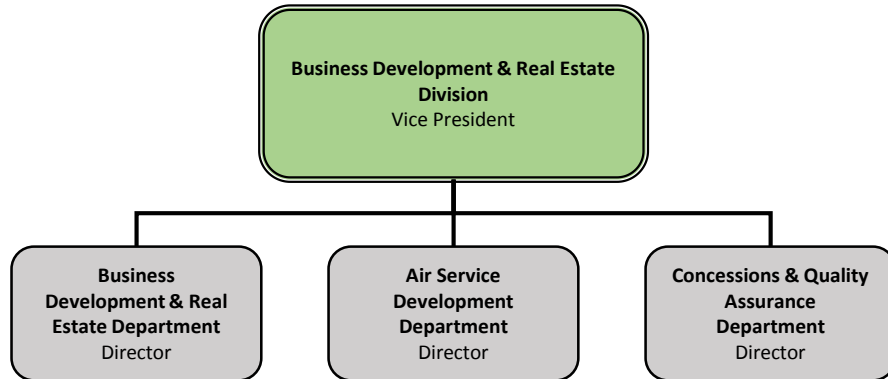
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 1,524	\$ 2,328	\$ 2,243	\$ (85)	-3.7%
Materials & Supplies	113	95	124	29	30.0%
Contractual Services <sup>1</sup>	1	-	247	247	n/a
Buildings & Grounds	4	3	3	-	0.0%
Equipment Repair	1	2	2	-	0.0%
Other Operating Expense	23	50	35	(15)	-29.4%
<b>Total</b>	<b>\$ 1,665</b>	<b>\$ 2,478</b>	<b>\$ 2,654</b>	<b>\$ 176</b>	<b>7.1%</b>
<b>Operating Expenses by Cost Centers</b>					
Public Safety	\$ 1,665	\$ 2,478	\$ 2,654	\$ 176	7.1%
<b>Total</b>	<b>\$ 1,665</b>	<b>\$ 2,478</b>	<b>\$ 2,654</b>	<b>\$ 176</b>	<b>7.1%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 increase due to a new contract for emergency bussing and a full-scale active shooter exercise



**BUSINESS DEVELOPMENT & REAL ESTATE DIVISION**



<b>Full-Time Employees (FTEs)</b>	<b>FY 2013 Budget</b>	<b>FY 2014 Budget</b>	<b>FY 2015 Budget</b>	<b>FY 2016 Budget</b>	<b>FY 2017 Budget</b>	<b>Five-Year CAGR</b>
<b>Business Development &amp; Real Estate Division</b>						
Business Development and Real Estate	3	3	8	9	10	27.2%
Air Service Development	1	1	1	1	1	0.0%
Concessions and Quality Services	4	4	4	4	4	0.0%
<b>Total Business Development &amp; Real Estate Division</b>	<b>8</b>	<b>8</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>13.4%</b>

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 2,009	\$ 1,843	\$ 2,098	\$ 255	13.8%
Materials & Supplies	101	198	207	9	4.7%
Contractual Services <sup>2</sup>	1,833	1,926	2,098	173	9.0%
Other Operating Expense <sup>3</sup>	893	268	368	100	37.4%
O&M Capital <sup>4</sup>	182	256	187	(69)	-26.9%
<b>Total</b>	<b>\$ 5,018</b>	<b>\$ 4,490</b>	<b>\$ 4,958</b>	<b>\$ 468</b>	<b>10.4%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ -	\$ 976	\$ 1,024	\$ 48	4.9%
South Terminal	945	620	620	-	0.0%
Airfield	371	-	-	-	n/a
Cargo & Hangar	183	256	187	(69)	-26.9%
Administration	2,875	2,639	3,128	489	18.5%
Public Safety	644	-	-	-	n/a
<b>Total</b>	<b>\$ 5,018</b>	<b>\$ 4,490</b>	<b>\$ 4,958</b>	<b>\$ 468</b>	<b>10.4%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes one additional employee

<sup>2</sup> FY 2017 increase due the addition of a consultant for the North Terminal food & beverage changeover

<sup>3</sup> FY 2017 increase due to the addition of a meeting chalet at the World Routes Conference

<sup>4</sup> FY 2017 decrease due to the rent credit for Integrated Deicing Services expiring

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
<b>Customer Satisfaction</b>			
Region/Community: # of Scheduled Non-Stop Travel Opportunities	188	186	TBD
<b>Financial Competitiveness &amp; Sustainability</b>			
Gross Food, Beverage & Retail Revenue per Enplanement	\$10.74	\$10.82	\$10.51
<b>Regional Development</b>			
Overall cargo tonnage handled at DTW	190,658	191,703	203,950

BUSINESS DEVELOPMENT & REAL ESTATE AND AIR SERVICE DEVELOPMENT

OVERVIEW

Business Development & Real Estate is responsible for the lease or sale of the Airport Authority’s property to aviation, aviation-related, commercial and industrial users, as well as any future development of facilities or land on airport property.

Air Service Development is responsible for improving air service through the development and implementation of research, marketing and media outreach programs. The department analyzes aviation industry data and trends which result in recommendations for new and/or improved air service as well as identifying positive air service trends that can be used to enhance the Airport’s image in the local community and with connecting passengers.

RESOURCE ALLOCATION

**Salary & Benefits** support a staff of 11 full-time employees.

Funds budgeted in **Materials & Supplies** are used for industry data subscriptions and software for DiiO and Sabre to support air service development.

Professional appraisal services are budgeted under **Contractual Services**.

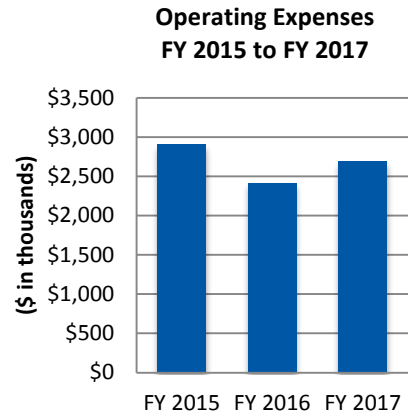
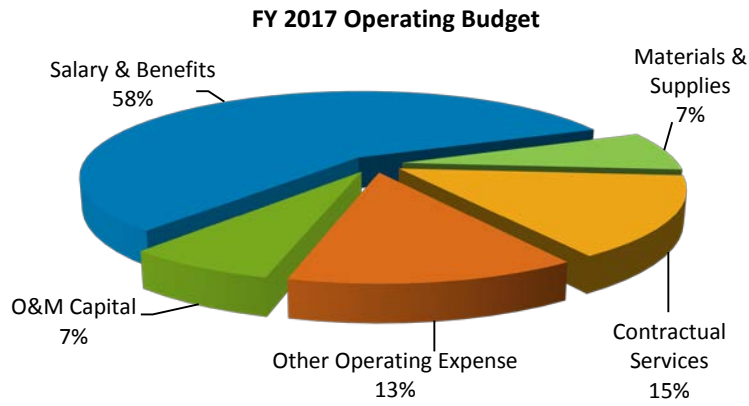
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 1,455	\$ 1,332	\$ 1,555	\$ 223	16.7%
Materials & Supplies	95	189	198	9	4.9%
Contractual Services	336	395	395	-	0.0%
Other Operating Expense <sup>2</sup>	834	246	356	110	44.8%
O&M Capital <sup>3</sup>	182	256	187	(69)	-26.9%
<b>Total</b>	<b>\$ 2,902</b>	<b>\$ 2,417</b>	<b>\$ 2,691</b>	<b>\$ 273</b>	<b>11.3%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ -	\$ 25	\$ 25	\$ -	0.0%
South Terminal	-	40	40	-	0.0%
Airfield	(156)	-	-	-	n/a
Cargo & Hangar	183	256	187	(69)	-26.9%
Administration	2,875	2,096	2,438	342	16.3%
<b>Total</b>	<b>\$ 2,902</b>	<b>\$ 2,417</b>	<b>\$ 2,691</b>	<b>\$ 273</b>	<b>11.3%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes one additional employee

<sup>2</sup> FY 2017 increase due to the addition of a meeting chalet at the World Routes Conference

<sup>3</sup> FY 2017 decrease due to the rent credit for Integrated Deicing Services expiring



CONCESSIONS & QUALITY ASSURANCE

OVERVIEW

Concessions & Quality Assurance is responsible for delivering a variety of services to the traveling public, airlines and visitors including food, beverage, retail, duty-free, car rental, advertising, luggage carts and other customer services. The department oversees the design of new and existing venues, manages all related construction and contractual obligations, conducts plan reviews of renovations, and monitors and evaluates existing concession performance.

RESOURCE ALLOCATION

Salary & Benefits support a staff of four full-time employees.

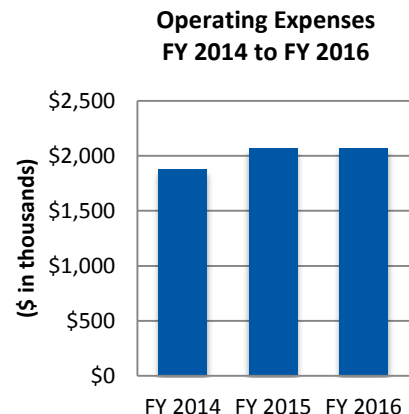
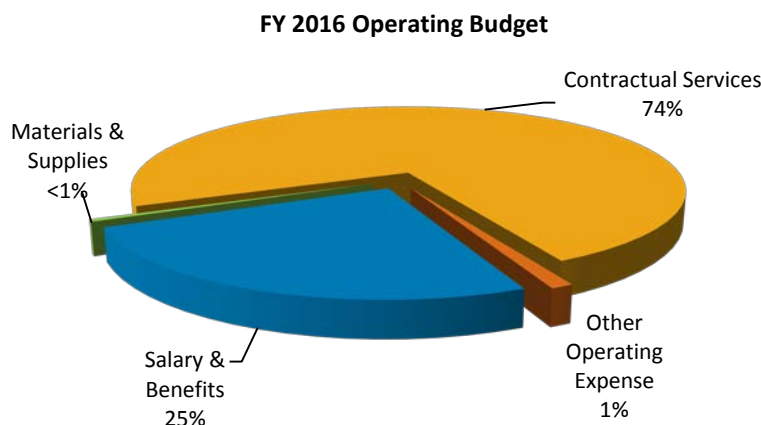
Funds budgeted in **Contractual Services** are used for:

- ➔ Consulting services for all Concessions requests for proposals (RFPs) airport wide
- ➔ Dockmaster services for the North Terminal
- ➔ Complimentary luggage carts

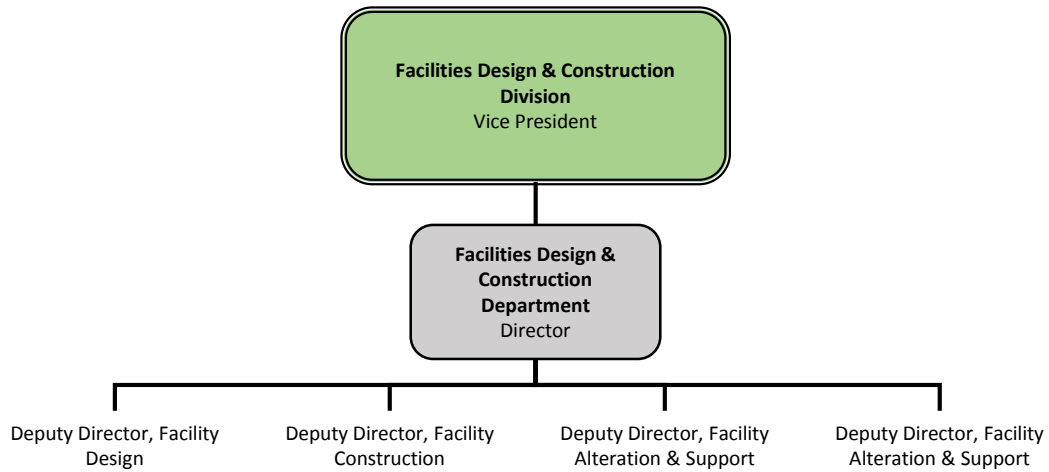
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 554	\$ 511	\$ 544	\$ 32	6.3%
Materials & Supplies	6	9	9	-	0.0%
Contractual Services <sup>1</sup>	1,497	1,531	1,703	173	11.3%
Other Operating Expense	59	22	12	(10)	-45.5%
<b>Total</b>	<b>\$ 2,116</b>	<b>\$ 2,073</b>	<b>\$ 2,268</b>	<b>\$ 195</b>	<b>9.4%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 945	\$ 951	\$ 999	\$ 48	5.0%
South Terminal	527	580	580	-	0.0%
Administration	644	542	690	147	27.1%
<b>Total</b>	<b>\$ 2,116</b>	<b>\$ 2,073</b>	<b>\$ 2,268</b>	<b>\$ 195</b>	<b>9.4%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 increase due the addition of a consultant for the North Terminal food & beverage changeover



**FACILITIES DESIGN & CONSTRUCTION DIVISION**



	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	Five-Year CAGR
<b>Full-Time Employees (FTEs)</b>						
<b>Facility Design &amp; Construction Division</b>						
Facilities & Development Administration	1	1	1	-	-	-100.0%
Infrastructure & Engineering	12	14	-	-	-	-100.0%
Facilities Design & Construction	10	13	3	3	3	-21.4%
Facility Design	5	5	7	8	9	12.5%
Facility Construction	-	-	9	9	9	N/A
Facility Alteration & Support	-	-	5	6	6	N/A
<b>Total Facility Design &amp; Construction Division</b>	<b>28</b>	<b>33</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>-0.7%</b>

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 3,212	\$ 3,202	\$ 3,444	\$ 243	7.6%
Materials & Supplies	187	69	69	(0)	-0.3%
Janitorial	138	-	-	-	n/a
Contractual Services <sup>2</sup>	998	1,269	1,845	576	45.4%
Buildings & Grounds <sup>3</sup>	3,413	4,272	5,097	825	19.3%
Equipment Repair	364	2	2	-	0.0%
Other Operating Expense	46	102	116	15	14.4%
O&M Capital <sup>4</sup>	1,656	-	250	250	n/a
<b>Total</b>	<b>\$ 10,013</b>	<b>\$ 8,916</b>	<b>\$ 10,824</b>	<b>\$ 1,908</b>	<b>21.4%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 26	\$ -	\$ 75	\$ 75	n/a
South Terminal	9	-	175	175	n/a
Airfield	2,881	1,600	1,500	(100)	-6.3%
Facilities & Maintenance	2,250	2,555	3,284	729	28.5%
Ground Transportation	2,283	2,359	2,775	416	17.6%
Administration	2,558	2,401	2,715	313	13.0%
Public Safety	6	-	300	300	n/a
<b>Total</b>	<b>\$ 10,013</b>	<b>\$ 8,916</b>	<b>\$ 10,824</b>	<b>\$ 1,908</b>	<b>21.4%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes one additional employee

<sup>2</sup> FY 2017 increase due to pavement condition consulting services and the addition of Americans with Disabilities Act self-evaluations

<sup>3</sup> FY 2017 increase due to the addition of lactation rooms at the terminals plus additional parking deck preventative and corrective maintenance

<sup>4</sup> FY 2017 increase due to the demolition of TSA screening equipment at the McNamara Deck

Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
<b>Operational Excellence</b>			
Passenger Facilitation: Average Customs & Border Patrol (CBP) Wait Time (in minutes)	16.4	15.5	16.7



**FACILITIES DESIGN & CONSTRUCTION**

**OVERVIEW**

Facilities Design & Construction oversees the Division and provides administration in support of its objective to deliver capital construction at both Detroit Metro and Willow Run Airports.

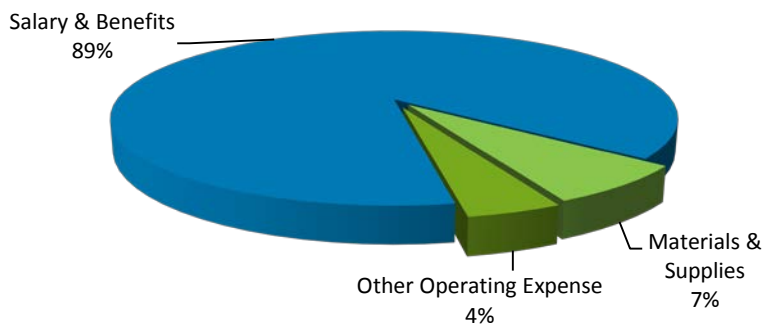
**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of three full-time employees.

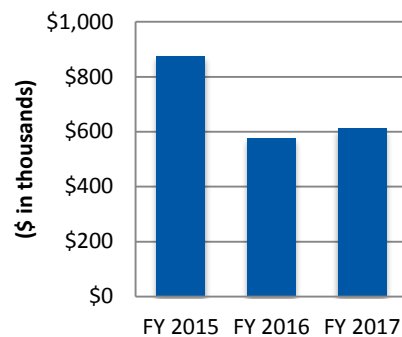
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 534	\$ 516	\$ 541	\$ 26	5.0%
Materials & Supplies	18	39	44	5	14.0%
Contractual Services	283	-	-	-	n/a
Equipment Repair	2	-	-	-	n/a
Other Operating Expense	22	24	27	3	11.2%
O&M Capital	16	-	-	-	n/a
<b>Total</b>	<b>\$ 876</b>	<b>\$ 578</b>	<b>\$ 612</b>	<b>\$ 34</b>	<b>5.9%</b>
<b>Operating Expenses by Cost Centers</b>					
Facilities & Maintenance	\$ 50	\$ -	\$ -	\$ -	n/a
Administration	826	578	612	34	5.9%
<b>Total</b>	<b>\$ 876</b>	<b>\$ 578</b>	<b>\$ 612</b>	<b>\$ 34</b>	<b>5.9%</b>

*May not sum to total due to rounding*

**FY 2017 Operating Budget**



**Operating Expenses FY 2015 to FY 2017**



FACILITY DESIGN

OVERVIEW

Facility Design manages the design of Authority assets including infrastructure, paving projects (both airside and landside) and facilities.

RESOURCE ALLOCATION

**Salary & Benefits** support a staff of nine full-time employees.

**Contractual Services** includes all preliminary engineering and surveying costs to: ensure that airfield pavement complies with FAA guidelines, execute the Public Roads and Bridge Maintenance Plan, and manage monthly inspections of the parking decks.

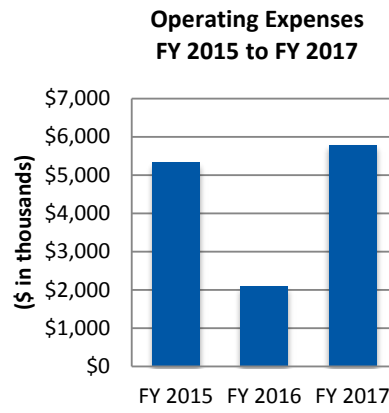
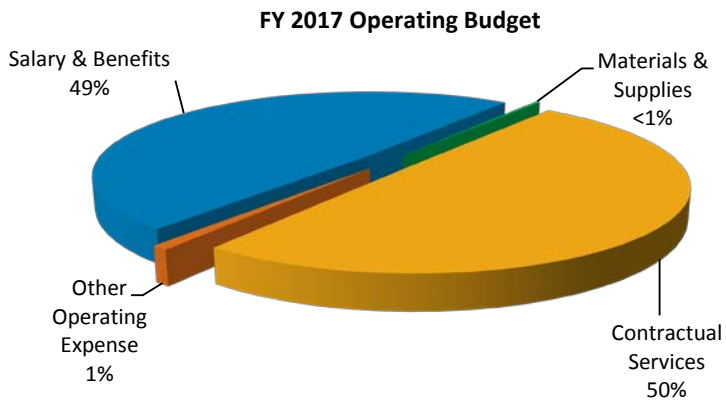
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 996	\$ 1,011	\$ 1,201	\$ 190	18.8%
Materials & Supplies	8	8	7	(1)	-13.9%
Contractual Services	539	1,044	1,220	176	16.9%
Buildings & Grounds <sup>2</sup>	2,155	-	3,097	3,097	n/a
Other Operating Expense	11	28	21	(7)	-25.0%
O&M Capital <sup>3</sup>	1,627	-	250	250	n/a
<b>Total</b>	<b>\$ 5,337</b>	<b>\$ 2,091</b>	<b>\$ 5,796</b>	<b>\$ 3,705</b>	<b>&gt;100%</b>
<b>Operating Expenses by Cost Centers</b>					
Airfield	\$ 2,881	\$ 100	\$ -	\$ (100)	-100.0%
Facilities & Maintenance	1,878	1,407	3,121	1,714	>100%
Ground Transportation	578	584	2,675	2,091	>100%
<b>Total</b>	<b>\$ 5,337</b>	<b>\$ 2,091</b>	<b>\$ 5,796</b>	<b>\$ 3,705</b>	<b>&gt;100%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes one additional employee

<sup>2</sup> FY 2017 increase due to infrastructure maintenance moving from Facility Construction plus additional parking deck preventative and corrective maintenance

<sup>3</sup> FY 2017 increase due to the demolition of TSA screening equipment at the McNamara Deck



FACILITY CONSTRUCTION

OVERVIEW

Facility Construction oversees project construction to ensure that the scope of work is completed to specifications that meet industry standards.

RESOURCE ALLOCATION

**Salary & Benefits** support a staff of nine full-time employees.

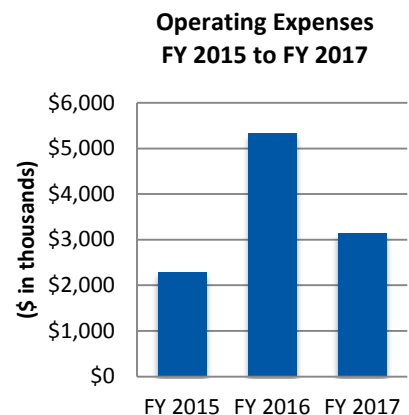
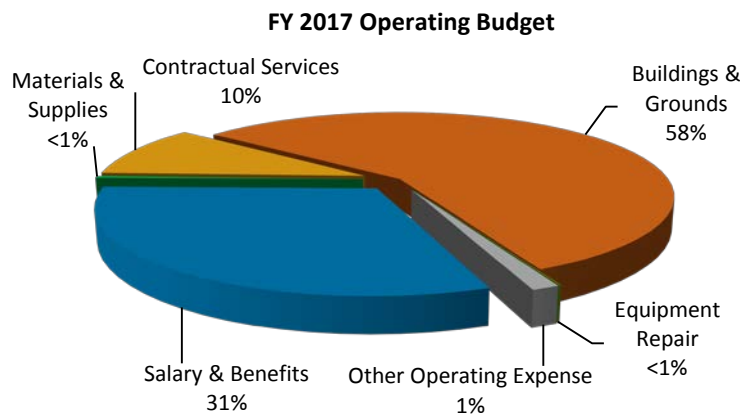
**Buildings & Grounds** includes an on-call airfield pavement contract and maintenance to construction checkpoints.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 950	\$ 896	\$ 968	\$ 72	8.0%
Materials & Supplies	8	13	10	(3)	-22.8%
Contractual Services <sup>1</sup>	19	125	315	190	>100%
Buildings & Grounds <sup>2</sup>	1,303	4,272	1,800	(2,472)	-57.9%
Equipment Repair	0	2	2	-	0.0%
Other Operating Expense	9	27	41	14	52.1%
<b>Total</b>	<b>\$ 2,289</b>	<b>\$ 5,335</b>	<b>\$ 3,136</b>	<b>\$ (2,199)</b>	<b>-41.2%</b>
<b>Operating Expenses by Cost Centers</b>					
Airfield	\$ -	\$ 1,500	\$ 1,500	\$ -	0.0%
Facilities & Maintenance	48	1,098	1	(1,097)	-99.9%
Ground Transportation	1,255	1,725	-	(1,725)	-100.0%
Administration	987	1,012	1,335	323	31.9%
Public Safety	-	-	300	300	n/a
<b>Total</b>	<b>\$ 2,289</b>	<b>\$ 5,335</b>	<b>\$ 3,136</b>	<b>\$ (2,199)</b>	<b>-41.2%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 increase due to pavement condition consulting services for the evaluation of the airfield

<sup>2</sup> FY 2017 decrease due to infrastructure maintenance moving to Facility Design



**FACILITY ALTERATION & SUPPORT**

**OVERVIEW**

Facility Alteration & Support address alterations to existing facilities. Responsibilities cover diverse projects such as the rehabilitation of the Airport North Power Plant Building, the addition of lactation rooms at the terminals, roof replacements and signage improvements.

**RESOURCE ALLOCATION**

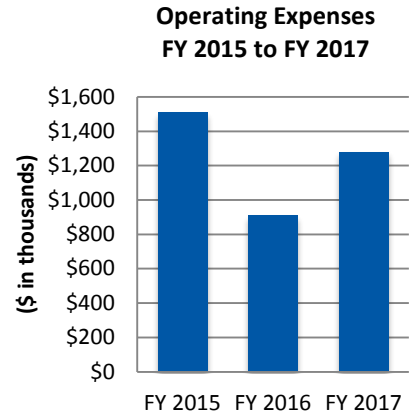
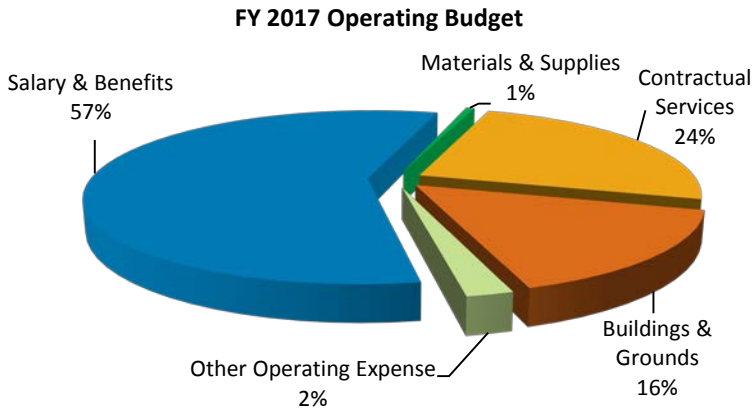
**Salary & Benefits** support a staff of six full-time employees.

<i>(\$ in thousands)</i>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2016 to FY 2017 Change</b>	
	<b>Actual</b>	<b>Budget</b>	<b>Budget</b>	<b>\$</b>	<b>%</b>
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 731	\$ 779	\$ 734	\$ (45)	-5.8%
Materials & Supplies	153	9	8	(2)	-16.5%
Janitorial	138	-	-	-	n/a
Contractual Services <sup>1</sup>	157	100	310	210	>100%
Buildings & Grounds <sup>2</sup>	(45)	-	200	200	n/a
Equipment Repair	361	-	-	-	n/a
Other Operating Expense	3	23	28	5	20.7%
O&M Capital	12	-	-	-	n/a
<b>Total</b>	<b>\$ 1,510</b>	<b>\$ 911</b>	<b>\$ 1,279</b>	<b>\$ 368</b>	<b>40.4%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 26	\$ -	\$ 75	\$ 75	n/a
South Terminal	9	-	175	175	n/a
Facilities & Maintenance	274	50	162	112	>100%
Ground Transportation	450	50	100	50	100.0%
Administration	746	811	767	(44)	-5.4%
Public Safety	6	-	-	-	n/a
<b>Total</b>	<b>\$ 1,510</b>	<b>\$ 911</b>	<b>\$ 1,279</b>	<b>\$ 368</b>	<b>40.4%</b>

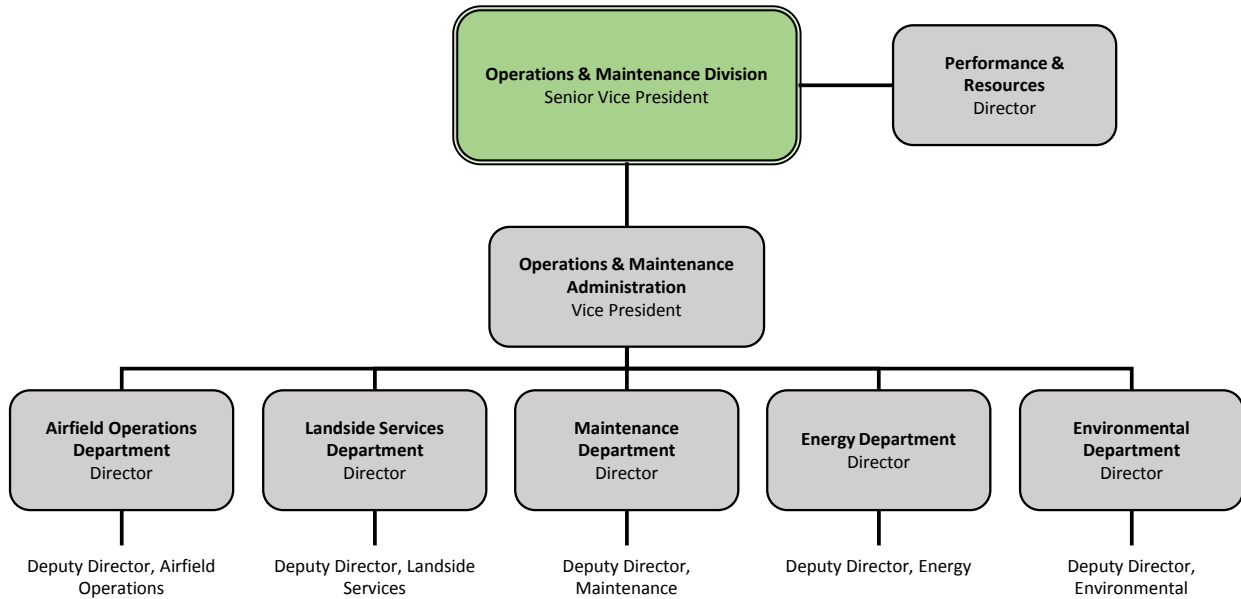
*May not sum to total due to rounding*

<sup>1</sup> FY 2017 increase due to Americans with Disabilities Act self-evaluations

<sup>2</sup> FY 2017 increase due to the addition of lactation rooms at the terminals



**OPERATIONS & MAINTENANCE DIVISION**



	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	Five-Year CAGR
<b>Full-Time Employees (FTEs)</b>						
<b>Detroit Metropolitan Airport</b>						
<b>Operations &amp; Maintenance Division</b>						
Operations & Maintenance Administration	2	2	3	3	6	24.6%
Airfield Operations	40	39	41	46	47	3.3%
Landside Services	23	23	23	23	26	2.5%
Environmental	5	5	9	9	9	12.5%
Energy	12	12	41	43	53	34.6%
Maintenance	161	161	142	150	159	-0.2%
<b>Total Operations &amp; Maintenance Division</b>	<b>243</b>	<b>242</b>	<b>259</b>	<b>274</b>	<b>300</b>	<b>4.3%</b>

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 29,914	\$ 28,987	\$ 32,372	\$ 3,385	11.7%
Materials & Supplies <sup>2</sup>	4,238	4,779	5,059	280	5.9%
Parking Management <sup>3</sup>	7,882	7,193	8,641	1,448	20.1%
Shuttle Bus <sup>4</sup>	6,540	6,839	8,600	1,761	25.8%
Janitorial	437	662	662	-	0.0%
Contractual Services <sup>5</sup>	4,981	6,188	6,626	438	7.1%
Utilities <sup>6</sup>	24,105	26,465	24,168	(2,297)	-8.7%
Buildings & Grounds <sup>7</sup>	4,651	7,726	5,587	(2,139)	-27.7%
Equipment Repair	2,293	2,821	3,091	271	9.6%
Other Operating Expense	2,154	2,402	2,572	170	7.1%
O&M Capital	2,728	1,478	1,721	243	16.5%
<b>Total</b>	<b>\$ 89,924</b>	<b>\$ 95,540</b>	<b>\$ 99,100</b>	<b>\$ 3,559</b>	<b>3.7%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 5,591	\$ 4,721	\$ 4,549	\$ (172)	-3.7%
South Terminal	14,015	15,737	13,718	(2,019)	-12.8%
Airfield	25,696	26,519	28,227	1,708	6.4%
Facilities & Maintenance	14,038	15,617	16,215	598	3.8%
Utilities Management	6,066	6,877	8,331	1,454	21.1%
Cargo & Hangar	1,242	1,387	1,042	(345)	-24.9%
Ground Transportation	22,279	23,600	25,388	1,788	7.6%
Administration	684	691	1,213	522	75.6%
Public Safety	216	252	286	34	13.6%
Fire & EMS	96	136	127	(9)	-6.5%
Westin Hotel	1	3	3	-	0.0%
<b>Total</b>	<b>\$ 89,924</b>	<b>\$ 95,540</b>	<b>\$ 99,100</b>	<b>\$ 3,559</b>	<b>3.7%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes 26 additional employees

<sup>2</sup> FY 2017 increase due to a rise in deicing fluid cost and the addition of four equipped toolboxes for Fleet. These expenses are offset by a reduction in fuel & diesel prices

<sup>3</sup> FY 2017 increase due to snow removal, power washing and maintenance being realigned from Contractual Services and Buildings & Grounds

<sup>4</sup> FY 2017 increase due to a change in contract scope and the addition of four vehicles

<sup>5</sup> FY 2017 increase in the snow removal contract and new contract for liquid deicer collection and removal

<sup>6</sup> FY 2017 decrease can be attributed to consumption savings due to LED conversion and lower rates

<sup>7</sup> FY 2016 included expenditure for pond dredging while power washing and maintenance of parking decks have been realigned to Parking Management



Key Performance Measures	FY 2015 Actual	FY 2016 Target	FY 2017 Target
<b>Operational Excellence</b>			
Airfield Efficiency: Average On-Time Airport Departure	82.1%	81.7%	83.0%
Airfield Safety: Number of Airfield Incidents (DTW)	62	64	TBD
<b>Financial Competiveness &amp; Sustainability</b>			
Gross Parking Revenue per O&D Passenger	\$11.54	\$10.54	\$11.64

OPERATIONS & MAINTENANCE ADMINISTRATION

OVERVIEW

Operations & Maintenance Administration provides management, administration, oversight and support for the Maintenance, Fleet, Airfield Operations, Environmental/Sustainability and Landside Services departments. The department also assists with the development of organizational policies and goals that cover operations, personnel, financial and growth of the functions and/or business units mentioned above.

RESOURCE ALLOCATION

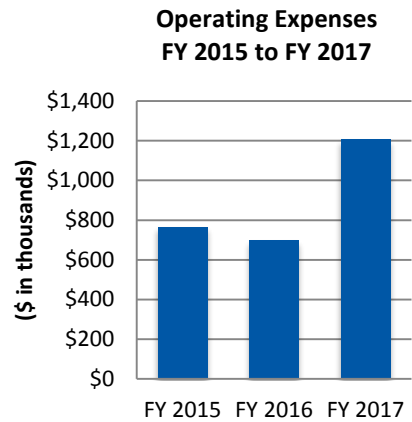
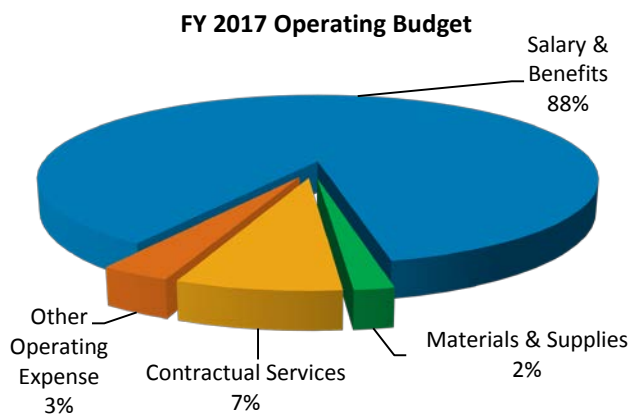
Salary & Benefits support a staff of six full-time employees.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 737	\$ 654	\$ 1,056	\$ 402	61.5%
Materials & Supplies	13	19	22	3	14.0%
Contractual Services <sup>2</sup>	-	-	90	90	n/a
Other Operating Expense	16	25	39	14	56.8%
<b>Total</b>	<b>\$ 766</b>	<b>\$ 698</b>	<b>\$ 1,207</b>	<b>\$ 509</b>	<b>72.9%</b>
<b>Operating Expenses by Cost Centers</b>					
Facilities & Maintenance	\$ 763	\$ 698	\$ 1,207	\$ 509	72.9%
Administration	3	-	-	-	n/a
<b>Total</b>	<b>\$ 766</b>	<b>\$ 698</b>	<b>\$ 1,207</b>	<b>\$ 509</b>	<b>72.9%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes three additional employees

<sup>2</sup> FY 2017 increase due to consultancy fees for Maximo system



**AIRFIELD OPERATIONS**

**OVERVIEW**

Airfield Operations is responsible for administering a safe airfield operating environment, working closely with the Federal Aviation Administration (FAA) to maintain the Authority’s Operating Certificate through enforcement of Federal Aviation Regulation Part 139. The department manages the administration of the Airport Certification Manual which includes the Wildlife Hazard and Management Plan, Snow and Ice Control Plan, Airfield Training, Letters of Agreements and the Airport Emergency Management Plan. The department also hosts Airfield Coordination meetings for construction projects and maintenance activities and participates in safety and planning meeting to ensure safe operations and compliance with regulations.

**RESOURCE ALLOCATION**

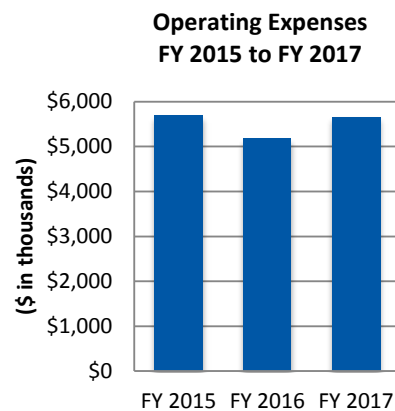
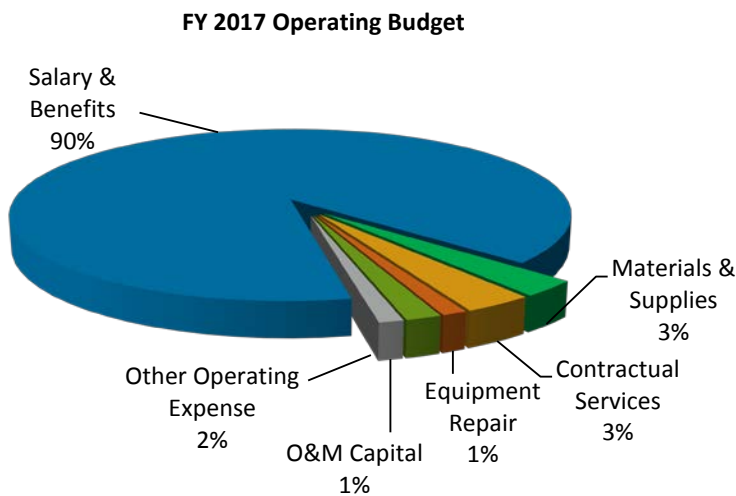
**Salary & Benefits** support a staff of 47 full-time employees.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 4,954	\$ 4,762	\$ 5,080	\$ 318	6.7%
Materials & Supplies	74	109	163	54	49.5%
Contractual Services	114	213	188	(25)	-11.7%
Equipment Repair <sup>2</sup>	7	4	66	62	>100%
Other Operating Expense	43	84	96	12	14.4%
O&M Capital <sup>2</sup>	496	-	66	66	n/a
<b>Total</b>	<b>\$ 5,688</b>	<b>\$ 5,172</b>	<b>\$ 5,659</b>	<b>\$ 487</b>	<b>9.4%</b>
<b>Operating Expenses by Cost Centers</b>					
Airfield	\$ 5,688	\$ 5,172	\$ 5,659	\$ 487	9.4%
<b>Total</b>	<b>\$ 5,688</b>	<b>\$ 5,172</b>	<b>\$ 5,659</b>	<b>\$ 487</b>	<b>9.4%</b>

*May not sum to total due to rounding*

<sup>1</sup> FY 2017 includes one additional employee

<sup>2</sup> FY 2017 increase for squitter (transponders) maintenance and licenses



LANDSIDE SERVICES

OVERVIEW

Landside Services is responsible for delivering on-airport parking, airport employee shuttle services and ground transportation services for airport patrons through overseeing the Airport’s parking contractor, managing the Airport’s parking facilities and compliance of ground transportation customer service standards.

RESOURCE ALLOCATION

Salary & Benefits support a staff of 26 full-time employees.

The **Parking Management** and **Shuttle Bus** services are contracted to third parties. The parking management contractor operates all parking decks and lots. The shuttle bus service contractor transports passengers between terminals and on-airport parking locations and also shuttles employees from designated parking lots to terminals.

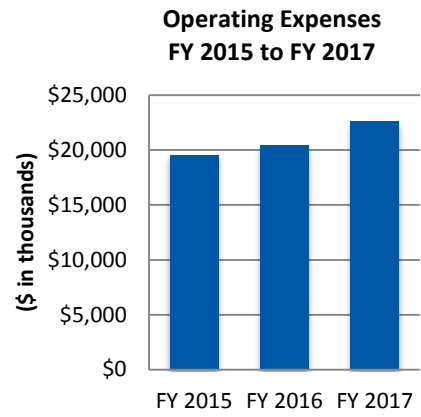
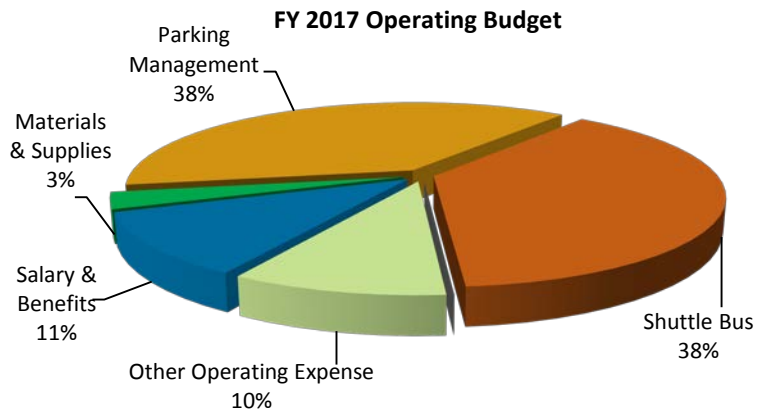
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 2,520	\$ 2,235	\$ 2,487	\$ 252	11.3%
Materials & Supplies	456	668	674	6	0.8%
Parking Management <sup>2</sup>	7,882	7,193	8,641	1,448	20.1%
Shuttle Bus <sup>3</sup>	6,540	6,839	8,600	1,761	25.8%
Contractual Services <sup>2</sup>	-	500	-	(500)	-100.0%
Buildings & Grounds <sup>2</sup>	-	995	-	(995)	-100.0%
Other Operating Expense	2,153	2,008	2,166	158	7.9%
<b>Total</b>	<b>\$ 19,551</b>	<b>\$ 20,438</b>	<b>\$ 22,568</b>	<b>\$ 2,130</b>	<b>10.4%</b>
<b>Operating Expenses by Cost Centers</b>					
Ground Transportation	\$ 19,551	\$ 20,438	\$ 22,568	\$ 2,130	10.4%
<b>Total</b>	<b>\$ 19,551</b>	<b>\$ 20,438</b>	<b>\$ 22,568</b>	<b>\$ 2,130</b>	<b>10.4%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes three additional employees

<sup>2</sup> FY 2017 increase due to snow removal, power washing and maintenance being realigned from Contractual Services and Buildings & Grounds

<sup>3</sup> FY 2017 increase due to a change in contract scope and the addition of four vehicles



**MAINTENANCE**

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**OVERVIEW**

The Maintenance Department is responsible for ensuring that the airfield, Authority buildings and airport campus are clean, safe and compliant with federal, state and local standards. Additional responsibilities include maintaining signage for a safe traverse of the airfield, roadways and facilities, delivering core trades services (e.g. plumbing, carpentry and painting) and maintaining the Authority's vehicles and equipment.

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**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of 159 full-time employees.

Funds budgeted for **Materials and Supplies** are used for:

- Bulk chemicals such as liquid runway deicer, road salt and runway rubber remover
- Miscellaneous supplies that includes tools and equipment
- Gasoline and diesel fuel for the Authority's vehicle and equipment fleet

Funds budgeted for **Contractual Services** include snow removal services for the airfield ramps, landscaping and facilities maintenance of all property owned by airport.

The **Buildings and Grounds** budget covers funding for the following responsibilities:

- Reflective glass beads, runway latex fast dry marking paint, airfield runway signs and electrical supplies required to maintain the runways and taxiways
- Airfield joint maintenance, removal and replacement
- Maintain asphalt surfaces
- General building supplies for the maintenance and repair of roofing, plumbing, painting, fencing, and carpentry as performed by the Airport's trades personnel

The **Equipment Repair** budget is used for preventative and corrective maintenance of heavy equipment and vehicles.

**O&M Capital** includes light vehicle replacements and lease purchase payments for heavy equipment.

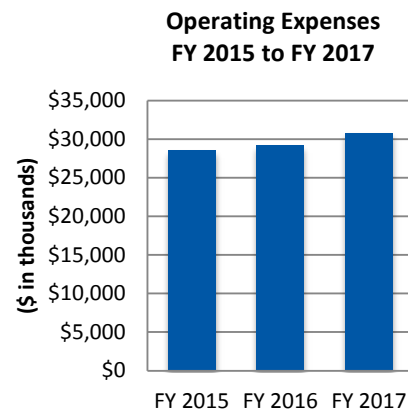
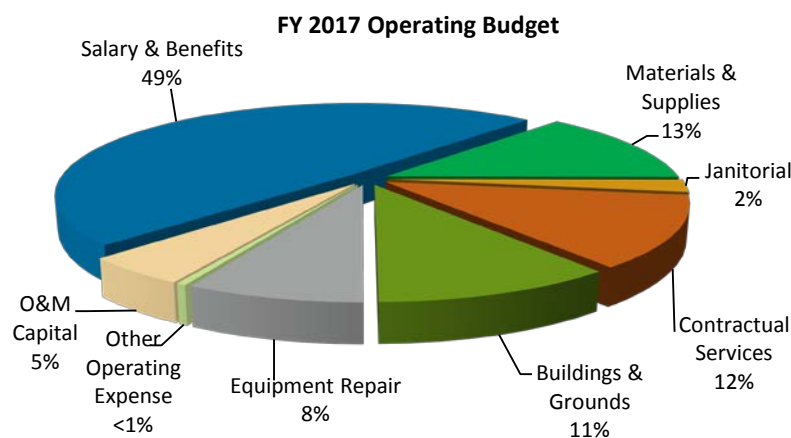
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 14,324	\$ 14,166	\$ 15,184	\$ 1,017	7.2%
Materials & Supplies <sup>2</sup>	3,619	3,851	4,025	174	4.5%
Janitorial	437	662	662	-	0.0%
Contractual Services <sup>3</sup>	3,326	3,430	3,750	320	9.3%
Buildings & Grounds	2,819	3,302	3,242	(60)	-1.8%
Equipment Repair	1,696	2,255	2,367	112	5.0%
Other Operating Expense	95	148	130	(18)	-12.1%
O&M Capital	2,178	1,417	1,469	52	3.6%
<b>Total</b>	<b>\$ 28,494</b>	<b>\$ 29,231</b>	<b>\$ 30,828</b>	<b>\$ 1,597</b>	<b>5.5%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 1,429	\$ 631	\$ 481	\$ (150)	-23.8%
Airfield	14,345	14,075	15,779	1,704	12.1%
Facilities & Maintenance	12,091	13,509	13,577	68	0.5%
Ground Transportation	554	857	847	(10)	-1.2%
Public Safety	73	121	114	(7)	-5.9%
Fire & EMS	1	38	30	(8)	-21.1%
<b>Total</b>	<b>\$ 28,494</b>	<b>\$ 29,231</b>	<b>\$ 30,828</b>	<b>\$ 1,597</b>	<b>5.5%</b>

May not sum to total due to rounding

<sup>1</sup> FY 2017 includes nine additional employees

<sup>2</sup> FY 2017 increase due to a rise in deicing fluid cost and the addition of four equipped toolboxes for Fleet. These expenses are offset by a reduction in fuel & diesel prices

<sup>3</sup> FY 2017 increase in the snow removal contract



ENERGY

OVERVIEW

The Energy Department manages utilities at Detroit Metropolitan and Willow Run Airports. This includes commodity purchasing for water, electricity and natural gas; operation and maintenance of two central power plants at Metro Airport and one energy plant at Willow Run Airport; all field boilers, chillers, and electrical generators; distribution and end-use systems for electricity, heating and cooling; and utility meter reading, repair and tenant billing.

RESOURCE ALLOCATION

Salary & Benefits support a staff of 53 full-time employees.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 6,340	\$ 6,027	\$ 7,370	\$ 1,343	22.3%
Materials & Supplies	50	62	106	45	72.4%
Contractual Services	982	1,294	1,337	43	3.3%
Utilities <sup>2</sup>	22,447	24,528	22,199	(2,329)	-9.5%
Buildings & Grounds	1,267	1,450	1,388	(62)	-4.3%
Equipment Repair	169	125	201	77	61.3%
Other Operating Expense	(180)	86	91	5	6.2%
O&M Capital <sup>3</sup>	-	61	186	126	>100%
<b>Total</b>	<b>\$ 31,075</b>	<b>\$ 33,633</b>	<b>\$ 32,879</b>	<b>\$ (754)</b>	<b>-2.2%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 4,161	\$ 4,070	\$ 4,047	\$ (23)	-0.6%
South Terminal	14,004	15,726	13,707	(2,019)	-12.8%
Airfield	1,629	1,661	1,484	(177)	-10.7%
Facilities & Maintenance	981	1,076	1,183	107	9.9%
Utilities Management	5,976	6,561	8,034	1,474	22.5%
Cargo & Hangar	1,233	1,330	985	(345)	-25.9%
Ground Transportation	2,174	2,299	1,967	(332)	-14.4%
Administration	681	691	1,213	522	75.6%
Public Safety	143	122	164	41	33.9%
Fire & EMS	92	95	94	(1)	-0.9%
Westin Hotel	1	-	-	-	n/a
<b>Total</b>	<b>\$ 31,075</b>	<b>\$ 33,633</b>	<b>\$ 32,879</b>	<b>\$ (754)</b>	<b>-2.2%</b>

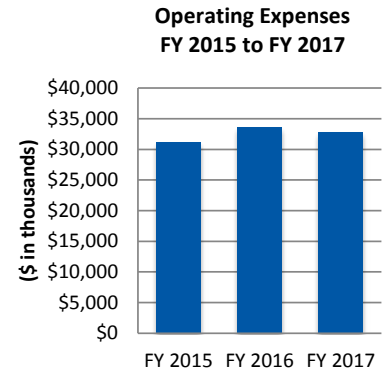
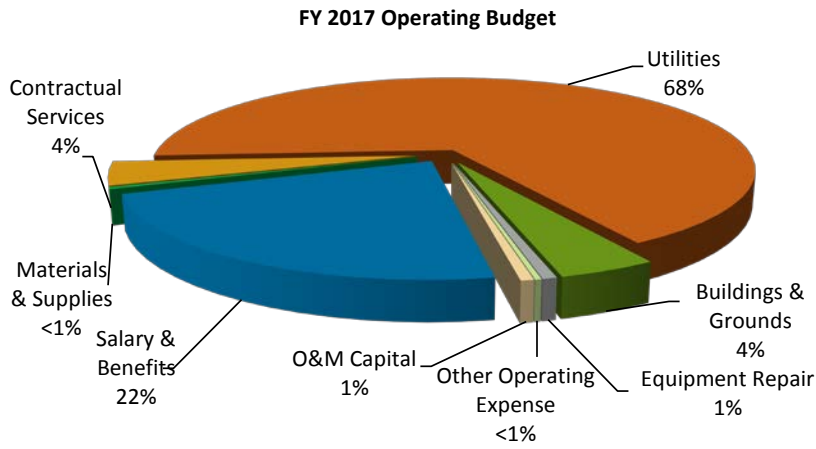
May not sum to total due to rounding

<sup>1</sup> FY 2017 includes ten additional employees

<sup>2</sup> FY 2017 decrease can be attributed to consumption savings due to LED conversion and lower rates

<sup>3</sup> FY 2017 increase due to the replacement of make-up air units and a new portable generator





ENVIRONMENTAL & SUSTAINABILITY

OVERVIEW

The Environmental & Sustainability Department oversees activities including deicing fluid collection, recycling and solid waste disposal, hazardous material testing and abatement, wetland mitigation, air quality permit management, and managing the impact of aircraft generated noise on residents living nearby.

RESOURCE ALLOCATION

Salary & Benefits support a staff of nine full-time employees.

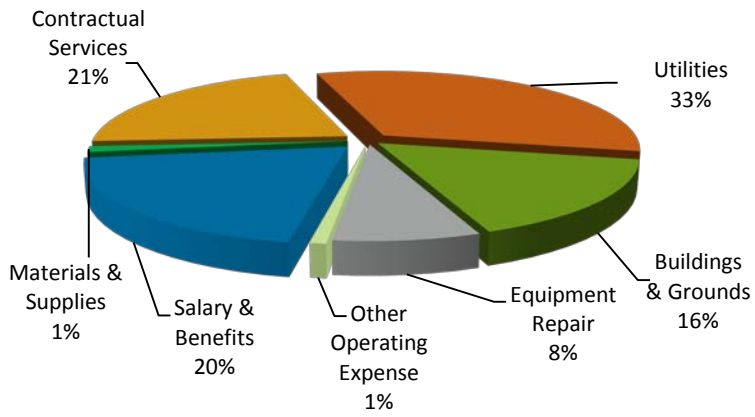
(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits	\$ 1,039	\$ 1,142	\$ 1,195	\$ 53	4.6%
Materials & Supplies	27	71	70	(1)	-1.3%
Contractual Services <sup>1</sup>	560	751	1,262	511	68.0%
Utilities	1,658	1,937	1,969	32	1.7%
Buildings & Grounds <sup>2</sup>	565	1,979	957	(1,022)	-51.6%
Equipment Repair	421	437	457	20	4.6%
Other Operating Expense	27	52	50	(2)	-3.6%
O&M Capital	54	-	-	-	n/a
<b>Total</b>	<b>\$ 4,351</b>	<b>\$ 6,369</b>	<b>\$ 5,960</b>	<b>\$ (409)</b>	<b>-6.4%</b>
<b>Operating Expenses by Cost Centers</b>					
North Terminal	\$ 1	\$ 20	\$ 21	\$ 1	5.0%
South Terminal	12	11	11	-	0.0%
Airfield	4,035	5,610	5,304	(306)	-5.4%
Facilities & Maintenance	203	334	249	(85)	-25.5%
Utilities Management	89	317	297	(20)	-6.2%
Cargo & Hangar	9	57	57	-	0.0%
Ground Transportation	-	6	6	-	0.0%
Public Safety	0	9	9	-	0.0%
Fire & EMS	2	3	3	-	0.0%
Westin Hotel	-	3	3	-	0.0%
<b>Total</b>	<b>\$ 4,351</b>	<b>\$ 6,369</b>	<b>\$ 5,960</b>	<b>\$ (409)</b>	<b>-6.4%</b>

May not sum to total due to rounding

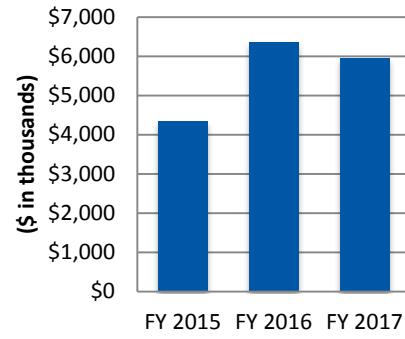
<sup>1</sup> FY 2017 increase due to a new contract for the collection and removal of deicing fluid

<sup>2</sup> FY 2016 included expenditure for pond dredging

**FY 2017 Operating Budget**



**Operating Expenses  
FY 2015 to FY 2017**

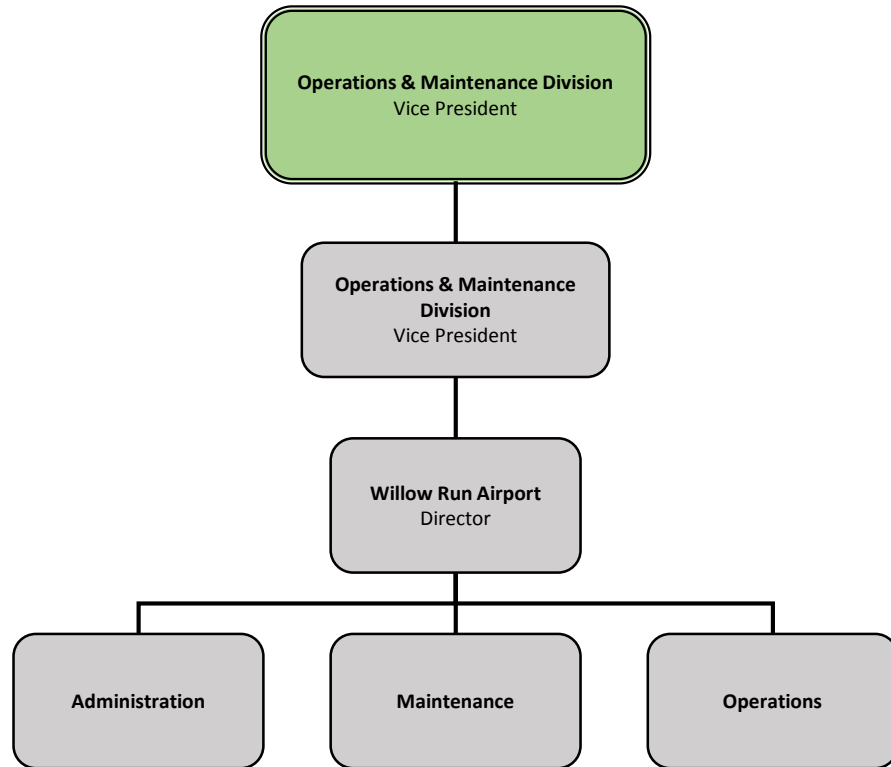


WILLOW RUN AIRPORT

Managed by the Wayne County Airport Authority, Willow Run Airport is located seven miles west of Detroit Metro. Occupying 2,600 acres, Willow Run serves cargo, corporate and general aviation clients. The airport offers three runways, 24-hour FAA Tower and US Customs inspections to provide ease of access for its users. Willow Run’s runways include an ILS all-weather and a crosswind runway. The airport accommodates small private planes, as well as international 747 cargo jets. Cargo, corporate and general aviation clients prefer Willow Run, as it provides the advantages of a larger airport with conveniences of a smaller facility.

Willow Run is classified as a national reliever airport in the FAA’s National Plan of Integrated Airport Systems (NPIAS). National reliever airports are high-capacity general aviation airports in major metropolitan areas that provide an alternative to more congested commercial service airports. There are nearly 3,400 airports listed in the NPIAS of which only 84 are national relievers – the highest category for a general aviation airport.

Willow Run handles approximately 65,000 operations per year and 3,000 cargo landings, making it the third largest reliever airport in the State of Michigan.



<b>Full-Time Employees (FTEs)</b>	<b>FY 2013 Budget</b>	<b>FY 2014 Budget</b>	<b>FY 2015 Budget</b>	<b>FY 2016 Budget</b>	<b>FY 2017 Budget</b>	<b>Five-Year CAGR</b>
<b>Willow Run Airport</b>						
Administration	3	3	3	4	3	0.0%
Operations	1	1	1	1	1	0.0%
Maintenance	7	7	7	7	9	5.2%
<b>Total Willow Run Airport</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>3.4%</b>

<b>Key Performance Measures</b>	<b>FY 2015 Actual</b>	<b>FY 2016 Target</b>	<b>FY 2017 Target</b>
<b>Regional Development</b>			
Overall cargo tonnage handled at YIP	83,298	81,788	79,903

## WILLOW RUN ADMINISTRATION, OPERATIONS AND MAINTENANCE

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**OVERVIEW**

Willow Run is divided into three operating departments: Operations, Maintenance and Administration.

**The Operations Department** ensures the safety, security and protection of the traveling public and Willow Run community through coordinating the enforcement of all applicable federal and Airport rules and procedures. The Department maintains the FAA's Part 139 Airport Certification and Manual, a requirement for airports serving scheduled air carrier operations in aircraft greater than nine passenger seats but no more than 31. The Operations Department is responsible for responding to incidents and emergencies (e.g. fire, security, snow removal, construction, special occasions and dignitary details). US Customs inspections of inbound and outbound international aircraft are facilitated by the Department.

**The Maintenance Department** is responsible for maximizing the safety, cleanliness and overall quality of the Willow Run Airport grounds, optimizing vendor performance through effective contract management and performing snow removal and landscaping services per the FAA Certificate Manual.

**The Administration Department** manages the airport's business affairs.

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**RESOURCE ALLOCATION**

**Salary & Benefits** support a staff of 13 full-time employees.

Gasoline and diesel fuel for Willow Run vehicles and liquid deicer represent the greatest expenses in the **Material and Supplies** budget.

The major expenses budgeted in the **Contractual Services** include:

- Environmental assessments and the collection of deicing fluid
- A chargeback to Detroit Metropolitan Airport for airfield firefighting services
- Snow removal
- Landscaping services
- Wildlife Control

The **Buildings and Grounds** budget covers funding for the following responsibilities:

- Airfield pavement maintenance and crack sealing
- WCAA facility maintenance including Hangar 1, ARFF station #700, Maintenance Buildings 2620/2621 and the Fuel Farm
- Utilities infrastructure

US Customs fees are charges to the **Other Operating Expense** budget.

(\$ in thousands)	FY 2015	FY 2016	FY 2017	FY 2016 to FY 2017 Change	
	Actual	Budget	Budget	\$	%
<b>Operating Expenses by Category</b>					
Salary & Benefits <sup>1</sup>	\$ 1,430	\$ 1,405	\$ 1,459	\$ 53	3.8%
Materials & Supplies <sup>2</sup>	115	174	191	17	9.7%
Janitorial	19	45	30	(15)	- 33.3%
Contractual Services <sup>3</sup>	915	811	903	92	11.3%
Insurance	31	34	30	(4)	- 12.0%
Utilities	658	710	663	(47)	- 6.6%
Buildings & Grounds <sup>4</sup>	690	314	724	410	130.4%
Equipment Repair	284	279	252	(27)	- 9.7%
Other Operating Expense	547	450	482	32	7.1%
O&M Capital <sup>5</sup>	87	22	55	33	150.6%
<b>Total</b>	<b>\$ 4,776</b>	<b>\$ 4,244</b>	<b>\$ 4,787</b>	<b>\$ 543</b>	<b>12.8%</b>
<b>Operating Expenses by Cost Centers</b>					
Willow Run	\$ 4,776	\$ 4,244	\$ 4,787	\$ 543	12.8%
<b>Total</b>	<b>\$ 4,776</b>	<b>\$ 4,244</b>	<b>\$ 4,787</b>	<b>\$ 543</b>	<b>12.8%</b>

Total may not sum due to rounding

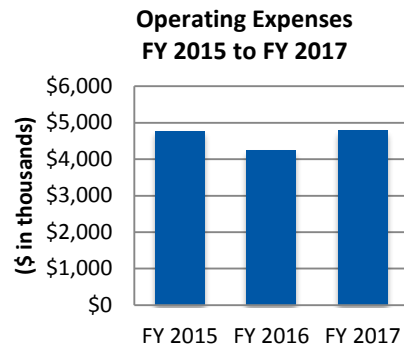
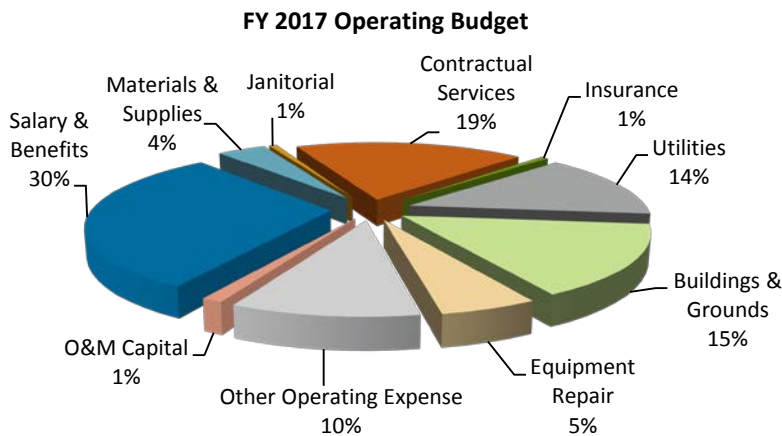
<sup>1</sup> FY 2017 includes two additional airfield maintenance workers

<sup>2</sup> FY 2017 increased for information technology equipment refresh

<sup>3</sup> FY 2017 increase primarily attributed to US Department of Agriculture Wildlife Services requirements

<sup>4</sup> FY 2017 includes funding for airfield pavement maintenance & crack sealing

<sup>5</sup> FY 2017 budget funds the acquisition of snow and FOD removal equipment



# CAPITAL IMPROVEMENT PROGRAM

The Authority manages capital projects under the Capital Improvement Program (CIP). The Authority's five year horizon encompasses plans for current and future capital projects at each airport.

The Five-Year Plan is an important tool used for formulating future project financing plans, maximizing federal and state grant opportunities and pro-actively planning for the replacement or reconstruction of essential infrastructure components that are nearing the end of their useful or service life. The CIP provides a forum for scheduling and coordinating execution of multiple projects to minimize operational impact.

## DEFINITION OF CAPITAL PROJECTS

Capital projects are long-term projects requiring large financial investments to acquire, develop, improve and/or maintain a capital asset such as land, runways, buildings, roadways, etc. The minimum thresholds for capitalization are a unit value of \$5,000 and at least a one year useful life. Reconstruction of or additions to existing assets, including but not limited to improvements, extensions, or enlargements, should only be capitalized if such expenditures meet minimum capital thresholds and significantly extend the useful life and/or functionality of the existing asset (e.g., full-depth concrete keel replacement of sections of a taxiway would represent a significant extension of useful life; runway shoulder widening could represent an expenditure that may not impact runway useful life but could materially enhance the functionality by enabling larger aircraft to utilize the runway).

The capitalized cost of a capital project should include all costs associated with its planning, acquisition, installation, estimating fees, architectural design, engineering, testing, surveying, construction, start-up (commissioning) and all other costs necessary to complete the project.

The majority of the capital projects in the Five-Year Plans tend to be "routine" projects for a major airport, including reconstruction or rehabilitation of runways, taxiways, parking decks, roadways and environmental or planning studies. In general, routine capital projects do not affect the annual operating budget. As an example, if a runway is taken out of service to be reconstructed, the maintenance efforts that would have been expended on that runway are reassigned to maintain other portions of the airfield that require attention.

## CAPITAL IMPROVEMENT COMMITTEE

The Authority established a Capital Improvement Committee (CIC) to direct, oversee and monitor the CIP and its capital planning process and practices for Detroit Metropolitan (DTW) and Willow Run (YIP) Airports. The CIC reviews all proposed airport capital expenditures that may or may not be included in the CIP. All Authority capital projects must be approved by the CIC before they are added to the Five-Year Plans. The Authority Board approves the Five-Year Plans annually along with the O&M Budgets.

The Capital Improvement Committee:

- Executes the Authority's annual CIP process
- Affirms the linkage between proposed capital projects, the Authority's Master Plan, strategic goals and objectives
- Ensures compliance with the Airport Use and Lease Agreements, the Authority's Master Bond Ordinance and other obligations
- Provides a mechanism for financial and resource planning for the Authority
- Reviews the qualitative and quantitative (including financial analysis) evaluation of capital projects to determine the appropriate priority of the projects



- Assesses the linkage between the capital and operating budgets to ensure appropriate allocation of resources
- Reviews, assesses and approves or denies the placement of proposed capital projects onto the CIP
- Reaffirms the validity of proposed CIP for annual approval by the Authority Board
- Monitors the progress of capital projects
- Periodically updates the CIP for out-of-cycle projects of an emergency nature
- Reviews CIP policies and procedures periodically and implements changes as necessary

## CAPITAL IMPROVEMENT PLAN GUIDELINES

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### ALIGNMENT

The Authority coordinates the development of the CIP with the development of the 20-year Master Plan, Integrated Land Use Strategic Plan and O&M Budget. Projects are selected based on their alignment to long-term goals and strategic priorities.

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### CAPITAL BUDGET DEVELOPMENT

The Five-Year Plans for the CIP at the Detroit Metropolitan and Willow Run Airports are analyzed and updated to reflect active and future capital projects that are scheduled to begin within the next five years. They pro-actively plan for the replacement or reconstruction of essential infrastructure components that are nearing the end of their service life and take advantage of scheduling and coordinating the execution of multiple projects to minimize operational impact and maximize fiscal efficiency. The plans are important tools for formulating future funding requirements (bonds, etc.) and maximizing federal and state grant opportunities.

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### CAPITAL REPLACEMENT PROGRAMS

The Authority develops replacement and maintenance plans for, at minimum, a five-year period while reviewing and updating these plans as necessary each year. The following replacement and maintenance plans have been established:

- Airfield Pavement Plan
  - Fleet and Equipment Replacement Plan
  - Power Distribution, Uninterruptable Power Systems (UPS)/Generator and Automatic Transfer Switch Plans
  - Roadway Pavement, Bridge Repair/Replacement and Overhead Sign Plans
  - Roof Replacement Plan
  - Storm and Sanitary Drain Plan
  - Gas Distribution Plan
- 

### WEIGHTED MAJORITY APPROVAL

The Airport Use and Lease Agreement contains the Authority's covenants with regard to capital expenditures. One such covenant allows the Authority to issue bonds to finance the cost of capital projects, only after first receiving a Weighted Majority approval for such capital projects. The Airport Use and Lease Agreements define Weighted Majority as either (1) Signatory Airlines which, in the aggregate, landed 85 percent or more of the landed weight of all Signatory Airlines for the preceding 12-month period for which records are available, or (2) all but one of the Signatory Airlines regardless of landed weight.

The Authority has received Weighted Majority approval for some, but not all, of the projects included in the current CIP.

ANNUAL CIP DEVELOPMENT CALENDAR – FLOW CHART

The planning calendar illustrated below represents an overview of the annual CIP planning cycle used for preparation of the FY 2017 – FY 2021 CIP.

Activity	Lead Role / Recipients	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Project sponsors prepare and submit CIP project requests and modifications on Project Summary Forms	Project Sponsors		→										
Project proposal reviews, financial analysis and funding source determinations	FP&A		→	→									
Project sponsors presentations to the CIC	CIC			→									
Evaluate, score and rank capital improvement proposals	CIC				→								
On-going review and refinement of proposed CIP and preparation of the Board presentation	FP&A					→	→	→	→	→			
Preliminary Five-Year CIP presentation to the Board	CFO and FP&A						→						
On-going review of the Five-Year Plan for evaluation of O&M needs	FP&A							→	→				
Approval of the Five-Year Capital Improvement Program in conjuncture with the Authority's Annual Budget	WCAA Board									→			
CIP process calendar and guidelines provided to the CIC	FP&A										→		
New project development, existing project modifications and progress reports from project sponsors	CIC												→

FUNDING SOURCES

The Authority’s funding sources for the CIP include, but are not limited to: General Airport Revenue Bond’s (GARB’s), Passenger Facility Charges (PFCs), grants and discretionary funds. Given the multiple funding sources that support this plan, Board approval of the CIP does not imply that the source of funding has been determined. The Financial Planning & Analysis Department is responsible for recommending the source of funding for capital projects with final determination at the discretion of the Chief Financial Officer. The following general guidelines are used to help determine the source of funding.

	Bonds	Passenger Facility Charges	Airport Development Fund	Renewal & Replacement	Operation & Maintenance
<b>Dollar Threshold</b>	>= \$1,000,000	>= \$2,000,000	>= \$1,000,000 Except "Other Buildings"	<= \$500,000	<= \$1,000,000
<b>Asset Type/Class</b>	Airfield, Roadway, Heavy Equipment, Terminal or Buildings	Airfield, Safety, Security	Airfield, Roadway, Heavy Rolling Stock, Other Buildings >\$500,000	Airfield, Safety, Security	Airfield, Roadway, Terminal or Buildings
<b>Asset Life Expectancy</b>	>=15 Years	> 15 Years	> 10 Years	5-10 Years	>= 1 years
<b>New or Replacement</b>	New or Replacement	New or Replacement	New or Replacement	Replacement	New or Replacement
<b>Temporary Funding</b>	N/A	N/A	Weighted Majority, PFC, or AIP Approval – Bonds Pending	N/A	Weighted Majority, Bonds Pending

#### AIRPORT REVENUE BONDS

The Authority issues GARB's to finance the cost of capital projects, subject to receiving the approval of a Weighted Majority of Signatory Airlines for such capital projects as outlined in the Airport's Use and Lease Agreements. The yearly operating budget includes the debt service on such bonds until the bonds are repaid in full. Airport revenue bonds have already been issued to fund many of the projects in the Authority's current CIP (pursuant to Public Act 94, prior to the issuance of revenue bonds, a notice of intent to issue bonds shall be published in a newspaper which has general circulation in the territory of the borrower).

**Existing Bonds** - The Authority expects to use proceeds totaling approximately \$199.6 million from previous bond sales to fund certain costs of the CIP. Interest income earned in a particular capital fund will remain in the same fund where the interest was earned.

**Future Bonds** - A total of approximately \$578.9 million in FY 2017 – FY 2021 CIP project costs are currently anticipated to be funded with proceeds of future bonds. The Authority's next new money bond issue is anticipated in FY 2017.

#### PASSENGER FACILITY CHARGES

Under the Aviation Safety and Capacity Expansion Act of 1990 (the "PFC Act"), the FAA may authorize a public agency (such as the Authority) that controls an airport, to impose a PFC up to \$4.50 for each qualifying enplaned passenger to be used to finance eligible airport-related projects. The Authority must submit an application to and receive approval from the FAA in order to impose PFCs and use PFC revenues for specific eligible projects described in such application. Projects can be funded on a pay-as-you-go basis or through leveraged debt.

The Authority currently has \$3.2 billion of PFC authorization until 2034. The budgeted PFC collections for FY 2017 are \$67.6 million. Further information regarding PFCs can be found in the Debt Profile chapter of this book.

## OTHER AUTHORITY FUNDS

Per the Master Bond Ordinance and in accordance with provisions in the Airport Use and Lease Agreements, amounts from the Airport Development Fund, Airport Renewal and Replacement Fund, the Airport Discretionary Fund and other funding sources can be used to fund the costs of capital improvement projects.

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### AIRPORT DEVELOPMENT FUND

Per the Master Bond Ordinance, a fixed amount in accordance with the Airport Use and Lease Agreement is transferred from the O&M Fund to the Airport Development Fund (ADF) and applied toward any capital expense incurred by the Authority for any lawful purpose. The amount of the transfer is adjusted annually relative to the Producer Price Index (PPI). The budgeted contribution for FY 2017 is \$7.7 million. Additionally, there is a contribution to ADF from Automated Vehicle Identification (AVI) revenues of \$2.5 million for FY 2017. The AVI revenue transfer, provided by an automated system for tracking and billing commercial ground transportation vehicles, has a cap of \$2.5 million into this fund annually. Any additional revenue above the \$2.5 million stays in the O&M Fund.

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### AIRPORT RENEWAL & REPLACEMENT FUND

Per the Master Bond Ordinance, an amount of \$500,000 is transferred annually into the Airport Renewal & Replacement Fund (R&R) from the O&M Fund. R&R funds may be used for the purpose of paying: (a) the costs of completing capital improvements or replacing capital assets at the Airport and/or (b) funding repairs, replacements or renovations of existing assets.

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### AIRPORT DISCRETIONARY FUND

Per the Master Bond Ordinance, an amount of \$350,000 is transferred annually into the Airport Discretionary Fund from the O&M Fund. Discretionary funds may be used by the Authority at the discretion of the Chief Executive Officer for any lawful purpose.

## GRANTS

The FAA's Airport Capital Improvement Plan (ACIP) provides federal entitlement and discretionary grants for eligible airport projects. The Authority receives Airport Improvement Program (AIP) entitlement grants based on all three of the following criteria:

- Levels of funding authorized and appropriated by Congress for the program
- The number of passengers and amount of cargo at the Airport
- A 75 percent reduction in entitlement grants resulting from the Authority's \$4.50 PFC level

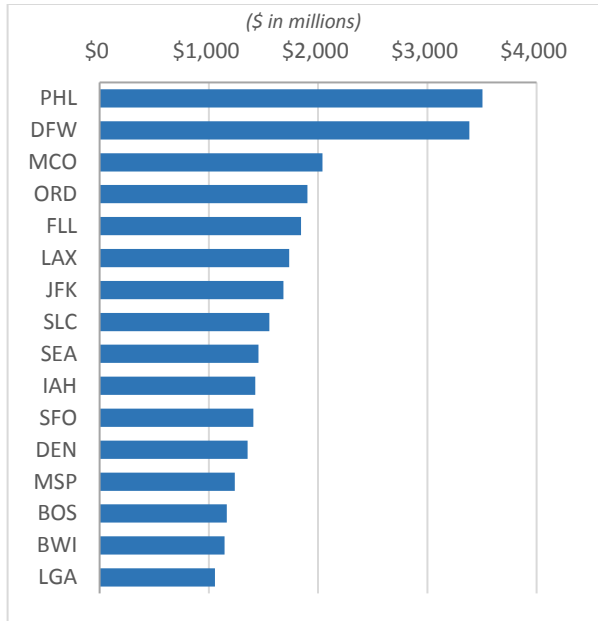
The Authority is also eligible for AIP discretionary grant awards for specific projects pursuant to grant applications for such funding, and the FAA's prioritization of competing projects.

From time to time, the Authority also receives grants from other federal, state and local sources.

**DETROIT METROPOLITAN AIRPORT FY 2017 – FY 2021 CAPITAL IMPROVEMENT PLAN**

DTW CIP total project costs for FY 2017 – FY 2021 are estimated to be \$803.9 million. The CIP is considered moderate by Moody, Fitch and S&P, given the size of the Airport and the capital needs of other large hub US airports. This is attributed to the fact that DTW, in the last 20 years, has built two new terminals and a fourth parallel runway, reconstructed three runways and numerous taxiways. According to Airports Council International – North America, “US Capital Needs” survey, 16 large hub airports have capital needs greater than \$1 billion as illustrated in Figure H - 1. The top ten projects across the survey, in terms of dollars, are indicated in Figure H - 2.

**Figure H - 1: Top Airports with Over \$1B Capital Needs**



Source: ACI-NA US Airport Capital Needs (2013-2017) Survey

**Figure H - 2: Top 10 Projects at Peer Airports**

Airport Code	Project	2013-2017 Cost (in millions)
DFW	Terminal renewal & improvement program	\$ 1,512
FLL	South runway expansion	791
ORD	ATS and Garage expansion	765
FLL	Terminal 4 expansion	450
JFK	Rehabilitation of Runway 4L/22R	446
ORD	Runway 10R/28L	399
IAH	Terminal D expansion	395
LAX	Bradley West core improvements	370
DEN	South Terminal Redevelopment Program	349
SLC	New terminal	334

Source: ACI-NA US Airport Capital Needs (2013-2017) Survey



**Photo: First departure from 4R/22L after reconstruction**

**FY 2017 – FY 2021 CIP ESTIMATED PROJECT COSTS & TIMING**

Figure H - 3 represents a summary of the Airport’s CIP projects including total estimated project costs by category and anticipated timing. Estimated CIP expenditures for FY 2017 total approximately \$158.2 million, including roughly \$70.2 million in airfield project costs.

**Figure H - 3: Detroit Metropolitan Airport CIP FY 2017 - FY 2021**

(\$ in thousands)	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 thru Completion
Airfield	\$ 464,930	\$ 36,205	\$ 70,150	\$ 88,750	\$ 63,400	\$ 191,425	\$ 15,000
Cargo, Hangar & Commercial Development	7,925	1,325	925	-	450	5,225	-
Power Plants & Electrical Distribution System	55,865	9,007	25,258	9,750	2,350	5,700	3,800
Fleet & Equipment	41,921	18,700	4,000	5,581	6,581	4,884	2,176
Parking & Ground Transportation Facilities	58,620	6,800	6,940	9,450	11,700	5,200	18,530
Bridges & Roadways	44,429	11,102	20,538	8,790	2,000	2,000	-
Security & Communications	31,103	3,160	4,986	6,329	7,638	8,990	-
Support Facilities	35,604	13,065	15,076	5,375	151	1,685	253
Site Redevelopment & Demolitions	27,811	7,403	5,245	6,210	5,348	2,166	1,440
Terminals	21,870	-	870	21,000	-	-	-
Water Mains & Stormwater System	7,600	4,500	1,050	2,050	-	-	-
Other Projects	6,200	2,000	3,200	1,000	-	-	-
<b>Detroit Metropolitan Airport Total</b>	<b>\$ 803,878</b>	<b>\$ 113,266</b>	<b>\$ 158,237</b>	<b>\$ 164,284</b>	<b>\$ 99,618</b>	<b>\$ 227,275</b>	<b>\$ 41,199</b>

*Total may not sum due to rounding*

**ANTICIPATED FUNDING SOURCES**

As a result of the forward-looking nature of the program, some of the anticipated funding sources are subject to change.

**Figure H - 4 : Detroit Metropolitan Airport CIP FY 2017 – FY 2021 Estimated Sources of Funding**

(\$ in thousands)	Estimated Total Cost	Grants	Previous Bonds	Series 2017	Future Bonds	Other
Airfield	\$ 464,930	\$ -	\$ 67,950	\$ 128,000	\$ 268,055	\$ 925
Cargo, Hangar & Commercial Development	7,925	-	-	-	7,925	-
Power Plants & Electrical Distribution System	55,865	-	34,367	9,298	11,600	600
Fleet & Equipment	41,921	2,048	22,700	12,161	5,012	-
Parking & Ground Transportation Facilities	58,620	-	13,490	6,000	35,930	3,200
Bridges & Roadways	44,429	-	17,325	22,290	2,914	1,900
Security & Communications	31,103	-	6,900	5,500	17,803	900
Support Facilities	35,604	-	19,000	6,785	2,661	7,158
Site Redevelopment & Demolitions	27,811	-	10,310	6,300	8,826	2,375
Terminals	21,870	-	1,000	20,870	-	-
Water Mains & Stormwater System	7,600	-	6,600	1,000	-	-
Other	6,200	4,622	-	-	-	1,578
<b>Detroit Metropolitan Airport Total</b>	<b>\$ 803,878</b>	<b>\$ 6,670</b>	<b>\$ 199,642</b>	<b>\$ 218,204</b>	<b>\$ 360,726</b>	<b>\$ 18,636</b>

*Total may not sum due to rounding*

## SIGNIFICANT NON-ROUTINE PROJECTS WITH IMPACT TO FUTURE OPERATING BUDGETS

The majority of capital projects in the Five-Year Plan are considered routine, however the following non-routine CIP projects have an impact on the current and future operating budgets.

**Power Plant & Electrical Distribution System Projects** (Item Nos. 18, 20, 21 & 24) – The North Power Plant produces and distributes steam, chilled water and electrical power to the North Terminal, Big Blue Parking Deck, North Ground Transportation Center and the L.C. Smith Terminal. The Power Plant, constructed in 1965, utilizes systems original to the facility that are well beyond their useful life. These four projects will replace equipment critical to the operation of the plant, such as: electrical gear and load centers, chillers, plant HVAC equipment and air handlers. Replacement of the equipment will provide for reliable and efficient operation of the Power Plant accompanied by reductions in repairs and maintenance costs.

**Compressed Natural Gas Fueling Facility** (Item No. 27) – The cost of compressed natural gas (CNG) is less expensive than gasoline or diesel fuel on a per-gallon basis. Market cost of a gallon equivalent of CNG is approximately \$2. The Authority is studying a conversion to CNG powered vehicles and construction of a CNG fueling facility. The extent to which the Authority can convert its fleet to CNG is under investigation and the estimated savings to the operating budget cannot be quantified until the study is completed. In addition to reducing fuel expenses, a CNG facility has the potential to generate revenue if it is located in an area accessible for commercial use. Since this project is still under review, initial project planning is not anticipated before FY 2020.

**Campus Wide LED Lighting Installation** (Item Nos. 33 & 41) – By replacing existing High Pressure Sodium (HPS) lamps with a Light-Emitting Diode (LED) system in each surface parking lot and along all airport roadways, the Authority anticipates decreased maintenance costs coupled with a significant reduction in electrical consumption, similar to reductions realized following conversion to LED lighting in the parking decks.

**Airport Administration Headquarters Building** (Item No. 48) – The Authority management and administrative staff are currently housed at the L.C. Smith Terminal, occupying approximately 30 percent of the building. The space not being used requires expenditures for heating, cooling, lighting and nominal maintenance. A new facility has been designed to provide management and administrative spaces that are both operationally efficient and cost effective. Construction began in FY 2016 and is scheduled to be complete in mid-year 2017.

**Site Redevelopments & Demolitions** (Item Nos. 4 & 54-58) – In 2012, the Authority developed an Integrated Land Use Strategic Plan to identify opportunities for economic development on Airport property. The plan identifies several vacant or under-utilized sites that would be attractive to developers for aviation and non-aviation related activities including, but not limited to, cargo, aircraft or aviation service equipment maintenance, repair and overhaul, freighter/integrator operations, passenger commercial centers and commercial office space. This grouping of demolition and site redevelopment projects is limited to making specific parcels of property “developer-ready”. Potential operating revenue from future development cannot be quantified at this time. Analysis is on-going as opportunities are presented to the Authority.

**Demolition of the L.C. Smith & Berry Terminals** (Item No. 58) – Both the L.C. Smith and Berry Terminals have been de-commissioned from Airline use since the opening of the North Terminal in 2008. The Berry Terminal serves no routine function, however the Authority is required to maintain the building for life-safety issues. The Berry Terminal is slated for demolition in CY 2017 with the Smith Terminal to follow after the new Administration Building is completed. Demolition of each facility will result in maintenance and utility cost savings.

**North Terminal Gate Expansion** (Item No. 60) – North Terminal Activity has been expanding with the addition of new airlines and additional airline routes from existing airlines. This project will include three new passenger boarding gates at the north end of the North Terminal to accommodate the growth in passengers and aircraft, address the peak demand of morning departures, and will result in increased revenue for the Authority.

DETROIT METROPOLITAN AIRPORT – PROJECT TIMING BY YEAR

(\$ in thousands)

Item No.	Project Description	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
<b>Airfield</b>								
1	Runway 3L/21R & Associated Taxiways Reconstruction	\$ 180,000	\$ -	\$ 2,500	\$ 4,500	\$ 4,500	\$ 168,500	\$ -
2	Runway 3L/21R Enhancements Planning	700	-	350	350	-	-	-
3	Taxiway H Extension/Reconstruction & 22L Deicing Pad Expansion	18,000	-	-	3,000	15,000	-	-
4	Taxiway Z Reconstruction & Relocation of Southern Portion Including Extension of Taxiway Service Road	16,000	1,000	2,000	13,000	-	-	-
5	Taxiway M3, M4 & Western Portion of Taxiway P4 Removal	925	-	-	-	-	925	-
6	Taxiway K Reconstruction	54,000	-	6,000	26,000	22,000	-	-
7	Runway 21R Deicing Pad Reconstruction (Design only)	500	-	-	500	-	-	-
8	Airfield Pavement Rehabilitation & Reconstruction Plan	42,655	15,555	6,500	6,700	6,900	7,000	-
9	McNamara Apron Rehabilitation/Joint Repairs	86,650	11,650	15,000	15,000	15,000	15,000	15,000
10	Hangar 516 & 518 Apron Reconstruction	10,500	-	800	9,700	-	-	-
11	McNamara Apron Modifications & New Hardstand Positions	25,000	8,000	17,000	-	-	-	-
12	Taxilanes U-9 & Q Rehabilitation	30,000	-	20,000	10,000	-	-	-
	<b>Airfield Total</b>	<b>464,930</b>	<b>36,205</b>	<b>70,150</b>	<b>88,750</b>	<b>63,400</b>	<b>191,425</b>	<b>15,000</b>
<b>Cargo, Hangar &amp; Commercial Development</b>								
13	West Service Drive Improvements & Relocation	7,925	1,325	925	-	450	5,225	-
	<b>Cargo, Hangar &amp; Commercial Development Total</b>	<b>7,925</b>	<b>1,325</b>	<b>925</b>	<b>-</b>	<b>450</b>	<b>5,225</b>	<b>-</b>
<b>Power Plants &amp; Electrical Distribution System</b>								
14	East Service Drive Utilities Upgrade & Expansion	7,340	4,340	1,500	1,500	-	-	-
15	Utility Command Center & Remote Metering	6,000	-	1,000	5,000	-	-	-
16	Medium Voltage Transmission Lines for Primary Service to the North Campus and Airfield	7,250	1,427	5,823	-	-	-	-
17	Primary Electrical Cable & Switchgear Replacement	550	180	370	-	-	-	-
18	North Power Plant Electrical Gear & Load Centers Replacement	2,550	450	2,100	-	-	-	-
19	Electrical Substations Replacement	4,000	-	2,700	1,300	-	-	-
20	North Power Plant Chillers & Support Systems	6,650	800	5,850	-	-	-	-



CAPITAL IMPROVEMENT PROGRAM | FISCAL YEAR 2017 BUDGET

Item No.	Project Description	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
21	North Power Plant HVAC / Air Handler & Miscellaneous Improvements	2,800	1,210	1,590	-	-	-	-
22	South Power Plant Site Generators	10,000	-	-	-	500	5,700	3,800
23	Primary Electrical Loops Nos. 1-3 Upgrade & Expansion	5,125	-	1,925	1,600	1,600	-	-
24	North Power Plant Building Rehabilitation	3,000	600	2,400	-	-	-	-
25	McNamara Terminal HVAC Re-commissioning Study	600	-	-	350	250	-	-
<b>Power Plants &amp; Electrical Distribution System Total</b>		<b>55,865</b>	<b>9,007</b>	<b>25,258</b>	<b>9,750</b>	<b>2,350</b>	<b>5,700</b>	<b>3,800</b>
<b>Fleet &amp; Equipment</b>								
26	Fleet & Heavy Equipment Acquisitions	39,361	18,700	4,000	5,581	6,581	4,500	-
27	Compressed Natural Gas Fueling Facility	2,560	-	-	-	-	384	2,176
<b>Fleet &amp; Equipment Total</b>		<b>41,921</b>	<b>18,700</b>	<b>4,000</b>	<b>5,581</b>	<b>6,581</b>	<b>4,884</b>	<b>2,176</b>
<b>Parking &amp; Ground Transportation Facilities</b>								
28	Big Blue Parking Deck Rehabilitation – Phase 3	4,140	1,500	2,640	-	-	-	-
29	Big Blue Parking Deck Rehabilitation – Phase 4	13,200	-	-	1,000	1,500	2,500	8,200
30	McNamara Parking Deck Rehabilitation	7,750	3,750	2,000	2,000	-	-	-
31	McNamara Parking Deck Rehabilitation – Phase 2	6,600	-	-	1,000	1,200	2,200	2,200
32	Eureka Express Lot	8,130	-	-	-	-	-	8,130
33	Surface Lots LED Lighting Installation	1,600	50	600	950	-	-	-
34	North Terminal GTC Third Elevator and Escalator	500	-	500	-	-	-	-
35	Parking Lot Rehabilitation	6,700	1,500	1,200	4,000	-	-	-
36	Parking System Replacement	10,000	-	-	500	9,000	500	-
<b>Parking &amp; Ground Transportation Facilities Total</b>		<b>58,620</b>	<b>6,800</b>	<b>6,940</b>	<b>9,450</b>	<b>11,700</b>	<b>5,200</b>	<b>18,530</b>
<b>Bridges &amp; Roadways</b>								
37	Dingell Drive Retaining Wall Reconstruction	4,300	100	4,200	-	-	-	-
38	Bridges & Roadways Rehabilitation Program	24,914	8,962	7,200	4,752	2,000	2,000	-
39	Rogell Drive-Dingell Drive Connector	5,040	840	600	3,600	-	-	-
40	Rogell & Burton Drive Intersection Reconfiguration	7,000	200	6,800	-	-	-	-
41	Roadway LED Lighting Installation	1,275	200	638	438	-	-	-
42	Lucas Drive Enhancements	1,900	800	1,100	-	-	-	-
<b>Bridges &amp; Roadways Total</b>		<b>44,429</b>	<b>11,102</b>	<b>20,538</b>	<b>8,790</b>	<b>2,000</b>	<b>2,000</b>	<b>-</b>

FISCAL YEAR 2017 BUDGET | CAPITAL IMPROVEMENT PROGRAM

Item No.	Project Description	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
<b>Security &amp; Communications</b>								
43	McNamara Terminal CBP CCTV	900	60	840	-	-	-	-
44	Vehicle Checkpoint Enhancements - Sally Port Barriers	600	-	-	600	-	-	-
45	Perimeter Fencing Cable Reinforcement	5,203	-	146	1,354	1,713	1,990	-
46	Checkpoint #1 Vehicle & Truck Screening Building	2,500	-	-	375	2,125	-	-
47	Security System & Network Upgrades - Phases 2 thru 5	21,900	3,100	4,000	4,000	3,800	7,000	-
<b>Security &amp; Communications Total</b>		<b>31,103</b>	<b>3,160</b>	<b>4,986</b>	<b>6,329</b>	<b>7,638</b>	<b>8,990</b>	<b>-</b>
<b>Support Facilities</b>								
48	Airport Authority Headquarters Building	24,900	12,695	12,206	-	-	-	-
49	Roof Replacement Plan	3,149	100	900	60	151	1,685	253
50	Building 348 (Executive Terminal) Partial Restoration	370	70	300	-	-	-	-
51	Fire Training Facility Restoration & Burn Pit Replacement	5,585	-	770	4,815	-	-	-
52	ARFF Station 100 Improvements	1,200	-	700	500	-	-	-
53	Equipment Maintenance & Storage Facilities Replacement & Consolidation (Planning only)	400	200	200	-	-	-	-
<b>Support Facilities Total</b>		<b>35,604</b>	<b>13,065</b>	<b>15,076</b>	<b>5,375</b>	<b>151</b>	<b>1,685</b>	<b>253</b>
<b>Site Redevelopment &amp; Demolitions</b>								
54	Building 715 (Former NWA/DL Hangar) Demolition	1,562	562	1,000	-	-	-	-
55	Buildings 714, 714A & 714B (Former Metro Flight Buildings) Site Redevelopment & Demolition	1,600	-	-	-	-	160	1,440
56	Building 534 (Former Flight Kitchen) Demolition	1,310	166	1,145	-	-	-	-
57	Building 358 (Former Police Station) Demolition	3,000	400	2,600	-	-	-	-
58	LC Smith & Berry Terminals Demolition	17,964	4,400	-	6,210	5,348	2,006	-
59	Rental Car Facilities Study	2,375	1,875	500	-	-	-	-
<b>Site Redevelopment &amp; Demolitions Total</b>		<b>27,811</b>	<b>7,403</b>	<b>5,245</b>	<b>6,210</b>	<b>5,348</b>	<b>2,166</b>	<b>1,440</b>
<b>Terminals</b>								
60	North Terminal Gate Expansion	20,870	-	870	20,000	-	-	-
61	North Terminal Interior Wall Panel Replacements	1,000	-	-	1,000	-	-	-
<b>Terminals Total</b>		<b>21,870</b>	<b>-</b>	<b>870</b>	<b>21,000</b>	<b>-</b>	<b>-</b>	<b>-</b>

CAPITAL IMPROVEMENT PROGRAM | FISCAL YEAR 2017 BUDGET

Item No.	Project Description	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
<b>Water Mains &amp; Storm Water System</b>								
62	Water Main Replacement	4,000	3,500	500	-	-	-	-
63	Primary Pump & Switchgear Replacements	1,100	100	250	750	-	-	-
64	Storm & Sanitary Sewer Systems Replacements	2,500	900	300	1,300	-	-	-
<b>Water Mains &amp; Storm Water System Total</b>		<b>7,600</b>	<b>4,500</b>	<b>1,050</b>	<b>2,050</b>	-	-	-
<b>Other Projects</b>								
65	Master Plan Update	6,200	2,000	3,200	1,000	-	-	-
<b>Other Projects Total</b>		<b>6,200</b>	<b>2,000</b>	<b>3,200</b>	<b>1,000</b>	-	-	-
<b>Detroit Metropolitan Airport Total</b>		<b>\$ 803,878</b>	<b>\$ 113,266</b>	<b>\$ 158,237</b>	<b>\$ 164,284</b>	<b>\$ 99,618</b>	<b>\$ 227,275</b>	<b>\$ 41,199</b>



Photo: Sunset at DTW

## DETROIT METROPOLITAN AIRPORT – PROJECT DESCRIPTIONS

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
<b>Airfield</b>			
1	Runway 3L/21R & Associated Taxiways Reconstruction	\$ 180,000	Runway 3L/21R, one of DTW's primary departure runways, requires full-depth rehabilitation. This project provides for design and reconstruction of the 8,501 foot runway and associated taxiways and systems (i.e.: drainage, lighting, signage).
2	Runway 3L/21R Enhancements Planning	\$ 700	Prior to reconstructing Runway 3L/21R a study will be conducted which evaluates if airfield capacity improvements may be achieved by: extending the runway, improving drainage, lighting, shoulders, pavement markings, signs, blast pads, centerline lighting and installing navigational aids of at least CAT I at both ends of the runway. The proposed addition of a hold pad northeast of Runway 21R will also be included in the study.
3	Taxiway H Extension/Reconstruction & 22L Deicing Pad Expansion	\$ 18,000	Taxiway Hotel (H) is the primary access taxiway to Runway 22L deicing pad. Aircraft movement in and out of the pad and the wide-body aircraft gates at the North Terminal are currently restricted by the L.C. Smith Terminal. This project provides for aircraft movement modelling, evaluation of alternatives and design of the extension and possible relocation of Taxiway H following demolition of the Smith Terminal. Also under consideration during this planning and design effort will be potential expansion of the deicing pad and relocation of taxiways to facilitate efficient aircraft movement.
4	Taxiway Z Reconstruction & Relocation of Southern Portion Including Extension of Taxiway Service Road	\$ 16,000	In 2011, the northern portion of Taxiway Zulu (Z) was relocated 157' to the west, widened and re-built to comply with FAA design standards and to accommodate Group VI aircraft. This project will provide planning, design and construction related efforts necessary to reconstruct and relocate the remainder of Taxiway Z and to provide a parallel taxiway service road for Authority Maintenance vehicles.
5	Taxiway M3, M4 & Western Portion of Taxiway P4 Removal	\$ 925	Taxiway Mike (M) 3, M4 and a portion of Taxiway Papa (P) 4 are taxiway connectors located along Runway 3L/21R that have direct access to the runway. The taxiways were part of a prior airfield configuration of Runway 15L/33R intersection with 3L/21R that is decommissioned. The project consists of complete pavement and signage removal, site restoration and installation of FAA mandated lighting.
6	Taxiway K Reconstruction	\$ 54,000	The pavement condition of Taxiway Kilo (K), a primary access route to Runway 4R/22L, and both terminal complexes, requires a comprehensive reconstruction program. The removal and replacement of failed pavement will be addressed in a phased timeline over a three (3) year period to minimize disruption to airfield activity.
7	Runway 21R Deicing Pad Reconstruction (Design only)	\$ 500	Planning and design efforts necessary to execute a full depth rehabilitation of the Runway 21R Deicing Pad will be accomplished within the current five-year planning horizon with construction efforts anticipated for FY 2021, in tandem with the reconstruction of Runway 3L/21R.
8	Airfield Pavement Rehabilitation/ Reconstruction Plan	\$ 42,655	This project consists of the planning, design/engineering and construction required to provide as needed pavement rehabilitation, reconstruction, or removal of aged sections of airfield pavement (runway, taxiway, taxiway, shoulder, deicing pad, apron, etc.) to maintain safe airport operations. Rehabilitation and/or reconstruction of the pavement will extend the useful life for a term of 5 to 15 years.
9	McNamara Apron Rehabilitation/Joint Repairs	\$ 86,650	The condition of gate positions along the McNamara Terminal, Concourses A, B & C necessitates multiple closures for repairs, pavement sweeping and painting. Rehabilitation of the terminals 12 wide-body aircraft gate positions has been completed. The revised scope of this project will now address failed concrete apron replacements for the remaining 93 gates at the McNamara Terminal to minimize aircraft exposure to foreign object debris (FOD) resulting from failed concrete.
10	Hangar 516 & 518 Apron Reconstruction	\$ 10,500	Concrete pavement adjacent to Hangar 516 and Hangar 518 is in need of rehabilitation. A bituminous overlay has been installed as a temporary solution pending full-depth reconstruction needed within the next 2 – 5 years. This project will provide for removal of existing pavement and replacement with a pavement cross-section consistent with current WCAA airfield standards.
11	McNamara Apron Modifications & New Hardstand Positions	\$ 25,000	The area located between Concourses A, B & C at the McNamara Terminal is critical to the movement of aircraft from runways to the terminal gates. Currently, aircraft movement (inbound and outbound aircraft sequencing and pushbacks from terminal gates) is limited/restricted by existing grass islands between the Terminal's multiple taxiways. This project will improve flow and reduce taxi time by eliminating bottlenecks between Taxiway U9 and Taxiway Q along the McNamara Terminal by filling four existing grass islands. Included in this project, and completed in the 2015 construction season, is the infill of the grass area immediately north of McNamara Concourse C and removal of jet bridges at gates no longer in use, to provide additional needed space for overnight aircraft parking.

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
12	Taxilanes U-9 & Q Rehabilitation – Phase 1	\$ 30,000	Concrete pavement failure due to Alkali – Silica Reactivity (ASR) is affecting significant portions of Taxilane U-9 and Taxilane Q between the McNamara Terminal Concourses. This project will address the appropriate rehabilitation efforts necessary to restore the pavement immediately adjacent to the Apron Infill and Apron Pavement Rehabilitation addressed in the 2017 and 2018 construction seasons. The coordinated effort is designed to reduce future closures in this critical area for aircraft movement in and out of the McNamara Terminal complex.

**Cargo, Hangar & Commercial Development**

13	West Service Drive Improvements & Relocation	\$ 7,925	This project will provide all necessary planning, engineering and construction services necessary to relocate the West Service Drive and associated systems from the I-94 service drive to Gate 53. The roadway’s relocation will be west of the fuel storage tanks to accommodate north cargo freight site redevelopment.
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**Power Plants & Electrical Distribution System**

14	East Service Drive Utilities Upgrade & Expansion	\$ 7,340	Design and construction efforts required to upgrade and extend utility and infrastructure systems along the East Service Drive (from Check Point #2 to the South I-94 Service Drive) are included in this project. With these enhancements, steam and chilled water from the North Power Plant will be delivered to Buildings 610 (Public Safety facility) and 614 (cargo facility). Water, electric and fiber infrastructure will be upgraded to accommodate future development along the East Service Drive.
15	Utility Command Center & Remote Metering	\$ 6,000	This project includes all planning, engineering and construction services necessary to develop a Utility Command Center and Remote Metering system in the North Power Plant with the capability of electronically monitoring and remotely metering electrical power, steam, chilled and drinking water consumption.
16	Medium Voltage Transmission Lines for Primary Service to the North Campus & Airfield	\$ 7,250	This project includes all planning, engineering and construction services required to extend medium voltage (13.8kV) electrical power from the South Power Plant to the North Power Plant and replaces the current 4.8V power to the North Campus and Airfield. This effort replaces the aging power source feeding the North Power Plant with a more reliable source and higher voltage for more efficiency.
17	Primary Electrical Cable & Switchgear Replacement	\$ 550	This project addresses needed improvements to portions of the primary electrical distribution systems cables (approximately 35,000 feet of primary cable campus wide) and the renovation of McNamara Parking Deck switchgear.
18	North Power Plant Electrical Gear & Load Centers Replacement	\$ 2,550	This project will provide all design, engineering and construction necessary to update the North Power Plant building electrical distribution system. Work shall include replacing seven motor control centers, eleven lighting and receptacle distribution panels, seven power distribution panels, and installing a new substation to replace two low voltage substations. Electrical modifications may also be included to support other improvements taking place in the facility.
19	Electrical Substations Replacement	\$ 4,000	The intent of this project is to obtain a design-build contract for replacement of electrical substations and switchgear that are original to the site. Electrical power is received from DTE Energy via three primary high voltage lines that provide electrical power to medium voltage lineups, which steps down the power to low voltage for building use.
20	North Power Plant Chillers & Support Systems	\$ 6,650	This project will provide the planning, design and construction necessary for the refurbishment of the chilled water system at the North Power Plant. The scope includes the replacement of up to three chillers, five condenser water pumps, five primary and three secondary chilled water pumps, three cooling towers and installing electronic operational controls.
21	North Power Plant HVAC / Air Handler & Miscellaneous Improvements	\$ 2,800	This project will provide all design, engineering and construction necessary to replace and maximize the efficiency of the HVAC systems serving the North Power Plant and Utility Tunnel System. Included in the scope of this project is the replacement of air handlers, air conditioners, exhaust fans and installation of a new air handler to provide ventilation to the existing tunnel. Existing air handlers will be replaced with modern direct digital control (DDC) units with variable frequency driven fans tied to the Siemens Apogee system for monitoring and control.
22	South Power Plant Site Generators	\$ 10,000	The South Power Plant was designed to support a total of five back-up generators upon final expansion of the McNamara Terminal’s Concourse C. The facility currently has three 5.7MW generators installed. In events requiring the use of the back-up generation system, a load shedding system strips “non-essential” loads to prevent overloading the installed generators. This project involves the design, acquisition and

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
			installation of the additional generator(s) that were part of the original design of the facility and will meet the needs of all terminal systems without load shedding.
23	Primary Electrical Loops Nos. 1-3 Upgrade & Expansion	\$ 5,125	The Airport's North Campus electrical distribution system consists of three basic loops. All three loops were built in the late 1950's and early 1960's and all cells are full. This project will involve efforts necessary to examine existing electrical loops, verify duct bank capacity, inspect power plant gear and provide for the design and construction of necessary upgrades to the loops.
24	North Power Plant Building Rehabilitation	\$ 3,000	The North Power Plant provides generation and distribution of steam and chilled water to the North Terminal, Blue Deck and ground transportation center and the L.C. Smith Terminal. The facility also provides electrical distribution to the entire North Campus. Built in 1965, the building requires updates to multiple systems, as well as rehabilitation of the building itself. This project provides for installation of an upgraded fire suppression system, replacement of the freight elevator, installation of a public address system, removal of outdated wallboard, replacement of window structural gaskets and safety coating of the floor with epoxy paint.
25	McNamara Terminal HVAC Re-Commissioning Study	\$ 600	The McNamara Terminal has been open for more than a decade. As with any large facility, numerous changes within the building have affected the efficiency of the HVAC systems. This project will evaluate the HVAC systems, controls and operating procedures to reduce waste and ensure passenger comfort.
<b>Fleet &amp; Equipment</b>			
26	Fleet & Heavy Equipment Acquisitions	\$ 39,361	The Airport's five-year fleet and equipment replacement program for heavy and specialty equipment includes, but is not limited to, the purchase of snow removal equipment, ARFF vehicles, ambulances, dump trucks and other large maintenance equipment.
27	Compressed Natural Gas Fueling Facility	\$ 2,560	This project is to design and construct a Compressed Natural Gas Fueling Facility (CNG) at DTW. Airport equipment and small vehicles can be retrofitted to burn CNG rather than gasoline or diesel fuel, providing for cost savings. The Airport is pursuing a FAA Voluntary Airport Low Emissions Program (VALE) grant which could potentially fund up to 75 percent of the project. The exact location of the station is under investigation. Preferably, the CNG station would be located where both Authority and public vehicles can be fueled.
<b>Parking &amp; Ground Transportation Facilities</b>			
28	Big Blue Parking Deck Rehabilitation - Phase 3	\$ 4,140	Design efforts for the Big Blue Parking Deck have been completed for the rehabilitation work which includes replacement of the metal roofs and restoration of eight stair towers. Improvements to the emergency lighting system have been completed. The remaining construction work will be phased over a three-year period.
29	Big Blue Parking Deck Rehabilitation - Phase 4	\$ 13,200	This project provides for design and construction efforts necessary to address structural systems within the Big Blue Parking Deck. Parking garages are designed with structural tee flanges, shear connectors and tee beams supporting the parking surfaces. Condition studies completed in 2011 and 2015 indicate that a comprehensive rehabilitation of the structural systems, as well as waterproofing systems should be designed, scheduled and executed over the next five (5) years.
30	McNamara Parking Deck Rehabilitation	\$ 7,750	The McNamara Parking Deck – Phase 1 rehabilitation project includes; phased replacement of expansion joints throughout the parking structure, installation of roof coating on the portions of parking garage levels 6, 7, 8, 9 and 10 that are exposed to the weather and restoration of public stair towers caused by the effects of Michigan winters. The stair tower work and roof coatings on levels 7, 8, 9 & 10 are complete while expansion joint replacements are on-going. The remaining work is anticipated to be completed over the next two (2) years.
31	McNamara Parking Deck Rehabilitation – Phase 2	\$ 6,600	Condition studies completed in 2011 and 2015 indicate that a comprehensive rehabilitation of the structural systems, as well as additional waterproofing systems should be designed, scheduled and executed over the next five (5) years. The project will be phased to minimize inconvenience to our customers.
32	Eureka Express Lot	\$ 8,130	Occupancy rates at the McNamara Parking Deck indicate that additional parking options at the south end of the airport are warranted. This project will provide planning, engineering and other consulting tasks associated with the design and permitting required for the construction of a new surface lot on Eureka Road. The project scope also includes construction of the lot and associated infrastructure.
33	Surface Lots LED Lighting Installation	\$ 1,600	Light Emitting Diode (LED) fixtures have been installed in both parking structures and in the South Employee Lot and Green Lot at DTW. LED fixtures consume approximately

CAPITAL IMPROVEMENT PROGRAM | FISCAL YEAR 2017 BUDGET

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
			half of the energy utilized by existing fixtures and provide longer lamp service life. This project continues the Authority's effort to provide better and more consistent illumination throughout the campus by re-lamping the remaining surface parking lots. Necessary improvements to the light fixture components (wiring, conduit, etc.) will be completed, as needed, within this project.
34	North Terminal GTC Third Elevator & Escalator	\$ 500	Efficient passenger conveyance from the ground level to the bridge level of the North Terminal Ground Transportation Center is important in making a good first impression for travelers using the North Terminal. This effort provides for the design and installation of one additional elevator and one additional escalator in the North Terminal Ground Transportation Center to provide essential capacity during heavy use and maintenance of the systems.
35	Parking Lot Rehabilitation	\$ 6,700	This project will provide for design and construction activity at various surface parking lots across the DTW campus. Rehabilitation efforts are expected to range from mill and overlay to full-depth removal and replacement. This project includes lots at the North Power Plant, South Cell Lot, and surface lots adjacent to the Blue Deck structure. The scope of the project may change based on pavement conditions.
36	Parking System Replacement	\$ 10,000	The current parking system in use at DTW has been in place for seven (7) years. While it provides basic parking services, the technology no longer meets the Authority's needs. The hardware is aging and is no longer adequately supported, making repair services or replacement parts difficult to find. This project anticipates replacement of the entire system.
<b>Bridges &amp; Roadways</b>			
37	Dingell Drive Retaining Wall Reconstruction	\$ 4,300	Dingell Drive represents the main, and only public access to the south side of the airport campus. The roadway was constructed below grade with numerous retaining walls, up to 40' high, separating the public roadway from the airfield above. The retaining walls are in need of rehabilitation due to exposure to the elements, ground pressure and high water tables. This project will study deficiencies or upgrades necessary to the retaining walls, prepare design plans for implementing the rehabilitation recommendations and the construction of repairs. This work is anticipated to be completed in CY 2017.
38	Bridges & Roadways Rehabilitation Program	\$ 24,914	The Authority has developed a 10-year Bridge & Roadway Improvement Program which outlines rehabilitation efforts required on roads and bridges under WCAA control. The Program, designed using industry standard practices, provides for rehabilitation of pavement surfaces along with curb and joint replacements on roads and bridges in order to extend the useful life of the assets.
39	Rogell Drive-Dingell Drive Connector	\$ 5,040	This project consists of the design and construction of a vehicular access ramp from northbound Rogell Drive to southbound Dingell Drive. This construction will provide improved access for passenger vehicles and shuttle buses. The project is anticipated to be complete over the next three (3) years.
40	Rogell & Burton Drive Intersection Reconfiguration	\$ 7,000	The intersection of Rogell Drive at Burton Drive provides access to the East and West Service Drives through a signaled intersection allowing direct left turns on eastbound and westbound Burton Drive approaches and southbound Rogell Drive with a protected left turn phase (green left turn arrow). Long delays and queues typically develop at the intersection. This project will provide for the study, design and construction efforts necessary to rework the intersection to a more typical boulevard intersection with an expanded footprint to provide for development opportunities.
41	Roadway LED Lighting Installation	\$ 1,275	Light Emitting Diode (LED) fixtures have been installed in both parking structures and in the South Employee Lot and Green Lot at DTW. LED fixtures consume approximately half of the energy utilized by existing fixtures and provide longer lamp service life. This project continues the Authority's effort to provide better and more consistent illumination throughout the campus by re-lamping approximately 960 street lights on the roadways at DTW. Necessary improvements to the light fixture components (wiring, conduit, etc.), as well as power lines between the light poles, will be completed, as needed, within this project.
42	Lucas Drive Enhancements	\$ 1,900	The current rental car facilities have been in place since 1985. The remote location along Lucas Drive presently does not represent the high quality standards of exceptional customer service that the Airport Authority demands. As the Authority begins a study for a long term rental car facility solution, interim improvements will be undertaken to improve traffic safety, customer satisfaction, public sightlines and curbside appeal along Lucas Drive.

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
<b>Security &amp; Communications</b>			
43	McNamara Terminal CBP CCTV	\$ 900	Federal regulations require airports to provide facilities and physical security that enables Customs and Border Protection (CBP) to perform their functions. This project will connect the CBP CCTV to the Authority CCTV system, provide digital video storage capability and additional CCTV cameras as needed, and upgrade the existing system to meet current CBP standards.
44	Vehicle Checkpoint Enhancements - Sally Port Barriers	\$ 600	The installation of permanent sally port barriers will enhance the vehicle screening process at DTW's guarded access points and prevent unauthorized vehicles from accessing the AOA.
45	Perimeter Fencing Cable Reinforcement	\$ 5,203	For reinforcement of the Airport perimeter fence, DTW is proposing installation of reinforced cable alongside the fence line over a four (4) year period.
46	Checkpoint #1 Vehicle & Truck Screening Building	\$ 2,500	Checkpoint #1 is DTW's primary access point for vehicles. Transportation Security (TSA) regulations require that the Airport strictly controls access and inspects each vehicle that enters the AOA. This project will provide design and construction efforts necessary to enclose Checkpoint #1's vehicle lane into a secure, climate controlled building that provides a safe and efficient environment for the inspection of one vehicle at a time prior to granting access to the AOA.
47	Security System & Network Upgrades - Phases 2 thru 5	\$ 21,900	This project will provide all necessary field investigation, surveying and installation of redundant fiber optic duct bank and network switches throughout DTW, along with priority security and network improvement projects identified in the 2015 Security and Communications Infrastructure Master Plan.
<b>Support Facilities</b>			
48	Airport Authority Headquarters Building	\$ 24,900	This project consists of the planning, design and construction of the Authority's Administrative Building adjacent to the North Terminal. Authority management and administrative staff is currently housed at the de-commissioned L.C. Smith Terminal, occupying only approximately 30 percent of the building. The space not being used requires budget expenditures for heating, cooling, lighting and nominal maintenance.
49	Roof Replacement Plan	\$ 3,149	The Airport Authority commissioned a roof assessment of facilities under WCAA control. The plan identified upcoming maintenance requirements as well as capital roof replacements. This project provides for development of specifications necessary for bidding the capital portion of the work as well as the roof construction activity.
50	Building 348 (Executive Terminal) Partial Restoration	\$ 370	Building 348 is one of the first structures built at DTW. The structure requires partial renovation before marketing it for a new tenant. This project will address exterior brick tuck-pointing, window replacement, updates to the fire alarm and fire suppression system as well as upgrades to HVAC and electrical systems.
51	Fire Training Facility Restoration & Burn Pit Replacement	\$ 5,585	Code 14 of Federal Regulations part 139 requires all ARFF personnel to participate in at least one live-fire drill every 12 months. In 1998, the current DTW ARFF training facility was expanded and upgraded to comply with FAA standards. The facility has been in service since that time and the equipment is nearing the end of its useful life, utilizes outdated technology and is currently situated on a gravel pad with surface drainage that limits training and requires water shut-down of the entire facility during the winter months. The current facility utilizes liquefied petroleum gas (LPG) for fire simulation, but does not have the necessary infrastructure to use hydrocarbon fuels similar to Jet A1 fuel for simulation or to utilize foam for extinguishing the fire. This project will provide for facility upgrades necessary to better simulate real-life training conditions for Airport fire personnel.
52	ARFF Station 100 Improvements	\$ 1,200	The footprint of Airport Rescue and Fire Fighting (ARFF) Station 100 will be increased to add locker room facilities for female fire fighters while existing spaces will be repurposed or renovated for better building utilization.
53	Equipment Maintenance & Storage Facilities Replacement & Consolidation (Planning only)	\$ 400	This project will provide all necessary planning services to contemplate a new 180,000 square foot Airport Maintenance Equipment Storage Facility. The new facility is envisioned to include renovation and expansion of the existing maintenance offices, inventory storage and trade shop facilities (Building 703) to allow for consolidation of maintenance equipment storage and repair functions.
<b>Site Redevelopment &amp; Demolitions</b>			
54	Building 715 (Former NWA/DL Hangar) Demolition	\$ 1,562	This project will provide all necessary planning, engineering, environmental assessments, permitting and demolition of structures, slabs and utilities that currently serve Building 715. The project will result in a clean, development ready site available for cargo development in accordance with the Integrated Land Use Strategic Plan (Land Use Plan).



(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
55	Buildings 714, 714A & 714B (Former Metro Flight Buildings) Site Redevelopment & Demolition	\$ 1,600	Buildings 714 and 714A are currently used by Spirit, Global Aviation Services, DHL and FedEx, and Building 714B is currently vacant. This project will provide all necessary planning, engineering, environmental assessment, permitting and demolition of structures, slabs and utilities that serve Building 714, 714A and 714B, as the buildings are vacated. The clean site will then be available for cargo development in accordance with the Land Use Plan.
56	Building 534 (Former Flight Kitchen) Demolition	\$ 1,310	The former flight kitchen site (Building 534) had initially been considered for rehabilitation. However, based on further review of efforts necessary to ready the building for reuse, the decision was made to demolish the structure. This project will be developed as a design build effort to raze the structure and provide a development ready site.
57	Building 358 (Former Police Station) Demolition	\$ 3,000	This project consists of the design and construction necessary to demolish Building 358 (Police Station), removal of below-grade construction and utilities, disconnecting or sealing/capping site utilities that cannot be removed, abatement of hazardous materials prior to demolition, demolition and patching affected pavement as needed.
58	LC Smith & Berry Terminals Demolition	\$ 17,964	This project consists of the demolition and environmental remediation efforts necessary to address the removal of the L.C. Smith Terminal, Concourses A & B and the Berry Terminal. Included in the project is the design and construction effort to reroute or disconnect utilities, and incorporates all other demolition activity. The project does not include the removal of building slabs and foundations. The cost estimate does not provide for replacement of the aircraft apron.
59	Rental Car Facilities Study	\$ 2,375	The current rental car facilities have been in place since 1985. There are three rental car companies on six sites representing 11 brands. There are also off-site rental car designated areas that can service DTW. The goal of the planning study is to determine the best rental car solution for DTW. It will look at the current site and potential alternatives to determine the best location for the rental car facilities along with alternatives for rental car organizations and vehicle delivery. The study will identify what support facilities are appropriate for each alternative and the best approach to optimize the operational flow of passengers, buses, cars, fueling and storage.

**Terminals**

60	North Terminal Gate Expansion	\$ 20,870	The 26 gate North Terminal, opened in 2008, was designed with an ultimate build-out footprint of 30 gates. Due to increased activity in the terminal, three (3) gates at the north end of the terminal will be built-out, including the addition of jet-bridges, installation of hydrant fueling infrastructure and placement of apron paving.
61	North Terminal Interior Wall Panel Replacements	\$ 1,000	This project evaluates replacement of the decorative wood laminate wall panels installed in the North Terminal, plans for installation and execution of the work while not interfering with passenger flow.

**Water Mains & Storm Water System**

62	Water Main Replacement	\$ 4,000	This project consists of the design, engineering and construction necessary to replace the primary water mains at DTW. The project does not include water mains serving the McNamara Terminal complex.
63	Primary Pump & Switchgear Replacements	\$ 1,100	This project includes the evaluation, design and construction activity necessary to replace or rehabilitate stormwater pumps, pump stations and associated switchgear at Airport pump stations: 1, 2, 3, 6 and 10. The scope of this project includes the evaluation of these assets and the development of a plan of action. Reconstruction efforts may include pumps, switchgear, wing-walls, lighting and ventilation equipment.
64	Storm & Sanitary Sewer Systems Replacements	\$ 2,500	Sections of the Airport's stormwater piping system require replacement or reconstruction based on the age of the system. There are more than 40 miles of storm sewer ranging in diameter from 8" to 108". Since 2011, the system has undergone comprehensive physical and video inspections and cleaning.

**Other Projects**

65	Master Plan Update	\$ 6,200	The most recent update to the Master Plan for DTW was completed in 2008. The FAA approved the Airport Layout Plan (ALP) associated with the Master Plan in 2009. Various land, facilities and infrastructure improvements have been accomplished since completion of the 2008 Master Plan update. A comprehensive update to the Master Plan and Airport Layout Plan is now necessary to identify opportunities to enhance airfield capabilities and efficiencies, ready land for future development and preserve eligibility for future federal grants.
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WILLOW RUN AIRPORT FY 2017 – FY 2021 CAPITAL IMPROVEMENT PLAN

FY 2017 – FY 2021 CIP ESTIMATED PROJECT COSTS & TIMING

Willow Run’s \$175.1 million CIP is separate from the DTW program. It is primarily composed of \$107.3 million (61 percent) of airfield projects aimed at reconstructing runways and taxiways while right-sizing the airfield to meet forecasted demand and provide opportunities to lower maintenance costs to sustain a viable future. Due to the Airport Use and Lease agreements at DTW, there are funding limitations for YIP, causing the reliever to rely on federal and state grants to provide 95 percent of the needed funding for airfield projects identified on the CIP.

Figure H - 5: Willow Run CIP FY 2017 – FY 2021

(\$ in thousands)	Estimated Total Project Cost	Projected Expenses to 9/30/16	Projected				FY 2021 thru Completion
			FY 2017	FY 2018	FY 2019	FY 2020	
Airfield	\$ 107,295	\$ 774	\$ 13,073	\$ 13,648	\$ 6,400	\$ 22,000	\$ 51,400
Planning	1,040	923	117	-	-	-	-
Noise Mitigation	14,900	-	-	-	900	1,000	13,000
Power Plant & Electrical Distribution Systems	7,637	181	1,191	65	1,200	3,000	2,000
Fleet & Heavy Equipment Plan	982	-	160	222	200	200	200
Bridges & Roadways	10,725	-	600	-	2,138	5,888	2,100
Security & Communications	2,000	-	-	-	-	-	2,000
Support Facilities	21,215	10	522	1,183	950	10,550	8,000
Water Mains & Storm Water System	9,325	531	-	-	1,000	1,000	6,794
<b>Willow Run Airport Total</b>	<b>\$ 175,119</b>	<b>\$ 2,419</b>	<b>\$ 15,663</b>	<b>\$ 15,118</b>	<b>\$ 12,788</b>	<b>\$ 43,638</b>	<b>\$ 85,494</b>

*Total may not sum due to rounding*

ANTICIPATED FUNDING SOURCES

Figure H - 6 summarizes the anticipated funding sources of the CIP for Willow Run. As a result of the forward-looking nature of the program, some of the anticipated funding sources for the projects are subject to change.

Figure H - 6: Willow Run CIP FY 2017 – FY 2021 Estimated Sources of Funding

(\$ in thousands)	Estimated Total			Authority	
	Project Cost	Federal Grants	State Grants	Funds	Other
Airfield	\$ 107,295	\$ 55,338	\$ 3,074	\$ 3,074	\$ 45,808
Planning	1,040	-	-	-	1,040
Noise Mitigation	14,900	11,920	745	2,235	-
Power Plants & Electrical Distribution System	7,637	-	-	-	7,637
Fleet & Heavy Equipment Plan	982	-	-	-	982
Bridges & Roadways	10,725	-	-	-	10,725
Security & Communications	2,000	1,800	100	100	-
Support Facilities	21,215	-	-	-	21,215
Water Mains & Storm Water System	9,325	-	-	-	9,325
<b>Willow Run Airport Total</b>	<b>\$ 175,119</b>	<b>\$ 69,058</b>	<b>\$ 3,919</b>	<b>\$ 5,409</b>	<b>\$ 96,732</b>

Total may not sum due to rounding

**SIGNIFICANT NON-ROUTINE PROJECTS WITH IMPACT TO FUTURE OPERATING BUDGETS**

The majority of capital projects in the Five-Year Plan are considered routine, however the following non-routine CIP projects and descriptions have an impact on the current and future operating budgets.

**Willow Run Hangar 1 Rehabilitation Projects** (Item No. WR 40) – The rehabilitation projects to Hangar 1 seek to modernize the facility’s electrical, HVAC and fire suppression systems, and to improve efficiencies to lower operational costs. Further, this project is critical for retaining existing tenants and improving the marketability of unutilized space.

**WILLOW RUN AIRPORT – PROJECT TIMING BY YEAR**

(\$ in thousands)

Item No.	Project Description	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
<b>Airfield</b>								
WR 1	New Taxiway Parallel East of Runway 5R/23L – Env. & Design	\$ 752	\$ 550	\$ 202	\$ -	\$ -	\$ -	\$ -
WR 2	Taxiway B Reconstruction (Planning & Design only)	426	224	202	-	-	-	-
WR 3	New Taxiway Parallel East of Runway 5R/23L – Construction & CA	18,758	-	10,192	8,566	-	-	-
WR 4	Taxiway B Reconstruction – Construction & CA	864	-	432	432	-	-	-
WR 5	Runway 9/27 Repairs	815	-	815	-	-	-	-
WR 6	East & West Ramp Repairs	730	-	730	-	-	-	-
WR 7	East, South & West Ramp Rightsizing & Reconstruction – Phase 1 Env. & Design	1,800	-	400	1,400	-	-	-
WR 8	Runway 5L/23R Closure Lighted X’s Installation	100	-	100	-	-	-	-
WR 9	Runway 9/27 Safety Improvements &	1,800	-	-	400	1,400	-	-

FISCAL YEAR 2017 BUDGET | CAPITAL IMPROVEMENT PROGRAM

Item No.	Project Description	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
	Reconstruction – Phase 1 Env. & Design							
WR 10	Runway 5R/23L NAVAIDS/Approach Aids Installation	2,000	-	-	2,000	-	-	-
WR 11	Airfield Sign Replacement Plan Development	50	-	-	50	-	-	-
WR 12	Runway Capacity Enhancements (Design only)	800	-	-	800	-	-	-
WR 13	Runway 5L/23R Rehabilitation & Shorten	-	-	-	-	-	-	-
WR 14	Taxiway Repairs/Removal	6,000	-	-	-	3,000	2,000	1,000
WR 15	East, South & West Ramps Rightsizing & Reconstruction – Phase 2 Construction	40,000	-	-	-	-	10,000	30,000
WR 16	Runway 9/27 Safety Improvements & Reconstruction – Phase 2 Construction	32,400	-	-	-	2,000	10,000	20,400
	<b>Airfield Total</b>	<b>107,295</b>	<b>774</b>	<b>13,073</b>	<b>13,648</b>	<b>6,400</b>	<b>22,000</b>	<b>51,400</b>
<b>Planning</b>								
WR 17	Airport Master Plan	1,040	923	117	-	-	-	-
	<b>Planning Total</b>	<b>1,040</b>	<b>923</b>	<b>117</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Noise Mitigation</b>								
WR 18	Residential Sound/Noise Mitigation Program	2,900	-	-	-	900	1,000	1,000
WR 19	Ground Run-Up Enclosure	12,000	-	-	-	-	-	12,000
	<b>Noise Mitigation Total</b>	<b>14,900</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>900</b>	<b>1,000</b>	<b>13,000</b>
<b>Power Plants &amp; Electrical Distribution Systems</b>								
WR 20	Electrical Cable Vault Equipment Replacement & Relocation	1,231	131	1,100	-	-	-	-
WR 21	Fuel Farm Generator	141	50	91	-	-	-	-
WR 22	Hangar 1 UPS Replacement	65	-	-	65	-	-	-
WR 23	Emergency Generator Relocation & Extension of Conduit to Airfield Vault	2,200	-	-	-	200	2,000	-
WR 24	Electrical Distribution Loop Rehabilitation	4,000	-	-	-	1,000	1,000	2,000
	<b>Power Plants &amp; Electrical Distribution System Total</b>	<b>7,637</b>	<b>181</b>	<b>1,191</b>	<b>65</b>	<b>1,200</b>	<b>3,000</b>	<b>2,000</b>
<b>Fleet &amp; Heavy Equipment Plan</b>								
WR 25	Front End Loader	160	-	160	-	-	-	-
WR 26	Stake Truck	130	-	-	130	-	-	-
WR 27	Telescopic Boom	92	-	-	92	-	-	-
WR 28	V-Body Sand Truck	200	-	-	-	200	-	-
WR 29	Life-Cycle Replacement Plan	400	-	-	-	-	200	200
	<b>Fleet &amp; Equipment Total</b>	<b>982</b>	<b>-</b>	<b>160</b>	<b>222</b>	<b>200</b>	<b>200</b>	<b>200</b>

CAPITAL IMPROVEMENT PROGRAM | FISCAL YEAR 2017 BUDGET

Item No.	Project Description	Estimated Total Project Cost	Projected Expenses to 9/30/16	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 to Completion
<b>Bridges &amp; Roadways</b>								
WR 30	Tyler Road Rehabilitation – West End	530	-	530	-	-	-	-
WR 31	A-Street Rehabilitation between Beck Rd. & 3 <sup>rd</sup> St.	70	-	70	-	-	-	-
WR 32	South Service Drive Realignment & Reconstruction	7,125	-	-	-	2,138	4,988	-
WR 33	Service Drive Rehabilitation	3,000	-	-	-	-	900	2,100
<b>Bridges &amp; Roadways Total</b>		<b>10,725</b>	<b>-</b>	<b>600</b>	<b>-</b>	<b>2,138</b>	<b>5,888</b>	<b>2,100</b>
<b>Security &amp; Communications</b>								
WR 34	Wildlife Fence Replacement (South & East Boundaries)	2,000	-	-	-	-	-	2,000
<b>Security &amp; Communications Total</b>		<b>2,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,000</b>
<b>Support Facilities</b>								
WR 35	Fuel Farm Drain & Pavement Rehabilitation	210	10	50	150	-	-	-
WR 36	Airfield Loading Dock at Former Hangar #2 Site	250	-	250	-	-	-	-
WR 37	Maintenance Facility (Building 2620) Renovation	740	-	222	518	-	-	-
WR 38	Hangar 1 Parking Lot & Kirk Profit Drive Improvements	440	-	-	440	-	-	-
WR 39	Hangar 1 Bays 1-4 LED Lighting Conversion	75	-	-	75	-	-	-
WR 40	Hangar Improvements	16,500	-	-	-	950	7,550	8,000
WR 41	ARFF Station Replacement	3,000	-	-	-	-	3,000	-
<b>Support Facilities Total</b>		<b>21,215</b>	<b>10</b>	<b>522</b>	<b>1,183</b>	<b>950</b>	<b>10,550</b>	<b>8,000</b>
<b>Water Mains &amp; Storm Water System</b>								
WR 42	Water Main Replacement	5,000	531	-	-	1,000	1,000	2,469
WR 43	Primary Pump & Switchgear Replacements	600	-	-	-	-	-	600
WR 44	Storm & Sanitary System Replacements	2,500	-	-	-	-	-	2,500
WR 45	West Side Oil-Water Separator Installations	600	-	-	-	-	-	600
WR 46	East Side Oil-Water Separator Installations	375	-	-	-	-	-	375
WR 47	South Ramp Oil-Water Separator Installations	250	-	-	-	-	-	250
<b>Water Mains &amp; Storm Water System Total</b>		<b>9,325</b>	<b>531</b>	<b>-</b>	<b>-</b>	<b>1,000</b>	<b>1,000</b>	<b>6,794</b>
<b>Willow Run Airport Total</b>		<b>\$ 175,119</b>	<b>\$ 2,419</b>	<b>\$ 15,663</b>	<b>\$ 15,118</b>	<b>\$ 12,788</b>	<b>\$ 43,638</b>	<b>\$ 85,494</b>

WILLOW RUN AIRPORT – PROJECT DESCRIPTIONS

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
<b>Airfield</b>			
WR 1	New Taxiway Parallel East of Runway 5R/23L – Env. & Design	\$ 752	Runway dwell times on Runway 5R/23L are extended due to the lack of a parallel taxiway. Arriving aircraft must taxi to the runway end to exit the runway. This project will provide planning (environmental) and design of a parallel taxiway with appropriately positioned taxiway connectors and high speed exits.
WR 2	Taxiway B Reconstruction (Planning & Design only)	\$ 426	With airfield operations predominantly in south flow, and without a parallel taxiway system, arrivals from the north are forced to use Taxiway Bravo (B) to exit Runways 5R/23L and 5L/23R. This taxiway also provides access to Runway 9/27 for tenants on the west side of the airfield. A full depth rehabilitation is required. This project will provide for planning (environmental) and design work for the rehabilitation of the taxiway.
WR 3	New Taxiway Parallel East of Runway 5R/23L Construction & CA	\$ 18,758	Runway dwell times on Runway 5R/23L are extended due to the lack of a parallel taxiway. Arriving aircraft must taxi to the runway end to exit the runway. This project will provide for construction of a parallel taxiway as designed in project WR 1.
WR 4	Taxiway B Reconstruction – Construction & CA	\$ 864	This project will provide for construction and construction administration work required to rehabilitate the taxiway as previously described in project WR 2.
WR 5	Runway 9/27 Repairs	\$ 815	The pavement surface of Runway 9/27 is beyond its expected useful life and will require mill and patch repairs to maintain safe operational conditions and extend the availability of the runway until a full depth reconstruction is needed.
WR 6	East & West Ramp Repairs	\$ 730	Portions of the East and West Ramps require mill and patch repairs to extend the useful life of the pavement surfaces until a full depth reconstruction is needed.
WR 7	East, South & West Ramps Rightsizing & Reconstruction – Phase 1 Env. & Design	\$ 1,800	Following evaluation of pavement surface needs in the current Master Plan, the three ramp areas at Willow Run will be right-sized and reconstructed to meet current tenant needs. This project will provide for planning (environmental) and design services to develop reconstruction projects.
WR 8	Runway 5L/23R Closure Lighted X's Installation	\$ 100	Should the Master Plan recommend closure of Runway 5L/23R, installation of lighted X's to denote the closure would be required until the pavement is removed.
WR 9	Runway 9/27 Safety Improvements & Reconstruction – Phase 1 Env. & Design	\$ 1,800	Runway 9/27 was built in the early 1940's and has been in use since then without major reconstruction. Pavement Condition studies point to the need for a full depth reconstruction. This project will provide for the planning (environmental) and design of the runway reconstruction and removal of the existing displaced threshold.
WR 10	Runway 5R/23L NAVAIDS/Approach Aids Installation	\$ 2,000	The ability to operate flights in low visibility conditions is essential for the successful operation of aviation facilities. An upgrade of the navigation systems at Willow Run would provide increased safety and runway availability for current and potential airport users.
WR 11	Airfield Sign Replacement Plan Development	\$ 50	This project involves the development of an airfield lighting plan as required by 14 CFR Part 139. The plan will evaluate airfield signage and markings and explore a conversion to LED lighting.
WR 12	Runway Capacity Enhancements (Design only)	\$ 800	The current Master Plan Study will determine if pavement length on Runway 5R/23L and 9/27 meet the current and projected needs of YIP. If changes are required, this project will provide for design alternatives.
WR 13	Runway 5L/23R Rehabilitation & Shorten	\$ -	Pavement conditions of Runway 5L/23R indicate that full depth reconstruction is warranted. This project is on hold pending the outcome of the Master Plan Study.
WR 14	Taxiway Repairs/Removal	\$ 6,000	Results of the Master Plan will dictate which pavement surfaces will remain in operation and which will be removed. This project will address removal or reconstruction efforts.
WR 15	East, South & West Ramps Rightsizing & Reconstruction – Phase 2 Construction	\$ 40,000	Following evaluation of pavement surface needs during the Master Planning effort, the three ramp areas at Willow Run might need to be right-sized and reconstructed to meet current tenant needs. This project will provide for construction efforts to remove or replace apron pavement.
WR 16	Runway 9/27 Safety Improvements & Reconstruction – Phase 2 Construction	\$ 32,400	This project will provide for reconstruction of the runway surface and removal of the displaced threshold as described in project WR 9.

CAPITAL IMPROVEMENT PROGRAM | FISCAL YEAR 2017 BUDGET

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
<b>Planning</b>			
WR 17	Airport Master Plan	\$ 1,040	A comprehensive update to the Master Plan and Airport Layout Plan is necessary to identify opportunities to enhance airfield capabilities and efficiencies, ready land for future development and preserve eligibility for future federal grants.
<b>Noise Mitigation</b>			
WR 18	Residential Sound/Noise Mitigation Program	\$ 2,900	Noise Compatibility Program recommendations for Willow Run include the evaluation of a Residential Sound Insulation Program. Mitigation techniques will be prioritized to meet the objectives of the noise program as well as the development of YIP. The mitigation program will be a phased program based on the availability of Federal Aviation Administration funding.
WR 19	Ground Run-Up Enclosure	\$ 12,000	Following certain types of aircraft maintenance, engine run-up tests are conducted to demonstrate that the aircraft's in-flight systems are working properly before the aircraft can be put back into service. A run-up is a pre-flight test of the engine systems, where various levels of engine power are applied while the aircraft remains stationary. A substantial amount of noise can be created when run-up tests occur. A GRE minimizes engine noise intrusion on the surrounding community by deflecting and absorbing noise vibration by providing a location for such operations to occur.
<b>Power Plants &amp; Electrical Distribution System</b>			
WR 20	Electrical Cable Vault Equipment Replacement & Relocation	\$ 1,231	The main electrical vault housing switchgear that feeds power to Hangar 1, the ARFF station and portions of the airfield lighting system is being relocated from a below ground facility. Multiple locations are being assessed to house new equipment.
WR 21	Fuel Farm Generator	\$ 141	Electrical power outages can cause disruption of the fuel farm for lengthy periods of time. Installation of a gas powered generator will minimize down time.
WR 22	Hangar 1 UPS Replacement	\$ 65	The Uninterruptable Power Supply (UPS) unit in Hangar 1 has reached the end of its useful life. A new unit is required to provide emergency power to a load when the input power source or mains power fails.
WR 23	Emergency Generator Relocation & Extension of Conduit to Airfield Vault	\$ 2,200	During FY 2015, two floods destroyed the electrical components of the primary emergency generator at YIP that was located in an underground vault. The project moves the equipment in the above ground temporary site to a permanent location.
WR 24	Electrical Distribution Loop Rehabilitation	\$ 4,000	The electrical loop at YIP was installed in 1940 without significant upgrades since that time. The system is beyond its designed useful life and this project will replace the entire loop system, providing power to all YIP facilities.
<b>Fleet &amp; Equipment</b>			
WR 25	Front End Loader	\$ 160	Replaces current equipment
WR 26	Stake Truck	\$ 130	Replaces current equipment
WR 27	Telescopic Boom	\$ 92	High bay areas in hangar facilities in need of maintenance, including lighting fixtures, requires the use of a telescopic boom. This is a new piece of equipment for YIP.
WR 28	V-Body Sand Truck	\$ 200	Replaces current equipment
WR 29	Life-Cycle Replacement Plan	\$ 400	As needed replacement of vehicles due to unforeseen events or total mechanical failure.
<b>Bridges &amp; Roadways</b>			
WR 30	Tyler Road Rehabilitation – West End	\$ 530	This project rehabilitates portions of the Tyler Road Extension (along the southern side of the airport) with an asphalt resurfacing.
WR 31	A-Street Rehabilitation between Beck Rd. & 3 <sup>rd</sup> St.	\$ 70	The scope of the A-Street Rehabilitation is an asphalt resurfacing to the portions connecting YIP's eastern edge of the property to Beck Road.
WR 32	South Service Drive Realignment & Reconstruction	\$ 7,125	The South Service Drive at YIP requires full-depth reconstruction and realignment to better support tractor trailer traffic.

(\$ in thousands)

Item No.	Project	Estimated Total Project Cost	Description
WR 33	Service Drive Rehabilitation	\$ 3,000	Service drives and other surface roads at YIP require rehabilitation ranging from milling and resurfacing to complete full-depth rehabilitation.
<b>Security &amp; Communications</b>			
WR 34	Wildlife Fence Replacement (South & East Boundaries)	\$ 2,000	The boundary fence on the south and east sides of the airport does not meet the current recommended height of 10' for wildlife deterrent.
<b>Support Facilities</b>			
WR 35	Fuel Farm Drain & Pavement Rehabilitation	\$ 210	This project consists of the design and construction/development efforts necessary to upgrade the fuel management system and install safety catwalks.
WR 36	Airfield Loading Dock at Former Hangar #2 Site	\$ 250	Cargo carriers at YIP had relied on the truck ramp at Hangar 2 for loading and unloading semi-tractor trailers. With the demolition of Hangar 2, a replacement site is required.
WR 37	Maintenance Facility (Building 2620) Renovation	\$ 740	The scope of this multi-year project includes the installation of a fire suppression system, renovations to office and storage spaces, upgrading the HVAC system, and improving lavatories and locker room facilities in an older maintenance facility.
WR 38	Hangar 1 Parking Lot & Kirk Profit Drive Improvements	\$ 440	The paved surfaces of the service drive as well as the parking lot serving Hangar 1 require milling and resurfacing. This project may be delayed dependent on plans for development of the American Center for Mobility site.
WR 39	Hangar 1 Bays 1-4 LED Lighting Conversion	\$ 75	WCAA is working to retrofit all current lighting with LED fixtures. This project will provide for the acquisition of LED fixtures to be installed by Authority electricians.
WR 40	Hangar Improvements	\$ 16,500	Hangar 1 was constructed in 1940 and requires upgrades to numerous building systems: the fire suppression system in the hangar area, updated electrical/lighting and HVAC systems, exterior rehabilitation and a parking lot overlay. This project provides for the evaluation, design and construction of facility upgrades as required.
WR 41	ARFF Station Replacement	\$ 3,000	The ARFF Station at YIP is nearing the end of its useful life and may provide better service by being relocated to another part of the airfield. The location will be studied during the Master Plan process.
<b>Water Mains &amp; Storm Water System</b>			
WR 42	Water Main Replacement	\$ 5,000	The water mains at YIP need to be replaced and brought up to current standards. This project will provide for installation of a new water system and disconnection from the current water mains.
WR 43	Primary Pump & Switchgear Replacements	\$ 600	The sanitary lift station that forces discharge from the east complex of YIP through a force main to the YUCA waste water treatment plant is beyond the intended useful life. This project provides for reconstruction of the lift station and replacement of the pipe.
WR 44	Storm & Sanitary System Replacements	\$ 2,500	Storm and sanitary systems, other than those recently replaced during reconstruction of Runway 5R/23L, are original to the facility and require rehabilitation. Capacity for future expansion at YIP is also a challenge based on current requirements. This project will provide for investigation of the current system for condition and proper sizing as well as providing for future expansion of the system as required.
WR 45	West Side Oil-Water Separator Installations	\$ 600	This project consists of the rehabilitation and upgrade of the existing oil-water separator located in the parking lot of Hangar 1. This separator reduces the likelihood of spills on the Hangar ramp reaching Tyler Pond. Repair and upgrade of this separator will improve compliance with the Willow Run National Pollution Discharge Elimination System (NPDES) stormwater permit.
WR 46	East Side Oil-Water Separator Installations	\$ 375	This project consists of the design and construction for the installation of an oil-water separator on the southeast ramp stormwater pipe to contain possible spills before reaching the Begole Drain. Installation of this separator will improve compliance with the Willow Run's NPDES stormwater permit.
WR 47	South Ramp Oil-Water Separator Installations	\$ 250	This project consists of the rehabilitation and upgrade of the oil-water separator located near Hangar 2, west of the YIP Fuel Farm. This separator reduces the likelihood of spills on the southwest ramp reaching Willow Run Creek. Installation of this separator will improve compliance with Willow Run's NPDES stormwater permit.





Photo: Willow Run Airport Aerial Photograph

# DEBT PROFILE

The Authority funds major capital improvements primarily through debt issuance. The current level of indebtedness is illustrated in this section and includes schedules and summaries of outstanding principal, gross and net debt service. The section also describes the measures taken by the Authority to manage debt, minimize net debt service and the impact to the O&M budget.

## AIRPORT INDEBTEDNESS

Capital improvements at the Airport are financed by issuing General Airport Revenue Bonds (GARBs), Special Facilities Revenue Bonds, Passenger Facility Charges (PFCs), FAA Airport Improvement Program (AIP) grants and discretionary funds. Figure I - 1 illustrates the percentages of current funding sources for the FY 2017 – FY 2021 CIP.

The strategy for the Authority’s debt portfolio is to maintain 80 percent fixed-rate and 20 percent variable-rate debt, which allows for a certain amount of hedge protection against market trends. For the Authority’s portfolio, a change in interest rates on variable rate debt would be offset by the change in interest income, providing a natural hedge against increases in interest costs.

The majority of the debt is attributed to the development of the following:

- ➔ Two state-of-the-art passenger terminals, the McNamara Terminal which opened in 2002 and the North Terminal which opened in 2008
- ➔ Construction of the McNamara Parking Deck and Airport Westin Hotel, both which opened in tandem with the McNamara Terminal
- ➔ Reconstruction of three parallel runways: 4R/22L, 4L/22R and 3R/21L

At the time of the FY 2017 budget, the total principal amount of outstanding bonds was approximately \$2.2 billion.

## PFC REVENUES

Under the Aviation Safety and Capacity Expansion Act of 1990 (the “PFC Act”), the FAA may authorize a public agency which operates an airport to impose a PFC of up to \$4.50 for each qualifying enplaned passenger at such airport to be used to finance eligible airport-related projects. In order to receive authorization to impose a PFC and use the PFC revenue, the public agency must submit an application requesting that the FAA approve the imposition of a PFC for, and the use of PFC revenues on, specific eligible projects described in such application. PFCs are collected on behalf of airports by air carriers and their agents (the “Collecting Carriers”) and remitted to the public agency. Since the inception of the PFC program, the

Figure I - 1: Airport FY 2017 – FY 2021 CIP by Funding Source

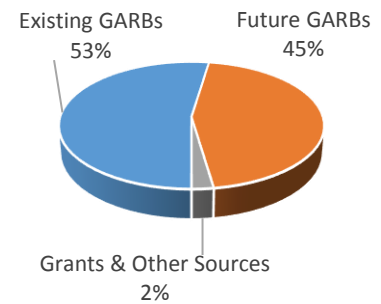


Figure I - 2: Outstanding Principal by Series

Senior Lien Bonds	Outstanding Principal Amount (\$ in thousands)
Series 2007B	103,700
Series 2008A	104,050
Series 2010A	91,900
Series 2010C	95,900
Series 2010D	17,195
Series 2011A	152,465
Series 2011B	12,630
Series 2012A	177,565
Series 2012B	25,090
Series 2012C	1,220
Series 2012DA	21,250
Series 2012DB	29,740
Series 2013A	199,400
Series 2013B	74,560
Series 2013C	114,980
Series 2014A	30,000
Series 2014B	66,595
Series 2014C	31,845
Series 2015A	85,000
Series 2015B	75,000
Series 2015C	25,640
Series 2015D	213,330
Series 2015E	7,755
Series 2015F	224,155
Series 2015G	74,815
Series 2015H	23,125
<b>Total</b>	<b>\$ 2,078,905</b>
<b>Junior Lien Bonds</b>	
Series 2007A	162,200
<b>Grand Total</b>	<b>\$ 2,241,105</b>

Source: WCAA

Authority has submitted seven PFC applications to the FAA, however application number six was withdrawn by the Authority.

Under current PFC approvals, the Authority can impose and use \$3.2 billion in PFCs. The PFC-eligible projects included in the Authority's CIP for the past 20 years have been funded either directly with PFC funds or with the proceeds of GARBs, with the plan of finance for these projects committing PFC revenue to pay the debt service to the maximum extent possible. The current estimated PFC expiration date is 2034.

The amount of PFC revenue collected for the Airport is based upon many factors, including passenger enplanement levels, compliance with federal law and regulations, as well as continuation of the PFC program. Factors that could affect PFC revenue would have a direct impact to the Authority and no assurance can be given that the forecasted level of enplanements will be realized. A shortfall in projected PFC collections could have an adverse impact on the amount of debt service included in the Signatory Airlines' rates and charges, and the timely payment of principal or interest on the senior lien and junior lien bonds eligible to be paid from PFC revenues.

## MANAGING THE COST OF DEBT TO THE AIRLINES

The Authority actively manages the cost of net debt service payable by airlines operating at the Airport with a three-pronged approach: (1) refinancing debt to take advantage of lower interest rates and the Alternative Minimum Tax (AMT) "holiday" in 2009, (2) on an as-needed basis, contribute discretionary or other available funds to reduce the impact of debt to the airline's rates and charges and (3) strengthen the Authority's credit ratings through fiscal austerity. To date, all GARBs that have been callable have been refunded to take advantage of favorable market rates. In addition to the benefit of cost savings related to the refunding, the debt restructuring program accomplished a slightly more conservative overall debt profile of 80 percent fixed and 20 percent variable and established a natural hedge to interest rate inflation.

Figure I – 3 below illustrates the FY 2017 calculation of net debt service paid by airline rates and charges which includes the Airport Westin Hotel. From gross debt service of \$180.1 million, revenues from PFCs and interest income from bond reserve and payment funds are deducted. The balance of \$92.4 million is charged to the airlines as part of O&M non-operating expenses.

**Figure I - 3: Net Debt Service - Airline Requirement**

<i>(\$ in thousands)</i>	<b>Amount</b>
Principal	\$ 92,778
Interest	<u>87,339</u>
Gross Debt Service	180,118
Less Other Monies Available	
<i>Passenger Facility Charges (PFCs)</i>	(67,593)
<i>Capitalized Interest &amp; Other Available Funds</i>	<u>(20,113)</u>
<i>Subtotal</i>	(87,706)
<b>Net Debt Service/O&amp;M FY 2017 Budget Requirement</b>	<b>\$ 92,412</b>
Enplanements	17,300,000
Gross Debt Service per Enplanement	\$ 10.41
Net Debt Service per Enplanement	<u>\$ 5.34</u>

*Totals may not sum due to rounding*  
Source: WCAA

Net debt service is approximately one quarter of total O&M expenses. Thus, managing total outstanding debt is critical to maintaining the Airport's cost competitiveness among peer airports. As a result, the Authority monitors total debt per enplanement as well as net debt service costs per enplanement.

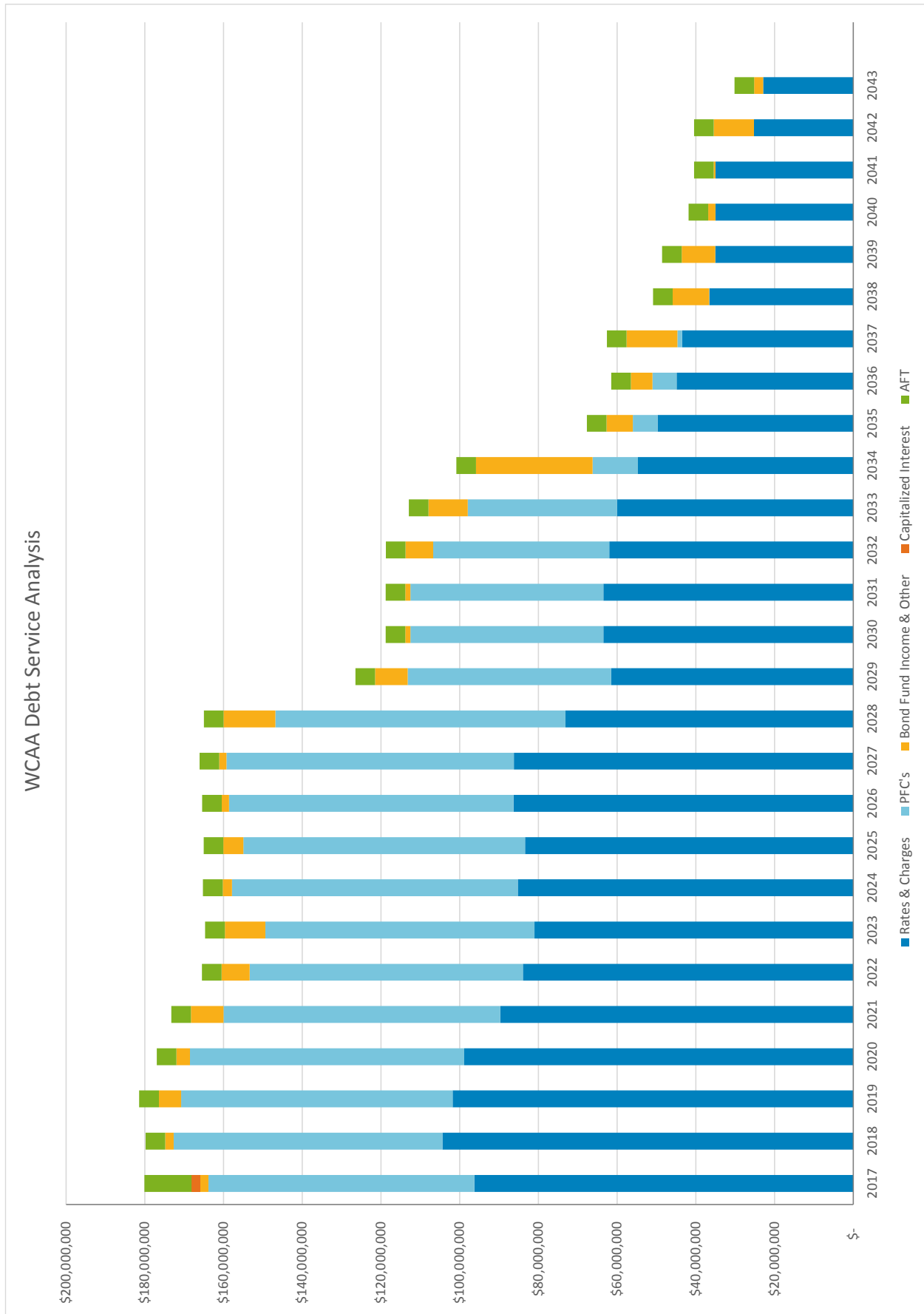
## AIRPORT'S GROSS DEBT SERVICE

Figure I – 4 illustrates the annual principal and interest payments through 2046 for the Airport's gross debt service on the \$2.2 billion in outstanding debt. Principal and interest payments for FY 2017 sum \$180.1 million.

Figure I - 4: Gross Debt Service FY 2017 – FY 2046

Gross Debt Service FY 2017 - FY 2046			
(\$ in thousands)			
Fiscal Year	Principal	Interest	Total
2017	\$ 92,778	\$ 87,339	\$ 180,118
2018	95,749	84,055	179,804
2019	101,527	79,905	181,432
2020	101,553	75,404	176,958
2021	102,180	71,090	173,270
2022	99,032	66,456	165,488
2023	102,666	62,008	164,674
2024	106,246	58,970	165,215
2025	108,944	56,092	165,036
2026	112,704	52,744	165,448
2027	116,891	49,189	166,080
2028	119,545	45,447	164,992
2029	85,747	40,726	126,473
2030	81,756	37,071	118,827
2031	85,237	33,589	118,826
2032	88,812	29,961	118,773
2033	86,760	26,174	112,934
2034	78,351	22,518	100,869
2035	48,771	18,915	67,686
2036	44,970	16,517	61,487
2037	48,343	14,268	62,611
2038	38,824	12,067	50,891
2039	38,204	10,393	48,597
2040	33,073	8,762	41,835
2041	33,319	7,156	40,475
2042	34,981	5,490	40,470
2043	26,443	3,741	30,184
2044	25,705	2,418	28,123
2045	19,606	1,133	20,739
2046	3,058	153	3,210
<b>Total</b>	<b>\$ 2,161,776</b>	<b>\$ 1,079,750</b>	<b>\$ 3,241,526</b>

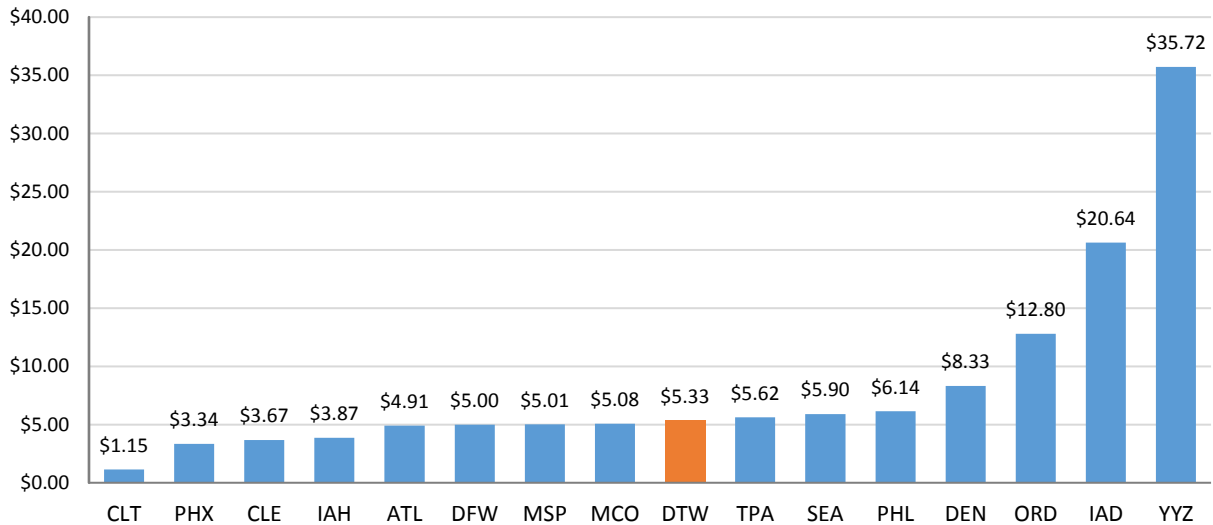
Source: WCAA



PEER AIRPORT DEBT COMPARISON

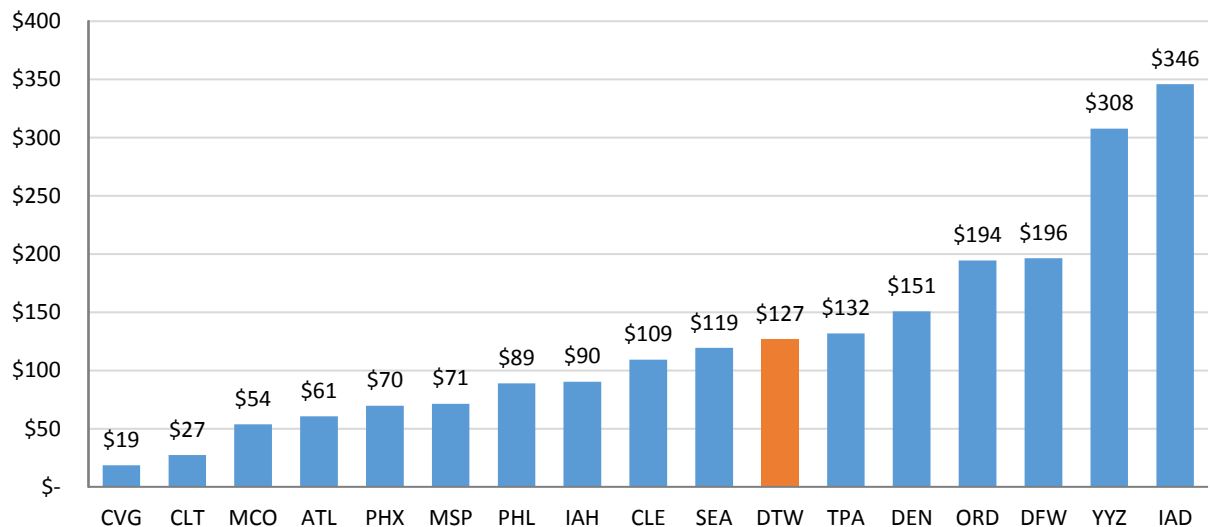
Figure I - 5 and Figure I - 6 below compare the Airport’s indebtedness to other large hub airports in terms of net debt service and total outstanding debt service per enplanement. As both charts illustrate, the Airport’s debt service per enplanement is competitive among peer airports. Additionally, the Airport has completed significant components of traditional airport capital improvement plans (i.e. terminals, runways, etc.). The Airport’s FY 2017 – FY 2021 CIP is considered to be moderate for a large hub airport with limited near-term capital investments.

Figure I - 5: Net Debt Service per Enplanements among Peer Airports FY 2015



Source: 2016 ACI Benchmark Survey (FY 2015 data)

Figure I - 6: Total Outstanding Debt per Enplanement among Peer Airports FY 2015



Source: 2016 ACI Benchmark Survey (FY 2015 data)

**IMPROVING BOND RATINGS**

To attain the lowest possible interest rates, and to be sure it has the widest market for its bonds, the Authority obtains credit ratings from all three major rating agency services. Although it is not required, the Authority solicits responses from all three because each credit rating agency has a different way of evaluating the creditworthiness of an obligor with respect to debt security or other financial obligations. Over the years, credit ratings have achieved wide investor acceptance as convenient tools for differentiating credit quality.

Full credit rating agency reports from Fitch (page I-7), S&P (page I-11) and Moody’s (I-20) are included following.

Standard & Poor’s	Fitch	Moody’s*	Description from the Rating Agency
<b>The Airport’s Credit Rating (2015)</b>			
A	A-	A2	Bonds which possess many favorable investment attributes and are to be considered as upper-medium-grade obligations. They are somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rated categories. However, the obligor’s capacity to meet its financial commitment on the obligations is strong.
<b>All Credit Rating Tiers</b>			
Aaa	AAA	AAA	Bonds which are judged to be of the best quality. They carry the smallest degree of investment risk. The obligor’s capacity to meet its financial commitment on the obligations is extremely strong.
Aa	AA	AA	Bonds which are judged to be of high quality by all standards and only differ in small degree to the highest graded bonds. The obligor’s capacity to meet its financial commitment on the obligations is very strong.
A	A-	A2	The Airport’s credit rating as illustrated above.
Baa	BBB	BBB	Bonds which are considered as medium-grade obligations (i.e., they are neither highly protected nor poorly secured). Interest payments and principal security appear adequate; however, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.
Ba and lower	BB and lower	BB and lower	Obligations which are regarded as having significant speculative characteristics. While such obligations will likely have some quality and protective characteristics, they may be outweighed by large uncertainties or major exposures to adverse conditions.

*\* Moody’s appends numerical modifiers 1, 2 and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.*

**FitchRatings**

## **FITCH AFFIRMS WAYNE COUNTY AIRPORT AUTHORITY (MI) AT 'A-'; OUTLOOK REVISED TO POSITIVE**

Fitch Ratings-New York-02 November 2016: Fitch Ratings has affirmed its 'A-' ratings on Wayne County Airport Authority's (WCAA) senior and junior lien bonds, issued for Detroit Metropolitan Airport (DTW). The authority has outstanding debt obligations of approximately \$2.1 billion on the senior lien and \$162 million on the junior lien. Senior lien bonds of \$442 million are privately placed debt that Fitch does not rate. The Rating Outlooks for both lien bonds are revised to Positive from Stable.

### **RATING RATIONALE**

The 'A-' rating reflects DTW's central geographic location and essentiality to Delta's system as seen in the airport's fully residual long-term use and lease agreement through 2032. Leverage was 8.3x in 2015 (last full audit, fitting within Fitch's indicative 'A' category financial performance for large-hub airports), and is projected to continue evolving downward even with additional debt plans next year. The authority's ability to grow non-airline revenues and prevent operating expense from growing faster than non-airline revenue growth has helped maintain a stable financial position. Meanwhile, enplanements grew sharply in fiscal 2016 by about 4% (year ends Sept. 30), crossing the 17 million threshold for the first time since 2008. Despite being on a junior lien, series 2007 debt represents only a small share (7%) of bonds outstanding, and credit metrics such as leverage and coverage are very comparable, thus warranting the same rating as the senior lien, in our opinion.

The Positive Outlook reflects that a higher rating for both liens could be attained to the extent favorable trends in operating performance and non-airline revenues continue, while maintaining a moderately sized capital plan, allowing leverage and cost per enplanement to remain steady.

### **KEY RATING DRIVERS**

#### **Revenue - Volume: Midrange**

**Dependence on Delta Hub:** The airport enjoys limited competition within the metropolitan area, which provides the airport with a catchment population of around 6 million. DTW is heavily reliant on its dominant carrier, Delta ('BBB-/Stable, which maintains a significant market share with 74% of airport enplanements. The traffic profile is 48% connecting, leaving DTW susceptible to realignment of Delta's hubbing service, although there is a strong track record of Delta's commitment to this facility. Enplanements between 2011 and 2015 (fiscal year ends Sept. 30) ranged between 16.1 million to 16.4 million, before jumping 4% in 2016 to 17.1 million.

#### **Revenue - Price: Stronger**

**Strong Cost Recovery Structure:** Airline use and lease agreements are 100% residual with long-term expiration in 2032 and with multiple airlines beyond the dominant carrier, Delta. Cost per enplanement (CPE) was \$10.20 in FY 2015, and is expected to remain in this range or decrease despite additional debt planned in 2017. As per the agreements, signatory airlines are tied in to covering all airport costs until 2032.

#### **Infrastructure & Renewal Risk: Stronger (revised from Midrange)**

**Modest Capital Needs:** The airport's investment plans are primarily focused on airfield work. The current capital program, sized at \$685 million over the next five years, will be funded from a



combination of proceeds from previous issuance, grants, and new money borrowing, although the latter comprises the vast majority.

Debt Structure: Midrange (Senior and Subordinate Liens)

Variable Rate Debt Exposure: Around 80% of WCAA's \$2.2 billion in long-term debt is fixed rate with 20% paying an unhedged variable rate and subject to some refinancing risk. Upon reaching the maximum annual debt service (MADS) in FY 2019, the profile is flat-to-declining. All reserves are cash funded and covenants are typical for a large-hub airport.

Moderate Leverage and Liquidity: WCAA's financial performance has been stable in recent years as it has been able to pass along costs to carriers through residual airline agreements. Total leverage of 8.3x net debt/cash flow available for debt service (CFADS) is comparable to residual peers while having sufficient balance sheet liquidity of 174 days cash on hand. FY 2015 debt service coverage ratio (DSCR) as calculated by Fitch is 1.08x on the senior lien and 1x on the junior lien, excluding the benefit of a sizeable revenue fund balance, which is available on an indenture calculation.

Peer Group: WCAA's peers include Atlanta (rated 'A+/A+') and Minneapolis-St. Paul (rated 'AA-/A+') airports given their status as major Delta hubs accounting for over 75% of enplanements and over 45% connecting traffic. Detroit has materially higher CPE and leverage, and less relative liquidity. Against large-hub fully-residual airports - namely San Francisco (rated 'A+') and Chicago O'Hare (rated 'A') - CPE and days cash compare more favorably.

#### RATING SENSITIVITIES

Positive - Rising traffic and non-airline revenue generation allowing for stable to declining costs per enplanement and leverage would lead to positive rating action.

Negative - Changing profile of the traffic base influenced largely by Delta and its hubbing operations would be a negative credit factor.

Negative - Higher leverage on a sustained basis over the current 8x-9x range could lead to a lower rating.

#### CREDIT UPDATE

Enplanements were up an estimated 4% in fiscal 2016 (Sept. 30) to 17.1 million, following a 1.4% increase in 2015. The most recent year is the first time since 2008 it has crossed the 17 million threshold. While Delta remains the vastly dominant carrier with 74% of enplanements, Spirit is now the second-leading carrier, holding 8% of the market. Delta enplanements on a year-over-year basis increased 2% (to 12.7 million), while Spirit's increased 17% (to 1.3 million).

On an 11-month basis, airline revenue was up 0.6%, while non-airline revenues increased 6.7%. Specifically, parking has increased 9.3% for the YTD August period, while car rentals and concessions are each up over 6%. Additionally, Westin hotel revenues, expenses and associated debt were moved into the GARB revenue stream (as planned during the FY 2015 debt issuance) as of FY 2016.

During the same period, operating expenses grew 6.4%. However, such an increase was based on need and was offset by an according increase in non-airline revenues. CPE has declined from \$10.42 in 2014 to \$10.20 in 2015, and projected at \$10.00 for 2016.

The airport is planning \$200 million-\$250million in additional debt on the senior lien in the fall of 2017. However, between amortization, refunding and retirement, the net liability increase will be lower than the total additional debt amount. Further, the airport will not add this additional debt to airline rates and charges due to increases in non-airline revenue. Leverage has declined from 8.8x in 2014 to an estimated 8.3x in 2016.

Actual 2015 indenture DSCR was 1.41x on the senior lien and 1.31x junior. Fitch figures were 1.08x and 1x, respectively, which reflects Fitch's exclusion of carryover revenue fund balance. Based on a mid-year 2016 projection, all figures are about 0.10x higher for 2016. As a residual airport, DTW has a senior-basis "floor" of no less than 1.25x on an indenture basis following all required deposits, but must make an annual settlement to the airlines in the event it exceeds this figure.

The senior lien bonds are secured by a first lien on the net revenues of the Detroit Metropolitan Airport while the outstanding junior lien bonds are secured by a subordinate lien on net airport revenues. Net revenues are net of operating and maintenance expenses plus PFC proceeds and unencumbered cash balance. Pledged revenues include the airport hotel adjacent to the McNamara terminal but exclude CFCs.

#### FITCH CASES

Consistent with Fitch's previous surveillance, finances increased on a percentage basis at the same rate as that contained in the prior review in the same years (airline revenues exhibiting fluctuation as high as 2.4% and as low as -3.6%; non-airline revenues growing about 2% annually). An updated enplanement forecast from July 2016 calls for enplanements to grow between 1.2% - 1.6% over five years.

Resulting metrics under the base case show Fitch DSCR ranging as high as 1.20x/1.12x under these assumptions, and leverage - including additional debt - having already reached a peak in 2015 and declining to 7.3x in 2022. CPE likewise trends down from \$10.20 in 2015 to \$9.06 in 2022.

The rating case, meanwhile, included sensitivities on enplanement figures. Under an assumption of 50% loss in connecting traffic and no recovery on either O&D or connecting traffic thereafter, the airport should be able to maintain fairly consistent financial metrics due to its residual agreements. Similar to the base case, finances followed on a percentage basis at the same rate as that contained in the prior review in the same years (airline revenues exhibiting fluctuation as high as 5.6% and as low as -10.5%; non-airline revenues growing about 1.1% annually).

Resulting metrics under the rating case show DSCR ranging as high as 1.16x/1.07x under these assumptions, and leverage reaching 9.4x in 2018 before evolving down to 7.5x in 2022. CPE grows year-over-year up to \$13.72 in 2022.

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#### Applicable Criteria

Rating Criteria for Airports (pub. 25 Feb 2016)

<https://www.fitchratings.com/site/re/877676>

Rating Criteria for Infrastructure and Project Finance (pub. 08 Jul 2016)

<https://www.fitchratings.com/site/re/882594>

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## Wayne County Airport Authority, Michigan Detroit Metro Wayne County Airport; Airport

### Credit Profile

US\$233.51 mil arpt rev bnds (Detroit Metro Wayne Cnty Arpt) (Non-amt) ser 2015D due 12/01/2034		
<i>Long Term Rating</i>	A/Stable	New
US\$228.75 mil arpt rev rfdg bnds (Detroit Metro Wayne Cnty Arpt) (Amt) ser 2015F due 12/01/2034		
<i>Long Term Rating</i>	A/Stable	New
US\$102.56 mil arpt rev rfdg bnds (Detroit Metro Wayne Cnty Arpt) (Non-amt) ser 2015G due 12/01/2034		
<i>Long Term Rating</i>	A/Stable	New
US\$25.6mil arpt rev bnds (Detroit Metro Wayne Cnty Arpt) (Non-amt) ser 2015C due 12/01/2034		
<i>Long Term Rating</i>	A/Stable	New
US\$11.665 mil arpt rev bnds (Detroit Metro Wayne Cnty Arpt) (Amt) ser 2015E due 12/01/2034		
<i>Long Term Rating</i>	A/Stable	New

### Rationale

Standard & Poor's Ratings Services assigned its 'A' long-term rating to Wayne County Airport Authority, Mich.'s (WCAA or the authority) \$233.5 million series D senior-lien revenue bonds, \$11.7 million series 2015E senior-lien revenue bonds, \$228.8 million series 2015F senior-lien refunding bonds, and \$102.6 million series 2015G senior-lien refunding bonds, issued for Detroit Metro Wayne County Airport (DTW). In addition, Standard & Poor's assigned its 'A' long-term rating to the authority's \$25.6 million series 2015C direct purchase agreement with Citi refunding a portion of the series 2005 bonds. At the same time, Standard & Poor's affirmed its 'A' long-term rating and underlying rating (SPUR) on the authority's senior-lien bonds and its 'A-' SPUR on the authority's junior-lien bonds. The airport has approximately \$1.9 billion in senior-lien and \$166.2 million in junior-lien bonds outstanding. The outlook is stable.

The ratings reflect our view of the airport's market position and importance to the Delta Air Lines system. More specifically, the ratings reflect our opinion of:

- A large 10-county service area with a population of more than five million that provides a good base for local air travel demand;
- The airport's position as an important domestic hub and international Asian gateway in Delta Air Lines' system; and
- Limited competition from other airports.

In our view, the preceding credit strengths are partly offset by:

- Concentration in Delta Air Lines and its affiliates and a moderately high exposure to connecting traffic, and
- Bond provisions that allow passenger facility charges (PFCs), available cash, other fund deposits, and federal grants to be included in the rate covenant calculation and additional bonds test, which lets the airport maintain a lower cost structure but also may not allow the airport to meet its debt service requirements on a net revenue basis alone.

The airport's net revenues secure both the senior- and junior-lien revenue bonds. The rate covenant is weak, in our

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opinion, in that many nonoperating revenue sources are allowed in the rate covenant calculation. Net revenues and PFCs deposited to the bond fund must equal 100% of senior-lien debt service. The 125% rate covenant on the senior-lien debt comes from the combination of net revenues, PFCs, other available money, and any unencumbered cash (rather than setting rates and charges for sufficient or better debt service coverage, or DSC). The junior-lien rate covenant is similarly calculated, but net revenues together with other available funds must equal 110% of debt service with respect to the senior- and junior-lien bonds outstanding. The additional bonds test is similarly weak, in our view.

In the past decade, enplanements peaked in fiscal 2005 at 18.3 million. On April 14, 2008, Northwest Airlines (NWA) and Delta Air Lines Inc. announced that the two would merge, thereby creating the world's largest airline. Prior to the merger, NWA had been the carrier with the largest market share at the airport, but the airline's enplanements had fluctuated as NWA entered bankruptcy protection in September 2005 (exiting May 31, 2007). While the airline and its affiliate, Mesaba, continued to operate at the airport during this period, service fell to 13.7 million NWA enplanements in fiscal 2006 from 14.4 million in fiscal 2005. This led to a decline in overall enplanements at the airport. For fiscal 2007, overall airport enplaned passengers rose by 1.7% from the previous year due primarily to NWA increasing service at the airport after its emergence from bankruptcy. However, given the global economic slowdown, higher fuel prices, and airline capacity cuts, enplanements declined in the following three fiscal years: by 1.5% in 2008, by 10.6% in 2009, and by 0.4% in 2010. In our opinion, the 2.2% increase in enplanements in fiscal 2011 indicated the beginning of the economic recovery in the air trade area, and enplanements remained essentially flat in fiscal 2012 and fiscal 2013. Showing a positive trend, enplanements in fiscal 2014 (ended Sept. 30) were 16.2 million, up slightly from 16.1 million in fiscal 2013. Enplanements for fiscal 2015 are estimated by management to increase to 16.3 million.

The authority's cost structure has been historically moderate, in our view, with cost per enplanement at approximately \$9.18 in fiscal years 2011 and 2010 (ended Sept. 30). Cost per enplanement increased to \$9.87 in fiscal 2012, fell to \$9.71 in fiscal 2013, and rose to \$10.42 in fiscal 2014. Cost per enplanement is estimated by management at \$10.58 in fiscal 2015 and is projected by the airport's consultant to remain under \$11.00 through fiscal 2022. Debt per enplanement in fiscal 2014 was approximately \$129, which is relatively moderate, in our opinion; however, debt per origination and destination (O&D) enplanement was high, in our view, at \$274. DSC (as calculated per the indenture) for fiscal 2014 was 1.43x on the senior lien and 1.33x on a combined senior and subordinate basis. DSC, as calculated by Standard & Poor's excluding rolling coverage, was 1.04x on the senior lien and 0.97x on a combined senior and subordinate basis, including \$62 million in designated PFC revenue. We consider this adequate for an airport with a residual rate-making model. Unrestricted cash and investments including internal reserve and discretionary funds totaled \$144 million in fiscal 2014, or 273 days; Standard & Poor's considers this figure to be adequate, but it is below the average of 432 for other 'A' rated airports in the U.S.

The current five-year capital improvement project (CIP) is estimated at \$607 million and includes primarily airfield reconstruction projects. Funding comes through a variety of sources, including \$213 million from the series 2015D and 2015E bonds, \$175 million in future bonds, \$174 million from prior bonds, \$26 million in grants, and \$19 million in other funds.

The series 2015G bonds will refund the series 2001 hotel bonds with general airport revenue bonds. The bonds were issued to construct the Westin Hotel in the McNamara terminal. Management forecasts that after paying debt service

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on the refunding bonds and making required deposits, the cash flow from the hotel will initially produce a surplus of approximately \$1.0 million.

## Outlook

The stable outlook reflects our expectation that demand will meet or exceed forecast; that Standard & Poor's-adjusted DSC will stay near 1x; and liquidity will not decline, despite the airport's additional debt plans. We could lower the rating within the two-year outlook period if our adjusted DSC calculations are consistently below 1x or DTW's liquidity position materially erodes. We don't expect to raise the rating within the two-year outlook period, given the airport's additional debt needs. A higher rating could result long term if the airport experiences notable increases in demand that we believe are sustainable and that will boost Standard & Poor's adjusted DSC and liquidity to levels we believe are also sustainable and consistent for a higher rating.

## The Issuer

Wayne County is the fee simple title holder of the primary real property of the Airport, and until Aug. 9, 2002, operated under the county executive's supervision. On March 13, 2002, the state legislature enacted an amendment to the Aeronautics Code (known as the Public Airport Authority Act, or Public Act 90 of the state of Michigan), which affects airports with more than 10 million enplanements. The act requires the transfer of operational jurisdiction of qualified airports to airport authorities created under the act. The Public Airport Authority Act took effect March 26, 2002. As a result, the act created the WCAA as a political subdivision and instrumentality of the county, and as of Aug. 9, 2002, the authority became vested with the power to manage and operate DTW and Willow Run Airport, a reliever airport. Also, with the authority's creation, WCAA assumed the obligations with respect to DTW, including the senior-lien and junior-lien bonds.

A seven-member board governs WCAA. The authority requires that the governor appoint two members, the Wayne County Board of Commissioners one, and the county executive four. Authority board members serve without compensation for six-year terms with a two-term limit. According to management, the move to authority status 12 years ago was to refocus the mission and vision that emphasizes bringing private-sector practices and expertise to airport operations.

In our opinion, the fiscal issues of the Wayne County and the city of Detroit have no financial impact on the authority, as the authority is a separate entity from each.

## Bond Provisions

Securing the bonds is a lien on the net revenues of the airport. Bondholders additionally benefit from a fully funded debt service reserve.

Revenues first fund monthly operations and maintenance (O&M) expenses, then monthly debt service requirements. Remaining revenues first fund any deficiency in the bond reserve account, then junior-lien debt service payments,

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amounts owed to any swap provider pursuant to agreements entered into after Jan. 1, 1998 (the authority has no swaps), and any deficiency in the junior-lien bond reserve account. Remaining money funds various reserves in the following order: O&M reserve fund (six-month reserve), renewal and replacement reserve fund (until \$2.5 million is on deposit), discretionary fund (\$87,500 quarterly), and the airport development fund.

In our opinion, the rate covenant is weak, in that many nonoperating revenue sources are allowed in the rate covenant calculation; in addition to net revenue, these sources may include PFCs, grants, and other available money. Net revenues and PFCs deposited to the bond fund must equal 100% of senior-lien debt service. Instead of setting rates and charges such that net revenues provide sufficient or better DSC, the 125% rate covenant comes from the combination of net revenues, PFCs, other available money, and any unencumbered cash. More specifically, the rate covenant allows for rates and charges to be set such that net revenues, together with PFC proceeds, equal the amount needed to make the deposits required under the master bond ordinance. Also, these funds, together with other available money and any unencumbered cash balances in the revenue fund on the last day of the previous operating year, must provide the amounts needed to make the necessary deposits to the junior-lien bond fund, the O&M reserve fund, the renewal and replacement reserve fund, the discretionary fund, and the airport development fund. They must also provide an amount no less than 25% of the debt service due and payable on the bonds during such operating year. The authority defines other available money as the amount that it will transfer for such operating year to the bond fund or junior-lien bond fund from PFCs or sources other than revenues. The junior-lien rate covenant is similarly calculated, but net revenues and other available funds must equal 110% of debt service with respect to the senior- and junior-lien bonds outstanding.

WCAA may issue additional bonds if an airport consultant projects that revenues, revenue fund balances, and other available money are sufficient to satisfy the rate covenant for the first three full operating years after capital projects that the senior-lien bonds will fund are complete. Alternatively, in lieu of a consultant's report, the CFO must certify that net revenues plus other available money for the most recent fiscal year were not less than 125% of the debt service on all senior-lien bonds outstanding and the proposed issuance. Before issuing junior-lien bonds, the CFO shall certify that the sum of the net revenues for the most recent fiscal year, the amount of other available money deposited in the bond fund, and the average amount of other available money in the junior-lien bond fund and other available money that the consultant certifies to be reasonably available and deposited in the junior-lien bond fund during the period that the bonds will likely be outstanding is not less than 110% of the debt service with respect to the senior- and junior-lien bonds outstanding and of the average annual debt service in terms of the proposed senior- and junior-lien bonds.

The authority may issue refunding bonds for senior or junior debt as long as the bonds to be refunded do not increase debt service by more than 20% in any operating year. It may also issue completion bonds for up to 10% of the face amount of the bonds originally issued to cover the cost of the CIP.

### Contingent Liquidity

We consider the contingent liquidity risk of the authority to be low. Currently, the authority has previously entered into four variable rate direct purchase contracts and is currently entering into three fixed rate direct purchase contracts.



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According to bond counsel, there are no acceleration provisions in the documents for events of default. In all of the variable rate agreements, should an event of default occur, there will be a mandatory tender. If a mandatory tender occurs and the bonds cannot be remarketed in full, the airport will pay a default rate (base rate plus 4%). The ratings trigger is 'BBB', or its equivalent, with any of the three major rating agencies. We believe that there is sufficient headroom between the current ratings and the threshold, which mitigates the airport's exposure to the potentially higher interest rates.

### Airport Use And Lease Agreement

WCAA has residual airport use and lease agreements. The scheduled expiration date of the agreements is Sept. 30, 2032. Delta leases all of the airline space in the McNamara Terminal on a preferential-use basis, and the signatory airlines operating in the North Terminal each lease one or more gate holdrooms and related ticket counters and other airline operational space on a preferential-use basis. The signatory airlines pay rentals for the lease of premises in the terminals and activity fees for the common use of other terminal and airport facilities. Under the terminal rate-making methodology, there are two terminal cost centers. Activity fees are calculated based on an airportwide residual rate-setting methodology. The terminal rental rates are calculated by allocating between the two terminal cost centers all annual terminal-related O&M expenses and all annual debt service on bonds issued after 1997 to finance each terminal, net of debt service to be paid by PFCs. The annual rental rate for each terminal is calculated by dividing the costs allocated to each terminal by the total square footage of space leased to the signatory airlines leasing space in that terminal.

### Air Trade Area And Service Area Economy

The airport service region consists of the Ann Arbor, Detroit-Warren-Livonia, Flint, Monroe, and Adrian core statistical areas, which includes a 10-county area near Detroit. While the airport is a large connecting hub for Delta, it is also a large O&D market. The airport service region has a population of over 5.3 million. Overall, the airport's service region has benefited from the manufacturing economic base, a low cost of living, and relatively high personal income levels that support air traffic growth. However, the region's unemployment, at 6.3% as of June 2015 was higher than the state of Michigan's, at 5.8%, and the U.S., at 5.5%; nevertheless, the unemployment rate in the service area economy has declined in each year since its peak in 2009 at 14.6% (the U.S. rate was 9.3%). The service area centers on a manufacturing base that, while diversifying and improving, remains dominated by the auto industry. In our opinion, the area's low cost of living and relatively good personal income levels continue to support further growth in the airport's traffic.

### Airport Description And Demand

DTW is 20 miles from the Detroit central business district, on 6,700 acres of land in Wayne County, Mich. It is the primary air carrier airport serving the Detroit area and is classified as a large hub. The airport's service area is southeastern Michigan, portions of Ontario, and northern Ohio. No other airport provides significant competition to

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DTW in the service area. Airports in Flint, Mich. (75 miles away), Toledo, Ohio (65 miles), and Lansing, Mich. (95 miles) are within driving distance of DTW but do not offer comparable service.

DTW provides service from two terminal buildings and related concourses (the McNamara and North terminals) with a total of 147 gates. The McNamara Terminal opened in February 2002. The McNamara Terminal was designed to accommodate the operations of Northwest and its code-share partners and now is utilized by Delta, its regional affiliates, and its SkyTeam partners. The terminal complex consists of an attached Concourse A and satellite concourses B and C, and is adjacent to 9,840 parking spaces. (There are a total of approximately 18,174 public parking spaces at the airport.) In addition, a full-service Westin Hotel opened in December 2002 attached to Concourse A. Delta preferentially leases all 121 gates in the McNamara terminal. The North Terminal opened in September 2008 with 26 gates and is utilized by all other signatory airlines (except FedEx and UPS) and all other airlines serving the airport. DTW has six runways: four parallel runways ranging from 8,500 feet to 12,000 feet long, and two crosswind runways that are 8,500 feet and 8,700 feet long.

According to the latest Airports Council International statistics, in 2014, DTW was the 18th-busiest airport in North America in terms of total passengers. The airport serves a large O&D market and is a major connecting hub for Delta. As of fiscal 2014, about 52% of total domestic enplaned passengers were connecting. Delta and its commuter operators accounted for 78% of the enplaned passengers in fiscal 2014; we consider this to be highly concentrated. The second-largest carrier was Spirit Airlines, with approximately 6% of the market, followed by Southwest, with just over 5% of the market. As of Sept. 1, 2015, 21 U.S. passenger airlines (five legacy/mainline carriers, four low-cost carriers, and 12 regional carriers), five foreign-flag carriers and two cargo airlines use the airport. In fiscal 2014, international passengers accounted for 9% of total enplaned passengers.

In the past decade, enplanements peaked in fiscal 2005 at 18.3 million. On April 14, 2008, NWA and Delta Air Lines Inc. announced that the two would merge, thereby creating the world's largest airline. Prior to the merger, NWA had been the carrier with the largest market share at the airport, but the airline's enplanements had fluctuated as NWA entered bankruptcy protection in September 2005 (exiting May 31, 2007). While the airline and its affiliate, Mesaba, continued to operate at the airport during this period, service fell to 13.7 million NWA enplanements in fiscal 2006 from 14.4 million in fiscal 2005. This led to a decline in overall enplanements at the airport. For fiscal 2007, overall airport enplaned passengers rose by 1.7% from the previous year due primarily to NWA increasing service at the airport after its emergence from bankruptcy. However, given the global economic slowdown, higher fuel prices, and airline capacity cuts, enplanements declined in the following three fiscal years: by 1.5% in 2008, by 10.6% in 2009, and by 0.4% in 2010. In our opinion, the 2.2% increase in enplanements in fiscal 2011 indicated the beginning of the economic recovery in the air trade area, and enplanements remained essentially flat in fiscal 2012 and fiscal 2013. Showing a positive trend, enplanements in fiscal 2014 (ended Sept. 30) were 16.2 million, up slightly from 16.1 million in fiscal 2013. Enplanements for fiscal 2015 are estimated by management to increase to 16.3 million.

The airport consultant's report details forecasts that Standard & Poor's considers to be reasonable. O&D enplanement growth is projected at a 1% compound annual growth rate (CAGR) from fiscal 2015 through fiscal 2022. Connecting traffic is not expected to materially change. International service will continue to grow steadily, according to projections. Nonairline revenue is projected to increase at a CAGR of 2.1% through fiscal 2022, and O&M expense are

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projected to increase at a CAGR of 2.3% for that period. The inclusion of the hotel is projected to increase nonairline revenues by approximately \$30 million and to increase O&M expenses by \$22.5 million in fiscal 2016. Debt service on \$25 million of future bonds is included. Cost per enplanement is anticipated to remain relatively stable, peaking at \$10.98 in fiscal 2018, which we consider to be reasonable. Overall enplanements are forecast to grow to 17.5 million in fiscal 2022 from 16.2 million in fiscal 2014. DSC as calculated per the indenture is projected to be approximately 1.5x over the forecast period, and all-in coverage is projected to be 1.4x; with the residual airline agreements at the airport, we consider this coverage to be adequate.

DTW is a major connecting hub in Delta and its code-share partners' route system. DTW is Delta's primary gateway to Asia. According to a Delta spokesperson, Delta is committed to its position at DTW; expects to continue modest growth in overall service at DTW in the future; and while Delta has been growing its Seattle gateway, the growth at Seattle does not come at the expense of Detroit.

**Related Criteria And Research**

**Related Criteria**

- USPF Criteria: Contingent Liquidity Risks, March 5, 2012
- Criteria: Airport Revenue Bonds In The U.S. And Canada, Nov. 15, 2013
- USPF Criteria: Methodology: Definitions And Related Analytic Practices For Covenant And Payment Provisions In U.S. Public Finance Revenue Obligations, Nov. 29, 2011
- USPF Criteria: Assigning Issue Credit Ratings Of Operating Entities, May 20, 2015
- Criteria: Use of CreditWatch And Outlooks, Sept. 14, 2009

**Ratings Detail (As Of September 9, 2015)**

<b>Wayne Charter Cnty, Michigan</b>		
Detroit Metro Wayne Cnty Arpt, Michigan		
Wayne Charter County (Detroit Metro Wayne County Airport) (wrap of Insured) (MBIA, National & Assured Gty) (SEC MKT)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Charter County (Detroit Metro Wayne County Airport) (MBIA) (National)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Charter County (Detroit Metro Wayne County Airport) (MBIA) (National)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
<b>Wayne Cnty Arprt Auth, Michigan</b>		
Detroit Metro Wayne Cnty Arprt, Michigan		
Wayne Cnty Arprt Auth (Detroit Metro Wayne Cnty Arprt) new money bnds (non-amt)		
<i>Long Term Rating</i>	A/Stable	Affirmed
Wayne Cnty Arprt Auth (Detroit Metro Wayne Cnty Arprt) rfdg bnds (Non-amt)		
<i>Long Term Rating</i>	A/Stable	Affirmed
Wayne Cnty Arprt Auth (Detroit Metro Wayne Cnty Arprt) sr lien arprt (AMT)		
<i>Long Term Rating</i>	A/Stable	Affirmed
Wayne Cnty Arprt Auth (Detroit Metro Wayne Cnty Arprt) (BAM)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Cnty Arprt Auth (Detroit Metro Wayne Cnty Arprt) (BAM)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed

Wayne County Airport Authority, Michigan Detroit Metro Wayne County Airport; Airport

<b>Ratings Detail (As Of September 9, 2015) (cont.)</b>		
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) jr lien arpt (Wrap of Insured) (FGIC & AGM) (SEC MKT)		
<i>Unenhanced Rating</i>	A-(SPUR)/Stable	Affirmed
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) new money bnds		
<i>Long Term Rating</i>	A/Stable	Affirmed
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) new money (AGM)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) sr lien arpt (AGM)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) sr lien arpt (ASSURED GTY)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) sr lien arpt (Wrap of Insured) (FGIC, National & Assured Gty) (SEC MKT)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) sr lien arpt (Wrap of Insured) (MBIA & BHAC) (SEC MKT)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
Wayne Cnty Arpt Auth (Detroit Metro Wayne County Airport) sr lien arpt (Wrap of Insured) (MBIA, National & ASSURED GTY) (SEC MKT)		
<i>Unenhanced Rating</i>	A(SPUR)/Stable	Affirmed
<b>Wayne Cnty Arpt Auth (Detroit Metro Wayne Cnty Arpt)</b>		
<i>Unenhanced Rating</i>	A-(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

**Moody's**  
INVESTORS SERVICE

**New Issue: Moody's assigns A2 to Wayne County Airport Authority's, (MI) Series 2015C-G Revenue and Refunding Bonds and affirms outstanding ratings; Outlook stable**

Global Credit Research - 04 Sep 2015

**Authority has \$2.03 billion outstanding debt**

WAYNE COUNTY AIRPORT AUTHORITY, MI  
Airports  
MI

**Moody's Rating**

ISSUE	RATING
Airport Revenue Refunding Bonds Series 2015F (AMT)	A2
<b>Sale Amount</b> \$228,750,000	
<b>Expected Sale Date</b> 09/21/15	
<b>Rating Description</b> Revenue: Government Enterprise	
 Airport Revenue Refunding Bonds Series 2015C (AMT)	 A2
<b>Sale Amount</b> \$26,090,000	
<b>Expected Sale Date</b> 09/21/15	
<b>Rating Description</b> Revenue: Government Enterprise	
 Airport Revenue Bonds Series 2015D (Non-AMT)	 A2
<b>Sale Amount</b> \$233,510,000	
<b>Expected Sale Date</b> 09/21/15	
<b>Rating Description</b> Revenue: Government Enterprise	
 Airport Revenue Bonds Series 2015E (AMT)	 A2
<b>Sale Amount</b> \$11,665,000	
<b>Expected Sale Date</b> 09/21/15	
<b>Rating Description</b> Revenue: Government Enterprise	
 Airport Revenue Refunding Bonds Series 2015G (Non-AMT)	 A2
<b>Sale Amount</b> \$102,560,000	
<b>Expected Sale Date</b> 09/21/15	
<b>Rating Description</b> Revenue: Government Enterprise	

**Moody's Outlook** STA

NEW YORK, September 04, 2015 --Moody's Investors Service assigns A2 to the \$602.5 million Series 2015C-G Airport Revenue and Refunding Bonds issued by the Wayne County Airport Authority (WCAA or authority). Moody's also has affirmed the A2 underlying rating on outstanding parity senior lien debt and the A3 underlying rating on the authority's outstanding junior lien debt. The rating outlook is stable.

SUMMARY RATING RATIONALE

The A2 senior lien rating reflects the airport's strong competitive position in the Detroit-Wayne County service area and the financial stability provided by its full residual long-term airline use and lease agreement that expires in September 2032. The rating also takes into consideration the concentration risk with Delta Air Lines Inc. (Ba2/positive) accounting for 76% of enplanements, and the modest pace of economic recovery in the service area that is heavily concentrated in the automotive sector.

#### OUTLOOK

The stable outlook reflects our expectation that financial metrics will remain stable based on reasonable assumptions for modest traffic and enplanement growth and limited future debt plans primarily focused on airfield and maintenance projects. We believe that enplanements are anchored by significant 47% origination and destination (O&D) travel and that the authority will continue to proactively manage expenses while increasing non-airline revenue yields.

#### WHAT COULD MAKE THE RATING GO UP

- Significant and sustained enplanement growth by both Delta and low cost carriers (LCCs) that further diversifies carrier traffic
- Lower than forecasted cost per enplanement (CPE)
- Stronger than historic liquidity levels

#### WHAT COULD MAKE THE RATING GO DOWN

- Significant reductions in enplanements due to a reduction in hub activity by Delta or lower than currently forecasted enplanement growth
- Higher than forecasted CPE
- Reduced financial margins and liquidity

#### STRENGTHS

- Long-term, full residual airline use and lease agreement provides the airport with financial stability
- Proactive financial management to reduce expenses and increase non-airline revenue helps mitigate the airport's rising CPE
- Relatively stable O&D air service market with modest recent growth
- Limited future debt needs. The five-year capital plan is largely dedicated towards airfield projects, and the airport's new and efficient terminal facilities provide ample airside capacity and require minimal future capital investment
- The service area economy, while recovering more slowly than the US, maintains strong international ties that support international air travel, a key to maintaining Delta's hub status

#### CHALLENGES

- Concentration risk in Delta Air Lines which accounts for over 76% of enplanements, though somewhat offset by relatively stable O&D traffic base and growth of low cost carrier service
- Airline costs will remain at just above \$10 per enplaned passenger through the forecast period, though slightly moderating in later years
- Service area economy is still concentrated in the automotive sector, though the economy is anticipated to grow modestly. However it is unlikely to fully regain jobs that were lost during the latest economic downturn
- Lower than average liquidity when compared to other residual airports

#### RECENT DEVELOPMENTS

Enplanements grew 0.9% in fiscal 2014 following two years of small declines of 0.3% and 0.6% in 2012 and 2013 after reversing a three-year declining enplanement trend with 2.2% growth in FY 2011. Enplanements are up 0.8%

for the first 10 months of FY 2015 in line with the authority's full year projection. Landed weights are also up slightly by 0.6%. In the latest traffic forecast prepared by the airport consultant enplanements are forecasted to grow at a 1.0% compound average annual growth rate (CAGR) through FY 2022.

#### DETAILED RATING RATIONALE

##### REVENUE GENERATING BASE

Created by state statute in 2002 the authority is a separate legal entity from Wayne County. Delta continues to dominate the authority's enplanements and the airline still remains committed to WCAA, which ranks the second biggest of all Delta hubs, only behind Atlanta. We note that Delta's dominance has moderated from a 81% market share in 2010 to 76% in 2015 primarily on account of increase service by LCCs. The airport offers the airline numerous geographical advantages, and is still critical to Delta's strategy as its primary hub to Asia, despite Delta's growth plans for Seattle-Tacoma International Airport (Port of Seattle, WA Airport Enterprise, Aa2/Stable).

The LCC market share at WCAA has increased to 12.9% in FYTD 2015 from 11.6% in FY 2014 led by Southwest, jetBlue, Frontier and Spirit, which adds a degree of diversity and cost-competitiveness to the airport. Given the airport's position within the Delta system, and strategic shifts at other Delta hub airports, Moody's acknowledges the potential for sizeable seat cutbacks at WCAA is unlikely in the short-term, though remain a risk in the medium to long-term.

##### FINANCIAL OPERATIONS AND POSITION

WCAA's residual rate-making methodology for the airline use and lease agreement provides financial stability by allowing the airport to fully recover its operating and capital costs from the airlines through increased landing fees. Between FYs 2010 - 2013, WCAA's airline CPE generally measured above \$9 per enplanement, and for the FY 2014-2022 projection period, the airport consultant forecasts CPE to be above \$10 but under \$11 per enplanement. To mitigate debt related cost increases for the airlines, the airport has demonstrated proactive financial management to reduce expenses, including implementing a multi-year restructuring program. These initiatives have been supported by the airport's effort to increase non-airline revenue.

Senior lien debt service coverage and total debt service coverage (as calculated on a bond ordinance basis) has remained steady in the last several years. The FY 2014 senior DSCR was 1.43 times and the total 1.33 times. On a Moody's net revenue basis (including PFCs used for debt service but not reserve monies), the airport's FY 2014 senior lien DSCR was 1.09 times and the total DSCR 1.00 times. The airport consultant has forecasted senior lien bond ordinance debt service coverage to measure between 1.47 times and 1.49 times from FY 2017 through FY 2022. We note that the bond ordinance calculation includes rolling coverage from the revenue account, equal to 25% of total debt service costs. We expect that the strength of the airport's residual airline use and lease agreement should ensure adequate debt service coverage going forward.

##### Liquidity

The airport's internal liquidity has generally been weaker than its peers, and Moody's calculated days cash on hand has measured in the low-to-mid 200 days range over the last five fiscal years. The authority expects to maintain comparable levels going forward.

##### DEBT AND OTHER LIABILITIES

The airport has a high, but now moderating debt load and no major debt needs or plans. With the completion of the McNamara Terminal in 2002 and the North Terminal in 2008, the airport's terminal facilities are at the beginning of their useful lives and have sufficient capacity to accommodate future enplanement growth without constraints. The Series 2015 capital projects funded by the current bond issue total \$244.5 million, including \$181.5 million for airfield improvements. An additional debt issue of \$25.4 million is planned no later than 2017 to complete the funding. The 2016-2010 CIP, which includes the Series 2015 projects, forecasts approximately \$607 million in total capital spending with the majority of the capital plan devoted to airfield projects and runway reconstruction at \$321 million or 53% of the total. While a majority in interest of the airlines (MII) have approved the 2015 projects, other 2016-2020 CIP projects require airline approval.

Moody's views the airport's debt funding needs to complete the capital program as modest. The airport's outstanding debt includes several series of privately placed bonds, including the currently offered Series 2015C and unrated Series 2015A and 2015B parity refunding bonds. Moody's has reviewed the terms and conditions and has confirmed that there are no covenants that put the private debt in higher seniority or adversely affect bondholders.

**Debt Structure****Debt-Related Derivatives**

None. Approximately 20.6% of outstanding debt is variable rate.

**Pensions and OPEB**

The financial impact of unfunded and OPEB obligations of this issuer are minor and thus not currently a major factor in our assessment of its credit profile.

**MANAGEMENT AND GOVERNANCE**

Authority is governed by a seven-member board with four members appointed by the county executive; two by the governor and one by the Wayne County Commission. Board members serve six-year terms.

Authority's senior management team has over 10-years of tenure.

**KEY STATISTICS****-KEY INDICATORS:**

-Type of Airport: Hub

-Rate Making Methodology: 100% Residual

-Enplanement growth, FY 2014: 0.9%

-5-Year Enplanement CAGR: 0.3%

-% O&D passengers, FY 2014: 47.1%

-Largest carrier by Enplanements: Delta (77.8%)

-Airline Cost per Enplaned Passenger, FY 2014: \$10.42

-Debt per O&D Enplaned Passenger, FY 2014: \$257.83

-Bond Ordinance DSCR, FY 2014 (Senior Lien Only / Senior and Junior Lien): 1.43 times / 1.33 times

**OTHER CONSIDERATIONS: MAPPING TO THE GRID**

The grid-indicated rating outcome is the same as the senior lien rating.

The grid is a reference tool that can be used to approximate credit profiles in the toll road industry in most cases. However, the grid is a summary that does not include every rating consideration. Please see the Rating Methodology for Airport with Unregulated Rating-Setting for more information about the limitations inherent to grids.

**METHODOLOGY OUTPUT****FACTOR 1 - MARKET POSITION**

Enplanements - Aaa (16.217 million)

Size of Service Area - Aa (4.296 million)

Economic Strength / Diversity of Service Area - Baa

Competition for Travel - Aa

**FACTOR 2 - SERVICE OFFERING**

Carrier Base (Primary) - Ba (77.8%)

Enplanement 5-Year CAGR - Ba (0.3%)



O&D Passenger Mix - Ba (47.1%)

#### FACTOR 3 - CAPACITY AND CAPITAL PLAN

Limitations to Growth / Operational Restrictions - Aa

Construction Risk of Capital Program - Aa

#### FACTOR 4 - FINANCIAL METRICS

Average Airline Cost Per Enplanement - Aa (\$10.42)

Net Revenue Debt Service Coverage Ratio - Baa (1.00 times) (including PFCs)

Debt Per O&D Enplanement - Baa (\$257.83)

NOTCHING - None

Scorecard Indicated Rating - A2

#### OBLIGOR PROFILE

Created by state statute in 2002 the authority is a separate legal entity from Wayne County though the county holds fee simple title to the primary airport real estate. The airport is located on 6,700 acres 20 miles southwest of downtown Detroit. The airport has four parallel north-south runways and two cross-wind runways. The 2.4 million square foot, 121-gate MacNamara Terminal opened in 2002 and is primarily occupied by Delta and other SkyTeam members. The 850,000 square foot 26-gate North Terminal serves all other carriers.

The airport serves an air trade area that encompasses a population of 5.3 million. The nearest competing commercial airport is Cleveland, 150 miles away.

#### LEGAL SECURITY

Senior bonds are secured by a senior lien on net revenues of the authority and subordinate bonds by a subordinate lien on net revenues. The authority's structure includes rolling coverage and use of Passenger Facility Charge (PFC) revenues for debt service. The rolling coverage requirement provides for a 25% coverage factor on the senior lien debt service. Airport rates and charges can be reduced by the amount of PFC revenues that have already been received by the trustee. The airport benefits from a full residual airline use and lease agreement with the airlines which allows it to fully recover its operating and capital costs from the airlines through increased landing fees.

#### USE OF PROCEEDS

The fixed rate Series 2015D and E bonds will fund certain capital improvement projects as part of the airport's CIP and the Series 2015C and 2015F bonds (along with \$160 million unrated Series 2015A and 2015B bonds) will refund portions of the Series 20015 bonds for estimated net present value savings of \$41.4 million or 9.66% of refunded bonds. The Series 2015G will refund the \$99.6 million outstanding 2001 Hotel Bonds.

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#### PRINCIPAL METHODOLOGY

The principal methodology used in this rating was Airports with Unregulated Rate Setting published in July 2011. Please see the Credit Policy page on [www.moodys.com](http://www.moodys.com) for a copy of this methodology.

#### REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the rating action on the support provider and in relation to each particular rating

action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on [www.moody's.com](http://www.moody's.com).

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**INVESTORS SERVICE**

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# FIVE-YEAR FINANCIAL OUTLOOK

The purpose of the Five-Year Financial Outlook (the Outlook) is to provide a strategy for the Authority's financial goal of maintaining a cost competitive rate structure among large US hub airports. It provides a starting point for making financial decisions regarding changes to service levels, capital investments and issuing future debt. Using the Outlook, the Authority's Board and Senior Leadership team can see how today's decisions will impact airline rates and charges over a five-year horizon. The Outlook is the culmination of three evaluations; (1) passenger demand for air service, (2) historical expenditures and revenue trends and (3) financing strategic priorities and obligations.

## PASSENGER DEMAND FOR AIR SERVICE

Earlier in the Budget Book is an analysis of the aviation industry and the social-economic profile of the Air Trade Area (see State of the Aviation Industry starting on page C-1). It demonstrates that the aviation industry is doing well with the continuing demand for air travel and the profitability of the airlines. The Air Trade Area's population is stable, diverse and affluent, all positive indicators of strong O&D passenger demand. Further, Delta has demonstrated a commitment to hubbing operations at the Airport with an increasing focus on it being an international gateway to Asia. Historically, airlines have reacted to positive economic news by adding capacity to meet increased demand and it would be reasonable to expect additional enplanement growth at DTW.

Where, how and when carriers schedule routes is no longer just a primary reaction to economic factors. The previous business model was based on gaining market share and passenger volume through short-term, lower cost per ticket strategies that focused on taking customers away from the competition. Airlines are now changing their business strategies and are making the determination on how to match revenues to cost. The goal is determining what level of capacity will provide the maximum return. Delta and the other legacy airlines are maximizing profitability by retiring smaller regional jets, in favor of larger and more fuel efficient aircraft. This equipment up-gauging maintains a consistent supply of available seats while decreasing total operations. US economic growth increased by 2.1 percent in the fourth quarter of calendar year 2015 on the strength of consumer spending. For 2015 as a whole, Gross Domestic Product (GDP) expanded by 2.4 percent. In turn, the legacy airlines have responded with moderate growth in capacity at or below 3.0 percent, approximately the rate of US economic growth.

Low-cost and small airlines such as Southwest, JetBlue and Spirit are taking an aggressive approach by growing their fleets and adding seat capacity. Their strategy is to grow revenues by adding routes and increasing frequencies to ultimately gain market share surrendered by the legacy carriers during a period of capacity reductions. As an example, since CY 2013, Spirit added 97 new routes (84.3 percent) and 90.5 percent more flights system-wide. In CY 2013, Spirit had 12 routes originating from DTW growing to 20 routes in CY 2016. Five of the new routes serve the Airport with non-stop service to Atlanta (ATL), Boston (BOS), Kansas City (MCI), New Orleans (MSY) and Minneapolis (MSP). Prior to these additions, only Delta provided non-stop service to MCI, MSY and MSP. The FY 2017 Budget forecasts that these route additions will result in Spirit increasing their market share at the Airport by 4.1 percentage points since FY 2015.

Positive economic and demographic factors, coupled with the industry's growth-centric strategy, especially on the side of the low-cost carriers, suggests moderate enplanement growth. The Five-Year Outlook starts with the FY 2017 forecast of 17.3 million enplanements, an increase of 4.2 percent from FY 2016 Budget and assumes a compounded annual growth rate (CAGR) of 1.5 percent through FY 2021.

**HISTORY OF REVENUES & EXPENDITURES**

The second component of the Outlook’s analytical model is an examination of the Airport’s historic revenues and expenditures. The model uses five years of financial data from FY 2011 (start of the economic recovery) to FY 2015 (the most recently closed fiscal year) to identify trends, understand the impacts of management decisions and calculate the compounded annual growth rate (CAGR).

Figure J - 1: Five-Year Financial Summary

(\$ in thousands)	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	CAGR
	Actual	Actual	Actual	Actual	Actual	FY 2011 to FY 2015
<b>Airline Revenues</b>						
Landing Fees	\$ 68,473	\$ 66,719	\$ 64,922	\$ 75,780	\$ 73,268	1.7%
Rent	73,652	85,810	84,004	84,915	86,414	4.1%
Facility Use fees	6,638	7,092	7,262	8,362	8,065	5.0%
<b>Total Airline Revenues</b>	<b>148,764</b>	<b>159,621</b>	<b>156,187</b>	<b>169,057</b>	<b>167,747</b>	<b>3.0%</b>
<b>Non-Airline Revenues</b>						
Parking	54,145	56,091	57,829	61,187	68,018	5.9%
Car Rental	18,984	19,626	20,160	21,909	22,429	4.3%
Concessions	31,261	31,714	31,187	31,874	34,788	2.7%
Ground Transportation	4,944	4,883	5,095	5,453	5,429	2.4%
Shuttle Bus	5,869	5,211	2,502	2,032	2,101	-22.7%
Utility Service Fees	4,879	4,790	5,152	4,904	4,601	-1.5%
Rent	2,761	2,255	2,612	2,975	3,655	7.3%
Other Revenue	2,183	1,160	2,952	1,742	1,641	-6.9%
Charges For Services	2,107	1,848	2,095	2,100	2,177	0.8%
<b>Total Non-Airline Revenues</b>	<b>127,133</b>	<b>127,578</b>	<b>129,583</b>	<b>134,177</b>	<b>144,837</b>	<b>3.3%</b>
<b>Non-Operating Revenues</b>	<b>1,477</b>	<b>1,627</b>	<b>1,562</b>	<b>1,387</b>	<b>1,970</b>	<b>7.5%</b>
<b>Total Revenues</b>	<b>277,374</b>	<b>288,826</b>	<b>287,332</b>	<b>304,621</b>	<b>314,554</b>	<b>3.2%</b>
<b>Operating Expenses</b>						
Salaries & Wages	44,225	43,159	41,974	46,661	49,221	0.6%
Employee Benefits	25,840	25,268	25,512	27,027	34,357	3.0%
Materials & Supplies	6,457	6,047	7,288	8,769	9,334	9.6%
Parking Management	6,794	6,048	6,280	6,630	7,882	3.8%
Shuttle Bus	8,750	8,099	6,501	6,123	6,540	-7.0%
Janitorial	11,143	11,480	11,383	11,792	11,948	1.8%
Security	2,401	2,288	2,260	2,511	2,558	1.6%
Contractual Services	19,354	16,613	18,524	24,490	19,970	0.8%
Insurance	2,294	2,370	2,298	2,200	2,145	-1.7%
Utilities	24,524	26,280	26,628	28,441	24,105	-0.4%
Buildings & Grounds	18,141	16,519	14,085	15,092	15,298	-4.2%
Equipment Repair	17,193	15,142	15,210	16,051	17,269	0.1%
Other Operating Expenses	1,760	4,039	3,915	4,460	4,638	27.4%
O&M Capital	7,444	3,645	3,647	3,371	6,311	-4.0%
<b>Total Operating Expenses</b>	<b>196,321</b>	<b>186,996</b>	<b>185,508</b>	<b>203,619</b>	<b>211,576</b>	<b>1.9%</b>
<b>Non-Operating Expenses</b>	<b>81,053</b>	<b>101,831</b>	<b>101,824</b>	<b>101,002</b>	<b>102,979</b>	<b>6.2%</b>
<b>Total Expenses</b>	<b>277,374</b>	<b>288,826</b>	<b>287,332</b>	<b>304,621</b>	<b>314,554</b>	<b>3.2%</b>
<b>Net Income (Loss)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>n/a</b>
Enplanements	16,226,201	16,169,584	16,077,652	16,216,673	16,443,778	0.3%

Some key findings are discussed below:

**Non-Airline Revenues** – Non-airline revenue has grown steadily as illustrated by the five-year CAGR of 3.3 percent. This has been facilitated by a sharp increase in FY 2015 where non-airline revenue increased by 7.9 percent year-over-year.

The main driver of this revenue growth has been parking. A rise in originating passengers combined with a \$1.00 per day rate increase across all decks and lots in both May 2014 and February 2015 has resulted in a parking CAGR of 5.9 percent. Despite these rate increases, parking transactions and average length of stay have continued to grow which is a reflection of the current robustness of the local economy and increase in business travelers.

The second highest non-airline revenue generator after parking is concessions. Concessions revenue growth was flat between FY 2011 and FY 2014 consistent with the enplanement growth for the same period. In addition to this, the changeover program for retail at the McNamara Terminal commenced in February 2013 and resulted in 37 new concepts opening. FY 2015 saw the first full-year impact of the retail program and this is reflected in the year-over-year growth rate of 9.1 percent (resulting in a five year CAGR of 2.7 percent). This sharp increase is in spite of the fact that the food and beverage changeover program at the McNamara Terminal commenced in August 2014. This program, which saw the opening of 24 new concepts and the addition of two new locations, completed in March 2016.

Car rental has enjoyed continuous growth between FY 2011 and FY 2015 resulting in a strong CAGR of 4.3 percent. This can be attributed to industry-wide price increases, car rental companies working closely with local event planners in order to create additional revenue opportunities and an overall increase in destination passengers, particularly business travelers.

Shuttle bus revenue is the one notable decline in non-airline revenues over the five-year span. It decreased by \$3.8 million as a result of transferring the responsibility of providing employee shuttle services directly to the airlines. The decline in revenue was offset by a comparable decrease in expenses.

**Operating Expenses** – At a CAGR of 1.9 percent, the operating expenses growth since FY 2011 is moderate. Operating expense trends are discussed below:

- The CAGR for combined salaries and benefits is 4.5 percent. The main driver of this increase is OPEB contributions, these were previously expensed to funding requirements. The number of employees has actually decreased in the five-year timeframe (614 in FY 2011 to 609 in FY 2015) but economic enhancements have resulted in salaries increasing by a CAGR of 0.6 percent.
- Material & supplies has a five-year CAGR of 9.6 percent. This increase can be attributed to the rising cost of bulk chemicals and also the expense for janitorial supplies moving from contractual services to material & supplies in FY 2014.
- Contractual services, which includes parking management, shuttle bus, janitorial and security services, totaled \$48.9 million in FY 2015 compared to \$48.4 million in FY 2011, a CAGR of just 0.2 percent. Expenses did fluctuate significantly between FY 2012 and FY 2014 due to vastly different snow seasons (25.8 inches of snow in FY 2012 vs. 94.8 inches in FY 2014) but, on the whole, costs have been consistently managed. As mentioned above, shuttle bus expense has declined as a result of a change in strategy which has been offset by an increase in parking management with responsibility for snow removal, power washing and general maintenance passed back to the contractor.
- Utility expenses did increase significantly to \$28.1 million in FY 2014, but lower rates and a decrease in consumption due to a conversion to LED lighting has resulted in a five-year CAGR of -0.4 percent.
- Expenses for the repair and maintenance for buildings, grounds and equipment have decreased since FY 2011 with a CAGR of -2.0 percent. This decrease can be attributed to reduced expenses for maintaining the

parking decks and lots as responsibility for certain maintenance functions have now passed to the parking management contractor. The offset can be seen in contractual services.

- Other operating expenses, although a relatively small cost category, have increased significantly between FY 2011 (\$1.8 million) and FY 2015 (\$4.6 million) with a CAGR of 27.4 percent. This is due to two main factors; (1) an increase in travel and training due to more employees and a greater focus on employee development, (2) credit card transaction fees have increased in-line with parking revenue growth.

**Non-operating Expenses** – Since FY 2011, non-operating expenses have grown from \$81.1 million to \$103.0 million in FY 2015, a CAGR of 6.2 percent. This is largely due to net debt service growth. Since the Authority’s inception, the Airport has financed and constructed two state-of-the-art passenger terminals attributing much of the growth in debt service.

**Airline Revenues** – Historical airline revenue is a factor of the Airport’s operating and non-operating expenses less non-airline revenue. Pursuant to the terms of the Airport’s Use and Lease Agreement, the Authority calculates airlines’ activity fee rates (Landing Fees) under a full residual methodology. As such, the five year CAGR for airline revenue is 3.0 percent which is primarily attributed to the growth in net debt service of 6.2 percent, as stated above.

## EXPENDITURE PRIORITIES & OBLIGATIONS

The third component of the Outlook is identifying future financial obligations, unavoidable costs and estimating the expense to implement the Authority’s strategic initiatives.

### COST TO IMPLEMENT THE AUTHORITY’S STRATEGIC PRIORITIES

The Authority’s strategic plan identifies several priorities that will require financial investments and/or the reallocation of resources. The initiatives with the greatest financial impact are discussed below.

**Project Oasis** – Project Oasis is one of the Authority’s customer service initiatives which aims to establish a welcoming and cohesive airport campus through a combination of standalone projects and implementation of consistent, campus-wide, design standards. Initial Implementation includes:

- Improve the landscaping at the five main road entry points onto the Airport campus
- Establish consistent landscaping along key corridors
- Convert street lighting to a consistent LED light and pole standard
- Standardize decorative fencing
- Provide building monument identification signs for major facilities on the airport campus
- Provide street addresses for airport campus facilities

The Outlook includes funding for the initial three-year implementation and consideration for additional maintenance and replacement expenses beyond the initial implementation.

**Preventative Corrective and Maintenance** – The Authority’s Operations and Maintenance Division and Facilities Design and Construction Division, have identified projects that must be performed in the upcoming five years in order to maintain operational excellence and protect capital assets. These plans identify a corrective course of action to address deferred maintenance, plan for non-routine maintenance projects and recommend preventative maintenance measures beyond what has historically been performed. While some projects are undertaken in scheduled intervals (e.g. pond dredging once every 30 years), others are currently being defined and plans are under development to address the next 20 years.

The Authority’s operational departments have developed five and ten-year maintenance and renewal plans for the following asset categories:

- Airfield Pavement Plan
- Fleet and Equipment Replacement Plan
- Power Distribution, Uninterruptable Power Systems (UPS)/Generator and Automatic Transfer Switch Plans
- Roadway Pavement, Bridge Repair/ Replacement and Overhead Sign Plans
- Roof Replacement Plan
- Storm and Sanitary Water Drain Plan
- Gas Distribution Plan

The estimated cost to implement these plans is included in the Outlook.

**Environmental Sustainability** – The Authority aims to continue developing environmentally conscious policies and procedures that benefit airport users. An important area of emphasis is the supply of electrical power, heated water and Heating, Ventilation and Air Conditioning (HVAC) Systems.

The North Power Plant was recently fitted with four high efficiency boilers, funded by the FAA Voluntary Airport Low Emission (VALE) Grant program. A water recycling unit was also installed allowing water to be cleaned and reused through the boilers. The new boiler system is not only more reliable than the equipment it replaced, but it consumes a fraction of the fuel and water previously required, resulting in benefits to the environment and a substantial cost savings. Through the sustainability program, the Authority will continue to seek out opportunities to benefit the environment while improving the operational efficiency of the Airport.

#### FINANCIAL OBLIGATIONS AND UNAVOIDABLE COSTS

The Airport has unavoidable or mandated financial obligations that must be factored into a five-year financial outlook. Those with the greatest impact to the Outlook are listed below.

**Debt Service** – The Airport’s FY 2017 net debt service obligation, the portion paid from airline rates and charges, is \$87.0 million or 24.2 percent of budgeted expenses, the O&M budget’s largest expense category. During FY 2017, the Authority will be evaluating a new money issuance to finance approximately two years of the CIP.

**Collective Bargaining Agreements** – The Authority’s employees are represented by ten bargaining units. The economic enhancement provisions of the collective bargaining agreements include a 2.3 percent annual increase to base pay.

**Health Care Benefits** – Historically, health care cost inflation has outpaced year-over-year increases in the consumer price index (CPI). While health care inflation has slowed since 2009, it still out-paces the CPI and other inflationary indices. Like many employers, the Authority has undertaken a number of cost-saving and cost-sharing initiatives to help contain health care benefit costs.

**Sustain Current Service Levels** – Since FY 2009, the Authority has implemented a series of service level modifications to hold costs flat as warranted by economic recession and a decline in enplanements and aviation activity at the Airport. Moving forward, the Authority does not foresee additional service level reductions in the five-year horizon of the Outlook. Commodities or services historically subject to price volatility greater than the CPI are factored into the model.

#### FIVE-YEAR FINANCIAL OUTLOOK

The following section outlines the Outlook of O&M revenues and expenditures for FY 2017 through FY 2021. The Outlook demonstrates the Authority’s ability to achieve its financial goals while also meeting financial obligations. It is based upon a series of conservative assumptions at the revenue/expense category or subcategory level. The



Outlook does not make across-the-board assumptions for unidentified strategies to improve revenue or lower expenses.

There are two valuable conclusions that can be drawn from the Outlook. The first is that the demographic and economic base of the Air Trade Area is stable, providing consistent demand for O&D air travel. Further, the Airport's role as a hub and international gateway to Asia in Delta Air Line's network provides a stable level of connecting passengers. Combining these two factors, the Outlook foresees conservative growth in passenger enplanements at 1.5 percent per year.

Secondly, historic trends in operating expenses have stayed essentially flat since the Authority's creation in 2002. As illustrated on page J - 2, the Airport's operating expenditures between FY 2011 and FY 2015 grew by a 1.9 percent CAGR, comparable to the CPI's 1.3 percent CAGR. However, the Airport's debt service has been the main driver of the CAGR increase, with 6.2 percent growth. This increase is largely associated with the construction of two new terminals. The current Capital Improvement Plan contains no projects of that magnitude that would drive double-digit annual increases in debt service over the next five years.

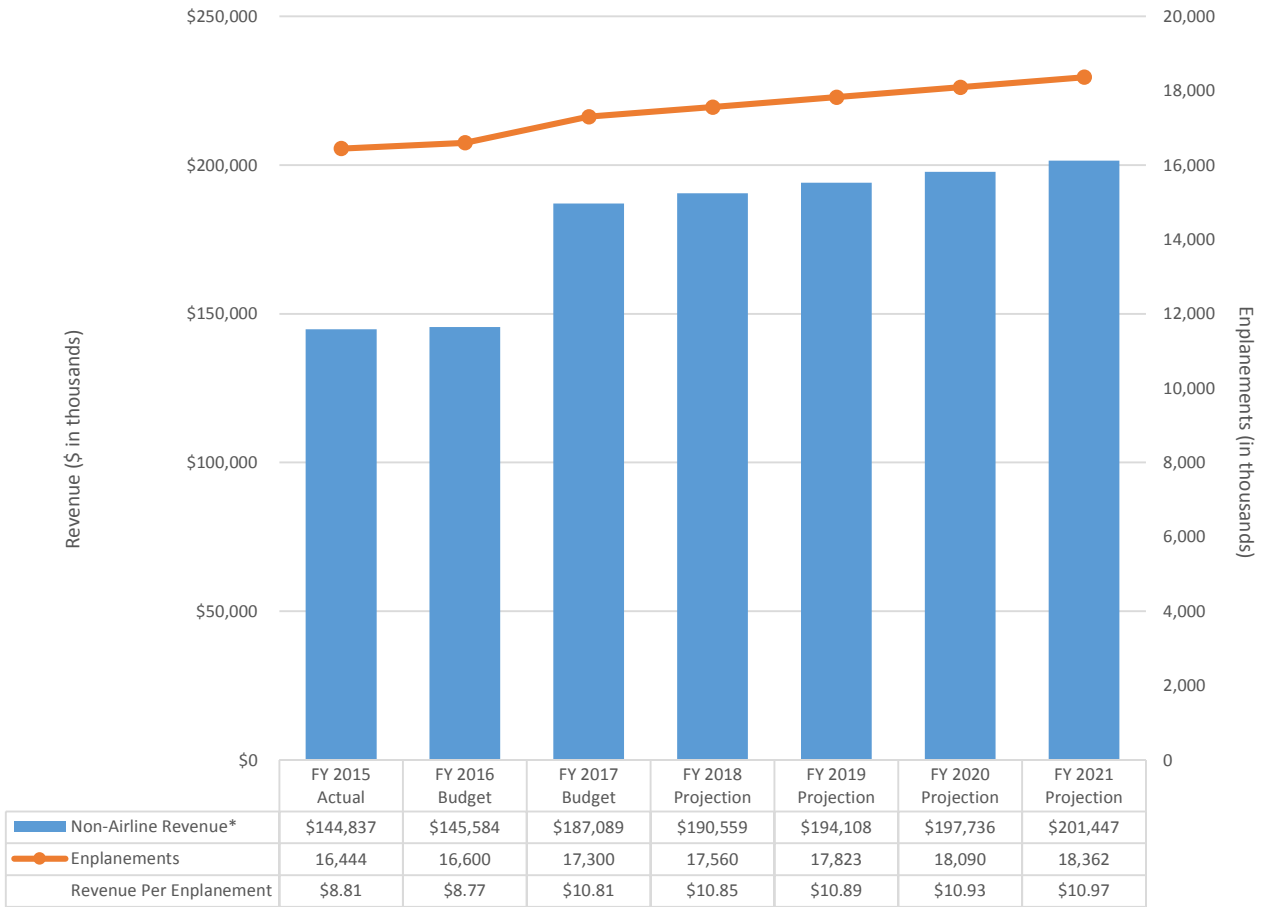
In summary, the Airport's goal to maintain a cost competitive rate structure among large US hub airports is achievable.

#### NON-AIRLINE REVENUE OUTLOOK

Non-airline revenues are projected to increase to \$187.1 million in the FY 2017 budget. The majority of this increase can be attributed to hotel revenue (\$30.1 million), which was incorporated into Detroit Metropolitan Airport's Operations and Maintenance Budget for the first time in FY 2017. The rest of the increase is due to parking and concession revenue. In FY 2017, the Airport will see the full year revenue impact of the \$1.00 per day parking rate increase introduced in December 2015. FY 2016 also saw the completion of the food and beverage concession changeover at the McNamara Terminal. To date, the new concepts have increased concession revenue significantly and the full year impact will drive the FY 2017 budget. While there are many positive developments and trends, the Outlook for non-airline revenue in FY 2021 is a conservative \$201.4 million which represents a CAGR of 1.9 percent.

Sustaining non-airline revenue growth without a substantial corresponding increase in passenger enplanements is unrealistic. Other opportunities for growth exist in non-passenger dependent revenue. The Authority's economic development efforts are focused on attracting cargo, freight and logistics services to develop and/or lease airport properties. The successful attraction of non-airline tenants would be reason to increase the five-year forecast beyond the projected 1.9 percent.

Figure J - 2: Non-Airline Revenue Five Year Outlook



\*Hotel Revenue included from FY 2017

### EXPENSE OUTLOOK

The Outlook expects operating expenses to grow from \$246.4 million in FY 2017 to \$267.3 million in FY 2021, a 1.5 percent five-year CAGR.

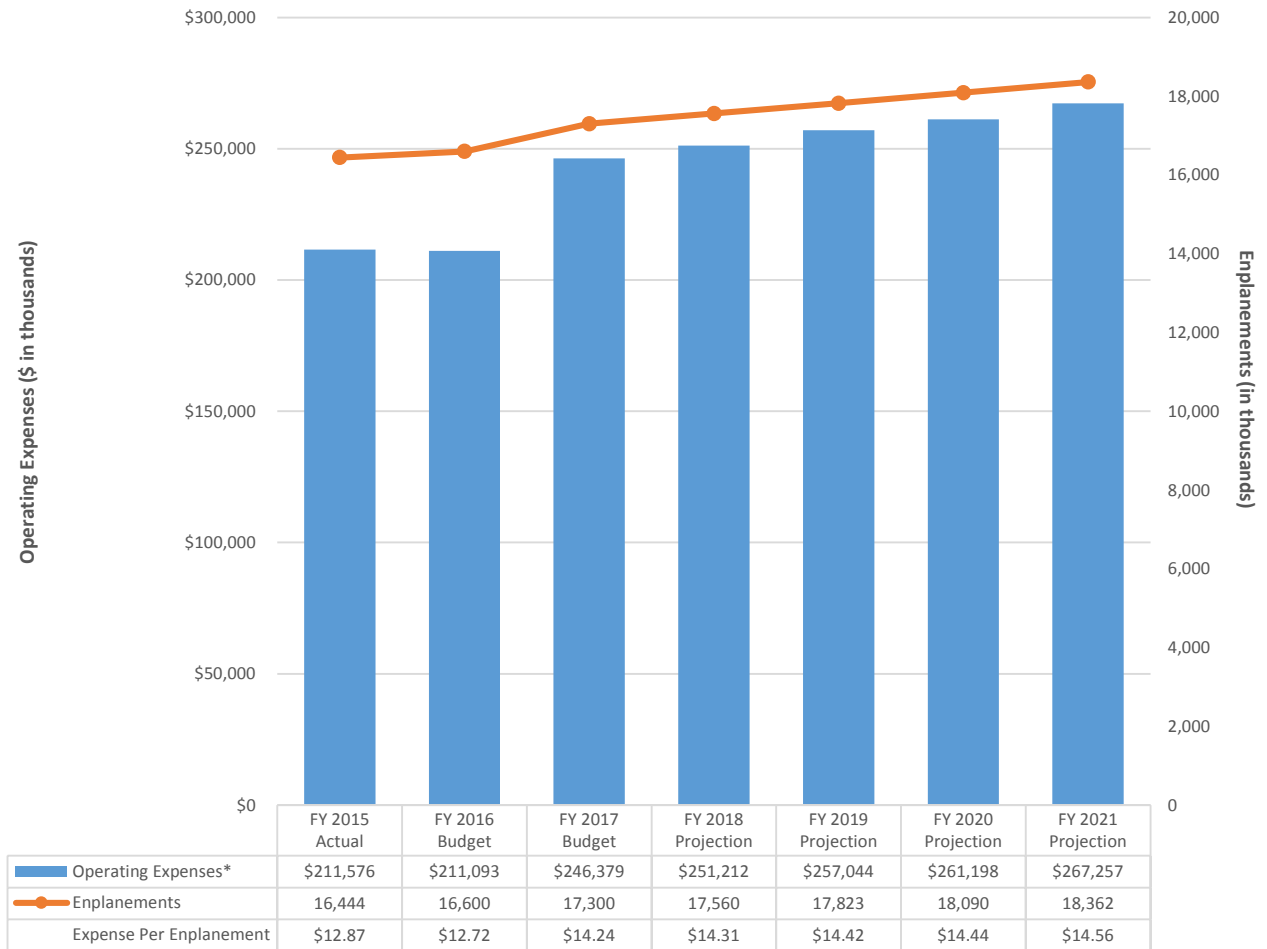
**Salaries & Benefits** – The Outlook expects nominal staffing levels growth over the five-year period. Economic enhancement provisions in the Authority’s collective bargaining agreements will drive salaries to grow by 2.3 percent per year. Fringe benefits are also expected to grow at an annual rate of 2.3 percent.

**Professional & Contractual Services** – Current services are projected to grow by 2.0 percent, a conservative inflationary adjustment.

**Utilities** – The Outlook assumes a 2.0 percent annual increase in all utility rates.

**Repair & Maintenance** – The Outlook includes funding for the preliminary five and ten-year maintenance and renewal plans for bridge, airfield and roadway repairs, and replacement of fleet equipment. It also includes an additional \$1M for pond dredging in fiscal years 2018 and 2020.

Figure J - 3: Operating Expenses Five-Year Outlook

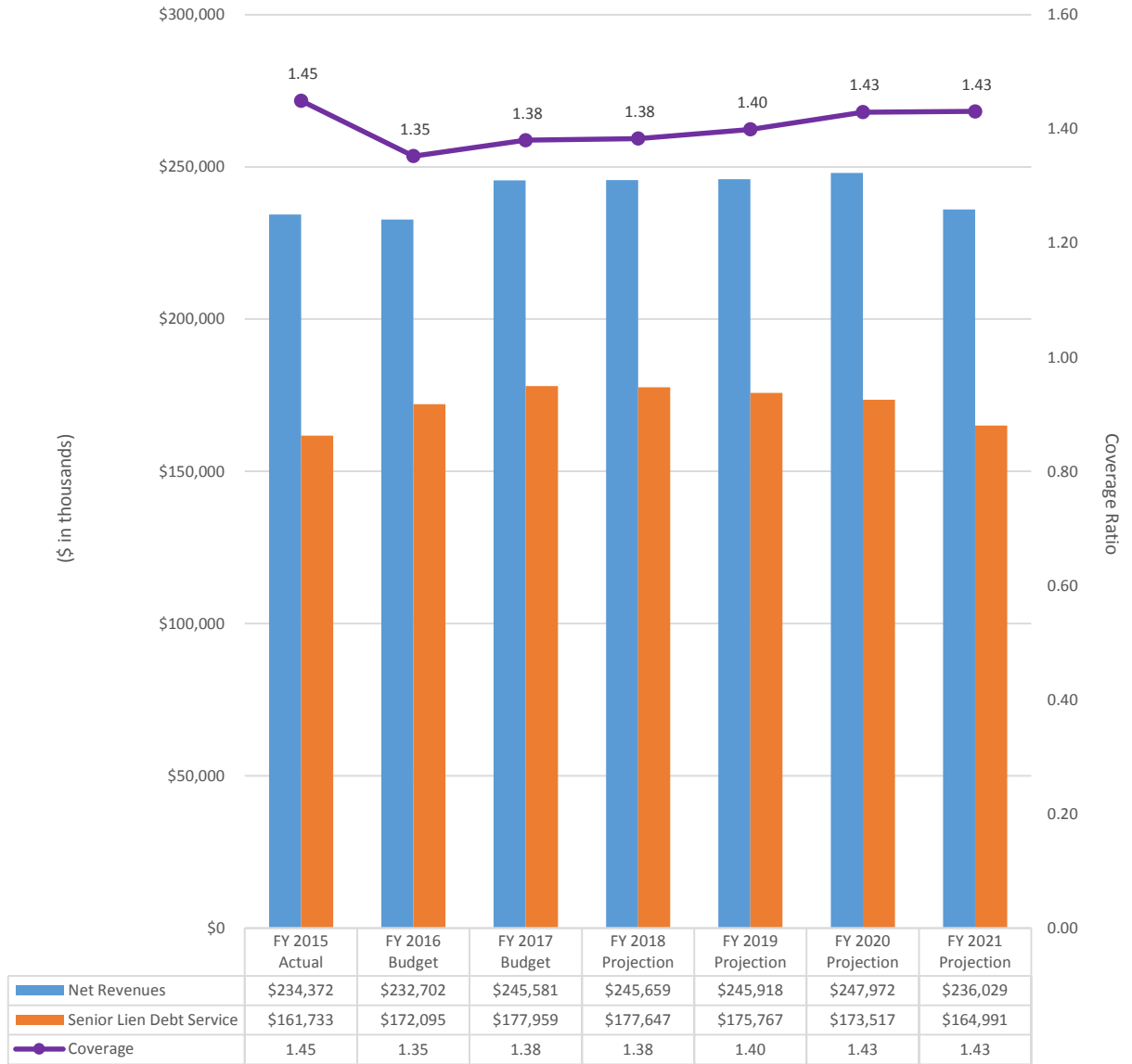


\*Hotel Expenses included from FY 2017

DEBT SERVICE COVERAGE

Figure J - 4 presents the Debt Service coverage ratio outlook for FY 2017 through FY 2021. As shown, net revenues generated in each year of the updated Projection Period are forecast to be sufficient to comply with the 1.25x coverage required by the rate covenant established in the Authority’s bond enabling legislation. The updated Debt Service coverage is projected to be between approximately 1.38x and 1.43x each year during the projection period.

Figure J - 4: Debt Service Coverage

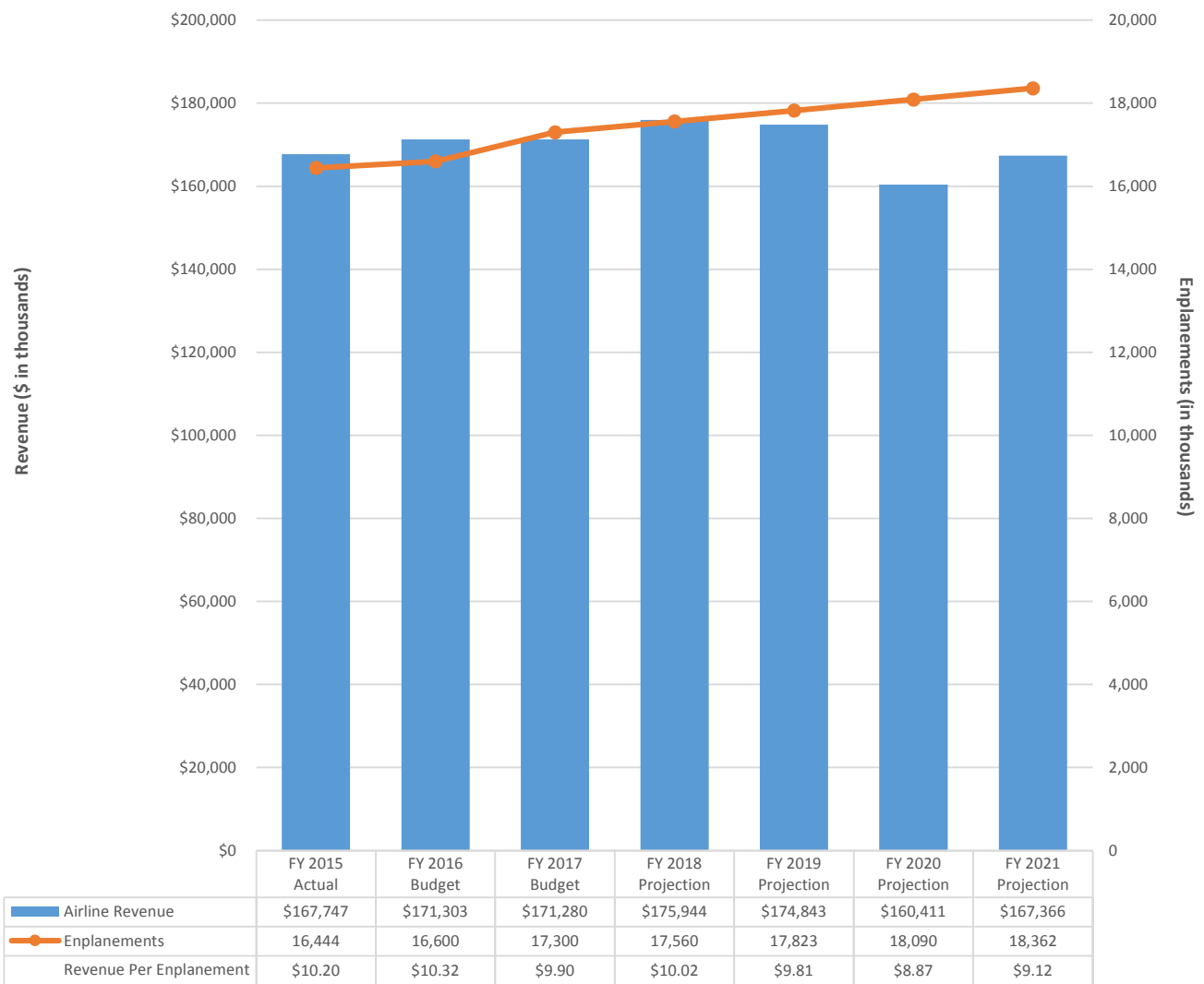


**AIRLINE REVENUE OUTLOOK**

Calculated on an Airport-wide residual methodology, airline revenues are projected to be \$167.4 million in FY 2021, a \$4.0 million decrease over the FY 2017 budget which represents a CAGR of -0.6 percent. This decrease can be attributed to a combination of lower debt service costs and higher non-airline revenue generation.

A general test of reasonableness for Airport user fees is airline cost per enplaned passenger (CPE). The airline CPE is calculated by dividing the Total Airline Requirement by the number of enplaned passengers at the Airport for any given year. Figure J - 5 presents the airline CPE for FY 2015 through FY 2021. The Airport’s estimated average Airline CPE is projected to decrease from \$9.90 in FY 2017 to \$9.12 in 2021. In summary, the airline CPE throughout the updated projection period continues to be considered reasonable compared to the historical CPE at the Airport, costs at other large-hub airports, and considering the ongoing role of the Airport as a hub in Delta’s network.

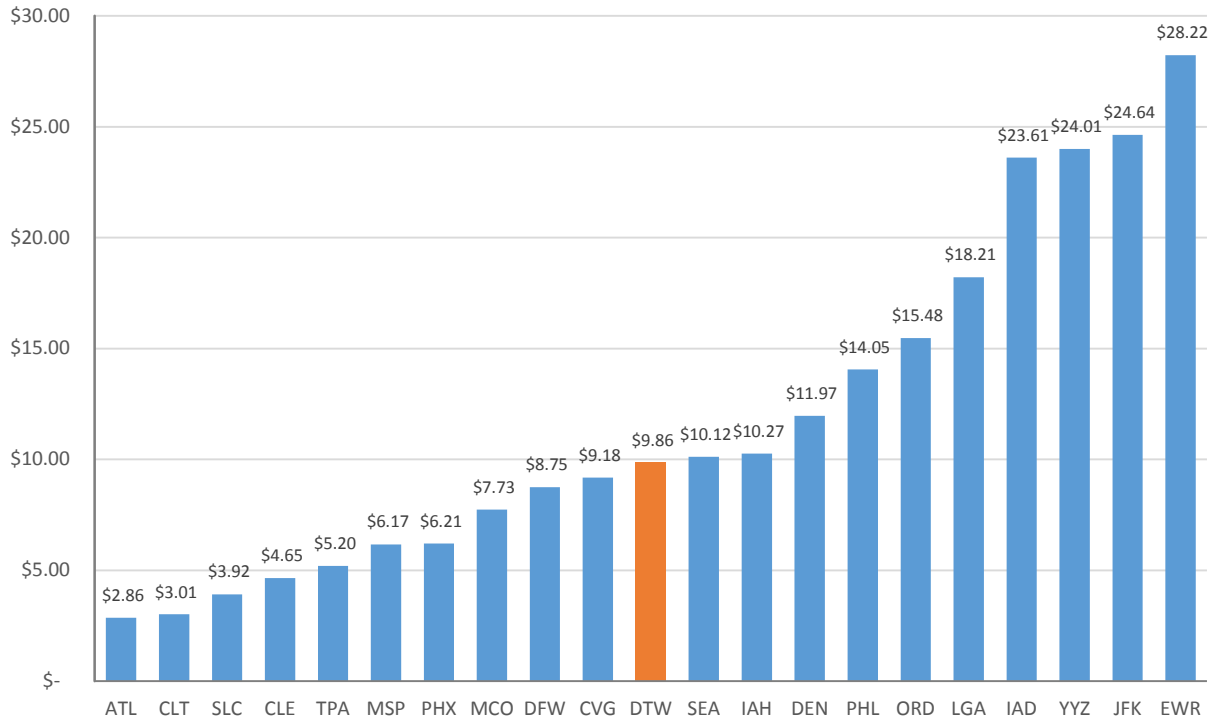
Figure J - 5: Airline Revenue Five-Year Outlook



**COST PER ENPLANED PASSENGER**

Figure J - 6 represents the Airport’s CPE relative to other airports in the US participating in ACI’s 2016 (FY 2015) Benchmarking Survey. As the chart illustrates, the Airport’s CPE is reasonable as compared to other large hub US airports, especially when noting that the Authority has built two new terminals; a significant capital program. The comparatively low CPE, combined with the modern facilities, strategically positions the Airport well into the foreseeable future.

Figure J - 6: FY 2015 Airline Cost per Enplanement - Peer Airports



Source: ACI-NA 2016 (FY 2015) Benchmarking Survey

**FINANCIALLY SUSTAINABLE & COST COMPETITIVE**

Based on the analysis conducted to perform the Five-Year Financial Outlook, the Airport’s plan of finance will be able to meet all contractual and debt obligations, as well as fund strategic initiatives while remaining cost-competitive among peer airports. Demand for air service is resilient and the Authority foresees modest enplanement growth of approximately 1.5 percent per year. In turn, enplanement growth will drive certain non-airline revenue streams which will partially offset inflationary driven cost increases foreseen in the five-year horizon. Over the past five years, debt service has been the largest component of the cost increases (6.2 percent CAGR), however, in the upcoming five years, the debt program has been structured so that annual debt service will in fact decline. All of these factors combined will result in airline revenue per enplanement decreasing from \$9.90 in FY 2017 to \$9.12 in FY 2021. As compared to other large hub airports, the Airport’s rates and charges will remain reasonable and competitive on a CPE basis in FY 2021.

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# APPENDIX

## APPENDIX A: AIRPORT RATES & CHARGES

	FY 2016		FY 2017
	Approved Budget	Mid-Year Projection	Approved Budget
<b>Airfield Activity and Rates</b>			
Enplanements	16,600,000	16,800,000	17,300,000
Airline Cost per Enplanement	\$ 10.32	\$ 10.18	\$ 9.90
Landed Weights (thousands of pounds)	20,900,000	21,100,000	21,700,000
Signatory Airline Landing Fee	\$ 3.66	\$ 3.66	\$ 3.68
Non-Signatory Airline Landing Fee	\$ 4.58	\$ 4.58	\$ 4.60
<b>South Terminal Activity and Fees</b>			
<b>Terminal Rental Rates</b>			
Signatory Airline	\$ 61.00	\$ 60.00	\$ 59.00
Non-Signatory Airline	\$ 71.00	\$ 69.00	\$ 68.00
International Facility Use Fee	\$ 5.50	\$ 5.50	\$ 5.50
<b>North Terminal Activity and Fees</b>			
<b>Terminal Rental Rates</b>			
Signatory Airline	\$ 115.00	\$ 112.00	\$ 105.00
Non-Signatory Airline	\$ 132.00	\$ 129.00	\$ 126.00
International Facility Use Fee	\$ 5.50	\$ 5.50	\$ 5.50
Shared Use Per Enplaned Passenger (Signatory)	\$ 3.80	\$ 3.52	\$ 3.06
Shared Use Per Enplaned Passenger (Non-Signatory)	\$ 4.37	\$ 4.05	\$ 3.52
<b>Common Use Gate Fees*</b>			
Signatory Airline	\$ 296.00	\$ 230.00	\$ 250.00
Non-Signatory Airline	\$ 341.00	\$ 265.00	\$ 288.00
<b>Overnight Aircraft Parking</b>			
<b>Common Use Gates**</b>			
Signatory Airline - Overnight	\$ 200.00	\$ 200.00	\$ 200.00
Non-Signatory Airline - Overnight	\$ 230.00	\$ 230.00	\$ 230.00
Signatory Airline - Hourly Rate	\$ 40.00	\$ 40.00	\$ 40.00
Non-Signatory Airline - Hourly Rate	\$ 50.00	\$ 50.00	\$ 50.00
<b>Remote Hardstand Aircraft Parking</b>			
Signatory Airline - Overnight	\$ 100.00	\$ 100.00	\$ 100.00
Non-Signatory Airline - Overnight	\$ 125.00	\$ 125.00	\$ 125.00
Signatory Airline - Hourly Rate	\$ 20.00	\$ 20.00	\$ 20.00
Non-Signatory Airline - Hourly Rate	\$ 25.00	\$ 25.00	\$ 25.00

Notes:

\* Common Use Gate Fee is for Narrow Body Equivalent aircraft. Fee is adjusted based on actual aircraft size; refer to "Definitions Section" of Airport Use & Lease Agreement.

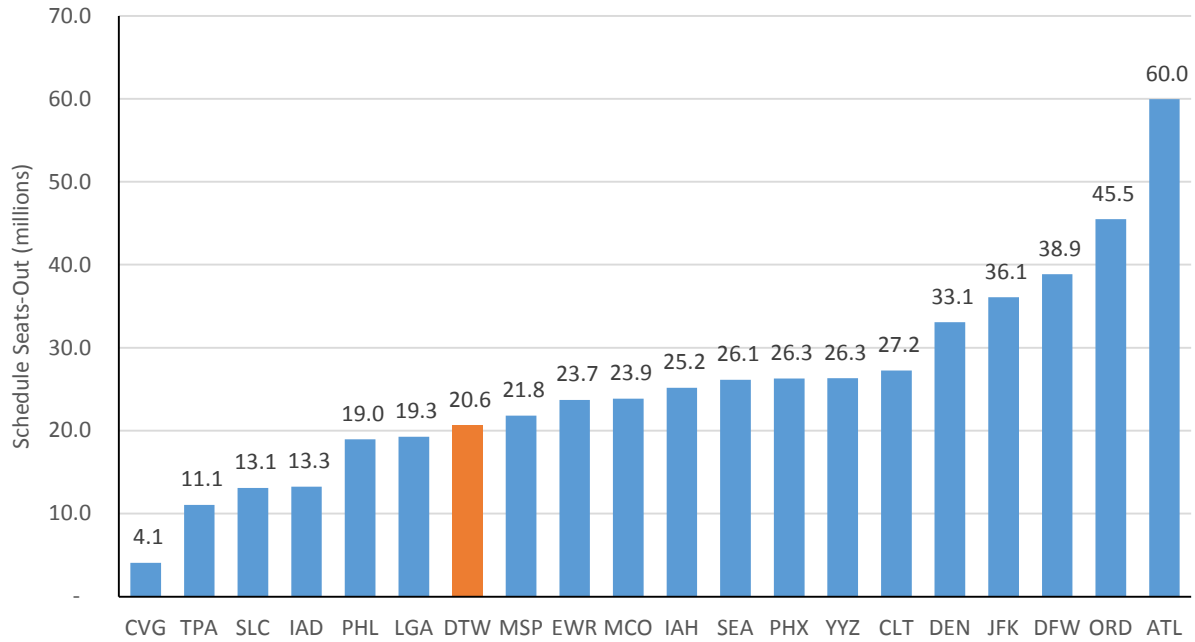
\*\* Please refer to WCAA Gate Access Procedures for North Terminal Common Use Gates.



APPENDIX B: SUPPLEMENTAL AVIATION STATISTICS

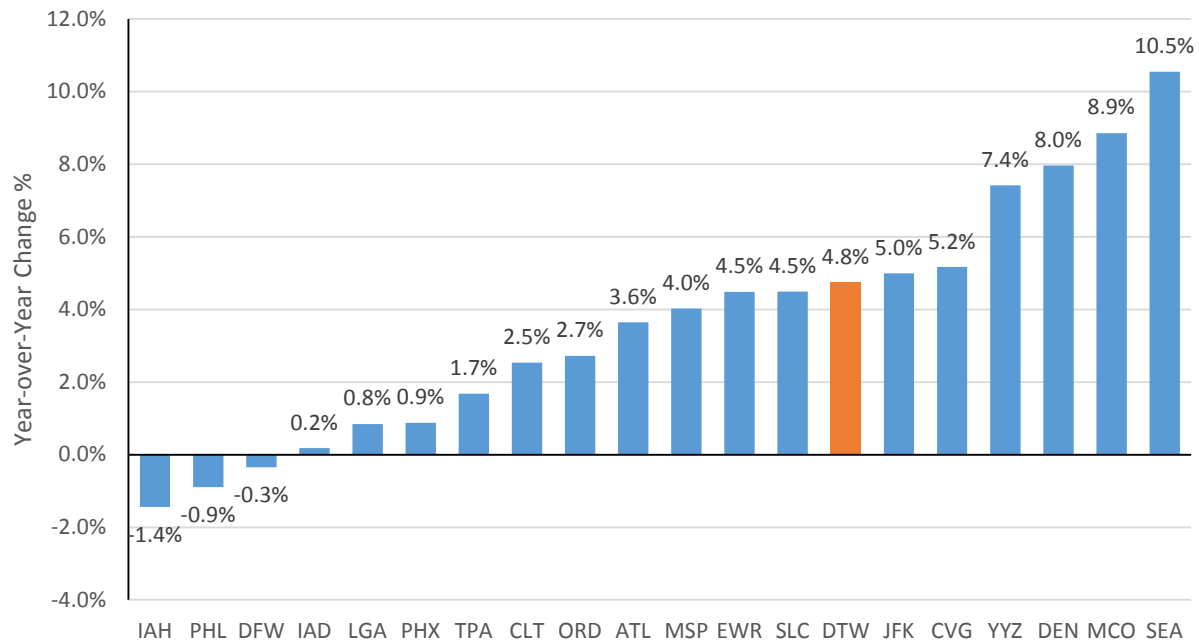
DETROIT METROPOLITAN AIRPORT & PEER AIRPORTS

Figure APDX - 1: Average Daily Seats-Out Twelve Months Ending September 30, 2016



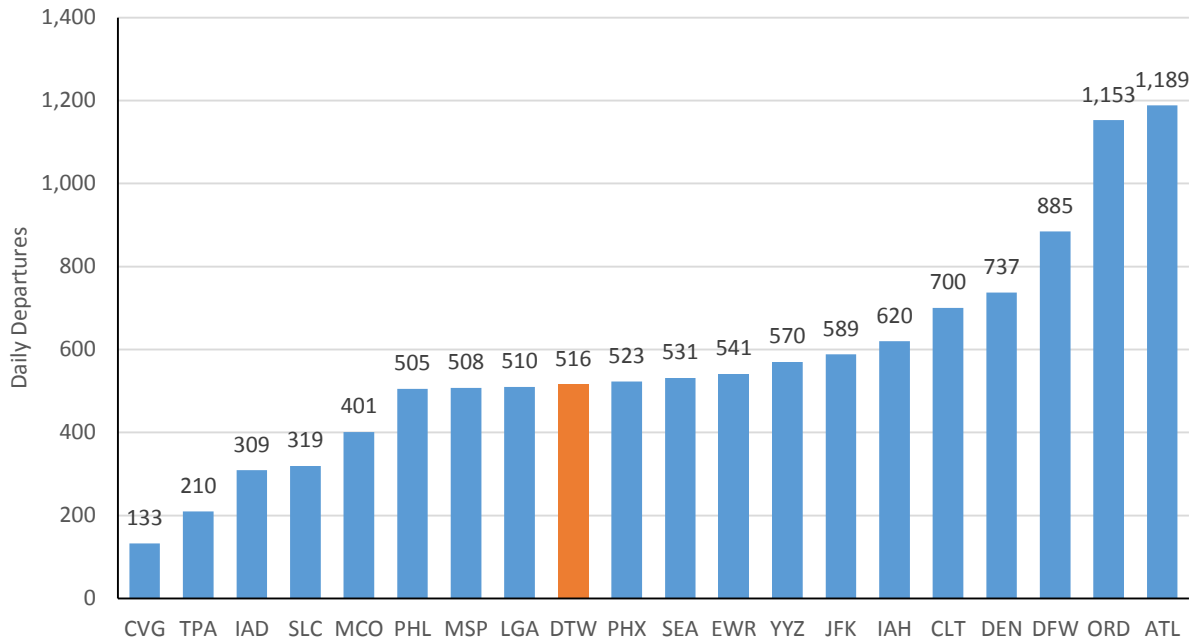
Source: Diio Mi

Figure APDX - 2: Average Daily Seats-Out Year-over-Year Change 2015 to 2016 Twelve Months Ending September 30



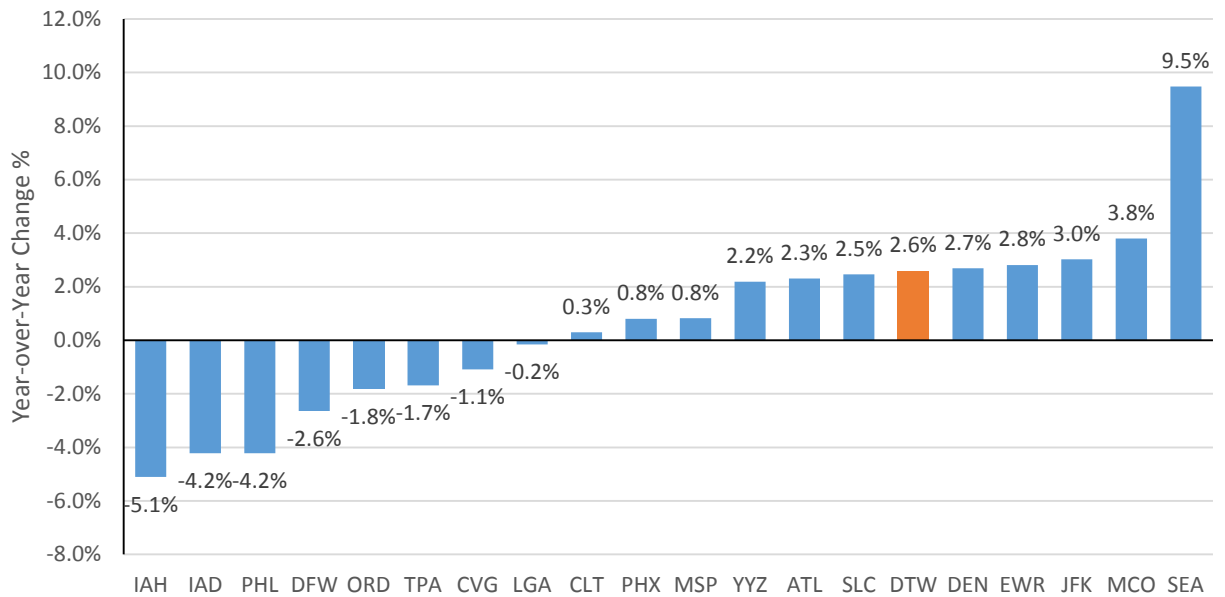
Source: Diio Mi

Figure APDX - 3: Average Daily Departures Twelve Months Ending September 30, 2016



Source: Diio Mi

Figure APDX - 4: Average Daily Departures Year-over-Year Change 2015 to 2016 Twelve Months Ending September 30



Source: Diio Mi

Figure APDX - 5: CY 2015 Movements Top 20 North America Airports

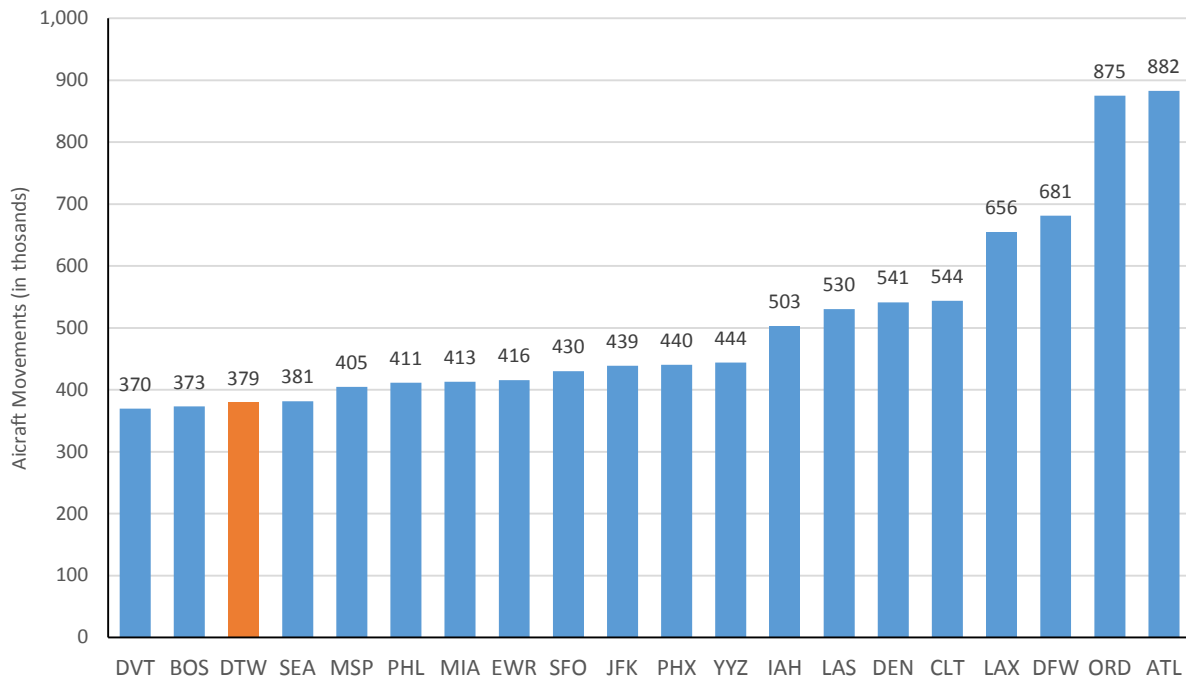


Figure APDX - 6: CY 2015 Commercial Passengers Top 20 North America Airports

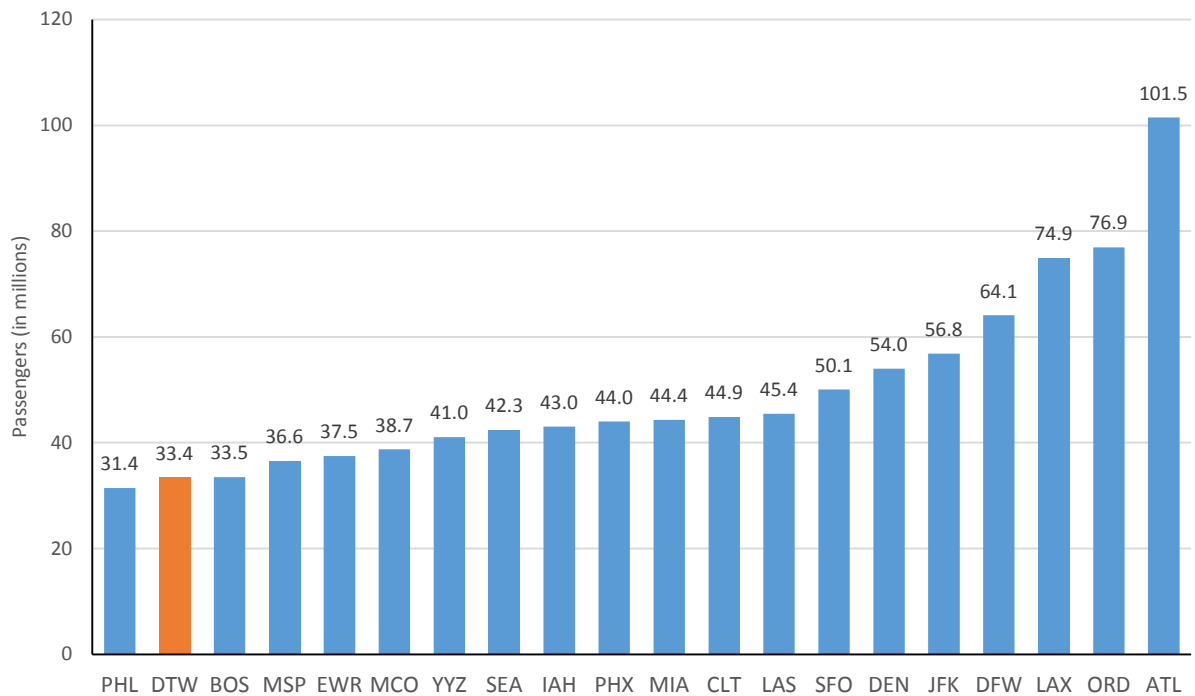


Figure APDX - 7: CY 2015 Cargo Tonnage Top 30 North America Airports

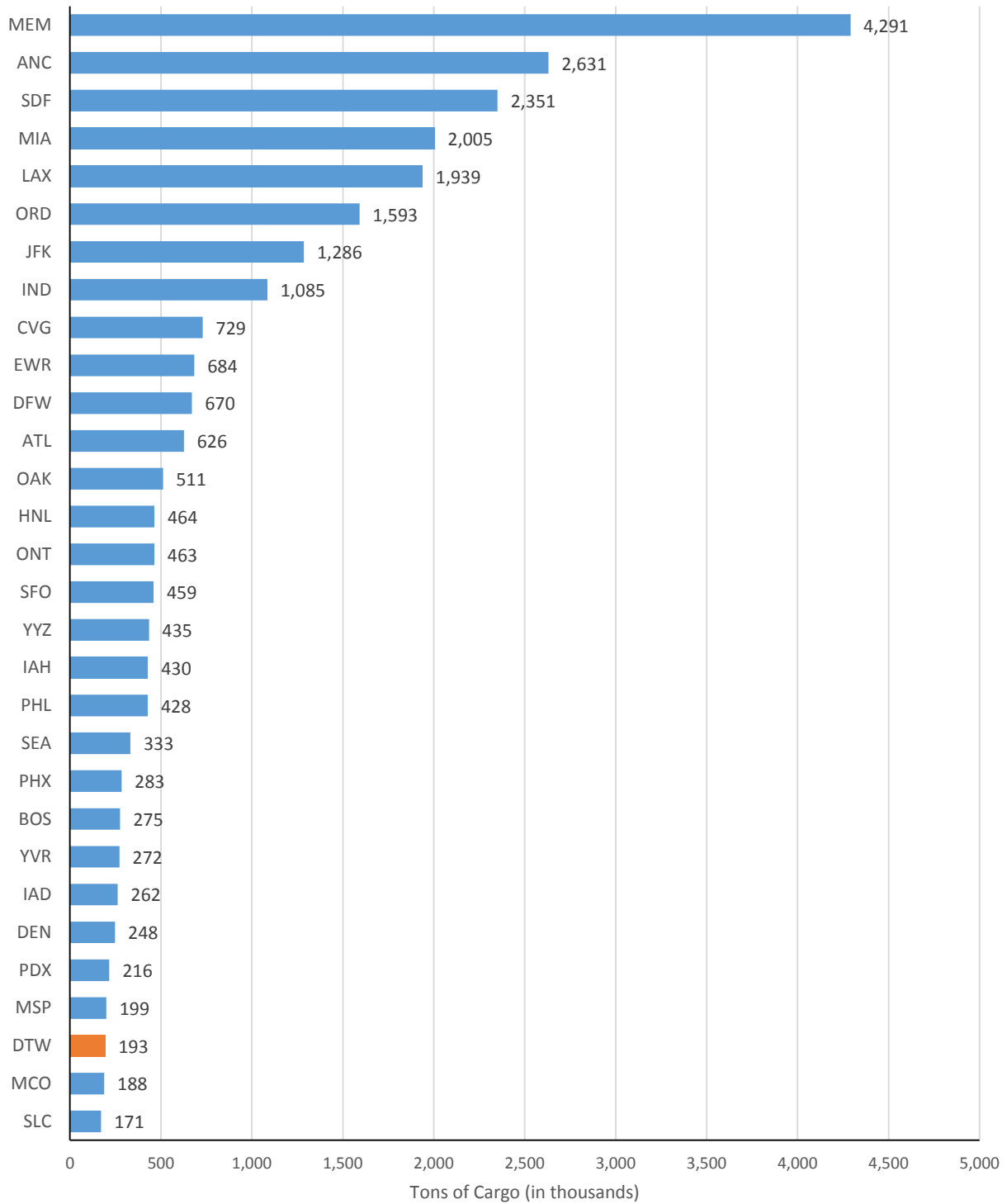
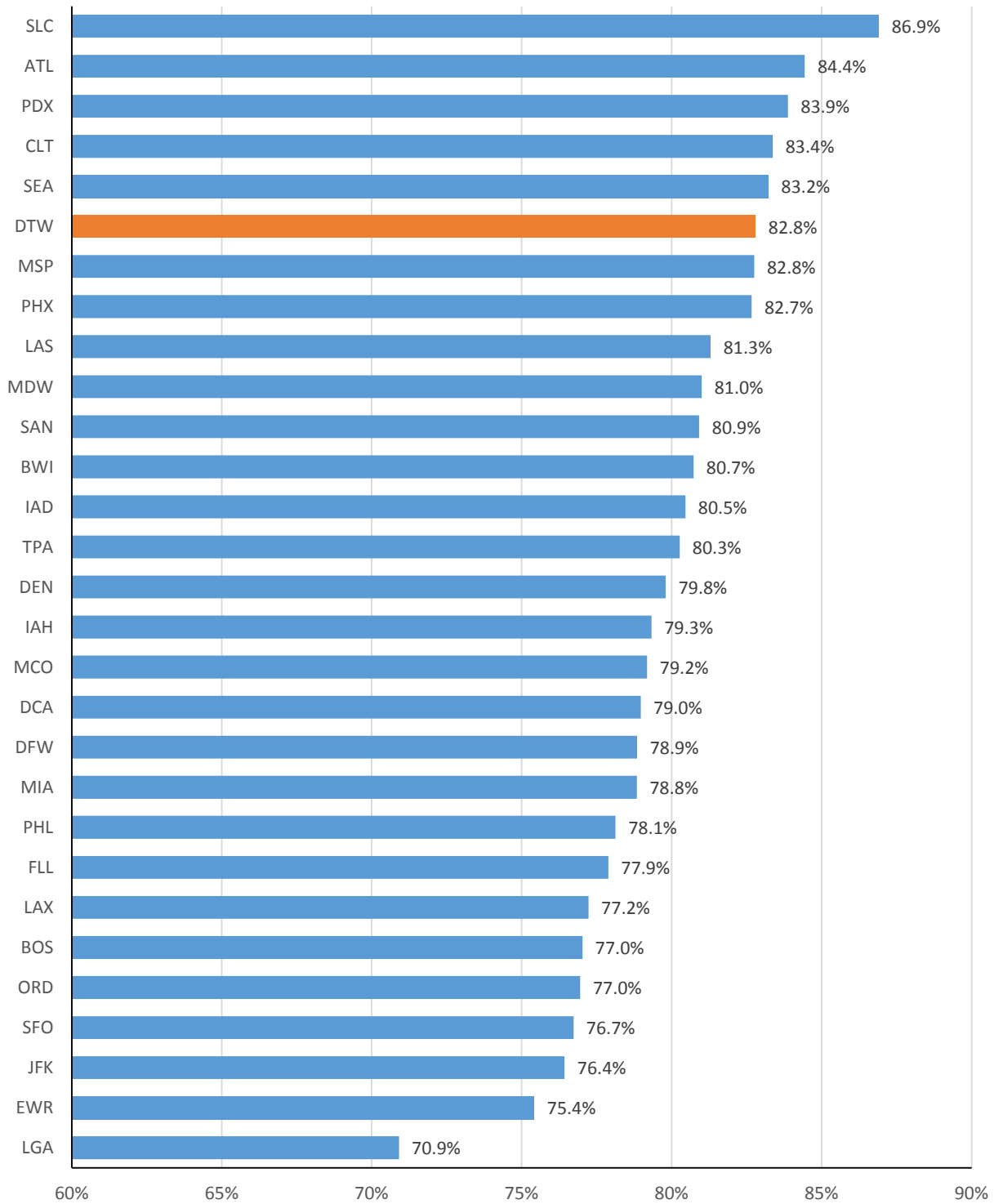


Figure APDX - 8: CY 2015 Ranking of Major Airport On-Time Arrival Performance



Source: Bureau of Transportation Statistics, Airline On-Time Data

APPENDIX C: AIRPORT CODES

CODE	CITY / AIRPORT NAME		
<b>ATL</b>	Atlanta, GA: Hartsfield-Jackson	<b>ORD</b>	Chicago, IL: Chicago-O'Hare
<b>BOS</b>	Boston, MA: Logan International	<b>PHL</b>	Philadelphia, PA: Philadelphia International
<b>BWI</b>	Baltimore, MD: Baltimore/Washington International Thurgood Marshall	<b>PHX</b>	Phoenix, AZ: Sky Harbor International
<b>CLT</b>	Charlotte, NC: Charlotte Douglas International	<b>SEA</b>	Seattle, WA: Seattle/Tacoma International
<b>DEN</b>	Denver, CO: Denver International	<b>SFO</b>	San Francisco, CA: San Francisco International
<b>DFW</b>	Dallas/Ft. Worth, TX: Dallas/Ft. Worth International	<b>SLC</b>	Salt Lake City, UT: Salt Lake International
<b>DTW</b>	Detroit, MI: Detroit Metro Wayne County	<b>YYZ</b>	Toronto, ON, Canada: Pearson International
<b>DVT</b>	Phoenix, AZ: Deer Valley Airport	<p>AIR TRADE AREA AND ALTERNATIVE COMMERCIAL SERVICE FACILITIES WITHIN A 150 MILE RADIUS</p>	
<b>EWR</b>	Newark, NJ: Newark Liberty International		
<b>FLL</b>	Fort Lauderdale, FL: Fort Lauderdale International		
<b>IAD</b>	Washington, DC: Dulles International		
<b>IAH</b>	Houston, TX: Houston Intercontinental		
<b>JFK</b>	New York, NY: Kennedy International		
<b>LAS</b>	Las Vegas, NV: McCarran International		
<b>LAX</b>	Los Angeles, CA: Los Angeles International		
<b>LGA</b>	New York, NY: LaGuardia International Airport		
<b>MCI</b>	Kansas City, MO: Kansas City International Airport		
<b>MCO</b>	Orlando, FL: Orlando International	<b>TOL</b>	Toledo, OH: Toledo Express Airport
<b>MIA</b>	Miami, FL: Miami International	<b>FWA</b>	Fort Wayne, IN: Fort Wayne International Airport
<b>MSP</b>	Minneapolis/St. Paul, MN: Minneapolis St Paul International	<b>LAN</b>	Lansing, MI: Lansing Capital City Airport
		<b>FNT</b>	Flint, MI: Bishop International Airport
		<b>CLE</b>	Cleveland, OH: Cleveland-Hopkins International Airport
		<b>YIP</b>	Ypsilanti, MI: Willow Run Airport
		<b>IND</b>	Indianapolis, IN: Indianapolis International Airport
		<b>MDW</b>	Chicago, IL: Chicago Midway
		<b>CMH</b>	Columbus, OH: Port Columbus International Airport
		<b>YQG</b>	Windsor, ON: Windsor International Airport

## APPENDIX D: GLOSSARY

Appendix D provides a glossary of abbreviations and key terms that are referenced in the budget document. In addition, some abbreviations and terms not referenced in the budget document are provided as a reference for commonly used terminology as it relates to the aviation industry.

## ABBREVIATIONS

<b>AAAE</b>	American Association of Airport Executives	<b>CLEMIS</b>	Courts Law Enforcement Management Information Systems
<b>ACH</b>	Automatic Clearing House (Standard Bank Wire Transfer)	<b>CM</b>	Construction Manager
<b>ACI</b>	Airports Council International of North America	<b>CMMS</b>	Computerized Maintenance Management System
<b>ACM</b>	Airport Certification Manual	<b>CMRS</b>	Concessions Management Revenue System
<b>ADF</b>	Airport Development Fund (also Aircraft Deicing Fluid)	<b>COBRA</b>	Consolidated Omnibus Budget Reconciliation Act
<b>ADO</b>	FAA Airport District Office	<b>CPE</b>	Cost per Enplanement
<b>A/E</b>	Architecture/Engineering	<b>CUPP</b>	Common Use Passenger Processing
<b>AED</b>	Automated External Defibrillator	<b>CUPPS</b>	Common Use Passenger Processing System
<b>AIP</b>	Airport Improvement Program	<b>CUSS</b>	Customer Use Self-Service (for kiosks in airports)
<b>ALO</b>	Airline Liaison Office	<b>CUTE</b>	Common Use Terminal Equipment
<b>ALP</b>	Airfield Layout Plan (or Airport Layout Plan)	<b>CY</b>	Calendar Year
<b>AOA</b>	Aircraft Operations Area	<b>DAAAC</b>	Detroit Airline Airport Affairs Committee
<b>APO</b>	Aviation Policy and Plans Office	<b>DANTEC</b>	Detroit Airlines North Terminal Consortium
<b>AR</b>	Airport Revenue Bonds	<b>DBE</b>	Disadvantaged Business Enterprise
<b>ARFF</b>	Aircraft Rescue and Firefighting	<b>DCS</b>	Departure Control System
<b>ASAP</b>	Airport Safety and Program Preservation	<b>DF</b>	Drug Forfeiture Fund
<b>ASDEIII</b>	Airport Surface Detection System Program	<b>DHS</b>	Department of Homeland Security
<b>ASQ</b>	Airport Service Quality-worldwide customer satisfaction survey sponsored by ACI	<b>DOT</b>	Department of Transportation
<b>ATA</b>	Air Trade Area (also Air Transportation Association)	<b>DTW</b>	IATA code for Detroit Metropolitan Airport
<b>ATMS</b>	Advanced Traffic Management System	<b>DWSD</b>	Detroit Water and Sewerage Department
<b>ATC</b>	Air Traffic Control	<b>EA</b>	Environmental Analysis
<b>AVI</b>	Automatic Vehicle Identification	<b>EBITDA</b>	Earnings Before Interest, Taxes, Depreciation and Amortization
<b>BGR</b>	Boarding Gate Readers	<b>EEO</b>	Equal Employment Opportunity
<b>BLS</b>	US Department of Labor Bureau of Labor Statistics	<b>EEOC</b>	Equal Employment Opportunity Commission
<b>C/A</b>	Construction/Alteration	<b>EDS</b>	Explosive Detection System
<b>CAD</b>	Computer Aided Design	<b>EIS</b>	Environmental Impact Study
<b>CAR</b>	Center for Automotive Research	<b>EMS</b>	Emergency Medical Services
<b>CASM</b>	Cost per Available Seat Mile	<b>EOC</b>	Emergency Operations Center
<b>CBA</b>	Collective Bargaining Agreement	<b>EPAX</b>	Enplaned Passenger
<b>CBP</b>	Customs and Border Protection	<b>ETDS</b>	Explosive Trace Detection System
<b>CEO</b>	Chief Executive Officer	<b>FAA</b>	Federal Aviation Administration
<b>CFO</b>	Chief Financial Officer	<b>FAQ</b>	Frequently Asked Questions
<b>CFC</b>	Customer Facility Charge	<b>FAR</b>	Federal Aviation Regulation
<b>CFR</b>	Code of Federal Regulations	<b>FASB</b>	Financial Accounting Standards Board
<b>CIP</b>	Capital Improvement Plan	<b>FBO</b>	Fixed Based Operator

<b>FF&amp;E</b>	Furniture Fixtures & Equipment	<b>MDOT</b>	Michigan Department of Transportation
<b>FG</b>	Federal Grant (from the FAA)	<b>MERC</b>	Michigan Employment Relations Commission
<b>FIS</b>	Federal Inspection Station	<b>MII</b>	Majority-in-Interest
<b>FHWA</b>	Federal Highway Administration Grant	<b>MIOSHA</b>	Michigan Occupational Safety and Health Administration
<b>FOD</b>	Foreign Object Debris (or Foreign Object Damage)	<b>MITSC</b>	Michigan Intelligent Transportation System Center
<b>FOIA</b>	Freedom of Information Act (1966) pertains to fulfillment of requests for government records	<b>MUFIDS</b>	Multi-User Flight Information Display System
<b>FP&amp;A</b>	Financial Planning & Analysis	<b>MUNIS</b>	Financial management software used by the Authority
<b>FTE</b>	Full Time Equivalent	<b>NBEG</b>	Narrow Body Equivalent Gates
<b>FTZ</b>	Free Trade Zone	<b>NITC</b>	New International Trade Crossing
<b>FY</b>	Fiscal Year	<b>NCCI</b>	National Council on Compensation Insurance, Inc.
<b>FYTD</b>	Fiscal Year to Date	<b>NOTAM</b>	Notice to Airmen
<b>GA</b>	General Aviation	<b>NPDES</b>	Natural Pollutant Discharge Elimination System
<b>GARB</b>	General Airport Revenue Bond	<b>NTR</b>	North Terminal Redevelopment Project
<b>GASB</b>	Government Accounting Standards Board	<b>OAG</b>	Official Airline Guide
<b>GFOA</b>	Government Finance Officers Association	<b>OCC</b>	Operations Control Center
<b>GMP</b>	Guaranteed Maximum Price	<b>OIG</b>	Office of the Inspector General
<b>GPRC</b>	Gate Planning and Review Committee (Applies to DTW – North Terminal)	<b>O&amp;D</b>	Origin & Destination
<b>GTC</b>	Ground Transportation Center	<b>O&amp;M</b>	Operating and Maintenance (generally refers to fund for operating expenses)
<b>HAZMAT</b>	Hazardous Materials	<b>OPEB</b>	Other Post-Employment Benefits
<b>HIPAA</b>	Health Insurance Portability and Accountability Act of 1996	<b>OSHA</b>	Occupational Safety and Health Administration (Federal)
<b>HVAC</b>	Heating Ventilation and Air Conditioning System	<b>PAE</b>	Public Affairs and the Environment Division
<b>HR</b>	Human Resources	<b>Part 77</b>	Code of Federal Regulations – Title 14 (Aeronautics and Space): Objects Affecting Navigable Airspace
<b>IATA</b>	International Air Transportation Association	<b>Part 139</b>	Code of Federal Regulations – Title 14 (Aeronautics and Space): Certification of Airports
<b>ICAO</b>	International Civil Aviation Organization	<b>Part 150</b>	Code of Federal Regulations – Title 14 (Aeronautics and Space): Airport Noise Compatibility Planning
<b>IFR</b>	Instrument Flight Rules	<b>Part 158</b>	Code of Federal Regulations – Title 14 (Aeronautics and Space): Passenger Facility Charges
<b>IFUF</b>	International Facility Use Fee	<b>Part 1542</b>	Code of Federal Regulations – Title 49 (Transportation): Airport Security
<b>ILLWAS</b>	Low level wind shear alert system	<b>PAX</b>	Passengers
<b>ILS</b>	Instrument Landing System (radio-based guidance system)	<b>PCCS</b>	Procurement/Contract Compliance System
<b>IMS</b>	Inventory Management System	<b>P-Card</b>	Procurement Charge Card
<b>ISO</b>	International Organization for Standards	<b>PFC</b>	Passenger Facility Charge
<b>IT</b>	Information Technology		
<b>ITS</b>	Intelligent Transportation System		
<b>LAN</b>	Local Access Network		
<b>LED</b>	Light Emitting Diode		
<b>LOI</b>	Letter of Intent, a multiyear commitment or promise by the FAA to fund a large project at a particular airport		
<b>LTD</b>	Long Term Disability		
<b>MDCR</b>	Michigan Department of Civil Rights		
<b>MDEQ</b>	Michigan Department of Environmental Quality		



<b>PM</b>	Preventative Maintenance (also Project Manager)	<b>Title VI</b>	Federal legislation (Civil Rights Act of 1964) that prohibits discrimination on the basis of race, color and national origin in programs and activities receiving federal financial assistance
<b>PMT</b>	Project Management Team	<b>Title 49</b>	Code of Federal Regulations parts 23 & 26 – guidance providing for the inclusion of disadvantaged business enterprises for programs receiving federal financial assistance
<b>PRASM</b>	Passenger Revenue per Available Seat Mile	<b>TPA</b>	Third-Party Administration
<b>RASM</b>	Revenue per Available Seat Mile	<b>TRACON</b>	Terminal Radar Approach Control (FAA Control Tower)
<b>RevPar</b>	Revenue per Available Room	<b>TSA</b>	Transportation Security Administration
<b>RFID</b>	Radio Frequency Identification	<b>TW</b>	Taxiways
<b>RFP</b>	Request for Proposal	<b>USDOT</b>	United States Department of Transportation
<b>RFQ</b>	Request for Qualifications	<b>VALE</b>	Voluntary Airport Low Emission
<b>ROI</b>	Return on Investments	<b>VEBA</b>	Voluntary Employee Beneficiary Association
<b>RON</b>	Rest Over Night (airplane parked at gate overnight)	<b>VLJ</b>	Very Light Jet
<b>R&amp;R</b>	Renewal and Replacement Fund	<b>WC</b>	Wayne County
<b>RSA</b>	Runway Safety Area	<b>WCAA</b>	Wayne County Airport Authority
<b>RSIP</b>	Residential Sound Insulation Program	<b>WMP</b>	Wildlife Management Plan
<b>RW</b>	Runways	<b>WWTP</b>	Wyandotte Wastewater Treatment Plant
<b>SCAN</b>	In-pavement Surface Sensor System	<b>YIP</b>	Industry code for Willow Run Airport
<b>SCAS</b>	Security Card Access System		
<b>SCUBA</b>	Self-contained Breathing Apparatus		
<b>SG</b>	State Grant (Michigan)		
<b>SOP</b>	Standard Operating Procedure		
<b>SWPP</b>	Stormwater Pollution Plan		
<b>TBD</b>	To Be Determined		
<b>TIN</b>	Taxpayer Identification Number		

## KEY TERMS

The terms noted below were added to assist the unfamiliar reader to better understand certain aviation terminology or other terms used in the budget document.

**Airline Revenues** – Landing fee revenues and terminal rental revenues.

**Airport Improvement Program (AIP)** – The Airport and Airway Improvement Act of 1982 created the Airport Improvement Program (AIP) to provide grants for airport improvement projects, including projects that would increase airport capacity. Increasing airport capacity is one way to reduce aircraft delays and better accommodate passenger and cargo traffic. AIP funds are provided through three categories: entitlement, set-aside and discretionary funds. Grants cannot extend beyond the AIP's authorization period. FAA distributes entitlement funds by formula to specific airports and states. Set-aside and discretionary funds are distributed by type of project to any eligible airport sponsor. The airport sponsor is the public agency or private entity that owns or operates the airport. Set-aside subcategories include reliever airports, non-primary commercial service airports, airport noise compatibility programs, integrated airport system plans and the Military Airport Program. A congressionally mandated percentage of total AIP funds are allocated to each set-aside subcategory.

**Airport Master Plan** – A comprehensive study that describes short, medium and long-term plans for airport development.

**Airport Service Region (ASR)** – The primary geographical area served by an airport. In the case of Detroit Metro, the ten counties of Genesee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw and Wayne (the Detroit-Ann Arbor-Flint CMSA) constitute the Airport Service Region.

**Air Trade Area (ATA)** – See Airport Service Region.

**Aviation Trust Fund** – Fund established by Congress to pay for improvements to the nation’s airports and air traffic control system. Money in the fund comes solely from users of the system - primarily a tax on domestic airline tickets.

**Balanced Budget** – The Airport Authority defines a balanced budget as current revenues equal to current expenditures plus available fund balance. The Airport has a residual funding structure. Under this structure the Signatory Airlines have guaranteed to pay the expenses of the airport therefore the operating fund is guaranteed to be balanced with current revenues always equaling expenditures. No reserve or fund balance is ever required.

**Capital Improvement Program (CIP)** – An ongoing program of major capital projects which are required to replace, reconstruct, or rehabilitate assets which have reached the end of their service life; or to add, expand, or improve facilities or infrastructure. The projects allow the airport to continue to meet the needs of the passengers, the airlines and the regulatory agencies that oversee it.

**Cargo** – Anything other than passengers, carried for hire, including both mail and freight.

**Catchment Area** – See Airport Service Region (ASR).

**Compensatory** – this refers to the rate-setting methodology employed under the Airport Use and Lease Agreement, whereby the airport operates “at risk” without any airlines ensuring to keep the airport financially sufficient. It is the airport’s responsibility to budget conservatively to ensure payment of all of its costs and that certain revenues are sufficient to satisfy rate covenant coverage requirements.

**Concession Revenues** – Revenues collected from terminal concessions, public parking, on-airport and off-airport rental car companies, hotels and ground transportation operators.

**Connecting Flight** – A flight requiring passengers to change aircraft and/or airlines at an intermediate stop.

**Coupon** – A document that indicates a contract for a passenger to board a commercial plane and exit a commercial plane at the departure point and arrival point specified on the ticket.

**Coupon Mile** – The distance traveled between the departure point and arrival point specified on a ticket.

**Deregulation** – The term commonly used in referring to the Airlines Deregulation Act of 1978, which ended government regulation of airline routes and rates.

**Department of Transportation (DOT)** – Establishes the nation's overall transportation policy. Under its umbrella there are ten administrations whose jurisdictions include highway planning, development and construction; urban mass transit; railroads; aviation; and the safety of waterways, ports, highways and oil and gas pipelines. The Department of Transportation (DOT) was established by act of October 15, 1966, as amended (49 U.S.C. 102 and 102 note), "to assure the coordinated, effective administration of the transportation programs of the Federal Government" and to develop "national transportation policies and programs conducive to the provision of fast, safe, efficient and convenient transportation at the lowest cost consistent therewith." The FAA is a unit of the DOT.

**Domestic Passengers** – Passengers flying into or out of the Airport on a flight with an origin or destination within the 50 states and all US territories. (WCAA supplies this standard definition with one exception: passengers pre-

clearing US Customs at the originating airport, mostly certain Canadian cities, are counted as domestic arrivals and they do not utilize the Airport's FIS).

**Enplanements** – The number of passengers boarding a flight, including origination, stopovers and connections.

**Federal Aviation Administration (FAA)** – The government agency responsible for air safety and operation of the air traffic control system. The FAA also administers a program, which provides grants from the Airport and Airway Trust Fund for airport development. Formerly the Federal Aviation Agency, the Federal Aviation Administration was established by the Federal Aviation Act of 1958 (49 U.S.C. 106) and became a component of the Department of Transportation in 1967 pursuant to the Department of Transportation Act (49 U.S.C. app. 1651 note). The Administration is charged with: 1) regulating air commerce in ways that best promote its development and safety and fulfill the requirements of national defense; 2) controlling the use of navigable airspace of the United States and regulating both civil and military operations in such airspace in the interest of safety and efficiency; 3) promoting, encouraging and developing civil aeronautics; 4) consolidating research and development with respect to air navigation facilities; 5) installing and operating air navigation facilities; 6) developing and operating a common system of air traffic control and navigation for both civil and military aircraft; and 7) developing and implementing programs and regulations to control aircraft noise, sonic boom and other environmental effects of civil aviation.

**Hybrid** – This is the rate-setting methodology employed under the Airport Use and Lease Agreement, whereby an airport employs both residual and compensatory methodologies. In most cases, an airport sets rates on the airfield using a residual approach, while setting rates on the landside using a compensatory approach.

**Impose Only PFC Approval** – FAA approval to collect PFC funds for future use on a specific PFC-eligible project. A separate request to the FAA must then be submitted for the FAA to approve the spending of those PFCs (i.e. convert the PFCs to Impose and Use status).

**Impose and Use PFC Approval** – FAA approval to collect and spend PFC funds on a specific PFC-eligible project.

**International Passengers** – Passengers flying into or out of the Airport on a flight with an origin or destination outside the 50 states and all US territories. (WCAA supplies this standard definition with one exception: passengers pre-clearing US Customs at the originating airport, mostly certain Canadian cities, are counted as domestic arrivals and they do not utilize the Airport's FIS).

**Itinerant Operations** – All aircraft arrivals and departures, other than local operations.

**Landing Fee Revenues** – Revenues collected from aircraft landings.

**Large Aircraft** – Aircraft of more than 12,500 pounds maximum certificated takeoff weight. (FAR Part 1)

**Large Hubs** – Those airports that account for at least 1 percent of the total passenger enplanements.

**Local Operations** – As pertaining to air traffic operations, aircraft operating in the local traffic pattern or within sight of the tower; aircraft known to be departing for, or arriving from, flight in local practice areas located within a 20-mile radius of the control tower; aircraft executing simulated instrument approaches or low passes at the airport.

**Majority-in-Interest (MII)** – “Majority-in-Interest of the air carriers” means either (1) 75 percent of the Signatory Airlines who together have landed 51 percent of the total landed weight of all such Signatory Airlines during the immediately preceding calendar year (as such weight is reflected by official Airport records), or (2) 51 percent of the Signatory Airlines who have together landed 75 percent of the total landed weight of all such Signatory Airlines during the immediately preceding calendar year (as such weight is reflected by official Airport records).

**Majority-in-Interest Clauses** – Found in some airport use agreements which give the airlines accounting for a majority of traffic at an airport the opportunity to review and approve or veto capital projects that would entail significant increases in the rates and fees they pay for the use of airport facilities.

**Non-Signatory Carriers** – Airlines that have not signed the Airport/Airline Lease and Use Agreement.

**Origin & Destination (O&D)** – Passengers who begin or end their trip at a specific airport.

**Non-Airline Revenue** – This is operating revenue strictly derived from non-aeronautical activities, such as automobile parking revenue, rental car revenue and concessions revenue. Operating revenue derived from passenger airline carriers, cargo airline carriers, lease revenues from aircraft maintenance facilities and fuel farm revenues would not be counted as part of non-airline revenues.

**Passenger Airline Revenue** – Refers to operating revenue strictly derived from passenger airline carriers; revenue derived from cargo airline carriers are excluded.

**Passenger Facility Charges (PFCs)** – A tax authorized by Congress, approved by the Federal Aviation Administration, assessed by airports and collected by airlines as an add-on to the passenger airfare. It is designed to help pay for airport improvements that enhance safety and capacity and is not revenue for airlines.

**Pay-as-you-go** – Refers to PFCs that are spent on project costs.

**Rate Setting Methodology** – There are three possible rate-setting methodologies typically found in an Airport's Use and Lease Agreement:

**Residual** – Airline tenants and users (the airlines) collectively assume financial risk by ensuring payment of all airport costs not covered by non-airline revenue sources; this obligation effectively ensures certain revenues sufficient to satisfy all operating and maintenance costs and rate covenant coverage requirements.

**Compensatory** – Airport operates at risk without any airlines ensuring to keep the airport financially sufficient; it is the airport's responsibility to set the budget at a level to ensure payment of all costs and that certain revenues are sufficient to satisfy rate covenant coverage requirements.

**Hybrid** – Airport employs both residual and compensatory methodologies; in most cases, an airport sets rates on airfield usage using residual approach, while setting rates on the landside using a compensatory approach.

**Revenue Passenger Enplanement** – The number of passengers boarding a flight, including origination, stopovers and connections, which actually paid for the flight. This does not include frequent flier awards, crew, or anyone who did not actually pay for the flight.

**Sarbanes-Oxley** – The Sarbanes-Oxley Act of 2002 is federal legislation which established requirements for annual assessment of the effectiveness of internal financial auditing controls.

**Signatory Airlines** – Airlines that have signed the Airport/Airline Lease and Use Agreement.

**Terminal Rental Revenues** – Revenues collected from airlines for terminal space rentals.

**Through Passengers** – Passengers flying into and out of the Airport without changing aircraft.

**Total Cargo** – Loaded and unloaded air freight, airmail and small air package shipments.

**Total Passengers** – Sum of domestic, international and through passengers.

**Traffic Movements** – Landings and takeoffs of an aircraft.

**Unrestricted Cash and Investments from Audit** – Audited cash and investments that are uncommitted, which can be used for anything. This means funds held in the operations and maintenance reserve and the debt service reserve would be excluded.

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