Leigh|Fisher

Financial Feasibility Analysis
Terminal Programming Study

Des Moines Airport Authority

September 12, 2017

DES MOINES International Airport

Contents

1. Funding Sources for Airport Projects

Traditional Airport Funding Sources

- **Key funding sources using traditional finance**
  - — Airport Surplus Funds (internal cash)
  - — General airport revenue bonds
  - — FAA Airport Improvement Program (AIP)
  - — Passenger Facility Charges (PFCs)
  - — Customer Facility Charges (CFCs)
- **Airport's revenue sources are pledged to repayment of bonds**
- **Results formalized in public bond offering document e.g. 2010 Bonds**
- **No taxpayer funds are used to fund airport operations, and no airport funds can be taken off the airport for non-aviation purposes (with a few exceptions)**

REFUNDING ISSUE AND NEW ISSUE - BOOK-ENTRY-ONLY

RATINGS: Moody's: Aa3 (Underlying A2)
Standard & Poor's: AA+ (Underlying A-)

In the opinion of Bond Counsel, under existing law and assuming compliance with the tax covenants described herein, and the accuracy of certain representations and certifications made by the City described herein (i) interest on the Series 2010A Notes paid to the owners thereof is (a) excluded from gross income for purposes of present federal income taxation, and (b) will not be treated as a specific preference item for purposes of the individual and corporate alternative minimum taxes, but is required to be included in the calculation of "adjusted current earnings" to be used in computing corporate "alternative minimum taxable income" for purposes of Sections 55 and 59A of the Internal Revenue Code of 1986, as amended (the "Code") according to present federal laws, regulations, published rulings and judicial decisions; (ii) interest on the Series 2010B Notes paid to the owners thereof is (a) excluded from gross income for purposes of present federal income taxation, except for interest on any Series 2010B Note for any period during which the Series 2010B Note is owned by a person who is a substantial user of the projects financed or refinanced with the proceeds of the Series 2010B Notes or any person considered to be related to such person (within the meaning of Section 147(a) of the Code), and (b) such interest is included as a specific preference item for purposes of the individual and corporate alternative minimum taxes and will be used in computing corporate "alternative minimum taxable income" for purposes of Sections 55 and 59A of the Code; (iii) interest on the Series 2010C Notes paid to the owners thereof is includable in the gross income of the owners thereof for federal income tax purposes; and (iv) interest on the Series 2010D Notes paid to the owners thereof is (a) excluded from gross income for purposes of present federal income taxation, except for interest on any Series 2010D Note for any period during which the Series 2010D Notes is owned by a person who is a substantial user of the projects financed or refinanced with the proceeds of the Series 2010D Notes or any person considered to be related to such person (within the meaning of Section 147(a) of the Code), and (b) will not be treated as a specific preference item for purposes of the individual and corporate alternative minimum taxes, but is required to be included in the calculation of "adjusted current earnings" to be used in computing corporate "alternative minimum taxable income" for purposes of Sections 55 and 59A of the Code according to present federal laws, regulations, published rulings and judicial decisions. Interest on the Series 2010 Notes is not exempt from present Iowa income taxes. See "TAX MATTERS AFFECTING THE SERIES 2010A, 2010B AND SERIES 2010D NOTES" and "TAXABILITY OF INTEREST-SERIES 2010C NOTES" herein and the forms of opinions of Bond Counsel attached hereto as APPENDIX E.

$36,445,000
City of Des Moines, Iowa
Aviation System Revenue Capital Loan Notes

$5,225,000	**$15,990,000**	**$10,330,000**	**$4,900,000**
Series 2010A	**Series 2010B**	**Series 2010C**	**Series 2010D**
(Governmental NON-AMT)	**(Private Activity AMT)**	**(Taxable)**	**(Private Activity NON-AMT)**

(together referred to as the "Series 2010 Notes")

Dated: Date of Delivery **Due: June 1, as shown on the inside cover**

The City of Des Moines, Iowa, Aviation System Revenue Capital Loan Notes, Series 2010 (the "Series 2010 Notes") will be authorized by the City of Des Moines, Iowa (the "City"), under a resolution adopted by the City authorizing the issuance of the Series 1998 Bonds on April 20, 1998 (the "1998 Resolution"), as amended by a resolution adopted by the City Council of the City on or around December 20, 2010 (the "Master Resolution", together with the 1998 Resolution, the "Resolution").

The Series 2010 Notes are limited obligations of the City, payable solely from Pledged Revenues, as defined herein, to be derived by the City from the operation of the Des Moines International Airport (the "Airport") and any other airport, heliport and aviation system operated by the City (together with the Airport, the "Aviation System"). The Series 2010 Notes and the interest thereon shall not constitute a general or moral obligation of the City nor a debt, indebtedness, or obligations of, or a pledge of the faith and credit of, the City or the State of Iowa or any political subdivision thereof, within the meaning of any constitutional, statutory or charter provision whatsoever. Neither the faith and credit nor any taxing power of the State or any political subdivision thereof is pledged to the payment of the principal of, premium, if any, or interest on the Series 2010 Notes or other costs incident thereto. The City has no authority to levy any taxes to pay the Series 2010 Notes. The Series 2010 Notes will be secured on a parity basis with any additional bonds issued under the Resolution as more fully described herein.

The proceeds of the Series 2010 Notes, together with other available funds, will be used to: (i) finance the Series 2010 Project (as later defined) (ii) refund a portion of the Aviation System Revenue Bonds, Series 1998 Bonds issued under the 1998 Resolution, for the purpose of achieving interest cost savings; (iii) refund and refinance the $12,000,000 Subordinate Airport Commercial Paper Revenue Notes, Series C, dated as of October 8, 2003; (iv) fund a portion of the Debt Service Reserve Requirement for the Senior Bonds (as defined in the Resolution); and (v) pay costs of issuing the Series 2010 Notes.

Interest on the Series 2010 Notes is payable on June 1 and December 1 of each year commencing on June 1, 2011, until maturity or prior redemption. The Series 2010 Notes are initially issuable only to Cede & Co., the nominee of The Depository Trust Company ("DTC") pursuant to the book-entry-only system described herein. Beneficial ownership may be acquired in denominations of $5,000 or any integral multiples thereof. No physical delivery of the Series 2010 Notes will be made to the purchasers. Principal of and interest on the Series 2010 Notes will be payable at the office of the City Treasurer of the City. See "THE SERIES 2010 NOTES - Book-Entry-Only System."

The scheduled payment of principal of and interest on the Series 2010 Notes when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Series 2010 Notes by **ASSURED GUARANTY MUNICIPAL CORP. (FORMERLY KNOWN AS FINANCIAL SECURITY ASSURANCE INC.)** (the "Bond Insurer").

Certain Series 2010 Notes are subject to optional redemption prior to maturity as described herein. See "THE SERIES 2010 NOTES - Redemption Provisions."

See the inside cover page for maturities, principal amounts, interest rates and yields.

The Series 2010 Notes are offered when, as and if issued by the City and received by the Underwriter (as defined herein) and subject to prior sale, withdrawal or modification of the offer without notice and the approval of legality of the Series 2010 Notes by Ahlers & Cooney, P.C., Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the City by Bruce Bergman, City Attorney, and for the Underwriter by Davis, Brown, Koehn, Shors & Roberts, P.C., Des Moines, Iowa. It is expected that the Series 2010 Notes in book-entry-only form will be available for delivery through the facilities of DTC in New York, New York, on or about December 22, 2010.

RBC CAPITAL MARKETS

This cover page contains certain information for quick reference only. It is not a summary of this Official Statement. Investors must read the entire Official Statement to obtain information essential to making of an informed investment decision, including, but not limited to matters described in "CERTAIN INVESTMENT CONSIDERATIONS".

Airport Funding – Where does it come from?

Detailed Charges

Air Transportation Charges	
Base Fare:	$505.59 USD
Taxes, Fees and Charges	
United States - September 11th Security Fee(Passenger Civil Aviation Security Service Fee) (AY)	$11.20 USD
United States - Transportation Tax (US)	$37.92 USD
United States - Passenger Facility Charge (XF)	$18.00 USD
United States - Flight Segment Tax (ZP)	$16.40 USD
Total Price:	$589.11 USD

- 9/11 Security Fee - per one-way trip to fund screeners, equipment, and other costs of the TSA.
- Transportation Tax - A 7.5% tax on the base fare. Collected by IRS to fund FAA operations, such as air traffic controllers and radar systems. Also used to fund AIP program.
- Passenger Facility Charge - $4.50 per segment up to four. Collected by airlines and remitted to the Airport.
- Segment Tax - $4.10 per segment and also collected by the IRS for AIP.

AIP Grants

- More than 3,300 airports are eligible for AIP grants
- Around $3.3b in grants awarded each year.
  - Entitlement grants are based on each airports' enplanements and cargo activity
  - Discretionary grants are distributed according to a national prioritization formula.
- DSM current entitlement funding is $4.4m per year
- For large and medium primary hub airports, the grant covers 75 percent of eligible costs and 90 % for small primary, reliever, and general aviation airports
- The FAA has indicated that is will make discretionary grants available for runway, taxiway and apron projects – currently anticipating $6-8m per year over next 5 years
- Eligible projects include those related to enhancing airport safety, capacity, security, and environmental concerns, plus most airfield capital improvements or rehabilitation projects.
- Operational costs - such as salaries, equipment, and supplies - are also not eligible for AIP grants.

PFC Revenues

- Currently around 90-95% of passengers at DSM are eligible
- Around 1.4m eligible passengers x $4.39 = ~$5m in PFC revenues for 2016
  - Can be used to fund projects on an annual basis (PAYGO)
  - Can be used to fund debt service on eligible projects
- Similar eligibility as AIP grants

- Revenue producing assets, e.g. parking garages, rental car facilities (or parts thereof) terminal concessions or offices are not eligible

CFC Revenues

- Charged on a per transaction, per day basis to rental car customers
- Around 700,000 transactions in 2016 at $3.75 = ~$2.6m in revenues
- Eligibility is set at the local level based on Authority Board resolution
- Can include garage costs, roadways, a share of utilities and infrastructure, and related operating expenses
- Can cover annual costs, or debt service on capital projects

2. Financial Metrics

Key Financial Metrics - Debt Service Coverage

Debt Service Coverage (DSC, or coverage) – a measure of how much Net Revenue is available to meet annual debt service requirements

- $$\frac{\text{(Revenues – Cash Expenses)}}{\text{Debt Service}}$$ [Excludes Depreciation]
- $$\frac{(\$35\text{m} - \$21\text{m})}{\$3.6\text{m}} = 3.88\text{x}$$
- The higher the better
- Minimum level can vary based on the type of airline agreement, reserve accounts, and other bond holder protections

Key Financial Metrics - Cost per Enplaned Passenger

Cost per Enplaned Passenger (CPE) is the average airline payment per enplaned passenger at a given airport.

- $$\frac{\text{Total airport charges paid (landing fees, terminal rents, apron fees)}}{\text{Total airport enplanements}}$$

- $$\frac{\$10\text{m}}{1.2\text{m}} = \$8.33$$

- **Not a perfect measure as it does not consider the stage an airport is at in terms of facility lifecycle, plus it does not capture any facilities funded by airlines**
- **Lower is generally better, but may also be an indication of underinvestment or deferred maintenance**
- **The CPE may be compared to average fare revenues generated in a market (e.g., the NY market may have a higher CPE, but also can support a higher CPE because of higher fare revenues)**

Key Financial Metrics - Debt per Enplaned Passenger

Debt per Enplaned Passenger (DPE) is the average debt per enplaned passenger at a given airport.

- $$\frac{\text{Total outstanding debt (senior lien, junior lien, PFC, CFC)}}{\text{Total airport enplanements}}$$
- $$\frac{\$36m}{1.2m} = \$30.00$$
- **Again, not a perfect measure for similar reasons as CPE**

Key Financial Metrics – Days Cash on Hand

Days Cash on Hand (DCOH, or Days Cash) is a liquidity measure that calculates the amount of cash available to cover operating expenses and other financial requirements

- $\dfrac{\text{Unrestricted Cash and Investments}}{\text{Average Daily O\&M Expenses}}$

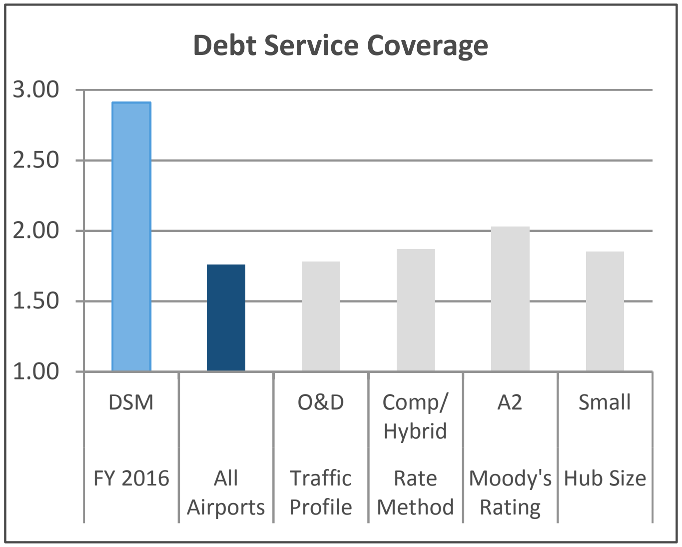
- $\dfrac{\$55m}{\$21m} \times 365 = 955$ days, or 2.6 years

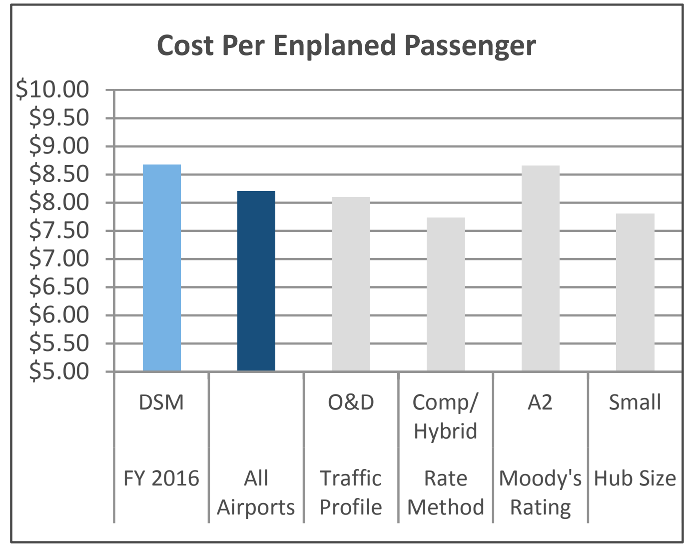
- Higher is better
- Usually a 1-year minimum

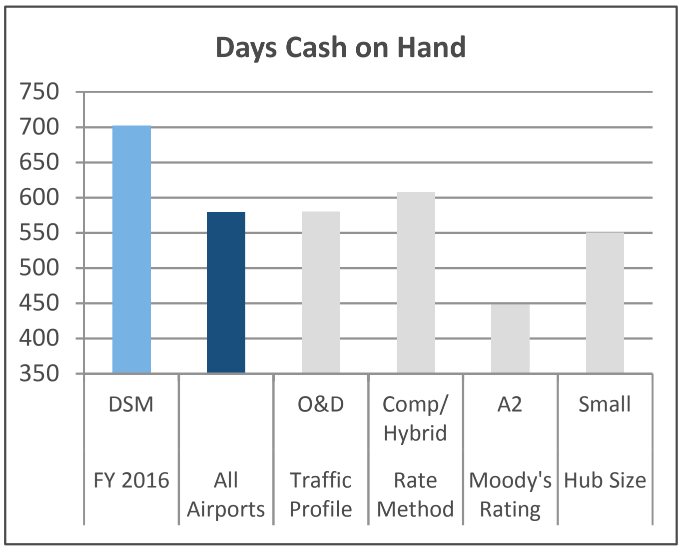
Financial Feasibility Metrics – Moody's Medians

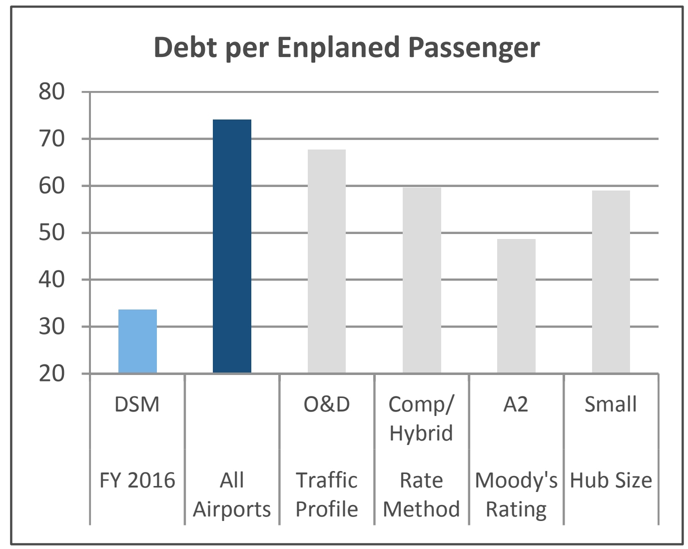
Five rating criteria for airports:

- **Revenue Risk -Volume**
- **Revenue Risk -Price**
- **Infrastructure Development/Renewal**
- **Debt Structure**
- **Financial Profile**



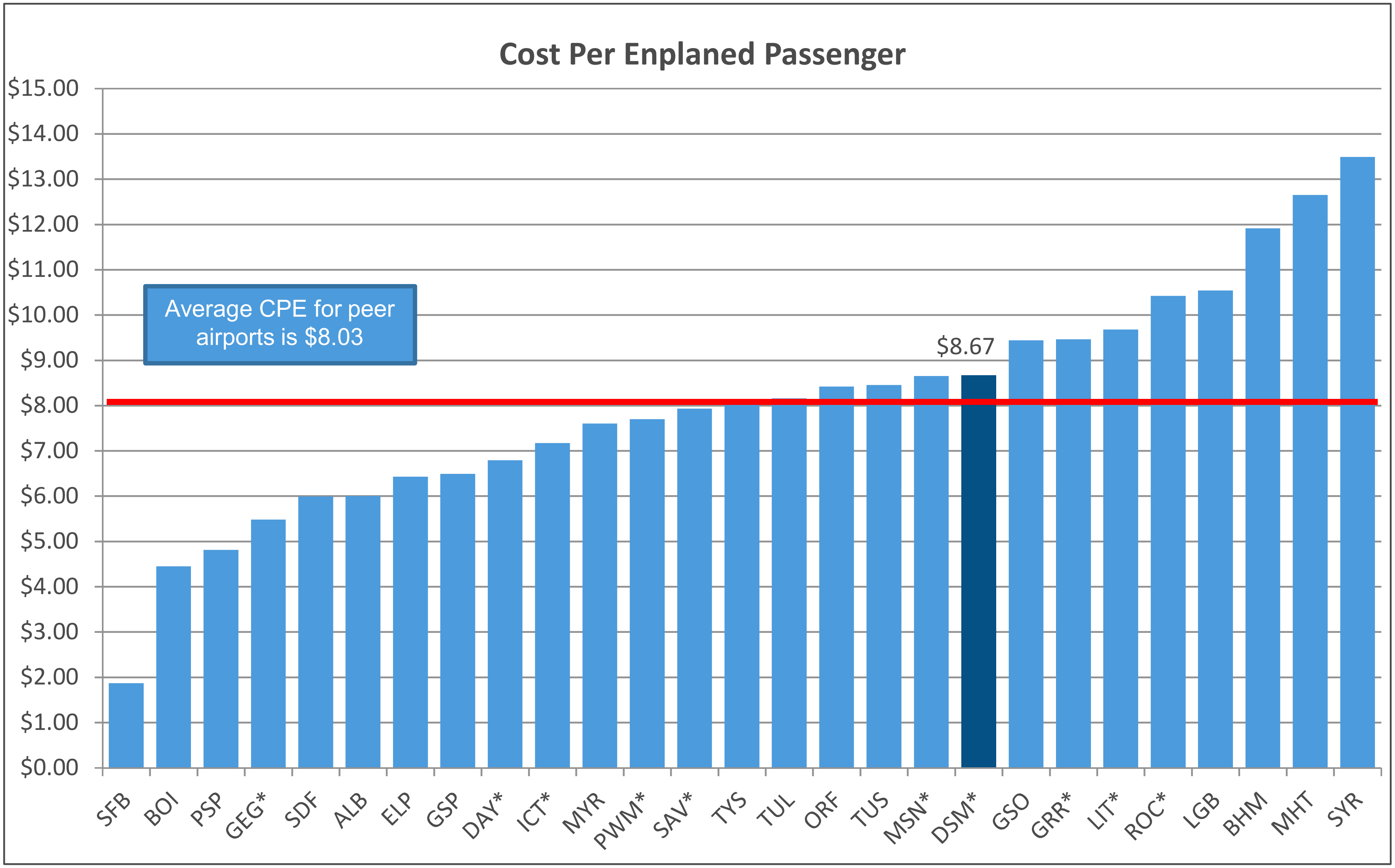






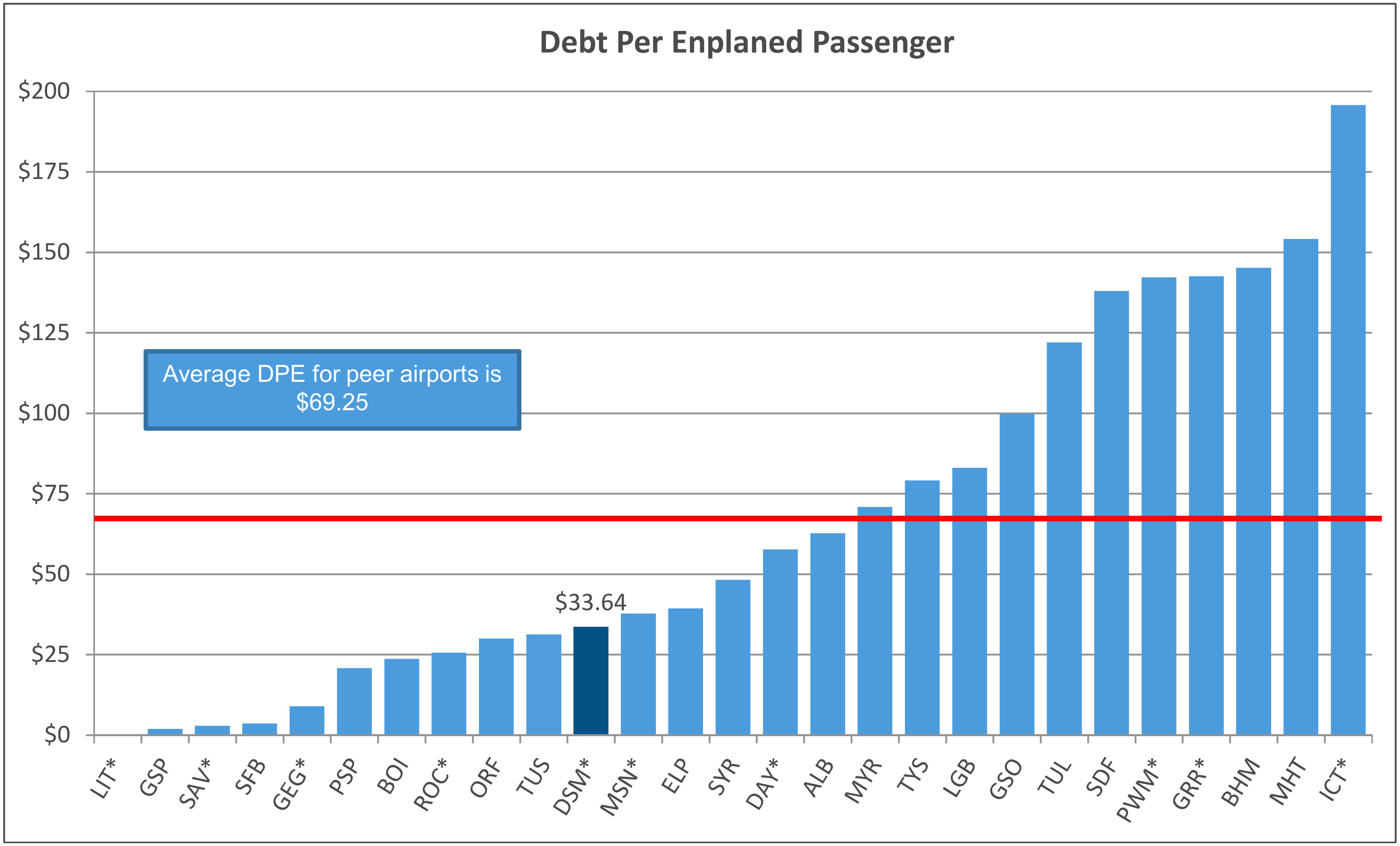
Source: FitchRatings - Rating Criteria for Airports. Airports, February 26, 2016

Cost Per Enplaned Passenger at Comparable Airports



Source: 2016 FAA CATS Form 127 data.
Note: * indicates 2015 most recent data available.

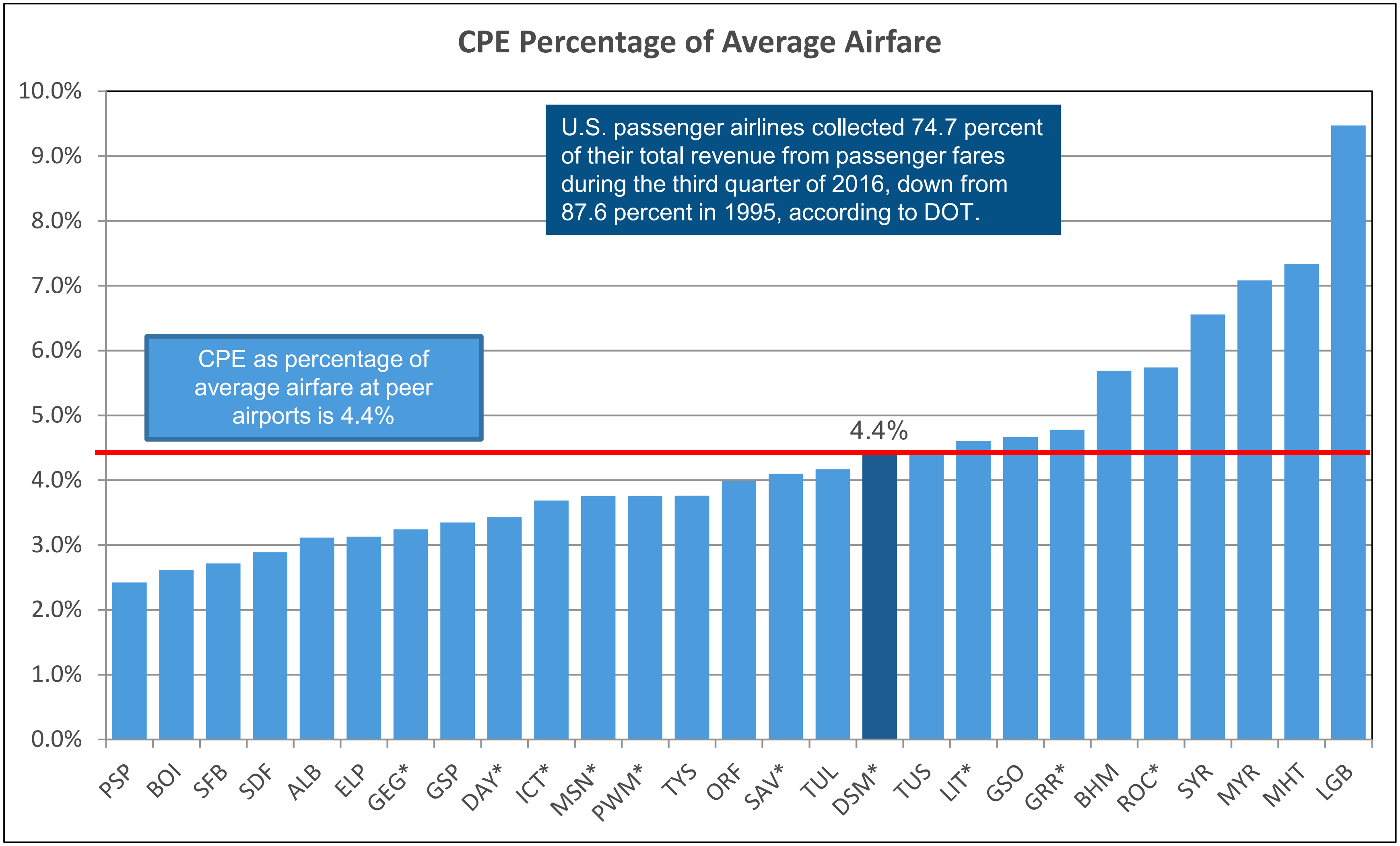
Debt Per Enplaned Passenger at Comparable Airports



Source: 2016 FAA CATS Form 127 Data

Note: * indicates that 2015 most recent data available

Cost Per Enplaned Passenger as Percentage of Average Airfare



Source: 2016 FAA CATS Form 127 Data

Note: * indicates 2015 most recent data available

3. CIP Summary and Funding Sources

Current Capital Improvement Plan - Projects

	Total	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28
Airfield	**104.7**	35.3	14.6	12.4	0.5	25.5	16.5	-	-	-	-	-	-
GA and Other	**3.7**	3.7	-	-	-	-	-	-	-	-	-	-	-
Terminal Design	**33.0**	3.1	-	-	-	-	-	-	14.8	15.2	-	-	-
New Terminal	**451.6**	-	-	-	-	-	-	-	-	-	104.4	161.3	185.9
Apron	**94.6**	-	-	-	-	-	0.9	21.5	13.8	-	6.5	-	51.9
New Parking Garage	**39.7**	-	-	-	-	-	-	-	-	25.3	14.4	-	-
Rental Car Center	**37.0**	-	-	-	-	-	-	-	-	19.0	18.0	-	-
Roadways and Utilities	**41.0**	-	-	-	-	-	-	-	-	12.7	19.6	8.7	-
S. Quadrant and Enabling Projects	**34.0**	-	11.0	11.3	11.7	-	-	-	-	-	-	-	-
Other	**64.3**	-	5.8	4.2	5.5	6.8	7.0	7.2	8.6	8.9	10.4	-	-
Total	**903.6**	**42.0**	**31.4**	**27.9**	**17.6**	**32.3**	**24.4**	**28.6**	**37.2**	**81.1**	**173.3**	**170.0**	**237.8**

Key Assumptions:
Values inflated from 2017

Current Capital Improvement Plan – Funding Sources

	Total	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28
FAA Grants													
Entitlement	**55.8**	20.5	4.4	4.4	0.4	8.4	4.4	4.4	8.8	-	-	-	-
Discretionary	**117.2**	7.9	8.4	6.1	-	12.0	1.8	14.1	11.9	3.9	4.5	-	46.7
Other Grants (RISE/RIIF)	**60.8**	1.7	-	-	-	-	-	-	-	6.3	25.0	16.0	11.7
PFC - PAYGO	**66.4**	6.5	2.0	3.7	2.5	7.3	11.2	-	7.0	-	19.6	-	6.7
Bonds													
Future GARB 1/CFC	**83.0**	-	-	-	-	-	-	-	-	46.1	35.4	1.6	-
Future GARB 2	**322.3**	-	-	-	-	-	-	-	-	-	-	149.6	172.7
Future PFC	**88.9**	-	-	-	-	-	-	-	-	8.9	80.0	-	-
CFC PAYGO	**24.4**	-	2.1	2.1	2.7	3.4	7.0	7.2	-	-	-	-	-
Operating	**84.9**	5.5	14.6	11.6	12.0	1.1	0.1	3.0	9.5	15.9	8.7	2.8	-
Total	**903.6**	**42.0**	**31.4**	**27.9**	**17.6**	**32.3**	**24.4**	**28.6**	**37.2**	**81.1**	**173.3**	**170.0**	**237.8**

Key Assumptions:
Values inflated from 2017

4. Financial Model Assumptions

Current Financial Standing

- **Approximately $40m of outstanding GARB debt with annual payment of ~$3.6m**
- **~$47m of accumulated surpluses at the end of FY2017**
  - $31m in Terminal Development Fund
  - $5m in Reserve Funds
  - $4m of PFC Funds
  - $7m of CFC Funds
- **Annual operating surpluses of approximately $10-14m including PFC and CFC revenues**

The following numbers are illustrative only and subject to change as costs, revenues, phasing and other factors are considered.

Key Assumptions

- **Terminal Project Commences 2023/24 with roadways and apron work, and new terminal construction to commence around 2026**
- **RISE/RIIF Grants of ~$50m assumed to be received**
  - RIIF - $7 million a year for 5 years = $35m
  - RISE – 50% of Roadway costs ($31.5m) = $15.75m
- **Around $55m of entitlement grants and $117m of discretionary grants awarded through 2028**
- **Three series of Bonds issued from 2025- 2027**
  - Backed by CFCs, PFCs and General Airport Revenues
  - 30-year term at 6% interest
  - Principal payments commence on terminal at DBO
- **Inflation – Faithful and Guild provided historical building and construction inflation index numbers for four cities around the mid-west that showed an average of 2.2-2.7% annual increases over the last year, 3.1-3.7 over the last 10 years, 4.2-5.1% over the last 20 years and 7.5-9.1% of the last 39 years.**
  - Current model assumes 3% annual inflation for capital projects

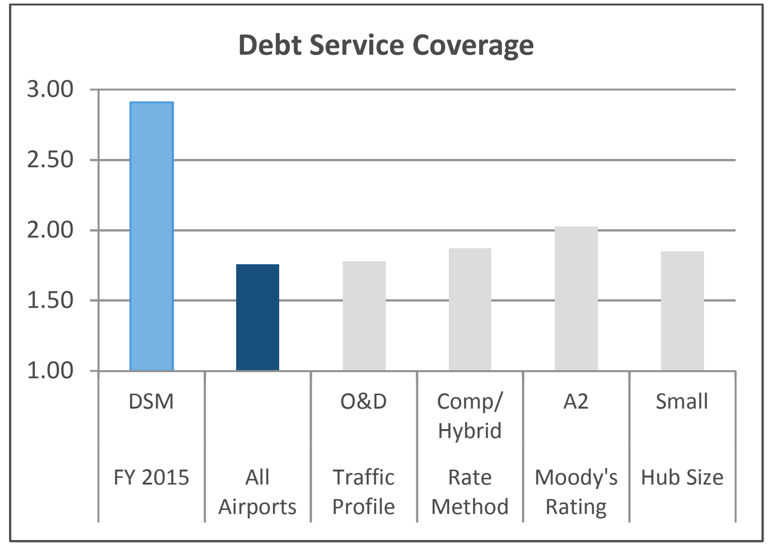
Financial Summary – Base Case

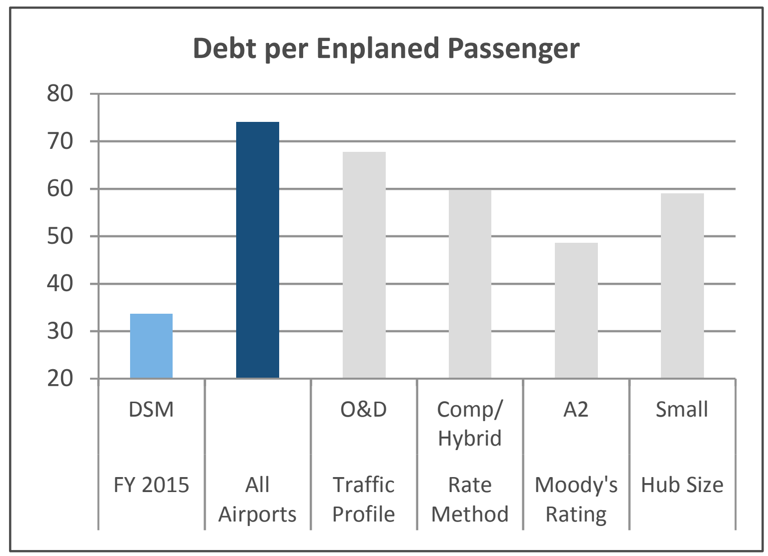
	'17	'23	'24	'25	'26	'27	'28	'29	'30
Net Passenger Airline Payments ($M)	$10.6	$12.5	$12.9	$16.5	$20.2	$20.6	$20.8	$39.1	$39.3
Enplaned Passengers (000s)	1,257	1,416	1,444	1,473	1,503	1,533	1,563	1,595	1,626
Cost per Enplanement (CPE)	$8.45	$8.85	$8.93	$11.19	$13.47	$13.47	$13.28	**$24.51**	**$24.17**
Total Debt ($M)	$40	$28	$26	$114	$206	$601	$595	$590	$580
Debt Per Enplanement	$32	$20	$18	$77	$137	**$392**	**$381**	**$370**	**$356**
Annual Debt Service ($M)	$3.7	$3.6	$3.6	$10.1	$17.1	$17.1	$17.1	$45.6	$45.6
Debt Service Coverage	3.13x	3.92x	4.2x	2.16x	1.91x	1.93x	1.94x	**1.13x**	**1.13x**
Available Cash ($M)	$34	$51	$52	$45	$41	$43	$49	$44	$39
Days Cash on Hand	574	732	737	615	549	568	624	546	473

5. Scenarios

Scenario 1 – Increase Airline Payments to Meet 1.75x Coverage

- **Base Case DSC = 1.13x in 2029 and a CPE of $24.**
- **The airlines would need to pay**
  - $42 to get to 1.75x
  - And $50 to get to 2.00x
- **Debt per enplanement still high at $390 in 2027**



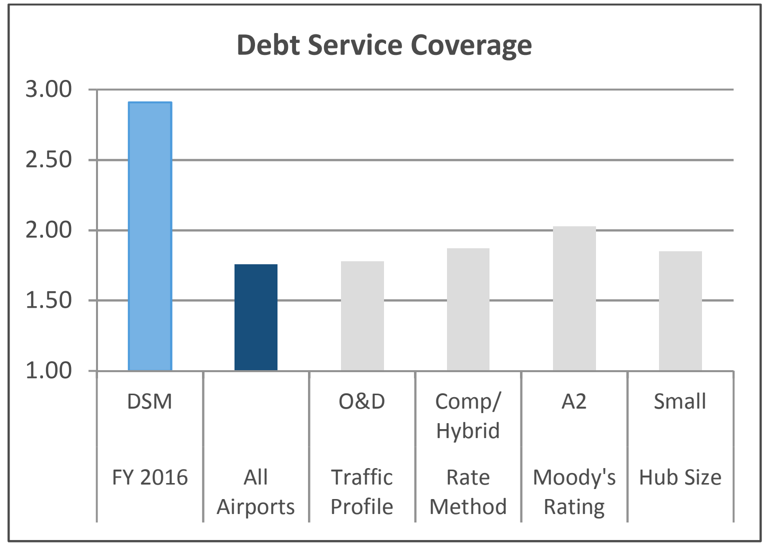


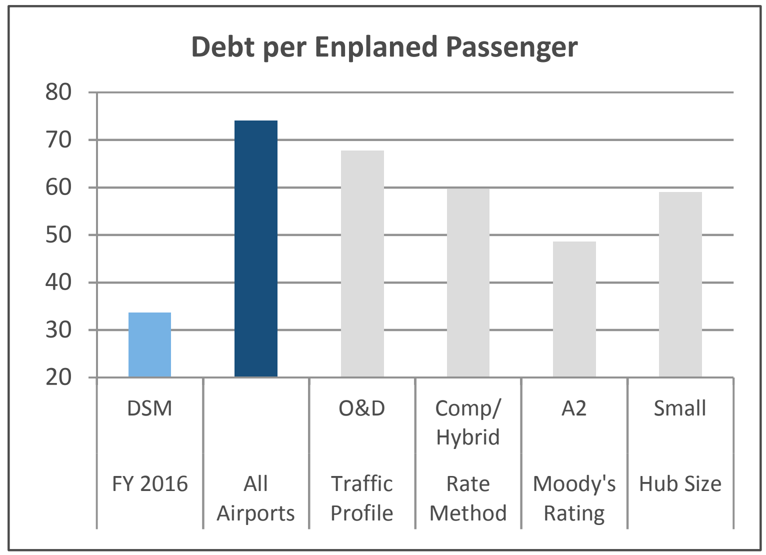
Scenario 2 – Reduce CIP by 30%

	'17	'23	'24	'25	'26	'27	'28	'29	'30
Net Passenger Airline Payments ($M)	$10.6	$12.5	$12.7	$15.2	$17.3	$17.6	$17.7	$31.0	$31.2
Enplaned Passengers (000s)	1,257	1,416	1,444	1,473	1,503	1,533	1,563	1,595	1,626
Cost per Enplanement (CPE)	$8.45	$8.84	$8.83	$10.34	$11.50	$11.47	$11.32	**$19.43**	**$19.19**
Total Debt ($M)	$40	$28	$26	$89	$130	$391	$387	$383	$375
Debt Per Enplanement	$32	$20	$18	$60	$86	**$255**	**$247**	$240	$231
Annual Debt Service ($M)	$3.7	$3.6	$3.6	$8.3	$11.5	$11.5	$11.5	$30.0	$30.0
Debt Service Coverage	3.13x	3.92x	4.15x	2.47x	2.25x	2.27x	2.29x	**1.31x**	**1.32x**
Available Cash ($M)	$34	$53	$59	$54	$30	$34	$42	$44	$47
Days Cash on Hand	574	768	828	740	406	444	534	552	570

Scenario 2 – Reduce CIP by 30%

- **Reducing the terminal and related parking, rental car, and infrastructure projects by 30% would lower the project cost by around $180m (in future dollars)**
- **But very unlikely "value engineering" would be able to generate those kind of reductions**
- **Coverage still remains low at 1.3x and debt above $250 per EP.**



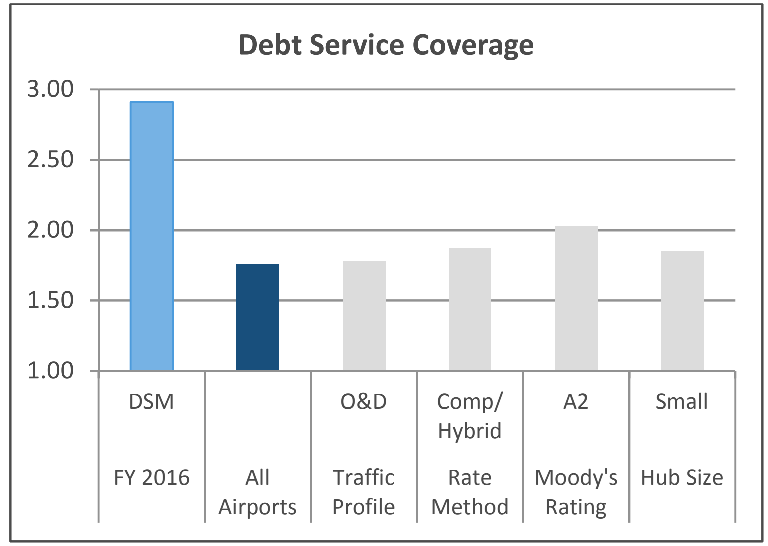


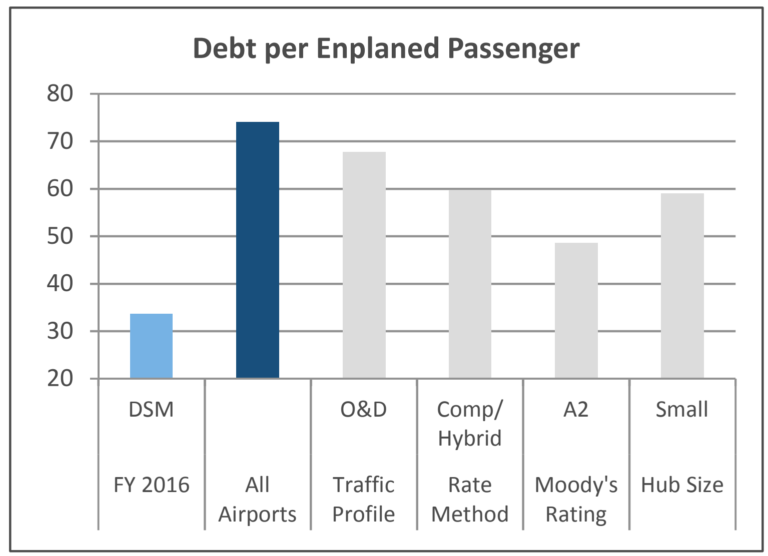
Scenario 3 – Additional Grants of $225m Received

	'17	'23	'24	'25	'26	'27	'28	'29	'30
Net Passenger Airline Payments ($M)	$10.6	$12.5	$12.9	$15.9	$17.9	$18.3	$18.4	$26.0	$26.2
Enplaned Passengers (000s)	1,257	1,416	1,444	1,473	1,503	1,533	1,563	1,595	1,626
Cost per Enplanement (CPE)	$8.45	$8.85	$8.93	$10.82	$11.91	$11.95	$11.79	**$16.31**	**$16.13**
Total Debt ($M)	$40	$28	$26	$114	$158	$319	$315	$310	$304
Debt Per Enplanement	$32	$20	$18	$77	$105	**$208**	**$201**	**$194**	**$187**
Annual Debt Service ($M)	$3.7	$3.6	$3.6	$10.1	$13.6	$13.6	$13.6	$24.7	$24.7
Debt Service Coverage	3.13x	3.92x	4.2x	2.11x	1.97x	2x	2.01x	**1.41x**	**1.42x**
Available Cash ($M)	$34	$51	$52	$44	$31	$37	$44	$46	$49
Days Cash on Hand	574	732	737	607	417	486	557	579	601

Scenario 3 – Additional Grants of $225m Received

- **Obtaining additional grants towards the project helps improve the metrics**
- **Airline CPE remains competitive, DPE around $200, and coverage almost gets to 1.5x**





Scenario 4 – Increased PFC to $8.50

	'17	'23	'24	'25	'26	'27	'28	'29	'30
Net Passenger Airline Payments ($M)	$10.6	$12.5	$12.9	$16.4	$21.3	$21.7	$21.8	$36.9	$37.1
Enplaned Passengers (000s)	1,257	1,416	1,444	1,473	1,503	1,533	1,563	1,595	1,626
Cost per Enplanement (CPE)	$8.45	$8.85	$8.93	$11.16	$14.16	$14.15	$13.95	**$23.12**	**$22.80**
Total Debt ($M)	$40	$28	$26	$114	$242	$553	$547	$541	$532
Debt Per Enplanement	$32	$20	$18	$77	$161	**$361**	**$350**	**$340**	**$327**
Annual Debt Service ($M)	$3.7	$3.6	$3.6	$10.1	$19.7	$19.7	$19.7	$42.1	$42.0
Debt Service Coverage	3.13x	3.92x	4.2x	2.15x	1.84x	1.86x	1.87x	**1.23x**	**1.24x**
Available Cash ($M)	$34	$51	$52	$45	$39	$40	$44	$40	$37
Days Cash on Hand	574	732	737	614	527	526	562	503	448

Scenario 4 – Increased PFC to $8.50

- Congress is considering various options for PFCs, and an increase to $8.50 is a possibility
- Assuming a $4 increase is effective in 2019, and a projected 16m total PFC eligible passengers through 2030, that would provide an additional $64m of available funding.
- But only minimal changes in CPE, DSC and DPE from the base case
- It would likely take a combination of increased PFCs, "value engineering" to reduce costs, additional grants, and other airport initiatives to afford a new terminal.

There are still a number of "unknowns" to review and validate

- Terminal Space allocation – currently allocated on a high level
- Landside roadway allocation – what could be allocable to the terminal/airlines
- Specific phasing of multi-year projects
- Impact of TNCs on Rental Car and Parking Revenues
- Activity and revenue trends through the current year and upcoming budget
- Inflation estimates – a 1% change in inflation adds about $75m to construction costs
- Interest rate sensitivity - 1% change in rate = $5-6m per year change in debt service