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# Virginia's Metro Funding Crisis

## Virginia commuters asked to accept higher tolls to fund transit projects that benefit United Airlines, while the airline receives millions in state tax breaks

### Executive Summary:

- The Metro Silver Line Project is a 23-mile extension of the Washington Metro System that will provide single-seat mass transit from downtown Washington to Dulles International Airport, a growing United hub airport.
- The Silver Line will play an integral part in the Metropolitan Washington Airports Authority's plan to redirect more of the Washington consumer air traffic market through Dulles. Consequently, the $5.8 billion Silver Line Project will be a major boon to United Airlines, Dulles' dominant carrier.
- Capturing just an additional 1% of the D.C. region's passenger airline market would mean an estimated additional $66 million a year for United Airlines.
- Yet, Virginia commuters are being asked to pay more for the project, with a new round of Dulles Toll Road price hikes for 2019 looming.
- As costs for commuters rise to finance a project to United's benefit, the airline continues to benefit from millions each year in state tax breaks on jet fuel.
- To establish a more appropriate funding balance we propose that the Commonwealth of Virginia end United's jet fuel tax breaks and direct that revenue towards the Silver Line Project.

## Part 1: What the Silver Line Project Means for United Airlines

- Metropolitan Washington Airports Authority (MWAA) has declared directing more of the region's air traffic through Dulles a priority, and the Silver Line is one of its largest projects.
- Shifting as little as 1% of the regional air travel market to United at Dulles would mean an estimated additional $66 million in revenue for United every year.

Dulles International is a United Airlines-dominated airport in northern Virginia. United Airlines' and Dulles' prospects in the region are closely tied. As of December 2015, United served 87% of Dulles' North American destinations and 68% of those locations exclusively.[1] In 2015, almost two thirds of all enplanements[2] out of Dulles were on United.

Meanwhile, United Airlines sees additional capacity at Dulles as integral to its own growth in the region:

> ***"Dulles is a great hub. We continue to evaluate how to take advantage of [unused gate space] … I think there's opportunity to grow that in the future."[3]***
>
> — Andrew Nocella (Chief Commercial Officer at United Airlines)

Dulles is part of a 3-airport system serving the greater Washington region that also includes Reagan National Airport (DCA) and Baltimore-Washington International Airport (BWI). United earns an estimated $1.4 billion in passenger revenue from Dulles annually.[4]

The Metropolitan Washington Airports Authority (MWAA) has declared directing more of the region's air traffic through Dulles a priority for the region.[5] MWAA has already invested $5 billion in capital improvements projects at the airport to that end.

Capturing an additional 1% share of the market would be worth an estimated $66 million per year in additional revenue per year to United.[6]

MWAA is overseeing the construction of the Silver Line, a 23-mile extension of the Washington Metro System. The $5.76 billion project is scheduled to be complete in 2020.[7] It follows the Dulles Corridor along Virginia 267 (Dulles Toll Road) and will provide a 1-seat ride between Dulles and the downtown D.C. market. The extension will include a dedicated airport stop that will bring riders from downtown DC directly to an underground moving walkway connected to the main terminal at Dulles.[8]

The Silver Line presents an opportunity for United to draw customers from its competitors in the region like American, which dominates DCA (49% of all enplanements in 2016)[9] and Southwest at BWI (69% all enplanements in 2016).[10] Both of those airports currently benefit from direct rail access.

Transportation experts agree that the Silver Line project will help better connect Dulles to the market.

> ***"The Silver Line is a selling point for Dulles. It will make the airport look more linked in to the world."***
>
> — Kenneth Button, Director of George Mason's Center for Transportation, Policy, Operations and Logistics[11]

MWAA's 2012 economic study highlighted how important better connecting Dulles to the greater Washington region will be to Dulles' relevance to the local economy.

> ***"Strong economic growth into the future with this forecast premised on the achievement of global connectivity through the expansion potential of Dulles International and its integration into the regional multi-model transportation network with the completion of the Silver Line serving Dulles International and extending into Loudoun County."***
>
> — Stephen S. Fuller, Ph.D., Dwight Schar Faculty Chair and University professor and Director, Center for Regional Analysis, George Mason University [12]

With such a dominant position at Dulles, United stands to benefit more directly from that connectivity than any other airline there.

## Part 2: Virginia commuters and local governments are bearing the costs of the Silver Line

- MWAA increased tolls from $1.25 in 2010 to $3.50 in 2014 and plans to raise the toll to $4.75 in 2019.
- Without alternative funding sources, tolls will continue to rise.

The Silver Line Project is being constructed in two phases. The first phase of the project was completed in 2014. The second phase, which will include the Dulles airport stop, is expected to be completed by 2020.

The overwhelming majority of funding for the Silver Line is coming from Virginia commuters and local property taxes along the toll road. About half of all funding is coming from the MWAA-operated Dulles Toll Road alone. It is the only part of the budget that is not a fixed amount or fixed percentage of total project costs, thus the easiest source of revenue to expand.

MWAA increased tolls from $1.25 in 2010 to $3.50 in 2014 and plans to raise the toll to $4.75 in 2019.[13] Vehicle traffic on the Dulles Toll Road has decreased since 2010 at least in part due to the increases in tolls.[14] MWAA predicts that the 2019 toll increase will raise annual revenues from the tolls by over 29% even as expected traffic declines by over 6%.[15]

Rate increases had been frozen since 2014 in part due to an additional $300 million contribution from the state of Virginia in 2013.[16] MWAA financing of the Silver Line project is done primarily through bonds backed by toll revenues from rates that have been projected to regularly increase for the next 30 years.[17] In 2043, tolls are projected to rise to $11.25 round-trip.[18] Securing alternative revenue sources will be essential to mitigate future toll increases.

***Funding Chart for Phase 1 and Phase 2 of the Dulles Corridor Metrorail Project:***

| **Sources of Capital Funds** *$ Millions* | **Phase 1** | **Phase 2** *(1)* | **Rail Project Budget** *prior to NVTA funding* | | **Rail Project Budget** *aftert NVTA funding* | | |
|---|---|---|---|---|---|---|---|
| | | | **Total** | **% of Total** | **Change** | **Total** | **% of Total** |
| Federal | $900 | - | $900 | 15.6% | | $900 | 15.6% |
| Commonwealth of Virginia *(2)* | 252 | 323 | $575 | 10.0% | | 575 | 10.0% |
| Northern Virginia Transportation Authority *(3)* | | - | - | 0.0% | 60.0 | 60 | 1.0% |
| Fairfax County | 400 | 527 | 927 | 16.1% | (9.7) | 918 | 15.9% |
| Loudoun County | | 276 | 276 | 4.8% | (2.9) | 274 | 4.7% |
| MWAA (Aviation Funds) | | 236 | 236 | 4.1% | (2.5) | 234 | 4.1% |
| MWAA (Dulles Toll Road) | $1,430 | $1,415 | $2,845 | 49.4% | (45.0) | $2,800 | 48.6% |
| Total Sources of Fund | $2,982 | $2,778 *(4)* | $5,760 | 100.0% | $ - | $5,760 | 100.0% |

Fixed amount
Fixed percentage of total cost
Residual
Percentage After Allocation of NVTA Funds

*(1) Phase 2 Parking Garages are to be funded directly by the Counties and are not included in the Total Rail Project Budget*
*(2) Does not include $150 million of Commonwealth funds that will be used to pay interest on Dulles Toll Road revenue bonds.*
*(3) NVTA grant can only be used to pay or reimburse capital costs for Innovation Center Metrorail Station.*
*(4) Phase 2 Costs include $551 million in unallocated contingency.*

*Source: Metropolitan Washington Airports Authority (MWAA)*[19]

Meanwhile, as the cost of the project continues to rise,[20] commuters and localities have fewer means to pay for it. The Northern Virginia Transport Administration (NVTA) was set up by the Virginia Assembly to oversee the construction and maintenance of transportation infrastructure in the region. A portion of NVTA funds are distributed to localities to be used on local infrastructure projects.[21] In 2018, Virginia passed a package to meet Metro funding needs this year in part by stripping NVTA funding, dramatically reducing the amount of NVTA funds localities like Fairfax have available to meet their portion of Silver Line related projects.[22] As toll rates continue to climb faster than wages,[23] the weight of the burden on commuters will only continue to grow.

## Part 3: As costs climb for Virginia commuters, airport costs fall for United at Dulles

- United's costs have fallen at Dulles in part due to $50 million in funding to MWAA from the Commonwealth of Virginia.
- Dulles traffic grew by 4.1 percent to 22.7 million in 2017, thanks largely to growth of United's Dulles operations.

In 2016, MWAA signed a new lease agreement that extended United's dominance at Dulles through at least 2025. The same year, the General Assembly directed $50 million to MWAA to reduce costs for airlines operating at Dulles.[24] This followed a 2014 update in MWAA's new airline use and lease agreement that allowed it to direct revenues from DCA to help offset operating costs at United's IAD hub.[25]

The cumulative result of these giveaways has helped the Cost Per Enplanement (CPE) at Dulles fall steadily since its peak of $26.99 in 2014.[26] Between 2016 and 2018, Dulles' CPE has fallen further from $21.00 to $17.82[27] and now is significantly lower than Newark's CPE of $28.06, United's only other east coast hub.[28]

United Airlines has thrived as the primary carrier in the rapidly expanding Dulles Corridor. Dulles serviced a record 7.8 million international travelers last year, its 14th consecutive year of growth.[29] Dulles traffic grew by 4.1 percent to 22.7 million in 2017, thanks in part to growth of United's Dulles operations.[30] United will begin transitioning daily service to Chattanooga, Ithaca, and Wilkes-Barre/Scranton from Newark to Dulles later in 2018.[31]

With domestic travel rising at Dulles[32] and per-passenger airport costs falling significantly, United is doing very well for itself in Virginia. The passengers the Silver Line will direct in United's direction will only further ensure that the good times keep rolling for the airline.

## Proposal: Close United's jet fuel tax loophole, direct the airline's fair share of funding to the Silver Line

- Closing United Airlines' jet fuel tax break would raise an estimated $4 million a year. That revenue can and should be directed towards the Silver Line.

Virginians are being asked to dig deeper into their pockets for a project that disproportionately benefits United Airlines. It is not fair that Virginia commuters are being asked to pay more and more while United Airlines' cost per enplanement at Dulles has declined and the airline benefits from an estimated $4 million annual tax break on jet fuel. Revenue from United's jet fuel taxes can and should fund the Silver Line, as the Silver Line extension to Dulles could bring millions of dollars in business to United Airlines every year. A common-sense solution would be for the Commonwealth of Virginia to end United's state tax break on jet fuel.

The Federal Airport and Airway Safety and Capacity Expansion Act (1987) requires that state and local aviation fuel taxes revenue be used exclusively for airport capital and operating costs.[33] We estimate that approximately 40% of Silver Line Phase 2 meets that criteria, assessed by measuring distance of Phase 2 on Dulles airport land.[34] However, MWAA aviation funds from airline and non-airline airport revenue represent only 8.5% of total Phase 2 funding.[35] Significantly more tax revenue from the airline should be deployed to the Silver Line project in a manner that will both comply with FAA regulations while alleviating the debt burden on toll payers.

According to the Virginia Fuels Tax Act, jet fuel is taxed at $0.05 per gallon.[36] This is already considerably lower than taxes imposed at several other major metropolitan airports.[37] It is also considerably less than the $0.162 per gallon tax on the average gallon of gasoline bought by the drivers in Virginia.[38] Yet, consumers of aviation jet fuel are taxed only half a cent per gallon after the first 100,000 in a fiscal year.[39] United Airlines, which consumed an estimated 90.2 million gallons of jet fuel for domestic flights at Dulles in 2016, paid taxes at the half-cent rate on over 99.8% of the fuel it is estimated to have consumed in Virginia that year.[40]

At current Virginia jet fuel tax levels, United Airlines traffic at Dulles alone is responsible for an estimated $4 million in lost revenue. If jet fuel taxes were raised to Virginia's gasoline tax rate, still lower than jet fuel tax rates applied in other United hub cities Chicago, Los Angeles, and San Francisco, United at Dulles would pay an estimated $14.4 million more in revenue annually.[41] Over the lifetime of the Silver Line Project, this revenue could provide substantial relief to those currently most burdened by the projects costs.

Lawmakers in Richmond have the power to close the fuel tax loophole for United Airlines and to direct that revenue toward easing the burden on Virginia drivers. The Silver Line is an important investment for Dulles and northern Virginia. However, it's time those with deepest pockets contribute their fair share to the critical infrastructure we all need. Closing United Airlines' loophole represents a common-sense solution that will finally bring funding equity to the Silver Line.

# Endnotes


1 Metropolitan Washington Airports Authority. (2016, February 1). Retrieved July 7, 2018, from Commonwealth of Virginia Senate Finance Committee: http://sfc.virginia.gov/pdf/transportation/2016/020316_Dulles.pdf

2 (Metropolitan Washington Airports Authority, 2016)

3 Russell, E. (2016, May 16). *Washington Dulles prospects improve as costs fall.* Retrieved July 7, 2018, from Flight Global: https://www.flightglobal.com/news/articles/washington-dulles-prospects-improve-as-costs-fall-448659/

4 According to Department of Transportation data, United Airlines flew 12,502,235,000 available seat miles (ASMs) out of IAD in 2017. United reports its Passenger-Revenue-Per-Available-Seat-Mile (PRASM) to its investors. In 2017, its PRASM for its mainline operation was $0.1132. Our estimate of the value of IAD to United (over $1.4 billion) is the product of United's ASMs flown out of IAD in 2017 multiplied by its 2017 PRASM. This calculation assumes that United's PRASM for its mainline operations out of IAD is equal to its reported average mainline PRASM. We believe that this is a fair assumption because average airfares out of IAD as reported by the Bureau of Transportation Statistics in 2017 were higher than the national average fares out of all airports in the United States. This estimate also does not include United's contracted regional carriers, and it also does not include ancillary revenue earned from passengers. Multiplying United's revenue-passenger-miles flown out of IAD multiplied by United's reported yield-per-revenue-passenger-mile produces a similar result.

5 (Metropolitan Washington Airports Authority, 2016)

6 According to Department of Transportation data, all carriers flew a total of 53,608,951,000 ASMs out of IAD, DCA and BWI airports in 2017. We estimate the value of an additional 1% of the total Washington DC area market to United (about $66 million) as 1% of the market's total 2017 ASMs multiplied by United's 2017 consolidated PRASM of $0.1235. Unlike the calculation in end note iv above, United's consolidated PRASM is used instead of its mainline PRASM in this calculation because the total Washington DC area market ASMs includes ASMs on regional carriers. This calculation assumes that United's PRASM for its consolidated operations out of IAD is equal to its reported consolidated PRASM. We believe that this is a fair assumption because average airfares out of IAD as reported by the Bureau of Transportation Statistics in 2017 were higher than the national average fares out of all airports in the United States. These figures do not include ancillary revenue also earned from passengers. Multiplying the Washington DC area market's total-revenue-passenger-miles flown out of IAD, DCA and BWI by United's reported yield-per-revenue-passenger-mile produces a similar result.

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8 Metropolitan Washington Airports Authority. (2018). *Dulles Airport.* Retrieved July 7, 2018, from Dulles Corridor Metrorail Project: http://www.dullesmetro.com/silver-line-stations/dulles-airport/

9 MWAA Office of Marketing & Consumer Strategy. (2018, April). *Reagan Air Traffic Statistics*. Retrieved July 7, 2018, from Metropolitan Washington Airports Authority: http://www.mwaa.com/about/reagan-air-traffic-statistics

10 Baltimore Washington Thurgood Marshall International Airport. (2018, April). *BWI Marshall Airport Facts & Figures*. Retrieved July 7, 2018, from https://www.bwiairport.com/flying-with-us/about-bwi/facts-figures

11 Aratani, L. (2017, November 27). *Dulles International Airport struggles to find its footing.* Retrieved July 1, 2018, from Washington Post: https://www.washingtonpost.com/local/trafficandcommuting/dulles-international-airport-struggles-to-find-its-footing/2014/11/27/2d7b9d80-66c9-11e4-836c-83bc4f26eb67_story.html?noredirect=on&utm_term=.dd676ed0c9ac

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13 Emke, D. (2017, October 18). *Dulles Toll Road Fee Projected to Increase to $4.75 in 2019, $6 in 2023.* Retrieved July 7, 2018, from Reston Now: https://www.restonnow.com/2017/10/18/dulles-toll-road-fee-projected-to-increase-to-4-75-in-2019-6-in-2023/

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15 Table 5-4. Dulles Toll Road Traffic and Toll Revenue Estimates. CDM Smith. (2018, June). *Dulles Toll Road Comprehensive Traffic and Revenue Study 2018 Update *Draft pending Airports Authority decision on toll rates.* Retrieved July 14, 2018, from MWAA: http://www.mwaa.com/sites/default/files/BOD/2018-06/tab_13_recommendation_for_a_proposed_amendment_to_the_regulation_that_establishes_toll_rates_for_the_use_of_the_dulles_toll_road.pdf

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17 Table 5-4. Dulles Toll Road Traffic and Toll Revenue Estimates. (CDM Smith, 2018)

18 Table 5-4. Dulles Toll Road Traffic and Toll Revenue Estimates. (CDM Smith, 2018)

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36 Virginia Department of Motor Vehicles. (n.d.). *Fuels Tax Rates and Alternative Fuels Conversion.* Retrieved July 7, 2018, from Virginia.gov: https://www.dmv.virginia.gov/commercial/#taxact/tax_rates.asp

37 Current jet fuel tax rates at other major metropolitan airports:
Chicago: 23 cents / gallon: jet fuel subject to Chicago sales tax of 10.25%, Illinois $0.011 UST/EIF per gallon https://www.taxadmin.org/assets/docs/MotorFuel/2017%20Motor%20Fuel%20Tax%20Information%20by%20State%20Book.pdf. The combined sales tax rate for Chicago, IL is 10.25%, https://www.salestaxhandbook.com/illinois/rates/chicago. Multiply by cost of a gallon of jet fuel in Illinois: https://www.eia.gov/dnav/pet/pet_sum_mkt_dcu_SIL_a.htm (10.25% of $1.651 = 16.9 cents / gallon)
+$0.011 UST/EIF = 18 cents / gallon. Plus the $0.05 vehicle fuel tax applies to jet fuel: http://www.cityofchicago.org/city/en/depts/fin/supp_info/revenue/tax_list/vehicle_fuel_tax.html
California Jet fuel tax rates: https://www.cdtfa.ca.gov/taxes-and-fees/sales-tax-rates-for-fuels.htm
Statewide rate is 13.745 cents / gallon. ($0.02 per gallon excise tax + $0.11745 at 7.25% sales tax rate for per gallon if not prepaying). Local sales tax rates are at: https://www.cdtfa.ca.gov/taxes-and-fees/rates.aspx
Los Angeles: 9.5% sales tax (additional 2.25% over state rate, or 3.645 cents per gallon more based on $1.62 jet fuel gallon price for California from the EIA: https://www.eia.gov/dnav/pet/pet_sum_mkt_dcu_SCA_a.htm
Los Angeles total rate = 17.39 cents / gallon
San Francisco: 9.25% sales tax (additional 2% over state rate, or 3.24 cents)
San Francisco total rate = 16.985 cents / gallon

38 (Virginia Department of Motor Vehicles)

39 Virginia Assembly. (n.d.). *Code of Virginia - Virginia Fuels Tax Act.* Retrieved July 7, 2018, from Virginia's Law Information System: https://law.lis.virginia.gov/vacodepopularnames/virginia-fuels-tax-act/

40 Airlines report their jet fuel consumption to the U.S. Department of Transportation. In 2017, United Airlines reported consumption of 1,608,009,000 gallons of jet fuel for domestic flights. United also reported to the DOT that in 2017, 5.61% of United Airlines total domestic available-seat-miles (ASMs) originated in Virginia. We assume that the share of United's domestic ASMs flown out of Virginia is equal to the share of United's domestic jet fuel consumed on flights out of Virginia. We therefore estimate that United consumes about 90.2 million gallons of jet fuel for domestic flights in Virginia (5.61% of 1,608,009,000 gallons). While United pays the full $0.05 tax on the first 100,000 gallons, it receives a break of $0.045 per gallon on the remaining 90.1 million gallons. We estimate the break to have been worth about $4 million in 2017.

41 Virginia gas tax rate is $0.162 per gallon, 3.6x more than the $0.045 per gallon tax break United is getting off the Virginia state jet fuel tax rate. Our estimate of the $0.045 tax break is to be worth about $4 million in 2017.