

EaglExit Phase 1 Revenue Analysis

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To: EaglExit

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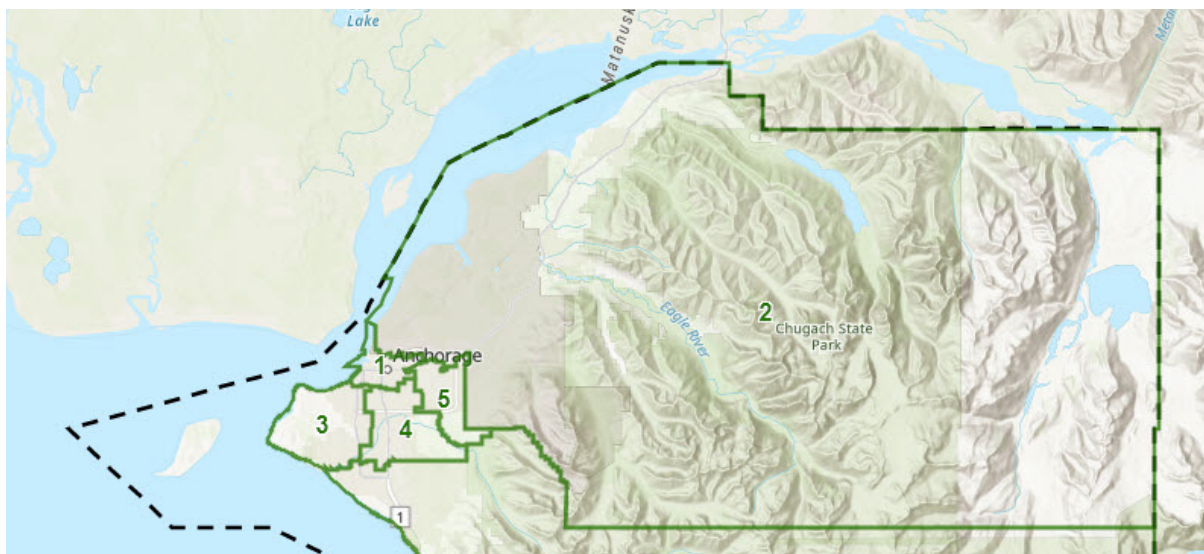
This memo presents the findings of Phase 1 of the EaglExit feasibility study, covering an analysis of the potential revenues that could be generated by the EaglExit region, as defined by the Municipality of Anchorage's (MOA) Assembly District 2 (AD2). The memo describes the study area, including a draft metes and bounds description, presents a summary of estimated potential revenues, describes each revenue source, describes the methodology and allocation process, and discusses potential effects of revenue decisions and other considerations.

Phase 1 of the analysis only considers potential revenues that could be generated in AD2 based on the same tax structure being in place in AD2 and its component tax districts as they existed in 2019. It is an "apple to apples" comparison except for the property tax rate for a new AD2 school district due to budget limitations. Phase 1 does not address general government or school district expenses, nor does it consider any balance sheet items (assets and liabilities) for existing or new required infrastructure.

Study Area

For the purposes of this project, the Assembly District 2 Eagle River/ Chugiak, is defined by Anchorage Municipal Code 2.25.010 - Election districts. (MOA 2019a). A map of AD2 is shown in Figure 1.

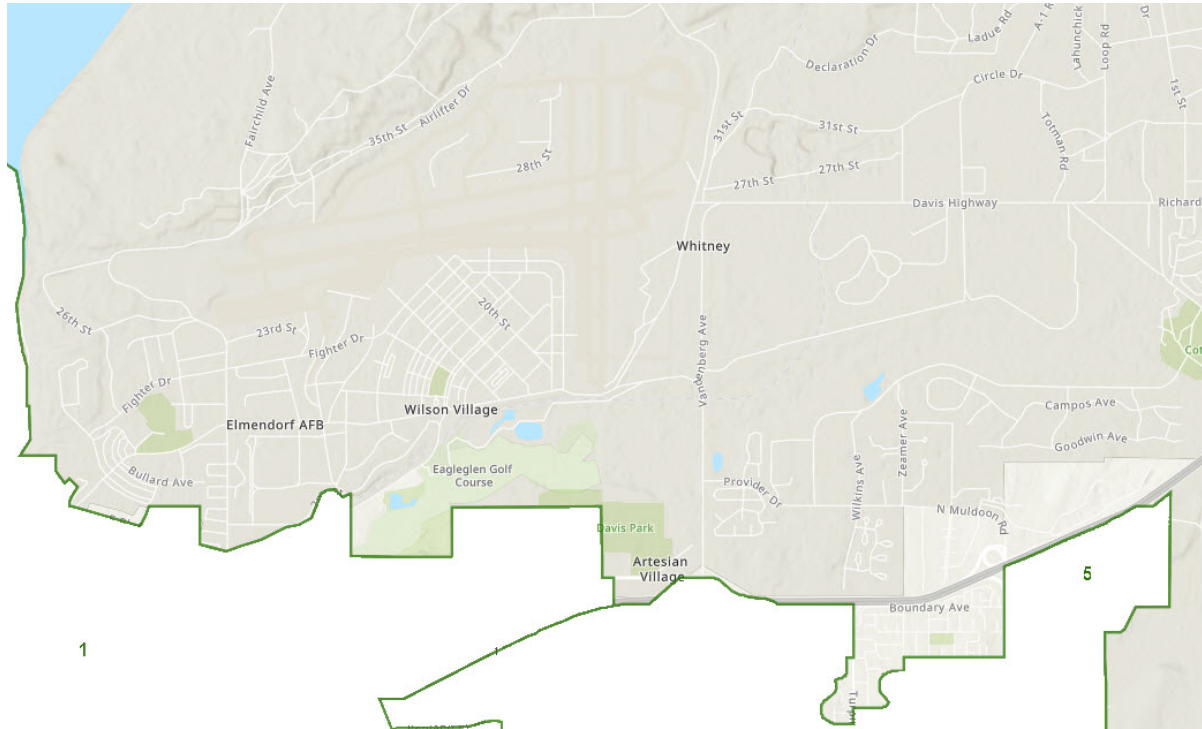
Figure 1. MOA Assembly District 2 Map



Source: MOA (undated)

Figure 2 shows a close-up view of the western section of AD2 to illustrate the boundary with Assembly Districts 1 and 3.

Figure 2. MOA Assembly District 2 Map, Close-up of JBER and Muldoon Area



Source: MOA (undated) with Northern Economics, Inc. modifications

A metes and bounds description of the study area is as follows:

As all the land in the Greater Anchorage Area Borough lying northerly of the following line commencing in Knik Arm on the west boundary of the Greater Anchorage Area Borough and the northern boundary of section 20, T14N,R3W,SM; thence southwest to the west boundary of section 31, T14N,R3W,SM; thence southeast along the boundary of Elmendorf Air Force Base; thence south along Terminal Rd; thence east along the boundary of Elmendorf Air Force Base; thence east along East Bluff Dr; thence east along the boundary of Elmendorf Air Force Base; thence east along 2nd Ave; thence south along North Reeve Blvd; thence east along the boundary of Elmendorf Air Force Base; thence east along Thompson Ave; thence north along Taylor St; thence east along McPhee Ave; thence south along North Pine St; thence south along Pine St; thence east along Mountain View Dr; thence south along McCarrey St; thence east along Glenn Hwy; thence east along Mountain View Dr; thence east along Glenn Hwy; thence south along Turpin St; thence west along Donna Dr; thence south along Krane Dr; thence southeast along Donna Dr; thence north along Turpin St; thence east along East 6th Ave; thence north along Fredricks Dr; thence north along Patterson St; thence east along Duben Ave; thence north along Muldoon Rd; thence northeasterly along the Glenn Hwy to the intersection of the Glenn Hwy and the boundary of Fort Richardson in section 7, T13N, R2W, SM; thence south along the west Boundary of Fort Richardson; thence southwest along Peck Ave; thence south along the eastern boundary of Fort Richardson to section 3, T13N, R2W, SM; thence east along the boundary of Fort Richardson to section 34, T13N, R2W, SM; thence southeasterly along the boundary of Chugach State Park and Fort Richardson to section 19, T12N, R1W, SM; thence southerly on the east boundary of sections 19, 30

and 31 T12N, R1W; thence east along the south boundaries of townships 12N, Ranges 1W, 1E, 2E, 3E, 4E and 5E to the east boundary of the Greater Anchorage Area Borough (MOA 2019c).

Estimated Potential Revenues

The analysis presented in this memo reviews both general government and school district revenues for the MOA, where property values and tax rates represent 2019 data and other calculations are derived from revenues reported in the MOA's 2018 Comprehensive Annual Financial Report (CAFR) or individual 2018 tax summary reports. General government revenues include taxes on real property, personal property, motor vehicle registration, fuel products, motor vehicle rentals, hotels and motels, tobacco, and marijuana as well as non-tax sources such as charges for services, grants, and other entitlements. Annual revenues derived from Assembly District 2 (AD2) could range from \$62.2 million to \$66.4 million, representing between 11.8 and 12.6 percent of total current MOA general government revenues (see Table 13).

Table 1. AD2 General Government Revenue Range Estimates

Revenue Category	Municipal Tax Revenue (\$)	Ratio Range (%)	Revenue Range (\$)
Real Property Tax	304,900,000	N/A	40,300,000
Personal Property	26,000,000	N/A	1,000,000
Grants and Entitlements	62,800,000	15–18	9,600,000–11,200,000
Charges for Services	52,500,000	15–18	8,000,000–9,400,000
Motor Vehicle Registration Tax	10,200,000	15–18	1,600,000–1,800,000
Fuel Products	11,700,000	13–14	1,500,000–1,600,000
Motor Vehicle Rental	6,700,000	2–4	100,000–300,000
Hotel-Motel	27,700,000	1–3	100,000–700,000
Tobacco	20,000,000	0	0
Marijuana	3,100,000	0	0
Total	525,600,000	11.8–12.6	62,200,000–66,400,000

Source: Northern Economics analysis

School district revenues include taxes on real and personal property plus non-tax revenue from Federal Impact Aid, State of Alaska base student allocations, charges for services, operating grants, and capital grants (for instructional purposes). Estimated maximum annual revenues derived from AD2 schools are \$129.1 million, as shown in Table 2.

Table 2. AD2 School Revenue Estimates

Revenue Category	Minimum (\$)	Maximum (\$)
Real and Personal Property Taxes	13,200,000	29,400,000
Federal Impact Aid	16,000,000	16,000,000
Public School Funding Program (State Funding)	42,700,000	50,400,000
Charges for Services	1,300,000	1,300,000
Operating Grants and Contributions	24,600,000	24,600,000
Capital Grants and Contributions	7,500,000	7,500,000
School Total	105,200,000	129,100,000

Source: Northern Economics analysis

Projected Growth in AD2 Revenues

The AD2 area has growth potential due to the availability of land, placing its projected growth ahead of other areas of the MOA. However, despite this potential the study team suggests a conservative assumption that AD2 revenues will be flat or slightly down for the next few years due to significant headwinds from economic conditions and out-migration that will cause downward pressure on population growth in the near term.

The AD2 region is growing and therefore revenues (and costs) associated with population could reasonably be expected to grow over time. The Highway to Highway project included a land use allocation and forecast technical memorandum (Childers 2010) that estimated the MOA population would grow by 6.1 percent from 2020 to 2025 and that the Chugiak-Eagle River population would increase from 15 percent of the MOA population to 16 percent, indicating growth above and beyond the overall 6.1 percent average. The availability of land in AD2 is a factor in the projected growth. US Census Bureau (2020) population data suggests that the population of AD2 is 17.92 percent of the MOA population, though this includes the population of Joint Base Elmendorf-Richardson (JBER) and some population in the Muldoon area. Detailed population data over time is not readily available.

Offsetting this projected growth, Alaska Department of Labor and Workforce Development (2020) population estimates show a net loss in the MOA's population of over 9,000 from July 2013 through July 2019 and net migration out of the MOA every year from July 2010 through July 2019. There are likely economic factors driving migration out of the MOA and the state that are outside the control of local governments and not possible to predict.

Data Sources: General Government Revenues

The following sections provide detailed calculations, methods, and assumptions regarding general government revenue estimates for AD2. At the request of EagleExit representatives, whenever possible, the analysis provides estimates for the area between Turpin Street and Muldoon Road on the south side of the Glenn Highway that the analysis refers to as the "Muldoon remainder."

Summary

Annual revenues for MOA general government are \$525,542,963 (see Table 3).

Table 3. Municipality of Anchorage Fiscal Year 2018 Revenues

Revenue Type	Revenue (\$)	Data Source
Real Property Tax	304,945,354	2019 property data
Personal Property	25,917,251	2019 data request to Municipal Assessor
Grants and Entitlements	62,762,232	2018 CAFR
Charges for Services	52,540,937	2018 CAFR
Motor Vehicle Registration Tax	10,223,810	Northern Economics estimate
Fuel Products	11,672,250	2018 CAFR
Motor Vehicle Rental	6,740,017	2018 MOA rental vehicle tax returns summary report
Hotel-Motel	27,677,314	2018 CAFR
Tobacco	20,002,707	2018 CAFR
Marijuana	3,061,091	2018 CAFR
Total	525,542,963	

Data Source: MOA (2018, 2020a, 2020b, 2020c), Gadamus (2020)

Property Taxes

Property taxes in the MOA include levies for fire departments, roads and drainage, police, parks and recreation, limited road service areas, rural road service areas, and Eagle River streetlights service areas, along with a levy for the Anchorage School District (ASD). Both real property and personal property taxes use the same mill rates shown in Table 4. The analysis presented in the following sections provides detailed calculations only for tax districts with a portion of property within AD2.

Table 4. 2019 Property Tax Rates (mills)

Tax District	General Government and All Other Rates (mills)	Tax District	General Government and All Other Rates (mills)
1	9.2	30	6.58
3	9.2	46	7.36
10	8.9	47	4.95
11	5.93	50	9.16
15	0.18	51	7.84
16	3.61	58	6.84
22	7.58		

Source: MOA (2019b)

Real Property Tax to General Government

Real property taxes are levied on land and improvements/buildings. The analysis uses 2019 taxable values to estimate annual property tax revenues.

The study team geo-coded parcel data to determine precisely which parcels are included in AD2, the Muldoon remainder, and other districts of MOA. In AD2, there is \$4.9 billion in taxable real property value resulting in \$40,304,375 in annual revenues (see Table 5).

Table 5. 2019 Real Property Taxable Value and Revenue

Tax District	AD2 (\$)	AD2 less Muldoon remainder (\$)
Taxable Value	4,852,110,701	4,678,635,097
Revenue	40,304,375	38,708,399

Source: MOA (2019b, 2020b), Northern Economics analysis

From 2018 to 2019 assessed property values (not accounting for tax exemptions) in AD2 increased by \$114,733,000 (see Table 6). There were decreases in assessed values in tax districts 1 and 15, but those decreases were surpassed by large increases in districts 10, 22, and 30. The change represents a 2.4 percent year-over-year increase in assessed value for AD2.

Table 6. Change in Assessed Property Values from 2018 to 2019

Tax District	AD2 (\$)	AD2 less Muldoon remainder (\$)	Muldoon remainder (\$)
Total	114,733,000	113,027,900	1,705,100

Source: MOA (2019b, 2020b), Northern Economics analysis

Personal Property Tax to General Government

Personal property taxes are levied on business assets and inventories, as well as certain personal property such as mobile homes, with a \$20,000 exemption. There are significant exemptions to this tax including property that is exclusively for personal uses and reported business inventory with a value of \$20,000 or less, therefore the tax applies only to business personal property with a total value of \$20,000 or more. Taxable personal property values for 2019 are provided by Gadamus (2020), as shown in Table 7.

Table 7. Municipal Business Personal Property Taxable Values for Selected Districts

Tax District	2019 Taxable Value (\$)	Tax District	2019 Taxable Value (\$)
1	888,577,652	30	26,475
3	1,866,962,507	46	7,210,670
10	31,204,655	47	0
11	0	50	11,017,743
15	26,155,303	51	581,349
16	490,438	58	44
22	28,689,113	Total	2,860,915,859

Source: Gadamus (2020)

Tax districts 1, 3, 15, and 16 overlap AD2 and other municipal assembly districts, so the analysis makes assumptions regarding the portion of each district's taxable value which is allocated toward AD2. In tax district 15 the overlap occurs within Chugach State Park, so the analysis assumes that no taxable value from district 15 is allocated toward AD2. For tax districts 1, 3, and 16, the analysis distributes the personal property revenue in the same proportion as revenues from real property. In AD2 there is approximately \$104,028,124 in taxable value personal property value resulting in \$876,126 in annual revenues (see Table 8 on page 7).

Table 8. 2019 Business Personal Property Value and Revenue

Tax District	AD2	AD2 less Muldoon remainder	Muldoon remainder	Other MOA
(\$)				
Taxable Value				
1	20,374,401	20,374,401	0	868,203,251
3	21,285,537	4,838,008	16,447,529	1,845,676,970
10	31,204,655	31,204,655	0	0
11	0	0	0	0
15	0	0	0	26,155,303
16	85,667	85,667	0	404,771
22	28,689,113	28,689,113	0	0
30	26,475	26,475	0	0
46	7,210,670	7,210,670	0	0
47	0	0	0	0
50	11,017,743	11,017,743	0	0
51	581,349	581,349	0	0
58	44	44	0	0
Total	120,475,653	104,028,124	16,447,529	2,740,440,206
Revenue				
1	186,833	186,833	0	7,961,424
3	195,188	44,365	150,824	16,924,858
10	275,849	275,849	0	0
11	0	0	0	0
15	0	0	0	2,616
16	297	297	0	1,405
22	213,734	213,734	0	0
30	171	171	0	0
46	51,989	51,989	0	0
47	0	0	0	0
50	98,499	98,499	0	0
51	4,389	4,389	0	0
58	0	0	0	0
Total	1,026,950	876,126	150,824	24,890,302

Source: Gadamus (2020), MOA (2019b), Northern Economics analysis

Charges for Services, Grants, and Entitlements

There are four sources of MOA non-tax revenues: charges for services, operating grants and contributions, capital grants and contributions, and unrestricted grants and entitlements. These revenues total \$115,303,169 for the MOA, as shown in Table 9. The analysis allocates non-tax revenues to AD2 using housing and population estimates from the 2010 U.S. Census.

Table 9. Non-tax Revenues by Source

Revenue Source	MOA Revenue (\$)
Charges for Services	52,540,937
Operating Grants and Contributions	38,139,130
Capital Grants and Contributions	18,527,333
Grants and entitlements not restricted to specific programs	6,095,769
Total	115,303,169

Source: MOA CAFR (2018)

Vehicle Registration Fees

The study team requested actual revenue data for MOA vehicle registration fees from Alaska Division of Motor Vehicles, but it was not available in time to include in this analysis. Instead, vehicle registration fees are calculated using MOA's 2018 CAFR with individual calculation steps shown below in Table 10.

In MOA's CAFR, vehicle rental taxes and registration fees are combined in a single line item for motor vehicle taxes. Detailed tax summaries from MOA (2020c) show that vehicle rentals revenues totaled \$6,740,017 in 2018. Subtracting that number from MOA's CAFR total for motor vehicle taxes results in an estimate of \$10,223,810 for vehicle registration fees.

The portion of fees derived from aircraft registration is estimated at \$214,800 using FAA's releasable aircraft database. This analysis calculates the vehicle registration fees paid by owners of aircraft residing in zip codes 99505, 99506, 99577, and 99567. The remaining \$10,009,010 in revenue is derived from registration of all other vehicle types.

Table 10. Vehicle Registration Fees

Line	Data Source	Revenue Source	MOA Revenue (\$)
1	MOA CAFR	Motor Vehicle Taxes	16,963,827
2	MOA Rental Vehicle Tax Summaries	Vehicle Rentals	6,740,017
3	Northern Economics calculation	Vehicle Registration Fees (line 1- line 2)	10,223,810
4	FAA Releasable Aircraft, Northern Economics Calculation	Aircraft Registration Fees	214,800
5	Northern Economics calculation	All other vehicles (line 3 – line 4)	10,009,010

Source: MOA (2018, 2020c), FAA (2020), Northern Economics analysis

Motor Fuels Tax

The MOA levies a 10 cent per gallon excise tax on motor fuels (gasoline or diesel) that does not apply to aviation fuel. During the 12-month period from March 2018 (when the tax went into effect) through February 2019, the MOA collected \$13,707,460.50 on sales of 115,111,941 gallons of gasoline and 21,962,669 gallons of diesel (MOA 2020a).

Car Rental Tax

The MOA collects an 8 percent tax on the rental of motor vehicles, with a cap of \$120 for passenger cars and \$240 for trucks, vans, and motorhomes. In 2018, the MOA collected \$6,740,017 in revenues from vehicle rental businesses (MOA 2020c). In 2019, the MOA collected \$6,330,345 in revenues, down about \$400,000 or 6.1 percent from the previous year.

Bed Tax

The MOA levies a 12 percent tax on lodging services with less than 30 days of continuous occupancy. In 2018, the MOA collected \$27,677,314 in revenues from businesses including hotels, motels, inns, bed and breakfasts, cabins, and other types of rentals (MOA 2020d).

Tobacco Tax

No revenues from the production and sale of tobacco are anticipated in AD2 at this time. Tobacco taxes in the municipality are levied only upon the business or individual responsible for bringing the products into the municipality or manufacturing products within the municipality. In 2018, only three distributors paid tobacco taxes to the municipality and none are located in AD2 (Gadamus 2020).

Marijuana Tax

No revenues from the production and sale of marijuana are anticipated in AD2 at this time. An internet search of dispensaries found none in AD2, and a review of the Alcohol Marijuana Control Office's license database confirmed that there are no active or preliminary licenses for businesses in AD2 (Alaska Department of Commerce, Community, and Economic Development 2020).

Allocation and Methodology: General Government Revenues

The analysis proportions actual MOA revenues using two alternative sets of ratios that estimate what portion of current revenues could be generated in AD2. The revenue ratios are derived from three independent data sources: proprietary market research data compiled by Infogroup, MOA's parcel data, and the U.S. Census Bureau's American Community Survey five-year estimates. Table 11 summarizes each revenue ratio by data source and calculation method. The ratios represent the percentage of revenue that could be attributed to AD2, Muldoon remainder, or AD2 excluding Muldoon remainder.

For Infogroup data, revenue ratios can be calculated using a count of businesses or by constructing a weighted average of business revenues.¹ Infogroup data are organized with detailed business categories and the study team calculates separate revenue ratios for gasoline stations, lodging businesses, and car rental businesses. For parcel data, the study calculates revenue ratios for gasoline stations and lodging businesses using the property's land use classification. U.S. Census data are used to calculate revenue ratios based on both population and housing.

¹ Gasoline stations operated by grocery stores (Fred Meyer, Costco, Carrs/Safeway) do not have independent revenue estimates in the Infogroup data. The weighted average revenue analysis assumes that sales at each grocer-operated location are equivalent to the average of all gasoline stations.

Table 11. Potential Revenue Ratio Sources

Data Source	Calculation	AD2	AD2 less Muldoon remainder	Muldoon remainder	Other Municipality
		Percent (%)			
Infogroup	Gasoline station count	12.86	12.86	0	87.14
	Gasoline station revenue	13.81	13.81	0	86.19
	Lodging count	2.51	2.51	0	97.49
	Lodging revenue	0.51	0.51	0	99.49
	Car rental count	4.35	4.35	0	95.65
	Car rental revenue	1.50	1.50	0	98.50
Tax Parcel Database	Gasoline station count	13.79	13.79	0	86.21
	Lodging count	2.44	2.44	0	97.56
Census Data	Population	17.92	16.76	1.15	82.08
	Housing	15.22	14.09	1.13	84.78

Sources: Infogroup (2015), MOA (2020b), US Census Bureau (2020)

Table 12 shows two alternative sets of revenue ratios which are used to estimate AD2 revenues and shows the calculation method (from Table 11) for each. Ratio 1 represents a conservative low-range estimate, while ratio 2 is an upper limit estimate.

Table 12. Alternative Revenue Ratio Assumptions

Revenue Category	Ratio 1 Source	Ratio 1	Ratio 2 Source	Ratio 2
Grants and Entitlements	Census – Housing	15.22	Census – Population	17.92
Charges for Services	Census – Housing	15.22	Census – Population	17.92
Vehicle Registration Fees	Census – Housing	15.22	Census – Population	17.92
Fuel Product Taxes	Infogroup – Gasoline station count	12.86	Infogroup – Gasoline station revenue	13.81
Motor Vehicle Rental Taxes	Infogroup – Car rental revenue	1.5	Infogroup – Car rental count	4.35
Bed Taxes	Infogroup – Lodging business revenue	0.51	Infogroup – Lodging business count	2.51
Tobacco Taxes	None	-	None	-
Marijuana Taxes	None	-	None	-

Table 13 provides a range for each potential revenue source by using ratios 1 and 2 (presented previously in Table 12) and applying them to actual MOA revenues in 2018. Revenue estimates for real and personal property are calculated values and there are no revenues expected from tobacco or marijuana taxes. Annual revenues derived from AD2 could range from \$62.2 million to \$66.4 million, representing between 11.8 and 12.6 percent of total MOA general government revenues

Table 13. AD2 Revenue Range Estimates

Revenue Category	2018 Municipal Tax Revenue (\$)	Ratio Range (%)	Revenue Range (\$)
Real Property Tax	304,945,354	N/A	40,304,375
Personal Property	25,917,251	N/A	1,026,950
Grants and Entitlements	62,762,232	0.15–0.18	9,552,706–11,243,934
Charges for Services	52,540,937	0.15–0.18	7,996,977–9,412,776
Motor Vehicle Registration Tax	10,223,810	0.15–0.18	1,556,112–1,831,609
Fuel Products	11,672,250	0.13–0.14	1,500,718–1,612,145
Motor Vehicle Rental	6,740,017	0.02–0.04	101,332–293,044
Hotel-Motel	27,677,314	0.01–0.03	139,803–695,410
Tobacco	20,002,707	None	-
Marijuana	3,061,091	None	-
Total	525,542,963	N/A	62,178,972–66,420,241

Source: Northern Economics analysis

Data Sources, Allocation, and Methodology: Anchorage School District

The following sections provide detailed calculations, methods, and assumptions regarding school district revenue estimates for AD2. When possible, the analysis also provides estimates for the Muldoon remainder. Table 14 summarizes the revenues estimated in this section.

Table 14. AD2 School Revenue Estimates

Revenue Category	Minimum (\$)	Maximum (\$)
Real and Personal Property Taxes	13,200,000	29,400,000
Federal Impact Aid	16,000,000	16,000,000
Public School Funding Program (State Funding)	42,700,000	50,400,000
Charges for Services	1,300,000	1,300,000
Operating Grants and Contributions	24,600,000	24,600,000
Capital Grants and Contributions	7,500,000	7,500,000
School Total	105,200,000	129,100,000

Source: Northern Economics analysis

Property Taxes

In 2019, ASD’s property tax rate for both real and personal property was 7.16 mills across all tax districts. However, the maximum allowable district budget is defined by a formula (see *Student Baseline Allocation* below), and the estimated maximum mill rate the AD2 district would be allowed to levy is 5.91 mills. The following sections provide detailed calculations for each tax in 2019.

Real Property Tax to Anchorage School District

In AD2, there is \$4.9 billion in taxable real property value. At the maximum mill rate, this would result in school district revenues of \$28.7 million in 2019 (see Table 15).

Table 15. 2019 Real Property School District Revenue

Tax District	AD2 (\$)	AD2 less Muldoon remainder (\$)	Muldoon remainder (\$)
Revenue	28,667,498	27,642,561	1,024,938

Source: MOA (2019, 2020b), Northern Economics analysis

Personal Property Tax to Anchorage School District

The analysis of school district personal property tax revenue uses the same methodology as previously described for general government revenues and distributes the personal property revenue in the same proportion as revenues from real property. In AD2 there is \$104 million in taxable personal property value resulting in school district revenues of \$711,801 in 2019 at the maximum mill rate (see Table 16).

Table 16. 2019 Business Personal Property School District Revenue

Tax District	AD2 (\$)	AD2-Muldoon remainder (\$)	Muldoon remainder (\$)
Revenue	711,801	614,624	97,176

Source: Gadamus (2020), MOA (2019b), Northern Economics analysis

Federal Impact Aid

Federal impact aid is intended to compensate school districts with federally related students including children of active duty military parents. In addition to schools on JBER, students from military families attend off-base middle and high schools and may attend some elementary schools through zone exemptions. The analysis assumes that AD2 receives federal impact aid for all students enrolled at on-base elementary schools plus most of the funding for military students enrolled off-base. Based on ASD estimates (Ratliff 2020), annual federal impact aid for AD2 is approximately \$16 million.

Student Baseline Allocation

Boroughs receive funding aid for school districts from the State of Alaska based upon the number of students each school district serves and adjusted for local property values and federal impact aid. The Public School Funding Program uses the Average Daily Membership (ADM) for K–12 students in the district, adjusted according to the steps shown in Figure 3. The base student allocation, currently \$5,930 per student (Alaska Department of Education and Early Development [DEED] 2020), is then applied to the adjusted ADMs to calculate the base need.

Figure 3. ADM Adjustment Process for Anchorage School District

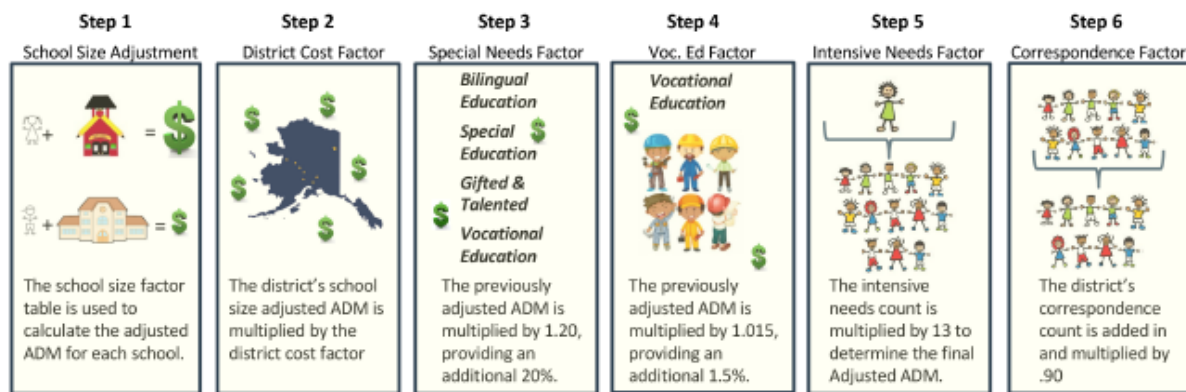


Image Source: ASD (2019)

Eighteen schools draw their student populations exclusively from AD2. There are three other schools— Creekside Elementary School, Begich Middle School, and Bartlett High School—whose zoning districts overlap with the AD2 boundaries. This analysis assumes that 50 percent of Creekside Elementary School students reside in AD2, and 5 percent of students each from Begich Middle School and Bartlett High School reside in AD2. In total, these schools have an ADM of 7,505. After adjusting for the other factors shown in Figure 3, the estimated adjusted ADM for AD2 students is 11,741.39. The adjustment process is shown in Table 17.

Table 17. Estimated ADMs from AD2 Students

School	2019-2020 ADM	School Size Adjustment Formula	Step 1: School Size	Step 2: District Cost Factor	Step 3: Special Needs Factor	Step 4: Vocational Education	Step 5: Intensive Needs	ADM Subtotal
Alpenglow Elementary	476.0	$=471.6+0.92*(475.95-400)$	541.5	541.5	649.8	659.5	659.5	
Aurora Elementary	316.9	$=326.1+0.97*(316.9-250)$	391.0	391.0	469.2	476.2	476.2	
Birchwood ABC	216.4	$=218.1+1.08*(216.35-150)$	289.8	289.8	347.7	352.9	417.9	
Chugiak Elementary	499.5	$=471.6+0.92*(499.5-400)$	563.1	563.1	675.8	685.9	698.9	
Eagle River Elementary	340.6	$=326.1+0.97*(340.55-250)$	413.9	413.9	496.7	504.2	621.2	
Fire Lake Elementary	331.2	$=326.1+0.97*(331.22-250)$	404.9	404.9	485.9	493.1	740.1	
Homestead Elementary	311.0	$=326.1+0.97*(310.9875-250)$	385.3	385.3	462.3	469.2	534.2	
Orion Elementary	251.6	$=326.1+0.97*(251.6-250)$	327.7	327.7	393.2	399.1	412.1	
Ravenwood Elementary	466.4	$=471.6+0.92*(466.35-400)$	532.6	532.6	639.2	648.8	804.8	
Ursa Major Elementary	432.7	$=471.6+0.92*(432.74-400)$	501.7	501.7	602.1	611.1	715.1	
Ursa Minor Elementary	348.2	$=326.1+0.97*(348.2-250)$	421.4	421.4	505.6	513.2	513.2	
Gruening Middle	586.7	$=471.6+0.92*(586.65-400)$	643.3	643.3	772.0	783.6	835.6	
Mirror Lake Middle	676.9	$=471.6+0.92*(676.875-400)$	726.3	726.3	871.6	884.7	884.7	
Chugiak High	895.9	$=793.6+0.84*(895.93-750)$	916.2	916.2	1,099.4	1,115.9	1,271.9	
Eagle River High	850.0	$=793.6+0.84*(850.04-750)$	877.6	877.6	1,053.2	1,069.0	1,121.0	
Eagle Academy Charter	176.0	$=218.1+1.08*(176-150)$	246.2	246.2	295.4	299.8	299.8	
Subtotal, AD2 Schools								11,006.2
AD2 Share of:								
Creekside Elementary (50%)	424.9	$=471.6+0.92*(424.9-400)$	494.5	494.5	593.4	602.3	810.3	405.2
Begich Middle (5%)	957.2	$=793.6+0.84*(957.22-750)$	967.7	967.7	1,161.2	1,178.6	1,438.6	71.9
Bartlett High (5%)	1,383.5	$=793.6+0.84*(1383.45-750)$	1,325.7	1,325.7	1,590.8	1,614.7	1,939.7	97.0
Subtotal, MOA Remainder Schools								574.1
Step 6: Correspondence Factor								161.1
Total ADM Estimate								11,741.4

Sources: Ratliff (2020), DEED (2020), Northern Economics analysis

Table 18 presents the steps required to calculate the estimated minimum and maximum allowable district budget. As shown in the table, the maximum property tax rate the new AD2 district could charge is 5.91 mills, which is 1.25 mills under what ASD collects. The result is a school budget, inclusive of local, state, and federal formula funds, of \$71.8 to \$95.8 million. Other revenues that could be generated outside of this allowable range, including grants and program fees, are discussed in the next section.

Table 18. Estimated Minimum and Maximum AD2 School District Budget

Category	Budget Calculation Steps	
	Minimum	Maximum
Eagle River Adjusted ADM	11,741.39	11,741.39
Base Student Allocation (\$)	5,930	5,930
Basic Need (\$)	69,626,448	69,626,448
Property Values (FVD) (\$)	4,972,586,354	4,972,586,354
Required Local Effort (2.65 mills) (\$)	13,177,354	13,177,354
AD2 Federal Impact Aid (\$)	16,000,000	16,000,000
State Reduction Related to Impact Aid (\$)	-13,939,980	-6,252,431
State Foundation Revenue (\$)	42,509,114	50,196,663
State Quality Schools Grant (\$)	187,862	187,862
Total State Revenue (\$)	42,696,977	50,384,525
Required Local Taxes (\$)	13,177,354	13,177,354
Additional Allowable Taxes (\$)		16,201,945
Mill Rate Required for Additional Taxes		3.26
District Budget (\$)	71,874,330	95,763,824
Education Mill Rate	2.65	5.91

Sources: DEED (undated, 2020), Ratliff (2020), Northern Economics analysis

Charges for Services and Grants

Anchorage School District students residing in AD2 represent 16.94 percent of total enrollment, which is used to determine the ratio of charges for services, operating grants and contributions, and capital grants and contributions attributable to AD2 (see Table 19).

Table 19. Other School Revenue Source Allocations

Revenue Source	ASD Revenue (\$)	AD2 School Revenue (\$)
Charges for services	7,466,991	1,264,697
Operating grants and contributions	145,014,620	24,561,368
Capital grants and contributions	44,295,140	7,502,342
Total	196,776,751	33,328,407

Source: Anchorage School District (2018)

Potential Development and Other Revenues from AD2's Location

Land Use Types

The MOA has a greater concentration of commercial properties than AD2. While the taxable value of real property is taxed at the same rate regardless of whether it is residential or commercial in nature, commercial property tends to have a higher density of value per square foot of developed area and is not subject to state-mandated residential property exemptions (Alaska State Legislature 2019).²

² Alaska Statute AS 29.45.030(e) requires exemptions for senior citizens and disabled veterans, subject to eligibility requirements.

Table 20 presents a summary of the total appraised, exempted, and taxable values of all parcels in the MOA property data. Using the total lot size as a divisor, the table shows that commercial properties, on average, are assessed at more than 2.5 times residential properties on a per-square-foot basis and taxed at more than 3 times residential properties.

Table 20. Analysis of Residential and Commercial Property Valuations

	Property Type		Total
	Commercial	Residential	
Total Appraised Value (\$)	14,911,637,200	27,425,264,470	42,336,901,670
Total Exemptions (\$)	57,428,071	4,788,306,669	4,845,734,740
Total Taxable Value (\$)	14,854,209,129	22,636,957,801	37,491,166,930
Total Lot Size (sf)	1,462,788,330	6,927,464,195	8,390,252,525
Appraised Value per Square Foot (\$/sf)	10.19	3.96	5.05
Exemptions per Square Foot (\$/sf)	0.04	0.69	0.58
Assessed Value per Square Foot (\$/sf)	10.15	3.27	4.47

Source: MOA (2020b)

Commercial properties are also more likely to maintain business personal property that could be taxed beyond the \$20,000 exemption. This is especially the case for commercial properties such as warehouses or distribution centers. Further, commercial properties drive economic activity and ad valorem tax revenues. The intent of this analysis is not to suggest that residential properties are of lesser value to a municipality but that commercial activity tends to be a significant driver of tax revenues based on its percentage of total land use.

Sales Tax

Sales (ad valorem) taxes are levied on the sale of goods to individual consumers. Most sales tax revenues are derived from tangible goods sold at stores and eating establishments, and services are generally not taxed. In AD2, a sales tax could be used to generate revenue from sectors including wholesale trade, retail trade, arts, entertainment, and recreation, and accommodations and food services. Infogroup reports sales estimates for 98.8 percent of businesses in the applicable sectors, totaling about \$1.1 billion in inflation adjusted dollars (Table 21). At a sales tax rate of one percent, AD2 could generate up to \$11 million in revenue. This estimate represents an upper bound since a sales tax would likely influence consumer behavior. Individuals living in AD2 could shift a portion of their retail spending to businesses located in Anchorage to avoid taxation.

Table 21. AD2 Sales Tax Revenue Estimate

Business Sector	2015 Infogroup Reported Sales	2019 Inflation Adjusted Sales	Percentage (%) of Businesses Represented
Wholesale trade	218,509,000	235,702,857	100
Retail trade	660,935,000	712,942,113	100
Arts, entertainment, and recreation	34,016,000	36,692,623	100
Accommodation and food services	103,204,000	111,324,832	88.9
Taxable sales	1,016,664,000	1,096,662,426	98.8
Revenue (1% tax rate)		10,966,624	

Sources: Infogroup (2015), Northern Economics analysis

Encouraging Warehousing with a Business Personal Property Tax Exemption

One idea proposed by members of EaglExit to encourage additional business activity and take advantage of AD2's location and available land is to eliminate personal property taxes to encourage warehouses and distribution centers to relocate. A tax differential would likely allow a business to locate in AD2 and be slightly more cost-competitive against a similar business in Anchorage. However, several factors could affect this advantage:

1. The cost of relocating an existing operation to AD2 (i.e., the transaction cost) would likely negate any potential personal property tax savings for an extended period.
2. Construction of new warehousing space, in addition to required site work and utilities, could cost significantly more than existing buildings that were constructed in the past at lower cost.
3. The most promising case appears to be a business that has decided to build in AD2 or elsewhere in the MOA but that has not yet committed to a location, so that it would not have any existing invested costs to overcome. However, this new entrant may or may not be incentivized by the personal property tax exemption as much as other market-based factors.
4. Benefitting from reduced taxes assumes that the MOA would allow businesses to move without first trying to persuade them to stay. If AD2 were to exempt warehouses from a personal property tax, the MOA could offer similar price breaks to encourage businesses to stay.

Encouraging Tobacco Companies with a Business Personal Property Tax Exemption

Another potential benefit of exempting businesses from the personal property tax could come from tobacco distributors or tobacco product manufacturers. These entities currently pay tobacco and business inventory taxes to the MOA. If exempting them from inventory taxes encouraged them to move their operations to AD2, the new government could generate tobacco tax revenues while the businesses would benefit from not paying the inventory tax.

Encouraging Fuel Sales by Removing the Excise Tax on Fuels

The new AD2 government could opt to reduce or eliminate the 10 cent per gallon fuel tax that MOA currently levies to encourage fuel sales. AD2's location with the Glenn Highway running through it would be ideal for serving commuting motorists' needs. Table 1 showed that estimated fuel products tax revenues could range from \$1.5 to \$1.6 million. Reducing or eliminating the fuel tax would reduce revenues to AD2, but it could encourage increased fuel purchases. However, a more detailed study of the elasticity of fuel demand to changes in price would be needed to determine if this would result in higher or lower revenues.

Other Considerations

The MOA building safety services area only covers the Anchorage Bowl. However, commercial businesses in AD2 benefit from the MOA Building Code Enforcement Grading System level 2 rating in their insurance premiums while part of the MOA. These businesses do not receive nor pay for building safety services (Doehl 2020). If AD2 were to detach from the MOA, commercial property owners could face higher insurance premiums unless the new AD2 government were to implement a building safety services area comparable to what currently exists in the MOA.

References

- Alaska Department of Commerce, Community, and Economic Development. 2020. Alcohol & Marijuana Control Office Licenses and Applications by Status. <https://www.commerce.alaska.gov/web/amco/>. Accessed on January 28, 2020.
- Alaska Department of Education and Early Development (DEED). Undated. http://www.akleg.gov/basis/get_documents.asp?session=29&docid=1472. Accessed on February 21, 2020.
- . 2020. Foundation Funding Formula. <https://education.alaska.gov/schoolfinance/foundationfunding>. Accessed on February 7, 2020.
- Alaska Department of Labor and Workforce Development. Undated. Components of Population Change for Alaska Regions, Boroughs and Census Areas, 2010 to 2019. <http://live.laborstats.alaska.gov/pop/estimates/data/ComponentsOfChangeBCA.xls>. Accessed February 26, 2020.
- Alaska State Legislature. 2019. Alaska Statute §29.45.030(e). <http://www.akleg.gov/basis/statutes.asp#29.45.020>. Accessed on February 26, 2020.
- Anchorage School District (ASD). 2019. 2019–20 Proposed Budget. https://www.asdk12.org/cms/lib/AK02207157/Centricity/Domain/1225/BUD-222-Proposed_PRINT.pdf. Accessed on February 21, 2020.
- Anchorage School District. 2018. Comprehensive Annual Financial Report. <https://www.asdk12.org/cms/lib/AK02207157/Centricity/Domain/1225/2018%20CAFR.pdf>. Accessed February 13, 2020.
- Childers, Jim. 2010. Project Manager, Alaska Department of Transportation and Public Facilities. Anchorage and Matanuska-Susitna Borough 2035 Land Use Allocation and Forecast. <http://communitycouncils.org/download/5243.pdf>. Accessed February 28, 2020.
- Doehl, Robert. 2020. Director and Building Official, Development Services Department, MOA. Personal communication with Northern Economics. February 26, 2020.
- Federal Aviation Administration (FAA). 2020. Releasable aircraft data. https://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/releasable_aircraft_download/. Accessed on February 7, 2020.
- Gadamus, Jack. 2020. Municipal Assessor, Municipality of Anchorage. Personal Communication with Northern Economics. January 23, 2020.
- InfoGroup USA. 2015. Alaska Business Data. Personal communication with Northern Economics.
- Municipality of Anchorage (MOA). 2018. Internal Audit Reports. https://www.muni.org/Departments/internal_audit/Pages/AdtRpts.aspx.

- . 2019a. Anchorage Municipal Charter, Code and Regulations §2.25.010, Election districts. November 21, 2019. Published on Municode.com. https://library.municode.com/ak/anchorage/codes/code_of_ordinances?nodeId=TIT2LEBR_CH2.25ASCOAPPL_2.25.010ELDI. Accessed on February 26, 2020.
- . 2019b. 2019 Approved Mill Levy by Fund & District. AO NO.2019-47. <https://www.muni.org/Departments/finance/treasury/PropTax/Documents/Approved%20Mill%20Rates%202019.pdf>. Accessed on February 7, 2020.
- . 2019c. Assembly District Links. Updated Nov 15, 2019. <https://muniorg.maps.arcgis.com/home/item.html?id=8e4f3735298f45fd9d31b99bddae4563>. Accessed on February 26, 2020.
- . 2020a. Motor Fuel Tax Statistics. <http://www.muni.org/Departments/finance/treasury/programtaxes/MotorFuelTax/Pages/MotorFuelStatistics.aspx>. Accessed on February 7, 2020.
- . 2020b. Property Appraisals. https://www.muni.org/Departments/finance/property_appraisal/Pages/default.aspx. Accessed February 13, 2020.
- . 2020c. Rental Vehicle Tax Summaries. <http://www.muni.org/Departments/finance/treasury/programtaxes/rentalvehicletax/Pages/rental-vehicle-tax-statistics.aspx>. Accessed on February 7, 2020.
- . 2020d. Room Tax Summaries. <http://www.muni.org/Departments/finance/treasury/programtaxes/roomtax/Pages/room-tax-statistics.aspx>. Accessed on February 7, 2020.
- . Undated. Assembly Districts (GIS online map). <https://muniorg.maps.arcgis.com/apps/webappviewer/index.html?id=c4809e7b77da4f058aacd6936d3079fa>. Accessed March 2, 2020.
- Ratliff, Andrew. 2020. Senior Director, Office of Management and Budget, Anchorage School District. E-mail with ADMs and intensive need student counts for AD2 area schools. February 25, 2020.
- US Census Bureau. 2020. 2010 Census. <https://data.census.gov/cedsci/>. Accessed on February 7, 2020.