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PRELIMINARY FY 2021 COVID FORECAST

Date: October 9, 2020

Re: Impacts of COVID-19 Impacts in Alaska

COVID-19 Cases, Hospitalizations, and Deaths – a Comparison to Peers

Evergreen Economics compared the rates of COVID-19 cases, hospitalization, and deaths in Alaska to six "peer" states and the U.S. The Alaska Department of Health and Social Services (DHSS) maintains and regularly updates a website that provides information on resources related to COVID-19, including a dashboard of statistics on cases, hospitalizations, and deaths. Other states maintain similar websites, and the Centers for Disease Control and Prevention (CDC) aggregate the state-level data to provide national-level information on COVID-19. Table 1 shows the population, number of COVID-19 cases, hospitalizations, and related deaths as of October 7 or 8, 2020 for Alaska, the six designated peer states, and the U.S.

State	2019 Population	COVID 19 Cases	COVID 19 Hospitalizations	COVID 19 Deaths
Alaska	731,545	9,005	320	60
Idaho	1,754,208	45,753	1,997	500
Montana	1,062,305	16,677	851	197
North Dakota	760,077	25,384	1,016	310
South Dakota	882,235	26,441	1,717	272
Wyoming	577,737	6,899	305	53
New Mexico	2,095,428	31,372	3,625	896
Total U.S.	327,167,439	7,475,262	584,852	210,232

Table 1: COVID-19 Cases, Hospitalizations, and Deaths: Alaska, Six Peer States, and the U.S.

Sources: Data compiled by Evergreen Economics from websites listed at end of this memo.

We chose these states to serve as "peers" because they are geographically large, are predominantly rural, and have low population densities, relative to other states. We included data on the entire U.S in order to compare Alaska to national trends. While Table 1 is informative about the numbers of people impacted, the differences in population across states make it difficult to make state-by-state comparisons of the impacts of COVID-19.

Table 2 shows the rates of COVID-19 infection, hospitalizations, and deaths for Alaska, the six designated peer states, and the U.S. Comparing the rates of impacts from COVID-19 removes



the effects of population difference, thereby providing a clearer picture of the variation in impacts across the states and the U.S. as a whole. In Alaska, 1.23 percent of the population has tested positive for COVID-19. Only Wyoming had a (slightly) lower rate of COVID-positive tests. Comparatively, North Dakota (3.34%), South Dakota (3.0%), and Idaho (2.61%) have higher rates of COVID-positive tests.

State	Percent of Population Tested COVID Positive	Percent COVID Positive Hospitalized	Percent COVID Positive Deaths
Alaska	1.23%	3.55%	0.67%
Idaho	2.61%	4.36%	1.09%
Montana	1.57%	5.10%	1.18%
North Dakota	3.34%	4.00%	1.22%
South Dakota	3.00%	6.49%	1.03%
Wyoming	1.19%	4.42%	0.77%
New Mexico	1.50%	11.55%	2.86%
Total U.S.	2.28%	7.82%	2.81%

Table 2: Rates of COVID-19, Hospitalizations, and Deaths: Alaska, Six Peer States, and the U.S.

Sources: Data compiled by Evergreen Economcis from websites listed at end of this memo.

The percentage of people who tested positive for COVID-19 and required hospitalization was lower in Alaska (3.55%) than in any of the peer states and substantially lower than the national average. Likewise, the percentage of persons who tested positive for COVID-19 and died was lower for Alaska (0.67%) than any of the peer states or the U.S.

To quantify the differences in COVID-19 infections and outcomes, Evergreen Economics conducted a simple "counterfactual" analysis by applying the average rates shown in Table 2 for the six designated peer states and the U.S. to Alaska's population. Table 3 shows how many COVID-19 positive cases, hospitalizations, and deaths Alaska would have faced (as of October 8) if it experienced the same rates as the average of the six designated peer states. Table 4 shows the same information, based on applying the national average rates.

Under both counterfactual scenarios, the number of COVID-19 positive cases is more than 7,000 higher than Alaska has actually experienced (as of October 8). For hospitalizations and deaths, the difference between the counterfactual scenarios and Alaska's actual experience is even more striking. Hospitalizations would be three times greater under the peer-state scenario



(320 versus 964) and more than four times greater under the U.S. scenario (320 versus 1,308). Under the peer-state scenario, more than 200 Alaska residents who were COVID-positive would have died (compared to 60 who have actually died) and under the average U.S. scenario, nearly 500 would have died.

 Table 3: Counterfactual COVID Metrics for Alaska Under the Assumption Alaska Experienced

 the Average Rates of Infection, Hospitalization, and Death as the Six Peer States

COVID 19 Metric	Alaska Actual COVID 19 Cases (as of 10/08/20)	Counterfactual COVID Cases	Difference*
Positive Cases	9,005	16,101	7,096
Hospitalizations	320	964	644
Deaths	60	219	159

* Computed as counterfactual minus actual; represents how many more positive cases, hospitalizations, and deaths Alaska would have experienced if its COVID rates followed the average of its designated peers.

Table 4: Counterfactual COVID Metrics for Alaska Under the Assumption Alaska Experiencedthe Average Rates of Infection, Hospitalization, and Death as the U.S.

COVID 19 Metric	Alaska Actual COVID 19 Cases (as of 10/08/20)	Counterfactual COVID Cases	Difference*
Positive Cases	9,005	16,715	7,710
Hospitalizations	320	1,308	988
Deaths	60	470	410

* Computed as counterfactual minus actual; represents how many more positive cases, hospitalizations, and deaths Alaska would have experienced if its COVID rates followed the average of the U.S.

It is important to note that geographic, demographic, economic, and other factors that influence infection rates differ across states. Nevertheless, this counterfactual analysis provides a means for benchmarking Alaska's performance in minimizing the rates of COVID infections, as well as hospitalizations and deaths due to or influenced by COVID-19 infection.



URLs of State and Federal Website References for Peer Comparison

State	URL	
Alaska	http://dhss.alaska.gov/dph/Epi/id/Pages/COVID-19/default.aspx	
Idaho	https://coronavirus.idaho.gov/	
Montana	https://dphhs.mt.gov/publichealth/cdepi/diseases/coronavirusmt/demographics# 9512110649-archive-of-covid-19-montana-analyses	
North Dakota	https://www.health.nd.gov/diseases-conditions/coronavirus/north-dakota- coronavirus-cases	
South Dakota	https://doh.sd.gov/news/Coronavirus.aspx	
Wyoming	<u>https://health.wyo.gov/publichealth/infectious-disease-epidemiology-</u> unit/disease/novel-coronavirus/	
New Mexico	https://cvprovider.nmhealth.org/public-dashboard.html	
U.S.	https://covid.cdc.gov/covid-data-tracker/#cases_casesinlast7days Recoveries: https://www.worldometers.info/coronavirus/country/us/	