

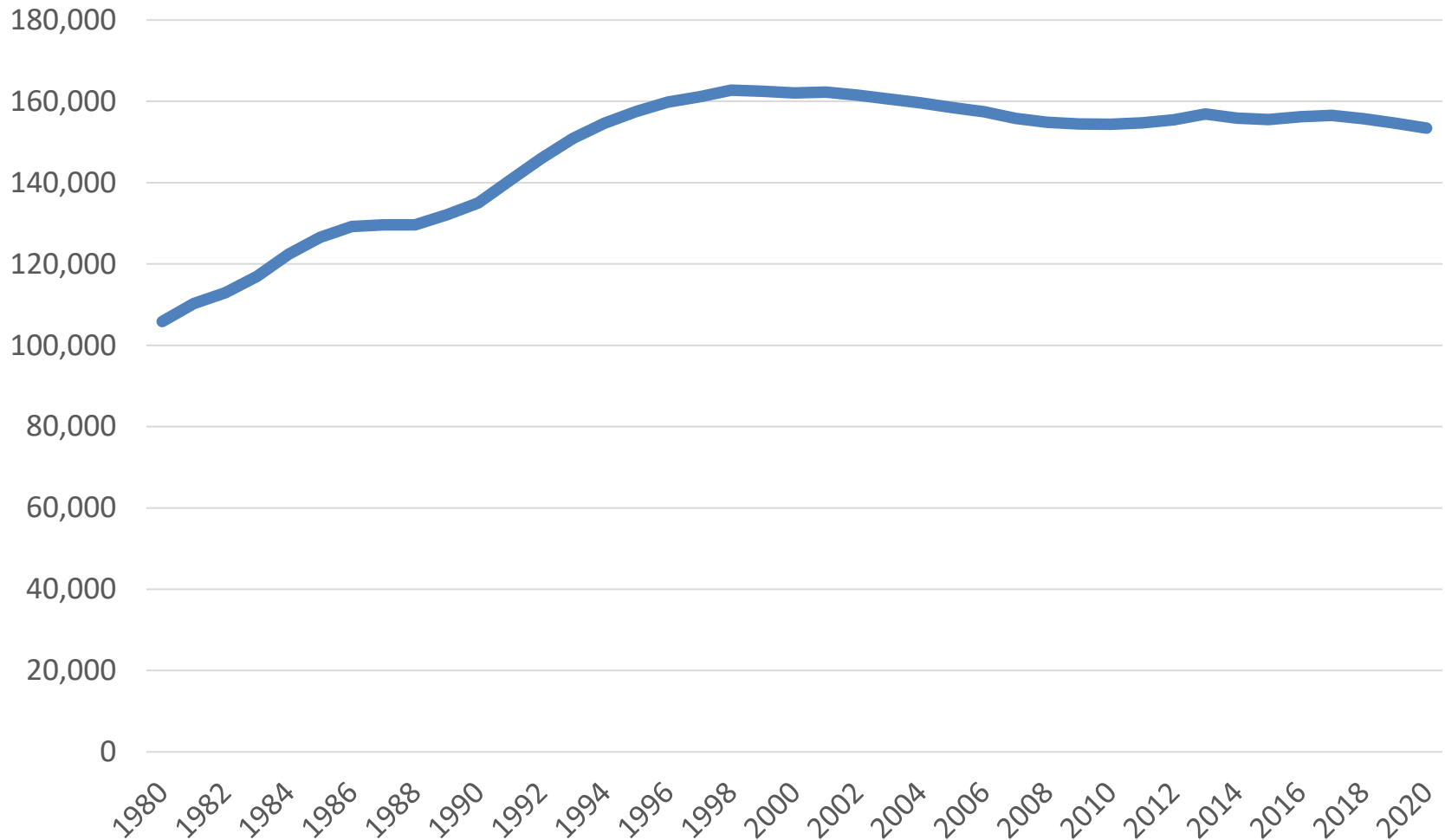


# Trends in Alaska's School-Age Population, and Long-Term Occupational Projections

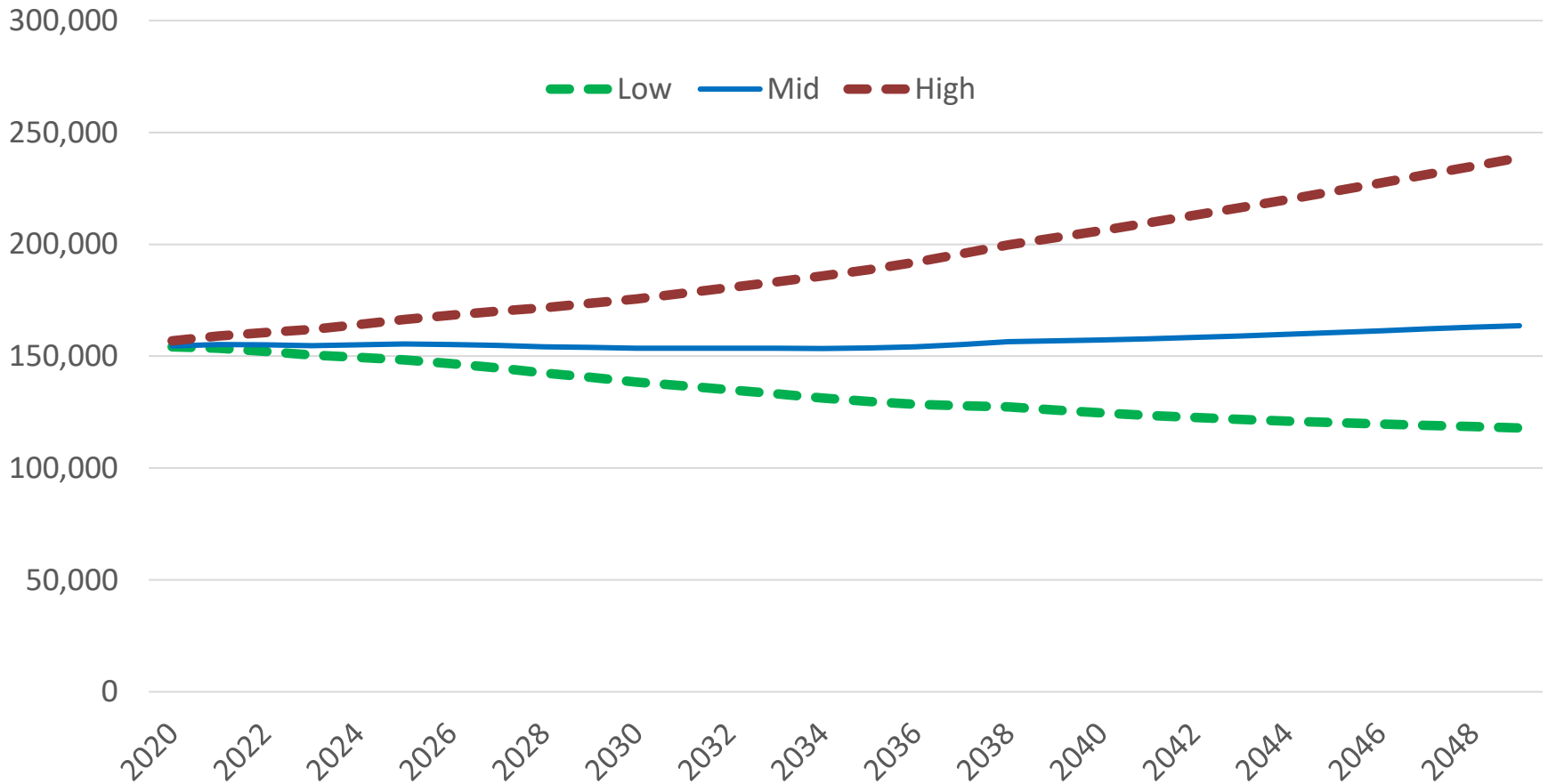
Senate Education  
Committee  
April 26, 2021

Dan Robinson, Research Chief  
Alaska Department of Labor  
and Workforce Development

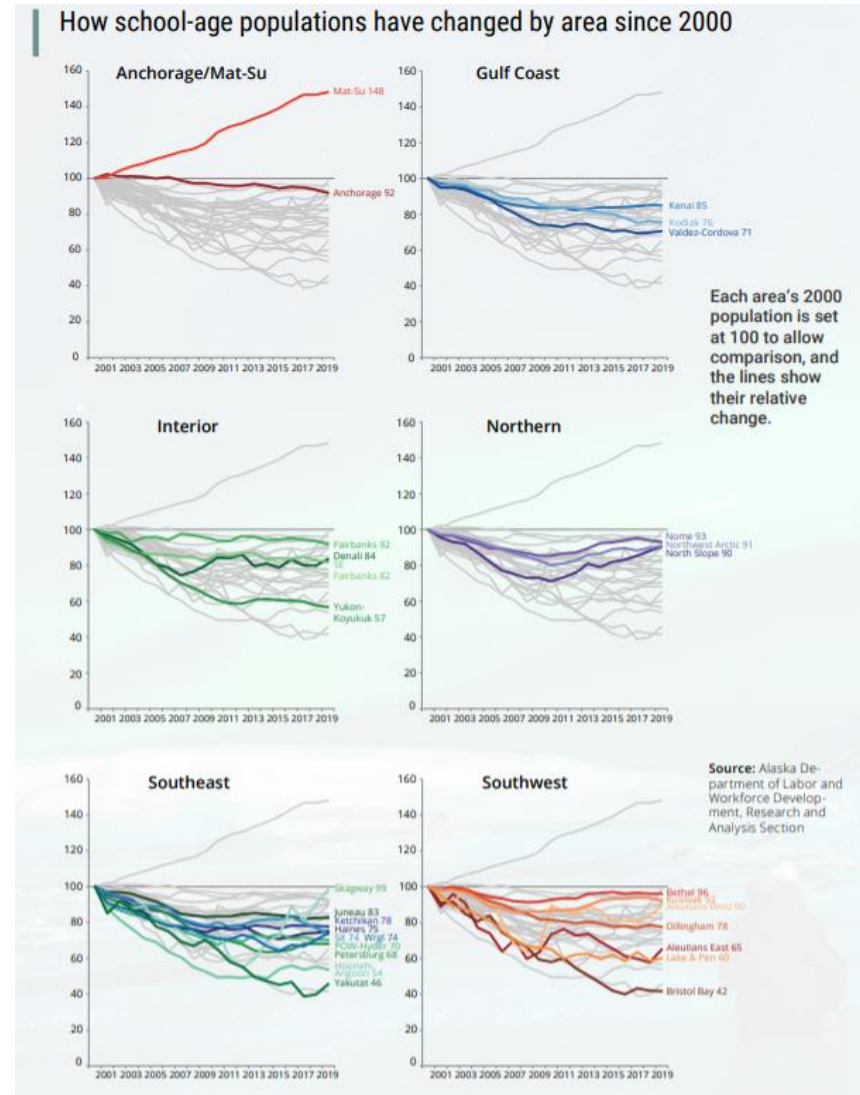
# Alaska's school-age (4-18) population, 1980-2020



# Projected school-age (4-18) population, 2020-49



# A recent *Trends* article on the subject





# Ten-year industry and occupational projections



## 10-year industry projections

5.5 percent employment growth for Alaska from 2018 to 2028

By PAUL MARTZ

Alaska entered another downturn this spring, brought on by the pandemic, just as the state had begun to emerge from a three-year recession. When we began these projections, governments across the country were mandating shutdowns intended to last weeks, not months, and Alaskans expected tourism would resume later in the summer. That didn't happen.

The short-term consequences of the pandemic will be significant, but it will take years to understand the long-term effects.

# Which jobs will be especially good?

## Alaska's top jobs, 2018 to 2028

Alaska's top jobs, 2018 to 2028	Employment			Average annual openings, 2018-28			Training* required	Wage** quartile
	2018	2028	Percent change	Growth	Sepa- rations	Total openings		
Master's degree								
Educational, Guidance, School, and Vocational Counselors	505	499	-1.2%	-1	51	50	None	\$\$\$
Bachelor's degree								
Chief Executives	1,704	1,830	7.4%	13	126	139	None	\$\$\$\$
General and Operations Managers	4,368	4,622	5.8%	25	390	415	None	\$\$\$\$
Sales Managers	808	846	4.7%	4	74	78	None	\$\$\$\$
Administrative Services Managers	1,234	1,300	5.4%	7	106	113	None	\$\$\$\$
Computer and Information Systems Managers	931	963	3.4%	3	74	77	None	\$\$\$\$
Financial Managers	1,146	1,188	3.7%	4	90	94	None	\$\$\$\$
Human Resources Managers	561	595	6.1%	3	49	52	None	\$\$\$\$
Construction Managers	993	1,089	9.7%	10	75	85	Moderate OJT	\$\$\$\$
Medical and Health Services Managers	962	1,036	7.7%	7	79	86	None	\$\$\$\$
Buyers and Purchasing Agents	690	705	2.2%	2	73	75	Moderate OJT	\$\$\$
Compliance Officers	730	731	0.1%	0	64	64	Moderate OJT	\$\$\$\$
Human Resources Specialists	625	659	5.4%	3	64	67	None	\$\$\$
Management Analysts	524	534	1.9%	1	49	50	None	\$\$\$\$
Accountants and Auditors	1,932	2,053	6.3%	12	185	197	None	\$\$\$\$
Computer Systems Analysts	570	626	9.8%	6	43	49	None	\$\$\$
Network and Computer Systems Administrators	752	785	4.4%	3	54	57	None	\$\$\$\$
Civil Engineers	999	1,077	7.8%	8	81	89	None	\$\$\$\$
Zoologists and Wildlife Biologists	920	927	0.8%	1	84	85	None	\$\$\$\$
Environmental Scientists and Specialists, Including Health	613	689	12.4%	8	70	78	None	\$\$\$\$
Substance Abuse, Behavioral Disorder, Mental Health Counselors	675	733	8.6%	6	72	78	None	\$\$\$
Elementary School Teachers, Except Special Education	2,283	2,264	-0.8%	-2	168	166	None	\$\$\$
Secondary School Teachers, Exc Special and Career/Tech Ed	1,695	1,680	-0.9%	-2	118	117	None	\$\$\$
Registered Nurses	5,856	6,260	6.9%	40	323	363	None	\$\$\$\$
Airline Pilots, Copilots, and Flight Engineers	2,083	2,163	3.8%	8	216	224	Moderate OJT	\$\$\$\$

# Which jobs will be especially good (cont.)?

	Employment			Average annual openings, 2018-28			Training* required	Wage** quartile
	2018	2028	Percent change	Growth	Separations	Total openings		
Associate degree or postsecondary nondegree award or some college, no degree								
Civil Engineering Technicians	638	669	4.9%	3	64	67	None	\$\$\$
Dental Hygienists	670	733	9.4%	6	47	53	None	\$\$\$\$
Massage Therapists	518	560	8.1%	4	63	67	None	\$\$\$
Telecomms Equip Installers and Repairers, Except Line Installers	770	752	-2.3%	-2	84	82	Moderate OJT	\$\$\$
Aircraft Mechanics and Service Technicians	1,476	1,504	1.9%	3	122	125	None	\$\$\$
Captains, Mates, and Pilots of Water Vessels	642	681	6.1%	4	62	66	None	\$\$\$
High school diploma or equivalent								
Food Service Managers	595	660	10.9%	7	72	79	None	\$\$\$
Correctional Officers and Jailers	1,283	1,243	-3.1%	-4	111	107	Moderate OJT	\$\$\$
Police and Sheriff's Patrol Officers	1,283	1,242	-3.2%	-4	88	84	Moderate OJT	\$\$\$\$
First-Line Supervisors of Office and Administrative Support	2,062	2,151	4.3%	9	221	230	None	\$\$\$
Executive Secretaries and Executive Administrative Assistants	3,209	3,353	4.5%	14	367	381	None	\$\$\$
Supervisors of Construction and Extraction Workers	740	829	12.0%	9	81	90	None	\$\$\$\$
Carpenters	2,162	2,467	14.1%	31	239	270	Apprentice	\$\$\$
Operating Engineers, Other Construction Equipment Operators	2,788	2,951	5.9%	16	330	346	Moderate OJT	\$\$\$
Electricians	1,769	1,901	7.5%	13	212	225	Apprentice	\$\$\$
Plumbers, Pipefitters, and Steamfitters	1,307	1,411	8.0%	10	151	161	Apprentice	\$\$\$\$
First-Line Supervisors of Mechanics, Installers, and Repairers	672	720	7.1%	5	64	69	None	\$\$\$\$
Bus and Truck Mechanics and Diesel Engine Specialists	701	747	6.6%	5	67	72	Long OJT	\$\$\$
Mobile Heavy Equipment Mechanics, Except Engines	822	910	10.7%	9	86	95	Long OJT	\$\$\$
First-Line Supervisors of Production and Operating Workers	619	674	8.9%	6	67	73	None	\$\$\$
Welders, Cutters, Solderers, and Brazers	590	639	8.3%	5	68	73	Moderate OJT	\$\$\$
1st-Line Supervisors of Transp/Matl Movers, Exc Air Cargo	685	727	6.1%	4	75	79	None	\$\$\$
Commercial Pilots	932	939	0.8%	1	95	96	Moderate OJT	\$\$\$\$
Flight Attendants	463	458	-1.1%	-1	52	52	Moderate OJT	\$\$\$\$
No formal educational credential								
Service Unit Operators, Oil, Gas, and Mining	993	1,074	8.2%	8	146	154	Moderate OJT	\$\$\$



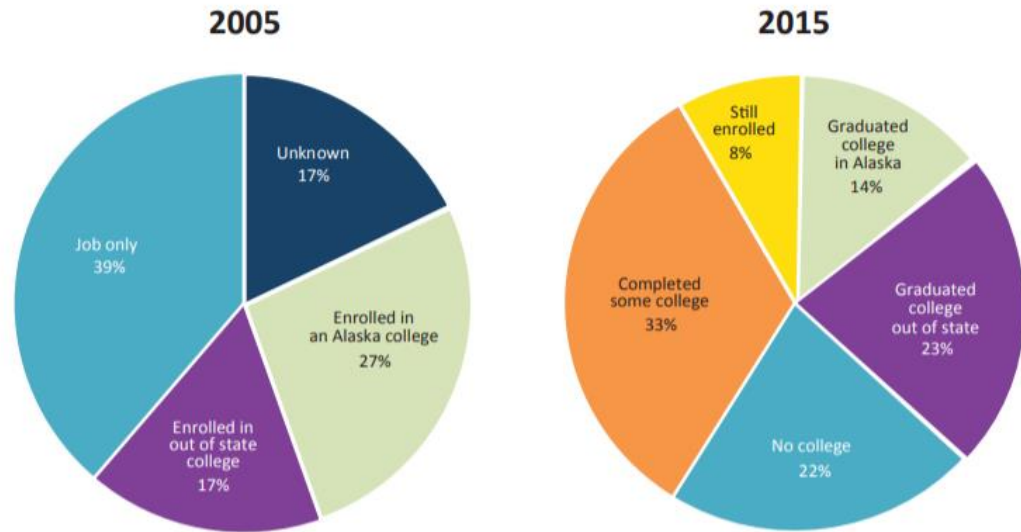
# A few examples of how we work with DEED and UA

## ALASKA GRADS ten years later

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Where 2005 Graduates Started Out and Where They Are Now

ALL ALASKA 2005 HIGH SCHOOL GRADUATES



Note: "Graduated college" includes associate degrees.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section



# A few examples of how we work with DEED and UA

## THE OIL AND GAS INDUSTRY AND UA GRADUATES FAST FACTS

The University of Alaska has identified 54 programs whose graduates are important to the oil and gas industry. Detailed below are their employment and wage outcomes, plus other information that can be used to assess UA programs and their usefulness to one of the state's key industries.



UNIVERSITY of ALASKA  
*Many Traditions One Alaska*

### Graduates from key UA programs

## THE OIL AND GAS INDUSTRY AND UA GRADUATES FAST FACTS

Do these programs boost the Alaska hire rate?



UNIVERSITY of ALASKA  
*Many Traditions One Alaska*

### ENGINEERING

**67%** working in AK within a year of graduating



52.6% wage growth

### PROCESS TECH

**89%** working in AK within a year of graduating



78.3% wage growth

### WELDING

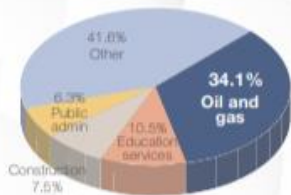
**82%** working in AK within a year of graduating



53.0% wage growth

Note: Employment and wage data not limited to graduates who work in the oil and gas industry.

### The industries where first-year graduates work



Notes: Graduates of all 54 key UA programs. Oil and gas includes related sectors such as pipeline construction/transportation and engineering services.

### Grads' wages above average



Note: For graduates of 54 key UA programs.

The Oil and Gas Industry and UA Graduates: Fast Facts, September 2020 Page 1

**93.5%**

of working graduates are Alaska residents



For comparison, residency is ...

- 79.3% for all Alaska workers
- 70.9% for oil and gas workers

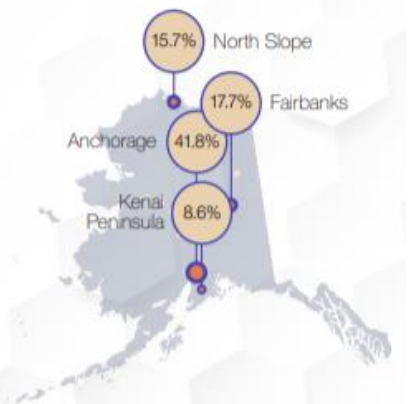
### Over the last 3 years, the oil and gas industry hired ...

485	Geological technicians* (includes process operators)
241	Engineers
231	Petroleum engineers
80	Occupational health and safety specialists
70	Mining/geological engineers
62	Environmental scientists

Note: These occupations have had the most hires in the past three years, among occupations that require postsecondary education. Hires include all hires, not just UA grads, to identify where demand is greatest.

\*Geological technicians assist scientists and engineers with exploring and extracting natural resources such as oil and natural gas, and with identifying sustainable well locations.

### Where do program grads work?



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Questions or data requests:

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