

Child Care in Alaska: The True Cost of Care



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Research identifies early care and education for children as one of the most significant factors in individuals' cognitive and social-emotional development, health, future academic success, and economic well-being. Early care and education services, including child care, also play a vital role in the national economy, allowing families with young children to join the labor force (if they choose to), remain employed, and increase family income and living standards. Despite the sector's critical role, the child care businesses operate in a financially precarious position. Providers face high business costs, and, despite strong demand, find themselves unable to raise prices due to an inability of families to pay higher rates.¹

Alaska is one of many states whose providers face this challenging financial landscape. These providers operate in a complex environment that is, in many ways, fundamentally different from other areas of the country. Alaska child care businesses and programs face comparatively high cost burdens, which must be accounted for in their price structures to continue operations. Further, many communities lack basic infrastructure necessary to support a licensed home, center, or other program. As a result, Alaska's providers and families struggle financially and access to care is limited.

The Alaska Department of Health, Division of Public Assistance, Child Care Program Office, contracted with McKinley Research Group to develop an Alaska-specific child care cost model and interactive tool to address how these business costs relate to the state's complex business environment. The model and tool address the true cost of providing child care in home and center settings across Alaska's seven public health regions.

Key findings of this modeling exercise and implications for Alaska's child care sector follow.

1 *The Economics of Child Care Supply in the United States.* Prepared by the U.S. Department of the Treasury. September 2021.



True Cost of Child Care in Alaska

Alaska's True Cost of Child Care model and resulting tool incorporate all operating costs incurred by home- or center-based child care providers in the normal course of business. Costs include personnel expenses, occupancy and other facility costs, insurance, food and meal supplies, and all other materials and services required to provide child care.

To demonstrate the "true" cost of care, costs are described using standard prevailing prices and not adjusted downward to reflect any type of in-kind support or other measures to reduce costs.

The monthly cost to provide care in a home setting in Alaska is \$911 per child, while costs for providing care in a center setting range from \$1,785 for infants to \$1,250 for preschoolers. Costs are lowest in the Mat-Su public health region, and highest in the Northern and Southwest regions. Cost differentials between these regions are significantly impacted by higher food and materials transportation costs required for communities located off Alaska's road system and by higher electricity and heating costs.

Alaska's True Cost of Child Care Tool

User Inputs Page

The True Cost of Child Care tool allows users to select various scenarios, including location, wage rates and benefit options, facility type, and more.



	Child Care Cost		.XLSM 🛧 🗈					
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1	Alaska True Cost of C	hild Care Too	al					
2	Center-Based Care							
3	Click here to update	results.						
				CENTER ANNUAL PROFIT/LOSS STATEM	IENT			
4	COST PER CHILD	Monthly	Annual	REVENUE				
5	Infants (0-11 months)	\$1,785	\$21,416	Infants (0-11 months)	\$115,471			
6	Toddlers (12-18 months)	\$1,785	\$21,416	Toddlers (12-18 months)	\$103,921			
7	Toddlers (19-36 months)	\$1,571	\$18,848	Toddlers (19-36 months)	\$124,705			
8	Preschoolers (37-59 months)	\$1,250	\$15,000	Preschoolers (37-59 months)	\$181,594			
9					\$525,691			
	SUBSIDY AND COST		Gap Between					
10	COMPARISON	Monthly Subsidy	Cost					
11	Infants (0-11 months)	\$1,132	-\$653	OPERATING EXPENSES				
12	Toddlers (12-18 months)	\$1,019	-\$766	Personnel costs				
13	Toddlers (19-36 months)	\$1,019	-\$552	Wages & Salaries	\$498,080			
14	Preschoolers (37-59 months)	\$890	-\$360	Benefits	\$46,995			
15				Subtotal personnel	\$545,075			
16	CENTER CHARACTERISTICS							
17	STAFFING		1000 million (1000)	Occupancy	000 000			
18	Total Staff	11.35	FTE	Facility rent or debt service	\$69,036			
19	Teaching Staff	8	FTE	Other occupancy (utilities, maintenance)	\$110,450			
20				Subtotal occupancy	\$119,459			
21	Infants (0-12 months)	9	Children	Incurrence	\$28 741			
22	Toddlers (12-18 months)	9	Children	Ead	\$99.052			
23	Toddlers (12-18 months)	10	Children	Other meterials supplies and conject				
24	Preschoolers (37-59 months)	17	Children	Uner materials, supplies, and services	\$27,771			
25	Children in Care	44	Children	Tatal Operating Expanses	\$820.099	1		
26				Inter Operating Expenses	(\$20,099			
27	FACILITY		Comment Front	NET INCOME (LUSS)	\$15 771			
28	Size	3,380	Square Feet	Adjustment for bad debt expense	(\$310 178			
29				ANNUAL PROFIT(LOSS)	(0310,170			

Results Page

 \Box

Results are automatically updated based on the scenario selected by the user. The results page displays the total program profit and loss statement, the true cost of care per child, and the difference between the cost of care and monthly subsidy rates.









MONTHLY TRUE COST OF CENTER-BASED CHILD CARE PER CHILD



Gap Between True Cost of Care and Alaska Subsidy Rates

Families with children in child care services contribute most to funding early care and education in Alaska, accounting for 69% of all spending as of 2022.² The price of care charged to families is subsidized for Alaska households meeting certain income requirements through Alaska's Child Care Assistance Program with funding granted to the State of Alaska by the federal Child Care Development Fund. The program subsidizes all, or a portion, of the price of care, and subsidy rates are set based on current prices of care as established through a survey of licensed providers. Subsidy rates are set by borough and census area.

In Alaska, the true cost of providing care exceeds the subsidy rate across nearly all care settings, age ranges, and public health regions. This gap between the subsidy and cost is highest in the Northern and Southwest public health regions, though it persists across all seven public health regions. Statewide, the monthly gap between the subsidy rate and true cost of care in a home setting for infants is \$12, increasing to \$140 for preschoolers. The monthly gap between subsidy and cost in a center setting is \$360 for preschoolers, increasing to \$766 for toddlers between 12 and 18 months old.



2 McKinley Research Group. *Role of Early Care & Education in Alaska's Economy, 2023 Economic Impact Report.* Prepared for thread



STATEWIDE GAP BETWEEN MONTHLY SUBSIDY AND HOME-BASED MONTHLY COST OF CARE



Model Enhancements

Because providers operate in a financial environment in which the true cost of care exceeds the subsidy rate and, often, the price they can charge even to families who are ineligible for subsidies, providers find many ways to minimize costs. Examples include occupying a minimum square-footage facility or space not originally intended for child care use, receiving reduced occupancy rates from an organization aligned with the child care provider's mission, or forgoing building maintenance or upgrades. Wages among those working in child care are among the lowest in the state, and many workers have no access to employer-paid benefits such as health insurance coverage or paid sick leave.

The tool developed from this modeling exercise includes several adjustable scenarios or enhancements to illustrate the impact of business operating decisions on cost. Decisions to increase worker pay and add benefits – two measures that are widely recommended to stabilize the child care workforce – increase costs significantly, driving a wider gap between subsidy rates and the true cost of care. So, too, do enhancements to facility size to provide more square footage for classrooms and shared spaces such as family and staff restrooms and indoor play areas. Maintaining quality certification based on Learn & Grow, Alaska's QRIS system, also comes with small added operating costs, mostly reflected in the value of providers and workers' time.



MONTHLY OPERATING COST PER CHILD WITH WAGES AT LIVING WAGE STANDARD



MONTHLY OPERATING COSTS PER CHILD WITH INCREASED FACILITY SQUARE FOOTAGE

While adding considerable cost, increasing wages and/or benefits to attract more workers to the child care sector would likely have a financial benefit. Child care centers in particular have faced capacity constraints due to lack of staff. Operating at full capacity allows providers to spread fixed costs such as facility costs among more children, reducing the true cost of care per child.





Enhancing Financial Child Care Sector Sustainability

States nationwide have grappled with how to design policies and programs to address high costs through assistance to home- and center-based providers, workers, and families. Methods to provide this assistance range from efforts to reduce worker health care premiums, grant and loan funding for facility improvements, expanding subsidy eligibility, and more. Many of these methods require investment of a state's general funds or use of their bond authority.

As policymakers use the Alaska True Cost of Child Care model and tool, they should consider designing programs or financing mechanisms to address the availability and affordability of key business inputs such as labor and facilities. Changes to Alaska's Child Care Assistance Program to better align subsidy rates with the true cost of care should be carefully considered to avoid unnecessary administrative burdens. Finally, the relationship between the subsidy rate and private pay prices for child care in Alaska should be a key factor as the State considers any measures to address the state's challenging child care business environment.

CHAPTER 1 Introduction and Methodology

Research identifies early care and education for children as one of the most significant factors in individuals' cognitive and social-emotional development, health, future academic success, and economic wellbeing. Early care and education services also play a vital role in the national economy, allowing families with young children to join the labor force (if they choose to), remain employed, and increase family income and living standards. Despite the sector's critical role, the sector operates in a financially precarious position. Providers face high business costs and, despite strong demand, find themselves unable to raise prices due to an inability of families to pay higher rates.³

3 *The Economics of Child Care Supply in the United States.* Prepared by the U.S. Department of the Treasury. September 2021.

Alaska is one of many states whose providers face this challenging financial landscape. These providers operate in a complex environment that is, in many ways, fundamentally different from other areas of the country. Alaska child care businesses and programs face comparatively high cost burdens, which must be accounted for in their rate structures to continue operations. Further, many communities lack basic infrastructure necessary to support a licensed facility, home, or other program. As a result, Alaska's providers and families struggle financially and access to care is limited.

Many states have developed child care cost models to quantify the costs of providing child care service and compare these costs to revenue in the form of state-defined subsidy rates. Child care cost models describe and quantify child care providers' business costs based on a set of assumptions which may include number of children in care, size and type of facility or setting, services provided such as transportation and meals, and other key operating considerations. These modeling exercises generally result in interactive tools with which users can engage to observe how different business operation decisions impact the cost of care. These models serve as one tool to consider current subsidy rates as compared to costs. Further research on subsidy structures and pathways to increase the financial sustainability of the child care sector may follow development of these models.

The Alaska Department of Health, Division of Public Assistance, Child Care Program Office, contracted with McKinley Research Group (MRG) to develop an Alaska-specific child care cost model and interactive tool to address how these business costs relate to the state's complex business environment. The following describes the methodology used to model business costs of operating a child care center or home in Alaska.



Methodology

The Alaska True Cost of Child Care model and resulting Excel-based tools consider costs to operate a child care business in the state.

Based on their setting and operating decisions, child care providers may face the following types of costs to operate their business:

Personnel

Wages and salaries and benefits

Facilities

Rent or debt service and facility maintenance and upkeep

Insurance

General liability, professional liability, and property coverage

Food and Food-Related Supplies

Food, kitchen supplies, and other materials

Other Materials, Supplies, and Services

Costs associated with licensing, professional fees, telecommunications, training, and hiring

Utilities

Electricity, heating, and water/sewer

Transportation

Used to bring children to and from the child care location

Additional costs

Related to quality early childhood education enhancements



Alaska's True Cost of Child Care model assesses business operating costs in two types of care settings:



Child care group homes are not included in this modeling exercise, or in the resulting Excel-based tools developed based on the model.

The model estimates these costs at the statewide level and by Alaska Public Health Region to demonstrate the operating cost differences across the state, which are often the result of higher transportation costs and the impact of cost of living on wages and salaries. These costs are most reflective of pricing in hub region communities and are likely higher for more remote communities. A list of boroughs/census area by Public Health Region is provided in the Appendix A.



Terms to know:



Care for up to eight children, including the caregiver's own children younger than 13 years of age.



Care for 13 or more children (9 or more for MOA licensed facilities) younger than 13 years of age.

True Costs

Are defined in this model as the full market value of goods and services required to operate a business.

Methodological Approach

MRG engaged several methodologies to inform cost model development. This included stakeholder engagement through an Advisory Committee and meetings with the Governor's Task Force on Child Care, a review of other state and national cost of care tools, and qualitative and quantitative data collection and analysis.

STAKEHOLDER ENGAGEMENT

The study team convened a seven-member Advisory Committee of subject matter experts and key stakeholders for multiple work sessions to provide guidance, perspectives, and consider study priorities. MRG attended multiple meetings of the Governor's Task Force on Child Care. The Task Force received cost model development updates on two occasions.

NATIONAL AND STATE MODELS

Study team members analyzed current national and state cost estimation tools to identify model alignment and divergence from Alaska's child care operating environment. Experts from the National Center on Subsidy Innovation and Accountability were consulted.

The study approach included a scan of U.S. state child care payment structures for relevancy to Alaska. This assessed states' comparability to Alaska in terms of population level, density, and geographic considerations, among others.

DATA COLLECTION AND ANALYSIS

To inform Alaska-specific cost estimates, the team identified primary cost components and data sources for each component. Operational cost estimates were determined based on reliable data

sources. Additional insights into direct costs and impacts of those operational costs were obtained through in-depth interviews with 20 licensed Early Care and Education (ECE) providers statewide. Subject matter experts representing insurance, food subsidy programs, tribal program administrators, telecommunications, and other key cost elements were also contacted to inform Alaska-specific cost estimates. Quantifiable quality measures — such as Learn & Grow, Alaska's Quality Recognition and Improvement System (QRIS) — were identified for model inclusion.



Cost Components

Methods, sources, and assumptions associated with each cost component of the Alaska's True Cost of Child Care model and scenarios available in the resulting tools are described below. All costs are in 2023 U.S. dollars.

PERSONNEL COSTS

Alaska's True Cost of Child Care tool developed from this modeling exercise allows users to select three wage and salary scenarios: current prevailing wages, living wage, and kindergarten parity. Mandatory and discretionary benefits are also incorporated. Positions for which wage and salary rates are assigned include administrators, child care associates, administrative assistants, teachers, pre-school teachers, cooks, and substitute teachers. The ratio of caregivers to children and type of positions included in the model vary according to licensing requirements.

PREVAILING WAGE

Prevailing wage and salary rates are based on U.S. Bureau of Labor Statistics (BLS) 2023 wage rates. These data are available from BLS for four areas in Alaska: as a statewide average, for the Anchorage Metropolitan Statistical Area (MSA),⁴ Fairbanks MSA, and a statewide average excluding the Anchorage and Fairbanks MSAs.

Within the tool, users may change prevailing wages by a set percentage to understand the impact of such a change on overall cost of providing care.

LIVING WAGE

Living wage rates in the tool are based on the MIT Living Wage Calculator, a standard tool that generates borough/census-area-specific hourly wage scales by family configuration. The living wage rate of teachers (excluding preschool teachers), administrative assistants, floats, and substitutes are based on the MIT living wage rate for a single person with no children by Public Health Region. Preschool teachers and director prevailing wages are increased proportionally from the living wage using current wage differentials.

4 Anchorage MSA includes the Municipality of Anchorage and Mat-Su Borough.

KINDERGARTEN PARITY

Kindergarten parity in the model is based on setting preschool teachers' salary at the 2023 Alaska BLS prevailing average wage rate for kindergarten teachers. Center director salary is adjusted to reflect 2023 prevailing wages for education administrators in kindergarten through secondary schools. Wages for assistant teachers, floats, and substitutes are increased proportionally from the prevailing wage using current wage differentials.

TABLE 1. HOURLY WAGE RATES BY ROLE AND SALARY SCENARIO, STATEWIDE

	Role	2023 Prevailing Wages	Living Wage	Kindergarten Parity
A	dministrator	\$32.88	\$42.87	\$57.46
Assistant A	dministrator	\$26.30	\$34.30	\$45.97
Administra	tive Support	\$11.73	\$23.26	\$11.73
Presc	ool Teacher	\$22.67	\$29.56	\$35.51
Ot	ther Teacher	\$17.84	\$23.26	\$25.89
Floa	t/Substitute	\$17.84	\$23.26	\$25.89
	Cook	\$23.07	\$23.07	\$23.07



MANDATORY EMPLOYER-PAID BENEFITS

Mandatory benefits include U.S. federal payroll tax (7.45% of wages and salaries) and unemployment insurance tax (1% of wages and salaries).

DISCRETIONARY EMPLOYER-PAID BENEFITS

Cost of health, dental, and vision insurance coverage are as reported by the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality Medical Expenditure Panel Survey Insurance Component. Employer costs are based on the average annual single premium per enrolled employee for small firms (less than 10 employees) in Alaska. These costs include only the employer-paid portion, excluding the employee contribution to the total annual premium. Data is as of 2022 and is based on single coverage.⁵

Retirement benefit is set at 5% of annual wages/salaries, a standard range for private employers.

FACILITY COSTS

Facility costs are presented for home care and for center-based care. Facility costs in this model refer only to the amount paid for space occupancy such as a home mortgage, commercial rent, or commercial loan. Facility costs do not include other necessary occupancy requirements such as utilities and maintenance, which are described elsewhere. In all facility scenarios, it is important to note that residential and commercial space in many Alaska communities is limited. Many communities may have no suitable commercial space available, especially space that meets licensing or practical requirements of a child care facility.



HOME-BASED CARE FACILITY COSTS

Data on facility costs related to home-based care are based on an average of home mortgage and rental costs.

Mortgage costs are based on weighted average loan and mortgage rate data provided by Alaska Housing Finance Corporation (AHFC). Data were weighted

by average home ownership tenure to reflect that monthly mortgage payments will vary based on prevailing interest rates at the time the loan was taken out. Prevailing home rental rates are based on the Alaska Rental Market Survey performed by the Alaska Department of Labor and Workforce Development (DOLWD) in partnership with AHFC.

The standard U.S. Internal Revenue Service (IRS) time-space percentage calculation was used to attribute a portion of home occupancy costs to the child care business.

5 https://datatools.ahrq.gov/meps-ic/



CENTER-BASED CARE FACILITY COSTS

The Alaska True Cost of Child Care tool developed from this modeling exercise allows users to select different facility size scenarios, as described below.

MINIMUM FACILITY SIZE SCENARIO

This scenario estimates costs associated with occupying a minimum amount of commercial space based on State of Alaska classroom licensure requirements (35 square feet per child of classroom space) and a minimum of common spaces (30 square feet per child) with uses such as family and staff restrooms, lobby, entry ways, or hallways. The minimum common space square footage is based on center minimums as used in national cost models.

ENHANCED FACILITY SIZE SCENARIO

This scenario estimates costs associated with occupying an enhanced facility size, which includes larger classrooms and space for additional amenities often sought by child care providers and families such as indoor play areas. The study team engaged the architecture firm Bettisworth North to develop a prototype child care facility design in line with child care regulations and building standards for use in describing costs associated with an enhanced facility size. Bettisworth North was also tasked with describing required specifications and estimating costs of construction and renovation by region. Within this enhanced facility size scenario, the tool incorporates the costs to rent, construct, or renovate a facility that meets this enhanced facility.

Age Range	Classrooms	Capacity (Children)	Minimum Facility Size Scenario (square feet)	Enhanced Facility Size Scenario (square feet)
Infants (0-12 months)	1	10	350	650
Toddlers (13-18 months)	1	10	350	650
Toddlers (19-35 months)	1	12	420	700
Preschoolers (36-59 months)	1	20	700	850
Shared/Common Spaces (i.e., kitchen, lobby, indoor playroom)	N/A	N/A	1,560	7,680
Center Totals	4	52	3,380	10,530

TABLE 2. SQUARE FOOTAGE OF FACILITY BY SCENARIO

Scenarios in the Alaska True Cost of Child Care Tool

Minimum Facility Size Scenario

Describes the costs of occupying 65 square feet of space per child, a minimum operating square footage based on Alaska licensure requirements and national modeling.

Enhanced Facility Size – Commercial Rent Scenario

Describes the costs of renting a facility with additional square footage for larger classrooms and desired amenities. This scenario assumes the rental facility meets licensing facility requirements and requires no additional renovation.

Enhanced Facility Size – Own and Renovate Scenario

Describes the costs of extensive renovations to an existing structure to develop a child care center that meets licensing facility requirements and desired amenities. This scenario does not include initial facility acquisition cost.

Enhanced Facility Size – Build and Own Scenario

Describes the costs of constructing a purpose-built child care facility with space for desired classroom size and amenities. This scenario does not include land acquisition costs.



In both size scenarios, commercial rental costs per square foot are based on input from commercial real estate agent interviews and rates per square foot paid by the State of Alaska for office space as documented by the Alaska Department of Transportation and Public Facilities, Leasing and Facilities program.⁶

The Alaska True Cost of Child Care tool developed from this modeling exercise includes options for users to select additional facility scenarios based on the cost of building or renovating a child care enter. New construction or renovation costs are based on construction cost estimates developed by Bettisworth North for this model. Construction requirements and costs were developed by Public Health Region. Design elements, such as foundation systems (e.g., slab-on-grade, pilings), insultation, roof requirements, and exterior site improvements were adjusted for each region of Alaska to reflect different climates and building requirements. Detailed information about these costs can be found in the full report in Appendix B.

Construction or renovation costs represent capital expenses. These expenses are generally incorporated into a company's operating costs as debt service, the repayment of a loan made to the provider to access funding for construction or renovation. This report uses prevailing commercial loan terms of a 15-year, fixed interest loan with an 11% interest rate. These loan terms are based on input from commercial lenders interviewed for this research and prevailing U.S. Small Business Administration loan terms in 2023.

Construction costs associated with new construction or renovation are heavily dependent upon an assumption that the center has three classrooms, one each for infants, toddlers, and preschoolers. Therefore, per-square-foot construction or renovation costs should not be applied to scenarios with additional classrooms or capacity.

6 Alaska Department of Transportation and Public Facilities, Division of Facilities Services. *Statewide Lease List*. Accessed April 2024.



UTILITY COSTS



HOME-BASED CARE UTILITY COSTS

For each of the utilities listed below, the standard IRS time-space percentage calculation was used to attribute a portion of costs to the child care business.

ELECTRICITY

Average monthly residential electricity consumption (in kWh) and residential electricity rates are based on the most recent electric utility annual reports and Power Cost Equalization⁷ (PCE) reports for which a full year of information is available. Pricing is based on hub communities within each area. Within PCE-eligible communities, model calculations assume all home day cares are eligible and use the PCE subsidy.

HEATING

Home energy consumption (in Btus) is based on a 2018 housing assessment by the Alaska Housing Finance Corporation (AHFC).⁸ Fuel prices are based on reports of the most recent full annual year of hub community summer and winter pricing for each area. Fuel prices are published by the Alaska Department of Commerce, Community, and Economic Development, Division of Community and Regional Affairs (DCRA).



CENTER-BASED CARE UTILITY COSTS

Utility costs in this model are based on annual consumption and prevailing per unit costs. Child care center electricity and heat consumption estimates were prepared by Bettisworth North as a component of their facility cost report. Electricity and heating cost estimates per unit reflect prices in hub communities and use the most recent full year of annual reporting available. Sources include electric utility annual reports and PCE reporting.

Electricity cost estimates assume child care centers in PCE-eligible communities are not eligible for PCE subsidies due to their status as a commercial enterprise. However, some centers may be eligible for such subsidies based on the type of entity formed to operate the center. Fuel prices are based on current heating utility or fuel price reports. Data is based on an average of summer and winter pricing.

⁷ The Alaska Power Cost Equalization program reduces electricity rates for Alaskans who live in rural areas where energy costs are significantly higher than in urban areas.

⁸ Alaska Housing Finance Corporation. 2018 Alaska Housing Assessment Statewide Housing Summary.

INSURANCE

Worker's compensation, general and professional liability, and property insurance are all included as costs in Alaska's True Cost of Child Care model. Insurance costs were informed by interview research conducted with commercial and home insurance providers.

FOOD AND FOOD SUPPLIES COSTS

Food and food supplies costs are informed by provider interviews and current United States Department of Agriculture (USDA) Child and Adult Care Food Program rates per meal. USDA rates are set specifically for Alaska to reflect the state's higher cost environment. State cost estimates are adjusted using Geographic Cost Differentials for public health regions outside of Anchorage.⁹ USDA reimbursement rates are also adjusted downward to remove labor costs, which are included as part of personnel costs in the model.

OTHER MATERIALS, SUPPLIES, AND SERVICES

Costs for educational materials and equipment, office supplies, and standard business services are adapted from national models to reflect Alaska's cost environment using U.S. BLS regional price parities for the Anchorage MSA and Geographic Price Differentials. Cost estimates per child or center are also informed by provider interviews.

BUSINESS LICENSING

Licensing costs include annual cost of maintaining an Alaska Business License and annual childcare licensing costs charged by the Municipality of Anchorage, as applicable.

TELECOMMUNICATIONS COSTS

Telecommunications costs in this model describe the estimated cost of telephone and internet access. Costs are based on hub communities and assume centers are using basic internet and telephone service.

TRAINING AND HIRING COSTS

This model incorporates training or hiring costs based on a statewide 45% staff turnover rate.¹⁰ The model assumes the provider and staff have already incurred costs for initial training and education and, thus, accounts only for ongoing training costs specified by state licensure requirements. No turnover in administrative positions is assumed.

Costs for new staff include pediatric first aid and pediatric CPR training, which must be taken every two years, and the cost of background checks/fingerprinting upon hiring to fulfill state requirements. Ongoing staff training costs included in this model include first aid and CPR training every two years and training time to meet hours of training required for child care licensing. Costs for training time assume staff are paid during training hours and the provider pays a substitute teacher to maintain operations during that period.

9 *Alaska Geographic Differential Study 2008*. Prepared by McDowell Group (now McKinley Research Group) for the State of Alaska Department of Administration. April 30, 2009.

¹⁰ *The Early Childhood Education Workforce in Alaska: Challenges & Opportunities.* Prepared by Stellar Group for the Alaska Department of Health, December 2023.

CHAPTER 1 Introduction and Methodology

QUALITY COSTS

The Alaska True Cost of Child Care model incorporates the higher cost of quality care based on the Alaska Learn & Grow certification levels. Learn & Grow, Alaska's QRIS offers five levels of certification with varying requirements. Administrator and teacher time is often the most important resource required for homes and centers to achieve or maintain a Learn & Grow level.

Learn & Grow costs incorporated in the model are based on ongoing costs incurred by providers to maintain their level of quality certification. This model assumes the provider has already incurred the necessary startup and initial training costs and time to achieve a level. Ongoing costs to maintain a Learn & Grow level include hard costs, time devoted to non-training activities, and training time for new staff. Estimates of new staff are based on the model staffing plan and an expected turnover rate of 45% per year. Costs related to training time assume new staff are paid during training hours and the provider pays a substitute teacher to maintain operations during that period.

The home-based model accounts for the cost of additional home provider time required to maintain this level given that few homes have access to substitute care providers.

The Alaska True Cost of Child Care tool developed from this modeling exercise also allows users to select different scenarios or enhancements which may be related to providing higher quality care. As described above, these include options for staff wage and salary, benefits, and facility size enhancements.

Beyond maintaining a Learn & Grow certification, providing high-quality child care includes:



Consistent, well-trained and skilled providers and staff. Higher wages and enhanced benefits packages can contribute to reduced staff turnover.



Safe and healthy spaces. Meeting state licensure requirements, providing nutritious food, and occupying clean facilities all contribute to safe, healthy child care spaces.



Stimulating and playful environments. Enhanced facility sizes and amenities such as indoor playrooms can contribute to a stimulating environment, particularly in Arctic climates which may preclude daily outdoor play.

Report Organization

The remainder of this report is organized as follows:

CHAPTER 2

Describes a set of basic assumptions used to estimate the Alaska base case cost of child care.

CHAPTER 3

Provides results of the Alaska True Cost of Child Care model statewide, and for each Public Health Region. Annual total program-level operating costs and monthly operating cost per child in care are provided.

CHAPTER 4

Provides estimates of annual program-level and monthly per child operating costs based on model scenarios such as wage and salary scenarios, facility sizes, and center enrollment as a percentage of capacity.

CHAPTER 5

Compares the basic cost of child care to provider revenue, as estimated using Alaska child care subsidy rates.

CHAPTER 6

Describes methods to enhance the financial sustainability of child care providers, increase stability for workers, and alleviate financial burden on families.

CHAPTER 7

Provides several considerations for policymakers seeking to increase the financial sustainability of Alaska's child care sector.



CHAPTER 2 Alaska Cost Model Base Case Assumptions

The Alaska True Cost of Child Care model estimates the cost of delivering child care in two settings: home- and center-based care. An Excel-based tool was developed for each setting using a base case scenario. This chapter describes key assumptions used as part of each base case. Results of this model, including total annual operating costs and monthly costs per child, are described in Chapter 3.

The tool builds on these base cases to assess costs associated with different wage rates, benefit packages, facility sizes, and quality levels. Variations and costs associated with such options are described in Chapter 4.

Cost Components

The model incorporates all operating costs incurred by child care providers in the normal course of business, including repayment of debt incurred for the child care business. To demonstrate the "true" cost of care, costs are described using standard prevailing prices and not adjusted downward to reflect any type of in-kind support or other measures to reduce costs. For example, many providers in Alaska rent facility space at reduced rates, or operate from "donated" space, to reduce operating costs. These models reflect the full cost of facility rent regardless of these special accommodations.



Key Model Assumptions

The following assumptions are common to the base case scenario for both the home and center-based care setting.

- The provider operates according to all group size, teacher ratio, and other capacity restrictions as required to maintain State of Alaska or Municipality of Anchorage licensure.
- Providers operate at 85% of their licensed capacity.
- Wages and salaries are based on prevailing average wage rates for Alaska.
- Meals are provided by the home or center, including breakfast, lunch, and afternoon snack.
- The provider does not participate in Learn & Grow, Alaska's QRIS system.
- Transportation of children is done by families only, and providers do not transport children to or from the care setting.
- The center or home operates from 7 a.m. to 6 p.m. Monday-Friday.
- All children are in full-time care.
- Three percent of revenue is not collected.
- The provider has professional liability insurance coverage.



CHAPTER 2 Alaska Cost Model Base Case Assumptions





Home-Based Child Care Assumptions

Child care licensing entities in Alaska have specific group size and age range requirements for providers offering care from their home, including:

- The home provider may care for up to eight children, including the caregiver's own children (under age 13).
- No more than three children in care may be younger than 30 months of age.

In the home-based setting, this model assumes that the provider acts as the administrator and caregiver. Home-based child care providers rarely pay themselves a salary. This model includes a salary for the home-based provider that is equivalent to a lead teacher in the centerbased model. Inclusion of this cost is intended to demonstrate the true cost of providing care and offer a comparison to the center-based model. This cost also demonstrates the level of compensation likely required for home-based providers to operate a financially sustainable business which fairly compensates them for their time.

CHAPTER 2 Alaska Cost Model Base Case Assumptions





Center-Based Child Care Assumptions

The center-based child care cost model is based on a standard facility with the following number of classrooms and capacity.

TABLE 3. ALASKA CHILD CARE COST MODEL, CENTER CAPACITY ASSUMPTIONS

Age Range	Classrooms	Max Group Size	Center Capacity	Child/ Teacher Ratio	Number of Teachers
Infants (0-12 months)	1	10	10	5:1	2
Toddlers (13-18 months)	1	10	10	5:1	2
Toddlers (19-35 months)	1	12	12	6:1	2
Preschoolers (36-59 months)	1	20	20	10:1	2
Center Totals	4	N/A	52	N/A	8

FACILITY ASSUMPTION

The minimum facility size scenario is the base case assumption for the center cost model. This scenario assumes that the provider rents commercial space at prevailing rates based on a required 65 square feet of space per child. The model makes no adjustment for in-kind support in the form of reduced rental rates or free occupancy.

This center configuration allows for comparison of several alternative facility sizes and ownership structures as described in Chapter 4.

EMPLOYER-PAID PERSONNEL COSTS AND BENEFITS

As described above, the base case relies on prevailing wage and salary rates. The base case includes employee benefits provided to more than 50% of the Alaska child care workforce as documented in *The Early Childhood Education Workforce in Alaska* report prepared by Stellar Group in December 2023. Benefits provided to more than half of the workforce include paid holidays and paid time off (vacation). The median number of paid time off days provided to Alaska child care workers is seven days. This model assumes that substitute teachers are required to provide care for each staff day off. Many child care providers in Alaska do not have access to this type of as-needed substitute staff. Incorporating this cost is another way to understand the true cost of providing care. The cost of providing additional benefits such as paid sick leave, health, dental, and vision insurance, and retirement savings contributions are discussed in Chapter 4.

STAFFING MODELS

In addition to hiring eight teachers as required of the center's group size and capacity design, the model assumes the child care center also pays the following staff members.

- Administrator (1 full-time equivalent): The administrator is responsible for compliance with licensing regulations and managing day-to-day facility operations.
- Float staff (0.2 full-time equivalent per teacher): This role is designed to meet provider ratios during opening/closing and staff breaks.
- Cook (0.75 full-time equivalent): The cook prepares breakfast, lunch, and afternoon snack.



CHAPTER 3

Operating Costs

This chapter describes operating costs for child care homes and centers. Costs are presented as annual costs and also per child. Base case assumptions, as described in Chapter 2, are incorporated in the following cost results.



Many costs associated with home-based child care can be apportioned between the provider's cost to operate a home (living expenses) and costs required for the child care business. For example, monthly mortgage payment and utility costs can be considered shared expenses. Other expenses, such as food for children in care, educational materials, and professional liability insurance are incurred solely by the home-based business. The following describes costs incurred solely for business operations and a portion of shared costs for home-based child care in Alaska.

Annual Costs

Within the base case scenario, total annual costs to operate a home-based child care business serving eight children are \$75,514. These costs include allocation of an annual wage to the home-based provider, which accounts for about two-thirds (62%) of total costs. The business-related portion of occupancy costs, such as mortgage or rent payment, electricity and heating utilities, home maintenance, and cleaning supplies, account for 6% of total costs. The remaining costs include food and food service materials (15%), home and professional liability insurance (4%), and other materials and services, such as telephone and internet service and educational materials (12%).




TABLE 4. ANNUAL HOME-BASED CHILD CARE OPERATINGCOSTS IN ALASKA, BASE CASE SCENARIO, STATEWIDE RESULTS

Cost Category	Annual Cost
PERSONNEL COSTS	
Wages and salaries	\$47,150
Benefits	\$0
Subtotal personnel costs	\$47,150
OCCUPANCY COSTS	
Home mortgage or rent	\$3,600
••••• Other occupancy costs (utilities, maintenance)	\$823
Subtotal occupancy costs	\$4,423
Insurance (property and liability)	\$3,298
Food and food service materials	\$11,236
Other materials, supplies, and services	\$9,407
Total Annual Home-Based Operating Costs	\$75,514



TABLE 5. ANNUAL HOME-BASED OPERATING COSTS IN ALASKA, BASE CASE SCENARIO, BY PUBLIC HEALTH REGION

Public Health Region	Annual Cost
Anchorage	\$71,735
Gulf Coast	\$88,532
Interior	\$75,798
Mat-Su	\$69,698
Northern	\$97,168
Southeast	\$89,171
Southwest	\$96,235
Statewide	\$75,514

Annual operating costs are lowest in the Mat-Su Public Health Region (\$69,698 per year) and highest in the Northern region (\$97,168 per year). Cost differentials between these regions are most impacted by higher food and material transportation costs to places located off Alaska's road system and by higher electricity and heating costs.

Costs per Child

The per-child cost to provide care in a home setting is \$911 monthly, or \$10,935 in annual costs. As with total home care operating costs, per child costs are highest in the Southwest (\$1,165/child/month) and Northern (\$1,175/ child/month) Public Health Regions and lowest in the Mat-Su (\$841).

TABLE 6. HOME-BASED OPERATING COSTS PER CHILD IN ALASKA,BASE CASE SCENARIO, BY PUBLIC HEALTH REGION

Public Health Region	Monthly Cost per Child	Annual Cost per Child
Anchorage	\$864	\$10,366
Gulf Coast	\$1,070	\$12,843
Interior	\$913	\$10,962
Mat-Su	\$841	\$10,090
Northern	\$1,175	\$14,098
Southeast	\$1,077	\$12,927
Southwest	\$1,165	\$13,978
Statewide	\$911	\$10,935

CHAPTER 3 Operating Costs



Child care centers generally have higher fixed costs compared to home-based care providers. These can include substantial facility rent or mortgage payments, higher utility consumption, small-business level telecommunications services, and more. The following sections describe total annual and per child costs of operating a child care center.

Annual Costs

Under the base case scenario, total annual costs to operate a child care center serving 52 children are \$820,099. Personnel costs account for 66% of total costs. Occupancy accounts for about 15% of costs. Remaining costs include food and food service materials (12%), building and professional liability insurance (3%), and other materials and services (4%).





TABLE 7. ANNUAL CENTER-BASED OPERATING COSTSIN ALASKA, BASE CASE SCENARIO, STATEWIDE RESULTS

Cost Category	Annual Cost
PERSONNEL COSTS	
Wages and salaries	\$498,080
Benefits	\$46,995
Subtotal personnel costs	\$545,075
OCCUPANCY COSTS	
Home mortgage or rent	\$89,638
Other occupancy costs (utilities, maintenance)	\$29,822
Subtotal occupancy costs	\$119,460
Insurance (property and liability)	\$28,741
Food and food service materials	\$99,052
Other materials, supplies, and services	\$27,771
Total Annual Center-Based Operating Costs	\$820,099





Costs per Child

The costs of providing care in a center setting vary by age range. This variation is largely due to staffing ratios and facility space needs (e.g., space for cribs compared to cots, car seat storage, etc.) for different ages. The statewide cost of care in a center with the specifications as outlined in this base case is highest for infants and toddlers between 12 and 18 months at \$1,785 per month, or \$21,416 annually. Costs are lower for toddlers above 18 months (\$1,571/child/month) and preschoolers (\$1,250/child/month).

TABLE 8. CENTER-BASED OPERATING COSTS PER CHILD,BASE CASE SCENARIO BY AGE RANGE, STATEWIDE

Age Range	Monthly Cost per Child	Annual Cost per Child
Infants (0-12 months)	\$1,785	\$21,416
Toddlers (13 - 18 months)	\$1,785	\$21,416
Toddlers (19 - 35 months)	\$1,571	\$18,848
Preschoolers (36 - 59 months)	\$1,250	\$15,000

Per child costs are lowest in the Mat-Su Public Health Region due to the relatively low cost, and availability, of commercial space rental.

		- MONTHLY COS	T PER CHILD —	
Public Health Region	Infants (0-12 months)	Toddlers (13-18 months)	Toddlers (19- 35 months)	Preschoolers (36-59 months)
Anchorage	\$2,105	\$1,781	\$1,565	\$1,186
Gulf Coast	\$1,759	\$1,759	\$1,551	\$1,385
Interior	\$1,882	\$1,882	\$1,667	\$1,319
Mat-Su	\$1,738	\$1,738	\$1,522	\$1,143
Northern	\$2,123	\$2,123	\$1,915	\$1,749
Southeast	\$1,780	\$1,780	\$1,571	\$1,406
Southwest	\$2,115	\$2,115	\$1,907	\$1,741
Statewide	\$1,785	\$1,785	\$1,571	\$1,250

TABLE 9. CENTER-BASED OPERATING COSTS PER CHILD,BASE CASE SCENARIO BY PUBLIC HEALTH REGION

CHAPTER 4 Operating Cost Scenario Analysis

A laska's True Cost of Child Care tool developed from this modeling exercise includes several adjustable scenarios or enhancements, including wage rates and benefit options, facility type, and participation in Alaska's QRIS system, Learn & Grow. This chapter describes how selecting these scenarios in the tool impacts provider operating costs. Additional information about the assumptions related to each scenario can be found in Chapter 1.

Higher operating costs compared to the base case result from nearly all scenarios described below. In many cases, these results demonstrate the high-cost factors driving the wage, benefits, facility, and other decisions child care providers make in practice.



CHAPTER 4 Operating Cost Scenario Analysis



Low average wages paid to preschool teachers and child care workers in Alaska are a source of significant instability in the state's child care sector.¹¹ In 2020, the Early Childhood Alaska Joint Task Force Leadership Team published *Early Childhood Alaska: A Strategic Direction for 2020-2025*. This plan includes a strategy for improving wages and compensation for early childhood professions.¹²

The Alaska True Cost of Child Care tool includes two wage and salary options, in addition to prevailing wage rates, to illustrate the annual and per child costs associated with desired wage increases. The scenarios allow users to substitute the following for prevailing wage rates:

Living wage rates scenario

Increases child day care worker pay to meet Alaska living wage rate standards and escalates wages for other roles proportionally.

Kindergarten parity scenario

Increases preschool teacher pay to meet kindergarten teacher wage rates in Alaska and other roles proportionally.

Additional methodological information related to the two scenarios can be found in Chapter 1.

11 The Early Childhood Education Workforce in Alaska: Challenges & Opportunities. Prepared by Stellar Group for the Alaska Department of Health, December 2023.
12 Early Childhood Alaska: A Strategic Direction for 2020-2025. Goal 3, Objective 11, Strategy 11.1.



CHAPTER 4 Operating Cost Scenario Analysis



2023 AVERAGE HOURLY WAGES IN ALASKA

Average hourly wages paid to child care workers and preschool teachers in Alaska are below wages paid for all other occupations in Alaska's education sector, and often below those paid to workers in occupations requiring similar training paths.



Source: U.S. Bureau of Labor Statistics



Living Wage Scenario

The "living wage" for a single adult with no children in Alaska is \$23.26 per hour, 30% higher than prevailing hourly wages for day care workers in the state. The following tables describe the additional annual cost and monthly cost per child incurred by child care homes and centers if all wages were adjusted to reflect this living wage standard.

TABLE 10. ANNUAL COST OF CARE, LIVING WAGE SCENARIO, STATEWIDE

Scenario	Home Setting	Center Setting
Base Case Annual Cost	\$75,514	\$820,099
Living Wage Scenario Annual Cost	\$89,865	\$973,490
Difference	+\$14,351	+\$153,391

TABLE 11. MONTHLY COST OF CARE PER CHILD, LIVING WAGE SCENARIO, STATEWIDE

Scenario	Base Case Monthly Cost/Child	Living Wage Scenario Monthly Cost/Child	Difference in Monthly Cost/Child	
HOME SETTING				
All ages	\$911	\$1,087	+\$176	
CENTER SETTING				
Infants (0-12 months)	\$1,785	\$2,143	+\$358	
Toddlers (13 - 18 months)	\$1,785	\$2,143	+\$358	
Toddlers (19 - 35 months)	\$1,571	\$1,870	+\$299	
Preschoolers (36 - 59 months)	\$1,250	\$1,463	+\$213	



Kindergarten Parity Scenario

The average hourly wage for kindergarten teachers in Alaska is \$35.51, 57% above the average preschool teacher wage. The following tables describe the additional annual cost and monthly cost per child incurred by child care homes and centers if all wages were adjusted to reflect preschool teacher parity with kindergarten teachers.

TABLE 12. ANNUAL COST OF CARE, KINDERGARTEN PARITY WAGE SCENARIO, STATEWIDE

Scenario	Home Setting	Center Setting
Base Case Annual Cost	\$75,514	\$820,099
Kindergarten Parity Wage Scenario Annual Cost	\$102,250	\$1,082,726
Difference	+\$26,736	+\$262,627

TABLE 13. MONTHLY COST OF CARE PER CHILD, KINDERGARTEN PARITY WAGE SCENARIO, STATEWIDE

Scenario	Base Case Monthly Cost/Child	Living Wage Scenario Monthly Cost/Child	Difference in Monthly Cost/Child
HOME SETTING			
All ages	\$911	\$1,239	+\$328
CENTER SETTING			
Infants (0-12 months)	\$1,785	\$2,374	+\$589
Toddlers (13 - 18 months)	\$1,785	\$2,374	+\$589
Toddlers (19 - 35 months)	\$1,571	\$2,062	+\$491
Preschoolers (36 - 59 months)	\$1,250	\$1,653	+\$403



Discretionary Benefits Scenarios

"Discretionary" employee benefits, such as paid sick leave, health insurance, retirement contributions, and others are not offered to employees by many licensed child care centers in the state. Based on survey findings published in 2023, less than one-third (31%) of full-time workers at licensed centers had an employer-sponsored health insurance benefit. Licensed home care providers are also unlikely to have access to many of these benefits; only 5% of providers reported having this benefit when surveyed.¹³

The following scenarios describe the additional annual cost and monthly cost per child incurred by child care homes and centers related to provision of various discretionary benefits.

Scenario	Home Setting	Center Setting	
Base Case Annual Cost	\$75,514	\$820,099	
Annual Cost including All Discretionary Benefits	\$85,008	\$937,477	
Increase paid personal time off (10 days/year)	\$0	+\$5,285	
Add paid sick leave (10 days/year)	\$0	+\$17,617	
Provide health, dental, and vision insurance coverage	+\$7,137	+\$73,864	
Provide retirement savings contribution	+\$2,358	+\$20,612	
Difference	+\$9,495	+\$117,378	

TABLE 14. ANNUAL COST OF CARE, ADDED DISCRETIONARY BENEFITS SCENARIO, STATEWIDE

13 *The Early Childhood Education Workforce in Alaska: Challenges & Opportunities.* Prepared by Stellar Group for the Alaska Department of Health, December 2023.





TABLE 15. MONTHLY COST OF CARE PER CHILD, ADDEDDISCRETIONARY BENEFITS SCENARIO, STATEWIDE

Scenario	Base Case Monthly Cost/Child	All Discretionary Benefits Scenario Monthly Cost/Child	Difference in Monthly Cost/Child	
HOME SETTING				
All ages	\$911	\$1,028	+\$117	
CENTER SETTING				
Infants (0-12 months)	\$1,785	\$2,070	+\$285	
Toddlers (13 - 18 months)	\$1,785	\$2,070	+\$285	
Toddlers (19 - 35 months)	\$1,571	\$1,808	+\$237	
Preschoolers (36 - 59 months)	\$1,250	\$1,398	+\$148	



CHAPTER 4 Operating Cost Scenario Analysis



Center Facility Type Scenarios

The Alaska True Cost of Child Care tool base case scenario assumes that center-based providers rent a minimum space of 65 square feet per child, including 35 square feet of classroom and 30 square feet of shared space. This square footage meets minimum licensure requirements. At a center with higher capacity (more children in care), this may provide enough indoor space to accommodate desired amenities. Centers with lower capacity may find the total square footage that results from this per child level inadequate to incorporate the type of amenities or areas often found in purposebuilt child care facilities.

The center-based Alaska True Cost of Child Care tool includes an enhanced facility size option to demonstrate the added cost of operating a child care facility with higher square footage per child. In this scenario, the center-based provider rents a higher square footage at the same prevailing rental rates as the base case, minimum facility size scenario.

Renting additional commercial space to provide the square footage necessary for additional amenities adds about \$277,157 to the total annual operating cost on a statewide basis. Added costs include rental payments, and the impact of higher utility consumption and maintenance needs.





TABLE 16. ANNUAL COST OF CARE, ENHANCED FACILITY SIZE –COMMERCIAL RENT SCENARIO, STATEWIDE BY PUBLIC HEALTH REGION

Public Health Region	Base Case Annual Cost	Enhanced Facility Size – Commercial Rent Scenario Annual Cost	Difference in Annual Cost
Anchorage	\$795,518	\$1,043,469	+\$247,951
Gulf Coast	\$839,360	\$1,113,054	+\$273,694
Interior	\$874,188	\$1,247,693	+\$373,505
Mat-Su	\$782,115	\$1,002,411	+\$220,296
Northern	\$1,050,419	\$1,668,859	+\$618,440
Southeast	\$853,850	\$1,154,673	+\$300,823
Southwest	\$1,047,522	\$1,660,924	+\$613,402
Statewide	\$820,099	\$1,097,256	+\$277,157

TABLE 17. MONTHLY COST OF CARE PER CHILD, ENHANCED FACILITY SIZE – COMMERCIAL RENT SCENARIO, STATEWIDE

Scenario	Base Case Monthly Cost/Child	Enhanced Facility Size – Commercial Rent Scenario Monthly Cost/Child	Difference in Monthly Cost/Child	
Infants (0-12 months)	\$1,785	\$2,294	+\$509	
Toddlers (13 - 18 months)	\$1,785	\$2,294	+\$509	
Toddlers (19 - 35 months)	\$1,571	\$2,063	+\$492	
Preschoolers (36 - 59 months)	\$1,250	\$1,701	+\$451	



Many Alaska communities, including regional hubs, have extremely limited square footage of commercial space available for rent. Available space, even in the state's urban centers, may not be suitable or desirable for child care center occupancy. The Alaska True Cost of Child Care tool incorporates the following scenarios beyond commercial rental to acknowledge that renovation or new construction may be required to start providing licensed, center-based care in some communities.

Enhanced facility size – own and renovate

In this scenario, the center-based provider is assumed to take on debt (loan) at the level of capital required to pay for major improvements to an existing facility. Major improvements include only those characteristics that would be specific to operating a child care facility (e.g. commercial kitchen installation, adding required exterior doors, bathroom fixture installation, exterior play space).

Enhanced facility size – build and own

In this scenario, the center-based provider is assumed to take on debt (loan) at the level of capital required to construct a new, purpose-build child care center. These costs include all interior classroom, administrative, and shared spaces, and exterior space.

Additional information regarding cost estimation related to the new construction and renovation scenarios can be found in Appendix B.

CHAPTER 4 Operating Cost Scenario Analysis



Learn & Grow, Alaska's QRIS, defines and certifies providers across five levels of quality. Maintaining a Learn & Grow certification requires administrator and teacher time, and some "hard" costs such as curriculum purchase. This model assumes that a substitute teacher is working in a classroom while teachers are completing tasks required for a center to maintain Learn & Grow certification.

The following tables describe the additional annual cost and monthly cost per child incurred by child care homes and centers to maintain Learn & Grow certification.

These costs do not include all one-time/initial costs and time required for providers to achieve each level of certification. Additional methodological information related to Learn & Grow costs can be found in Chapter 1.





TABLE 18. ANNUAL COST OF CARE, LEARN & GROW QUALITY SCENARIOS, STATEWIDE

Scenario	Home Setting	Center Setting	
Base Case Annual Cost	\$75,514	\$820,099	
ANNUAL COST INCLUDING MAINTENAN	NCE OF LEARN & GROW LEV	ΈL	
··· Level 1	+\$0	+\$104	
···· Level 2	+\$311	+\$3,296	
Level 3	+\$1,399	+\$3,967	
···· Level 4	+\$2,035	+\$8,153	
Level 5	+\$2,160	+\$8,176	

TABLE 19. MONTHLY COST OF CARE PER CHILD,LEARN & GROW QUALITY SCENARIOS, STATEWIDE

Scenario	Base Case Monthly Cost/Child	Learn & Grow Level 5 Scenario Monthly Cost/Child	Difference in Monthly Cost/Child
HOME SETTING			
All ages ······	\$911	\$938	+\$27
CENTER SETTING			
Infants (0-12 months)	\$1,785	\$1,800	+\$15
Toddlers (13 - 18 months)	\$1,785	\$1,800	+\$15
Toddlers (19 - 35 months)	\$1,571	\$1,586	+\$15
Preschoolers (36 - 59 months)	\$1,250	\$1,265	+\$15

CHAPTER 4 Operating Cost Scenario Analysis



Some of the significant costs of providing home or center-based child care are fixed – they do not change with the number of children served. Costs such as facility rental or ownership, utilities, and telecommunications packages must be paid regardless of how many children are served. Alaska's True Cost of Child Care tool allows users to change the level of children served as a percentage of total capacity. This level is set to 85% in the base case scenario. Maximizing enrollment to meet capacity can reduce the cost per child, yet child care centers often face staff shortages which make it impossible to operate at 100% of capacity. Assuming the provider could staff adequately to provide care at their maximum capacity, the table below describes the monthly cost of providing care per child.

TABLE 20. MONTHLY COST OF CARE PER CHILD, MAXIMUM CAPACITY SCENARIO, STATEWIDE

Scenario	Base Case Monthly Cost/Child	Maximum Capacity Scenario Monthly Cost/Child	Difference in Monthly Cost/Child
HOME SETTING			
All ages	\$911	\$820	-\$91
CENTER SETTING			
Infants (0-12 months)	\$1,785	\$1,564	-\$221
Toddlers (13-18 months)	\$1,785	\$1,564	-\$221
Toddlers (19 - 35 months)	\$1,571	\$1,382	-\$189
Preschoolers (36 - 59 months)	\$1,250	\$1,109	-\$141



CHAPTER 5 Alaska Child Care Revenue and Subsidies

Funding for early care and education in Alaska, which includes child care services, comes from three primary sources: households with children, the federal government, and state government. In FY2023, spending on child care and early education programs in Alaska totaled \$582 million. Of this total, 69% was spent by households, 25% by the federal government, and 6% by the State of Alaska.¹⁴

While household spending on child care and early education services makes up over twothirds of spending in this sector, child care expenses are a significant burden on many families. Half (51%) of families report they cannot fully participate in the labor force due to the cost, availability, or quality of child care services. Annual costs of these services average 15% of Alaska household income and the cost burden is even higher for single male households (in which child care costs comprise 20% of household income) and single female households (35%).¹⁵

This chapter identifies who spends money on child care in Alaska, describes federal and state subsidy support for families in need of child care, and compares the true cost of providing care to the state's child care subsidy program.



- 14 This total does not include local government spending, school district spending on pre-K programs, private sector child care assistance benefits for employees, and U.S. Department of Defense military program spending. Tribes, nonprofits, and private sector entities also invest in these programs, though data for this funding is not readily available.
 15 McKinley Research Group. *Role of Early Care & Education in Alaska's Economy, 2023 Economic Impact Report.*
- Prepared for thread.

Federal Funding

Most federal funding for child care programs in Alaska derives from the Child Care and Development Fund (CCDF), Temporary Assistance for Needy Families (TANF), and Head Start. The funding subsidizes child care costs for families.

Additional subsidies for child care meals are paid to providers through the Child and Adult Care Food Program (CACFP).



CHILD CARE AND DEVELOPMENT FUND

The CCDF provides child care assistance for children in low-income families in which parents are working or pursuing education or job training. The federal government administers CCDF funding through the Department of Health & Human Services Administration for Children & Families' Office of Child Care to states and tribal organizations.

The State is required to spend at least 70% of CCDF funding on child-care benefits.¹⁶ CCDF funds support the State child care assistance program, child care licensing, and thread, Alaska's child care resource and referral network. The State of Alaska child care assistance program subsidizes care for eligible families through direct subsidies paid to providers on behalf of the families.

TRIBAL CCDF

The federal government distributes CCDF funding directly to tribes. Tribes are not required to provide matches for federal CCDF allocations, though they are subject to federal CCDF rules. Most tribal CCDF funding is spent on direct child care services, including subsidies to families, tribally operated child care centers, relative care provided programs, home-based providers, or providers who have child care slots available to families who participate in the tribe's child care assistance program. CCDF funds may also be used to improve the quality and availability of child care, such as referral programs, assistance in meeting standards, training, and provider compensation.¹⁷

Tribes are allowed to determine income guidelines for their CCDF dollars, compared to State use of one income schedule for the entire state.

¹⁶ The State's 2022-24 CCDF plan can be found online at https://health.alaska.gov/dpa/Pages/ccare/regs.aspx. The CCPO is developing the 2025-27 plan, which is due by Sept. 30, 2024.

¹⁷ Department of Health and Human Services, *Tribal CCDF Guide to Financial Management, Grants Administration, and Program Accountability*, April 2012, https://www.acf.hhs.gov/sites/default/files/documents/occ/tribal_ccdf_2012.pdf.

HEAD START

Early Head Start and Head Start programs promote school readiness in children younger than 5 years of age through education, health, social, and other services. The program is administered by the federal Office of Head Start under the Administration for Children & Families within the U.S. Department of Health & Human Services. The federal government provides two types of Head Start funding, nontribal and tribal.

Seventeen Head Start and Early Head Start programs operate across Alaska, with 12 of those programs run by tribal organizations.¹⁸

CHILD AND ADULT CARE FOOD PROGRAM

The Child and Adult Care Food Program (CACFP) provides food subsidies for child care programs serving eligible low-income children younger than 13 years of age. Subsidies are paid directly to providers based on a rate percentage for serving meals and snacks that meet federal nutritional guidelines. Rates are set specifically for Alaska by the federal government.

18 Alaska Department of Education & Early Development, *Head Start and Early Head Start Grants & Allocations*, accessed February 20, 2024, https://education.alaska.gov/headstart/Head%20Start%20And%20Early%20Head%20 Start%20Grants%20&%20Allocations%20as%20of%2012.30.2021.pdf.



CHAPTER 5 Alaska Child Care Revenue and Subsidies



State Funding

STATE CCDF

Alaska receives CCDF distributions from the federal government. Unlike tribal recipients, the State of Alaska is required to make a match to federal CCDF funding. The State also transfers money annually from its federal Temporary Assistance for Needy Families (TANF) allocation into its CCDF. This TANF transfer is discretionary. This federal funding supports the State child care assistance program.

HEAD START

Head Start grantees must match 20% of federal funding unless a waiver is granted. The State of Alaska allocates State Head Start funding, which programs can use to meet the federal government's match requirement. Cash and in-kind contributions may be used for the match as well.

Alaska Child Care Assistance Program

Alaska's child care assistance program is called Parents Achieving Self Sufficiency (PASS). The program provides financial support for child care for families who are working or attending school or job training.¹⁹ The assistance is paid directly to licensed or approved child care providers on behalf of eligible families. Subsidy rates vary by borough and census area and child age range. Rates are set based on a survey of licensed providers in Alaska and represent the average market price charged by these providers. Families eligible for subsidies are generally required to provide a co-payment, up to 7% of the monthly price of care, to providers.

Child Care Subsidy Rates

Alaska child care subsidy rates are set according to a Family Income and Contribution Schedule (FICS). To be eligible in Alaska, a family's monthly gross income may not exceed 105% of the state median income (SMI) for their family size. Family assets may not exceed \$1 million. Alaska's True Cost of Child Care tool allows users to select a borough/census area to compare subsidy rates to cost of care in each public health region.

19 Alaska Department of Health, "Information for Families: Child Care Assistance Program," accessed February 13, 2024, https://health.alaska.gov/dpa/Pages/ccare/families.aspx.



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HOME-BASED CHILD CARE

The following table describes current average subsidy rates by age range and public health region for care in a licensed home setting. Subsidy rates for home-based care vary little by public health region. Generally, subsidy rates are lowest in the Mat-Su and Gulf Coast public health regions.

TABLE 21. AVERAGE SUBSIDY RATE PER MONTH, HOME CARE SETTING, BY PUBLIC HEALTH REGION, FY2025

Public Health Region	Infant (0-12 months)	Toddler (13-35 months)	Preschooler (36-59 months)
Anchorage	\$900	\$800	\$700
Gulf Coast	\$877	\$758	\$695
Interior	\$919	\$918	\$770
Mat-Su	\$873	\$744	\$693
Northern -	\$900	\$800	\$838
Southeast	\$900	\$922	\$793
Southwest	\$900	\$800	\$776
Statewide	\$899	\$849	\$771





CENTER-BASED CHILD CARE

The following table describes average subsidy rates by age range and public health region for care in a licensed center setting. Subsidy rates for centerbased care vary more widely compared to those for home-based care. As with home-based care, center-based subsidy rates are lowest in the Mat-Su and Gulf Coast public health regions.

TABLE 22. AVERAGE SUBSIDY RATE PER MONTH, CENTER CARE SETTING, BY PUBLIC HEALTH REGION

Public Health Region	Infants (0-12 months)	Toddlers (13-35 months)	Preschoolerers (36-59 months)	
Anchorage	\$1,135	\$1,148	\$1,019	
Gulf Coast	\$998	\$956	\$744	
Interior	\$1,157	\$1,007	\$900	
Mat-Su	\$805	\$760	\$706	
Northern	\$1,133	\$1,077	\$1,004	
Southeast	\$1,155	\$1,027	\$905	
Southwest	\$1,208	\$1,044	\$907	
Statewide	\$1,132	\$1,019	\$890	



Gap Between Monthly Subsidy Rates and Cost of Care

The following sections compare the monthly subsidy rates and cost of care across public health regions and age ranges based on the care setting (home- or center-based). Subsidy rates set per the Alaska Child Care Assistance Program are an appropriate proxy for the price of care. This section compares this price to the true cost of providing care and the gap between providers' available revenue and true costs.



Home-Based Child Care

Based on statewide average subsidies and true cost of care, monthly subsidies for all age ranges receiving care in a licensed home are below the average monthly subsidy in this age range. Overall, the gap between subsidy and cost in the home care setting leaves little room for unexpected costs.

TABLE 23. AVERAGE SUBSIDY AND COST OF CARE PER CHILD, HOME CARE SETTING, STATEWIDE

Age Range	Average Monthly Subsidy per Child	Monthly Cost of Care per Child	Monthly Gap between Subsidy and Cost
Infants (0-12 months)	\$899	\$911	-\$12
Toddlers (13-30 months)	\$849	\$911	-\$62
Toddlers (31-35 months)	\$849	\$911	-\$62
Preschoolers (36-59 months)	\$771	\$911	-\$140



The gap between average subsidy and cost of care is most pronounced in the Southwest, Gulf Coast, and Northern public health regions in which costs of care exceed the subsidy rate for all child age ranges. In other regions such as Anchorage, the Mat-Su, and Interior, subsidy rates exceed costs of care for infants.

TABLE 24. GAP BETWEEN MONTHLY SUBSIDY AND COSTOF CARE, HOME CARE SETTING, BY PUBLIC HEALTH REGION

Public Health Region	Infants (0-12 months)	Toddlers (13-30 months)	Toddlers (31-35 months)	Preschoolers (36-59 months)
Anchorage	+\$36	-\$64	-\$64	-\$164
Gulf Coast	-\$193	-\$312	-\$312	-\$375
Interior	+\$6	+\$5	+\$5	-\$143
Mat-Su	+\$32	-\$97	-\$97	-\$148
Northern	-\$275	-\$375	-\$375	-\$337
Southeast	-\$177	-\$155	-\$155	-\$284
Southwest	-\$265	-\$365	-\$365	-\$389
Statewide Avg.	-\$12	-\$62	-\$62	-\$140

CHAPTER 5 Alaska Child Care Revenue and Subsidies





Center-Based Child Care

Based on statewide average subsidies and true cost of care, monthly subsidies for children receiving care in a licensed center exceed the monthly cost of care for all age ranges. The gap between the subsidy and cost in the center setting is greatest for toddlers between 13 and 18 months (costs exceed subsidy by \$766 on average) and persists across toddlers and preschoolers.

TABLE 25. AVERAGE SUBSIDY AND COST OF CARE PER CHILD,CENTER CARE SETTING, STATEWIDE

Age Range	Monthly Subsidy per Child	Monthly Cost of Care per Child	Monthly Gap between Subsidy and Cost
Infants (0-12 months)	\$1,132	\$1,785	-\$653
Toddlers (13-18 months)	\$1,019	\$1,785	-\$766
Toddlers (19-35 months)	\$1,019	\$1,571	-\$552
Preschoolers (36-59 months)	\$890	\$1,250	-\$360



The gap between the subsidy and cost of care is highest in the Northern, Anchorage, Mat-Su, and Southwest public health regions. In each of these regions, providing care under the base case scenario (prevailing wage rates, few staff benefits, and minimum square footage per child), the monthly cost of providing infant care exceeds the subsidy rate by more than \$900. In the highest cost environments such as the Northern and Southwest public health regions, the gap between monthly cost of care and subsidy for preschoolers is at, or above, \$745.

Public	Health Region	Infants (0-12 months)	Toddlers (13-18 months)	Toddlers (19-35 months)	Preschoolers (36-59 months)	
	Anchorage	-\$970	-\$633	-\$417	-\$167	
	Gulf Coast	-\$761	-\$803	-\$594	-\$641	
	Interior	-\$725	-\$875	-\$660	-\$419	
	Mat-Su	-\$933	-\$978	-\$762	-\$437	
	Northern	-\$990	-\$1,046	-\$838	-\$745	
	Southeast	-\$625	-\$753	-\$545	-\$501	
	Southwest	-\$907	\$1,071	-\$863	-\$834	
Statew	ide Average	-\$653	-\$766	-\$552	-\$360	

TABLE 26. GAP BETWEEN SUBSIDY AND COST OF CARE, CENTER CARE SETTING, BY PUBLIC HEALTH REGION



States across the country recognize that child care businesses play a critical role not only in child development and long-term success, but also in the overall economy. Child care is an important service that benefits businesses, bolsters workforce development, and increases economic security for families and communities. This important role is at odds with the financial reality of running a child care business: revenues, often limited by what families can pay, may not cover true expenses. Given this reality, many U.S. states are taking steps to buttress the child care financial environment.

Methods available to state or local governments to enhance the financial sustainability of the child care sector fall into two broad categories. 1. Changes to the state subsidy program seek to increase revenue earned by child care businesses to provide the financial resources needed to pay for the true cost of care. 2. Direct cost interventions seek to reduce — or pay for — some of the true costs of care with government funding, rather than provider revenue.

As part of this study, McKinley Research Group evaluated state subsidy programs. The intent of the evaluation was to identify how subsidy structures interact with and support each state's child care system. Three states were initially chosen for this evaluation based on their comparability to Alaska demographics and geography, as well as their recent state subsidy program innovations. These states, New Mexico, Vermont, and Washington, provide many child care subsidy improvement measures for consideration in Alaska's child care subsidy program. Other methods of investment, such as grants and program funding were also identified.

During this evaluation process, the MRG team determined a broader review of state policies and innovations would be useful when considering next steps for Alaska. Thus, while information from our focus states is incorporated in the findings below, additional measures taken by other states are discussed as applicable. Such measures include structural changes to child care systems, including changes to child care subsidy programs, as well as direct intervention to address costs.



HOW TO IMPROVE CHILD CARE BUSINESS FINANCIAL SUSTAINABILITY

Child Care Subsidy Programs

Financial sustainability for child care businesses often requires action outside of market forces to support child care providers, families, and child care employees. This includes public investment through the federal CCDF and state matches for child care subsidies. Subsidies play an important role in making child care accessible for families by paying providers directly for services.

State and tribal CCDF recipients are granted considerable flexibility in developing programs and policies to meet local needs, within federal guidelines. Thus, many states are taking measures to improve their child care subsidy programs. Such measures include changes to how subsidy rates are calculated, how rates are set, and how subsidies are paid.

Subsidy Rate Calculation

The CCDF affords states flexibility in methodology used to set child care subsidy rates. States often elect to use data from a market rate survey of child care providers to establish subsidy rates. This rate setting methodology bases subsidy rates on what providers currently charge families, which is directly related to what families can afford. Thus, subsidy rates set by this method are not necessarily related to the cost of providing child care services and may not cover true costs for businesses.

Further, rates based on market price surveys are inherently backward looking. They reflect the current state of operations, including low wages, limited benefits, and capacity constraints, rather than looking forward to meet true costs.²⁰

Several states discontinued using a market price survey for subsidy rate setting and are instead instituting a cost-based approach. Cost-based rate setting is now used in Washington, D.C.; Virginia; and New Mexico, among others, through a cost estimation model.

20 Coffey, Maureen. States Can Improve Child Care Assistance Programs Through Cost Modeling. Center for American Progress March 9, 2023.



SUBSIDY DIFFERENTIALS

GEOGRAPHIC

Tiered or differentiated subsidy rates within a state are also allowed by CCDF for variations in setting and circumstance, such as child age and special needs. Variations in cost environment by geography within a state may also be accounted for.



Washington State

Subsidy rates are subject to a geographic differential by region. Additionally, King County, where Seattle is located, instituted a child care subsidy program specific to the county for families not eligible for the state subsidy.



California Sets Regional Market Rates for child care subsidies at the county level.



Mississippi Sets separate rates for urban versus rural areas of the state.



QUALITY

Many states recognize the importance of quality child care through state programs to promote and reward quality in child care centers and home care environments. Some states tie child care subsidy rates to child care provider quality. A 2012 National Survey of Early Care and Education (NSECE) revealed that child care center quality is higher in states with higher subsidy rates.²¹ In states that increase child care assistance subsidies based on a tiered quality system, rate increases typically range from 5% to 20% above base rates, though can be much higher.²²



New Mexico

Provides an increase in the per-child subsidy rate upon successful verification of a center having reached a new "star" level in its Tiered Quality Ratings Improvement System (TQRIS).



Delaware

Operates a tiered child care subsidy program tied to quality levels. Programs at higher quality levels can receive supplemental subsidies up to 100% of the market rate for the highest quality levels.

While many state child care subsidy programs account for quality differentials, Vermont recently reversed course and disconnected quality assurance levels from subsidy rates. The primary reason cited for no longer incorporating quality into the rate schedule was administrative burden.²³ The state does invest annually in a child care quality and capacity incentive program outside of subsidy programs.

21 Isaacs, Greenberg, and Derrick-Mills. Subsidy Policies and the Quality of Child Care Centers Serving Subsidized Children. Urban Institute. February 2018.

22 U.S. Department of Health and Human Services, Administration for Children and Families. QRIS Resource Guide.

23 Readiness Payment program to prepare child care businesses for expansion of the Child Care Financial Assistance Program (CCFAP) and other changes in Act 76. Funding may be used for stability, expansion, and quality. By the end of February 2024, over \$17.5M was distributed to over 750 programs. The rest of the \$20 million is intended for distribution in Spring 2024.

Subsidy Rate Increases

One direct way to support providers is to increase and simplify base subsidy rates for child care centers and child care homes. Increases provide more investment in the subsidy program to better reimburse providers for actual costs, which families are not able to pay. States that recently increased rates include:



Connecticut

Implemented a 10 percent increase in subsidy rates. Under a union agreement, Connecticut also committed to further increase payments in subsequent years.



Delaware Recently increased child care subsidy rates by 15%.



Vermont Increased subsidy rates by 35%.



Subsidy Rate Regulation

Several states pay subsidies that are disconnected from the prices providers charge to private pay families.



Vermont

Provides a full subsidy for each eligible child regardless of what private pay price is charged. At the same time, Vermont placed a cap on annual child care tuition increases.



North Carolina

Pays providers the full child care assistance rate even if a private pay price is lower than that amount.

Subsidy Basis

In many states, child care subsidies paid to providers are based on attendance at their facility. This approach is problematic for providers, as they enroll a certain number of children and must scale their service, such as staffing, supplies, and administrator time, to enrollment, even if some students only attend part-time. For these reasons, California, Michigan, New Hampshire, New Jersey, Vermont, Wyoming, and other states now base subsidies on enrollment rather than attendance, and a 2024 federal rule requires all states to base subsidy payments on attendance.

Cash Flow

Managing cash flow is an important part of any business. As depicted in the Alaska True Cost of Child Care tool developed from this modeling exercise, "bad debt expense," or the amount of earned revenue that is never paid, can impact child care providers' ability to pay expenses and the market rate they charge to all families. Some states, such as Oregon, now pay additional fees when subsidies are paid late by the state to the provider as a way to help providers maintain healthy cash flow and/or cover expenses such as overdraft fees incurred by the provider while awaiting late state payments.²⁴

24 *Employment Related Day Care (ERDC) Provider Rate Change*. Oregon Department of Early Learning and Care. Effective January 1, 2024.
Broadened Eligibility

Many states increased child care subsidies by broadening financial eligibility criteria for families so more families can take advantage of the program.



Vermont

Passed a child care law in 2023 designed, in part, to expand the number of families eligible for subsidies. The updated program dictates that families are eligible for financial assistance if they earn up to 575% of the federal poverty level. The law is funded for the first year through the state general fund and an increase to the child care subsidy program base appropriation. A payroll tax increase is anticipated for future years to supplement the increased base appropriation.



New Mexico

Increased the eligibility rate for child care subsidies to 400% of the federal poverty level in 2022. At the same time, the state eliminated co-pays for those that qualify. The subsidies are underwritten in part through the \$2 billion trust sustained by taxes on oil and natural gas production in the state.



Other states that have recently increased eligibility include Idaho (from 130% to 175% of the federal poverty level), Illinois (from 200% to 225%), and Michigan (from 250% to 300%).





Family Copay

Child care subsidy programs typically require eligible families to contribute a monthly copay as part of their child care assistance payment. Many states have reduced or eliminated copays.



New Mexico Eliminated all copays for child care subsidyeligible families.



Vermont Eliminated copays for families if they make up to 175% of the federal poverty level (an increase from 150%).



New Hampshire Waived copayments for families with incomes below 100% of the

federal poverty level.

Child Care Assistance Transparency and Accessibility

Several states mandate or encourage collaboration between agencies to provide child care assistance application materials in multiple languages online and in paper form. Such measures help increase subsidy program accessibility and reduce disparities in information and application access. In turn, such measures aim to increase participation in the child care subsidy program.

Direct Cost Interventions

In addition to child care cost assistance for eligible families, states institute a myriad of financial interventions designed to improve child care system financial stability. These interventions are often focused on support for child care providers, families, child care employees, or a mix of all three. While the following review of cost interventions is not comprehensive, it does highlight primary areas within which states are attempting to affect change. These areas include child care employee wages and benefits, facilities, and food services. The following sections describe some methods states employ to help stabilize the child care workforce, enhance individual business financial sustainability, and increase family's ability to access child care services.



Wages and Benefits

As described in previous chapters, low wages and lack of benefits are key sources of instability in the child care workforce. These factors often lead to high turnover rates. In times of economy-wide labor shortage, a provider's inability to offer increased wages or more attractive benefits can lead to a reduced supply of child care services. Center-based providers may be unable to hire enough staff to operate at full capacity, leaving fewer children among whom to spread fixed costs and therefore increasing monthly cost per child. Home-based providers may seek other employment opportunities in sectors that offer more attractive benefits, and center-based staff may leave to pursue early care and education positions that offer higher pay (such as elementary school teaching).



WAGE INCREASE

Low child care employee wages are cited as an impediment to program quality and a result of the high cost/low return environment in which child care programs operate. Increased subsidy rates are considered a way of indirectly increasing child care employee wages, though this may or may not occur. Other ways to increase wages include setting a minimum wage rate for child care employees and offering state-subsidized wage rate increases that are tied to provider quality levels.



New Mexico

Announced a new grant in 2023 for any child care provider who applies and commits to raising employee wages by \$3 an hour. This increase raises the minimum wage for entry-level employees to \$15 per hour and lead teachers to \$20 an hour. New Mexico also operates a wage supplement program that provides lump sum payments to eligible child care employees based on level of early care and education achieved. In FY26, the rates will go up further, and child care centers must offer an \$18 per hour minimum wage for all child care employees and \$24.89 per hour minimum wage for lead teachers. In addition to this base wage, child care employee wages in New Mexico are further augmented when a program achieves quality levels within the state child care Quality Rating and Improvement System (QRIS).



Vermont

A recent child care law is intended to effectively raise the cost of care in the state through subsidy rate increases (provider price increases are limited by law). Part of this increase is to raise wages for employees in the sector. In addition to this intended indirect wage rate increase, the law sets minimum pay standards for early childhood educators.

HEALTH INSURANCE BENEFITS

State efforts to provide health insurance coverage for child care employees and providers range from campaigns dedicated to enrolling employees in federal- and state-subsidized health coverage to state funding for healthcare premiums.²⁵



Washington, D.C.

Implemented the HealthCare4ChildCare program which provides free health insurance premiums through DC Health Link for residents and families who reside in the District and work at a child care center. The program also helps child care centers to provide affordable group health insurance, with free premiums, for their employees through the DC marketplace.

Many states allocate funding specifically to reduce out-of-pocket costs to employees enrolled in an Affordable Care Act (ACA) marketplace or employer-sponsored health plan. These premium reduction methods often include adding state subsidies to supplement federal subsidies, which are based on a sliding income scale, for residents accessing healthcare through the federal Marketplace. State subsidies are often added for an entire resident population earning up to 300% of the federal poverty level, though could be considered for targeted populations such as child care providers or employees.



Washington State

Allocated \$30 million to healthcare premium assistance for child care employees between 2021 and 2023. As many child care facilities cannot provide health insurance as an employer benefit, child care employees must find private insurance through the healthcare marketplace. The subsidy helps make these premiums more affordable and retain staff at centers that are unable to either provide or subsidize healthcare premiums on their own.

States may also choose to address the employer-paid portion of employer-sponsored health plans for small businesses purchasing group insurance through a state-operated healthcare marketplace.



Washington, D.C.

Offers group insurance plans through DC Health Link, including plans offered at no employer premium.

25 As a Medicaid expansion state, Alaska residents making up to 138% of the federal poverty level have the ability to gain health insurance through Medicaid enrollment. Further, residents earning above 138% of the federal poverty level can purchase health insurance plans through the federally run ACA Marketplace and may be eligible for Advance Premium Tax Credits (APTC), a refundable tax credit, and cost-sharing reductions to lower out-of-pocket costs.

EDUCATION BENEFITS

Many states subsidize early childhood education through a variety of grants, scholarships, and other support programs. A few examples of follow.



Vermont

Operates a Student Loan Repayment Assistance Program for early childhood educators, providing up to \$4,000 annually to reduce the student debt of full-time educators who earned an early childhood related degree. In addition, a variety of funding options are available for early childhood educators who are seeking further education or professional development.



New Mexico

Operates a scholarship program that provides free college tuition for early childhood educators.



Minnesota

Allocated state funds to operate an early childhood educator Grow Your Own program and an apprenticeship grant program to recruit and train sector employees.

OTHER EMPOLYEE BENEFITS

Offering free or reduced-cost child care services for the children of child care employees has been considered as a method to increase participation in, and retention of, the child care workforce. However, providers offering this benefit with no additional support face a stark tradeoff: hiring staff may be critical to fully using center capacity, though not charging for the staff member's children leaves fewer children across whom to spread the fixed costs of care, potentially raising the price charged for other families. States such as Kentucky and Georgia have made child care employees categorically eligible for child care subsidy programs for their own children to reduce this burden on providers while inducing workforce participation.²⁶

26 Vanover, Sarah. *Celebrating New Benefits for Child Care Employees*. Published by Kentucky Youth Advocates. September 22, 2022. Georgia Department of Early Care and Learning. *DECAL Offering Child Care Tuition Assistance for Early Educators in Georgia*. September 27, 2023.



Facility Support

Child care facility costs, which may include rent, a renovation loan, or mortgage payments, utilities, and maintenance, represent a significant fixed cost for businesses. Providers use various methods to reduce or eliminate rent, renovation loan, or mortgage costs to minimize the per child cost of care. These methods include:

Purchase and limited renovation of existing space

Child care providers in Alaska often purchase space not originally built for child care or education and perform limited renovation to adapt this space.

In-kind support from a non-government organization

Child care providers may occupy space at reduced rental rates, or pay no rent, in space owned by another business or organization with a mission that aligns with child care.

Shared space in a public facility

Local governments or school districts may provide unused space free of charge. Unused school space may be particularly well-suited to child care use as it generally includes access to a commercial kitchen, indoor play area, and other amenities.

Fundraising or grant funding

Providers seeking to build a new, purpose-built child care facility often fundraise or seek grant funding to pay construction costs up front to avoid taking out a loan. This allows providers to avoid costly debt financing and reduce monthly operating costs.

Some of these methods for reducing facility-related operating costs result in child care homes or centers that not only meet licensure requirements, but also provide a high-quality setting. In other cases, providers may have to forgo desired amenities or shared spaces to meet revenue.

States administer various grant and loan programs to fund construction, renovation, or other facility improvements for child care businesses. Grant or loan programs may be designed to serve a range of participants, from school districts to for-profit businesses. Programs may be funded through sources such as state general funds, state general obligation bond funds, and capitalization of third-party financial institutions (e.g., loan program operations).

Washington State

The Early Learning Facility (ELF) program provides financial assistance through grants to reimburse capital projects that involve acquisition, design, engineering, third-party construction management, and construction and capitalized equipment costs associated with building early learning facilities. Many kinds of providers are eligible for funding, including for-profit businesses, nonprofits, K-12 school and districts, tribes, and other public entities. The Washington Department of Commerce manages the program, partnering with Community Development Financial Institutions (CDFIs) to operate the loan program.



Minnesota

Grants up to \$300,000 for a single location for child care facility modifications or improvements required for licensing.



FEDERAL FUNDING FOR FACILITIES

Federal rules allow both tribal CCDF and Head Start funding to be used for construction or improvement of early childhood facilities. These programs often serve children who are receiving assistance through both funding streams. However, each funding source requires different application and review processes, increasing the burden on organizations pursuing facility improvements. The need for facility improvements is high based on a 2021 survey, in which 36% of Alaska Native/American Indian (AN/AI) Head Start grant recipients reported their facilities were in poor or fair condition.

To address this issue, the Administration for Children and Families (ACF) proposed streamlined administrative requirements so tribal CCDF and Head Start grant recipients can jointly apply for construction or facility improvement funding.²⁷ The draft proposal for this process was submitted Nov. 30, 2023, and is awaiting federal approval.²⁸

Other federal funding sources include Community Development Block Grant funding through the Community Facilities Grant Program for communities with fewer than 20,000 residents. Public entities, nonprofits, and federally recognized tribes are eligible for this program.

- 27 U.S. Department of Health and Human Services, "Tribal Early Childhood Facilities Combined Application Guide," accessed March 5, 2024, https://acfmain-stage.acf.hhs. gov/sites/default/files/documents/ecd/tribal-facilitiesapplication.pdf.
- 28 Office of Early Childhood Development, "Draft Tribal Facilities Combined Application Guide," December 7, 2023, https://www.acf.hhs.gov/ecd/policy-guidance/ draft-tribal-facilities-combined-application-guide.





UTILITY SERVICES

Utility costs can be prohibitively expensive in Alaska, particularly in remote communities reliant on diesel-generated electricity and heating oil for home or other building heat. Alaska's Power Cost Equalization (PCE) program provides electricity rate subsidies to rural Alaska households and community buildings based on kWh of

electricity use. All residential electricity customers are eligible for PCE rate subsidies, with monthly subsidies capped at the first 750 kWh of consumption.

State and federal government customers, including schools, and most commercial customers are not eligible for PCE subsidies. Community buildings which "operate for the benefit of the general public," including charitable educational facilities, are eligible for subsidies.²⁹ Child care centers may be eligible for subsidies depending on their organization structure. Eligibility for the PCE subsidy and ensuring the consumption limit is not prohibitive for home- and center-based child care may provide methods to reduce the high utility cost burden on providers.

²⁹ Alaska Energy Authority. *Power Cost Equalization Program*. https://www.akenergyauthority.org/What-We-Do/Power-Cost-Equalization#:~:text=AEA%20regulations%20define%20a%20community,federal%20funding%20of%20community%20 facilities. Accessed April 2024.



Food Service

The U.S. Department of Agriculture operates the Child and Adult Care Food Program (CACFP), a program that reimburses child care providers for food and food-related costs for eligible children in their care.³⁰ Eligibility is based on family income. The program is designed to provide nutritious meals and snacks through a

set of nutrition standards and food purchase guidelines. The CACFP reimburses participating child care programs for food expenses (including transportation), non-food kitchen expenses (supplies, utilities, equipment, etc.), permits, and food-related labor.

Nationwide, provider participation in the CACFP program has declined over the past few decades, particularly for child care homes. One primary reason for this decline is reportedly due to cumbersome administrative requirements. These requirements may include lengthy application materials and complicated reimbursement request paperwork. Program participants also must stick to strict food purchase guidelines.³¹ Limited knowledge about the availability of the program and how to enroll can also be a challenge to participation. Additionally, centers may benefit more readily than child care homes from the CACFP program, as they generally have a lower per-unit price due to larger food purchases. Child care homes, on the other hand, typically purchase food at retail prices.

Some child care centers in Alaska participate in the CACFP program, while few if any child care homes currently do. Reimbursement rates are adjusted annually by the federal government, with a specific rate for Alaska included. The rate for Alaska is higher than the national average rate, though it does not account for the difference in food costs across the state.³²

Overall, states work to increase provider awareness about the program and its benefits. Advocacy is ongoing to streamline administrative burdens. Several states have taken further steps to increase CACFP participation, though the impacts of such policies are complex.



Louisiana Increased participation in the CACFP program by decreasing barriers to initial participation through a policy that allows exempt providers to enroll in the program after meeting safety criteria.



New Mexico

Requires nearly all licensed child care providers to enroll in CACFP and provides consulting and technical support for the application process.



Washington State

Provides direct outreach to child care homes to ensure that these providers are enrolled in CACFP to receive reimbursement for meals provided to children.

30 After school programs and adult care homes are also served by this program.

³¹ Rebecca Franckle and Maria Boyle, Barriers to Participation in the Child and Adult Care Food Program for Early Childhood Care Providers. *American Journal of Public Health* 113, S180_S182, 2023.

³² The difference in food and food-related costs across Alaska is driven by a variety of factors, though transportation costs andchallenges are often paramount. Rural Alaska communities are particularly challenged by long supply chains, expensive transportation options, and resulting limitations on the type and price of food products available.

CHAPTER 7 Considerations & Recommendations

Nationally, child care providers operate in a complex business environment; the costs of providing service are high while families often struggle to pay the price for care. In many states, the child care subsidy paid to providers on behalf of eligible families does not meet the true cost of providing care. To stay in operation, providers minimize costs wherever possible, by paying relatively low wages and providing few benefits to workers, occupying spaces not necessarily designed for child care, and other cost reduction methods. Home-based providers too are impacted, often implicitly cutting costs by not paying themselves a wage comparable to others in the sector.

In Alaska, the costs and complexities of operating a child care business are magnified. Child care business affordability is negatively impacted by the high cost of living which influences wages. In addition, transportation of goods across the state, utilities, and other costs are also more expensive compared to other areas of the country. Beyond the affordability of these components, many communities throughout the state face a shortage of key inputs needed to operate a child care business. Workforce availability and lack of home or center space are among these structural economic conditions that contribute to high cost of care or present significant barriers to operating a child care business.

Policymakers have two broad levers at their disposal to address this challenging landscape and improve the financial sustainability of Alaska's child care sector. As described in Chapter 6, these include a change to the state subsidy program to increase revenue available to providers to pay for the true cost of care and direct interventions to either reduce costs or increase availability of necessary inputs. Both mechanisms will likely be required to increase the number of providers operating financially sustainable, high-quality child care businesses in Alaska. The following are key considerations as Alaska works to address the state's child care sector from the perspective of availability and affordability of business inputs.

Direct Cost Interventions

Alaska should consider designing programs or other financing mechanisms to address affordability and availability of the business inputs that contribute most to the high cost of care, or unavailability of care entirely. Addressing these costs, such as labor, facilities, utilities, and food, would set the conditions under which the child care sector can begin to operate more sustainably in all regions of the state. Methods to address costs should be designed to provide ongoing business support, rather than one-time opportunities, to enable conditions for sustained change.



Wages and Benefits

Over the last several years, organizations in Alaska have devoted considerable effort to researching the child care sector's workforce needs. These needs include wages and benefits, training, and professional development. Measures to increase wages and offer more benefits to child care workers will be critical to stabilizing the child care workforce and allowing providers to operate at full capacity. Such strategies could in turn reduce costs per child, by spreading high fixed costs among more children, and increase child care availability.



Facilities

Lack of availability and affordability of homes and commercial space across the state is a key barrier to financial sustainability in Alaska's child care sector. The base case scenario in the Alaska True Cost of Child Care tool assumes commercial space is available to rent or renovate in each public health region. In reality, commercial space suitable for a child care center at prices providers can afford is scarce in urban Alaska, and nonexistent in

many rural communities. In many communities, operation of a child care center would require construction of a new, purpose-built facility or extensive renovations to an existing structure. As described in Chapter 4, the debt burden associated with these facility options contributes to per child operating costs that are far higher than the per child subsidy rate and families' ability to pay for services out of pocket. Development of programs or financial mechanisms to address this lack of available physical space from which to operate a child care home or center should be a high priority.

Subsidy System Considerations

The State of Alaska has an opportunity to set subsidy rates based on the true cost of providing child care, as described in this report. The potential departure from a market price-based rate setting approach could provide additional revenue for licensed providers to pay for the true costs of care instead of reflecting the price families can afford. Setting subsidy rates to better align with the true cost of care may result in improvements in business sustainability, child care quality, worker compensations, and access to care. A change in the subsidy system alone will likely not bridge the gap between true cost of program or home-based care operations and revenue, as a relatively small portion of provider revenue comes from the subsidy program.

Relationship Between Subsidy and Private Pay Rates

Across Alaska, many licensed and unlicensed child care providers set child care prices based on the State of Alaska Child Care Assistance Program Rate Schedule. Due to the relationship between the subsidy rate and price charged to families, changes to the subsidy rate to meet the cost of care should be made with careful consideration. Many families in Alaska who do not qualify for child care subsidies currently struggle to afford high out-of-pocket prices, and changes to the subsidy which do not account for this reality could have a significant, negative impact on these families.

The following elements of child care subsidy program design warrant special consideration.

Cost-based Rate Setting

A market-based approach to rate setting cannot accurately reflect pricing for regions with no licensed child care providers. Thus, a cost-based subsidy structure is a preferred alternative to reflect the true child care business costs in these regions.

Geographic Differentials

The cost of care varies significantly by Alaska public health region. Currently, child care subsidy rates are set by borough and census area. Continuing to set rates which vary by geography is important when aligning the subsidy rate with the true cost of care.

Flat Subsidy Rate

Some states pay a flat subsidy rate to providers on behalf of eligible families *regardless* of the price providers charge to private-pay families. This allows providers who charge private pay prices lower than subsidy rates to fully benefit from subsidy payments.

Quality Differentials

Subsidy rates in some states are tied to provider quality level certification. While such a program can encourage increases in quality for providers who can afford it, those with lower quality ratings are left with fewer resources with which to improve quality. **Consideration should be** given to incentivizing quality through direct intervention rather than the subsidy system.

Model and Tool Maintenance and Use Recommendations

The following are recommendations for use and updates to the Alaska True Cost of Child Care model and resulting tool.

Model Update

The Alaska Child Care Cost model was built with the intention that the tool be updated at regular intervals based on publicly available data. Factors which significantly influence base case or scenario results include prevailing wage rates; cost of electricity, natural gas, or heating oil; and commercial real estate rental rates. At a minimum, the model should be updated every three to five years. Interim updates are advised if significant changes in prevailing wages or oil prices, a commodity price impacting utility pricing, change significantly in the interim period.

Education About True Cost of Care

The tool developed from the Alaska True Cost of Child Care model describes the cost of providing child care at a high level, based on assumptions as outlined in Chapter 2. It is not intended to provide financial feasibility results for a specific child care provider. However, the tool may be a helpful resource for a variety of stakeholders, including state government when setting child care subsidy rates, local governments seeking to increase availability of affordability of services locally, prospective providers who want to understand the business cost landscape, and others. The Alaska True Cost of Child Care tool developed through this modeling exercise should be made available for public use. The study team recommends the State of Alaska develop a dedicated webpage and accompanying information materials to appropriately educate stakeholders about the tool.

Appendix A Public Health Regions

Anchorage

Municipality of Anchorage

Gulf Coast

Chugach Census Area Copper River Census Area Kenai Peninsula Borough Kodiak Island Borough

Interior

Denali Borough Fairbanks North Star Borough Southeast Fairbanks Census Area Yukon-Koyukuk Census Area

Mat-Su

Matanuska-Susitna Borough

Northern

Nome Census Area North Slope Borough Northwest Arctic Borough

Southeast

Haines Borough Hoonah-Angoon Census Area Juneau City and Borough Ketchikan Gateway Borough Petersburg Borough Prince of Wales-Hyder Census Area Sitka City and Borough Skagway Municipality Wrangell City and Borough Yakutat City and Borough

Southwest

Aleutians East Borough Aleutians West Census Area Bethel Census Area Bristol Bay Borough Dillingham Census Area Kusilvak Census Area Lake and Peninsula Borough

Appendix B Alaska Childcare Center Facility Study



ALASKA CHILDCARE COST STUDY REVISION 01

MAY 10, 2024



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EXECUTIVE SUMMARY

Overview

- » January 2024, McKinley Research Group (MRG) retained the services of Bettisworth North, along with their subconsultants (HZA and HMS) to assist in providing a Childcare Cost Study for seven distinct regions throughout the State of Alaska, including: Anchorage, Gulf Coast, Interior, Mat-Su, Northern, Southeast, and Southwest.
- » The tasks as outlined by MRG were provided as follows:
 - 1. Childcare center construction cost estimates Bettisworth North defined the parameters for one base case, prototype new construction childcare facility scenario for each of the seven regions. This data was used to develop a rough order of magnitude price for each region.
 - 2. Existing commercial space renovation cost estimates Bettisworth North defined the parameters for existing space renovation considerations and requirements for a childcare facility in each of the seven regions. This data was used to develop a rough order of magnitude price for each region.
 - **3. Maintenance cost requirements** Bettisworth North provided references for estimating maintenance requirements.
 - 4. Energy requirements Mechanical/electrical consultants HZA provided heating and electrical requirements per square foot on the base scenario and provided general assumptions for mechanical and electrical system types for each region.
 - **5.** Non-hub cost differential Cost estimating consultant HMS provided an estimate cost increase per region for non-hub community construction. For this study, non-hub is defined as a community located without road access or in a rural location.
 - **6. Consultation with MRG regarding home Childcare setting** Bettisworth North met with MRG in a work session to discuss requirements, methodology, and data for home childcare facility costs.

Basis of Design

- » The Base Case Scenario Facility is approximately 8,400 square feet. This facility includes: one classroom for ten infants, one classroom for twelve toddlers, and one classroom for twenty preschoolers. In addition, support spaces include a commercial kitchen, administrative spaces, registration, storage and support spaces, restrooms, break room, and an indoor activity room.
- » The new building construction is assumed to be an engineered steel or wood framed, sprinklered facility, with highly insulated roofs, walls, and floors, including fiberglass and aluminum storefront windows. The site and foundations requirements vary depending on region.

Considerations

- » The contents of this study serve to provide a basis for general new construction costs of a Base Case Scenario childcare facility. The Rough Order of Magnitude cost estimate numbers are provided based on 2026 start of construction. Land Acquisition/Facility design fees/Site utility fees are excluded from this price.
- » The base case scenario space requirements listed herein are based on State of Alaska Childcare licensing requirements, operational requirements, and best practices. These space requirements should be reviewed on an individual facility basis to account for number of children served, and additional program type requirements (Headstart, Kindercare, etc.).
- » For renovation of an existing facility, we have assumed for the purposes of this study that such a commercial space exists in each region. Price is reflected as rough order of magnitude for each of the seven regions and includes estimations of major improvements unique to childcare facilities.

ARCHITECTURAL NARRATIVE

Code Requirements

Building codes and amendments are updated regularly by both State and local jurisdictions. The analysis completed in this study is based upon the currently adopted codes by the State of Alaska and the Municipality of Anchorage as of <u>March 2024</u>. All future analysis should be reviewed to conform to current local and statewide adopted codes and amendments by the authorities having jurisdiction.

State of Alaska Childcare Licensing Laws are governed by **Alaska Administrative Code 7 AAC 57 Childcare Facility** *Licensing*. In addition, the Municipality of Anchorage (MoA) has additional code requirements per Title 16 – Health.

- » Indoor Space Requirements
 - » 7 AAC 57 .620 (a) Childcare center shall provide at lease 35 square feet of usable space per child, exclusive of hallways, bathrooms, storage areas, office space, furnace and laundry rooms, crib space, and any area children are prevented from using.

Ages	6 weeks-11 months	12-18 months	19-35 months	3-5 years
Max number of	10 (8 in MoA)	10	12	20
children				

» 7 AAC 57.505 (c) (1) During all hours of operation, the following child-to-caregiver ratio and maximum group size shall be maintained:

» 0-18 months	10:2 child to caregiver ratio
» 19-36 months	12:2 child to caregiver ratio
» 3-4 years	20:2 child to caregiver ratio
» 5-6 vears	28:2 child to careaiver ratio

- » 7 AAC 57.505 (c) (4) Child-to-caregiver ratios for the youngest child apply when infants, toddlers, and preschoolers are in a mixed age group.
- » 7 AAC 57.510 (e) Maximum group size at any one time during the day may not exceed twice the maximum number of children allowed per caregiver as required by the child-to-caregiver ratio.
- » 7 AAC 57.510 (f) If a group of children contains a combination of age groups, or if age groups are combined, the maximum group size at any one time during the day may not exceed twice the maximum number of children allowed under the child-to-caregiver ratio in 7 AAC 57.505(c) for the youngest child within the group.
- » 7 AAC 57.510 (g) Maximum group size limitations do not apply during nap times, lunch times, outdoor play periods, field trips, or the length of a special occasion, including a holiday party and a visit from a special guest.
- » Outdoor Space

Play yards must be located onsite and the passageway from each classroom to the play yard must be safe. Minimum play yard space is based on the license capacity as follows: 75 square feet of outdoor recreation space per child for the maximum number of children playing outside at any one time.

- » International Building Code (IBC)
 - » Occupancy Classification: Educational Group (E), Section 305; Daycare classified at Group (E) Per IBC 308.5.1 A child day care facility that provides care for more than five but not more than 100 children 2 ½ years or less of age, where the rooms in which the children are cared for are located on a level of exit discharge serving such rooms and each of these childcare care rooms has an exit door directly to the exterior, shall be classified as Group E.



- » Automatic Sprinklers per State of Alaska Amendment of the IBC Chapter 9, Section 903.2.3: Group E. An automatic sprinkler system must be provided throughout all buildings with Group E Occupancies.
- » Energy Requirements -Best Practices
 - For the purposes of this study, the design team utilized ASHRAE 90.1-2022 – Energy Standard for Sites and Buildings to determine required insulation and energy requirements. These requirements are determined by Climate Zone. For each region, the associated climate zone was identified, and recommendations for insulation and energy requirements are reflected per region in Appendix A.

Facility Description

- » Space Requirements
 - » Lobby: Space accommodates reception desks, check-in area, waiting, and additional storage. This provides security for entrance to the classrooms. The lobby is adjacent to the public restroom, with a baby-changing station.
 - » Vestibule: The main entry vestibule will have walk-off carpeting to remove dirt, snow, and dust upon entrance. Space is provided for outside gear storage and car seats upon entry.
 - » Administration Spaces: Private or shared offices as required, breakroom with lockable storage and a kitchenette, staff toilet, and general storage.
 - » Lactation Room: Adjacent to the main lobby, including casework counter w/ sink, baby changing, room for seating.
 - Infant Classroom: Diaper changing area w/handwash and food prep sink, child storage cubbies, teacher storage, crib space, and direct exit to exterior.
 - » Toddler and Preschool Classrooms: Diaper changing tables, handwash sinks, child-height toilets and sinks, cubbies, teacher storage, sleeping mats, and direct exit to exterior.
 - » Kitchen: Commercial kitchen including food storage.
 - » Activity Room: Large open area for flexible play, activity wall, drinking fountain/bottle fill station. Direct exit to exterior.
 - > Teacher Workroom: This break-out area for teachers includes counters and cabinets, printing equipment areas, office supply storage, and layout space.
 - » **Support Spaces:** Support spaces include Janitor, Laundry, Storage, Mechanical and Electrical Rooms, and a Telecom Room.





BETTISWORTH NORTH MCKINLEY RESEARCH GROUP ALASKA CHILDCARE COST STUDY

Fixtures, Furnishings, and Equipment

» For the purposes of this study, we estimate that for an Anchorage based facility, an approximate budget of \$500,000 should be considered for fixtures, furnishings, and equipment. This includes factor increases for both freight and installation. This budget includes items such as toys and manipulatives, but excludes supplies. Note that this budget is not included in the overall cost estimates.

Adjacency Diagram Graphic

» The following Adjacency Diagram was developed based on programmatic requirements, considerations for exiting, play yard location, security/entrance sequencing, and staff, child, and caregiver comfort.



Building Program

» The following Building Program includes the square footage breakdown per required space, including multipliers for circulation and walls. The square footage numbers are determined by a variety of factors and regulations including but not limited to building code requirements, childcare licensing, accessibility, and considerations for northern design best practices.

Alaska Childcare Center Basis of Design					
Description	Recommended Total Area	Units	Remarks		
Support Areas					
Main Lobby	300	SF	reception check-in desk, waiting area		
Vestibules	150	SF			
Carseat Storage	50	SF			
Lactation Room	100	SF	counter, sink, under counter fridge, hooks, mirror		
Family Toilet	65	SF	toilet, sink, ADA, changing station		
Break Room	200	SF	counter, sink, dishwasher, fridge and microwave hookups		
Teacher Work Room	200	SF	casework counter and cabinets		
Admin Offices	400	SF	open offices		
Janitor/Laundry	200	SF	janitor sink, washer/dryer, utility sink		
Commercial Kitchen	500	SF	type 1 hood, full meal prep		
Storage	200	SF			
Mechanical/Electrical	800	SF			
Telecomm	60	SF			
Staff Toilets	130	SF	toilet, sink, ADA, changing station		
Classrooms/Play Areas					
Toddler Classroom (19-36 month)	700	SF	diaper changing area w/handwash sink and food prep sink, 1 child toilet and (1) child handwash sink, child storage cubbies, exit to exterior		
Infant Classroom (6 weeks-18 months)	650	SF	diaper changing area w/handwash sink and food prep sink, 1 child toilet and (1) child handwash sink, child storage cubbies, exit to exterior		
Preschool Classroom (3-5 years)	850	SF	teacher handwash and storage, (2) child toilets and (1) child handwash sink, child storage cubbies, exit to exterior		
Activity Room	650	SF	drinking fountain/bottle fill station, 1 child toilet, 1 handwash		
Subtotal	6205	SF			
Grossing Factor @ 35% (circulation, int. & ext. walls, mechanical shafts, etc.)					
Grand Total	8400	SF			
Outdoor Play Requirements (75 SF/child)	3150	SF			
Parking Lot Size - (number of	14 000	SF	22 regular parking spaces, 11 drop off spaces. 33 total spaces, appurtenant drives and refuse storage included in total at left		

Building Construction

- » Building Exterior see Appendix A for assembly requirements for each region.
 - » Exterior windows: Triple pane fiberglass windows with thermally broken frames
 - » Exterior doors: Insulated hollow metal doors with thermally broken frames
- » Building Interior Best Practices
 - Interior non-loadbearing walls: metal or wood studs with a layer of 5/8" Type 'X' gypsum wall board on either side, finished with paint. Partitions in daycare spaces to meet an STC of 50 or higher per IBC. All wall penetrations and perimeter edges to be acoustically sealed.

- » Impact resistant gypsum in areas of high use, such as corridors, classrooms, and the activity room. Moisture resistant wallboard installed full height in vestibules, the kitchen, and up to 4'-0" in locations near plumbing fixtures.
- » Full height high impact plastic panel wall protection in the kitchen, housekeeping closet, and laundry room. Wall protection wainscot in the toilet rooms, lactation, and the staff break room., and corridors. Corner guards at all unprotected outside corners.
- » 2x4 grid acoustical ceiling panels. Painted moisture resistant gypsum wallboard ceilings in toilet rooms, laundry, housekeeping, and vestibules. Painted gypsum soffits at transitions between ceilings to define classroom entries.
- » Typical interior doors will be solid core wood with hollow metal frames. All door hardware in childcare areas is to be pinch proof.
- » Casework: Solid surface counters and windowsills throughout, high pressure decorative laminate surface over moisture resistant MDF cores. Phenolic laminate core for car seat and outdoor gear storage cubbies.
- » Roller shades at all exterior windows with blackout application.

Existing Building Renovation

- » Potential renovation requirements:
 - » Upgrading from B to E occupancy per IBC: Most available tenant spaces are assumed to be business occupancy. A change of use must be considered.
 - » The facility will need to be sprinklered.
 - » Service upgrades to utilities the daycare facility will require many additional toilets and sinks. An assessment of existing utilities should occur to determine service capacity.
 - » Ventilation upgrades.
 - » Seismic upgrades.
 - » Exterior Envelope Considerations: In order to be considered E occupancy, each classroom will need to have an exterior door per IBC. Additionally, the rooms in which the children are cared for must be located on a level of exit discharge.
 - » Acoustical Upgrades: Per IBC, acoustic separations are required between classrooms.
 - » Commercial kitchen/Type 1 hood installation and mechanical upgrade requirements.
 - » Exterior play yard: featuring fence and gates, seating, level and accessible impact attenuating safety surfacing, age appropriate inclusive and interactive play equipment, and site lighting.
 - » Site upgrades Required parking for staff and visitors to include appurtenant drives and additional area for refuse collection and snow storage, site lighting, and parent drop-off. Headbolt heater outlets may be warranted for the Northern, Interior and portions of the Southwest regions.

Maintenance Costs Considerations

- » Maintenance costs for both new and existing construction considerations must consider several factors depending on region, including but not limited to:
 - » Availability of and accessibility to replacement parts and labor.
 - » Operation and maintenance planning.
 - » Age of facility (for existing buildings).
- » Bettisworth North reached out to several similar entities to assess maintenance plans and allocations. Allocation for annual maintenance of educational facilities is estimated to be in the range of 1.5% to 3.5% of replacement value. This includes general and major maintenance items, such as roofs, floors, etc.

Home Childcare Code Considerations

- » For the purposes of this study, home childcare settings that serve 8 or less children were considered and reviewed for code and design requirements.
- » Per Title 23 23.15.431 Childcare facilities in the Municipality of Anchorage, the International Building Code was amended in Chapter 4 as follows: Home Childcare facilities are permitted to comply with the International Residential Code (IRC) provided that the following requirements are met:
 - » The facility is located in a detached one- or two-family dwelling or townhouse (as defined in the International Residential Code).
 - **» Day care:** The facility is limited to a maximum of eight (8) children of any age, including children related to staff, between the hours of 6:00 a.m. and 10:00 p.m.
 - » Night care: The facility is limited to a maximum of five (5) children of any age, including children related to staff, between the hours of 10:00 p.m. and 6:00 a.m.
 - » The facility shall comply with Anchorage Municipal Code Chapter 16.55 Childcare and Education Facilities -Centers and Homes.
 - » Smoke alarms and carbon monoxide detectors are provided in accordance with the International Residential code.
 - » Means of egress and emergency escape and rescue openings comply with the International Residential code.
 - » Fire extinguishers are provided in accordance with the International Fire Code as required for a group E occupancy.
 - » Childcare is limited to the basement, first and second stories.
 - > Childcare facilities located in a basement or second story shall have access to not less than two means of egress separated by a minimum of ½ the maximum overall diagonal of the area served. One of the required means of egress may consist of a code compliant emergency escape and rescue opening. When childcare facilities are located in a basement, at least one exit or emergency escape and rescue opening shall discharge directly to the exterior of the building at or near grade.
- » The State of Alaska has also amended and adopted this change to the IBC. Deferred jurisdictions throughout the state may have additional amendments and considerations to be reviewed.

Home Childcare Alteration and Design Considerations:

- » When the code requirements as defined by the local jurisdiction allow for compliance with the International Residential Code, the following major unique characteristics should be considered for either new or renovated home care space:
 - » Occupant Load: Two exits may be required from the ground-level story depending on capacity served.
 - » The exit access cannot pass through a bathroom, bedroom, closet, garage, or fenced yard (exception: fenced yard permissible if the gate remains unlocked during daycare hours).
 - » If the yard is to be used as part of the daycare operation it shall be fenced. The fence must be in compliance with AM103.1.3.2 (International Residential Code). In addition, yard size will meet childcare requirements of 75 SF per child.
 - » Minimum exit widths shall be 32 inches clear.
 - » Exit doors shall be openable from the inside without use of a key or special knowledge if the occupant load is greater than 10.
 - » Smoke detection shall be installed in accordance with currently adopted codes, and they shall receive their primary power from the building wiring, and shall be interconnected.

SITE DESIGN NARRATIVE

Code Requirements

» As previously noted in the architectural narrative, State of Alaska Childcare Licensing Laws are governed by Alaska Administrative Code 7 AAC 57 Childcare Facility Licensing. In addition, the Municipality of Anchorage (MoA) has additional code requirements per Title 16 – Health.

Outdoor Space- Play yards must be located onsite and the passageway from each classroom to the play yard must be safe. Minimum play yard space is based on the license capacity as follows: 75 square feet of outdoor recreation space per child for the maximum number of children playing outside at any one time.

» Borough and/or City-Borough Land Use Planning Code, Development Standards & Building Code

Within the seven distinct regions throughout the State of Alaska that this study considers, project locations will lie within one of Alaska's 19 organized Boroughs or its single Unorganized Borough's 11 census areas. For any project, Borough and City-Borough land use should be researched to determine how site design may be influenced.

» Basis of Design

An 8400 square foot childcare center is used as an average model for the purposes of this study.

From the architectural basis of design above, one classroom for ten infants, one classroom for twelve toddlers, and one classroom for twenty preschoolers yields 42 children total. At 75 square feet per child, this study uses 3,150 square feet of total area for the basis of design play yard.

The exterior play yard will include fence and gates, seating, level and accessible impact attenuating safety surfacing, age appropriate inclusive and interactive play equipment, and site lighting.

» The following site design considerations should be assessed/analyzed for every project. Each may have unique implications for site development, design, and costs within each region under study (Anchorage, Gulf Coast, Interior, Mat-Su, Northern, Southeast, and Southwest),

- » Subsurface/ Geotechnical Investigation
- » Topographic Survey for accurate Site Grading and Drainage
- » Snow Storage Area(s)
- » Storm Water Collection and Drainage
- » Dust Control
- » Utilities
- » Unique vehicles to accommodate such as four wheelers, snow machines
- » Parking Lot/Drop off size and requirements

This study uses a calculation of 1 parking space per 400 square feet of gross floor area and 1 passenger loading space, reserved for pickup and delivery of children, per 800 square feet of gross floor area. This yields 21 regular parking spaces and 11 parent drop-off spaces. With required parking, appurtenant drives and space for refuse collection and snow storage, an area of 14,000 square feet parking and circulation is used as the basis of design for this study.

MECHANICAL NARRATIVE

Mechanical Code Requirements

- » All Alaskan regions included in this study follow the International Code Council's set of building codes. Of this family of code standards, the International Mechanical Code (IMC) and International Energy Conservation Code (IECC) are most applicable to a given building's mechanical systems. For plumbing code standards, the Alaskan regions included in this study primarily follow the Uniform Plumbing Code (UPC).
- » Although not required by building codes in these Alaskan regions, many areas may elect to enforce additional design and construction guidelines such as ASHRAE 90.1 Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings and ASHRAE 62.1 Ventilation and Acceptable Indoor Air Quality.

Mechanical Systems Basis of Design

» Each region's mechanical systems consist of three primary categories: heating, ventilation, and plumbing. The following descriptions explain the base-case scenario for each region's mechanical systems. While many system types and variables can be considered, these systems were chosen for their extensive use in all region types, their proven performance reliability over time, and their widespread acceptance by most building owners.

Heating

» General

The childcare facility located within each region will include a hydronic heating system, powered either by natural gas or fuel oil. Depending on which fuel type the building uses not only affects the heating system basescenario but also impacts the ventilation base-scenario systems as well. For regions with fuel oil, their heating systems will also include hydronic heating coils within ventilation equipment. For regions with natural gas, their heating systems will not require ventilation loads since ventilation equipment will be gas-fired. All heating equipment would be in accordance with current energy efficiency standards as required by ASHRAE 90.1.

» Anchorage, Gulf Coast, and Mat-Su Regions

The Anchorage, Gulf Coast, and Mat-Su regions will utilize natural gas fired systems. Their primary heating plant equipment will be located within the building's mechanical room. Two boilers will provide for building baseline heat with each boiler sized for 60% of the overall load to provide for system redundancy. These boilers will be served by natural gas from a buried utility service that is provided to the building. Each boiler will be a high efficiency condensing type that is capable of burner modulation to maximize the energy efficiency of the system. Boilers will have direct vent and combustion ductwork provided to the building exterior, which eliminates the need for unsightly chimneys or flues. The hydronic fluid serving the boiler heating system will be food grade propylene glycol, which offers better freeze protection when compared with water.

Three sets of two hydronic pumps will be provided for the heating system. Two pumps will provide for boiler circulation, with one pump per boiler. Two additional pumps will provide heat to the potable hot water generators, with one pump per generator. The final two pumps will provide building wide heat circulation to terminal heating units, with the pumps arranged to operate in a primary/backup configuration to offer system redundancy should one pump fail. Each pump serving building wide heat circulation would be provided with a variable speed motor to permit pump modulation as the building loads vary, which aids in overall energy savings.

In addition to the boilers and pumps, the mechanical room equipment will also include a hydronic expansion tank, hydronic air separator, and glycol storage tank. Central heating control devices such as panels and user interfaces would also be located within the mechanical room.

Terminal heating units will consist of horizontal unit heaters, ceiling hung cabinet unit heaters, wall hung baseboard fin-tube heaters, and variable air volume (VAV) re-heat coils. Unit heaters would serve the mechanical and electrical rooms. Cabinet unit heaters would be located within each arctic entry vestibule. Wall hung baseboard fin-tube heaters would be installed within every normally occupied exterior room (classrooms, offices, activity room, etc.). VAV re-heat coils would be ceiling hung as part of the ventilation system, providing air temperature control within a given room or space. All of these devices would include isolation valves, balance valves, two- or three-way control valves, thermostat for unit on/off control, and necessary branch piping from heating mains.

Hydronic heating mains would be routed through the building, ideally following the outline of the building's perimeter. The mains would serve the various terminal heating devices and VAV re-heat coils. The piping would be set up as a two-pipe reverse return type system to create an ideal installation for the modulating distribution fluid flow. Piping would include necessary supports, valves, and expansion compensation.

» Interior, Northern, Southeast, and Southwest Regions

The Interior, Northern, Southeast, and Southwest regions will utilize fuel-oil fired systems. Their primary heating plant equipment will be located within the building's mechanical room. Two boilers will provide building heat and ventilation loads with each boiler sized for 60% of the overall load to provide for system redundancy. These boilers will be served by fuel-oil via an interior day tank which is supplied from an exterior aboveground storage tank. Each boiler will be a high efficiency oil-fired type that is capable of burner staging to maximize the energy efficiency of the system. Boilers will have exhaust fumes expelled to the exterior via a flue/chimney system, while boiler combustion air will be provided from a permanent exterior wall opening. The hydronic fluid serving the boiler heating system will be food grade propylene glycol, which offers better freeze protection when compared with water.

Five sets of two hydronic pumps will be provided for the heating system. Two pumps will provide for boiler circulation, with one pump per boiler. Two pumps will provide heat to the potable hot water generators, with one pump per generator. Two pumps will provide building wide heat circulation to terminal heating units and VAV coils. Two pumps will provide circulation to the indoor air handler hydronic coils serving the building's occupied areas. The final two pumps will provide circulation to the indoor make-up air unit hydronic coils serving the kitchen. The pumps serving building heat and ventilation coils will be arranged to operate in a primary/backup configuration to offer system redundancy should one pump within the set fail. Each pump serving building wide heat circulation or ventilation coils would be provided with a variable speed motor to permit pump modulation as the building and ventilation loads vary, which aids in overall energy savings.

Additional mechanical room infrastructure, terminal heating device types, and overall hydronic heating mains layout would be identical to the natural gas systems as previously described.

Ventilation

» General

The childcare facility located within each region will include a fully compliant commercial ventilation system, serving both the building's occupied systems as well as the needs of the building's commercial kitchen space. Primary system ventilation coils will either be heated via natural gas or by the building's hydronic system. For regions with natural gas, intent would be to locate primary ventilation equipment upon the building's mechanical room. All ventilation equipment would be in accordance with current energy efficiency standards as required by ASHRAE 90.1 unless such piece of equipment falls outside the standard's requirements.

» Anchorage, Gulf Coast, and Mat-Su Regions

The Anchorage, Gulf Coast, and Mat-Su regions will utilize natural gas fired primary ventilation systems. Building wide occupant ventilation would be provided by a roof top unit (RTU) while kitchen hood make-up air would be provided by a roof mounted make-up air unit (MAU). Building exhaust would be provided by various point-of-use exhaust fans.

The building wide occupant RTU would have a natural gas indirect burner, refrigerant based DX cooling system, air filtration, controls, temperature sensors, CO2 sensors, building pressure controls, and relief air capabilities. The unit would be curb mounted upon the building's roof and connected to supply air distribution ductwork serving the building. The building would utilize a plenum return air system which feeds back to the RTU to either be expelled from the building or introduced back into the supply airstream. The RTU would be a fully self-contained pre-manufactured unit rated for the environment and temperatures in which it would be exposed to. The RTU will be capable of 100% economizing to maintain compliance with ASHRAE 90.1.

The facility's commercial kitchen is expected to have a fully listed Type I grease hood with exhaust system and make-up air unit. The Type I grease hood would be ceiling or wall mounted and include a pre-packaged Ansul suppression system and hood control panel. The hood would exhaust through grease rated double wall ductwork up to a roof mounted upblast grease fan. To make-up the amount of hood exhausted air, a make-up air unit would be provided. The MAU would include a natural gas direct burner, outside air intake hood, air filtration, and controls. The unit would be curb mounted upon the building's roof and connected to supply air ductwork which either serves the hood directly or connects to air distribution grilles within the kitchen.

Supply air from the RTU would feed into VAV boxes before that air is distributed to occupied spaces. The VAV boxes would permit airflow modulation to spaces, increasing air when cooling is needed and decreasing air when heating is preferred. Each box would have factory mounted controls, airflow measuring station, modulating damper, and integral insulation. VAV box outlets would serve distribution ductwork to ceiling mounted supply air grilles. Return air from spaces would transfer into the above ceiling plenum and route back to the RTU.

Each restroom, janitor room, break room, and lactation room will be provided with a point-of-use ceiling mounted exhaust fan. Fans will either be local on/off switch activated or set to run on timers for pre-set durations. Each exhaust fan would be sized to provide code minimum exhaust air rates while also being sized to ensure obnoxious odors or fumes do not transfer into adjacent spaces and cause disturbances amongst building occupants. Each fan would discharge to the exterior either through a roof vent or an exterior wall cap.

To prevent the mechanical room interior temperatures from escalating too high, a mechanical room ventilation fan system would be provided. Outside air will be pulled into the mechanical room via a wall mounted propeller fan, then the air will mix with interior room air before being supplied into the space. Excess air will be relieved out an exterior wall penetration to limit the pressurization within the mechanical room.

To maintain temperature control within the telecom room, a mini-split air conditioning unit will be provided. The unit's evaporator will be installed within the telecom room while the condenser will be exterior mounted on the roof. Appropriate refrigerant piping will be provided between the two units to complete the AC system. The indoor evaporator will be provided with a condensate pump to remove unwanted moisture build up.

» Interior, Northern, Southeast, and Southwest Regions

The Interior, Northern, Southeast, and Southwest regions will utilize hydronic heated primary ventilation systems. Building wide occupant ventilation would be provided by an indoor air handler unit (AHU) while kitchen hood make-up air would be provided by an interior mounted make-up air unit (MAU). Building exhaust would be provided by various point-of-use exhaust fans. The building wide occupant AHU would have a pre-heating hydronic coil, final heating hydronic coil, refrigerant based DX cooling coil, air filtration, controls, supply air fan, return air fan, temperature sensors, CO2 sensors, building pressure controls, and relief air capabilities. The unit would be pad mounted within the building's mechanical room and connected to supply air distribution ductwork serving the building. The building would utilize a plenum return air system which feeds back to the AHU to either be expelled from the building or introduced back into the supply airstream. A separate air-cooled condenser would be located outside at grade or on the roof to serve the cooling needs of the AHU's DX cooling coil. The AHU will be capable of 100% economizing to maintain compliance with ASHRAE 90.1. The AHU would be provided with field mounted control devices.

The facility's commercial kitchen is expected to have a fully listed Type I grease hood with exhaust system and make-up air unit. The Type I grease hood would be ceiling or wall mounted and include a pre-packaged Ansul suppression system and hood control panel. The hood would exhaust through grease rated double wall ductwork up to a roof mounted upblast grease fan. To make-up the amount of hood exhausted air, a make-up air unit would be provided. The MAU would include hydronic heating coils, outside air intake connections, air filtration, and controls. The unit would be pad mounted within the mechanical room and connected to supply air ductwork which either serves the hood directly or connects to air distribution grilles within the kitchen.

VAV boxes, building exhaust fans, mechanical room ventilation, and telecom room cooling systems would be identical to the ventilation systems as previously described for the Anchorage, Gulf Coast, and Mat-Su regions.

Plumbing

» General

The childcare facility within each region will have a fully functioning commercial plumbing system provided to serve the needs of the building. The building is expected to include a fully equipped commercial kitchen intended for the production of food being consumed on site. The building is also expected to have typical commercial plumbing fixtures inclusive of janitor sinks, toilets, lavatories, hand sinks, floor drains, laundry washer boxes, break room sinks, drinking fountains, and refrigerator water connections. For the purposes of this analysis, the systems within each region are identical with only minor variations as mentioned in the following description.

» All Regions

Potable cold water will be provided to the facility from a utility provided source. While the utility source in most regions will be provided by an underground water service, some areas may require on-site storage via a haul-service arrangement. Despite the service type, pressurized potable cold water will be provided to the building to serve all potable water needs, routed to all applicable fixtures and equipment.

Potable hot water will be generated by two 100 gallon indirect hot water generators served by the building's boiler system. Each unit will heat water to 140 degrees F to help prevent the growth of unwanted bacteria within the storage units, but also to satisfy the needs of applicable commercial kitchen fixtures which require 140 degree F water. The potable hot water system will include a master tempering valve for limiting hot water supply to non-kitchen fixtures to 120 degrees F, an expansion tank, and a hot water circulation pump to prevent long wait times when hot water is needed at a given faucet.

Potable water piping would be routed through the ceiling space of the building to necessary locations to serve plumbing fixtures and equipment. Waste piping would gravity drain to a utility connection or septic system, routed either under slab for slab-on-grade facilities or beneath the floor within heated utilidors for buildings with pile systems. Vent piping would route within the ceiling space to roof mounted vent terminations. Systems would include necessary valves, cleanouts, access, water hammer protection, and necessary accessories as needed for proper system operation.

Plumbing fixtures would generally be vitreous China or stainless steel for sinks, lavatories, and toilets. Sinks and lavatories would have manual faucets with required angle stops, flexible connections, and any project specific requirements (garbage disposals, insta-hots, etc.). Toilets would either be flush valve or tank type depending on the applicable region and available utility water pressure. Toilets would consist of both standard ADA type as well as low-profile children type. Floor drains would be provided within all restrooms as well as the mechanical room, each provided with trap primer connections. Drinking fountains, where provided, would be mechanically chilled and provided with bottle fillers.

Energy Requirements Basis of Analysis

» Building Envelope

Based on given program requirements for the childcare facility, a concept floor plan layout was developed to provide a basis of design for calculating building HVAC loads. The modeled building was 8,400 square feet, single story, 14 feet tall, and contained 40% glazing on exterior walls. All regions were modeled with a R-60 roof, with exception of the Southeast Region which only required a R-49 roof. Anchorage, Gulf Coast, Mat-Su, Southeast, and Southwest regions were each modeled with R-20 walls whereas Interior and Northern regions were modeled with R-33 walls. Regions with slab-on-grade foundations included slab heat loss while regions which would have pile foundation systems included heat loss through the flooring system assembly. All buildings were modeled with interior temperature of 72 degree F since childcare facilities often prefer slightly higher maintained temperatures during winter months for children comfort.

The below exterior winter design temperatures were used for each region. These winter design temperatures are in accordance with ASHRAE (American Society of Heating, Refrigeration, & Air-Conditioning Engineers) recommended design values as well as generally recognized design temperatures for various areas within the state based on past design experience. For regions with significant differences in winter design temperatures for various cities within that region, such as the Gulf Coast region, a worst case winter design temperature was chosen among the applicable cities/towns.

- » Anchorage Region: -23 degrees F
- » Gulf Coast Region: -30 degrees F
- » Interior Region: -60 degrees F
- » Mat-Su Region: -30 degrees F
- » Northern Region: -50 degrees F
- » Southeast Region: -5 degrees F
- » Southwest Region: -35 degrees F

» Ventilation Loads

In addition to building envelope heat loss, ventilation loads were also included within the overall energy analysis since outside air conditioning efforts often equal or exceed the heat loss of the building.

Given the building size and occupant density, an estimated supply air volume needed to serve this facility would be approximately 10,000 CFM. To satisfy applicable occupant outside air codes and maintain the building positive with respect to the outside, a quarter of the supply air will need to come directly from outside air. Each building load then includes the heating energy needed to temper 2,500 CFM of outside air from winter design temperatures up to 72 degrees F. This load is expected to operate approximately 8-10 hours per day.

With the presence of the Type I commercial kitchen hood and its associated make-up air unit, heating energy also needs to include the direct outside air brought in to make-up the air being exhausted by the kitchen hood.

Based on the expected size of the kitchen and past projects of similar size, the Type 1 hood was estimated to have an exhaust air rate of 2,200 CFM. To make-up this exhaust, the make-up air unit would also be sized to bring in 2,200 CFM of outside air. Each building load then includes the heating energy needed to temper 2,200 CFM of outside air from winter design temperatures up to 72 degrees F. This load is expected to operate approximately 2-4 hours per day.

For regions which utilize fuel-oil for heating, a combustion air load was also included in the heat loss analysis since oil-boilers pull combustion air from the mechanical room via a permanent opening to the exterior. Since this air enters the mechanical room directly from the outside, it must be tempered and brought up to room temperature. This heat loss amount was not included for natural gas fired systems since gas-fired boilers have combustion air directly ducted to them from the exterior and thus that air does not pass through the mechanical room. Combustion airflow for oil-fired boilers varied from 300-400 CFM, thus heating energy needed to temper 300-400 CFM of outside air from winter design temperatures up to 72 degrees F was included in the analysis.

» Plumbing Loads

The overall energy analysis also attempts to account for the heating energy needed by the boilers to indirectly heat the potable hot water generators. Analyzing potable hot water usage is difficult at best to estimate since it's not dependent upon weather or expected building occupancy times, but is heavily driven by individual user preferences and the overall operation intent of the facility. Some facilities may cook more and wash dishes more often, whereas others may use those functions less frequently. Likewise, restroom and janitorial fixture usages can vary wildly depending upon building occupant preferences and frequency of use for those types of fixtures.

For the peak winter heat energy analysis, the peak moment of hot water production was included as a worstcase scenario event of both HVAC and potable hot water loads reaching maximum energy consumption at the same time. For the peak summer heat energy analysis, only a portion of the potable hot water energy usage was included since maximum heating conditions during summer months occur at night whereas peak hot water usage will occur during the day. The average yearly heat energy analysis includes 20% of the peak potable hot water production since hot water energy usually falls between 15%-35% of a facilities energy usage.

» Btuh/SF Energy Requirements

Three separate energy values per square foot have been included for the mechanical systems: peak winter Btuh/SF, peak summer Btuh/SF, and average yearly Btuh/SF. Be aware that these Btuh/SF values only include energy required for heating, such as being provided by boilers, ventilation coils or burners, or as needed to heat potable hot water. These values do not account for any mechanical cooling provided through ventilation DX systems or telecom cooling units since those systems utilize electrical energy for their functionality. In short, the Btuh/SF values represent the energy provided by either the facility's natural gas utility service or from their on-site fuel-oil storage/delivery infrastructure.

The peak winter Btuh/SF energy requirements for each region represent the peak energy required during the coldest times of winter months for each region. This value accounts for building heat, ventilation loads, and potable hot water production all reaching their peak simultaneously. This value represents the worst case heating energy per square foot scenario that the facility could experience.

The peak summer Btuh/SF energy requirements for each region represent the peak energy required during the warmest times of summer months for each region. This value accounts for the peak amount of heat energy needed during these warmer months for building heat and ventilation loads, but only includes 20% of the peak domestic hot water load as previously mentioned. This value represents the least amount of heating energy per square foot needed for the facility during a given year.

Using similar approaches as the above winter/summer analysis, each month for each region was analyzed to produce an approximate yearly average Btuh/SF of mechanical energy needed to operate the childcare facility.

ELECTRICAL NARRATIVE

Electrical Code Requirements

Description of the childcare facilities within all Alaska regions are to comply with the latest state and locally adopted editions of the National Electrical Code (NEC), applicable chapters of the NFPA codes, and the International Building Code (IBC). In the Municipality of Anchorage, electrical systems are to also comply with the International Energy Conservation Code.

Electrical Basis of Design

- » Electrical Utility Service: Each childcare facility located within each region will be connected to local electrical utility power with connections to an electrical service sized as required for the anticipated building loads.
- » **Backup Generator:** In regions and communities where fire pumps will need to be added and the local electrical utility is not considered "reliable", a back-up generator and automatic transfer switch(es) are to be installed.
- » **Panels:** Facility power distribution is to be provided from a 120/240 volt, single phase, or 120/208 volt three phase circuit breaker main distribution panelboard, sized as required for the building loads.
- » **Grounding:** The grounding system at each facility will be in accordance with the National Electrical Code with connections to a common grounding electrode system consisting of driven ground rods, connections to building steel components, to metallic cold water supply piping, and connections to rebar and/or a concrete encased electrode. All conduits and wiring devices are to have a separate insulated grounding conductor connected to this system.
- » Wiring: Raceways and wiring methods in each facility are to be appropriate for the locations they are to be installed, and to comply with governing codes. All branch circuit wiring are to be copper conductors in metallic conduit system or MC cabling (as permitted by the NEC and governing codes).
- » Power Outlets: All receptacles installed within each facility are to be 20 amp (NEMA 5-20R), tamper-resistant commercial spec grade type, labeled with the supply panel and circuit. Convenience outlets are be distributed throughout the building as appropriate for the identified use of each space, and all requirements of the National Electrical Code. GFCI protected duplex receptacles are to be provided where receptacles are located on the exterior of the building, at all vehicle parking spaces, within 6' of sinks, in wet or damp locations, and as required by codes. Receptacles located in wet or damp locations will also be a listed weather resistant type. All receptacles and electrical devices located outside and where susceptible to water spray will be provided with metallic "extra duty" weatherproof covers.
- » Vehicle Headbolt Outlets: In the Interior and Northern Regions, receptacles for powering vehicle engine outlets are to be provided, one per staff parking space and are to come with intelligent timers to automatically cycle power on/off to the outlets for energy savings.
- » Heat Trace: In the Municipality of Anchorage, parts of the Gulf Coast Region, Interior Region, Mat-Su Region, Northern Region, parts of the Southeast and Southwest Regions, heat trace is to be provided to trace water pipes, sewer drains, roof drains, and overflow scuppers. Heat trace is to be controlled from on/off pilot light switches and automatic thermostatic controls to ensure energy usage is limited to cold months.
- » Lift Station and Well Pumps: In parts of the Gulf Coast Region, Interior Region, Northern Region, and Southwest Region, septic lift stations and water well pumps are likely to be needed and if so, will require electrical connections.
- > Equipment and Appliances: In all Alaska regions, appropriate power connections will be provided to mechanical equipment and appliances. Electrical loads of the mechanical equipment will vary from region to region, while It is anticipated that kitchen and laundry appliances will be electric. In Regions where natural gas is available, the user may consider utilizing gas operated kitchen and laundry appliances instead of electric, which will in-turn lower the electricity usage.
- » Lights: In all Alaska regions, all light fixtures (interior and exterior) are to be energy efficient LED type. Lights are to be commercial specification type and are to be of a type appropriate for each space and intended use. Exterior lighting fixtures are to be a full cutoff type, utilize LED lamps and be of a type listed and suitable for wet locations and cold temperatures. Fixtures are to be mounted to and located around the building to illuminate and provide security at entrances, walkways, vehicle drives, playgrounds and parking areas that are adjacent to the building. In the Municipality of Anchorage, Gulf Coast Region, Interior Region, Mat-Su Region, and Southeast Region it is anticipated that light poles will be needed to illuminate the parking lots.
- » Emergency Lighting/Exit Signs: Emergency egress lighting is to consist of standard fixtures with integral battery drivers or self-contained emergency units with integral battery, charger, and adjustable lamps to automatically illuminate upon loss of normal power and sized to provide emergency illumination for a minimum of 90 minutes. Emergency lighting units are to be located as required by code to provide the necessary illumination at all paths of egress including at the exterior of each new exit. Emergency exit signs are to be LED type with battery backup and are to be located to provide clear direction to all exits and as required to comply with all applicable codes.
- » Lighting Controls: Interior lighting is to be controlled with various combinations of manual and automatic lighting controls such as on/off switches, dimmer switches, and occupancy sensors. Exterior lighting is to be controlled automatically from photocells.
- **» Telecommunication:** Each childcare facility is to be have a telecommunication network with telecom devices located as appropriate for the use of each space.
- » Fire Alarm: Each childcare facility is required to have a building fire alarm system with notification and detection (including carbon monoxide) as appropriate for and as required by governing codes for childcare facilities.
- » **Camera Surveillance:** Each childcare facility is to have a camera surveillance system with cameras located at entrances, common areas, and similar spaces as appropriate.

Electricity Usage Savings Basis of Design

- » LED lights to be used throughout the building and exterior for all childcare facilities in all regions.
- » Interior lighting controls are to consist of dimmer switches and occupancy sensors for all childcare facilities in all regions.
- » Exterior lighting controls for all childcare facilities in all regions, are to consist of automatic photosensors to automatically turn lights on when it is dark outside and turn them off when it is light outside.
- » Vehicle headbolt outlets utilizing smart receptacles to automatically cycle power on/off at intervals dependent on ambient temperature for 22 parking spaces are to be provided in childcare facilities located in the Interior and Northern Regions.
- » Heattrace for water pipes, sewer lines, roof drains and overflow scuppers, where needed in childcare facilities in the Municipality of Anchorage, Gulf Coast Region, Interior Region, Mat-Su Region, Northern Region, the Southeast and Southwest Regions, are to be controlled by automatic thermostatic controls to limit use to when it is cold outside.

Electricity Usage Basis of Calculations

To calculate the estimated electricity usage for each childcare facility, anticipated electrical loads had to be calculated first. Anticipated electrical loads for each childcare facility in each region were determined based on the same 8,400 square foot facility.

Anticipated electrical loads were calculated based on:

- » A typical lighting layout and associated load for this size and type of facility.
- » Light poles located in parking lots within the Municipality of Anchorage, Gulf Coast Region, Interior Region, Mat-Su Region, and Southeast Region.

- » A typical layout and quantity of general purpose power outlets for this size and type of facility.
- » Common appliances located in the break room, including microwave, coffee maker dishwasher, and fridge.
- » A single washer and single electric dryer in the laundry room.
- » Electrically operated kitchen appliances typically found in a commercial kitchen for this size and type of facility.
- » Mechanical systems and associated electrical load as indicated in the mechanical narrative. This load will vary per region.
- » Vehicle headbolt outlets for 9 staff parking spots in the Interior and Northern Regions.
- » Heattrace on water pipes, sewer lines, roof drains, and overflow scuppers.
- » Septic lift stations and well pumps in the Gulf Coast Region, Interior Region, Northern Region, and Southwest Region.

The calculated electricity usage is a projected estimate based upon assumed loads, load diversities, and usage. Estimated electricity usage will vary between summer and winter months. Usage for a typical summer month, typical winter month, and averaged over a year for a typical childcare facility in each of the 7 different regions in Alaska are based on the following:

Estimated Monthly Electricity Usage in a typical Summer Month is based on:

- » 11.5hours/day, 5 days/week operation with:
 - » 60% general lighting load diversity
 - » 20% receptacle load diversity
 - » 20% miscellaneous load diversity
 - » 5% Septic lift station/well pump load diversity In the Gulf Coast Region, Interior Region, Northern Region, and Southwest Region only
- » 2 hours/day, 5 days/week operation with:
 - » 20% Kitchen load diversity
- » 24 hours/day, 7 days/week operation with:
 - » 30% mechanical load diversity

Estimated Monthly Electricity Usage in a typical Winter Month is based on:

- » 11.5hours/day, 5 days/week operation with:
 - » 85% general lighting load diversity
 - » 20% receptacle load diversity
 - » 20% miscellaneous load diversity
 - » 50% Vehicle headbolt outlet load diversity In the Interior Region and Northern Region only
 - » 5% Septic lift station/well pump load diversity In the Gulf Coast Region, Interior Region, Northern Region, and Southwest Region only
- » 2 hours/day, 5 days/week operation with:
 - » 20% Kitchen load diversity
- » 24 hours/day, 7 days/week operation with:
 - » 40% mechanical load diversity
 - » 80% Heat trace load diversity

Estimated Annual Electricity Usage is based on:

- » 6 summer months and 6 winter months
- » all summer months have the same usage
- » all winter months have the same usage

COST ESTIMATE NARRATIVE

Basis of Estimates

» The cost estimates for both New Construction and Renovation of existing space reflect the base case scenario facility.

General areas of cost variance provided for in the estimates associated with the regions of work include general conditions, overhead, profit, subcontractor mark-ups, and estimator contingency, and are based on the experience of the estimator familiar with construction costs in the state of Alaska. Non-hub city multipliers are determined by a base cost of a likely hub city and the difference in geographic area cost factor (as determined in a study performed by HMS in 2023), and a non-hub city in the region of study.

For the purpose of this study, all costs are escalated to provide for inflation between the time the estimate was prepared and an anticipated construction date of spring 2026 at a rate of 4% per annum.

Regions	New Construction Cost Study Estimate*	Renovation Construction Cost Study Estimate*	Non-Hub Cost Increase %*	Total Non- Hub New Construction*	Total Non-Hub Renovation*
Anchorage: Municipality of Anchorage	\$7,333,000	\$3,940,000	1.50%	\$7,443,000	\$3,999,100
Gulf Coast Region: Chugach Census Area Copper River Census Area Kenai Peninsula Borough Kodiak Island Borough	\$8,110,000	\$4,422,000	5.60%	\$8,565,000	\$4,670,000
Interior Region: Denali Borough North Star Borough Southeast Fairbanks Census Area Yukon-Koyukuk Census Area	\$11,640,000	\$5,267,000	43.41%	\$16,693,000	\$7,553,000
Mat-Su Region: Matanuska-Susitna Borough	\$7,315,000	\$4,005,000	15.22%	\$8,429,000	\$4,615,000
Northern Region: Nome Census Area North Slope Borough Northwest Arctic Borough	\$17,132,000	\$8,729,000	23.20%	\$21,106,000	\$10,754,000
Southeast Region: Haines Borough Hoonah-Angoon Census Area Juneau City and Borough Ketchikan Gateway Borough Petersburg Borough Prince of Wales-Hyder Census Area Sitka City and Borough Skagway Municipality Wrangell City and Borough Yakutat City and Borough	\$9,824,000	\$5,153,000	12.45%	\$11,047,000	\$5,795,000
Southwest Region: Aleutians East Borough Aleutians West Census Area Bethel Census Area Bristol Bay Borough Dillingham Census Area Kusilvak Census Area Lake and Peninsula Borough	\$15,161,000	\$7,960,000	35.13%	\$20,487,000	\$10,756,000

* figures rounded to the 1000th. See Appendix B for addition cost info



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