

# CONSTRUCTION COST SURVEY

2014

Prepared for:

**ALASKA HOUSING FINANCE CORPORATION**

BRYAN BUTCHER, Chief Executive Officer/Executive Director

Prepared by:

**ALASKA DEPARTMENT OF LABOR  
AND WORKFORCE DEVELOPMENT**

Research and Analysis Section

ROB KREIGER, Economist

KARINNE WIEBOLD, Economist

NICOLE DUSENBERRY, Research Analyst

SARA WHITNEY, Editor

# Introduction

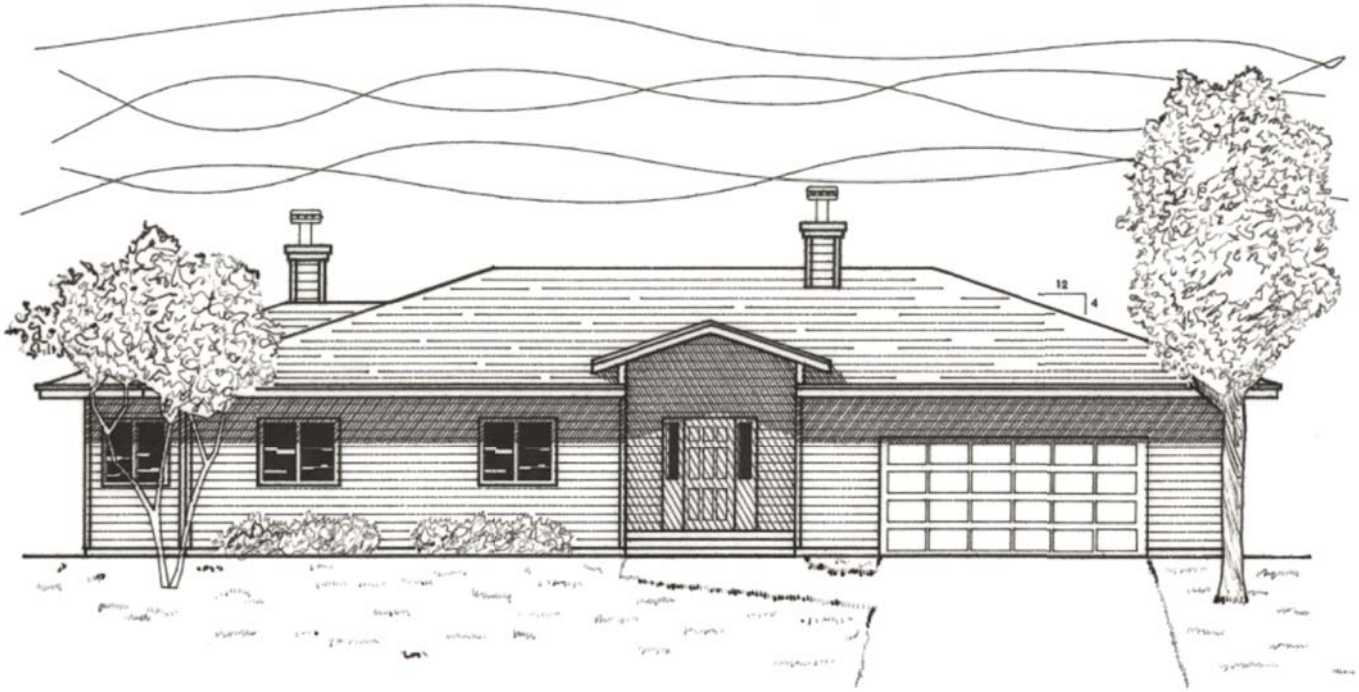
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In January, the Alaska Department of Labor and Workforce Development's Research and Analysis Section conducted the 22nd annual construction cost survey on behalf of the Alaska Housing Finance Corporation. We conduct this survey of building supply, concrete, and shipping companies to determine the cost of a market basket of construction materials in communities throughout Alaska. The survey collects contractor pricing for a market basket of materials determined by the design of a model home. This market basket represents approximately 30 percent of the materials used in the model home; however, it does not represent 30 percent of the total cost to build the model home. The artist renderings on page 3 show the floor plan of the model house this survey uses.

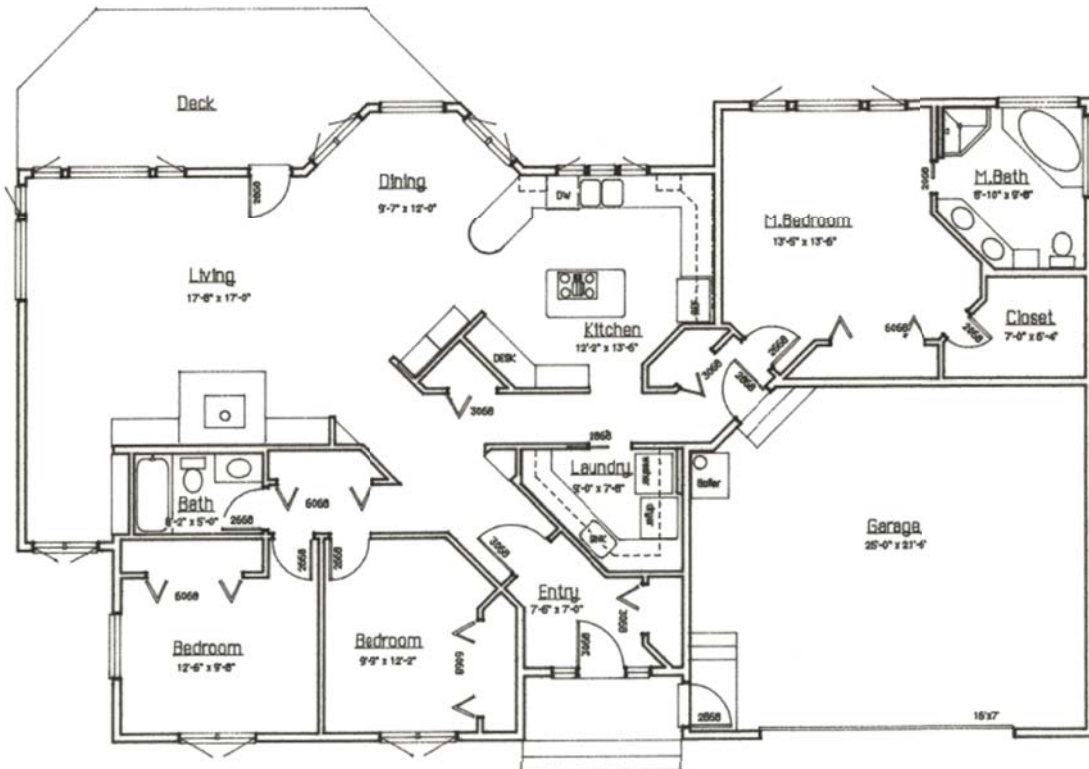
The market basket allows us to compare costs among the urban communities of Anchorage, Fairbanks, Juneau, Kenai, Ketchikan, Kodiak, Sitka, and Wasilla as well as the rural communities of Barrow, Bethel, and Nome. In addition to the market basket materials, suppliers report the cost of doors and windows for the model home and shipping companies provide the cost of transporting the market basket materials from Seattle to each community. A complete list of the market basket items and their specifications is included in the tables that begin on page 12.

Construction techniques, building requirements, and styles vary greatly from region to region. Metal roofing, which is more common in rural areas, is substituted for asphalt shingles in Barrow, Bethel, and Nome's market baskets. Costs for the three rural areas surveyed exclude concrete and rebar, as pilings support houses above permafrost in these locations instead of slab foundations. Unless otherwise specified, the market basket prices quoted exclude concrete, rebar, doors, and windows.

# Model Home



FRONT ELEVATION



Floor Plan  
1923 SQ. FT.

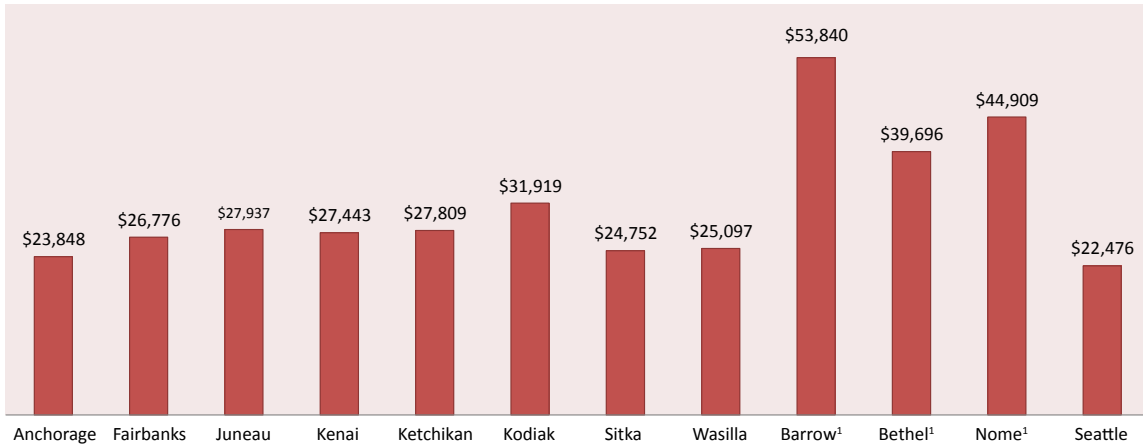
Note: Seattle prices include asphalt shingles. Rural areas include metal roofing instead of asphalt shingles.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

# Comparing 2014 to 2013

## Average Cost of Market Basket, 2014

Urban and Rural Residential Construction (without concrete, rebar, doors, or windows), Alaska and Seattle Suppliers



<sup>1</sup>Rural areas include metal roofing instead of asphalt shingles.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

## Alaska Market Baskets

- The market basket cost of construction materials in Alaska increased 4 percent overall, the same percentage as last year.
- The overall market basket cost increased in eight of the 11 surveyed locations. Increases ranged from less than 1 percent in Kenai to 17 percent in Kodiak. Costs in Anchorage and Ketchikan fell less than 1 percent while Sitka's fell 10 percent.

## Seattle Market Basket

- Nine of 15 items increased in cost this year, and Seattle's overall total increased 5 percent to \$22,476. This is a 16 percent increase (\$3,033) from two years ago.
- The five most expensive items in Seattle increased this year by a combined \$859, less than the year before (\$1,517).

## Concrete

- In 2014, the price of concrete rose in four areas, fell in one, and remained the same in

three. Increases ranged from 1 percent (Kenai) to 8 percent (Wasilla). Prices declined by 1 percent in Juneau. Concrete prices held steady in Ketchikan, Kodiak, and Sitka.

- Fairbanks was the least expensive location for concrete this year (\$3,361), followed closely by Wasilla (\$3,449). Kodiak continued to top the list at \$7,020, with Sitka and Juneau next in line with \$6,045 and \$5,445 respectively.

## Rebar

- The price of rebar went down in five of the eight urban locations. Prices fell between 1 percent (Juneau) and 14 percent (Sitka). Price increases ranged from 1 percent in Kenai to 22 percent in Wasilla.
- In the two most expensive areas, Fairbanks, (\$992) and Sitka (\$962), the cost of rebar dropped from last year when these were the only two surveyed areas to exceed \$1,000.
- Last year, the price for rebar in Anchorage rose 51 percent (to \$991); this year, rebar fell 12 percent in Anchorage, to \$870.
- Juneau had the least expensive rebar at \$718, 28 percent less than the most expensive location (Fairbanks).
- The price of rebar in Seattle increased by \$44, or 6 percent, to \$734. Only Juneau's price was lower.

## Doors and Windows

- The total cost of doors and windows increased in nine of 11 locations in 2014. The increases ranged from 1 percent in Nome to 35 percent in Wasilla.
- Bethel overtook Kodiak as the most expensive surveyed location for doors and windows, at \$6,507 versus \$5,700. Doors and windows cost more than \$5,000 in three locations: Bethel, Kodiak, and Barrow.
- After falling 31 percent in 2013, doors and windows in Anchorage continued to be the least expensive at \$3,152 this year, although prices went up 5 percent.
- The price of doors and windows fell the most in Ketchikan, with a 21 percent drop to \$4,101.

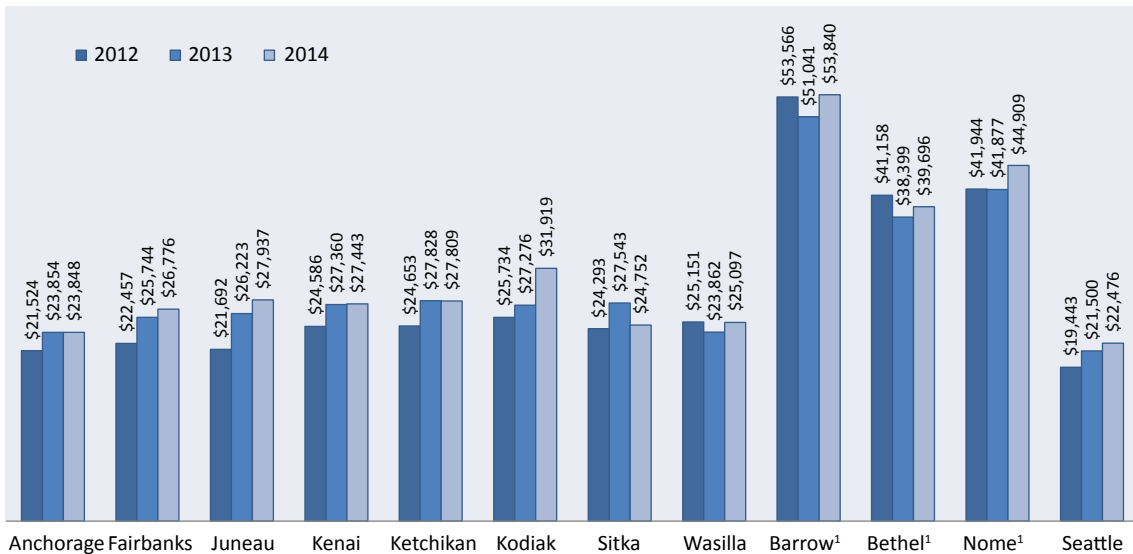
## Shipping Costs from Seattle

- In 2014, transportation costs increased in all areas. The percentage increases ranged from 4 percent in Juneau to 18 percent in Kenai.

- In Sitka, Wasilla, Kenai, Fairbanks, Kodiak, and Barrow, the costs of transporting building materials went up by more than \$1,000.
- Shipping overall (to all locations combined) increased by \$14,325 — substantially more than in 2013, when overall shipping costs decreased by a combined \$1,432, and more similar to the 2012 increase of \$8,191.

## Average Cost of Market Basket, 2012 to 2014

Urban and Rural Residential Construction (without concrete, rebar, doors, or windows), Alaska and Seattle Suppliers



<sup>1</sup>Rural areas include metal roofing instead of asphalt shingles.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

# Construction Costs Around the State

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Building materials cost more in rural areas than urban areas, and more in northern Alaska than in Southcentral and Southeast. The main reason for this disparity is the added expense of transportation; generally, the costs of a community's building materials increase the farther it is from Seattle.

- Statewide, the market basket cost ranged from a low of \$23,848 in Anchorage to a high of \$53,840 in Barrow.
- Kodiak returned to its usual position as the most expensive urban location, after seceding to Ketchikan last year, with a market basket cost of \$31,919.
- Prices increased in all three rural locations (Barrow, Bethel, and Nome). The greatest increase was in Nome, where prices rose 7 percent or by \$3,032.
- The disparity between the most expensive urban location (Kodiak) and the least expensive rural location (Bethel) shrank 26 percent to \$7,777.
- The greatest market basket price increase in 2014 was in Kodiak, where higher prices for 13 of 15 items resulted in an overall rise of 17 percent or \$4,643.
- The price of R-38 insulation increased more than 30 percent in Kodiak (37 percent), Barrow (36 percent), and Nome (34 percent). Survey wide, the price of R-38 insulation increased 15 percent.
- The cost of R-21 insulation increased more than 20 percent in five communities: Fairbanks, Kenai, Kodiak, Wasilla, and Barrow.
- The price dropped for nine out of 15 market basket items in Sitka, resulting in a 10 percent drop in its market basket cost this year.

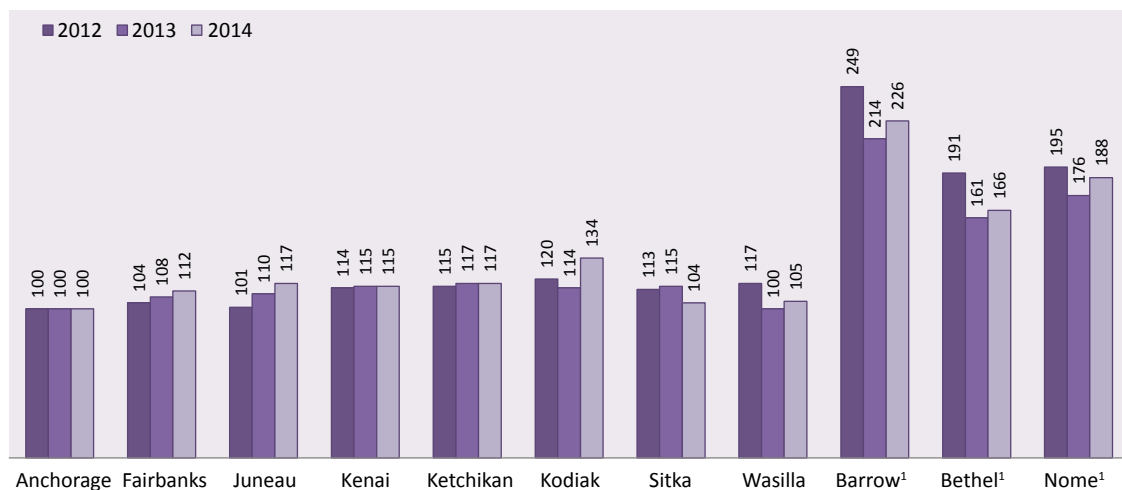
# Alaska Suppliers Comparison Index

The Alaska Suppliers Comparison Index compares each community's market basket cost to Anchorage, the largest city in Alaska, as a benchmark. To create this index, Anchorage's market basket cost is given an index value of 100. Dividing the average cost for a survey area by the Anchorage value (\$23,848) produces the index value for that community.

- The Anchorage market basket cost didn't change substantially from 2013; it decreased just \$6 in 2014. Index values rose in areas with price increases and fell in areas with price decreases.
- Kodiak had the most significant index value change with a 17 percent rise in market basket prices in 2014. Kodiak's index gained 20 points, rising from 114 in 2013 to 134 in 2014.
- All surveyed locations' index values exceeded Anchorage, with urban locations ranging from 104 (Sitka) to 134 (Kodiak) and rural locations ranging from 166 in Bethel to 226 in Barrow. All three rural index values went up in 2014, as prices in these areas increased in both real terms and relative to Anchorage.
- Sitka was the only area whose index value fell in 2014, dropping from 115 in 2013 to 104 in 2014.

## Alaska Suppliers Comparison Index, 2012 to 2014

Urban and Rural Residential Construction (without concrete, rebar, doors, or windows), Index by Community with Anchorage as Baseline



<sup>1</sup>Rural areas include metal roofing instead of asphalt shingles.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014



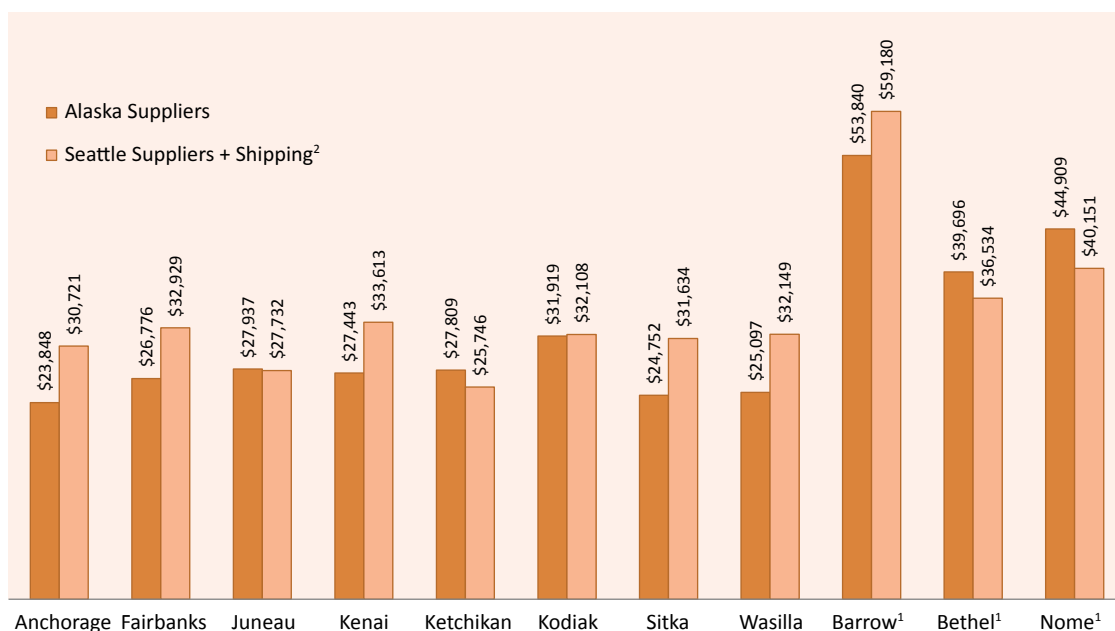
# Construction Costs in Alaska vs. Seattle

We include suppliers from Seattle and the surrounding metropolitan area in the Alaska Construction Cost Survey, as some contractors acquire their materials from outside Alaska. For Alaska suppliers, the market basket price already includes the cost of shipping goods to the work site in their community. We add transportation costs to Seattle's market basket total to estimate what local contractors would pay if they bought directly from Seattle suppliers and shipped their materials north. Seattle prices can't be accurately compared to prices in the three rural areas because the Seattle market basket and the total calculated shipping costs include asphalt shingles rather than metal roofing. For this reason, the following points pertain only to the seven participating urban communities.

- The Seattle market basket increased 5 percent to \$22,476. Juneau joined Ketchikan as the only two urban communities where builders would save by purchasing the market basket items in Seattle and having them shipped rather than buying them locally.
- Ketchikan builders would have to pay \$2,063 more to purchase locally, and those in Juneau would have to pay \$205 more. The savings for all other locations purchasing locally ranged from \$189 (Kodiak) to \$7,052 (Wasilla).
- Because the price of market basket materials in Sitka dropped, their 'buy local' savings increased by \$4,776 to \$6,882. All of Alaska's urban locations, except Juneau and Kodiak, saved more when buying local in 2014 than in 2013.

## Costs to Buy Local vs. Ship From Seattle, 2014

Alaska and Seattle Suppliers (without concrete, rebar, doors, or windows)



<sup>1</sup>Rural areas include metal roofing instead of asphalt shingles.

Note: Seattle prices include asphalt shingles for all locations.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

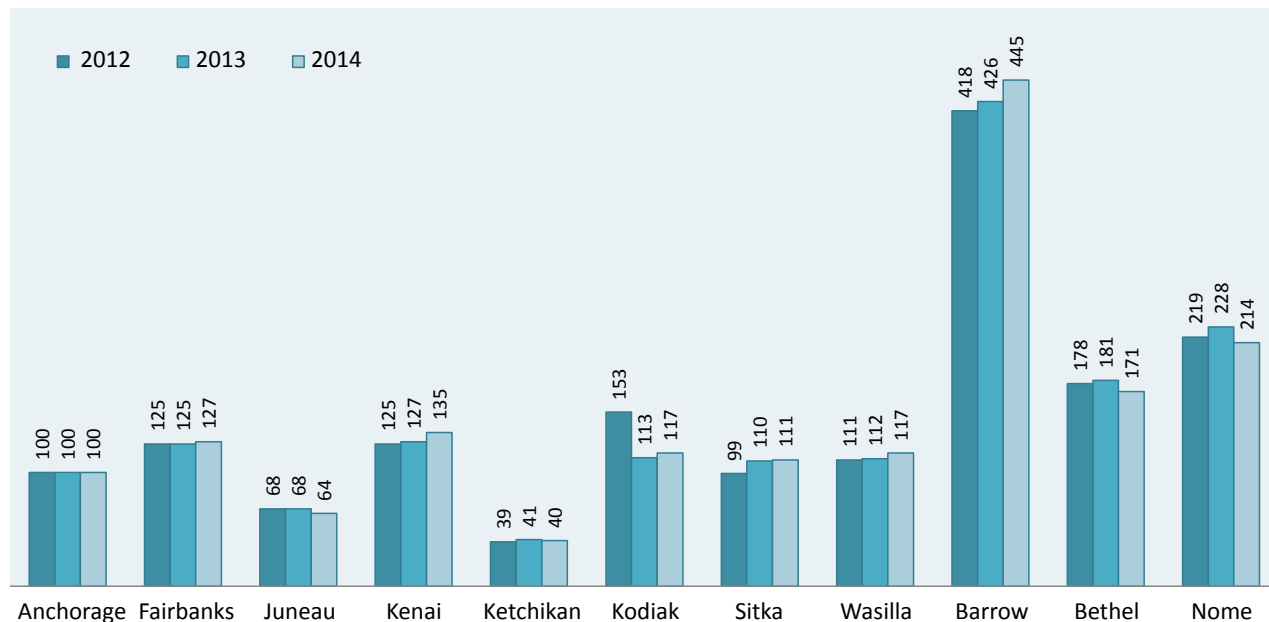
# Transportation Index for Market Basket from Seattle

Transportation is one of the primary influences on building costs in Alaska. The cost of transporting materials from Seattle directly relates to the distance between Seattle and the surveyed communities. The Transportation Index compares the cost to ship the basic market basket to each community to the cost to ship to Anchorage. Shipping costs to rural areas may be overstated, as metal roofing is less expensive to ship because it's lighter and can be transported inside or outside of a container.

Like the Alaska Suppliers Comparison Index, the Transportation Index assigns Anchorage an index value of 100. Dividing the average value for a survey area by the Anchorage shipping cost (\$8,245) produces the index value for that community.

- Shipping costs to Anchorage increased \$829, or 11 percent, in 2014. Areas with cost increases of less than 11 percent have lower index values in 2014 than in 2013. Areas where transportation costs increased more than 11 percent have higher index values this year.
- While transportation costs increased in all 11 communities in 2014, the index value only increased in the six communities where costs increased more than 11 percent.

## Transportation Index for Market Basket from Seattle, 2012 to 2014 Index by Community with Anchorage as Baseline



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

- Juneau (64) and Ketchikan (40) continued to be the only two surveyed communities with transportation index values of less than 100.
- Kenai and Wasilla had the highest percentage increases this year, resulting in shipping costs that were \$1,705 (18 percent) more in Kenai and \$1,373 (17 percent) more in Wasilla than the year before.
- Ketchikan, the closest city to Seattle, had the lowest shipping costs. This year's shipping costs of \$3,270 and corresponding index value of 40 were less than half that of Anchorage's. On the opposite end of the scale, shipping costs to Barrow, the farthest location from Seattle, were \$36,704. This figure is nearly four and a half times the cost of shipping to Anchorage and more than ten times the cost of shipping to Ketchikan.

## Methodology

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Twenty-six suppliers in Alaska and 10 in Washington participated in this year's survey. Alaska participants represented 11 unique firms, as some companies have stores in multiple locations. Washington participants represented four unique firms. In addition, 14 concrete suppliers and six shipping companies participated in this year's survey.

We ask building suppliers what discounts, if any, they provide to contractors for a "package" of building materials sufficient to build a single-family home. If they give a discount, we factor it into the market basket prices the supplier reported. The same is true for concrete suppliers.

To determine the cost of transportation, carriers are given the weight (approximately 49,000 pounds) and the volume (about 2,000 cubic feet) of the materials. These measurements generally require a 20-foot platform and a 20-foot container for all the materials. We also assume that all fees for required services are included in the reported shipment cost. These services include loading/unloading, protection and fastening of goods, and delivery to the building site. The shippers' market basket includes asphalt shingles rather than metal roofing.

To reflect the vendors' respective market shares, respondents' values are weighted by the size of the respective firms. For Alaska businesses, size is based on the reported number of employees from the Alaska Department of Labor and Workforce Development's employment security tax wage database for the second quarter of 2013. America's Labor Market Information System provided 2014 employee counts for Seattle suppliers.

Over time, changes to the makeup of the market basket have been necessary to remain current with building standards. In 2001, we replaced cedar bevel siding with T1-11 siding. In 2003, we substituted metal roofing for asphalt shingles in the three rural areas.

## Average Price for Construction Materials Alaska Suppliers, 2014

Market Basket Items	Quantity	Units	Size	Length	Anchorage	Urban										Rural *
						Fairbanks	Juneau	Kenai	Ketchikan	Kodiak	Sitka	Wasilla	Barrow	Bethel	Nome	
BCI 60 Series	768	ft	14"		\$2,225	\$2,717	\$3,548	\$3,277	\$3,314	\$4,193	\$1,866	\$2,400	\$3,886	\$4,562	\$5,427	
2-4-1 T&G FF Underlay 4' x 8'	62	pcs	1 1/8"		\$2,855	\$3,148	\$3,062	\$3,050	\$3,137	\$3,395	\$3,403	\$2,909	\$7,129	\$4,464	\$4,628	
T-111 8" Center Groove 4' x 10' Siding	60	pcs	5/8"		\$2,966	\$3,332	\$3,969	\$3,297	\$3,194	\$3,617	\$3,497	\$3,080	\$5,519	\$5,251	\$4,858	
CDX 4' x 8' #53	106	pcs	5/8"		\$2,553	\$2,698	\$2,694	\$2,781	\$2,558	\$3,101	\$2,098	\$2,699	\$5,850	\$3,663	\$4,384	
Studs #2 & btr Klin-dried	164	pcs	2" x 4"	92 5/8"	\$441	\$551	\$557	\$487	\$589	\$743	\$574	\$546	\$1,507	\$1,276	\$884	
Studs #2 & btr #14 Klin-dried	263	pcs	2" x 6"	92 5/8"	\$1,077	\$1,332	\$1,373	\$1,175	\$1,389	\$1,683	\$1,370	\$1,319	\$3,869	\$2,956	\$2,246	
4' x 12' Plain Sheetrock #84	95	pcs	1/2"		\$2,163	\$2,240	\$2,323	\$2,070	\$2,057	\$2,019	\$1,453	\$2,222	\$5,855	\$2,572	\$3,501	
4' x 12' Type X Sheetrock #109	68	pcs	5/8"		\$1,651	\$1,759	\$1,795	\$1,751	\$1,818	\$1,785	\$1,254	\$1,824	\$4,691	\$3,114	\$3,057	
Fiberglass Bat Insulation (2,560 sq ft)	40	bags	R-38" x 24"	64 sq ft	\$2,599	\$2,786	\$2,805	\$2,874	\$2,857	\$3,292	\$2,844	\$2,661	\$5,446	\$3,384	\$4,685	
Fiberglass Bat Insulation (2,034 sq ft)	30	bags	R-21" x 15"	68 sq ft	\$1,630	\$1,859	\$1,682	\$1,831	\$1,980	\$2,327	\$1,944	\$1,736	\$3,947	\$2,282	\$2,298	
NMB Electric Wire	3	boxes		250'	\$244	\$208	\$267	\$252	\$321	\$318	\$283	\$246	\$359	\$378	\$348	
Single Breaker	15	pcs	15 Amp		\$100	\$99	\$117	\$96	\$123	\$4,139	\$82	\$136	\$276	\$274	\$128	
Copper Pipe Type 'M'	150	ft	3/4"		\$312	\$308	\$373	\$314	\$537	\$335	\$351	\$309	\$372	\$485	\$804	
ABS Pipe	100	ft	3"		\$195	\$230	\$204	\$223	\$236	\$260	\$337	\$200	\$350	\$463	\$427	
3 Tab Shingles Brown	102	bundles			\$2,837	\$3,509	\$3,168	\$3,965	\$3,699	\$4,712	\$3,396	\$2,810	N/A	N/A	N/A	
Metal Roofing	3,215	sq ft	3' x 20'		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$4,784	\$4,572	\$7,234	
<b>Total (Without Concrete and Rebar)</b>					<b>\$23,848</b>	<b>\$26,776</b>	<b>\$27,937</b>	<b>\$27,443</b>	<b>\$27,809</b>	<b>\$31,919</b>	<b>\$24,752</b>	<b>\$25,097</b>	<b>\$53,840</b>	<b>\$39,696</b>	<b>\$44,909</b>	
Concrete	30	yds			\$3,775	\$3,361	\$5,445	\$3,968	\$5,250	\$7,020	\$6,045	\$3,449				
#4 Rebar	93	pcs	1/2"	20'	\$870	\$992	\$718	\$799	\$743	\$762	\$962	\$901				
<b>Total (With Concrete and Rebar)</b>					<b>\$28,493</b>	<b>\$31,129</b>	<b>\$34,100</b>	<b>\$32,210</b>	<b>\$33,802</b>	<b>\$39,701</b>	<b>\$31,759</b>	<b>\$29,447</b>				

Weighted average using 2013 Q2 ODB202 or 2014 ALMIS Employer Database (1st Edition) number of employees where applicable  
Totals may not sum due to rounding.

N/A = Not Applicable

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

## Average Price for Doors and Windows Alaska Suppliers, 2014

Market Basket Items	Quantity	Units	Size	Urban										Rural	
				Wasilla	Sitka	Kodiak	Ketchikan	Kenai	Juneau	Fairbanks	Anchorage	Barrow	Bethel		Nome
R7 Metal Insulated Doors with 6" Jamb	2	pcs	3'			\$491	\$488	\$497	\$478	\$465	\$750	\$540	\$865	\$740	\$934
Low E Argon Windows with R > 2.8 Vinyl Casements	3	pcs	2.6' x 3'			\$678	\$633	\$825	\$672	\$827	\$900	\$847	\$883	\$1,091	\$852
Low E Argon Windows with R > 2.8 Vinyl Casements, 5.7 E-Gress	6	pcs	2.6' x 4'			\$1,268	\$1,749	\$1,807	\$1,508	\$1,820	\$1,950	\$2,086	\$1,484	\$2,208	\$1,885
Low E Argon Windows with R > 2.8 Vinyl Casements, 5.7 E-Gress	2	pcs	8.0' x 4'			\$715	\$1,989	\$1,729	\$1,243	\$989	\$2,100	\$1,373	\$1,233	\$1,960	\$852
<b>Total Cost of Doors and Windows</b>						<b>\$3,152</b>	<b>\$4,859</b>	<b>\$4,858</b>	<b>\$3,901</b>	<b>\$4,101</b>	<b>\$5,700</b>	<b>\$4,846</b>	<b>\$4,248</b>	<b>\$5,189</b>	<b>\$4,523</b>

Weighted average using 2013 Q2 ODB202 or 2014 ALMIS Employer Database (1st Edition) number of employees where applicable  
Totals may not sum due to rounding.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

## Average Price for Construction Materials

Seattle Suppliers (without concrete, doors, and windows), 2014

Market Basket Items	Quantity	Units	Size	Length	Seattle Area
BCI 60 Series	768	ft	14"		\$2,836
2-4-1 T&G FF Underlay 4' x 8'	62	pcs	1 1/8"		\$2,978
T-111 8" Center Groove 4' x 10' Siding	60	pcs	5/8"		\$3,230
CDX 4' x 8' #53	106	pcs	5/8"		\$2,424
Studs #2 & btr Kiln-dried	164	pcs	2" x 4"	92 5/8"	\$442
Studs #2 & btr #14 Kiln-dried	263	pcs	2" x 6"	92 5/8"	\$1,085
4' x 12' Plain Sheetrock #84	95	pcs	1/2"		\$1,360
4' x 12' Type X Sheetrock #109	68	pcs	5/8"		\$1,113
3 Tab Shingles Brown	102	bundles			\$2,291
Fiberglass Bat Insulation (2,560 sq ft)	40	bags	R-38" x 24"	64 sq ft	\$2,574
Fiberglass Bat Insulation (2,034 sq ft)	30	bags	R-21" x 15"	68 sq ft	\$1,449
NMB Electric Wire	3	boxes		250'	\$199
Single Breaker	15	pcs	15 Amp		\$84
Copper Pipe Type 'M'	150	ft	3/4"		\$249
ABS Pipe	100	ft	3"		\$162
<b>Total (Without Rebar)</b>					<b>\$22,476</b>
#4 Rebar	93	pcs	1/2"	20'	\$734
<b>Total (With Rebar)</b>					<b>\$23,210</b>

Weighted average using 2013 Q2 ODB202 or 2014 ALMIS Employer Database (1st Edition) number of employees where applicable

Totals may not sum due to rounding.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2014

## Transportation Cost of Market Basket

Shipping and Handling (Without concrete, rebar, doors, and windows), 2014

Destination	Seattle	Transportation Index
Ketchikan	\$3,270	40
Juneau	\$5,256	64
Sitka	\$9,158	111
Anchorage	\$8,245	100
Wasilla	\$9,673	117
Kenai	\$11,137	135
Fairbanks	\$10,453	127
Kodiak	\$9,632	117
Bethel	\$14,058	171
Nome	\$17,675	214
Barrow	\$36,704	445

Weighted average using 2013 Q2 ODB202 or 2014 ALMIS Employer Database (1st Edition) number of employees where applicable

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey, 2014