

Farm to School

Johanna Herron
DNR, Division of Agriculture
Farm to School Program Coordinator



Sponsors



Wild, Natural & Sustainable®



Overview

Background

Cafeteria

Classroom

Community (tomorrow)

My Background



1991-2005
Restaurant
Industry

2006
Fairbanks
Wellness
Committee

2009
MEALS:
Masters
Degree

2011:
Alaska
Farm to
School
Program

2013:
Vermont
Farm to
School

2014:
Permanent
Alaska
Farm to
School

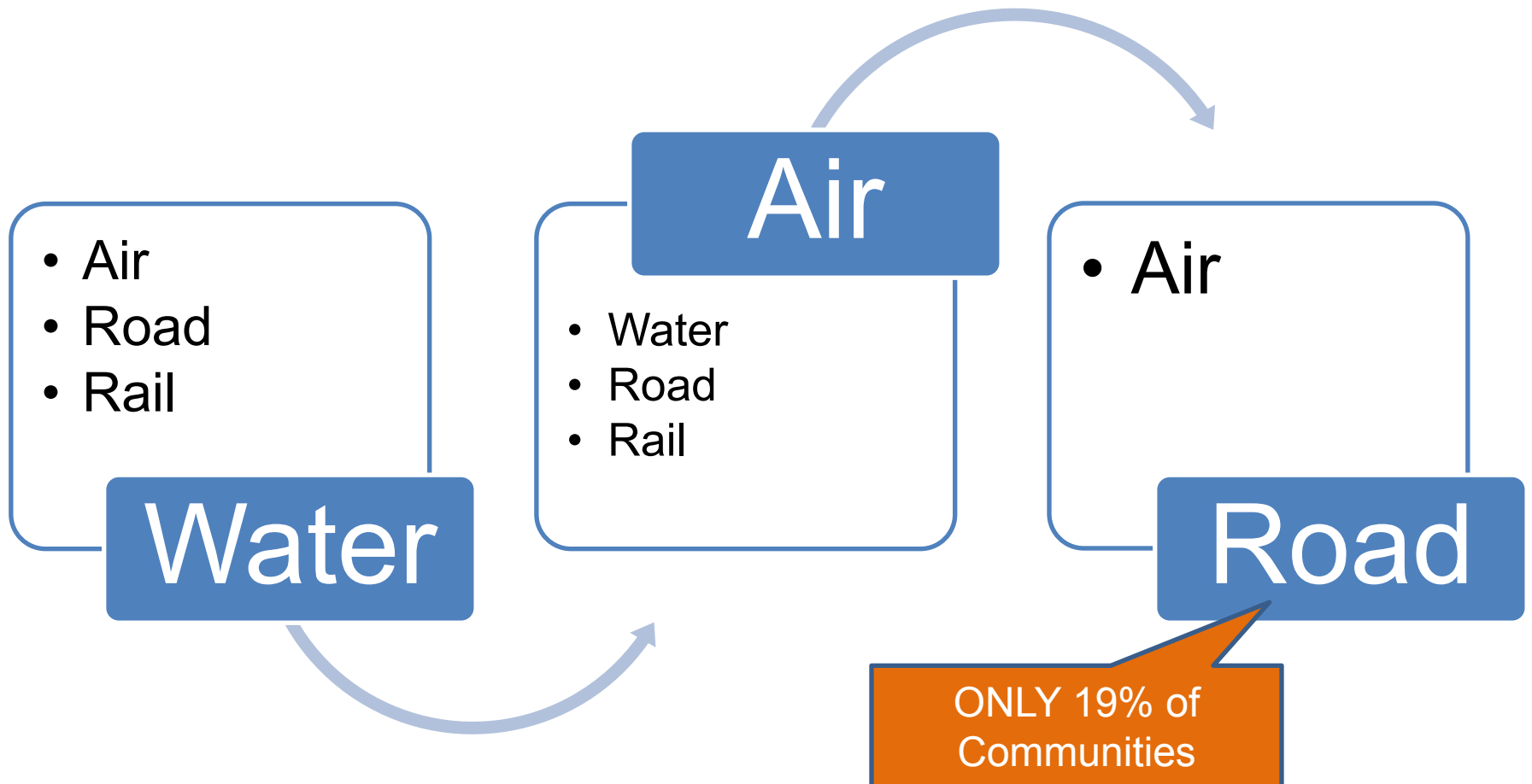
Geography check



Much larger than you think!



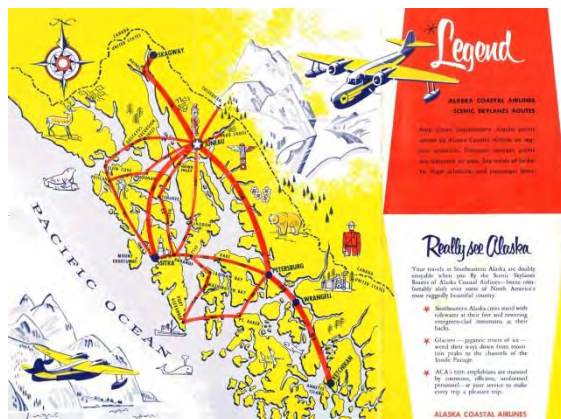
Transportation is complicated



Travel by Alaska Airlines



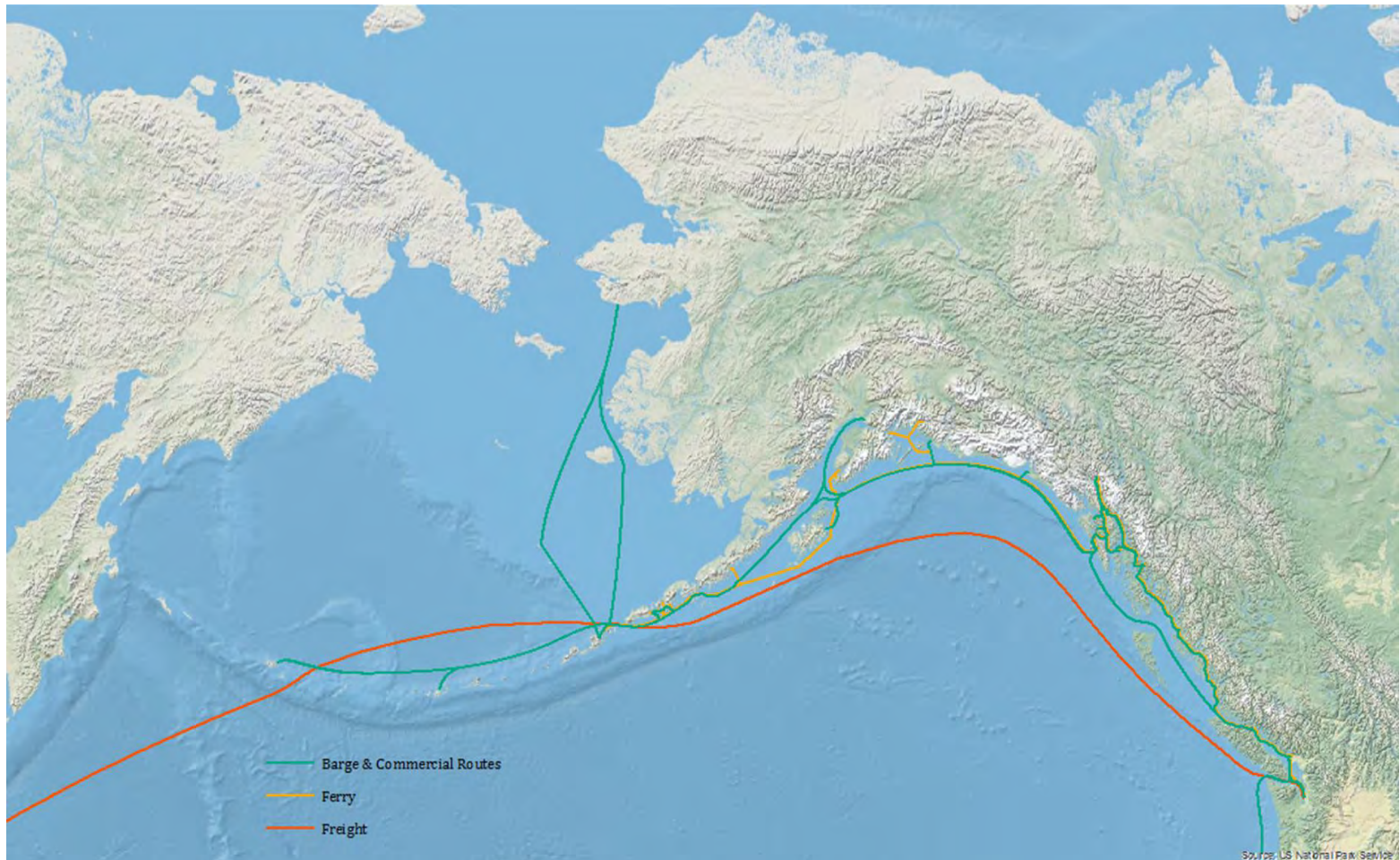
Travel by other airlines



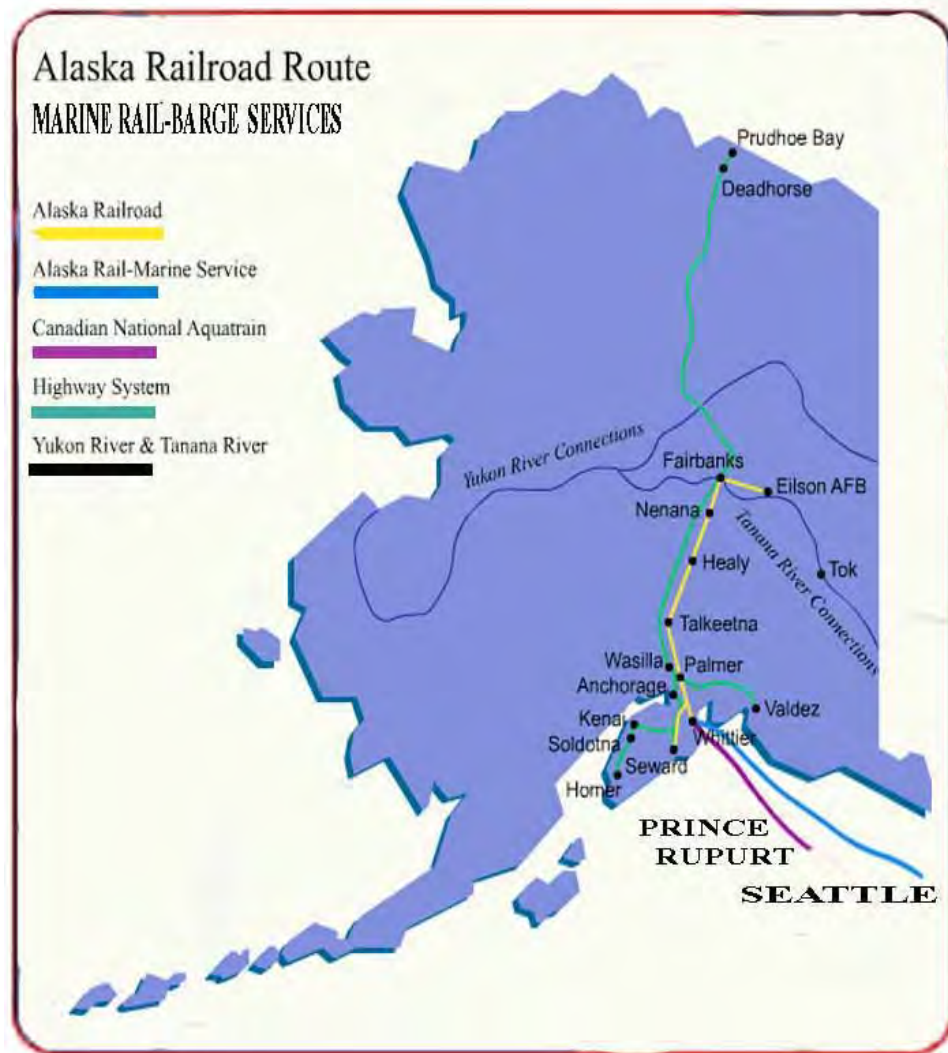
Ravn
 ALASKA



Travel by water



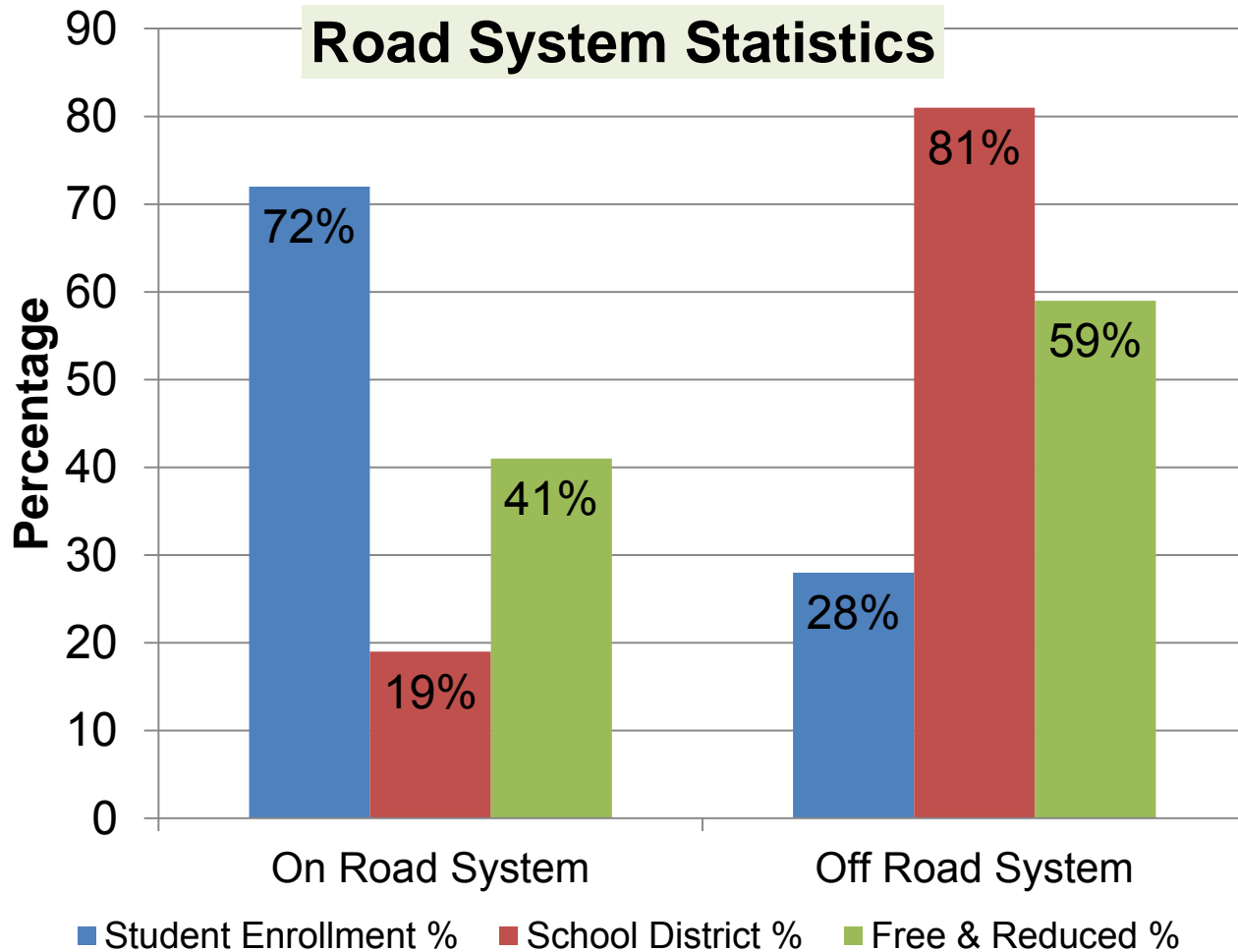
Rail and river



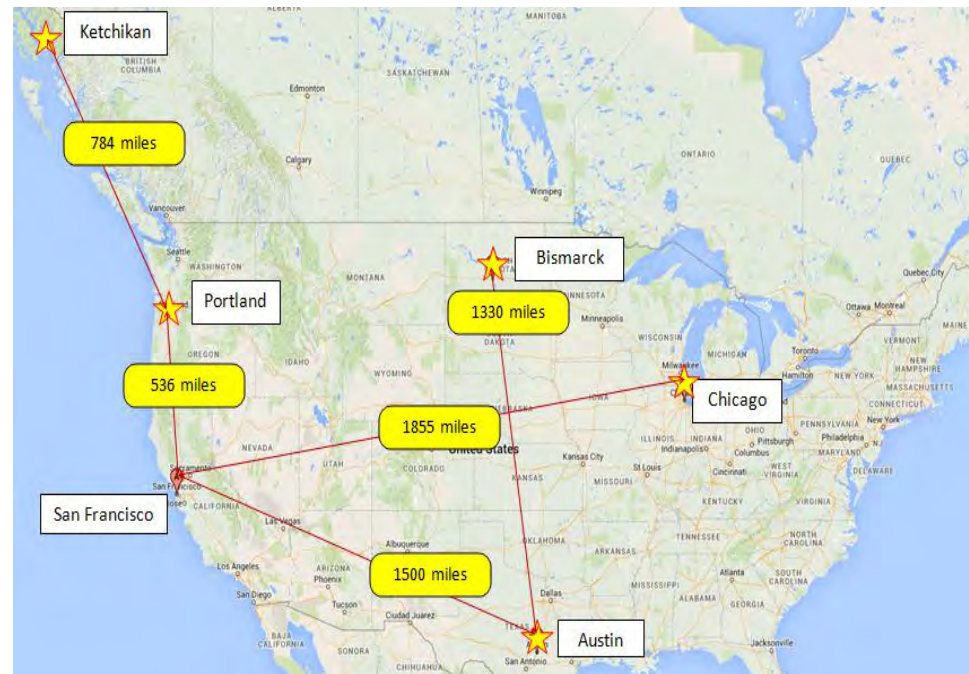
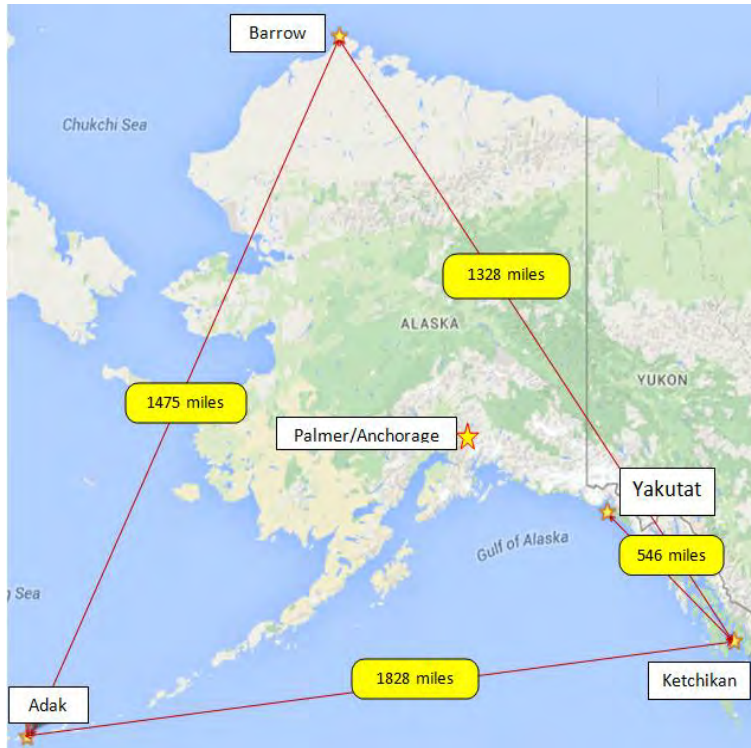
Travel by road



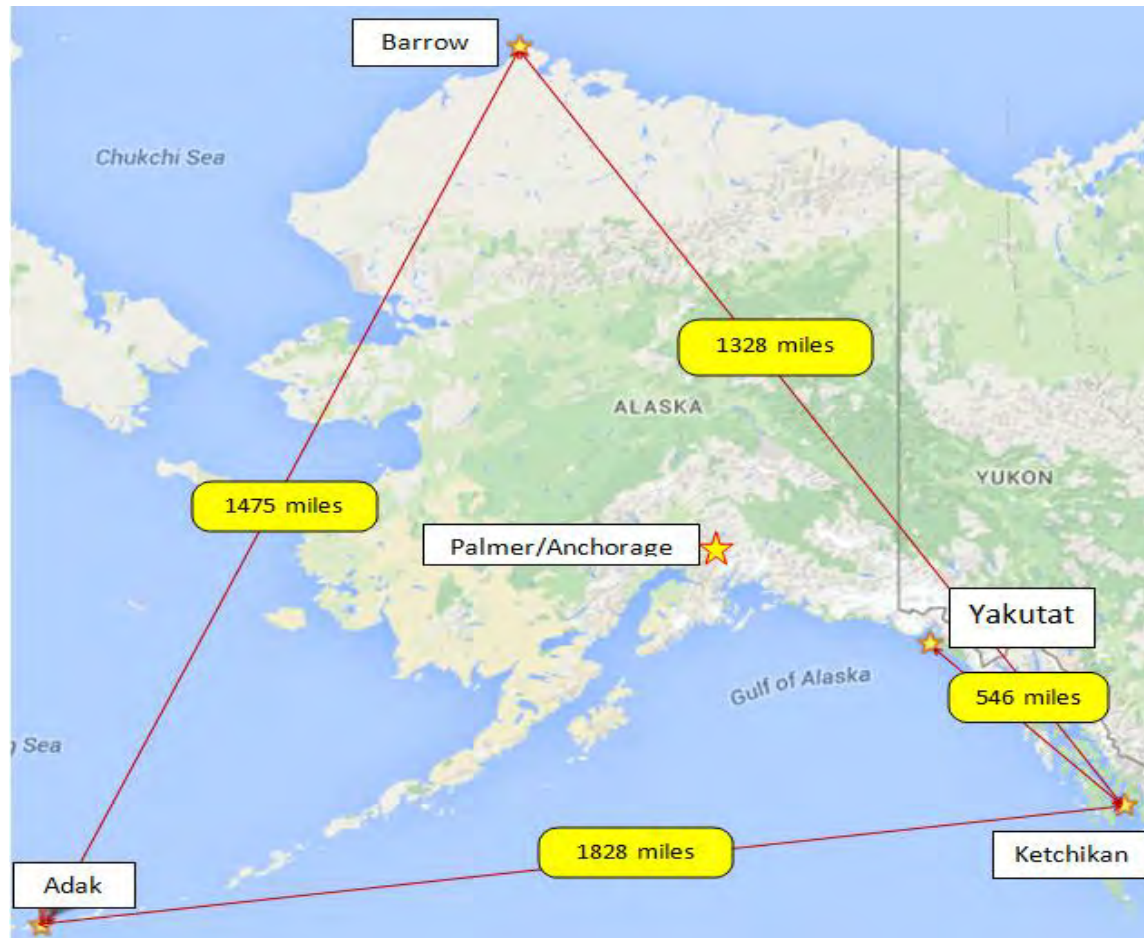
Travel by road



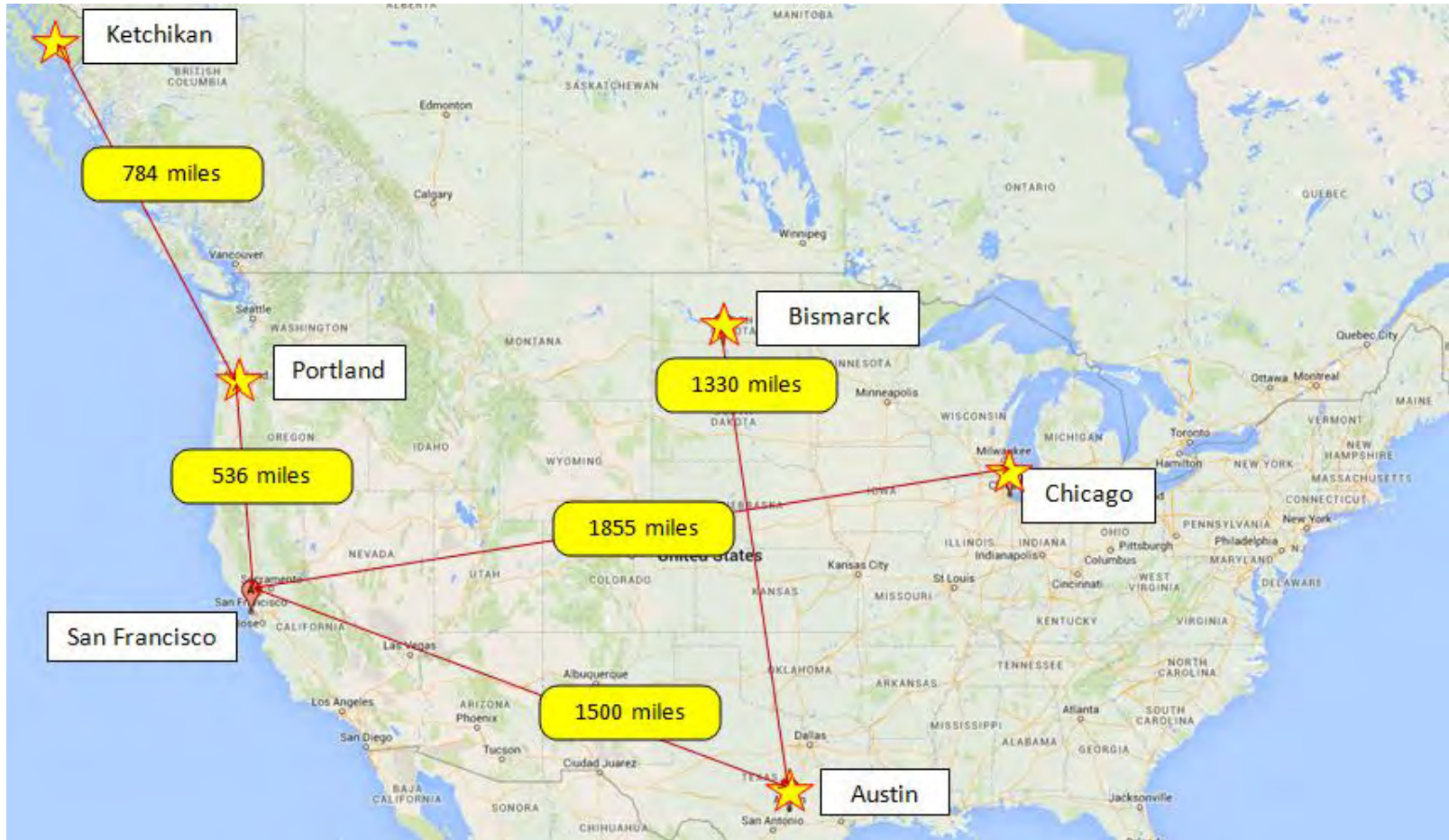
Alaska is vast



Alaska



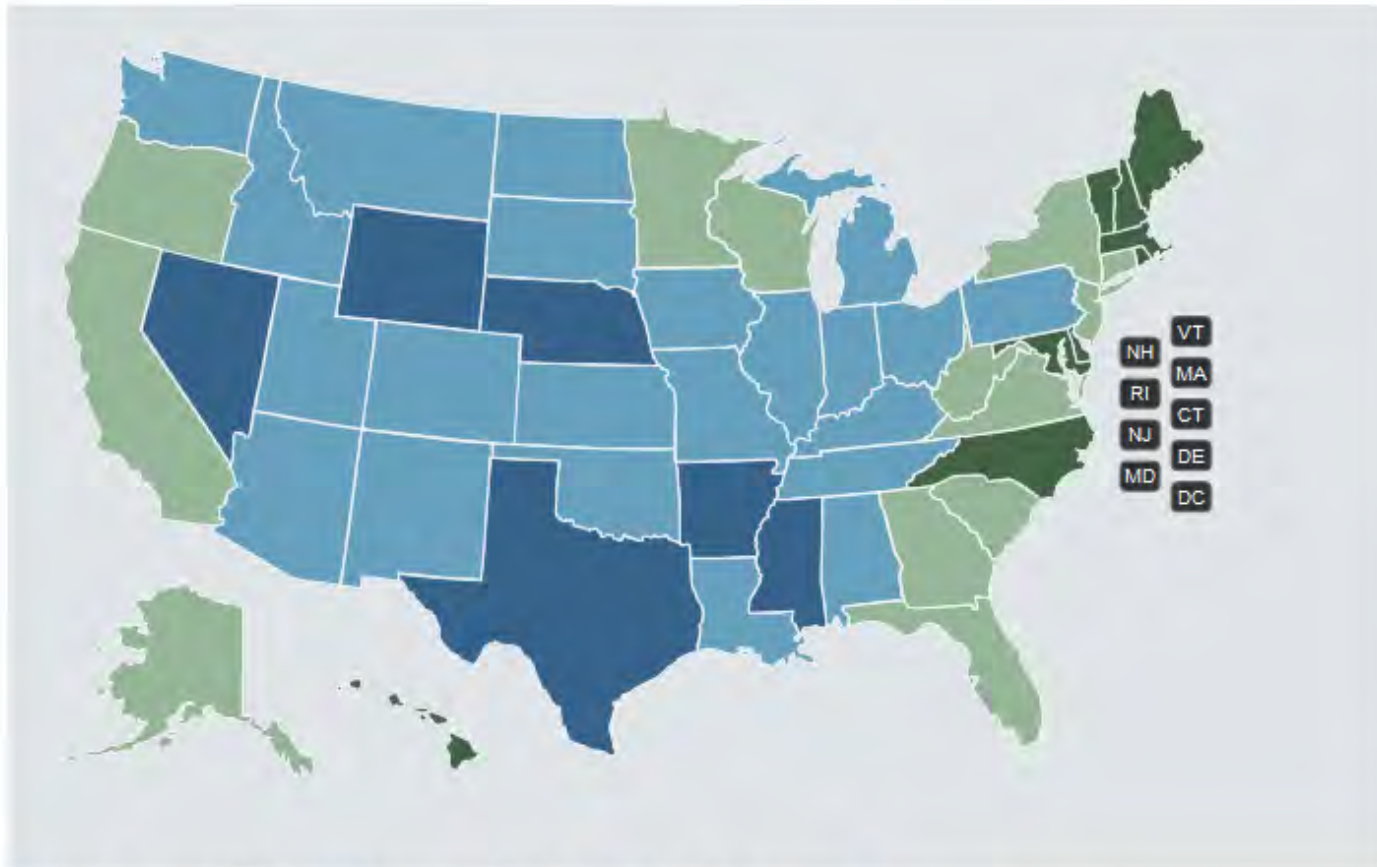
Lower 48 comparisons



Alaska "local": food for thought



USDA Farm to School Census



Percent of school districts participating in farm to school activities:

● Less than 25%

● 25 - 50%

● 51 - 75%

● More than 75%

Farm to School: what is it?

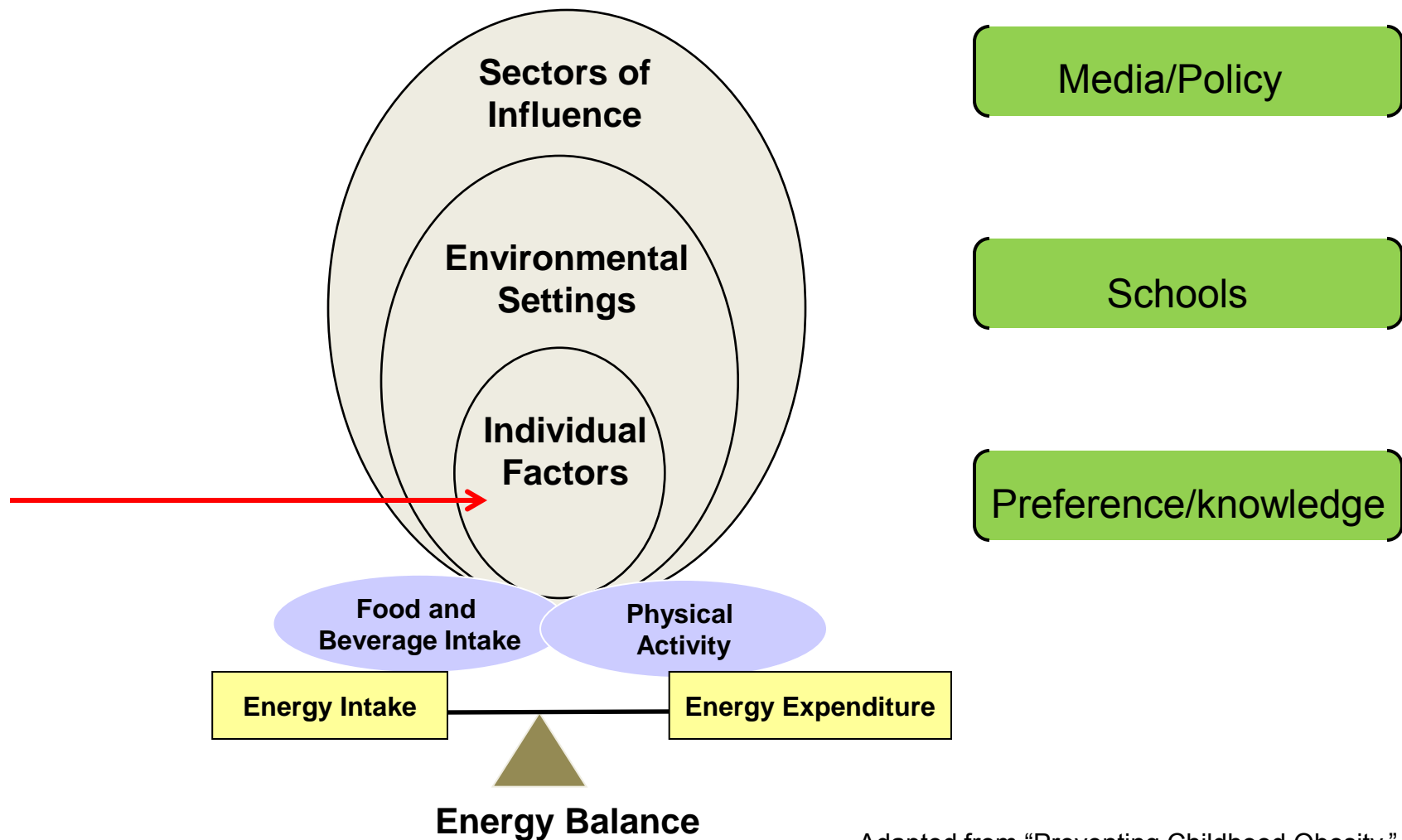
It connects schools and producers by:

1. Increasing local foods in school cafeterias
2. Educating & engaging kids in their local food system
3. Supporting local producers

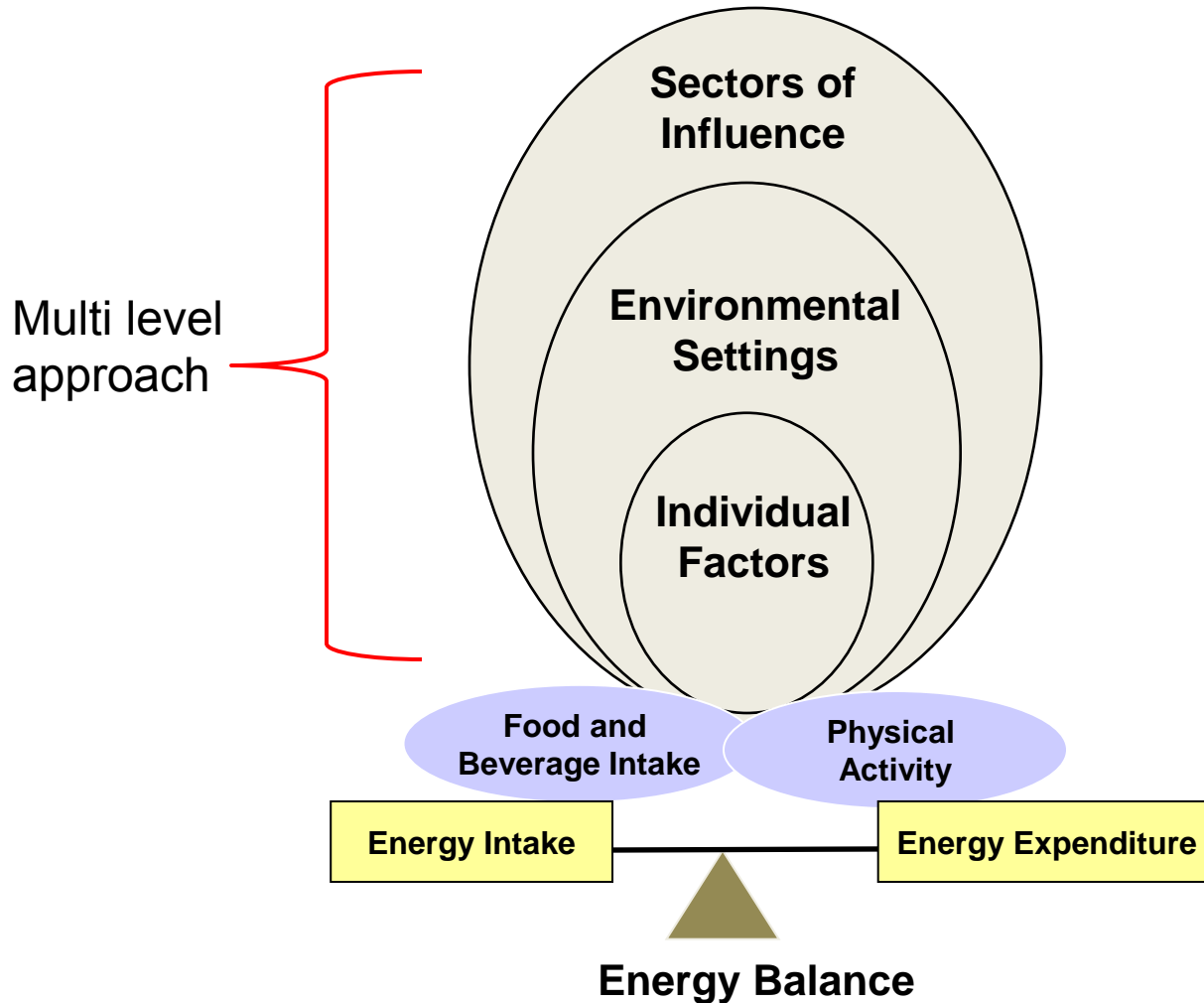


Health, economy, and environment

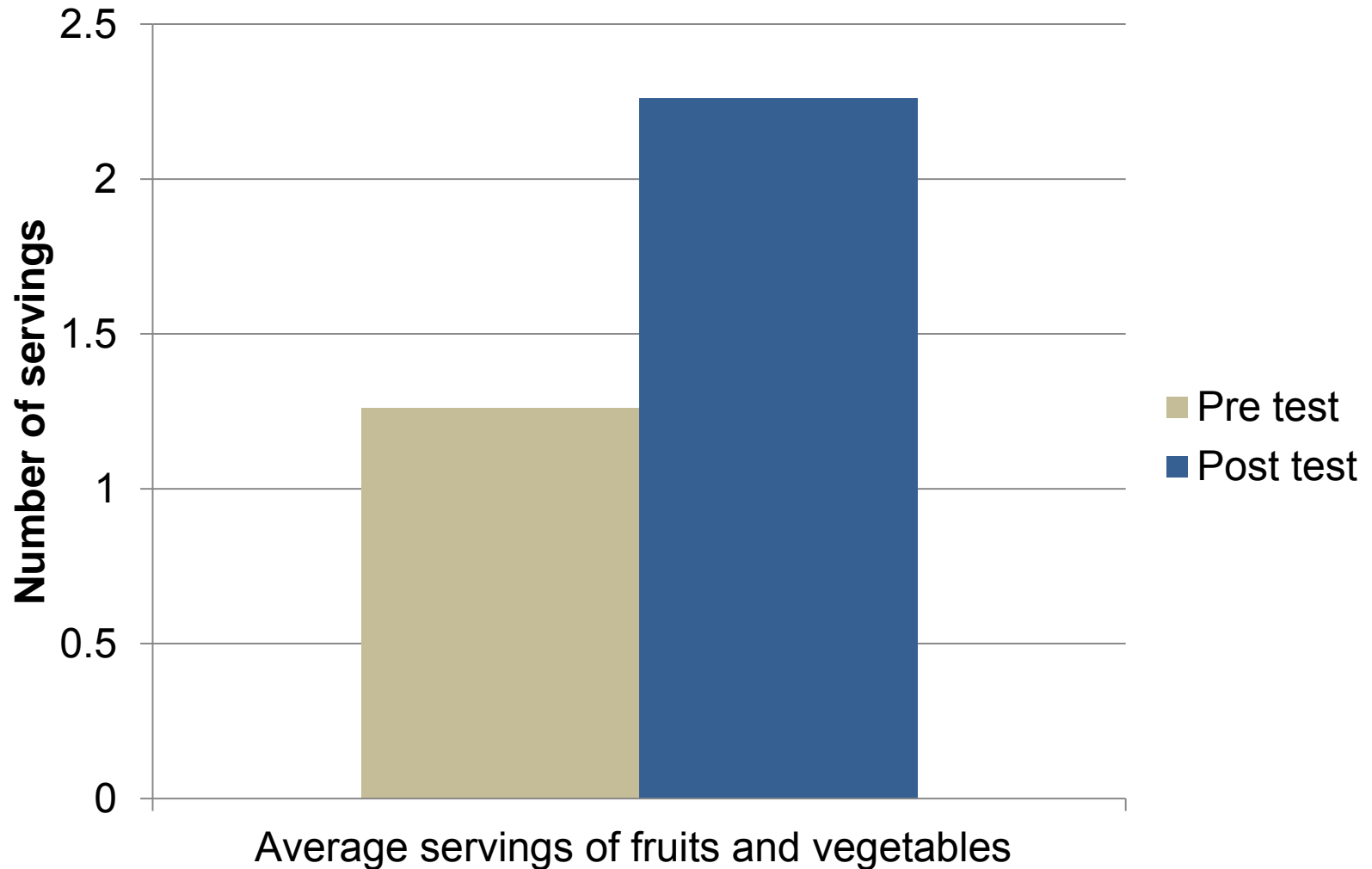
Promoting healthy habits in children



Promoting healthy habits using farm to school



Individual: farm to school programs increase fruit and vegetable intake



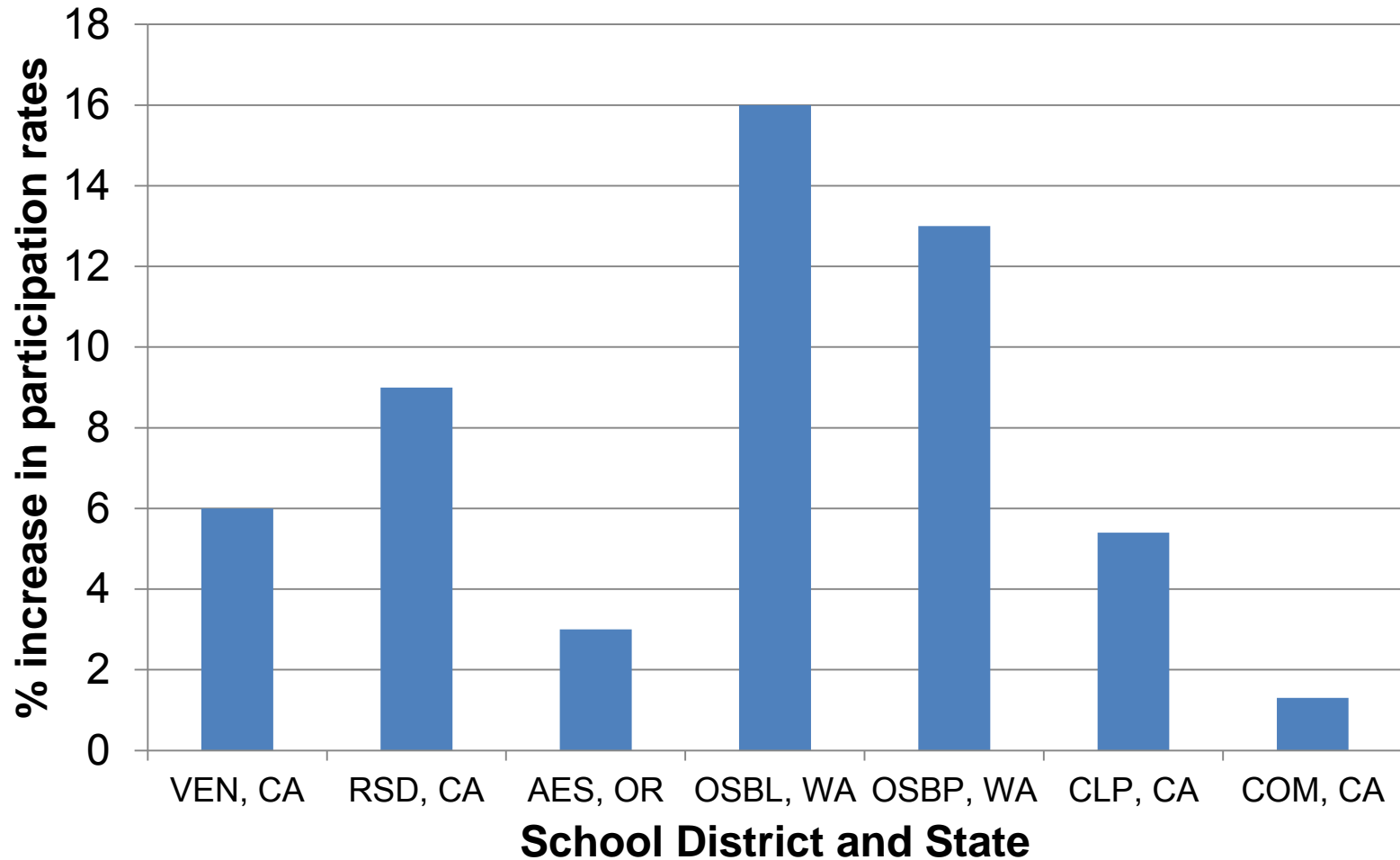
Individual: farm to school programs increase fruit and vegetable intake

TABLE 3
Garden Vegetable Frequency Questionnaire Measuring Factors Associated With Garden-Based Learning

	M Change ± SEM		p
	Garden Group (n = 137)	Control Group (n = 99)	
Preference			
All (N = 24)	0.7 ± 0.3	-0.2 ± 0.3	.029*
Grown in school garden (N = 11)	0.5 ± 0.2	-0.1 ± 0.2	.017*
Not grown in school garden (N = 13)	0.2 ± 0.2	-0.1 ± 0.2	.23
Willingness to taste			
All (N = 24)	1.9 ± 3.5	-0.1 ± 3.7	<.001*
Grown in school garden (N = 11)	1.5 ± 0.2	0.2 ± 0.2	<.001*
Not grown in school garden (N = 13)	0.4 ± 0.2	-0.3 ± 0.2	.025*
Eaten more than once per month			
All (N = 24)	1.1 ± 4.1	-0.9 ± 4.6	.001*
Grown in school garden (N = 11)	0.5 ± 0.2	-0.3 ± 0.2	.005*
Not grown in school garden (N = 13)	0.5 ± 0.2	-0.6 ± 0.3	.001*

* $p \leq .05$ (independent sample t tests).

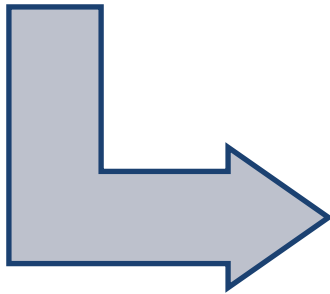
Setting: farm to school increases meal participation



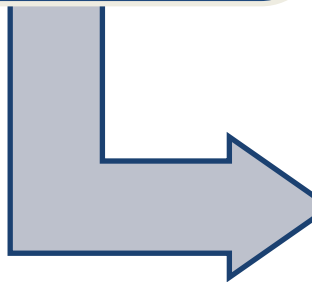
HB 70: Alaska Farm to School Program

May 2010 –
House Bill 70
Signed into Law

- 4 year pilot

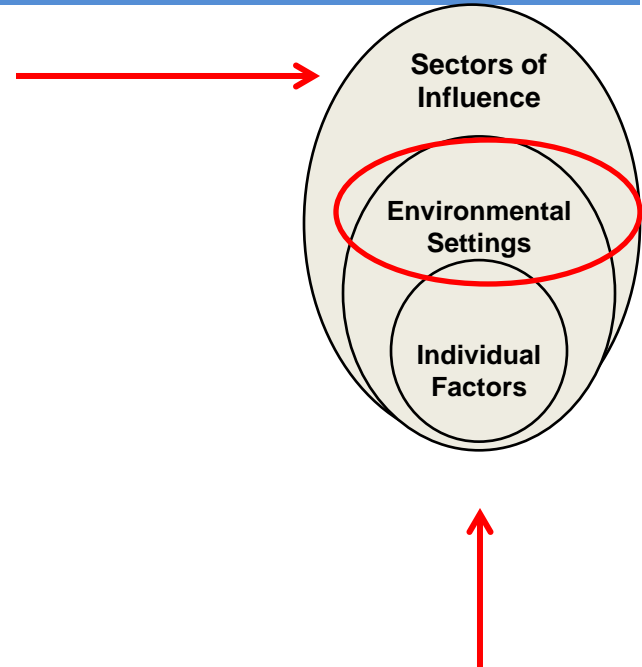


Top priority:
↑ Local
procurement
in schools



Other
program
goals

- Outreach
- Resources
- Activities
- School Gardens



Nutritional Alaskan Foods for Schools

- Alaska caught
- Mixed dish if majority of it is Alaska produced

Seafood/fish



- AK livestock
- AK poultry
- AK eggs

Meat/eggs



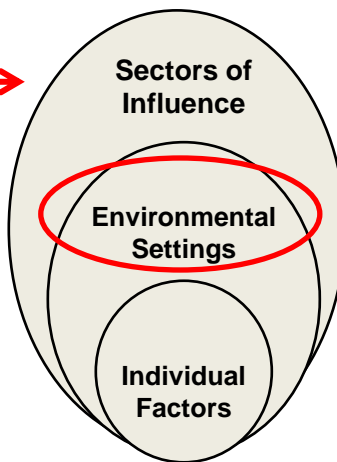
- AK Grown
- School or community gardens

Fruits, vegetables, and grain



- Harvested foods
- Processing donated foods

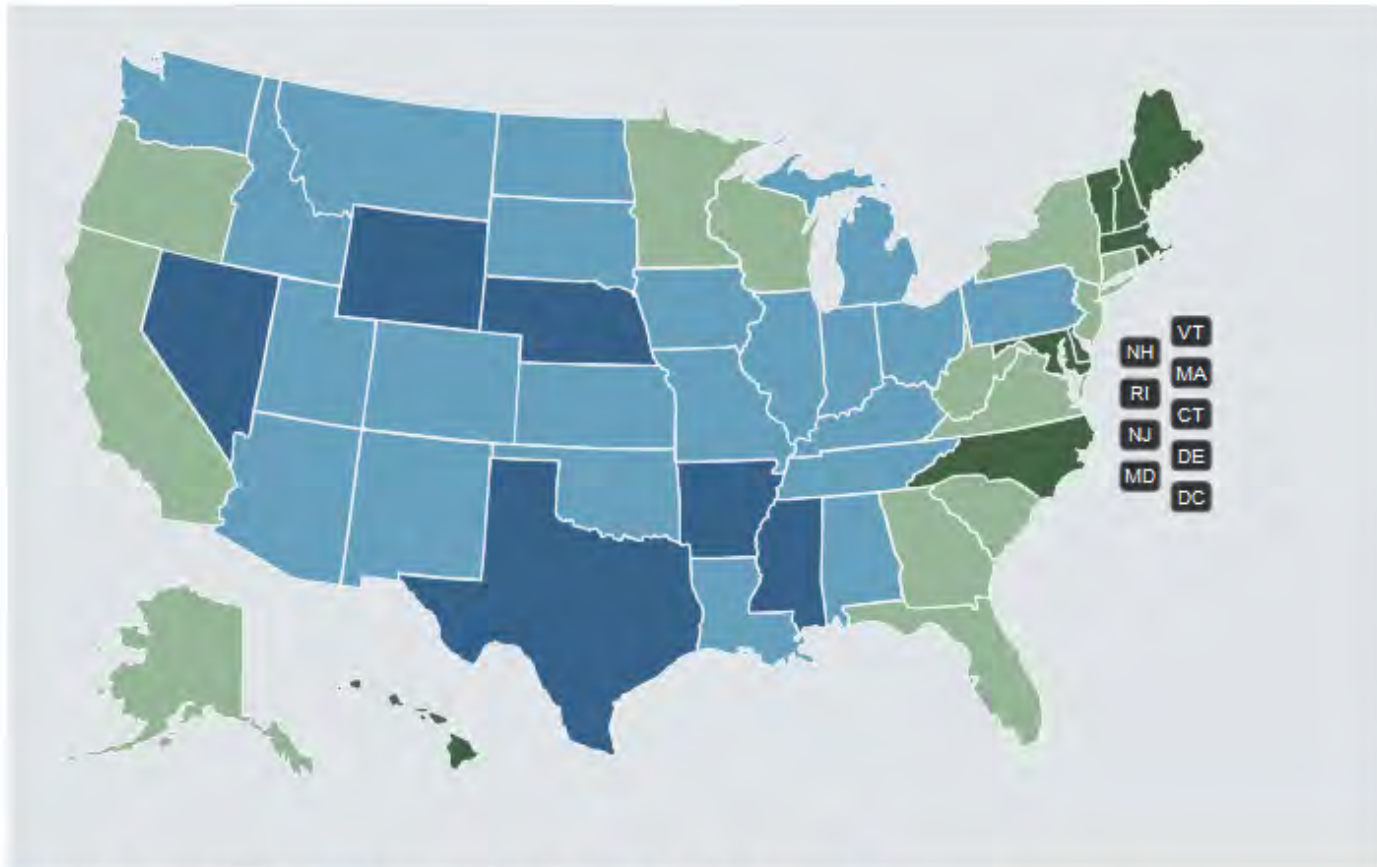
Native produce and berries



- Costs of getting product to your kitchen

Transportation

USDA Farm to School Census



Percent of school districts participating in farm to school activities:

- Less than 25%
- 25 - 50%
- 51 - 75%
- More than 75%

State Farm to School Program primary activities

- Central location to hear about resources, funding, and training opportunities:
 - Listserv and website
- Expertise for starting or expanding farm to school efforts
- Resource development for state-wide use
- Grant programs
- Events and Contests
- Relationship facilitator
- Pilot programs
 - Recipe development
 - Feasibility studies

Overview

Background

Cafeteria

Classroom

Community (tomorrow)

Local food in Alaska



Agriculture



Fish



Traditional Foods

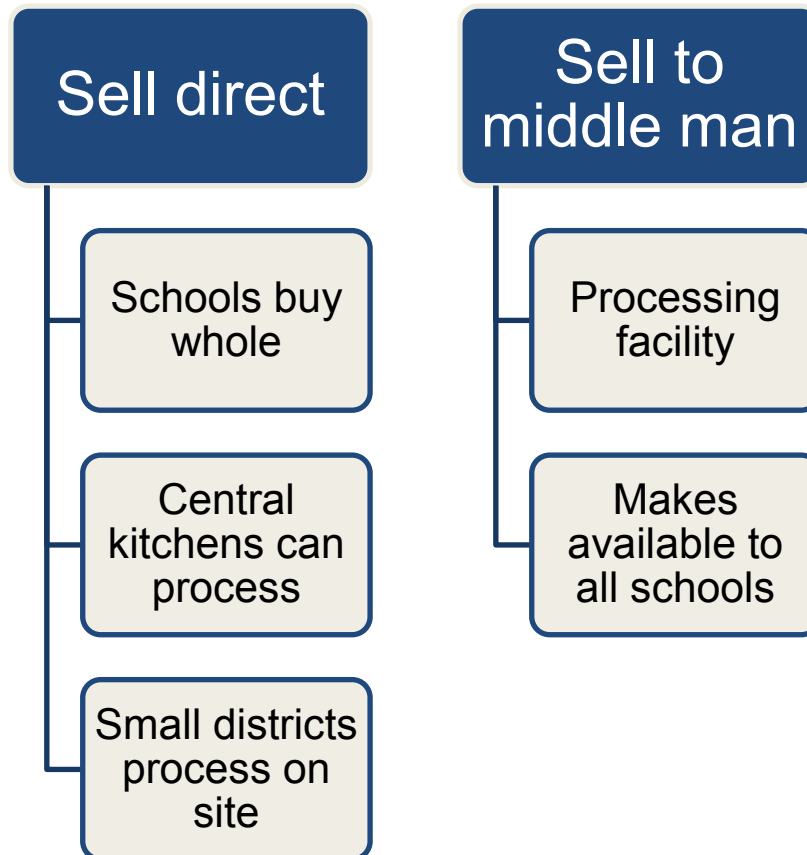


Agriculture



The science, art, or occupation concerned with cultivating land, raising crops, and feeding, breeding, and raising livestock; farming.

Two models to work with schools



Same Result

- **Kids are eating local food and learning about it**
- **Increasing food security in state**
- **Securing a reliable market to increase agriculture industry**

Fish to School



Source of fish

- Donation
- Subsidized
- Full purchase

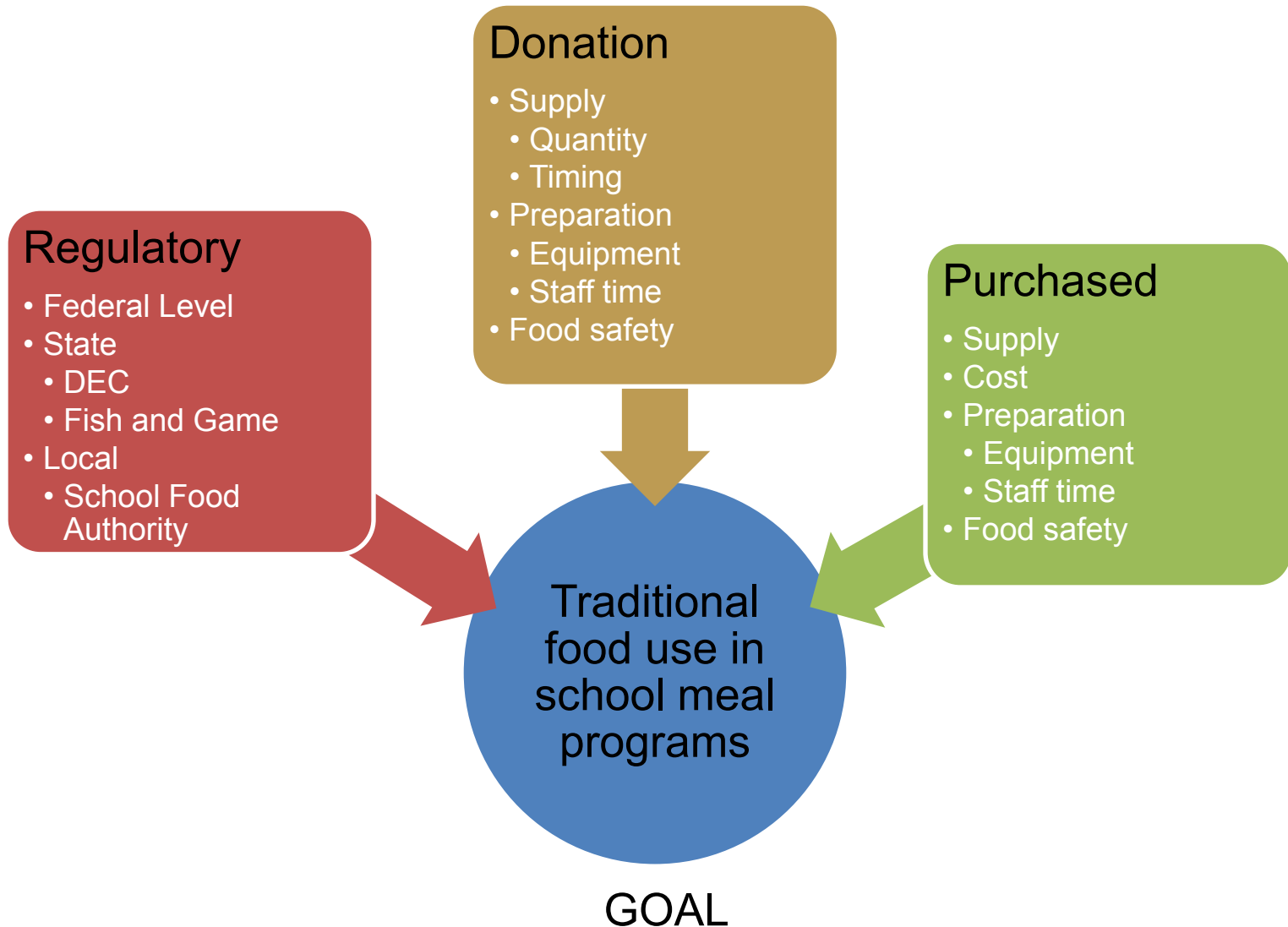
Student preference

- Recipe development
- Geographic region
- Taste tests

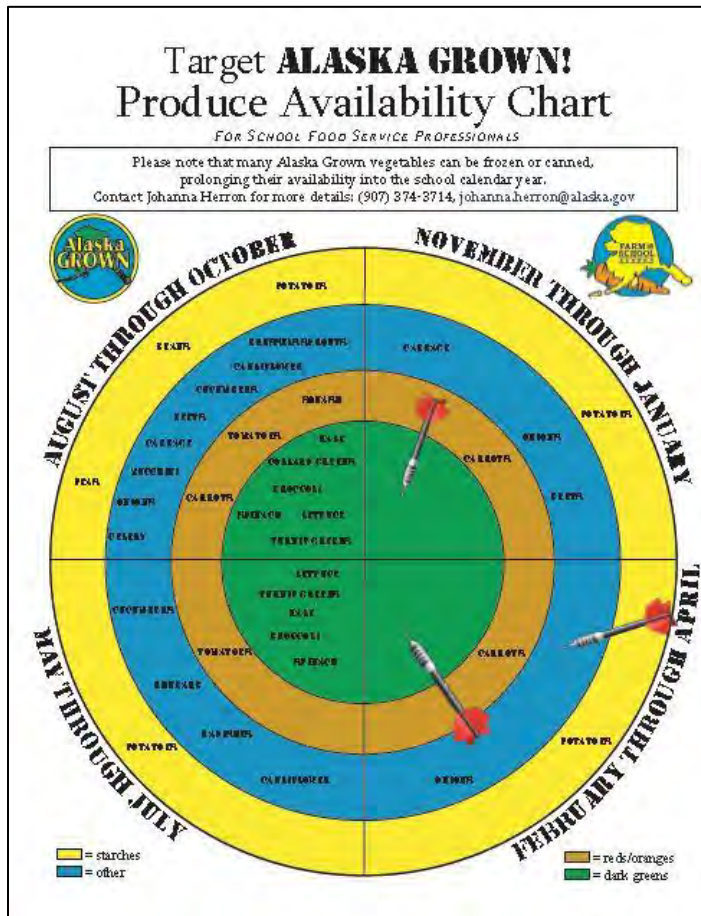
Education

- Nutrition/health
- Community/cultural
- Food system

Traditional Foods



Locating product



State of Alaska
myAlaska My Government Resident Business in Alaska Visiting Alaska State Employees

Alaska Department of Natural Resources
search

Division of Agriculture

Natural Resources State of Alaska

Agriculture Home
Programs Resources

Natural Resources > Division of Agriculture
"Promote and encourage development of an agriculture industry."

Alaska Grown Source Book 2014-2015 Edition

The Alaska Division of Agriculture publishes the "Alaska Grown Source Book" in response to numerous requests from the public and industry. This directory depends on the response of producers and does not claim to include all producers or sellers.

The Division of Agriculture is not responsible for changes from the growers as to what products they may have available. If you are aware of an omission or error, please contact the Division of Agriculture at (907)745-7200.

To be added to the 'Online Lists of Alaskan Farms'
 email [Jacquelyn](mailto:Jacquelyn.Schade@alaska.gov) the following information:

- Region (Interior, Kenai Peninsula, SC, SE, SW)
- Name, address, telephone number
- Selling location (including if you are a CSA or U-pick)
- Any additional information (less than 75 characters)
- Farm products available

To receive a copy of the Alaska Grown Source Book in the mail, contact Jacquelyn Schade at 907-745-3858 or email jacquelyn.schade@alaska.gov.

You may also [download the 2014 - 2015 Source Book](#) or [view the print version](#) online.

To browse and search the Source Book, view the 'Online Lists of Alaskan Farms, Markets, and Services' below.

Online Lists of Alaskan Farms, Markets, and Services

[Alaska Grown Source Book Home](#)

Interior Farms	Interior Markets
Kenai Peninsula Farms	Kenai Peninsula Markets
South Central Farms	South Central Markets
South East Farms	South East Markets
South West Farms	South West Markets
All Alaskan Farms	All Alaskan Markets

[Farm Services Businesses](#)

[Community Supported Agriculture \(CSA\) Locations](#)

[U-Pick Locations](#)

[Seasonal Produce Availability Chart](#)

Food Safety



On-Farm Food Safety Workshops

Quotes from satisfied attendees-

"Great at answering our questions right away with a very diverse group!"

"Very helpful - knowledge is power to move a head in the right direction"

This workshop targets both large and small growers, farmers' markets, home gardeners, and anyone who is interested in learning more about ways to produce, handle, and distribute fresh produce in a safe way.

A typical agenda for the workshop is as follows:

Content (around 1 1/2 hours)

1. Welcome, introduction, purpose
2. GAP/GHP overview
3. Risk analysis and water source
4. On Farm Food Safety Plans
5. Harvesting, packing, and distribution

Farm visit (around 1 1/2 hours)

- On site examples and answering of questions.

Some other topics that will be covered

- Schools as a market, record keeping, liability insurance, and traceability of product.



If you would like to see a workshop held in your area or if you have any questions or comments please contact us:

- Johanna Herron; Johanna.herron@alaska.gov, (907)374-3714
- Barb Hanson; Barbara.hanson@alaska.gov, (907)761-3854



Alaska School Garden Food Safety Guidelines

This document was created in response to the need for food safety guidance in the school garden setting. School gardens are increasingly popular and interest in using the food in the school setting has been discussed in many areas of the State. This document is intended for use in any school garden where produce is making its way into the schools or for any other interested gardeners. The concepts provided in this document are relevant to other gardening projects as well.



Developed and compiled by:
Alaska Department of Natural Resources, Division of Agriculture, Inspections Services
& Farm to School Program
with input from

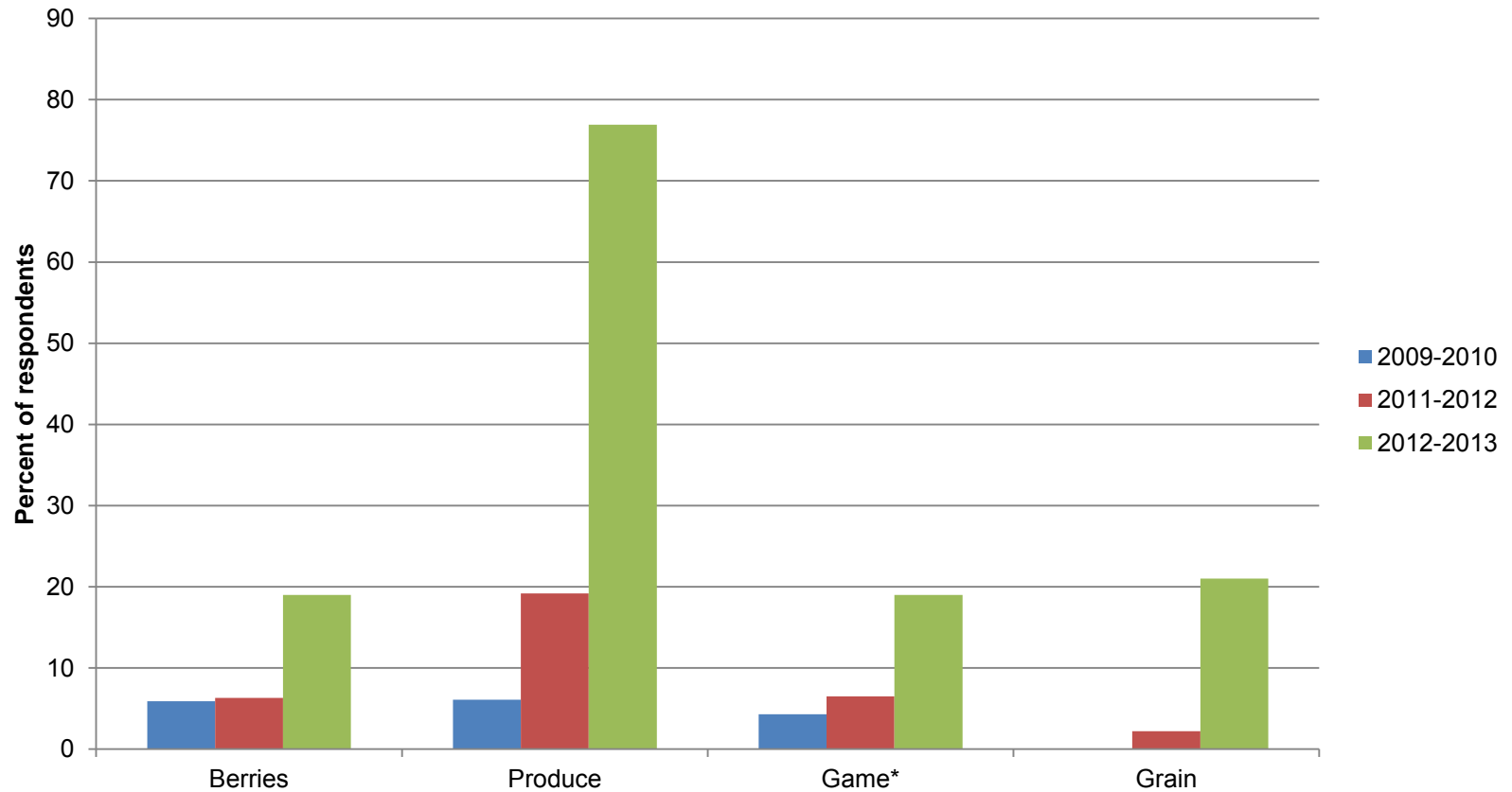
Department of Environmental Conservation
Cooperative Extension Services
Child Nutrition Services
Calypso Farm and Ecology Center
and
Fairbanks School Nutrition Services



August 2011

Cafeteria

Serving local foods in school districts



Educational Posters

Local Food Hero **Alaska GROWN**

Sandy enrolled in the Master Gardeners course through UAF Cooperative Extension Service 45 years ago and helped establish the Juneau Community Garden in the early 1990's.

Sandy is known as the Juneau-Douglas Tomato man. He grows tomatoes, peppers, cucumbers and squash in his home greenhouse which he sells in the spring. He donates the proceeds to the Master Gardeners.

Sandy plants, harvests and donates 800-1000 pounds of locally grown potatoes to the Juneau Food Bank and homeless shelter each year.

Sandy helps at the local schools by helping prepare their potato plots and also helps with direction and encouragement for the annual 7th-8th graders fall potato harvest campout at the community garden.

"Don't give up; you'll get there. And get yourself a good set of rain gear. We've had crops fail, and other grow better. It's like gambling, going to Las Vegas."
Sandy Williams

Add a picture of the producer here.

WHERE DOES YOUR FOOD COME FROM?

RUSS PINKELMAN

DELTA MEAT & SAUSAGE

DELTA JUNCTION

Alaska GROWN

Alaska LUNCH TRAY

Interior: beef, pork, chicken, lamb, berries, eggs, soybean, milk, wheat, barley, potatoes, carrots, onions, mushrooms, tomatoes, peaches, apples, berries, rice.

Southcentral: sheep, wild game, caribou, moose, reindeer, salmon, trout, halibut, cod, salmon, sea urchin, scallop, oysters, shellfish, berries, milk, cheese, butter, eggs, honey, maple, vanilla, coffee, tea, herbs, mushrooms, carrots, potatoes, onions, tomatoes, peaches, apples, berries, rice.

Southeast: potatoes, beef, chicken, eggs, carrots, onions, mushrooms, tomatoes, peaches, apples, berries, rice, wild game, caribou, moose, reindeer, salmon, trout, halibut, cod, salmon, sea urchin, scallop, oysters, shellfish, berries, milk, cheese, butter, eggs, honey, maple, vanilla, coffee, tea, herbs, mushrooms, carrots, potatoes, onions, tomatoes, peaches, apples, berries, rice.

Kenai Peninsula: salmon, trout, halibut, cod, salmon, sea urchin, scallop, oysters, shellfish, berries, milk, cheese, butter, eggs, honey, maple, vanilla, coffee, tea, herbs, mushrooms, carrots, potatoes, onions, tomatoes, peaches, apples, berries, rice.

Kodiak Island: beef, turkey, lamb, cod, halibut, salmon, sea urchin, scallop, oysters, shellfish, berries, milk, cheese, butter, eggs, honey, maple, vanilla, coffee, tea, herbs, mushrooms, carrots, potatoes, onions, tomatoes, peaches, apples, berries, rice.

Southwestern: potatoes, beef, chicken, eggs, carrots, onions, mushrooms, tomatoes, peaches, apples, berries, rice, wild game, caribou, moose, reindeer, salmon, trout, halibut, cod, salmon, sea urchin, scallop, oysters, shellfish, berries, milk, cheese, butter, eggs, honey, maple, vanilla, coffee, tea, herbs, mushrooms, carrots, potatoes, onions, tomatoes, peaches, apples, berries, rice.

Aleutian Chain: cod, halibut, salmon, sea urchin, scallop, oysters, shellfish, berries, milk, cheese, butter, eggs, honey, maple, vanilla, coffee, tea, herbs, mushrooms, carrots, potatoes, onions, tomatoes, peaches, apples, berries, rice.

Overview

Background

Cafeteria

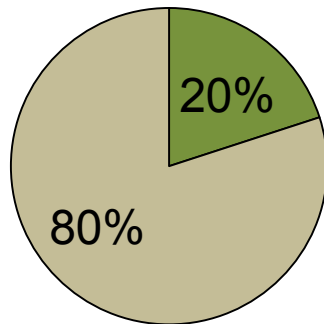
Classroom

Community (tomorrow)

School Gardens

Does your school have a garden or greenhouse it uses with students to teach agriculture education?

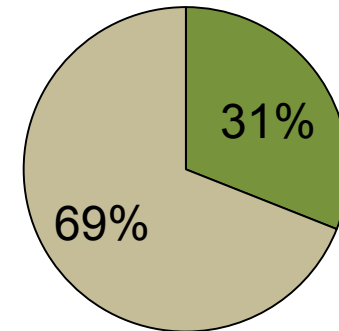
2012



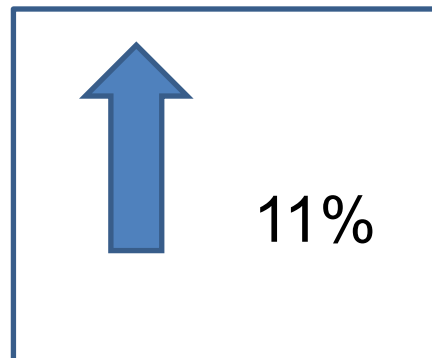
■ Yes ■ No



2014



■ Yes ■ No



Alaska Agriculture Day

Carrot Seed Tape Activity



Objective:

The objective of this activity is to teach how to make carrot seed tape for summer planting.

*A neat variation on this activity is to alternate the carrot seeds with radish seeds because they grow fast and break the soil for the carrots to break through. Ask the kids to hypothesize about why you would alternate with radish seeds!

Materials: (Estimated cost of materials per station is \$10.00)

Spray bottle (water)	Paper bags for storage
Toilet paper (double ply)	Pre-made label (provided by Farm to School Program)
Carrot seeds	Scotch tape or marker to write name on bag
Ruler	Pen to roll seed tape around



Lesson Topics: PK - 12

Depending on the age group the lesson can draw on a number of different topics:

- **Counting and measurement** – this can be as basic as 1-2-3 or as complex as the economics of utilizing seed tape. Simple activities can be about counting the number of seeds or a little more challenging and measuring the spacing of the seeds. For more complex economic activities there are a number of topics; seed tape saves money by making your own – premade seed tape is expensive, seed tape uses ALL seeds which increases the yield per seed ratio, and seed tape decreases crop maintenance (labor dollars) due to no need for ‘thinning’ of carrots.
- **Science or health** – you can discuss any number of things; nutrient balance in soil, carrot nutrition, carrot recipes, seed germination, plant growth, or plant life cycles.

Alaska Agriculture Day

Potato Planting Activity



Procedure

Discussion

Start with a class discussion about why you should use certified seed potato instead of table stock. The key point is to prevent spreading potato diseases that can be introduced from imported potatoes. Late Blight is a potato disease that is highly contagious. You can look information up about this at: <http://dnr.alaska.gov/ag/akpmc/potato-program/index.htm> Additionally you can show students pictures of what a disease looks like on the potato and on the leaves in a crop.



Activity

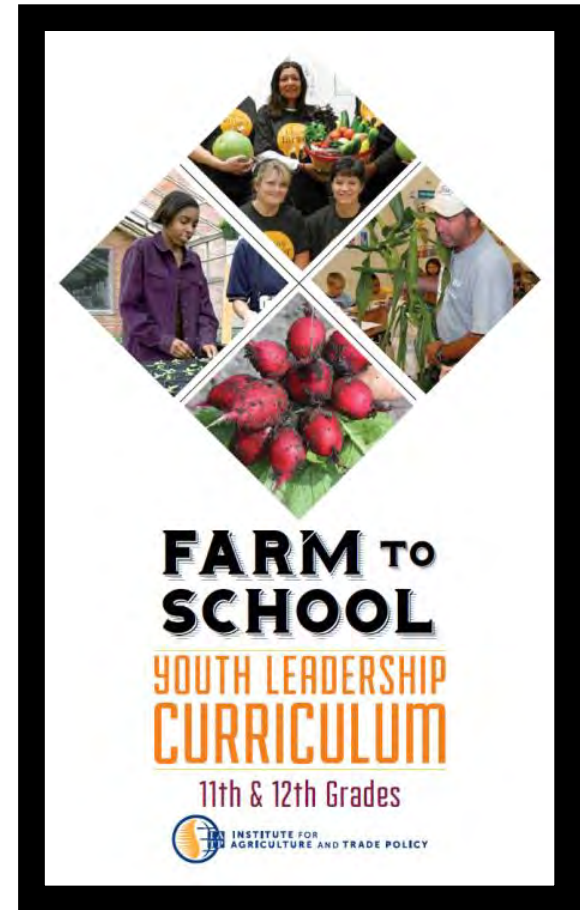
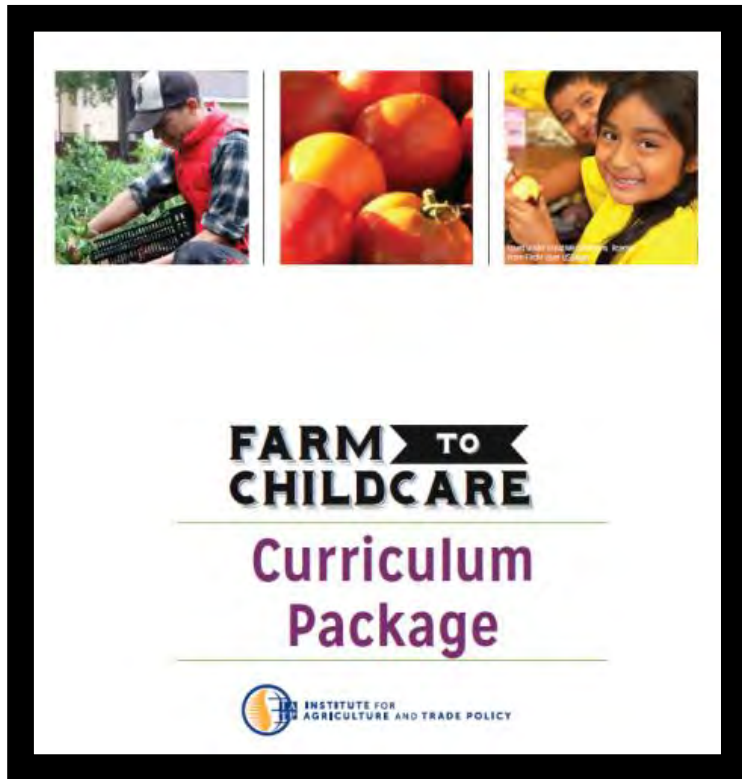
Station set up:

Each station should have 1-4 students each with a planting pot, certified seed potatoes, and soil. *If you choose to use a knife and cut the potatoes then have an adult at each station or move around from station to station to 'count the eyes' and cut accordingly. Draw an example of the final product on the board for them to follow the steps with.

1. Count and be sure each student has a piece of seed potato with 2-3 eyes.
2. Get a scoop or 'half' the pot amount of planting soil and fill the bottom of the pot.
3. Place the whole, or piece of, seed potato into the pot so it's resting on top of the soil.
4. Cover the seed with soil until the pot is almost full.
5. Have each student write their name on a piece of masking tape to put on their pot along with the product they planted and the date.

Seed potatoes look like any other potato, making sure they are certified is the key!

Curricula Resources



<http://www.iatp.org/documents/farm-to-childcare-curriculum-package>

<http://www.iatp.org/blog/201403/putting-farm-to-school-in-students%E2%80%99-hands>

Alaska Specific Curricula Resources

Futures OPEN: Agriculture in Alaska
By Avril Wiers
[View this Author's Spotlight](#)

Paperback, 82 Pages  This item has not been rated yet

Price: \$40.00
Ships in 3-5 business days.

Futures OPEN
Agriculture for Alaska
Avril Elspeth Wiers

Though designed for teaching agriculture in Alaska, many of the project-based lessons in this curriculum can be adapted for school garden programs throughout the United States. Topics include Agri-Science Today; Natural Resources; Animal, Plant, and Food Science; and Cell Structure and Function. This curriculum for grades 7-12 is complete with activities, worksheets, and extensions.



<http://www.lulu.com/spotlight/avrilcultural>

FAIRBANKS SOIL & WATER CONSERVATION DISTRICT
Promoting sustainable development and the wise use of natural resources

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Agriculture in the Classroom



Agriculture in Alaska is amazing and quite different from agriculture in many other places. Yes, Alaska has some extreme temperatures, but because it also gets more hours of daylight in the summer, some crops actually **grow better** in Alaska.

FSWCD is the coordinator for the Alaska Ag in the Classroom program (AK AITC). Alaska Ag in the Classroom is a statewide program. Alaska Ag in the Classroom is a 501c3 educational program begun by the Alaska Farm Bureau to help Alaska's students understand that farms are the source of their food and flowers, as well as fabrics and fuels.

What Is Ag in the Classroom

The mission of Agriculture in the Classroom is to "increase agricultural literacy through K-12 education." An agriculturally literate person is defined as "one who understands and can communicate the source and value of agriculture as it affects quality of life." Agriculture in the Classroom (AITC) programs seek to improve student achievement by applying authentic, agricultural-based content as the context to teach core curriculum concepts in science, social studies, language arts and nutrition. By encouraging teachers to embed agriculture into their classroom, AITC cultivates an understanding and appreciation of the food and fiber system that we all rely on every day. - From the National Ag in the Classroom website

Celebrate Alaska Agriculture Day

Alaska Agriculture Day is the first Tuesday of May each year. On this date, learn more about the farms around you and the state. Celebrate with Alaska Grown foods and support your local growers. Click [HERE](#) for an Alaska Agricultural lesson plan you can use.

Resources Available

FSWCD has a large assortment of Ag in the Classroom resources. Click to see the lists of **BOOKS** and other teaching **RESOURCES** available for loan.



Education

- Educators Page
- AG in the Classroom
 - Alaska Ag in the Classroom Lessons
- Project Learning Tree
- Project WET
- Schoolyard Habitats
- After School Programs



Pig Sculpture

<http://www.fairbankssoilwater.org/education-agriculture-classroom.htm>

Resources

USDA Farm to School – National Farm to School Network - Universities

1. <http://www.fns.usda.gov/tn/grow-it-try-it-it> - USDA Team Nutrition Resources
2. <http://www.fns.usda.gov/farmentoschool/farm-school> - USDA Farm to School Home Page
3. <http://www.farmentoschool.org/> - National Farm to School Network Resource Page
4. http://nutrition.nv.gov/uploadedFiles/nutrition.nv.gov/Content/Programs/Farm_to_School/NVF2S%20%20Curricular%20Resources.pdf – Farm to School Curriculum Resources List
5. <http://www.vtfeed.org/tools> - Vermont FEED Resource Page
6. [Alaska Farm to School Website:
http://dnr.alaska.gov/ag/ag_FTS.htm](http://dnr.alaska.gov/ag/ag_FTS.htm)
-sign up for the AK FTS listserv, find lessons, read FTS grant reports for project ideas, and more....

Vision

**Culture change and
noticeable impact!**



Contact information



Listserv

- <http://list.state.ak.us/soalists/akfarmtoschool/jl.htm>
- Hear about upcoming events, news, resources, contests and grant opportunities

Program Coordinator

- Johanna Herron, johanna.herron@alaska.gov, 907-761-3870

How much did this conference cost?



\$25,000



*Wild, Natural & Sustainable**

\$5,000



\$1,000



\$5,000



\$500

Total ~ \$50,000*

*This includes the \$15,000 we used on travel scholarships and \$5,000 on resources.

