

Subsistence Salmon Fisheries in Alaska: Recent Patterns and Trends



K'iytin: salmon backbones

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Long-term Challenges to
Alaska's Salmon and Salmon-
Dependent Communities
Workshop

Anchorage, Alaska
November 1, 2016

Subsistence Salmon Fisheries: Supporting Cultural Traditions



Nikolai, upper Kuskokwim River



Fish camp, Yukon River near Eagle

Salmon: Bonding Families and Generations



Subsistence Salmon: Skills, Artistry, and Traditional Knowledge

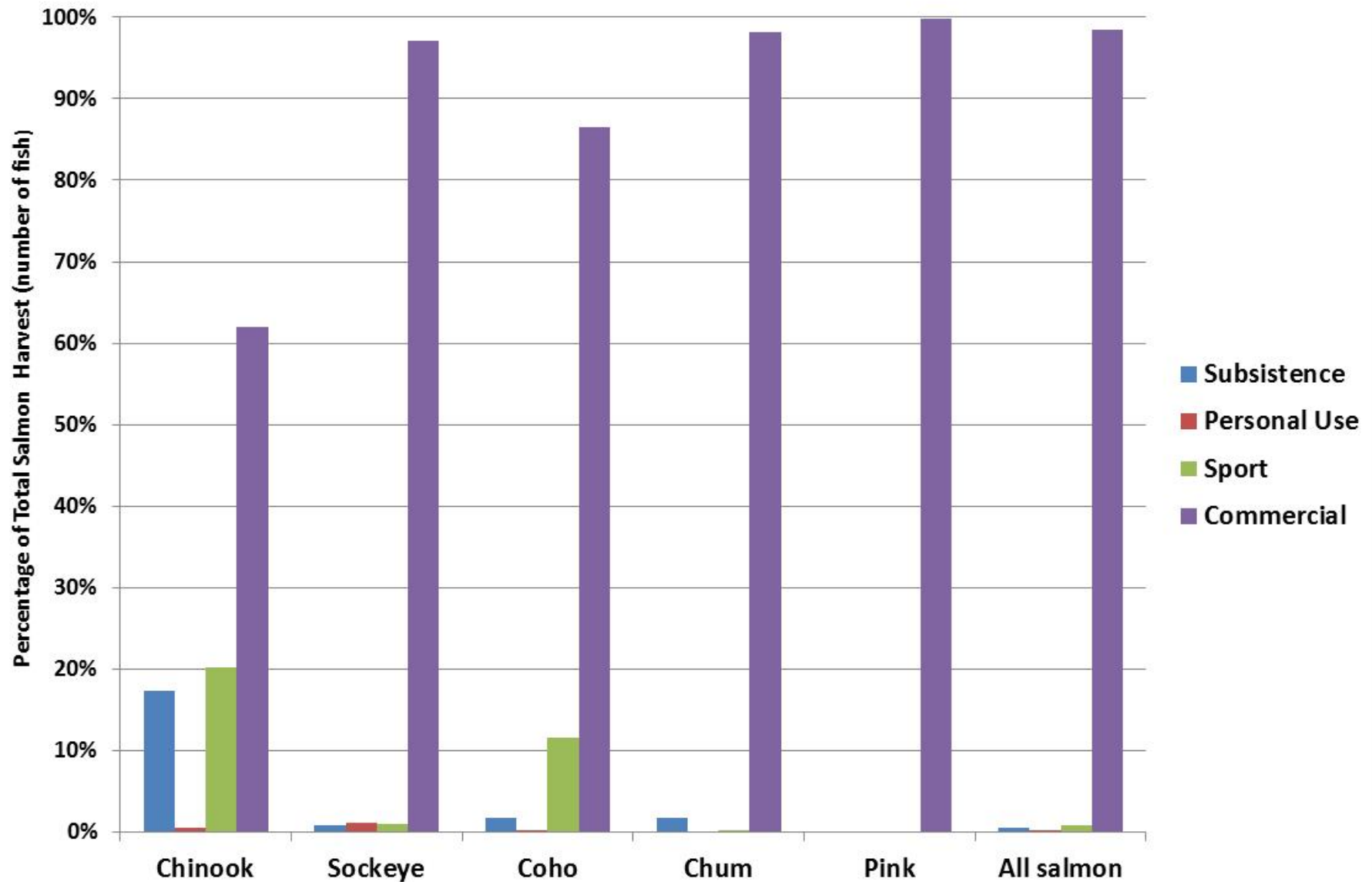


Salmon:

A Large Portion of Alaska's Food Supply

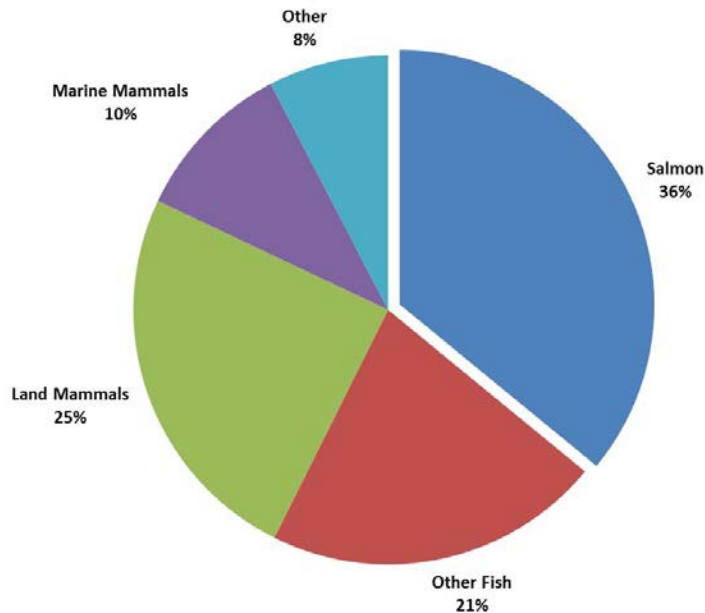


Percentage of Annual Alaska Salmon Harvest by Harvest Category, Annual Average 1994 - 2014 (N= 177 million salmon/year)

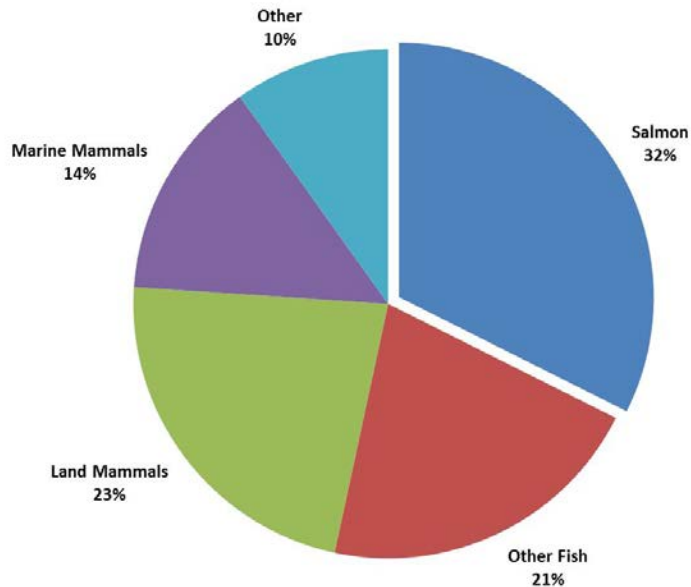


Salmon's Contribution:
96 lbs per person/year &
61% of protein
requirements in rural
Alaska; 25 lb person/year
and 16% in Alaska overall

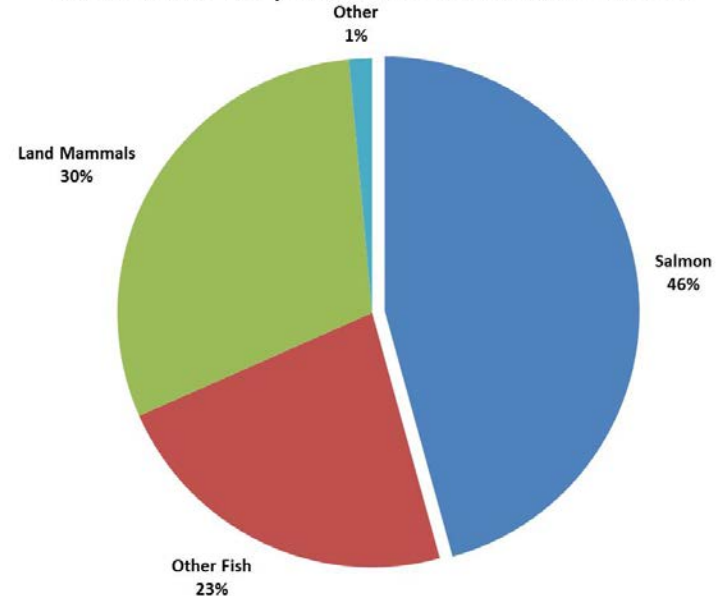
Alaska, All Areas: Composition of Non-Commercial Harvests



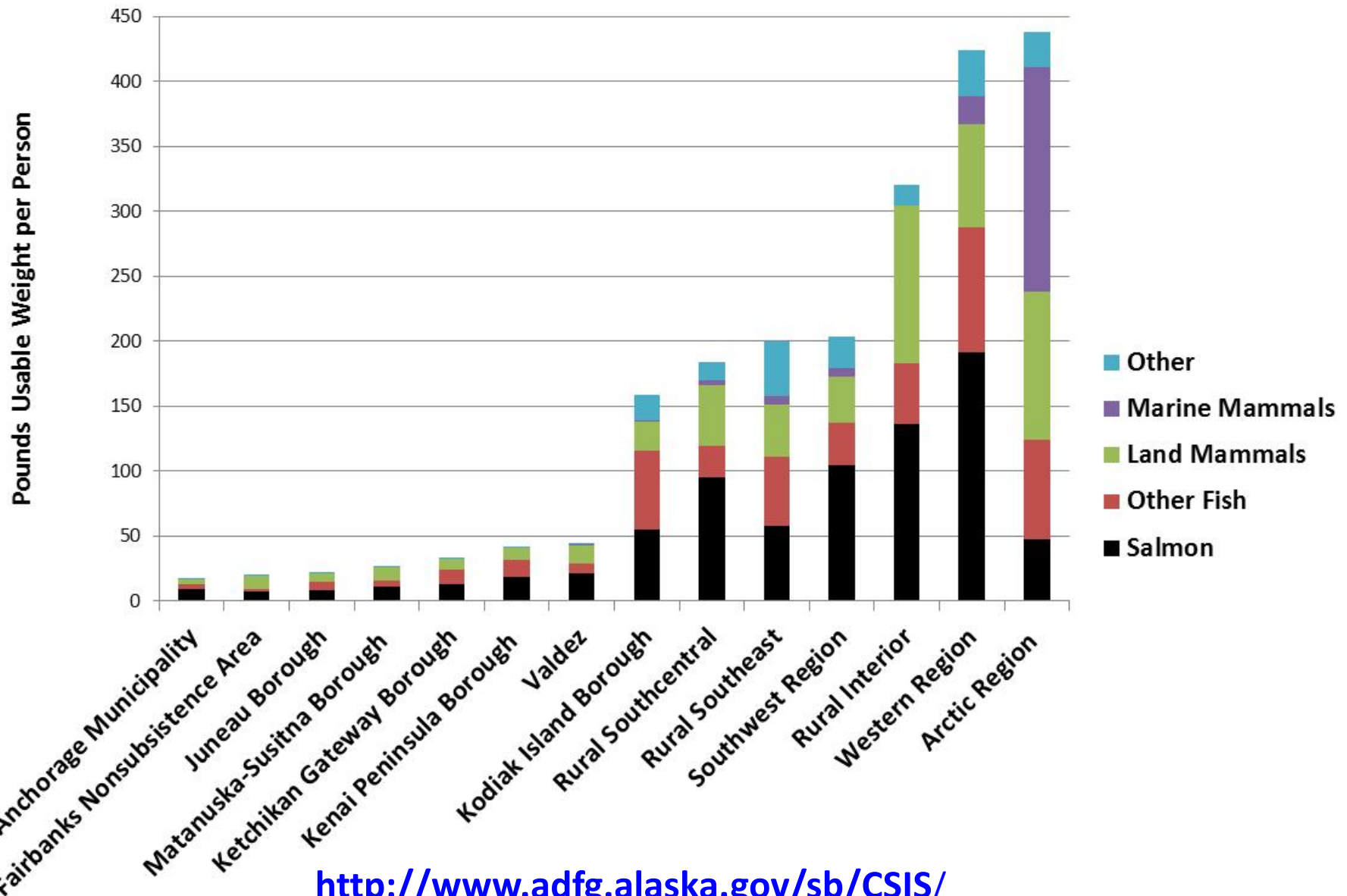
Rural Alaska: Composition of Non-Commercial Harvests



Urban Alaska: Composition of Non-Commercial Harvests



Fish and Wildlife Harvests by Resource Category



<http://www.adfg.alaska.gov/sb/CSIS/>

Salmon Harvest Assessment Methods



- Permits
- Post-season household surveys
- Harvest calendars

June 2012

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

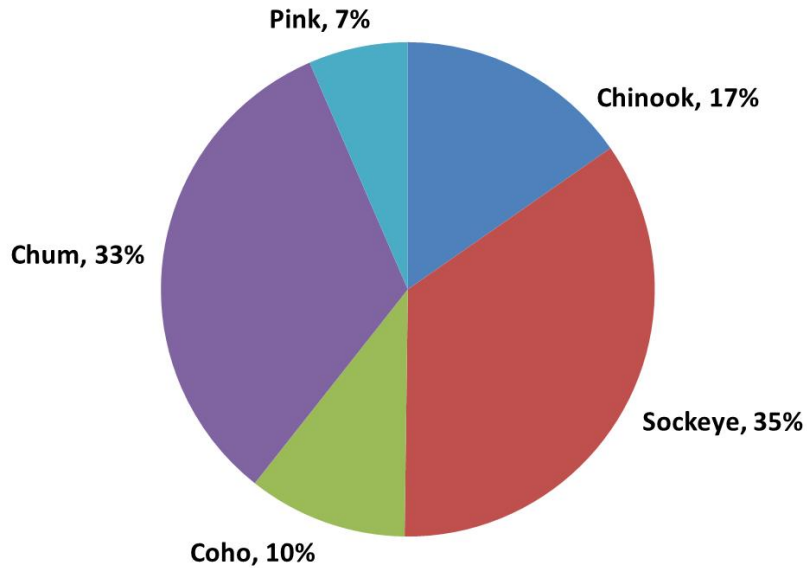
FRIDAY

SATURDAY

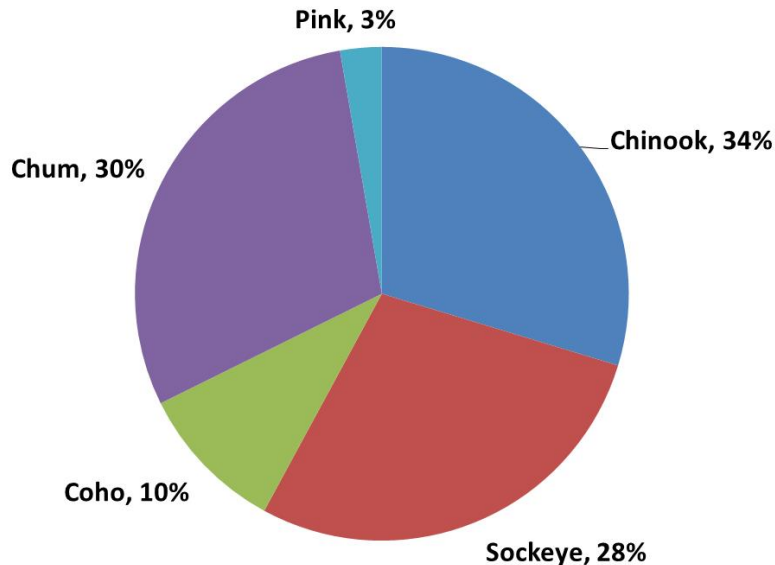
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17		18		19		20		21		22		23	
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24		25		26		27		28		29		30	
King _____	King _____	King _____	King _____	King _____	King _____	King _____	King _____	King _____	King _____	King _____	King _____	King _____	King _____
Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____	Chum _____
Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____	Sockeye _____
Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____	Coho _____

Tools of the trade

**In number of salmon
(annual average about 940,000 fish)**

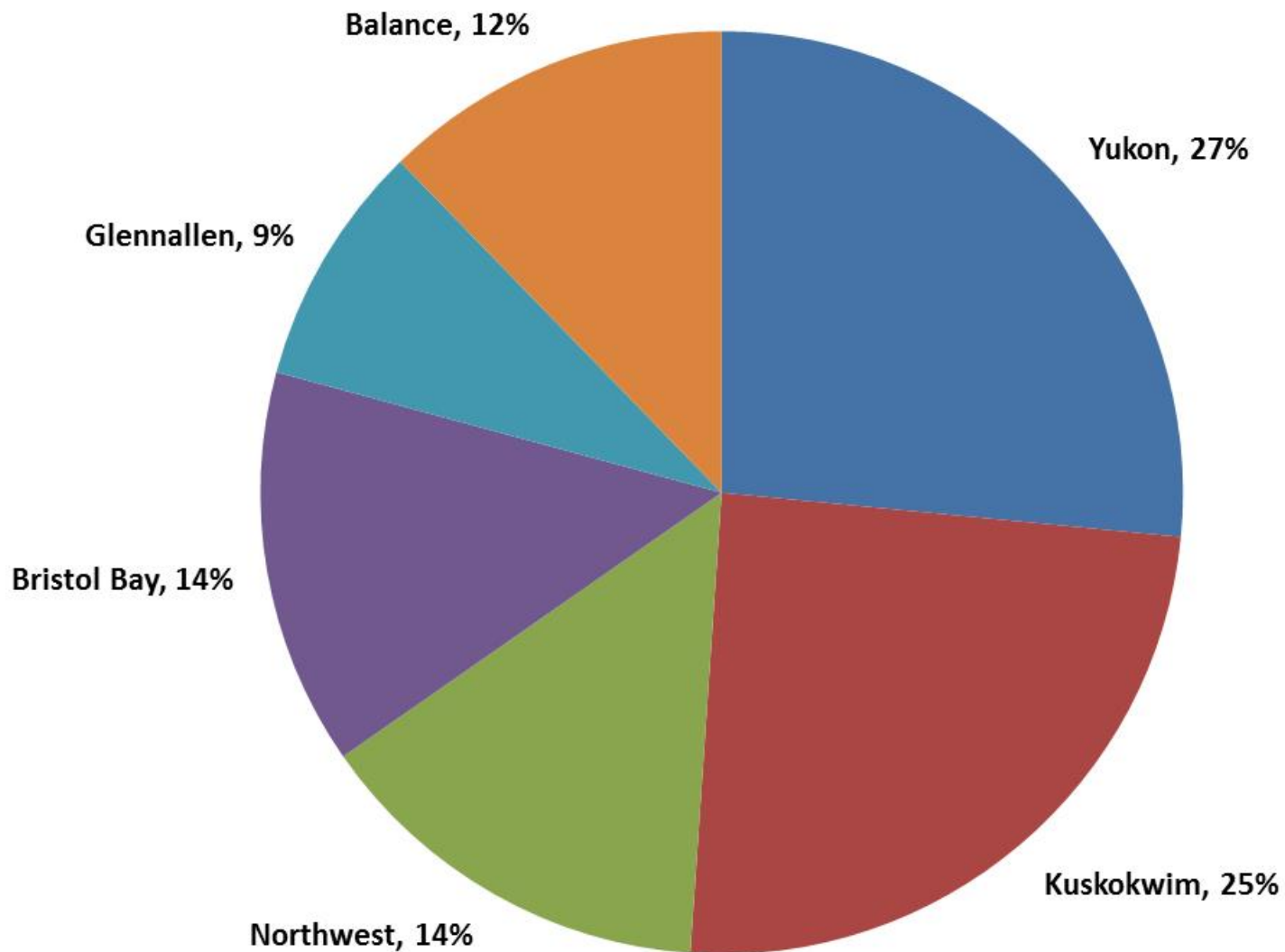


**In usable pounds of salmon
(annual average about 5.1 million pounds)**

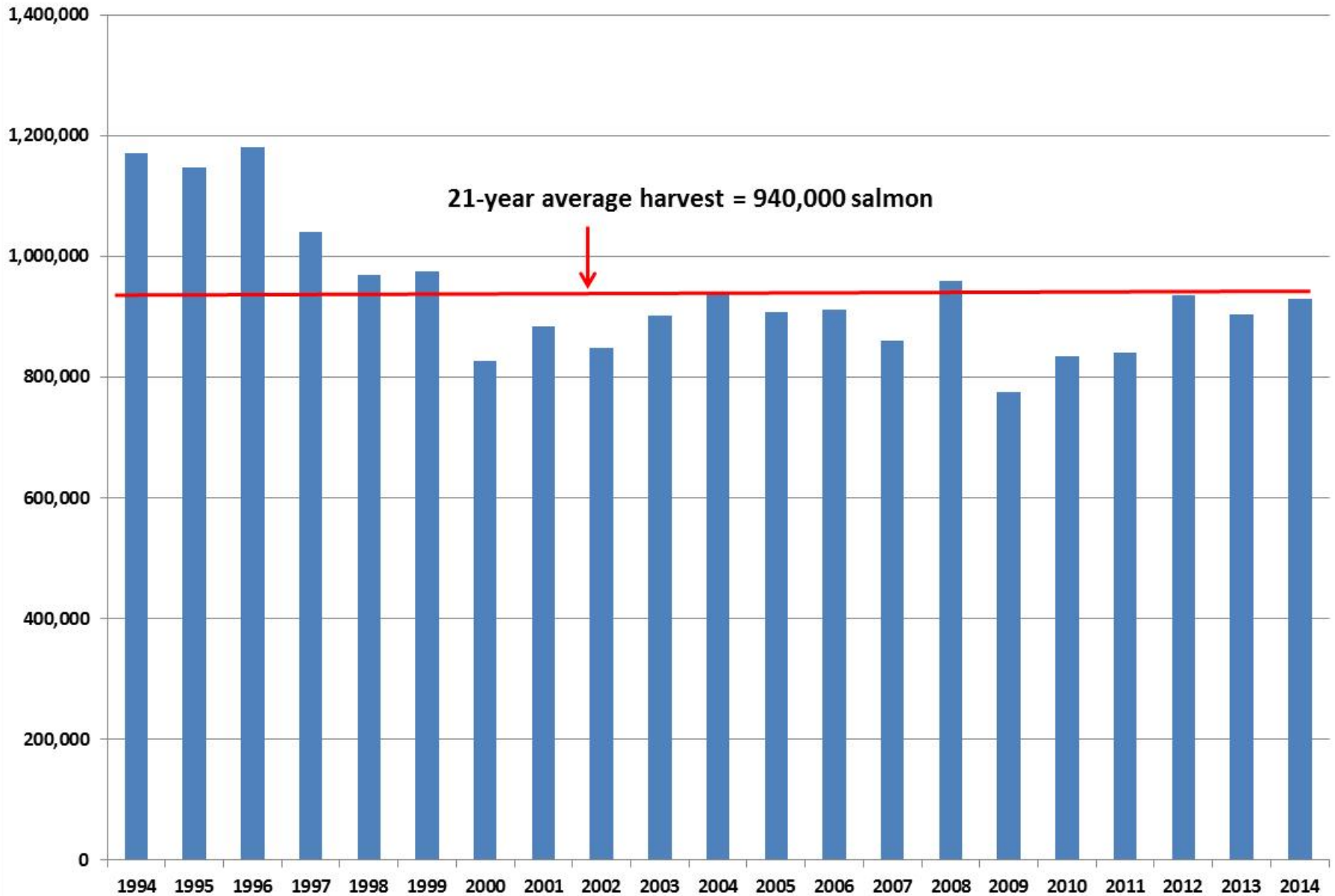


Alaska Subsistence Salmon Harvests, Composition by Species, Annual Average, 1994 - 2014

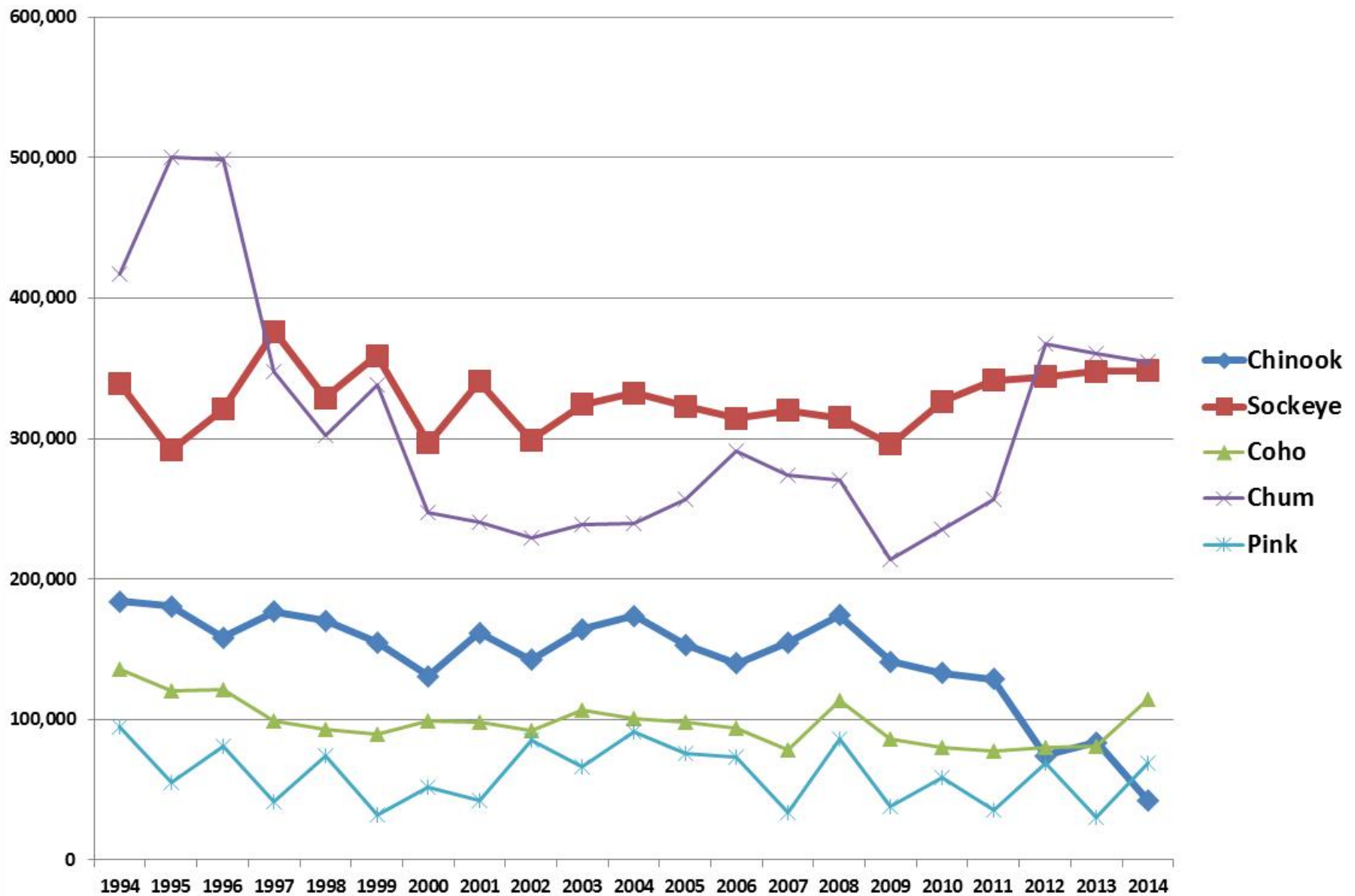
Percentage of Annual Subsistence Salmon Harvest by Area, 1994-2014



Subsistence Salmon Harvests in Number of Fish, 1994 - 2014



Subsistence Salmon Harvests by Species, 1994 - 2014



Yukon River and Kuskokwim River Chinook Salmon

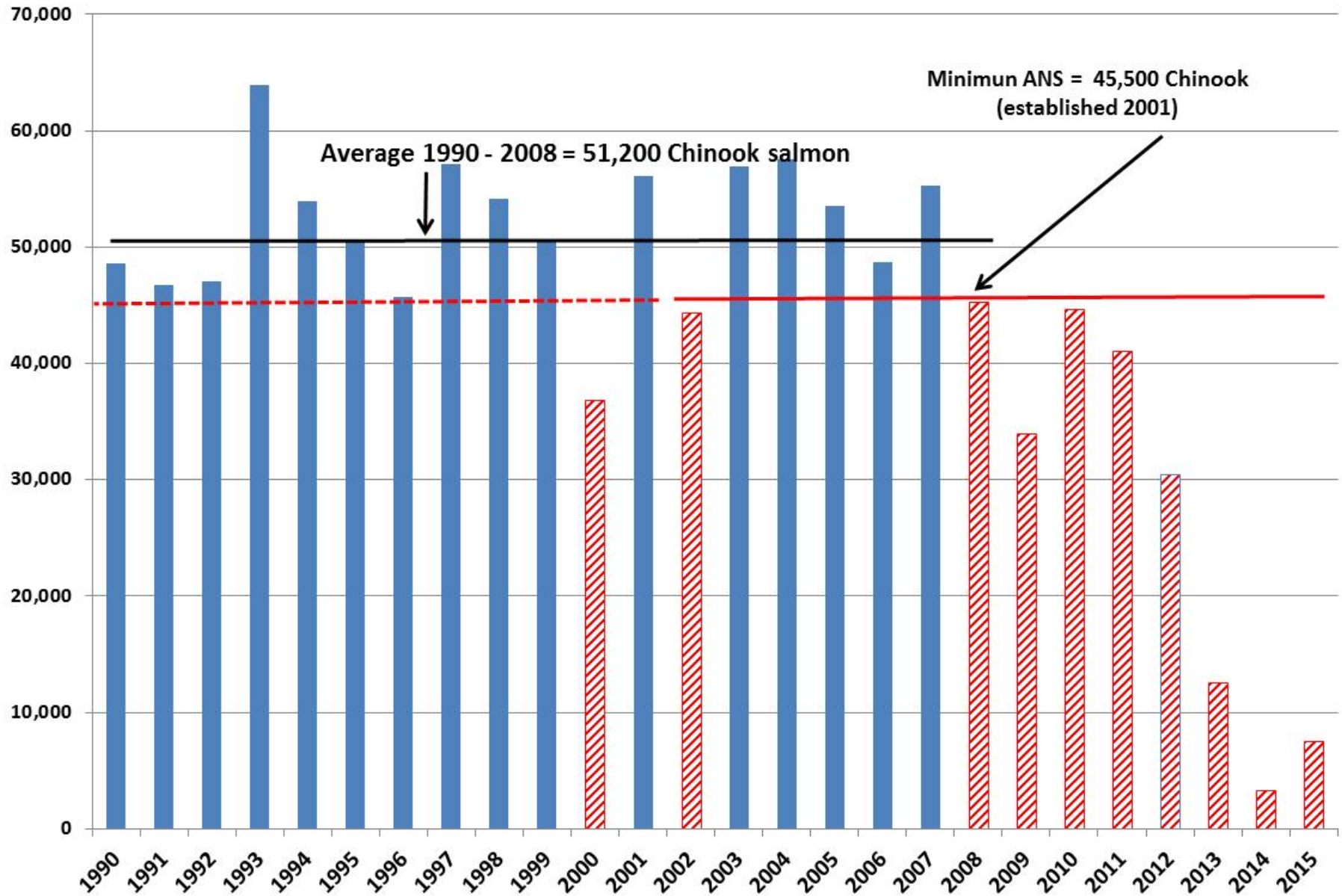


Drifting for Yukon kings,
Kaltag

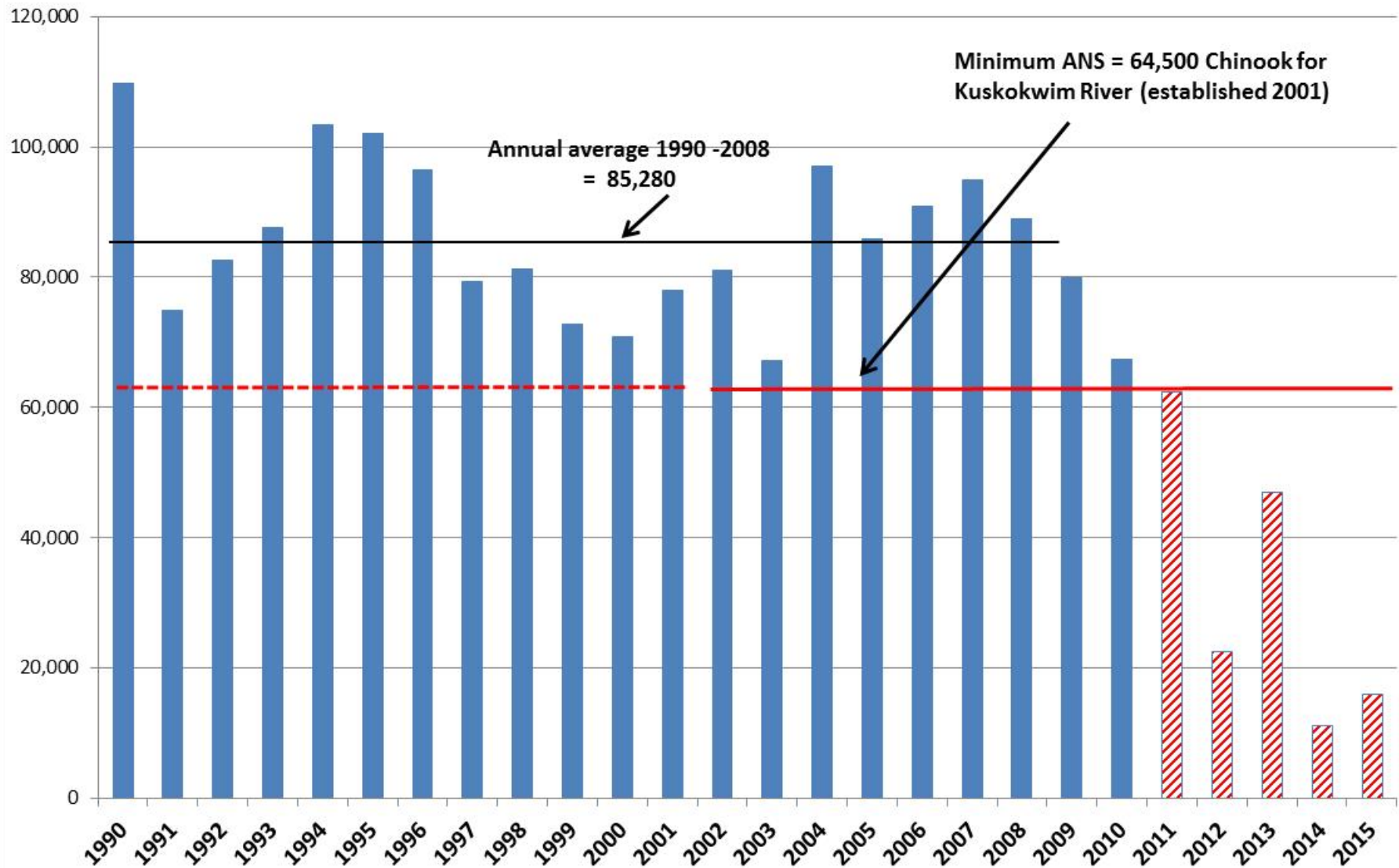


Chinook salmon harvest,
Kuskokwim River

Yukon River Subsistence Chinook Harvests, 1990 - 2015



Kuskokwim River Chinook Salmon Subsistence Harvests 1990 - 2015



Data Gaps and Needs



- In-season assessments by fishers
- Post-season assessments by fishers
- Timing and effort data
- Patterns and trends analysis
- TEK and LTK studies

Harvest Assessment: Best Practices



- Joint ADF&G/AITC project: 2000 - 2003
- Working group
- 10 regional workshops
- Guiding principles and recommendations
- Final reports available

Salmon harvest assessment workshop,
Kotzebue, November 2002

TEK: Traditional Ecological Knowledge; LTK: Local and Traditional Knowledge



- Time depth
- Local focus
- Habitat
- Timing
- Abundance
- Condition
- Also: promotes collaboration



Some Conclusions About Alaska's Subsistence Salmon Fisheries



- Salmon are a **critical food** throughout Alaska
- Salmon **sustain** people, communities, and cultures
- Five fisheries – **Yukon, Kuskokwim, Northwest, Bristol Bay, and Copper River** – **account for 88%** of annual subsistence harvests
- Overall, subsistence salmon harvests have been **relatively stable** since mid 1990s
- But, **subsistence harvests are down since 2008** in some key Chinook fisheries
- **Gaps exist** in annual assessments of subsistence fisheries and in documentation of TEK/LTK
- There are opportunities to work together!



Thank You!

