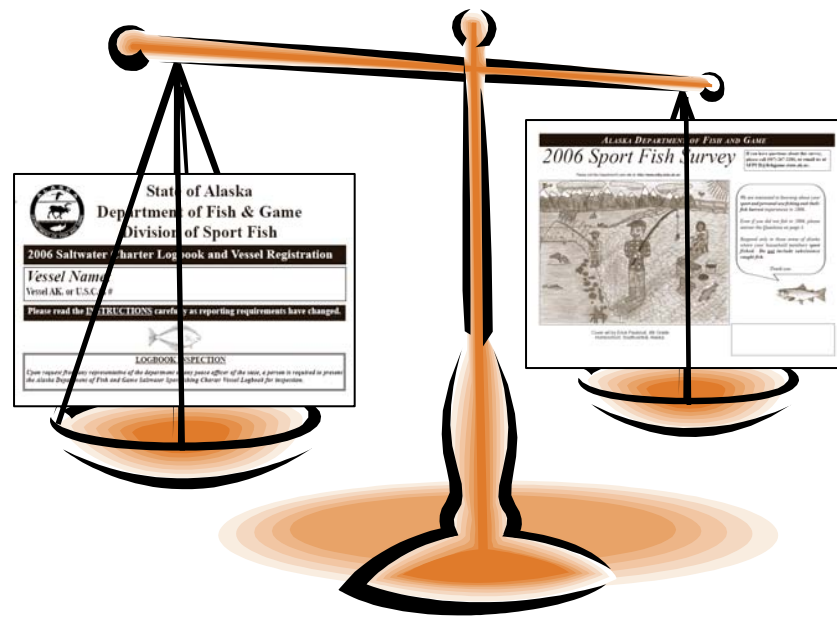


Evaluation of the 2006 Charter Logbook



Alaska Department of Fish and Game
Division of Sport Fish



Measures to Improve Logbook - 2006

1. License number and catch by angler,
2. Weekly submission,
3. Increased outreach
 - a) Courtesy logbook inspections
 - b) Phone calls
4. Onsite counting to verify harvest (verification),
5. End-of-season survey of charter clients.

Objectives

1. Assess overall data quantity and quality.

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2. Compare participation and harvest to end-of-season survey (by angler).

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4. Compare to creel survey interview data (by boat-trip).

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1. Assess overall data quantity and quality.
2. Compare participation and harvest to end-of-season survey (by angler).
3. Compare to SWHS estimates (by area).
4. Compare to creel survey interview data (by boat-trip).
5. Compare to creel survey estimates (Ketchikan, Juneau, Sitka).



COMPLETE THIS SECTION FOR EVERY TRIP

INSTRUCTIONS: Complete one row below for each client and crew who fished on this trip.

BUSINESS AND VESSEL INFORMATION															
<input type="checkbox"/> 2006 ADF&G BUSINESS OWNER LICENSE #: <u>1234</u> <small>(License # assigned to you by ADF&G).</small>															
<input type="checkbox"/> 2006 ADF&G GUIDE LICENSE #: <u>1234</u> <small>(If same as Business Owner license #, write down same #).</small>															
<input type="checkbox"/> VESSEL AK. OR U.S.C.G.#: <u>AK 4321</u>															
TRIP INFORMATION															
<input type="checkbox"/> DATE OF OFF-LOADING: MO: _____ DAY: _____, 2006. <small>(Date that fish or clients were off-loaded from vessel).</small>															
<input type="checkbox"/> PORT OR SITE OF OFF-LOADING: _____ <small>(Port or Site where fish or clients were off-loaded from vessel).</small>															
<input type="checkbox"/> TOTAL NO. CLIENTS ON THE VESSEL: _____ <small>(Include those that did not fish).</small>															
<input type="checkbox"/> PRIMARY STAT AREA, NO. OF RODS FISHED & BOAT HOURS: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Targeted Species</th> <th>Primary Stat. Area where most fish were caught. (6-digit Code)</th> <th>Max. no. of Rods Fished</th> <th>No. of Boat Hours Fished this Trip</th> </tr> </thead> <tbody> <tr> <td>Salmon</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Bottomfish</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Targeted Species	Primary Stat. Area where most fish were caught. (6-digit Code)	Max. no. of Rods Fished	No. of Boat Hours Fished this Trip	Salmon				Bottomfish			
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Bottomfish															
<input type="checkbox"/> DAY NO. _____ OF _____ . (NO. OF CALENDAR DAYS FOR A MULTI-DAY TRIP).															
<input type="checkbox"/> PAGE NO. _____ OF _____ . (TOTAL NO. OF PAGES FOR THIS TRIP).															
RETURN LOGBOOK REPORTS WEEKLY															
<input type="checkbox"/> LOGBOOK TRIP REPORTS MUST BE COMPLETED AFTER EACH TRIP BEFORE OFF-LOADING ANY CLIENTS OR FISH. (SEE PG. ## FOR NO DOCKING FACILITIES)															
<input type="checkbox"/> RETURN COMPLETED TRIP SHEETS PER THE WEEKLY SCHEDULE PRINTED ON THE INSIDE OF THE FRONT COVER .															
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INDIVIDUAL ANGLER AND CATCH INFORMATION																						
Sport Fishing License Number of each Client and Crew Fishing OR Record those anglers under 16 as "Youth Angler" (#1, #2 etc.)	Circle next to each license if Resident, Nonresident or Crew	Number of King Salmon				Number of Other Salmon				Number of Halibut		Number of Lingcod		Number of Pelagic Rockfish (Mack bass, etc.)		Number of Yelloweye Rockfish		Number of Nonpelagic Rockfish (not including Yelloweye)		Number of Salmon Shark		All Other Fish (optional)
		25" and Larger		"Shakers" Less Than 28"		Coho	Sockeye	Pink	Chum	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept
		Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept
		Salmon										Bottomfish										
		R	N	C																		
		R	N	C																		
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CERTIFICATION: I certify that the information contained in this document is true and correct to the best of my knowledge. [Signature] SIGNATURE

CONTINUE ON NEXT PAGE IF MORE ANGLERS OR TRIPS.



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⇒ 2006 ADF&G BUSINESS OWNER LICENSE #:	<u>1234</u> <small>(License # assigned to you by ADF&G).</small>
⇒ 2006 ADF&G GUIDE LICENSE #:	<u>1234</u> <small>(If you are a Business Owner license #, write down same #).</small>
⇒ VESSEL A.K.A. OR U.S.C.G.#:	<u>AK 4321</u>

TRIP INFORMATION			
⇒ DATE OF OFF-LOADING: MO:	<u>7</u>	DAY:	<u>21</u> , 20 <u>06</u> .
<small>(Date that fish or clients were offloaded from vessel).</small>			
⇒ PORT OR SITE OF OFF-LOADING:	<u>Homer</u>		
<small>(Port or Site where fish or clients were off-loaded from vessel).</small>			
⇒ TOTAL NO. CLIENTS ON THE VESSEL:	<u>6</u>		
<small>(Include those that did not fish).</small>			
⇒ PRIMARY STAT AREA, NO. OF RODS FISHED & BOAT HOURS:			
Targeted Species	Primary Stat. Area where most fish were caught. (6-digit Code)	Max. no. of Rods Fished	No. of Boat Hours Fished this Trip
Salmon			
Bottomfish	<u>525902</u>	<u>6</u>	<u>4</u>
⇒ DAY NO. <u>1</u> OF <u>1</u>	<small>(NO. OF CALENDAR DAYS FOR A MULTI-DAY TRIP)</small>		
⇒ PAGE NO. <u>1</u> OF <u>1</u>	<small>(TOTAL NO. OF PAGES FOR THIS TRIP)</small>		

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		Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept	Released	Kept
		Salmon												Bottomfish												
		R	N	C																						
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(License # assigned to you by ADF&G).

⇒ 2006 ADF&G GUIDE LICENSE #: 1234
(If same as Business Owner license #, write down same #).

⇒ VESSEL AK. OR U.S.C.G.#: AK 4321

TRIP INFORMATION

⇒ DATE OF OFF-LOADING: MO: 7 DAY: 21, 2006
(Date that fish or clients were offloaded from vessel).

⇒ PORT OR SITE OF OFF-LOADING: Homer
(Port or Site where fish or clients were off-loaded from vessel).

⇒ TOTAL NO. CLIENTS ON THE VESSEL: 6
(Include those that did not fish).

⇒ PRIMARY STAT AREA, NO. OF RODS FISHED & BOAT HOURS:

Targeted Species	Primary Stat. Area where most fish were caught. (6-digit Code)	Max. no. of Rods Fished	No. of Boat Hours Fished this Trip
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		Kept	Released	Kept	Released															
Salmon		Bottomfish																		
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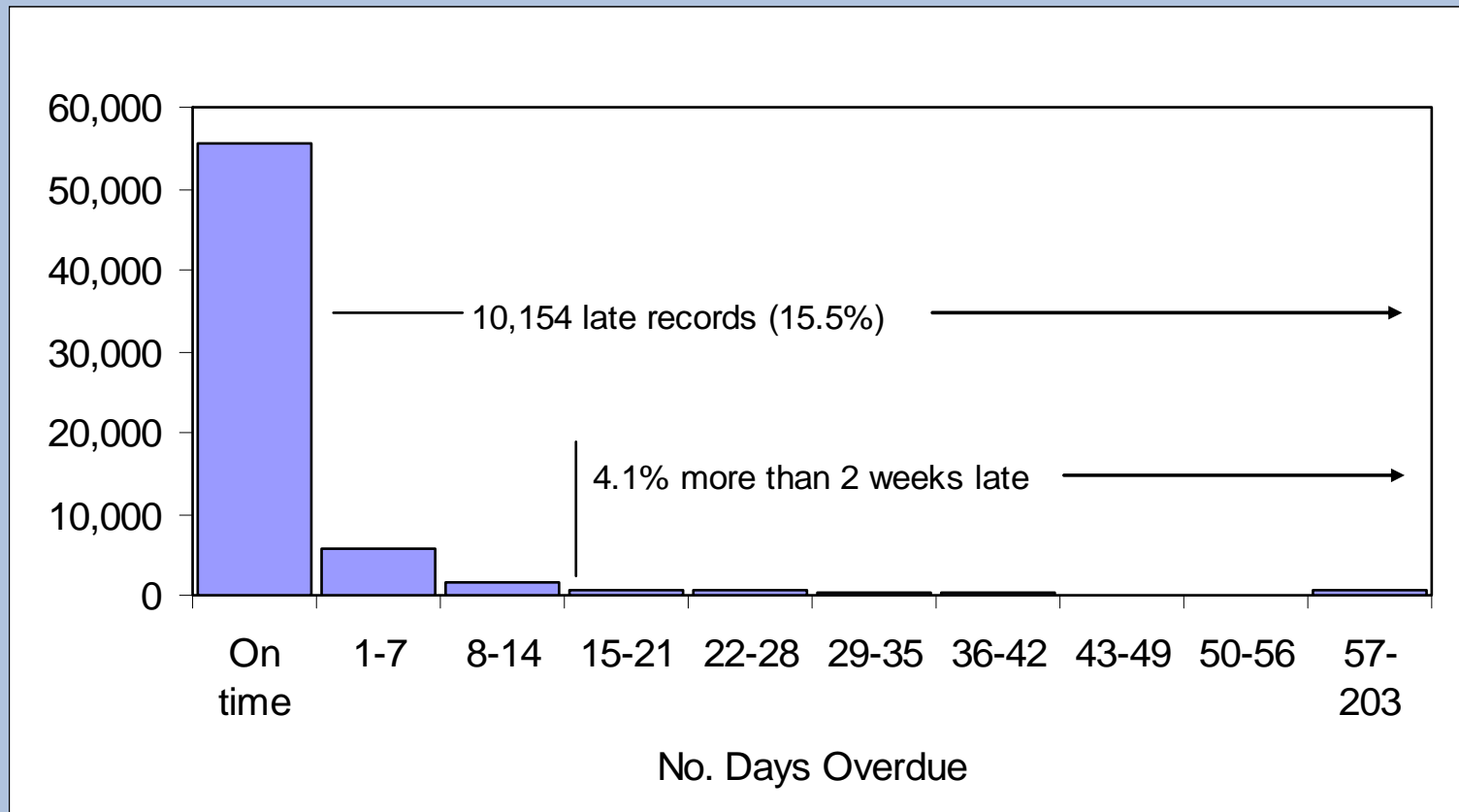
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Form 11-540 (01-2006)

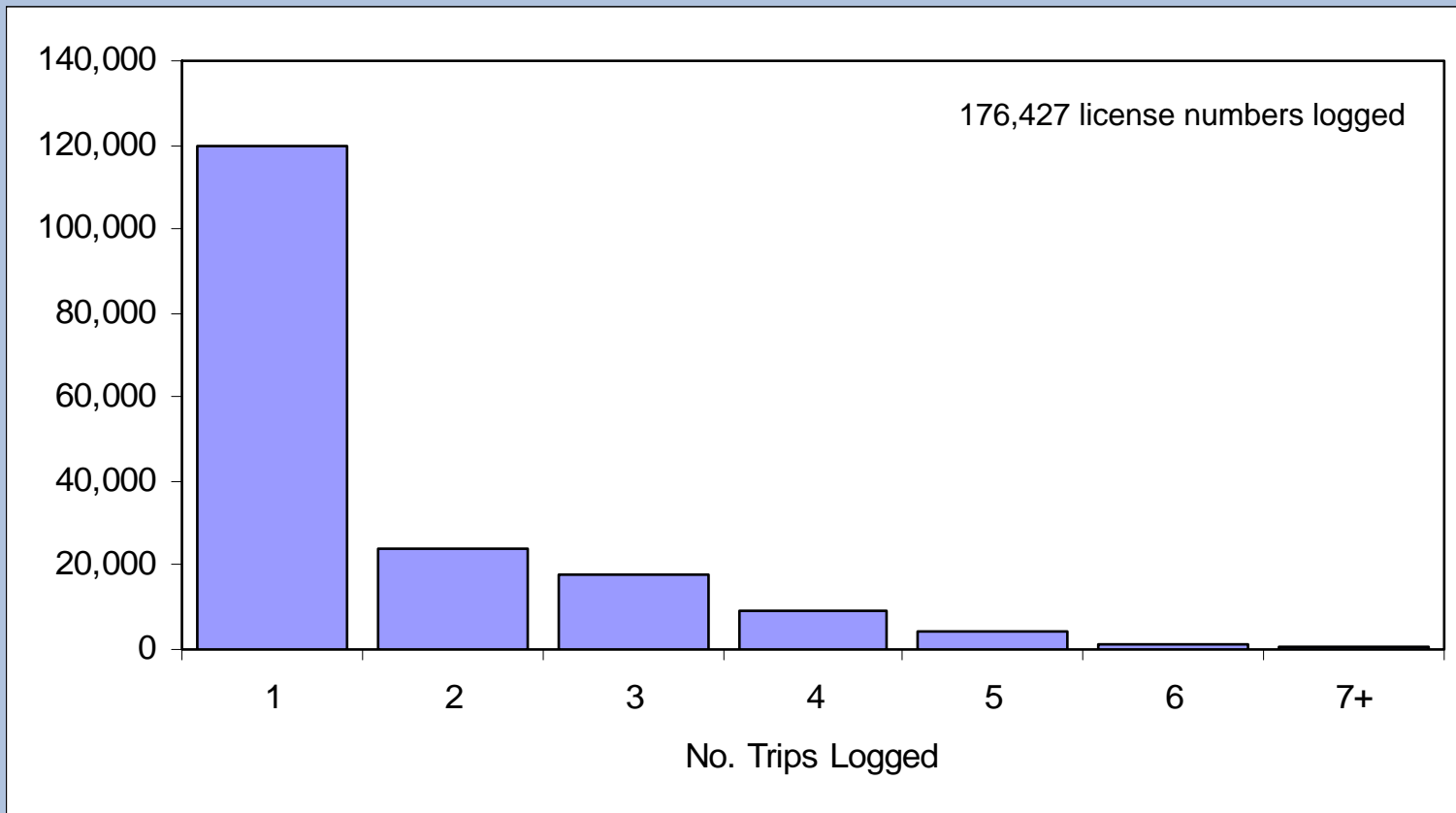
Objective 1 - Logbook Errors

Error	Error Rate 2006		1998-04
	2C	3A	3A
Angler type missing	1.3%	0.6%	--
Number of clients not reported	0.0%	0.0%	17.5%
Port of landing invalid or missing	0.06%	0.0%	4.5%
Hours of fishing effort missing	1.1%	1.5%	6.8%
Number of rods missing	0.3%	0.9%	3.6%
Bottomfish effort, no stat area	0.03%	0.02%	2.9%

Logbooks submitted late



Frequency of License Numbers



Objective 2 - End-of-Season Client Survey



2006 License #: **6454791**

2006 SALTWATER CHARTERED SPORT FISHING SURVEY

ALASKA DEPT. OF FISH AND GAME, SPORT FISH DIVISION, 333 RASPERRY RD. ANCHORAGE, ALASKA 99518

Did you hire a sport fish charter service to conduct saltwater sport fishing in Alaska between June 1, 2006 and July 31, 2006? YES NO

Did you go on more than one charter trip during this time period? YES NO

Date of last trip within this period: _____
Date

Name of company you chartered with OR the name of the vessel you fished on:

_____ OR _____
Charter Company Name Vessel Name

PLEASE WRITE IN THE NUMBER OF FISH KEPT AND THE NUMBER RELEASED FOR THE ABOVE DATE FISHED. RECORD ONLY THOSE FISH YOU PERSONALLY KEPT AND RELEASED.*

HALIBUT		KING SALMON		ROCKFISH		OTHER FISH	
KEPT	RELEASED	KEPT	RELEASED	KEPT	RELEASED	KEPT	RELEASED

(Please return by February 7, 2007)

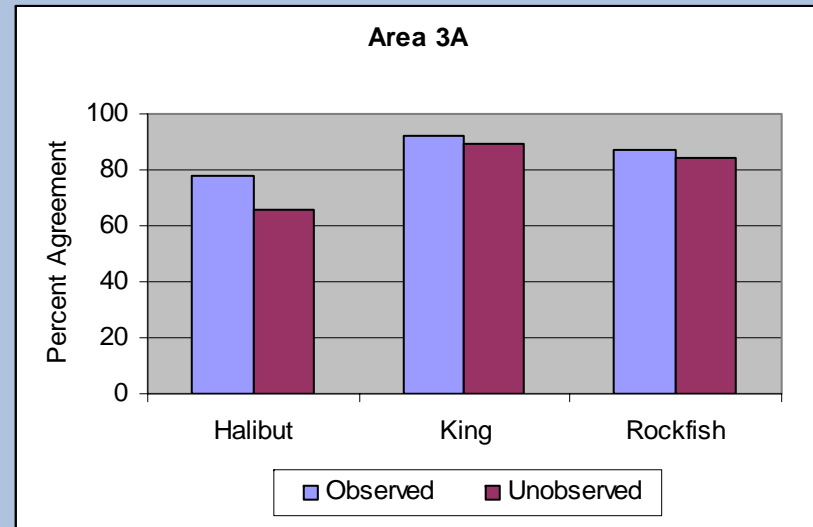
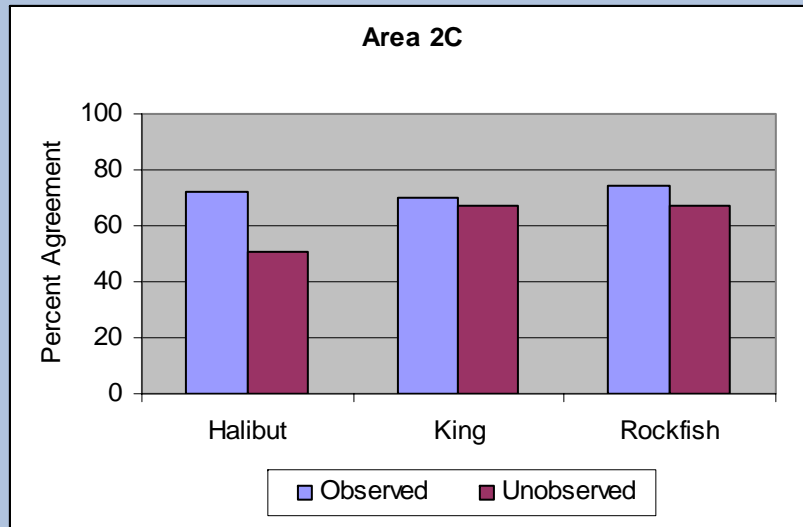
End-of-Season Survey Results

- Random sample of 16,000 clients.
(12,164 “observed,” 3,836 “unobserved”)
- 6,512 useable questionnaires returned.
- 443 (6.8%) did not fish on a charter boat.

Observed	326 (6.5%)
Unobserved	117 (7.9%)

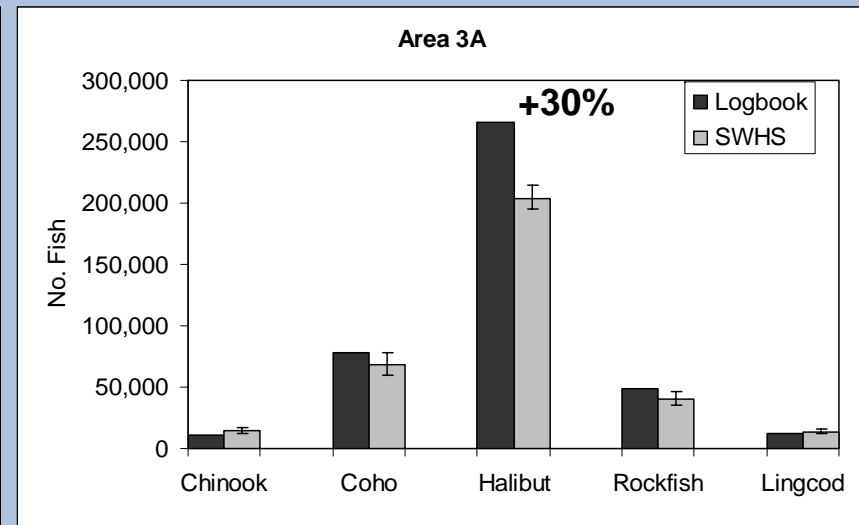
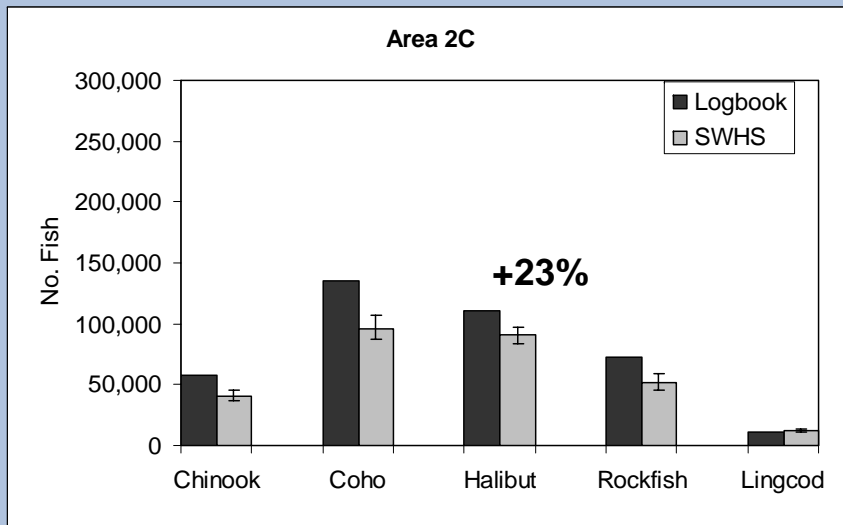
End-of-Season Survey Results

- Client-logbook harvest comparisons:



Objective 3 - SWHS Comparison

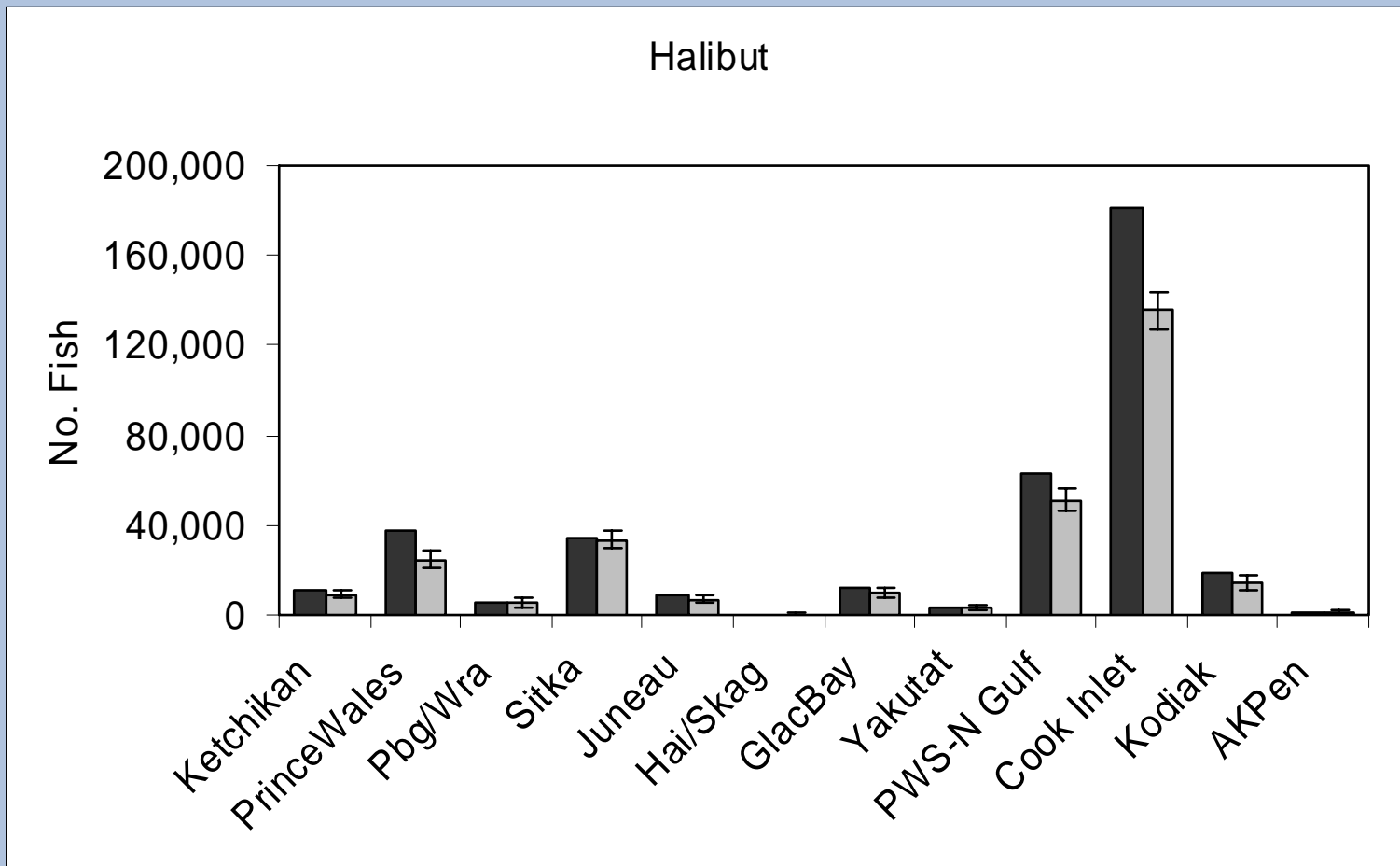
Harvest in Numbers of Fish



Halibut:			
Area	Logbook	SWHS	Relative Diff
Area 2C	111,054	90,471	+23%
Area 3A	265,817	204,115	+30%

SWHS Comparison

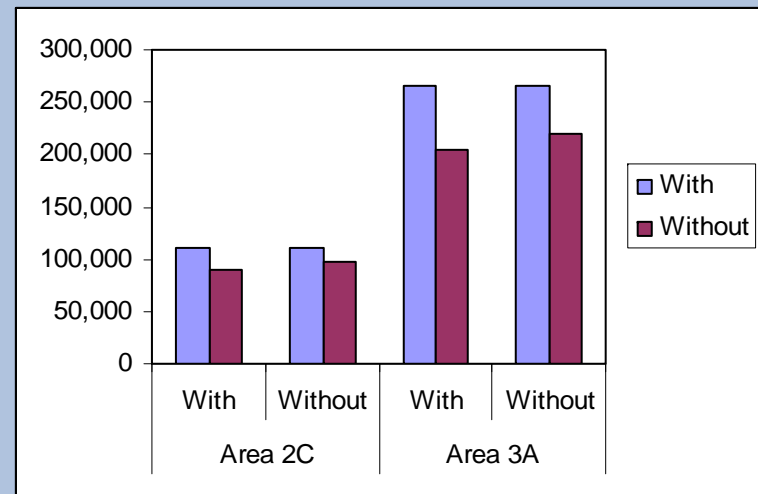
Harvest in Numbers of Fish



SWHS Comparison

- Bag limit edits

- Assume number of trips recalled more accurately.
- Some bag limit edits probably are appropriate.
- Halibut harvest without bag limits:
 - 7.6% higher in Area 2C
 - 7.4% higher in Area 3A
- Differences smaller but still substantial.



SWHS Comparison

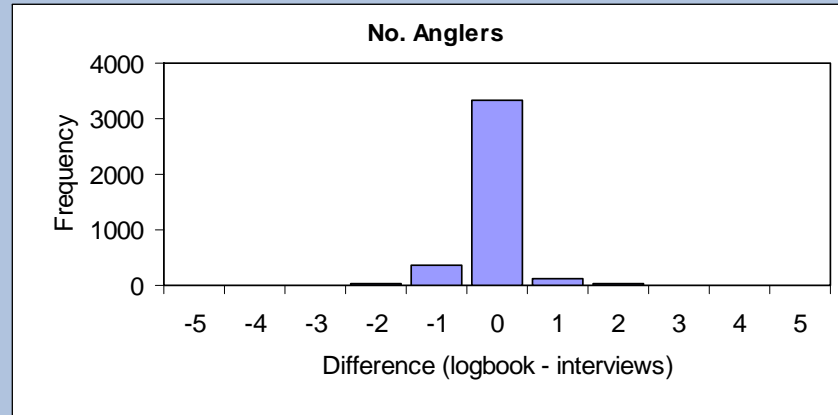
- Also looked at estimation of charter percentage
 - Cook Inlet charter harvest estimated using both survey types.
 - All other areas use % charter from supplemental.
 - Re-estimation of Cook Inlet guided harvest similar.

Year	Published	Alternate	Difference
2004	125,867	127,896	1.6%
2005	133,673	129,606	-3.0%
2006	135,475	135,776	0.2%

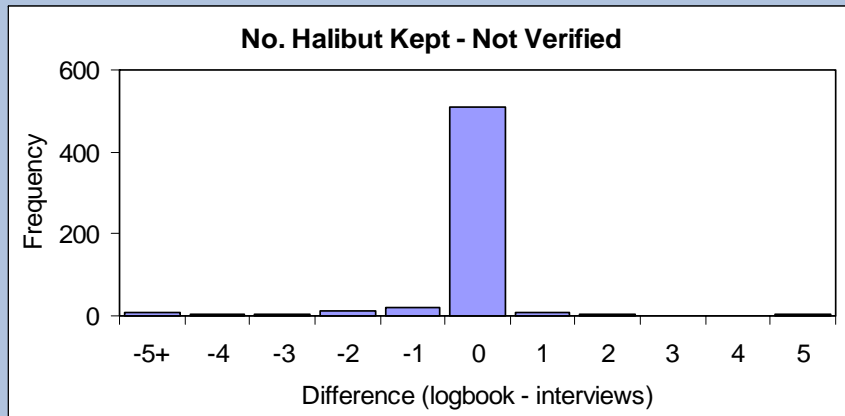
Objective 4 – Interview Comparisons

- Southeast Alaska
 - 3,929 interviews matched to logbooks (10.1% of trips)
 - Halibut verified for 3,344 interviews (8.6% of trips)
- Southcentral Alaska
 - 1,860 interviews matched to logbooks (7.0% of trips)
 - Halibut verified for 899 interviews (3.4% of trips)

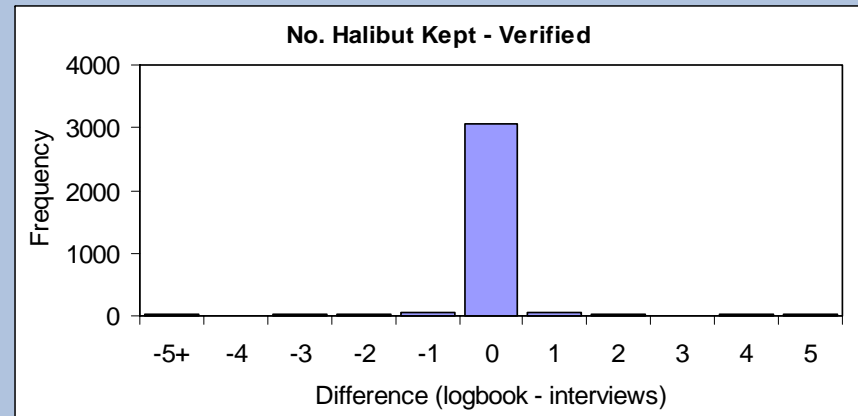
Southeast Comparisons



86% agreement
Avg. diff. = -0.07

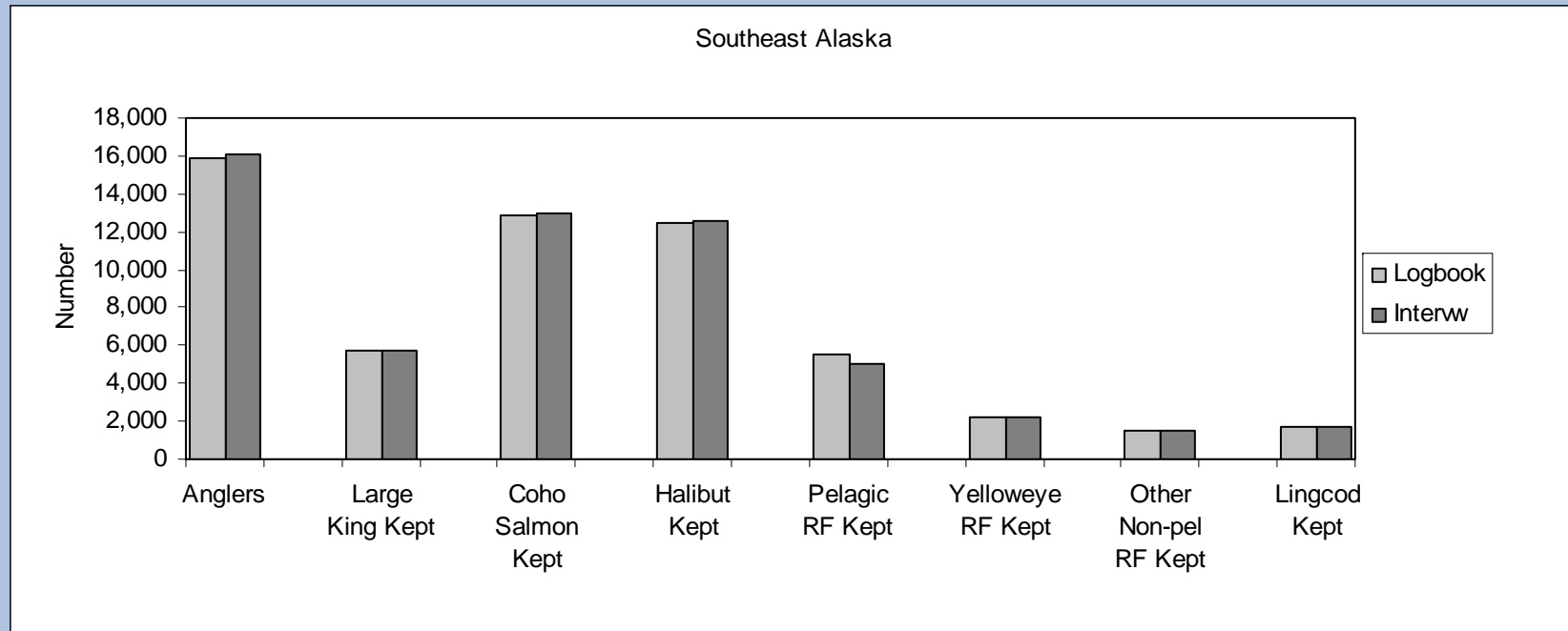


88% agreement
Avg. diff. = -0.19

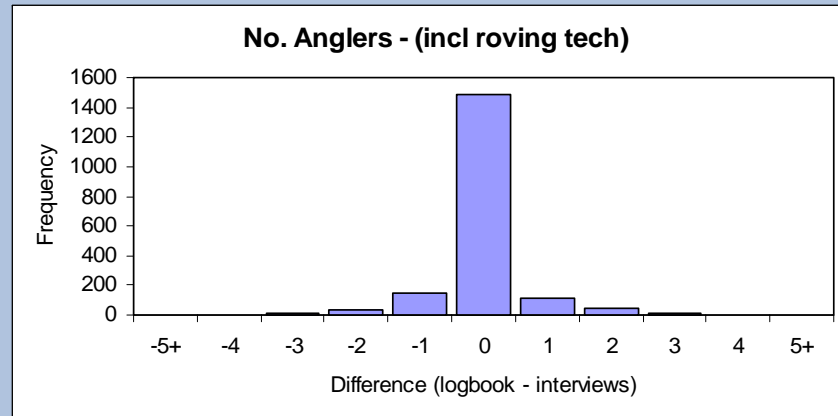


91% agreement
Avg. diff. = 0.00

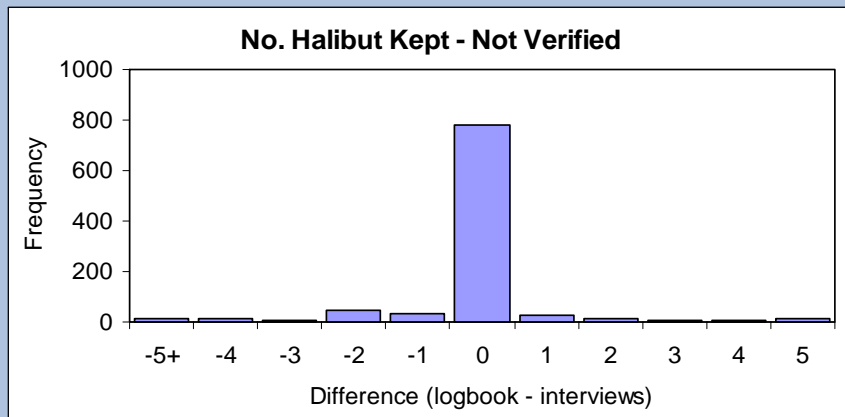
Southeast Comparisons (cont.)



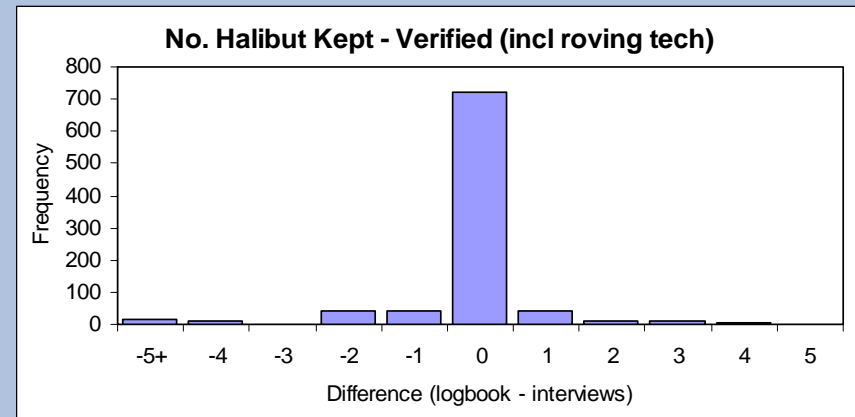
Southcentral Comparisons



80% agreement
Avg. diff. = -0.03

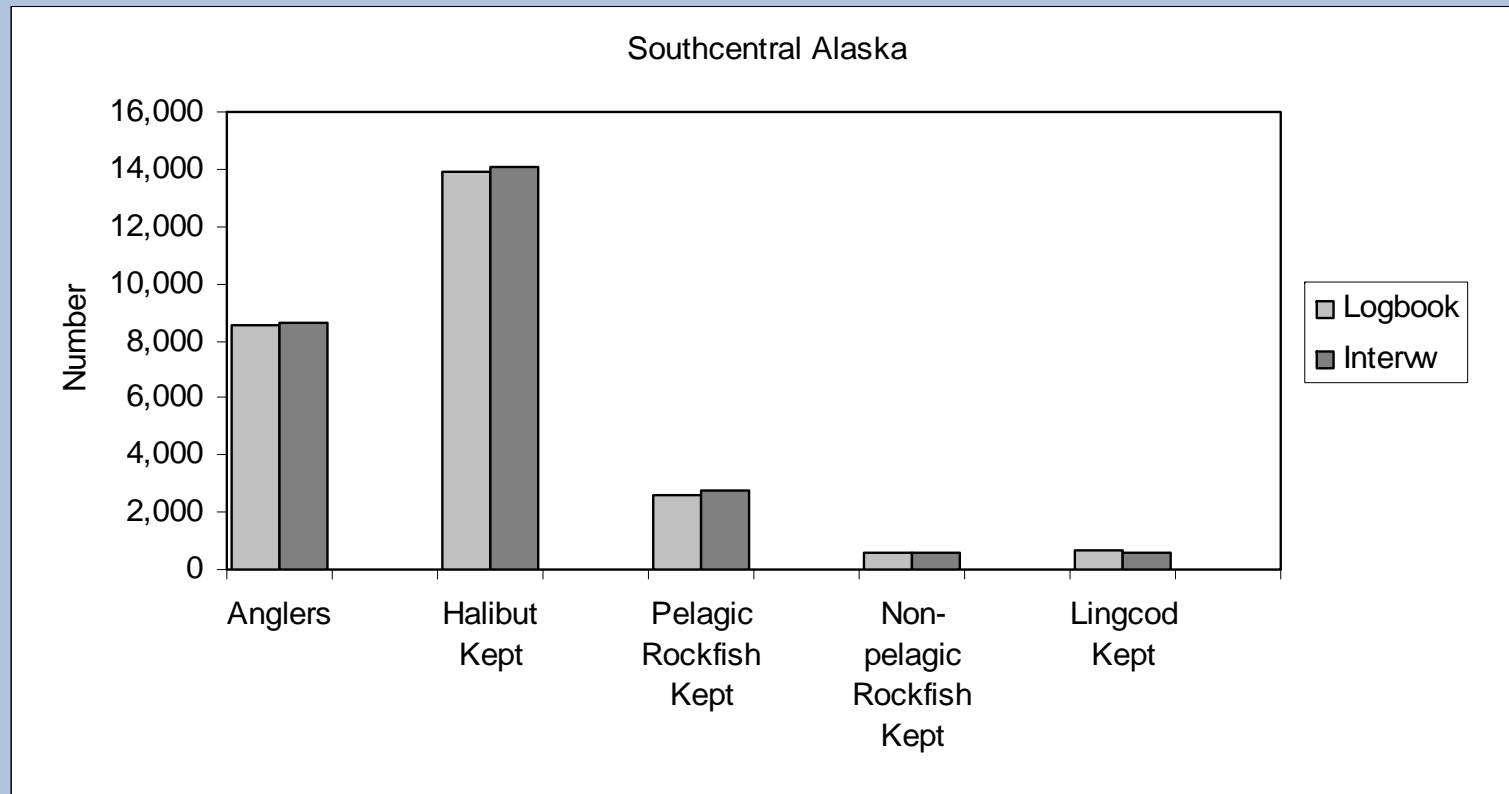


81% agreement
Avg. diff. = -0.12



80% agreement
Avg. diff. = -0.16

Southcentral Comparisons (cont.)

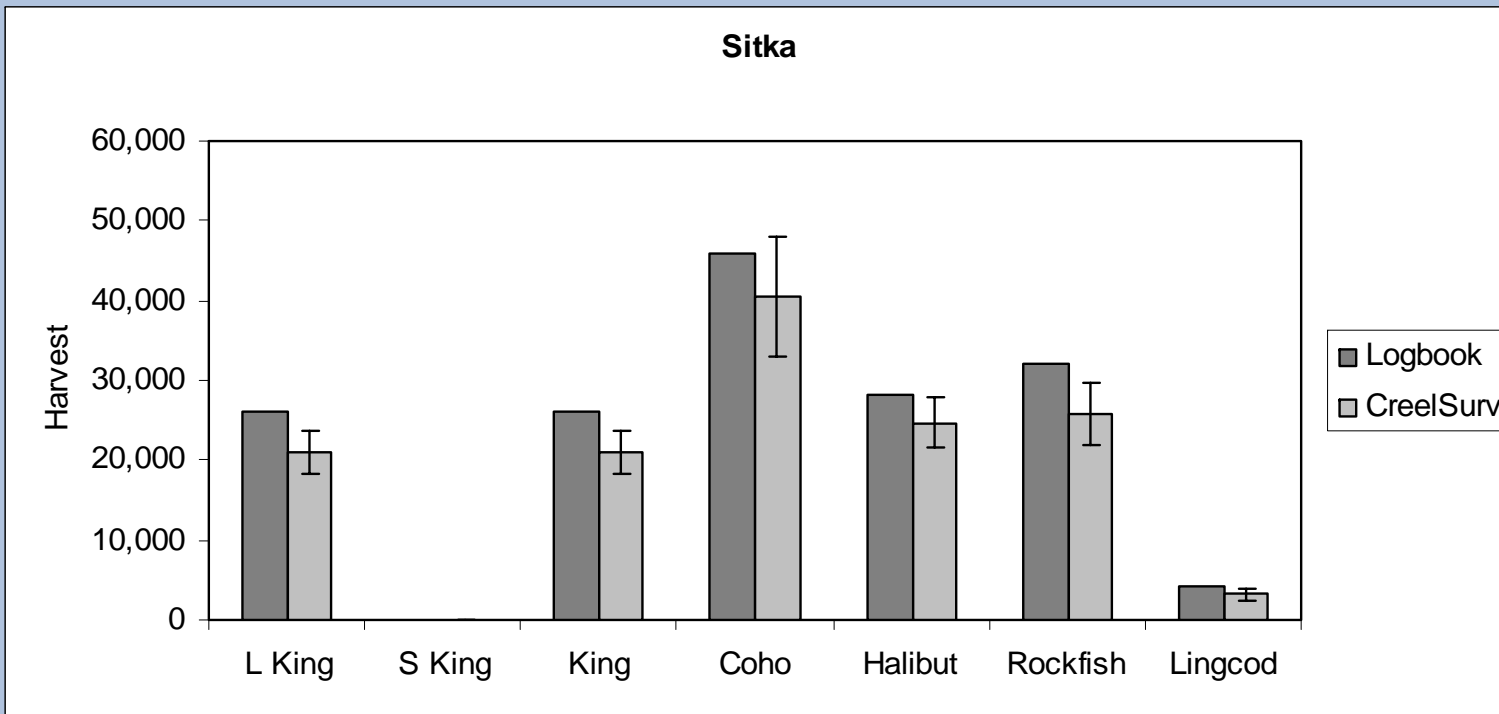


Objective 5 - Creel Survey Comparisons

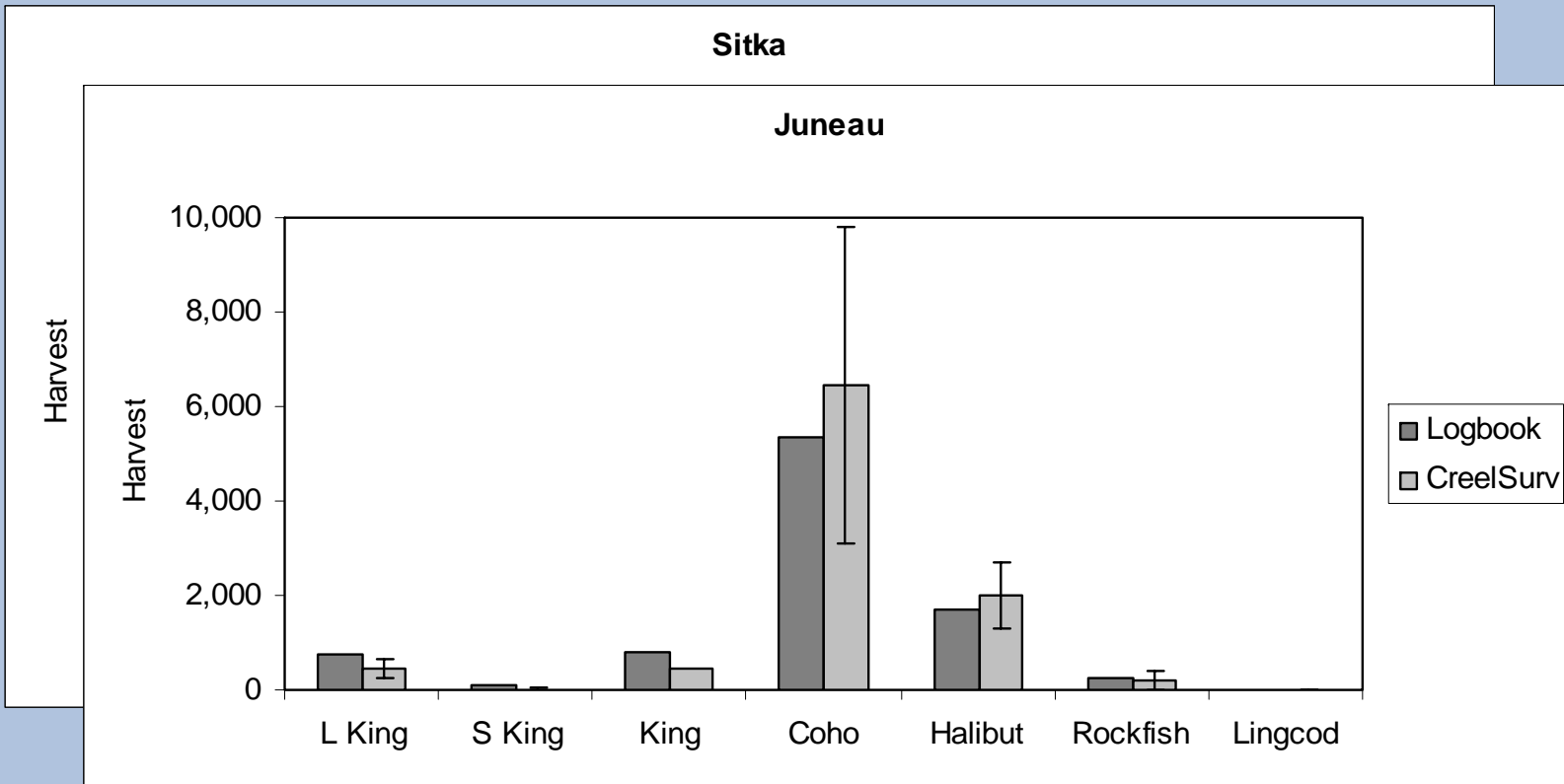
- Ketchikan, Juneau, Sitka.
- Apr 24 – Sep 24.
- Logbook data for boats interviewed at least once.



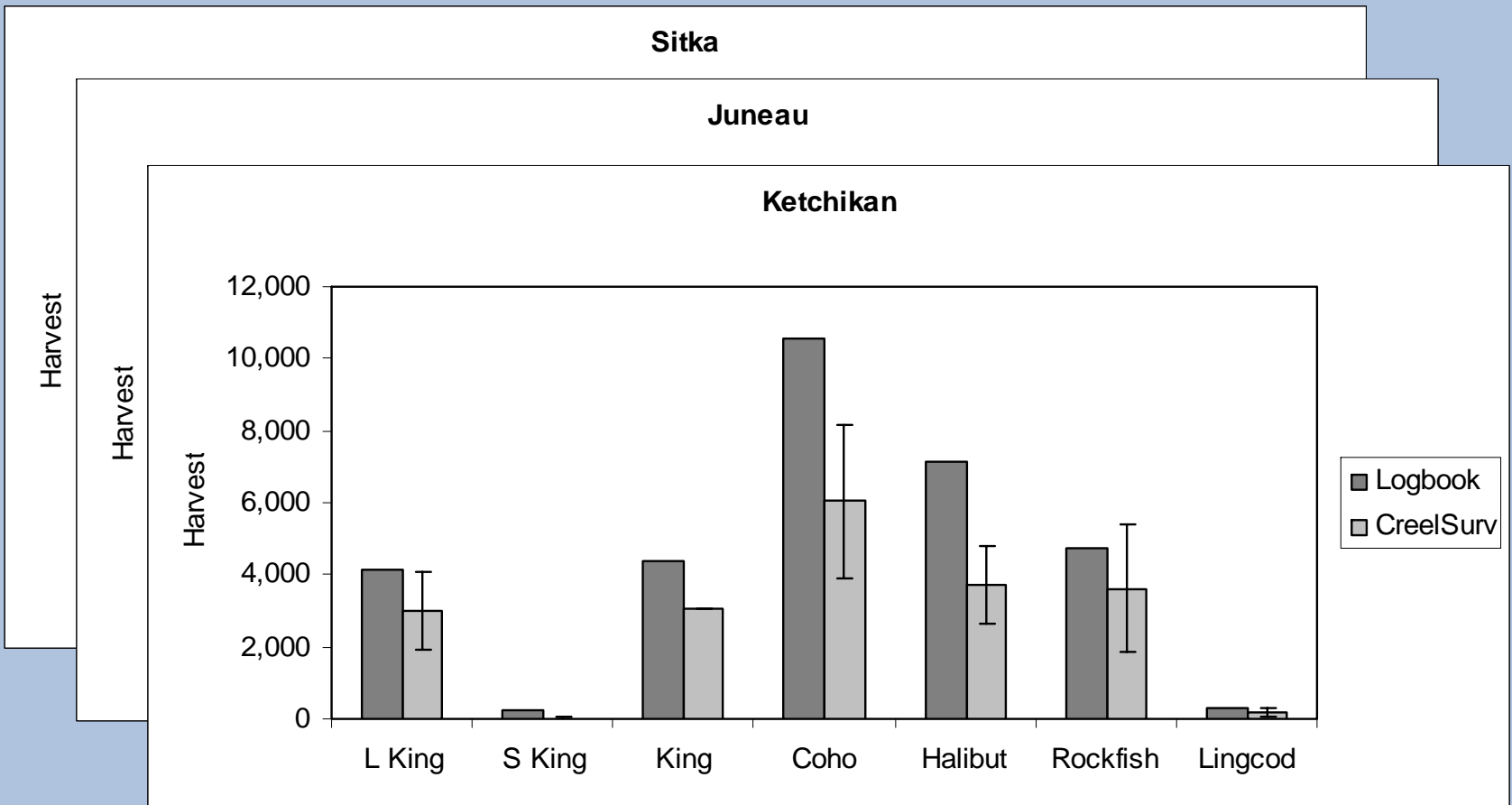
Creel Survey Comparisons



Creel Survey Comparisons



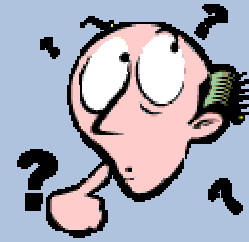
Creel Survey Comparisons



Summary

- 2006 logbook data relatively clean.
- Angler licenses allowed additional diagnostics.
- Unable to detect falsification of trips.
- Logbook harvest still higher than SWHS.
- Logbook and on-site interview data agree on average.
- Logbook and creel survey comparisons variable.

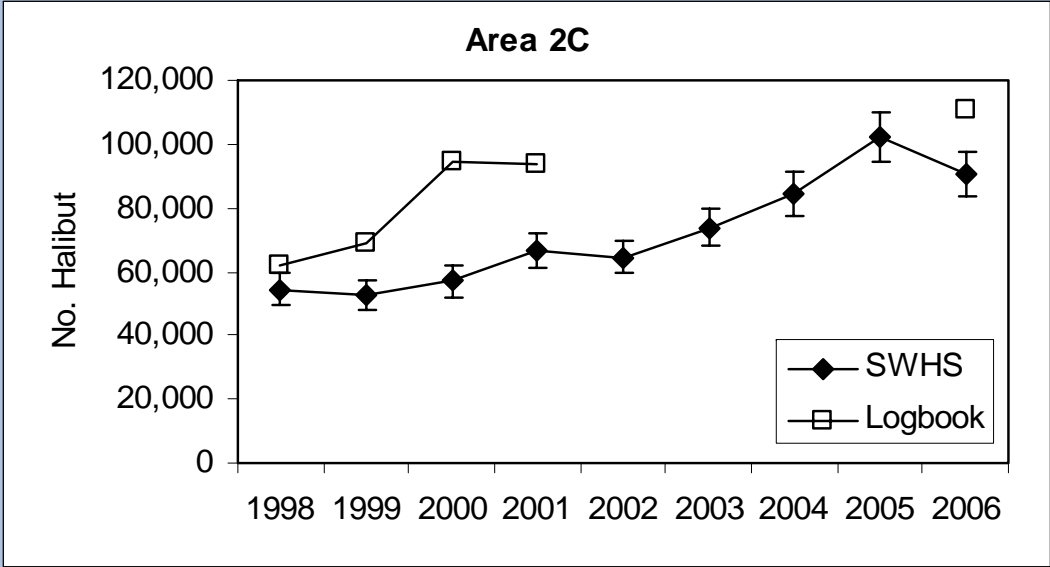
What Does It All Mean?



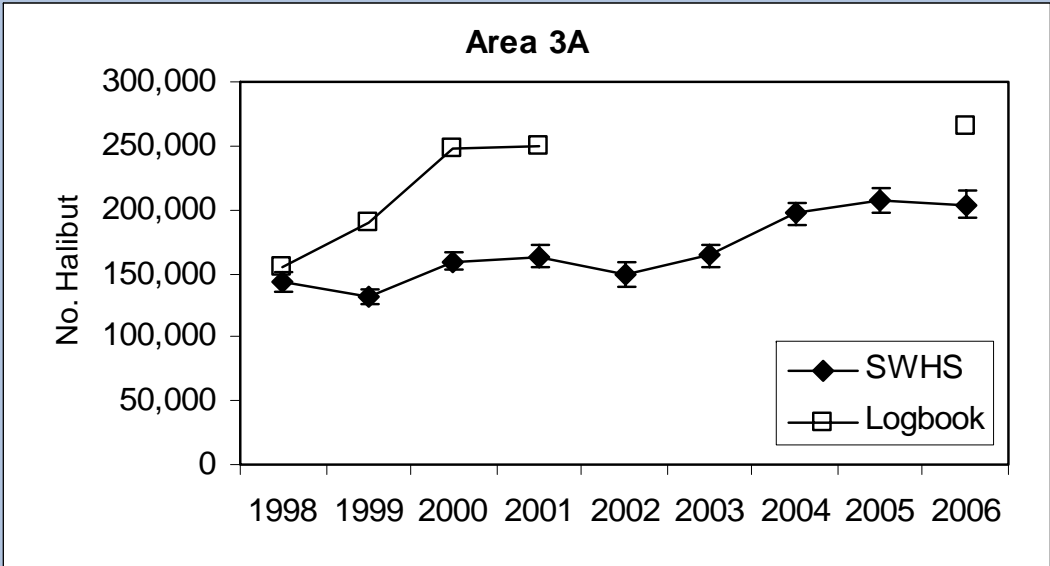
- Evaluation of 2006 logbook only, not an endorsement of earlier logbook data.
- Unable to find any systematic strategic bias in logbook data.
- Unable to find any major fault with SWHS.



- Logbook data has advantages over SWHS.
 - Data intended to be a complete census.
 - Data at daily, boat-trip, and vessel level.
 - Data already used for 2C and 3A analyses of regulatory options.
 - Potential for more timely numbers or projections
 - 3-year timeline in EA/RIR/IRFA.
- Mismatch between allocations based on SWHS and harvest reported in logbooks.
 - Regulatory measures implemented even if real harvest unchanged.



Area 2C:	Difference
1998	14%
1999	31%
2000	66%
2001	40%
--2006--	23%



Area 3A:	Difference
1998	8%
1999	45%
2000	56%
2001	53%
--2006--	30%

Charter Harvest 2006 (by weight)

Area	Measure	SWHS	Logbook	Difference
2C	Number	90,471	111,054	+22.8%
	Weight (M lb)	1.804	2.094	+16.1
	Mean Wt (lb)	19.9	18.9	-5.4%
3A	Number	204,115	265,817	+30.2%
	Weight (M lb)	3.664	4.691	+28.0%
	Mean Wt (lb)	17.9	17.6	-1.7%

What's the Plan?

- Continued logbook with outreach
 - 2008 logbook includes angler name
- Evaluate 2007 and 2008 logbooks
 - End-of-season survey 2007
 - Compare to SWHS
 - Compare to onsite interview data
 - Compare to creel survey estimates
- Continue SWHS
 - Evaluate SWHS for sources of bias and account for differences

Thanks:

Bob Powers
Allen Bingham
Mike Jaenicke
Bob Clark
Kathrin Sundet
Dora Sigurdsson

And

Numerous technicians, data entry staff,
area management staff.

