Southwest Fisheries Center Administrative Report H-89-4C

SUMMARY OF SMALL BOAT ECONOMIC SURVEYS FROM AMERICAN SAMOA, GUAM, AND THE NORTHERN MARIANA ISLANDS

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PREFACE

This report was prepared under contract Number 87-P-9 to the Western Pacific Regional Fishery Management Council (Council) in cooperation with the Honolulu Laboratory, National Marine Fisheries Service (NMFS). The work was supervised by Samuel G. Pooley, NMFS. Data acquisition was directed by Fini Aitaoto (American Samoa), Steven Amesbury (Guam), and Arnold Palacios (Saipan, Northern Mariana Islands).

Because this report was prepared independently under contract, its results do not necessarily represent the National Marine Fisheries Service.

SUMMARY OF SMALL BOAT ECONOMIC SURVEYS

I. BACKGROUND

Commercial small boat fishermen in American Samoa, Guam and, Saipan were surveyed (on a strictly voluntary basis) to obtain information for the Western Pacific Regional Fishery Management Council (Council) on the economics of these fishing operations. A copy of the questionnaire used and its accompanying field instructions are presented in the Appendix. This small vessel economic information is needed principally for fishery management research purposes, but may also be useful in fishery development programs. One management strategy being considered by the Council is limiting access into the bottomfishery of American Samoa and Guam (Council's 1989-1990 Program Narrative).

Five categories of fishing vessel cost information were requested.

* Investment Costs: value of vessel and gear.
* Annual or Fixed Costs: financing charges, annual maintenance (including major repairs), insurance, other business expense.
* Trip Costs: daily operating costs (fuel, ice, food, etc.), trip related repairs.
* Crew Costs: salary and/or crew share of catch or profit.
* Product Costs: fish marketing expenses -- handling, transportation, commission, etc.

Fishermen were asked for their 1987 data. However, information was also solicited about changes noticed over the past 5 years, or in the current year (1988) that had an economic impact on fishermen.

The primary fishermen to be interviewed were the most active small boat operators. "Most active" meant those who make a significant portion of their income from fishing, or those who land a significant quantity of fish annually (whether it is sold or not). A representative sample of other vessel operators (as time permitted) was a secondary survey population.

In charge of the field work (data collection) were: Fini Aitaoto (American Samoa), Steven Amesbury (Guam) and Arnold Palacios (Saipan, Northern Mariana Islands). The completed surveys were returned to the Council for entry into dBASE III files. Each file has one record per

respondent. The American Samoa file contains 36 records, Guam has 35 records, and Saipan lists 34 records.

II. OBJECTIVES OF THIS PROJECT

The objectives of this project were to verify the dBASE files for correct data entry, and to make basic statistical summaries for each variable. The work was undertaken at the Honolulu Laboratory, National Marine Fisheries Service (NMFS). This report is the first presentation of the data collected for the economic assessment effort. A descriptive and analytical report of the economies and operations of these small boat fisheries, which will conclude the overall evaluation, is being prepared by the Honolulu Laboratory, NMFS.

III. METHODOLOGY

Each of the three dBASE files was separated into two sections [A and B] to facilitate manipulation of their numerous entries. Entry items (variables) were given labels (by the data entry personnel) beginning with the letter V and followed by a number [V1, V2, V3] in the order of response to survey questions. A complete description of what each label represents accompanied the dBASE file diskettes.

All file entries were printed and checked with their respective survey response. Errors were corrected, and any discrepancies in the responses given in a survey were evaluated with Sam Pooley, National Marine Fisheries Service economist, to determine what changes to make. Questions that had several parts where the total was supposed to match the sum of these parts were particularly prone to discrepancies.

After verification and editing were completed, the files were transferred to Lotus 1-2-3. Statistical functions of Lotus were used to obtain the range of values within the file for each V# item, an average or mean value for this range, the standard deviation for this mean, and the total number of records that contributed a non-zero value to the given range. These calculations were organized under descriptive headings for each set in a separate section of the spreadsheet titled Summary Table. The completed Summary Tables for each survey group, American Samoa, Guam and Saipan, follow.

IV. SUMMARY TABLES

SUMMARY TABLE A: AMERICAN SAMOA FISH MARKET ECONOMIC SURVEY

Vessel Characteristics

LENGTH (feet)	
Range:	14 - 40
Average:	27
STD:	6
Contrib. #: (out of 36)	36

COOLERS (number on boat)	
Range:	1 - 6
Average:	2
STD:	1
Contrib. #: (out of 36)	36

COOLERS (capacity in quarts)	
Range:	80 - 1700
Average:	262
STD:	274
Contrib. #: (out of 36)	36

FISHING CATEGORY (number in F,P,S)	
Full-Time Commercial:	20
Part-Time Commercial:	7
Full-Time Subsistance:	9

TROLL FISHING (number participating)	
No Time:	0
Most Time:	22
Some Time:	7
All Time:	7

BOTTOMFISHING (number participating)	
No Time:	9
Most Time:	3
Some Time:	24
All Time:	0

NET FISHING (number participating)	
No Time:	36
Most Time:	0
Some Time:	0
All Time:	0

HAND/LONGLINE FISHING (number participating)	
No Time:	36
Most Time:	0
Some Time:	0
All Time:	0

REEF FISHING (number participating)	
No Time:	32
Most Time:	1
Some Time:	3
All Time:	0

SUMMARY TABLE A: (continued)

BOAT PURCHASE (year)	
Range:	1977 - 1987
Average:	1985
STD:	3
Contrib. #: (out of 36)	36

BOAT AGE (number of years)	
Range:	0.5 - 23
Average:	6
STD:	4
Contrib. #: (out of 36)	36

BOAT OWNERSHIP (number of S,P,C,O)	
Sole Propri:	30
Partnership:	3
Corporation:	3
Other:	0

Investment Costs

BOAT PURCHASE PRICE (dollars)	
Range:	1500 - 62000
Average:	8866
STD:	13598
Contrib. #: (out of 36)	36

ENGINE(S) PRICE (dollars)	
Range:	950 - 5300
Average:	2153
STD:	1003
Contrib. #: (out of 36)	25

BOAT GEAR REPLACE COST (dollars)	
Range:	150 - 5000
Average:	818
STD:	912
Contrib. #: (out of 36)	36

FISHING GEAR COSTS (dollars)	
Range:	200 - 5200
Average:	1319
STD:	1348
Contrib. #: (out of 36)	34

ELECTRONIC EQUIP. COSTS (dollars)	
Range:	60 - 3500
Average:	1402
STD:	989
Contrib. #: (out of 36)	17

TRAILER COSTS (dollars)	
Range:	1000 - 3000
Average:	1950
STD:	712
Contrib. #: (out of 36)	4

COOLER COSTS (dollars)	
Range:	85 - 1800
Average:	500
STD:	357
Contrib. #: (out of 36)	35

SUMMARY TABLE A: (continued)

Fixed Costs

BOAT LOAN PAYMENTS
(dollars per month)

Range:	720 - 9000
Average:	3591
STD:	2713
Contrib. #: (out of 36)	9

OTHER LOANS
(yes or no)

Yes:	2
No:	34

OTHER LOAN PAYMENTS
(dollars per month)

Range:	4000 - 4000
Average:	4000
STD:	0
Contrib. #: (out of 36)	1

OTHER LOAN INT. RATE
(percent per year)

Range:	0 - 0
Average:	0
STD:	0
Contrib. #: (out of 36)	0

BOAT INSURANCE
(dollars per year)

Range:	300 - 1600
Average:	680
STD:	533
Contrib. #: (out of 36)	4

LICENSES & FEES
(dollars per year)

Range:	4 - 70
Average:	15
STD:	14
Contrib. #: (out of 36)	19

ENGINE FUEL NEEDS
(gallons per hour)

Range:	0.5 - 12
Average:	3
STD:	3
Contrib. #: (out of 36)	22

OWN BOAT REPAIRS
(yes or no)

Yes:	31
No:	5

OWN TIME ON BOAT REPAIRS
(hours per year)

Range:	10 - 520
Average:	100
STD:	123
Contrib. #: (out of 36)	27

BOAT DOCKING
(number of M or T)

Moored:	32
Trailered:	4

WHERE MOORED
(in areas A-K)

Area A:	8	(Fagaalu)
Area B:	0	(Utulei)
Area C:	15	(Fagatogo/P.P.)
Area D:	2	(Fagasa)
Area E:	0	(Leone)
Area F:	1	(Masefau)
Area G:	1	(Aunu'u)
Area H:	1	(Ofu)
Area I:	3	(Ta'u)
Area J:	1	(Vatia)
Area K:	1	(Aua)

DISTANCE TRAILERED
(miles)

Range:	3 - 15
Average:	8
STD:	4
Contrib. #: (out of 36)	4

SUMMARY TABLE A: (continued)

ENGINE REPAIRS (dollars)	
Range:	30 - 2000
Average:	705
STD:	531
Contrib. #: (out of 36)	31

HULL REPAIRS (dollars)	
Range:	25 - 5000
Average:	1205
STD:	1316
Contrib. #: (out of 36)	22

ELECTRONIC REPAIRS (dollars)	
Range:	100 - 500
Average:	256
STD:	169
Contrib. #: (out of 36)	8

FISHING EQUIP. REPAIRS (dollars)	
Range:	50 - 1500
Average:	347
STD:	330
Contrib. #: (out of 36)	22

*** Trip Costs ***

BOAT FUEL/OIL COSTS (dollars)	
Range:	150 - 4500
Average:	1408.
STD:	1079.
Contrib. #: (out of 36)	30

GAS PER TROLL TRIP (gallons)	
Range:	5 - 80
Average:	29
STD:	18
Contrib. #: (out of 36)	36

GAS PER BOTTOMFISH TRIP (gallons)	
Range:	2 - 40
Average:	14
STD:	10
Contrib. #: (out of 36)	31

OIL PER TROLLING TRIP (quarts)	
Range:	1 - 5
Average:	3
STD:	1
Contrib. #: (out of 36)	32

OIL PER BOTTOMFISH TRIP (quarts)	
Range:	1 - 3
Average:	2
STD:	1
Contrib. #: (out of 36)	28

GAS PRICE (dollars per gallon)	
Range:	0.70 - 1.87
Average:	0.82
STD:	0.20
Contrib. #: (out of 36)	35

SUMMARY TABLE A: (continued)

OIL PRICE (dollars per quart)	
Range:	1.50 - 2.50
Average:	1.76
STD:	0.26
Contrib. #: (out of 36)	32

FISHING GEAR COSTS (dollars)	
Range:	50 - 2000
Average:	591
STD:	467
Contrib. #: (out of 36)	34

ALL BAIT COSTS (dollars)	
Range:	40 - 1300
Average:	330
STD:	328
Contrib. #: (out of 36)	14

BOTTOMFISH BAIT COSTS (dollars per trip)	
Range:	5 - 40
Average:	17
STD:	10
Contrib. #: (out of 36)	11

ICE COSTS (dollars per trip)	
Range:	2 - 90
Average:	13
STD:	15
Contrib. #: (out of 36)	32

ICE COSTS (dollars per bag)	
Range:	1 - 1
Average:	1
STD:	0
Contrib. #: (out of 36)	32

FOOD/SUPPLIES COSTS (dollars per year)	
Range:	100 - 2400
Average:	731
STD:	559
Contrib. #: (out of 36)	32

FOOD/SUPPLIES COSTS (dollars per trip)	
Range:	10 - 100
Average:	28
STD:	21
Contrib. #: (out of 36)	36

OTHER EXPENSES (dollars per trip)	
Range:	3 - 1400
Average:	163
STD:	437
Contrib. #: (out of 36)	9

*** Crew Costs ***

CREW PAID IN WAGES (yes or no)	
Total Yes:	0
Total No:	36

CREW SHARE OF CATCH/PROFIT (percent)	
Range:	15 - 67
Average:	44
STD:	14
Contrib. #: (out of 36)	20

USUAL CREW NUMBER (persons)	
Range:	1 - 5
Average:	3
STD:	1
Contrib. #: (out of 36)	27

SUMMARY TABLE A: (continued)

CATCH LANDING PORT
(areas A - K)

Total A:	8	(Fagaalu)
Total B:	0	(Utulei)
Total C:	18	(Fagatogo/P.P.)
Total D:	2	(Fagasa)
Total E:	0	(Leone)
Total F:	1	(Masefau)
Total G:	1	(Aunu'u)
Total H:	1	(Ofu)
Total I:	3	(Ta'u)
Total J:	1	(Vatia)
Total K:	1	(Aua)

FISHING IS MAIN JOB
(yes or no)

Total Yes:	9
Total No:	27

TIME IN FISHING ACTIVITY
(hours per week)

Range:	1 - 40
Average:	13
STD:	10
Contrib. #:	33
(out of 36)	

TROLLING ACTIVITY
(trips per month)

Range:	1 - 20
Average:	7
STD:	5
Contrib. #:	36
(out of 36)	

BOTTOMFISHING
(trips per month)

Range:	1 - 25
Average:	4
STD:	5
Contrib. #:	26
(out of 36)	

TROLL & BOTTOMFISH
(trips per month)

Range:	1 - 12
Average:	4
STD:	3
Contrib. #:	21
(out of 36)	

OTHER FISHING TYPE
(trips per month)

Range:	2 - 20
Average:	9
STD:	8
Contrib. #:	3
(out of 36)	

OTHER JOB
(yes or no)

Total Yes	27
Total No:	9

TIME ON SECOND JOB
(hours per week)

Range:	18 - 50
Average:	39
STD:	7
Contrib. #:	27
(out of 36)	

FISHING COMMERCIALLY
(number of years)

Range:	1 - 10
Average:	4
STD:	3
Contrib. #:	28
(out of 36)	

SUMMARY TABLE A: (continued)

*** Demographics ***

ETHNIC GROUP (c,s,o,r)			AGE GROUP (years)		GENDER (f or m)	
Total C:	6	(Caucasian)	0 - 24:	0	Female:	0
Total S:	26	(Samoan)	25 - 34:	5		
Total O:	4	(Other/mixed)	35 - 44:	22	Male:	36
Total R:	0	(Refused)	45 - 54:	6		
			55 - 64:	3		
			over 65:	0		
			no reply:	0		

SUMMARY TABLE B: GUAM FISH MARKET ECONOMIC SURVEY

Characteristics and Costs of Vessel

LENGTH (feet)	
Range:	14 - 35
Average:	22
STD:	5
Contrib. #: (out of 35)	34

HOLDING CAPACITY (pounds of fish)	
Range:	50 - 2500
Average:	604
STD:	447
Contrib. #: (out of 35)	34

AGE (years)	
Range:	0.5 - 20
Average:	5
STD:	5
Contrib. #: (out of 35)	33

PURCHASE PRICE (dollars)	
Range:	2500 - 200000
Average:	33094
STD:	40947
Contrib. #: (out of 35)	32

ADD'TL COSTS (dollars)	
Range:	150 - 50000
Average:	9104
STD:	12398
Contrib. #: (out of 35)	28

Annual Costs

SCHEDULED REPAIRS (dollars)	
Range:	100 - 15000
Average:	2888
STD:	3813
Contrib. #: (out of 35)	25

REPLACE PARTS/EQ. (dollars)	
Range:	50 - 9000
Average:	1472
STD:	2283
Contrib. #: (out of 35)	16

INSURANCE (dollars)	
Range:	550 - 5000
Average:	2225
STD:	1493
Contrib. #: (out of 35)	10

OTHER BUSINESS (dollars)	
Range:	20 - 30000
Average:	3278
STD:	7668
Contrib. #: (out of 35)	15

TOTAL ANNUAL COSTS (dollars)	
Range:	45 - 49000
Average:	5393
STD:	10196
Contrib. #: (out of 35)	31

SUMMARY TABLE B: (continued)

Operating (Trip) Costs

FUEL AND OIL
(gallons per trip)

Range:	3	-	130
Average:	52		
STD:	30		
Contrib. #:	35		
(out of 35)			

FUEL AND OIL
(dollars per trip)

Range:	6	-	150
Average:	61		
STD:	34		
Contrib. #:	35		
(out of 35)			

FUEL AND OIL
(dollars per year)

Range:	245	-	21750
Average:	5340		
STD:	4987		
Contrib. #:	35		
(out of 35)			

ICE
(pounds per trip)

Range:	10	-	500
Average:	142		
STD:	112		
Contrib. #:	34		
(out of 35)			

ICE
(dollars per trip)

Range:	1.25	-	24.8
Average:	6		
STD:	5		
Contrib. #:	33		
(out of 35)			

ICE
(dollars per year)

Range:	13	-	3240
Average:	582		
STD:	668		
Contrib. #:	33		
(out of 35)			

BAIT
(pounds per trip)

Range:	2	-	50
Average:	14		
STD:	15		
Contrib. #:	19		
(out of 35)			

BAIT
(dollars per trip)

Range:	1.49	-	50
Average:	13		
STD:	14		
Contrib. #:	15		
(out of 35)			

BAIT
(dollars per year)

Range:	140	-	1980
Average:	807		
STD:	516		
Contrib. #:	15		
(out of 35)			

EXPEND FISH GEAR
(dollars per trip)

Range:	1.5	-	100
Average:	21		
STD:	19		
Contrib. #:	34		
(out of 35)			

EXPEND FISH GEAR
(dollars per year)

Range:	36	-	7500
Average:	1663		
STD:	1669		
Contrib. #:	34		
(out of 35)			

SUMMARY TABLE B: (continued)

FOOD (dollars per trip)	
Range:	3 - 60
Average:	15
STD:	12
Contrib. #: (out of 35)	34

FOOD (dollars per year)	
Range:	70 - 11500
Average:	1669
STD:	2459
Contrib. #: (out of 35)	34

SUPPLIES (dollars per trip)	
Range:	1 - 25
Average:	6
STD:	6
Contrib. #: (out of 35)	31

SUPPLIES (dollars per year)	
Range:	20 - 1800
Average:	539
STD:	478
Contrib. #: (out of 35)	31

SMALL REPAIRS (dollars per trip)	
Range:	2 - 50
Average:	11
STD:	11
Contrib. #: (out of 35)	25

SMALL REPAIRS (dollars per year)	
Range:	35 - 3900
Average:	1020
STD:	1005
Contrib. #: (out of 35)	25

OTHER TRIP COSTS (dollars per trip)	
Range:	5.33 - 40
Average:	23
STD:	17
Contrib. #: (out of 35)	2

OTHER TRIP COSTS (dollars per year)	
Range:	800 - 2600
Average:	1700
STD:	900
Contrib. #: (out of 35)	2

SUMMARY TABLE B: (continued)

TOTAL OPERATING COSTS (dollars per trip)	
Range:	17 - 345
Average:	122
STD:	62
Contrib. #:	35
(out of 35)	

TOTAL OPERATING COSTS (dollars per year)	
Range:	686 - 31800
Average:	10776
STD:	9262
Contrib. #:	35
(out of 35)	

Expenses for Crew

CREW WAGE (dollars per trip)	
Range:	20 - 250
Average:	86
STD:	78
Contrib. #:	6
(out of 35)	

CREW WAGE (dollars per year)	
Range:	8000 - 33000
Average:	23650
STD:	10078
Contrib. #:	4
(out of 35)	

CREW SHARE (percent of profit)	
Range:	20 - 25
Average:	22
STD:	2
Contrib. #:	5
(out of 35)	

CREW SIZE (including Captain)	
Range:	1 - 5
Average:	2
STD:	1
Contrib. #:	35
(out of 35)	

CAPTAIN ALSO OWNER (yes or no)	
Total Yes:	29
Total No:	6

Marketing Costs

HANDLING, TRANS, COMM. ($ per pound sold)	
Range:	0.15 - 0.15
Average:	0.15
STD:	0.00
Contrib. #:	1
(out of 35)	

HANDLING, TRANS, COMM. (dollars per trip)	
Range:	0 - 0
Average:	0
STD:	0
Contrib. #:	0
(out of 35)	

HANDLING, TRANS, COMM. (dollars per year)	
Range:	0 - 0
Average:	0
STD:	0
Contrib. #:	0
(out of 35)	

SUMMARY TABLE B: (continued)

Time and Distance

TOTAL TIME AT SEA (hours per trip)	
Range:	3 - 70
Average:	12
STD:	12
Contrib. #: (out of 35)	35

TIME FISHING (hours per trip)	
Range:	1 - 24
Average:	8
STD:	5
Contrib. #: (out of 35)	32

DISTANCE TRAVELED (miles from port)	
Range:	5 - 65
Average:	25
STD:	15
Contrib. #: (out of 35)	35

DISTANCE TRAVELED (miles from shore)	
Range:	1 - 50
Average:	16
STD:	13
Contrib. #: (out of 35)	33

Fishing Trip Description

BOTTOMFISH HANDLINE (trips per year)	
Range:	2 - 150
Average:	28
STD:	33
Contrib. #: (out of 35)	23

TUNA HANDLINE (trips per year)	
Range:	10 - 12
Average:	11
STD:	1
Contrib. #: (out of 35)	2

TROLLING (trips per year)	
Range:	3 - 500
Average:	86
STD:	113
Contrib. #: (out of 35)	34

TRAP (trips per year)	
Range:	0 - 0
Average:	0
STD:	0
Contrib. #: (out of 35)	0

SPEAR (trips per year)	
Range:	2 - 150
Average:	46
STD:	55
Contrib. #: (out of 35)	5

OTHER (trips per year)	
Range:	1 - 25
Average:	10
STD:	10
Contrib. #: (out of 35)	3

SUMMARY TABLE B: (continued)

TOTAL FISHERY
(trips per year)

Range:	7	-	500
Average:	110		
STD:	118		
Contrib. #:	35		
(out of 35)			

Fish Catch Details

AVERAGE CATCH
(pounds per trip)

Range:	10	-	400
Average:	109		
STD:	92		
Contrib. #:	35		
(out of 35)			

ESTIMATED CATCH
(pounds per year)

Range:	500	-	36250
Average:	9298		
STD:	9305		
Contrib. #:	35		
(out of 35)			

TUNA CATCH
(percent per year)

Range:	5	-	75
Average:	34		
STD:	19		
Contrib. #:	30		
(out of 35)			

BOTTOMFISH CATCH
(percent per year)

Range:	3	-	100
Average:	29		
STD:	29		
Contrib. #:	26		
(out of 35)			

MAHIMAHI,ONO,MARLIN CATCH
(percent per year)

Range:	5	-	90
Average:	44		
STD:	23		
Contrib. #:	32		
(out of 35)			

REEF FISH CATCH
(percent per year)

Range:	2	-	100
Average:	34		
STD:	30		
Contrib. #:	9		
(out of 35)			

OTHER SPECIES CATCH
(percent per year)

Range:	5	-	20
Average:	13		
STD:	8		
Contrib. #:	2		
(out of 35)			

SUMMARY TABLE B: (continued)

Fish Sale Information

AVERAGE FISH PRICE (dollars per pound)	
Range:	1.00 - 2.00
Average:	1.50
STD:	0.33
Contrib. #: (out of 35)	34

ESTIMATED REVENUE (dollars per year)	
Range:	900 - 68150
Average:	13957
STD:	14886
Contrib. #: (out of 35)	34

Catch Disposition - Where Sold

MAIN MARKET/COOP (percent of catch)	
Range:	1 - 100
Average:	70
STD:	31
Contrib. #: (out of 35)	30

OTHER FISH MARKETS (percent of catch)	
Range:	1 - 59
Average:	22
STD:	26
Contrib. #: (out of 35)	3

DIRECTLY EXPORTED (percent of catch)	
Range:	0 - 0
Average:	0
STD:	0
Contrib. #: (out of 35)	0

DIRECTLY TO RETAILERS (percent of catch)	
Range:	19 - 50
Average:	40
STD:	13
Contrib. #: (out of 35)	4

OTHER OUTLET (percent of catch)	
Range:	10 - 100
Average:	48
STD:	34
Contrib. #: (out of 35)	11

TAKEN HOME (percent of catch)	
Range:	1 - 100
Average:	23
STD:	25
Contrib. #: (out of 35)	28

SUMMARY TABLE B: (continued)

Supplementary Information

TIME IN COMM. FISHING (number of years)	
Range:	1 - 32
Average:	13
STD:	9
Contrib. #: (out of 35)	34

FULL-TIME COMM. FISHERMAN (yes or no)	
Total Yes:	12
Total No:	23

OTHER JOB (yes or no)	
Total Yes:	24
Total No:	11

TIME SPENT FISHING (hours per week)	
Range:	6 - 100
Average:	27
STD:	23
Contrib. #: (out of 35)	35

TIME SPENT OTHER JOB (hours per week)	
Range:	40 - 66
Average:	44
STD:	6
Contrib. #: (out of 35)	21

FISHERMAN'S AGE (number of years)	
Range:	23 - 60
Average:	39
STD:	10
Contrib. #: (out of 35)	35

FISHERMAN'S GENDER (female or male)	
Total Female:	0
Total Male:	35

FISHERMAN'S ETHNICITY (F,H,J,K,P,R,S)		
Total F:	1	(Filipino)
Total H:	18	(Chamorro)
Total J:	1	(Japanese)
Total K:	2	(Korean)
Total P:	0	(Palauan)
Total R:	0	(Carolinian)
Total S:	13	(Caucasian)

SUMMARY TABLE C: SAIPAN FISH MARKET ECONOMIC SURVEY

Characteristics and Costs of Vessel

LENGTH (feet)	
Range:	10 - 38
Average:	21
STD:	6
Contrib. #: (out of 34)	34

HOLDING CAPACITY (pounds of fish)	
Range:	200 - 6000
Average:	912
STD:	994
Contrib. #: (out of 34)	34

AGE (years)	
Range:	0.5 - 11
Average:	3
STD:	2
Contrib. #: (out of 34)	33

PURCHASE PRICE (dollars)	
Range:	500 - 100000
Average:	19803
STD:	20199
Contrib. #: (out of 34)	33

ADD'TL COSTS (dollars)	
Range:	200 - 28000
Average:	2561
STD:	5680
Contrib. #: (out of 34)	22

Annual Costs

SCHEDULED REPAIRS (dollars)	
Range:	30 - 15000
Average:	2142
STD:	3258
Contrib. #: (out of 34)	26

REPLACE PARTS/EQ. (dollars)	
Range:	100 - 7000
Average:	1123
STD:	2223
Contrib. #: (out of 34)	8

INSURANCE (dollars)	
Range:	400 - 2000
Average:	1275
STD:	597
Contrib. #: (out of 34)	4

OTHER BUSINESS (dollars)	
Range:	10 - 3600
Average:	154
STD:	703
Contrib. #: (out of 34)	25

TOTAL ANNUAL COSTS (dollars)	
Range:	10 - 15010
Average:	2301
STD:	3319
Contrib. #: (out of 34)	32

SUMMARY TABLE C: (continued)

Operating (Trip) Costs

FUEL AND OIL
(gallons per trip)

Range:	6	-	170
Average:	40		
STD:	35		
Contrib. #:	34		
(out of 34)			

FUEL AND OIL
(dollars per trip)

Range:	8	-	195
Average:	56		
STD:	38		
Contrib. #:	34		
(out of 34)			

FUEL AND OIL
(dollars per year)

Range:	300	-	27375
Average:	6614		
STD:	5321		
Contrib. #:	34		
(out of 34)			

ICE
(pounds per trip)

Range:	12	-	1200
Average:	92		
STD:	202		
Contrib. #:	33		
(out of 34)			

ICE
(dollars per trip)

Range:	1	-	60
Average:	8		
STD:	10		
Contrib. #:	32		
(out of 34)			

ICE
(dollars per year)

Range:	75	-	3120
Average:	869		
STD:	866		
Contrib. #:	32		
(out of 34)			

BAIT
(pounds per trip)

Range:	2	-	60
Average:	18		
STD:	17		
Contrib. #:	13		
(out of 34)			

BAIT
(dollars per trip)

Range:	3	-	40
Average:	18		
STD:	13		
Contrib. #:	5		
(out of 34)			

BAIT
(dollars per year)

Range:	375	-	6000
Average:	1789		
STD:	2144		
Contrib. #:	5		
(out of 34)			

EXPEND FISH GEAR
(dollars per trip)

Range:	2	-	75
Average:	16		
STD:	17		
Contrib. #:	31		
(out of 34)			

EXPEND FISH GEAR
(dollars per year)

Range:	50	-	7000
Average:	1743		
STD:	1581		
Contrib. #:	31		
(out of 34)			

SUMMARY TABLE C: (continued)

FOOD (dollars per trip)	
Range:	3 - 70
Average:	12
STD:	14
Contrib. #: (out of 34)	34

FOOD (dollars per year)	
Range:	60 - 4200
Average:	1308
STD:	1147
Contrib. #: (out of 34)	34

SUPPLIES (dollars per trip)	
Range:	1 - 15
Average:	4
STD:	3
Contrib. #: (out of 34)	19

SUPPLIES (dollars per year)	
Range:	50 - 900
Average:	441
STD:	243
Contrib. #: (out of 34)	19

SMALL REPAIRS (dollars per trip)	
Range:	1 - 30
Average:	12
STD:	10
Contrib. #: (out of 34)	15

SMALL REPAIRS (dollars per year)	
Range:	25 - 6000
Average:	1420
STD:	1430
Contrib. #: (out of 34)	15

OTHER TRIP COSTS (dollars per trip)	
Range:	5 - 40
Average:	23
STD:	18
Contrib. #: (out of 34)	2

OTHER TRIP COSTS (dollars per year)	
Range:	780 - 6000
Average:	3390
STD:	2610
Contrib. #: (out of 34)	2

SUMMARY TABLE C: (continued)

TOTAL OPERATING COSTS (dollars per trip)	
Range:	23 - 343
Average:	101
STD:	75
Contrib. #:	34
(out of 34)	

TOTAL OPERATING COSTS (dollars per year)	
Range:	684 - 33945
Average:	11664
STD:	8024
Contrib. #:	34
(out of 34)	

Expenses for Crew

CREW WAGE (dollars per trip)	
Range:	20 - 500
Average:	141
STD:	122
Contrib. #:	21
(out of 34)	

CREW WAGE (dollars per year)	
Range:	500 - 62400
Average:	16160
STD:	14910
Contrib. #:	21
(out of 34)	

CREW SHARE (percent of profit)	
Range:	50 - 80
Average:	60
STD:	14
Contrib. #:	3
(out of 34)	

CREW SIZE (including Captain)	
Range:	1 - 4
Average:	2
STD:	1
Contrib. #:	34
(out of 34)	

CAPTAIN ALSO OWNER (yes or no)	
Total Yes:	21
Total No:	13

Marketing Costs

HANDLING, TRANS, COMM. ($ per pound sold)	
Range:	0 - 0
Average:	0.00
STD:	0.00
Contrib. #:	0
(out of 34)	

HANDLING, TRANS, COMM. (dollars per trip)	
Range:	1 - 115
Average:	14
STD:	27
Contrib. #:	16
(out of 34)	

HANDLING, TRANS, COMM. (dollars per year)	
Range:	25 - 5980
Average:	1029
STD:	1350
Contrib. #:	16
(out of 34)	

SUMMARY TABLE C: (continued)

Time and Distance

TOTAL TIME AT SEA (hours per trip)	
Range:	4 - 96
Average:	10
STD:	15
Contrib. #:	34
(out of 34)	

TIME FISHING (hours per trip)	
Range:	2 - 65
Average:	7
STD:	11
Contrib. #:	34
(out of 34)	

DISTANCE TRAVELED (miles from port)	
Range:	3 - 130
Average:	20
STD:	22
Contrib. #:	34
(out of 34)	

DISTANCE TRAVELED (miles from shore)	
Range:	1 - 100
Average:	17
STD:	18
Contrib. #:	33
(out of 34)	

Fishing Trip Description

BOTTOMFISH HANDLINE (trips per year)	
Range:	2 - 75
Average:	22
STD:	18
Contrib. #:	22
(out of 34)	

TUNA HANDLINE (trips per year)	
Range:	100 - 100
Average:	100
STD:	0
Contrib. #:	1
(out of 34)	

TROLLING (trips per year)	
Range:	5 - 365
Average:	101
STD:	81
Contrib. #:	30
(out of 34)	

TRAP (trips per year)	
Range:	95 - 95
Average:	95
STD:	0
Contrib. #:	1
(out of 34)	

SPEAR (trips per year)	
Range:	5 - 156
Average:	60
STD:	47
Contrib. #:	7
(out of 34)	

OTHER (trips per year)	
Range:	20 - 30
Average:	25
STD:	5
Contrib. #:	2
(out of 34)	

SUMMARY TABLE C: (continued)

TOTAL FISHERY
(trips per year)

Range:	12	-	365
Average:	123		
STD:	73		
Contrib. #:	34		
(out of 34)			

Fish Catch Details

AVERAGE CATCH
(pounds per trip)

Range:	25	-	900
Average:	219		
STD:	158		
Contrib. #:	34		
(out of 34)			

ESTIMATED CATCH
(pounds per year)

Range:	1000	-	63000
Average:	26173		
STD:	18458		
Contrib. #:	34		
(out of 34)			

TUNA CATCH
(percent per year)

Range:	5	-	100
Average:	62		
STD:	25		
Contrib. #:	31		
(out of 34)			

BOTTOMFISH CATCH
(percent per year)

Range:	1	-	95
Average:	23		
STD:	25		
Contrib. #:	24		
(out of 34)			

MAHIMAHI,ONO,MARLIN CATCH
(percent per year)

Range:	1	-	65
Average:	19		
STD:	17		
Contrib. #:	28		
(out of 34)			

REEF FISH CATCH
(percent per year)

Range:	5	-	100
Average:	39		
STD:	28		
Contrib. #:	10		
(out of 34)			

OTHER SPECIES CATCH
(percent per year)

Range:	5	-	5
Average:	5		
STD:	0		
Contrib. #:	1		
(out of 34)			

SUMMARY TABLE C: (continued)

Fish Sale Information

AVERAGE FISH PRICE (dollars per pound)	
Range:	0.90 - 2.50
Average:	1.41
STD:	0.37
Contrib. #: (out of 34)	30

ESTIMATED REVENUE (dollars per year)	
Range:	1000 - 105300
Average:	41136
STD:	27632
Contrib. #: (out of 34)	30

Catch Disposition - Where Sold

MAIN MARKET/COOP (percent of catch)	
Range:	20 - 100
Average:	71
STD:	27
Contrib. #: (out of 34)	18

OTHER FISH MARKETS (percent of catch)	
Range:	5 - 95
Average:	40
STD:	39
Contrib. #: (out of 34)	3

DIRECTLY EXPORTED (percent of catch)	
Range:	0 - 0
Average:	0
STD:	0
Contrib. #: (out of 34)	0

DIRECTLY TO RETAILERS (percent of catch)	
Range:	7 - 70
Average:	32
STD:	21
Contrib. #: (out of 34)	10

OTHER OUTLET (percent of catch)	
Range:	25 - 100
Average:	72
STD:	28
Contrib. #: (out of 34)	12

TAKEN HOME (percent of catch)	
Range:	1 - 100
Average:	29
STD:	34
Contrib. #: (out of 34)	25

SUMMARY TABLE C: (continued)

Supplementary Information

TIME IN COMM. FISHING (number of years)	
Range:	1 - 20
Average:	9
STD:	6
Contrib. #: (out of 34)	33

FULL-TIME COMM. FISHERMAN (yes or no)	
Total Yes:	15
Total No:	19

OTHER JOB (yes or no)	
Total Yes:	17
Total No:	17

TIME SPENT FISHING (hours per week)	
Range:	2 - 120
Average:	28
STD:	26
Contrib. #: (out of 34)	33

TIME SPENT OTHER JOB (hours per week)	
Range:	4 - 70
Average:	40
STD:	13
Contrib. #: (out of 34)	17

FISHERMAN'S AGE (number of years)	
Range:	20 - 50
Average:	36
STD:	8
Contrib. #: (out of 34)	34

FISHERMAN'S GENDER (female or male)	
Total Female:	1
Total Male:	33

FISHERMAN'S ETHNICITY (F,H,J,K,P,R,S)		
Total F:	1	(Filipino)
Total H:	25	(Chamorro)
Total J:	1	(Japanese)
Total K:	0	(Korean)
Total P:	1	(Palauan)
Total R:	2	(Carolinian)
Total S:	4	(Caucasian)

V. SUMMARY OF COMMENTS

No comments were returned by fishermen in the Guam or Saipan surveys.

The most frequent comments by American Samoan fishermen concerning trends they have noticed were:

* catch rates (especially bottomfish) were lower -- 36%
* fish imports (W. Samoa) have increased -- 10%
* new fishing techniques have developed -- 10%
* retail prices of fish have increased -- 10%
* fewer boats in the fishery -- 15%
* demand for fresh fish has increased -- 10%

American Samoa fishermen's suggestions about what Government agencies could do to assist the fishery include:

* provide financial assistance in securing loans for boats and gear -- 25%
* provide a market that would purchase local fishermen's catch -- 22%
* provide wholesale fishing gear/equipment purchasing service -- 25%
* place more buoys & FAD in new areas -- 25%
* stop/control foreign fish imports -- 11%
* provide harbor security for boats -- 10%
* provide training in new fishing techniques -- 10%

VI. TYPICAL FISHING TRIP

A: AMERICAN SAMOA

Preparation and loading of supplies (food, fuel, ice, etc.) before embarking on the fishing trip begins early (5 a.m.) and requires an average of one hour. Respondents (50%) say they use leftover skipjack (trolled on a previous trip), or buy bait locally (20%) for whatever bait is needed.

Travelling to a fishing area takes about one hour (average). Fishermen normally use a combination of fishing strategies -- mainly bottomfishing and trolling. Few gave details about the amount of time they spend fishing for their target species. [One or two mentioned spending 6 - 8 hours at the fishing site.]

Returning to port usually requires 30-60 minutes, followed by unloading the fish at dockside for another 30 minutes. Fish are sold predominately to local stores or restaurants. [Several fishermen stated that the retail outlet is owned by the fisherman's family.] The time needed to distribute the catch ranges from 1-3 hours.

B: GUAM

The fisherman's day begins around 5 a.m. Food, fuel and other supplies are gathered or purchased and loaded on the boat. This trip preparation activity takes eighty percent of the fishermen about one hour. The remaining twenty percent need 2+ hours to load their boat. If bait is used (about 50% of respondents), it is usually caught before fishing for the target species begins. Catching bait requires 5 - 30 minutes for most (70%) of those who use it. The other users (30%) spend more than 1 hour getting bait.

Travel time to the fishing grounds ranges from 5 to 90 minutes for most fishermen. [A few respondents spend 3 hours travelling to their fishing sites.] Thirty-five percent take 5 minutes, another thirty-five percent need 30-60 minutes, and thirty percent spend more than 1 hour travelling. About half engage in troll (40%) or bottomfish (7%) or spear (3%) fishing exclusively, while the other half combine different strategies such as trolling and bottomfishing or spearfishing. Very few fishermen mentioned how long they remain at sea, but those who did spend 6-8 hours fishing for the target species. Exceptions are found among the charter boats that routinely make half-day trips with tourists.

Returning to port takes from 5 to 30 minutes for sixty percent of the fishermen. Thirty percent need 60-90 minutes, and the remaining ten percent spend more than 2 hours on the return trip. At the dock, an average of one hour is required to unload the fish. Most fishermen (70%) sell to the coop. Some of the respondents (20%) sell directly to stores or restaurants. The rest (10%) use the fish for family and friends.

C: SAIPAN

The fisherman's day starts early (4-5 a.m.). Food and supplies are gathered or purchased and loaded on the boat. Trip preparation takes a majority (54%) half an hour or less. Thirty-two percent need one hour, while fourteen percent spend more than an hour preparing their boats. Most respondents (66%) do not use bait. About half of those who do spend 5-30 minutes getting bait, and the rest take more than one hour to catch bait.

Travelling to the fishing grounds requires 30-60 minutes for most fishermen (60%). Only two make it in 5 minutes, and the others (34%) need more than one hour to reach their destination. [A few respondents spend 6-8 hours travelling to their fishing sites where they remain overnight.] About half engage exclusively in troll fishing and another fourteen percent fish only for bottomfish or go spearfishing. The rest (36%) combine trolling with bottomfishing or spearfishing. A few fishermen said they spend 6-8 hours fishing for the target species. Most did not provide any information on fishing time. One or two fish for extended periods (overnight). Charter boats usually make half-day trips with tourists.

Returning to port with the iced fish takes longer than going out. Most fishermen (63%) need 60-90 minutes for the return trip. Thirty percent take more than 2 hours, and the remaining seven percent go short distances (5-30 minutes). At the dock, unloading for the majority of respondents (66%) takes 5-30 minutes. Twenty-three percent need one hour, and the remaing eleven percent take more than 90 minutes. The fish are sold to various outlets such as stores, hotels and along the roadside by 63% of the fishermen. Only thirty-one percent sell their fish to the main market. Two respondents (6%) use their fish or give it to family and friends.

APPENDIXES

COUNCIL SPECIAL PROJECT ON COMMERCIAL FISHING VESSEL ECONOMICS

American Samoa, Guam, and the Northern Mariana Islands

FIELDING INSTRUCTIONS

Introduction

The purpose for this project is to get information on the economics of typical **commercial** fishing vessel operations in American Samoa, Guam, and the Northern Mariana Islands. The information is being collected on a **strictly voluntary basis** for fishery management research purposes, but it may also be applied to a number of fishery development issues at a later date. The Council is responsible for this project. However, the information will be summarized and a complete report prepared by the Honolulu Laboratory, NMFS. The Council should commit itself to sending the report back to the areas for distribution to the fishing vessel operators who cooperate with the project.

The **key link** in this project is you, the field staff, which asks the questions of those commercial fishing in each area. If you have any questions, please let us know. It's better to ask first, rather than to go back later.

Vessel Sample

The WPACFIN data base will be used to develop criteria for selecting vessel operators to interview. The main principle will be to get information from the most active boats, as well as a representative sample of other vessel operators. We are looking for information on "full-time" commercial fishers (anyone who is fishing to make a significant portion of their income), but we also want information on anyone who catches a lot, even if it is not all sold. The Vessel Sample will be a guide, but you should make sure in the field we don't miss an important type of "commercial" fishing.

We also need to develop a new vessel inventory and classification of boats currently commercial fishing in these areas. Dave Hamm will send you more information on this when he provides the Vessel Sample.

Field Interview Form

The Field Interview Form has 5 sections of information: 1) Interview identification; 2) Fishing vessel costs; 3) Fishing production (catch); 4) Fish sales; and 5) Supplementary.

There is a lot of information requested in the Field Interview Form, but it's all information we have found useful in doing economic analysis of small boat fishing. **Some** of the information may be obtainable through the WPACFIN data bases, so the **top priority** is the cost information. Each type of information should include a combination of numerical data plus a narrative in which the fisherman explains his/her experiences.

The data should be **strictly confidential** and it is preferable if the name of the fisherman **not** be included in the survey. Obviously it's important to keep track, but do this as discreetly as possible. Keeping a log at the office of your interviews and interview i.d. codes is a good idea. (And be sure to send us your list!) You will also be asked to file either a Council or an NMFS confidentiality form which indicates you are aware of Federal confidentiality standards: the Council staff will handle this.

We want to get information for 1987, but it is also important to find out what has changed in the recent past and what has already changed in 1988.

Fishing Vessel Cost information

Cost information consists of 5 categories:

Investment costs: Value of vessel and gear
(Price actually paid,
including cost of upgrades)

Annual or fixed costs: Monthly financing costs
Annual maintenance
Vessel insurance
Business costs

Trip costs: Regular vessel operating costs
(fuel, ice, bait, gear, etc.)
Per trip Repairs

Crew costs: Method of calculating crew share

Product costs: Handling, transportation, commissions

Narrative: ask the fisherman to highlight any important costs or cost rates not clearly identified in the cost categories. Also, if you can get information on **cost per item** and **use rates**, e.g. $1.00 per 10 bag of ice, 100 pounds of ice per trip, that's **very** useful.

It is important to get estimates of total costs on a **per trip** and on an **annual basis** in order to compare. However it is important to be clear **what** costs are included in each estimate. Ask for their estimate of totals, and then check the sum of the individual items.

If the type of vessel operations changes during the year, in terms of trip length (hours at sea) or type of fishing (trolling or handline) such that cost of operation changes, then separate estimates should be made if at all possible. (It is also all right to make an "average" estimate and then indicate how much (percentage) each **type** of trip deviates from the average.

Remember, this is the **most important part** of the study. Spend the time to do it right, and return to the vessel operator for more information if necessary.

Fishing production information

Fishing operations information is pretty straightforward, but again it is important to differentiate **types of trips** if it makes a difference on their revenue or cost picture. Otherwise an average is acceptable.

Information categories include:

Number of trips per year
(by type if necessary)

Trip duration (hours at sea)
Fishing time (hours fishing)
target species and gear
[trolling to the fishing grounds is excluded unless trolling is the main fishing method for the trip]

Narrative: Ask the fisherman to "talk through" a typical fishing trip, from leaving home to returning home.

Average catch per trip

.... Differentiate by type of trip if necessary

.... Determine species group (bottomfish, tuna, mahi/ono, other)

If 1987 was **not** a typical year, please ask the fisherman what he thinks a typical year would look like.

Fish Sales information

Average pounds sold, average price, and annual revenue. (Revenue is sometimes a sticky question...be sensitive and think if the answer is realistic.)

Disposition of the catch: how much is sold to each type of buyer (it's not essential to identify the firm's name, just the type of firm, e.g. coop, central market, wholesaler, retailer, friends and family, etc.) Also indicate how much is kept (i.e. not sold).

Narrative: ask the fisherman to describe the process of selling his fish. This is also a good time to ask fishermen to describe changes in the fishery and to highlight problems or issues that are important to them. Write down as much information as possible: play news reporter, it really helps.

Estimates from the fishermen of annual landings and annual revenue would be useful but are not essential. Be sure to assure the fishermen that the information will be kept confidential, **and be sure it is!**

Vessel inventory

Please estimate how many of each type of fishing boat **actively** fishes during the year. You can ask fishermen for their opinions on this too; it's a good cross-check. The rest of this is covered up above under Vessel Sample.

Data recording and field report

The information should be put onto the "Field Interview Form" for data processing, but you may **not** want to take the form with you. Often just using a notebook to jot down answers reduces interview stress. Also, it is frequently important to volunteer to come back to a fisherman later on, either because he's busy at the moment or because he needs time to think of the answers, or because you discover you need to fill in some gaps in the interview information.

Feel free to revise the "Field Interview Form" so it

reflects reality in your area. This is your survey for your fishermen (and women), so use what looks like it will work. As long as you are **consistent** in your area, everything will turn out ok.

The Field Interview Forms should be sent to the Council along with any timekeeping information required under this project. We recommend you send in some forms early so we can make suggestions about anything that isn't clear.

When the data collection is completed, please prepare a brief narrative describing how you chose the fishermen to get information from, what problems turned up in getting the information, and anything else you think we should know to analyze the information. We **need** your ideas as well as your labor!

Final Project Report

The Council and NMFS staff will process the data and draft the project report. Once we've had a chance to examine the information you collected, we may request some additional input from you. We will send the draft project report to you for your review and comments. Everyone who collects information will be acknowledged, and at least one person in each area will be included as an equal co-author on the final project report.

Conclusion

Probably the most important part of getting this type of information is to be casual and trust the fishermen, but don't be afraid to ask questions to clarify answers. Also it's better to get a few **good** sets of information than a larger number of lousy sets.

I recommend passing out some type of local fisheries report when you collect the information, and I recommend assuring that a report will be produced and available to the fishermen based on their information. There's no guarantee to what purpose this information will be used (and it's important to note that sometimes fisheries management and fisheries development have conflicting impacts on fishermen), so it's important to stress that we will be as accurate as possible in telling the fishermen's story. Good luck!

ASG1: 4/13/88

COUNCIL SPECIAL PROJECT ON COMMERCIAL FISHING VESSEL ECONOMICS

American Samoa, Guam, and the Northern Mariana Islands

FIELD INTERVIEW FORM

-- All information is strictly confidential --

[See fielding instructions for clarification of questions.]

INTERVIEW IDENTIFICATION

Interviewer _____

Island _____ Port _____

Vessel/operator I.D. _____ (Code)

Date _____

VESSEL COST INFORMATION

Investment Costs

1. Length of vessel _____ feet
2. Fish hold capacity _____ pounds of fish
3. Cost of vessel when purchased $_____
4. Year purchased _____ year
5. Additional investment costs (Trailer, electronics, linehaulers) $_____

Identify anything special about the boat, e.g. charter boat, etc.

_____

Annual Costs For 1987!

6. Scheduled annual repairs or major overhaul/repairs $_____

7. Replacement parts & equipment (major gear, electronics, etc.) $_____

8. Boat and trailer insurance $_____

9. Other business costs (e.g. licenses, accounting, office, etc.) $_____

Explain any large items

---

10. TOTAL ANNUAL COSTS (Excluding TRIP costs) $_____

NOTE: #10 should be total of #6-9 ... ask respondent if the total seems reasonable. If not, ask what is left out, and add it in.

Trip Costs For 1987!

		(c) Per Trip	(a) Per Trip	(b) Per Year
11.	Fuel & oil	Gallons _____	$_____	$_____
12.	Ice	Pounds _____	$_____	$_____
13.	Bait	Pounds _____	$_____	$_____
14.	Fishing gear (expendable) (ropes, floats, hooks, etc.)		$_____	$_____
15.	Food		$_____	$_____
16.	Supplies (gloves, bags, boxes)		$_____	$_____
17.	Small repairs		$_____	$_____
18.	Other trip expenses (Explain)		$_____	$_____
19.	TOTAL OPERATING COST		$_____	$_____

NOTE: #19 should be total of #11-18 ... ask respondent if the total seems reasonable. If not, ask what is left out, and add it in.

Crew Costs For 1987!

	Per Trip	Per Year
20. Amount paid to crew per	$_____	$_____

Describe how crew & captain are paid, eg. share, flat rate per trip, etc.

---

21. Crew share as percent of Total Revenue minus Operating Costs: (Even if the captain doesn't pay an explicit crew share, take a shot at asking them for an estimate.)

_____ %

22. Number of crew (including the captain): _____ crew

23. Is captain also the owner? Yes _____ No _____

Product Costs For 1987!

24. Handling, transportation, &/or commissions $_____/ Pound Sold

	Per Trip	Per Year
25. Estimate handling costs per	$_____	$_____

FISHING PRODUCTION INFORMATION

Typical Trip

Describe a typical trip from leaving home to returning home:
(If more than 1 type of typical trip, use the back and specify the 2nd type.)

For each part of the trip, be sure to note time spent.

Loading _____

_____
(Time spent getting boat ready before leaving the dock, including time at home just before trip.)

Baiting _____
(Purchase bait or spend time fishing for bait?)

Going to grounds _____
(Time spent from port, before fishing begins.)

_____

Fishing _____

_____

_____
(Describe various activities)

Return from grounds _____

Unloading _____

Selling fish _____

_____

_____
(How sold, when, to whom, time spent)

Time & Distance

26. Hours per trip at sea: _____ hours

27. Hours per trip fishing for target species _____ hours

28. Distance traveled ..... from port _____ miles

from shore _____ miles out

Was there anything really unusual about fishing in 1987? Please explain.

Fishing Trips For 1987!

Type of Fishing & Trips per Year

(If trips are using mixed gears, split trips in half.)

29. Bottomfish Handline _____ trips

30. Tuna Handline _____ trips

31. Trolling _____ trips

32. Trap _____ trips

33. Spear _____ trips

34. Other _____ trips

35. TOTAL TRIPS _____ trips

NOTE: #35 should be total of #29-34 ... ask respondent if the total seems reasonable. If not, ask what is left out, and add it into Other.

Fish Catch For 1987!

36. Average Catch per Trip _____ Pounds

37. Estimated Annual Catch _____ Pounds

Annual catch per year: Percent

38. Tuna _____%

39. Bottomfish _____%

40. Mahimahi/wahoo (ono), marlin _____%

41. Reef fish _____%

42. Other _____%
Species

TOTAL 100 % !
#38-42 must add up to 100%!

FISH SALES INFORMATION

43. Average Price per Pound $_____ per Pound
(Fill in for main species if necessary)

44. Estimated Annual Revenue $_____
(For 1987!)

Was there anything unusual about fish prices & marketing in 1987? Please explain.

Catch Disposition

Where is the fish sold?
(You may need to adjust these to your area.)

45. Main market/coop _____%

46. Other fish markets _____%

47. Directly exported _____%

48. Directly to retailers _____%
(e.g. to food stores or restaurants)

49. Other (specify) _____%

_____

50. Taken home (Not sold) _____%

TOTAL 100 % !
#45-50 must add up to 100%!

SUPPLEMENTARY INFORMATION

51. Years spent commercial fishing _____ years

52. Full-time commercial fisherman? _____ Yes No ____

53. Other job? Specify _____

54. Hours spent at fishing per week _____ hours

55. Hours spent at other job per week _____ hours

56. Gender _____ Male _____ Female
(No need to actually ask, usually)

57. Age _____ Years
(Guess if necessary)

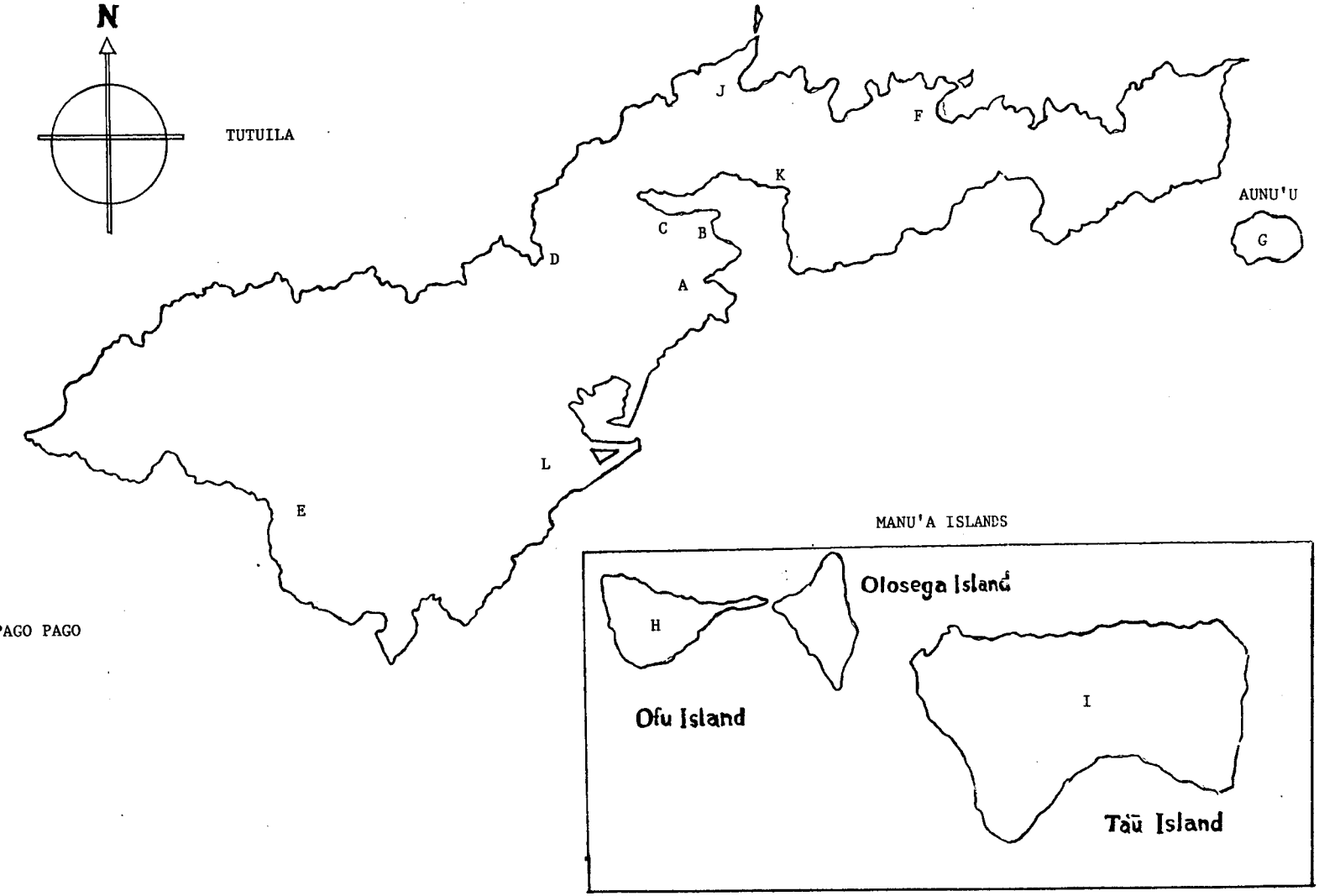
58. Ethnicity _____
(Guess if necessary)

Anything else we should know? (Sorry, out of space. Use a notebook!)

ASG1: 4/12/88

Attachment D

American Samoa



A - FAGAALU
B - UTULEI
C - FAGATOGO/PAGO PAGO
D - FAGASA
E - LEONE
F - MASEFAU
G - AUNU'U
H - OFU
I - TA'U
J - VATIA
K - AUA
L - TAFUNA