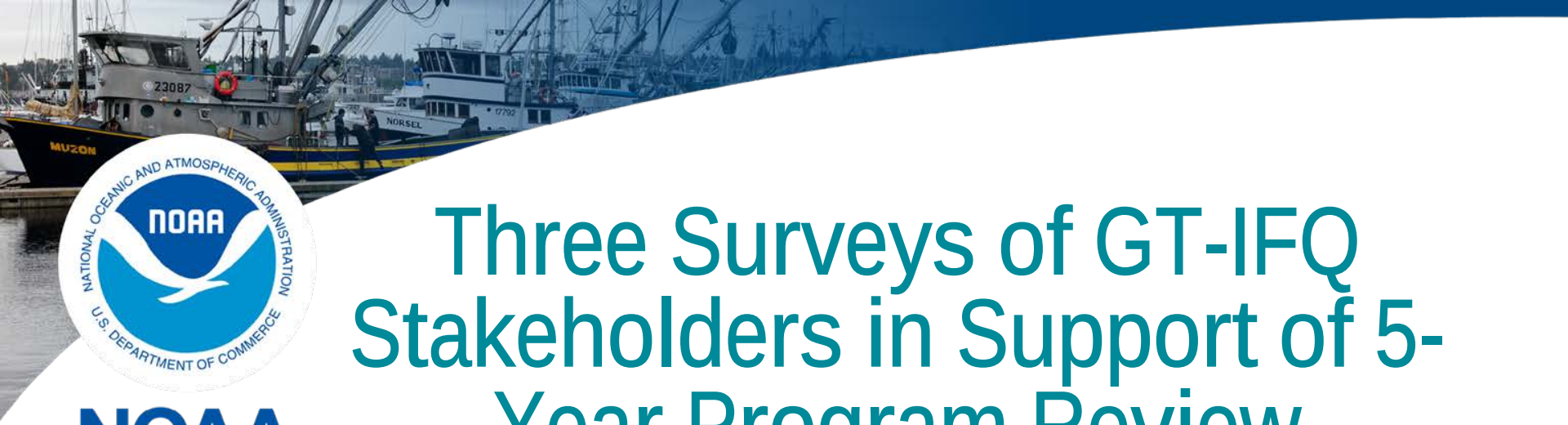


Three Surveys of GT-IFQ Stakeholders in Support of 5-Year Program Review

Larry Perruso
NOAA Fisheries Economist, SEFSC
Miami, Florida

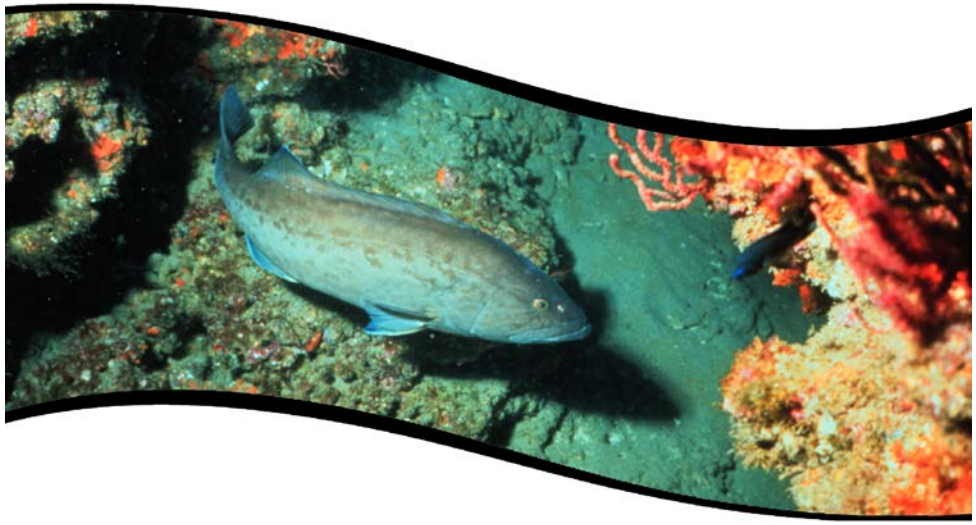
Gulf of Mexico Fishery Management Council
SSC Meeting – Tampa, FL
January 9, 2018

Introduction

- MSRA (2006) requires detailed review of LAPPs (e.g. GT-IFQ) 5 years after implementation.
- Review should address the impacts on fishery participants.
- SEFSC received funding to complete a one-time data collection of demographic, economic and social info from 3 stakeholder surveys (i.e. participants, dealers, labor) associated with GT-IFQ including attitudes and perceptions of the performance of the program.

Participants Survey

Survey of Participants in the Gulf of Mexico Grouper-Tilefish Individual Fishing Quota Program - 2014



Participants Survey - Objectives

- Baseline demographic and socioeconomic info
- Attitudes and perceptions of GT-IFQ performance with particular focus on changes in:
  - support and satisfaction with GT-IFQ
  - fishing practices and profitability
  - experiences with hired labor
  - relationships with dealers
  - accessibility and equity of GT-IFQ

Participants Survey - Objectives

- Socioeconomic outcomes of GT-IFQ after 5 years especially with respect to:
  - capital investment and disinvestment
  - future plans to participate in GT-IFQ
  - share and allocation transfer processes

Participants Survey - Methodology

- Attempted census of 997 GT-IFQ accounts as of January 22, 2014 as well as any new accounts activated by August 20, 2014
  - attempted to include participants that did not own shares at beginning of 2014 season
  - did not attempt to contact past participants that left fishery (i.e. sold all GT-IFQ shares prior to January 2014)

Participants Survey – Modified Dillman (2000) Method

- Survey constructed with input from Dr. Walter Keithly and SEFSC/SERO/Council social scientists.
  - 9 in-person pre-test interviews – September 2013
  - final survey self-administered online or by mail
- Pre-notification letters mailed to 997 potential respondents - March 2014
  - directions to access survey online or request hard copy by mail
  - reply with pre-paid post card or toll-free phone

Participants Survey – Modified Dillman (2000) Method

- As of April 24, 2014, 824 potential respondents had not participated online, requested mail survey or deemed unreachable.
  - questionnaire package mailed with cover letter, survey and business-reply envelope
    - five days later a follow up post card was mailed
- As of May 29, 2014, 679 had not participated and were mailed a second questionnaire package.

Participants Survey – Modified Dillman (2000) Method

- As of July 7, 2014, 548 had not responded.
  - QuanTech attempted to telephone resulting in 6 completed surveys, 49 promises to complete, 29 new surveys requested, and 57 refusals.
- The survey was closed online and for follow-ups on August 20, 2014.
- Of the original 997 accounts, 33.6% responded with an additional 2% (new accounts) online.

Participants Survey – Responses

- Results for the original N=997 census frame (an additional 19 online surveys were completed)

Survey Status	n	%
Paper Survey Complete	199	*19.96*
Web Survey Complete	132	*13.24*
Deceased	4	*0.40*
Returned Mail - No New Address	40	*4.01*
No Response	529	*53.06*
Refused	93	*9.33*
All	997	*100.00*

Participants Survey – Instrument

- Consisted of 40 questions arranged in 6 sections
  - Background Information
  - Attitudes/Perceptions Concerning the GT-IFQ
  - Socioeconomic Assessment of the GT-IFQ
  - Transfer of GT-IFQ Allocation or Shares
  - Social Well-Being and Demographic Information
  - Other Issues (focused on GT-IFQ program operations)

Participants Survey – Attitudes and Perceptions

Level of Support for the GT-IFQ at Time of Implementation (January 2010) and Time of Survey (March – August 2014)

	January 2010		2014	
	Number	%	Number	%
Yes (support)	101	37.8	121	45.3
No (do not support)	117	43.8	107	40.1
Undecided	32	12.0	39	14.6
Not Applicable	17	6.4		
TOTAL	267	100	267	100

Participants Survey - Attitudes and Perceptions

Satisfaction with the GT-IFQ in 2014

	Number	%
Highly Unsatisfied	89	*33.2*
Unsatisfied	41	*15.3*
Neutral	**22**	***8.2***
Satisfied	54	*20.2*
Highly Satisfied	51	*19.0*
N/A	11	*4.1*
Total	268	*100*

Participants Survey – Attitudes and Perceptions

	Strongly Disagree	Disagree	**Neutral**	Agree	Strongly Agree	No Opinion
Improved the **profitability** of G-T component of my business by **increasing ex-vessel prices**	*22.6*	*11.5*	***18.4***	*19.5*	*20.3*	*7.7*
Improved the **profitability** of G-T component of my business by **reducing operating expenses**	*33.9*	*23.6*	***12.6***	*11.0*	*12.6*	*6.3*
More **flexible timing** for conducting commercial fishing trips	*18.5*	*12.4*	***10.4***	*23.9*	*30.9*	*3.9*
Reduced regulatory **discards** of G-T species	*22.8*	*21.2*	***17.8***	*17.0*	*15.8*	*5.4*
Reduced **incidental catch** of non-targeted species	*25.5*	*21.6*	***21.6***	*13.5*	*13.5*	*4.2*

Participants Survey - Attitudes and Perceptions

	Strongly Disagree	Disagree	**Neutral**	Agree	Strongly Agree	No Opinion
Reduced the loss of gear	*18.8*	*25.4*	***29.6***	*9.2*	*9.2*	*7.7*
Reduced derby-fishing conditions	*12.4*	*5.0*	***10.8***	*26.2*	*40.5*	*5.0*
Decreased crowding on fishing grounds	*13.4*	*14.6*	***15.3***	*29.9*	*21.8*	*5.0*
Improved safety at sea	*16.2*	*15.4*	***17.4***	*18.5*	*25.5*	*7.0*
Increased consolidation in the G-T sector	*6.3*	*10.2*	***26.4***	*26.4*	*19.3*	*11.4*
Made it harder for people to enter the G-T sector	*8.5*	*6.9*	***11.9***	*28.1*	*38.1*	*6.5*
Improved compliance with regulations associated with G-T species	*12.3*	*13.8*	***21.5***	*25.3*	*21.5*	*5.8*

Participants Survey - Attitudes and Perceptions Maintaining Skilled Crew and Hiring Replacements

	Very Difficult	Difficult	**Neutral**	Easy	Very Easy	No Opinion
Maintain Skilled Crew Pre-IFQ	*5.8*	*11.9*	***27.6***	*22.6*	*7.3*	*24.9*
Maintain Skilled Crew Post-IFQ	*14.1*	*16.4*	***21.1***	*18.0*	*6.6*	*23.8*
Replacing Skilled Crew Pre-IFQ	*7.4*	*13.6*	***26.4***	*21.7*	*5.4*	*25.6*
Replacing Skilled Crew Post-IFQ	*15.8*	*15.4*	***24.0***	*13.0*	*7.1*	*24.8*

Participants Survey – Socioeconomic Outcomes Share and Allocation Transfers

If you **received** (e.g., leased, gifted) transferred **GT-IFQ allocation** FROM another IFQ account, how important were the following reasons for doing so?

	Not Important	Somewhat Important	Very Important
I did not have the **financial resources** at the time to purchase IFQ shares.	*20.5*	*21.2*	*58.3*
I want to be able **to retain grouper-tilefish species** which I would have **otherwise discarded.**	*24.8*	*13.7*	*61.4*
I consider buying of additional IFQ **shares as too risky** due to **uncertainty in: future commercial quotas** due to **changes in stock assessments** or modifications to the commercial/recreational **allocation**.	*13.9*	*21.2*	*64.9*
I consider the buying of additional IFQ shares as too risky due to uncertainty in: **future harvesting costs**.	*27.0*	*23.7*	*49.3*
I consider the buying of additional IFQ shares as too risky due to uncertainty in: the **duration of the GT-IFQ Program**.	*14.9*	*17.5*	*67.5*

Participants Survey – Socioeconomic Outcomes Share and Allocation Transfers

If you purchased GT-IFQ shares, how important were the following reasons for doing so?

	Not Important	Somewhat Important	Very Important
The asking price for the purchased shares was reasonable compared to the financial return I anticipated from fishing the additional shares.	*10.8*	*29.0*	*60.2*
The asking price for the purchased shares was reasonable compared to what I anticipate I will be able to sell the shares.	*34.8*	*31.5*	*33.7*
I believed that the additional shares would allow me to fish at a more efficient level.	*9.7*	*10.8*	*79.6*
I needed additional shares because I wanted to retain the grouper-tilefish I land as bycatch.	*39.4*	*22.3*	*38.3*
I anticipated that Total Allowable Catch will increase after the next stock assessment.	*29.7*	*31.9*	*38.5*

Participants Survey – Program Performance

Satisfaction with the IFQ Online System for **managing share and allocation and completing landing transactions**

	Number	Percent
Highly Unsatisfied	33	13.75
Unsatisfied	13	5.42
Neutral	**44**	**18.33**
Satisfied	82	34.17
Highly Satisfied	55	22.92
No Opinion	13	5.42

Participants Survey – Program Performance

Satisfaction with the customer service they receive when contacting NOAA Fisheries Service regarding **questions about the IFQ Program**

	Number	Percent
Highly Unsatisfied	23	9.58
Unsatisfied	15	6.25
Neutral	**46**	**19.17**
Satisfied	74	30.83
Highly Satisfied	66	27.50
No Opinion	16	6.67

Participants Survey – Program Performance

Satisfaction with the customer service they receive when **making a landing notification via phone**

	Number	Percent
Highly Unsatisfied	18	7.32
Unsatisfied	14	5.69
Neutral	**51**	**20.73**
Satisfied	101	41.06
Highly Satisfied	33	13.41
No Opinion	29	11.79

Participants Survey – Program Performance

Satisfaction with the **enforcement** of the program

	Number	Percent
Highly Unsatisfied	25	10.16
Unsatisfied	22	8.94
Neutral	**68**	**27.64**
Satisfied	76	30.89
Highly Satisfied	37	15.04
No Opinion	18	7.32

Questions/Discussion of Participants Survey?

Dealer/Processor Survey

National Marine Fisheries Service

Economic Survey of Gulf of Mexico Dealers Associated With the Gulf of Mexico Grouper-Tilefish Individual Fishing Quota Program

Please return questionnaire to:

QuanTech, Inc.
6110 Executive Blvd Suite 480
Rockville, MD 20852

Dealer/Processor Survey - Objectives

- Baseline demographic and socioeconomic info
- Attitudes and perceptions of GT-IFQ performance with particular focus on changes in:
  - sources and costs of product
  - changes in sales practices
  - relationships with fishermen

Dealer/Processor Survey - Objectives

- Perceptions toward potential and actual outcomes of GT-IFQ especially with respect to:
  - capital investment and disinvestment
  - future plans to participate in GT-IFQ
  - share and allocation transfer decisions

Dealer/Processor Survey - Methodology

- Attempted census of 215 licensed dealer and processors that operated in the GT-IFQ program as of January 1, 2015
  - included any business that sold or processed grouper-tilefish products in GOM
  - in-person and self-administered mail interviews by QuanTech (similar Dillman method as Participants Survey for mailings)
  - direct participation by fishing industry

Dealer/Processor Survey - Methodology

- High level of cooperation between industry and QuanTech and NMFS for in-person interviews
  - development of survey instrument with Dr. Walter Keithly and SEFSC/SERO/Council social scientists
  - pre-notification with businesses to set appointments for in-person interviews
  - care taken to represent divergent industry views about IFQs

Dealer/Processor Survey - Methodology

- In a divergence from Dillman, industry reps were used to target larger operators for in-person interviews.
  - completed survey response rate was 28.8%
  - responding businesses were responsible for approximately 87% of GOM G-T landings in 2015
  - in-person interviews also resulted in pre-arranged interviews with captains and crew

Dealer/Processor Survey – Responses

- Results for the original N=215 census frame

Survey Status	n	%
In-Person Survey Complete	25	*11.6*
Mail Survey Complete	37	*17.2*
Returned Mail - No New Address	13	*6.0*
No Response	127	*59.1*
Refused	13	*6.0*
All	215	*100.0*

Dealer/Processor Survey – Instrument

- Consisted of 25 questions arranged in 5 sections
  - Background Info and Program Approval
  - Pre- and Post-GT-IFQ Operations
  - Pre- and Post-GT-IFQ Infrastructure and Equipment
  - GT-IFQ Share in Business Operations
  - Other Issues (focused on GT-IFQ program operations)

Dealer/Processor Survey – Results

Note that interviews were conducted mainly during the Spring and Summer of 2016 and most questions asked for relevant information in 2009 and 2014. It is likely that opinions related to post-implementation (i.e. 5-years after) attitudes and perceptions may reflect the 2015 fishing season.

Primary activity:

- commercial fishing 25%;
- dealers/distributors 45%;
- processing 10%, and
- retailers 10%.

Dealer/Processor Survey – Results
Program Approval

Opinions on GT-IFQ Program at the Time of Implementation (January 2010) and 2014

	Pre-IFQ		Post-IFQ	
	Number	%	Number	%
Strongly Opposed	11	18	15	25
Opposed	12	20	8	13
Neutral	**9**	**15**	**7**	**11**
Supported	11	18	14	23
Strongly Supported	9	15	16	26
No Opinion	9	15	1	2
TOTAL	61	100	61	100

Dealer/Processor Survey – Results

Estimated Number of Employees Pre-IFQ (2009) and Post-IFQ (2014)

Number (range)	Pre-GT-IFQ (2009)	Post-GT-IFQ (2014)
1 to 10	23	21
11 to 50	10	10
Over 50	4	6

Dealer/Processor Survey – Results

Sales Price ($/lb) and Estimated Mark-up ($/lb)
Pre-IFQ (2009) and Post-IFQ (2014)

Species	Sales price		Markup	
	2009	2014	2009	2014
Gag grouper	$6.78	$8.53	$2.39	$2.78
Red grouper	$5.78	$7.56	$2.14	$2.75
Black grouper	$5.63	$6.75	$1.60	$1.65
Scamp	$6.69	$8.25	$2.23	$2.59
Yellowedge grouper	$6.57	$7.69	$1.87	$2.02
Golden tilefish	$4.69	$5.51	$1.64	$1.73
Blueline tilefish	$2.12	$2.92	$0.68	$0.72

Dealer/Processor Survey – Results

GT-IFQ Share Ownership

	Yes	No	Undecided
Do you or your business currently own IFQ shares?	53%	47%	N/A
Do you or your business plan to acquire shares in the future?	31%	39%	30%

Dealer/Processor Survey – Results

	Yes	No
Do you or your business provide allocation to vessels not owned by you?	56%	44%

Of those who answered YES:

- fishermen sell their catch to the firm with payment for allocation deducted: 68% ;
- 26% fishermen pay for allocation upfront;
- Other arrangements (for example, exchanging for red snapper)

Dealer/Processor Survey – Results

Use of allocation held on an annual basis

Purpose	Percent
Used by vessels owned by this business	38.3%
Provided to fishermen who own their own vessels with the stipulation that they sell their catch to business	42.1%
Provided to fishermen with no requirements on sales	8.4%
Sold (leased)	4.3%
Other	6.8%

Dealer/Processor Survey – Program Performance

Satisfaction with the IFQ Online System

	Number	Percent
Highly Unsatisfied	2	3.6%
Unsatisfied	3	5.4%
Neutral	**14**	**25.0%**
Satisfied	22	39.3%
Highly Satisfied	14	25.0%
No Opinion	1	1.8%

Dealer/Processor Survey – Program Performance

Satisfaction with Customer Service Received

	Number	Percent
Highly Unsatisfied	3	5.4%
Unsatisfied	3	5.4%
Neutral	**2**	**3.6%**
Satisfied	22	39.3%
Highly Satisfied	25	44.6%
No Opinion	1	1.8%

Dealer/Processor Survey – Program Performance

Satisfaction with the Enforcement of the Program

	Number	Percent
Highly Unsatisfied	5	9.0%
Unsatisfied	6	10.9%
Neutral	**13**	**23.6%**
Satisfied	15	27.3%
Highly Satisfied	11	20.0%
No Opinion	5	9.1%

Questions/Discussion of Dealer/Processor Survey?

Captains/Crew Survey - Objectives

- Baseline demographic and socioeconomic info
- Attitudes and perceptions of GT-IFQ performance with particular focus on changes in:
  - work availability, mobility and choice
  - income
  - safety

Captains/Crew Survey - Methodology

- In-person surveys implemented using tablettargeting captains and crew that had <u>any</u> experience working in the GOM G-T fishery
  - industry contacts arranged for dealers to schedule available captains and crew for in-person interviews after completion of dealer interview
  - intercept method based on random sampling strategy of nearby docks and snowball referrals
  - designed to be less than 15 minutes but respondents given opportunity to elaborate

Captains/Crew Survey - Methodology

- Development of survey instrument with Dr. Jacob LaRiviere, industry, and SEFSC/SERO/Council social scientists
  - implemented in-person using electronic tablets
  - interviewers manually wrote down extra testimony from respondents

Captain and Crew Survey

- Survey captain and crew who have, at some point, participated in the Gulf grouper and tilefish fishery
- 153 surveyed
- 40% captain; 60% crew
- Survey provides a snapshot in 2016
- Pre-IFQ baseline is not available
- Pre-IFQ responses are recalled outcomes and experiences

Species Targeted

	Gag	Red	SWG	DWG	Tilefish	Don't Know
Pre 2010	88.8%	94.0%	94.0%	77.6%	69.4%	0.0%
GT-IFQ	81.8%	83.9%	89.9%	79.2%	63.8%	0.7%

SWG: Shallow water grouper; **DWG**: Deep water grouper

Labor Mobility

Change in Availability of Work by Vessel Role

	Increased Greatly	Increased Slightly	Stayed the Same	Decreased Slightly	Decreased Greatly	Don't Know	Total
Captain	8%	14%	**18%**	20%	38%	2%	44%
Crew	6%	13%	**28%**	12%	40%	1%	56%
Other	0%	0%	**0%**	0%	100%	0%	1%
Total	7%	13%	**23%**	15%	40%	1%	100%

Labor Mobility

Change in Choices for Employment

	Increased Greatly	Increased Slightly	Stayed the Same	Decreased Slightly	Decreased Greatly	Don't Know/ Refused	Total
Captain	6%	9%	32%	15%	31%	7%	44%
Crew	5%	12%	31%	19%	31%	1%	56%
Other	0%	0%	100%	0%	0%	0%	1%
Total	5%	11%	32%	17%	31%	4%	100%

Labor Mobility

Change in Ability to switch to another vessel

	Increased Greatly	Increased Slightly	Stayed the Same	Decreased Slightly	Decreased Greatly	Don't Know/ Refused	Total
Captain	5%	6%	35%	14%	35%	5%	44%
Crew	6%	11%	37%	18%	25%	2%	56%
Other	0%	0%	100%	0%	0%	0%	1%
Total	5%	9%	37%	16%	30%	4%	100%

Income

Change in Average Annual Income

	Increased Greatly	Increased Slightly	Stayed the Same	Decreased Slightly	Decreased Greatly	Don't Know	Total
Captain	22%	23%	15%	9%	28%	3%	44%
Crew	14%	25%	19%	11%	28%	2%	56%
Total	17%	12%	22%	12%	34%	2%	100%

Income

Change in stability of annual income

	Increased Greatly	Increased Slightly	Stayed the Same	Decreased Slightly	Decreased Greatly	Don't Know	Total
Captain	20%	23%	17%	6%	32%	2%	44%
Crew	5%	23%	27%	14%	30%	1%	56%
Total	11%	23%	23%	11%	31%	1%	100%

Safety

Change in Safety Perception by Vessel Role

	Increased Greatly	Increased Slightly	Stayed the Same	Decreased Slightly	Decreased Greatly	Don't Know	Total
Captain	40%	18%	38%	2%	2%	--	44%
Crew	39%	16%	37%	5%	4%	--	56%
Total	39%	17%	38%	3%	3%	--	100%

Personal Satisfaction

Change in personal satisfaction with fishing

	Increased Greatly	Increased Slightly	Stayed the Same	Decreased Slightly	Decreased Greatly	Don't Know	Total
Captain	18%	15%	17%	11%	35%	3%	44%
Crew	17%	10%	25%	13%	34%	1%	56%
Total	17%	12%	22%	12%	34%	2%	100%

Questions/Discussion of Captains/Crew Survey?

Thank you!