

DEVELOPING CULTURALLY RELEVANT SOCIAL INDICATORS (Job Satisfaction)

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Selecting Indicators for Surveys

- **Sociologists, psychologists & other social scientists have been constructing scales for measuring variables of interest for decades.**
- **We should take advantage of these scales.**
- **But sometimes the scales are not culturally relevant.**
- **Also, when we want to measure numerous variables, the combination of scales results in a survey of unacceptable length.**
- **What do we do?**

Obtaining culturally relevant items

- Items in earlier indicators of job satisfaction did not seem relevant to fishing & fishing seemed to have unusual “satisfactions”
- Ask open-ended questions to sample.
- *For job satisfaction:*
- Tell me what you really like about your job fishing.
- Tell me what you really dislike about your job fishing.
- Put all responses together and select relatively high frequency responses.

Relatively high frequency items from open ended questions (I)

- Time away from home
- Peace of mind
- Hours spent working
- Feeling you are doing something worthwhile
- Time for recreation and family activities
- Working outdoors
- Ability to come & go as you please
- Challenge of job
- Doing deck work on vessel
- Time it takes to get to fishing grounds
- Adventure of job
- Opportunity to be your own boss

Relatively high frequency items from open ended questions (II)

- Your earnings
- Community in which you live
- Cleanliness of the job
- Being out on the water
- Healthfulness of the job
- Physical fatigue of the job
- Predictability of earnings
- Mental pressure of job
- Job safety
- Performance of state & federal officials

How do you create scales with a list of items like these?

- Create a scale for evaluating each item.
- For example, have the respondent evaluate each item on a 5 point scale from ***very dissatisfied*** to ***very satisfied***.
- Sum them up?
- Principal component analyses? To be used if you feel there may be more than one dimension of job satisfaction.

Factor loadings (rotated) for job satisfaction items			
	Factor 1	Factor 2	Factor 3
Time away from home	.81	.09	.21
Hours spent working	.72	.25	.17
Time for recreation/family activities	.71	.06	.12
Ability to come & go as you please	.61	-.12	.41
Time it takes to get to fishing grounds	.47	.21	.14
Doing deck work on vessel	.41	.12	.40
Opportunity to be your own boss	.39	-.21	.34
Community in which you live	.39	.12	.21
<i>Cleanliness of the job</i>	-.03	.59	.02
<i>Physical fatigue of the job</i>	.03	.56	.02
<i>Predictability of earnings</i>	.11	.49	.08
<i>Mental pressure of job</i>	.18	.48	.03
<i>Job safety</i>	.19	.45	.11
<i>Your earnings</i>	-.19	.36	-.15
<i>Healthfulness of the job</i>	.21	.31	.26
Being out on the water	.14	-.02	.71
Adventure of job	.16	.05	.71
Challenge of job	.18	-.01	.66
Working outdoors	.23	.08	.57
Feeling you are doing something worthwhile	.12	.28	.51
Peace of mind	.28	.24	.34

What do we do if survey too long for all 22 items?

- Run principal component analysis & select items most representative of each component.
- How do we do that?

JOB SATISFACTION SAMPLE

- **New England (Chatham & New Bedford, MA and Point Judith, RI) N=72**
- **SE Alaska (Petersburgh & Craig) N=77**
- **Dominican Republic (La Altagracia, Montecristi, Puerto Plata, Espaillat, María Trinidad Sanchez, & Samaná) N=130**

Principal component analysis of job satisfaction items.

	<u>Social & Psycho Needs</u>	<u>Self Actualize</u>	<u>Basic Needs</u>
Time away from home	0.703	0.051	-0.020
Physical fatigue of the job	0.646	0.152	0.042
Hours spent working	0.644	0.152	0.346
Healthfulness of job	0.644	0.147	-0.084
Time for recreation & family	0.569	-0.032	0.189
Mental pressure of job	0.496	-0.179	0.358
Time to the fishing grounds	0.496	0.110	0.253
Adventure of the job	0.097	0.816	-0.018
Challenge of the job	0.158	0.730	-0.061
Opportunity to be own boss	0.000	0.631	0.079
Being on the water	0.113	0.628	0.048
Doing something worthwhile	0.088	0.611	0.354
Your actual earnings	0.153	0.082	0.785
Predictability of earnings	0.254	-0.120	0.782
Job Safety	0.036	0.308	0.514
Cleanliness of job	0.373	0.100	0.156
Community in which you live	0.124	0.110	0.120
Percent of Total Variance	16.801	15.398	11.919

SOCIAL & PSYCHOLOGICAL NEEDS

Time away from home	0.703
Physical fatigue of the job	0.646
Healthfulness of job	0.644
Hours spent working	0.644
Time for recreation & family	0.569
Mental pressure of job	0.496
<u>Time to the fishing grounds</u>	<u>0.496</u>

r top & component score = 0.70 $r^2 = 0.49$

r top 2 = 0.84 $r^2 = 0.71$

r top 3 = 0.89 $r^2 = 0.79$

SELF ACTUALIZATION

Adventure of the job	0.816
Challenge of the job	0.730
Opportunity to be own boss	0.631
Being on the water	0.628
<u>Doing something worthwhile</u>	<u>0.611</u>

r top & component score = 0.82 $r^2 = 0.67$

r top 2 = 0.84 $r^2 = 0.71$

r top 3 = 0.93 $r^2 = 0.86$

BASIC NEEDS

Your actual earnings	0.785
Predictability of earnings	0.782
<u>Job Safety</u>	<u>0.514</u>

r top & component score = 0.79 $r^2 = 0.62$

r top 2 = 0.89 $r^2 = 0.79$

r all 3 = 0.93 $r^2 = 0.86$

REDUCTION EFFECT

- **USING 2 FROM EACH COMPONENT COULD REDUCE 17 INDICATORS TO 6**
- **WE USED 3, REDUCING 17 TO 9.**

Use of the Job Satisfaction Indicator

- **Early use only on East Coast of North America**
- **Since 2000: Successfully applied in SE Alaska, Guinea Bissau, Senegal, India, Vietnam, Thailand, Dominican Republic, Belize, Nicaragua, Jamaica, Puerto Rico.**
- **Can we make it more culturally appropriate?**