

GALLUP POLL
World Poll

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Item Missing Data in Measures of Evaluative and Experiential Well-Being: Preliminary Analysis

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Outline

- Description of Gallup World Poll
- Define measures of well-being
 - Evaluative well-being, positive and negative affects
- Item missing data rates for measures of well-being
- Measures of well-being and item missing data for household income
- Summary, conclusions and further research

The Issue

For any linear statistic, such as an estimate of a mean of total. Let t_o be an estimate of a population true value from the observed data. Let t_m denote the estimate one would obtain from the missing values, if they were observable. The item nonresponse bias is

$$\text{Bias}(t) = (n_m / n) (t_o - t_m),$$

Where n_m / n is the item missing data rate. Note that if there are no Missing items, ie, $n_m = 0$ or if $t_o = t_m$ $\text{Bias}(t) = 0$.

Gallup World Poll

Target Population – 15 and older

- Gallup World Poll - 95% coverage

Telephone Frame – RDD – in most of developed World – about 15% of world

Area Frame – face-to face – in developing World

Representative samples, $n = 1,000$

Central over site and regional management

Gallup Funds

Gallup World Poll

CSO Frame

Stratification

1. Cities with population of 1 million or more
 2. Cities with population between 500,000-999,999
 3. Cities with population between 100,000-499,999
 4. Cities with population between 50,000-99,999
 5. Towns with population between 10,000-49,999
 6. Towns/ Rural Villages with population under 10,000
- Proportional Allocation of PSUs

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- Proportional Allocation of PSUs
- Household Selection: Random Route
- Respondent Selection: Kish Grid or Latest Birthday

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Gallup World Poll – Questionnaire

- Core – asked in all countries
- Regional questions
 - MENA, Latin, America, Asia, FSU and sub-Saharan Africa
- Country specific questions
- Translated into the major languages of each country.
 - Starts with an English, French, or Spanish version
 - Translator proficient in original and target languages translates into the target language.
 - Second translator reviews version against the original and recommends refinements.

Gallup World Poll – Interviewer Training

- In-depth training sessions with local field staff prior to the start of data collection
- Training manual
- Include the questionnaire and field procedures

Gallup World Poll – QC

Minimum includes:

- Each interviewer accompanied by supervisor for minimum of 2 interviews
- Minimum of 5% back checks
- 100% questionnaire checks for coherence and completeness

Gallup World Poll Indexes

Citizen Engagement
Communications
Community Basics
Corruption
Diversity
Food and Shelter
Law and Order
National Institutions
Optimism
Personal Economy
Personal Health
Religiosity Violence
Negative Experience
Positive Experience
Thriving, Struggling, Suffering
Work
Youth Development

Analysis

Number of Countries by Region

The questions

Regional distributions of item missing rates for evaluative and experiential well-being – Don't Know and Refusals combined

Comparison of distributions of well-being by whether HH income reported

Countries by Region

Region	Number of Countries
MENA	11
Asia	20
Europe	20
Sub-Saharan Africa	29
Americas	22
FSU	12
Total	114

Measures of Well-Being

- Follow Deaton, Forston and Tortora “Life (Evaluation), HIV/AIDS, and Death in Africa”
- Evaluative Well-Being - Cantril self-anchoring striving scale

Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. Suppose we say that the top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you.

On which step of the ladder would you say you personally feel you stand at this time assuming that the higher the step the better you feel about your life, and the lower the step the worse you feel about it? Which step comes closest to the way you feel?

												Don't know	Refused
0	1	2	3	4	5	6	7	8	9	10	98	99	

Experiential Well-Being – dichotomous response category

- Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt. Did you smile or laugh a lot yesterday?
- Did you experience the following feelings during **A LOT OF THE DAY** yesterday? How about **[Read out each option]**
 - Enjoyment?
 - Sadness?
 - Depression?
- Response Options
 - Yes
 - No
 - Don't Know
 - Refused

Low Missing Data Rates

Evaluative Well-Being

Median – 0.6%

Maximum – 5.4%

Experiential Well-Being

Sadness, Depression, Laugh/Smile and Enjoyment

Median – all < 1%

Implication: Ignore Item nonresponse for these measures of Well-Being

Well-Being and HH Income

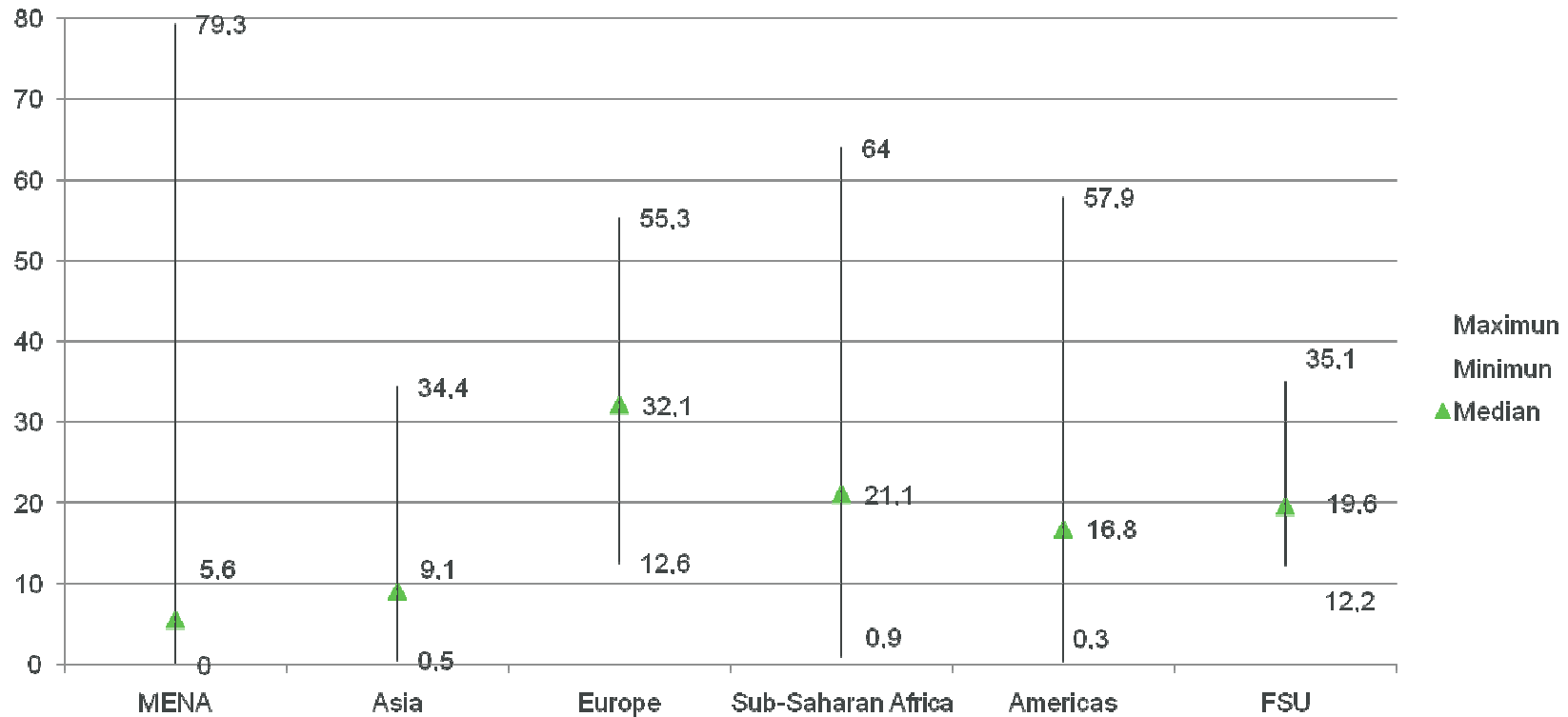
Major Interest

Missing data rates by region

Comparison of well-being for those that report HH income and those that do NOT report HH income

Missing Data Rates by Region

Missing Data Rates (%): Missing HH Income by Region

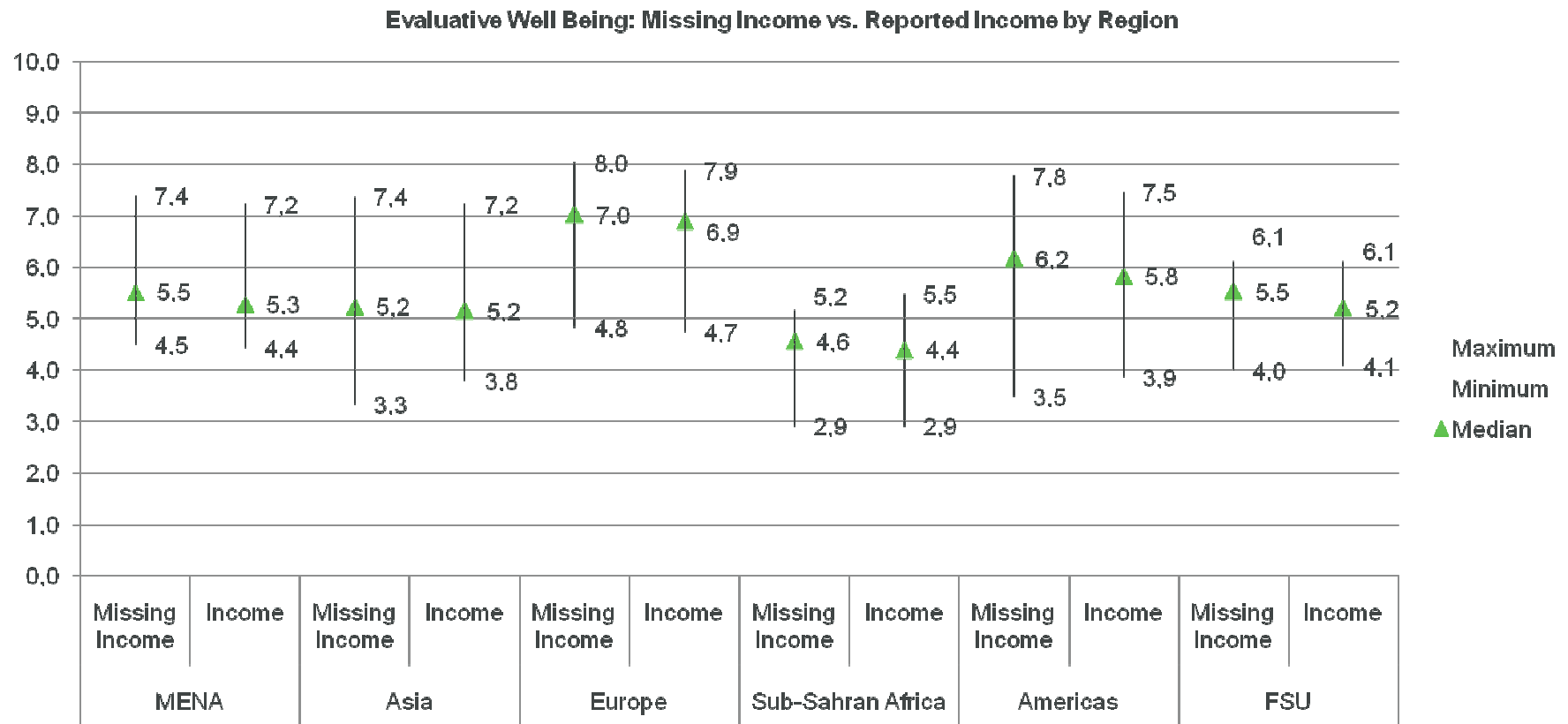


Country Maximum and Minimum by Region

	MENA	Asia	Europe	Sub-Saharan Africa	Americas	FSU
Maximum	Tunisia/79.3%	Pakistan/34.4%	Malta/55.3%	Ghana/64.0%	Guyana/57.9%	Estonia/35.1%
Minimum	Syria/0.0%	S Korea/0.5%	Turkey/12.6%	CAR/0.9%	Ecuador/0.3%	Armenia/12.2%

Evaluative Well-Being

Evaluative Well-Being at the region level slightly higher for those that do not report HH income



Evaluative Well-Being- Americas

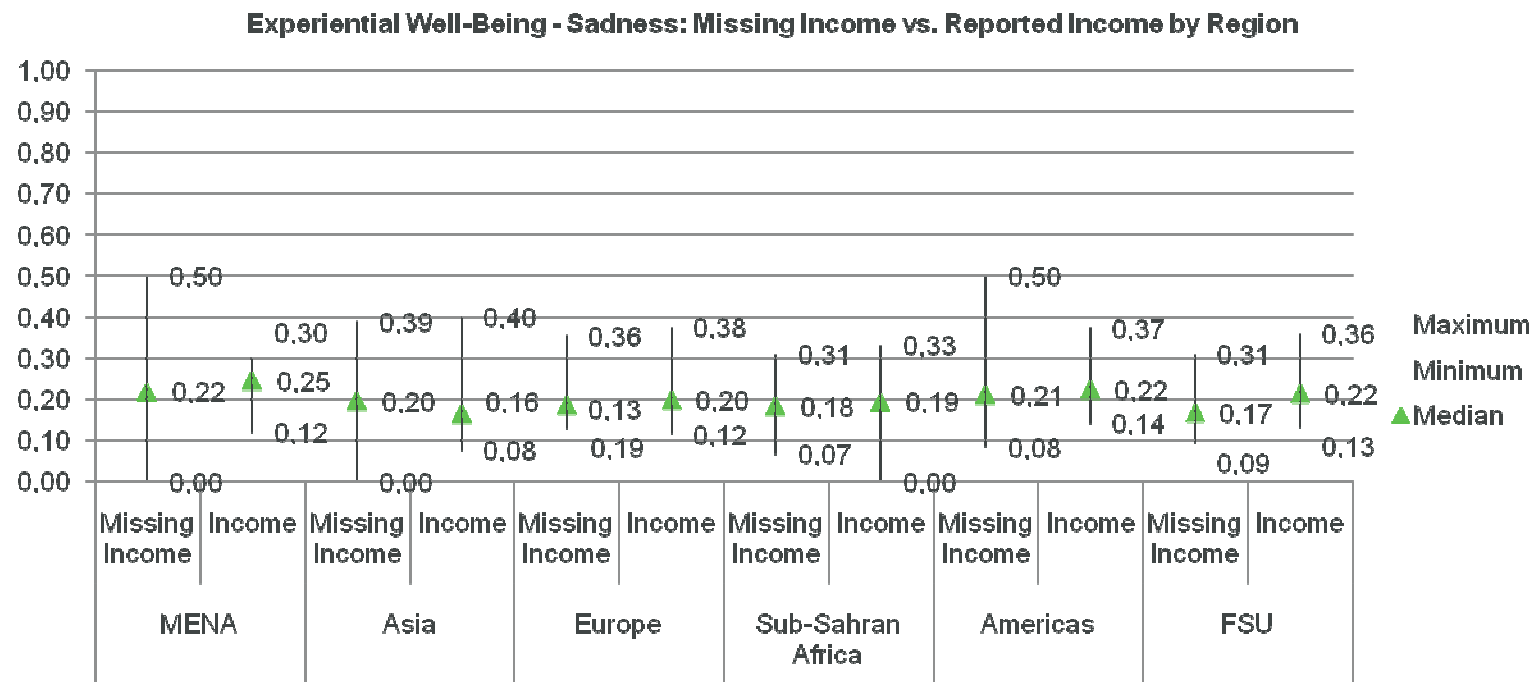
7 of 22 Countries evaluative well-being significantly different*

Country		N	Mean	Lower Bound	Upper Bound
Chile	Income Missing	82	7.8	7.1	8.4
	Income Reported	1025	6.7	6.5	6.9
Colombia	Income Missing	134	8.0	7.5	8.6
	Income Reported	864	7.0	6.8	7.3
Costa Rica	Income Missing	85	8.1	7.6	8.6
	Income Reported	901	7.8	7.7	8.0
Dominican Republic	Income Missing	183	6.6	6.1	7.2
	Income Reported	801	5.7	5.4	5.9
El Salvador	Income Missing	87	7.6	6.96	8.16
	Income Reported	908	6.1	5.88	6.24
US	Income Missing	166	7.3	8.7	9.1
	Income Reported	825	7.4	8.3	8.5
Uruguay	Income Missing	245	8.9	7.1	8.0
	Income Reported	980	8.4	6.3	6.7

* Margin or Error includes estimate of design effect reflecting weights and intraclass correlation coefficient. 95% confidence intervals shown

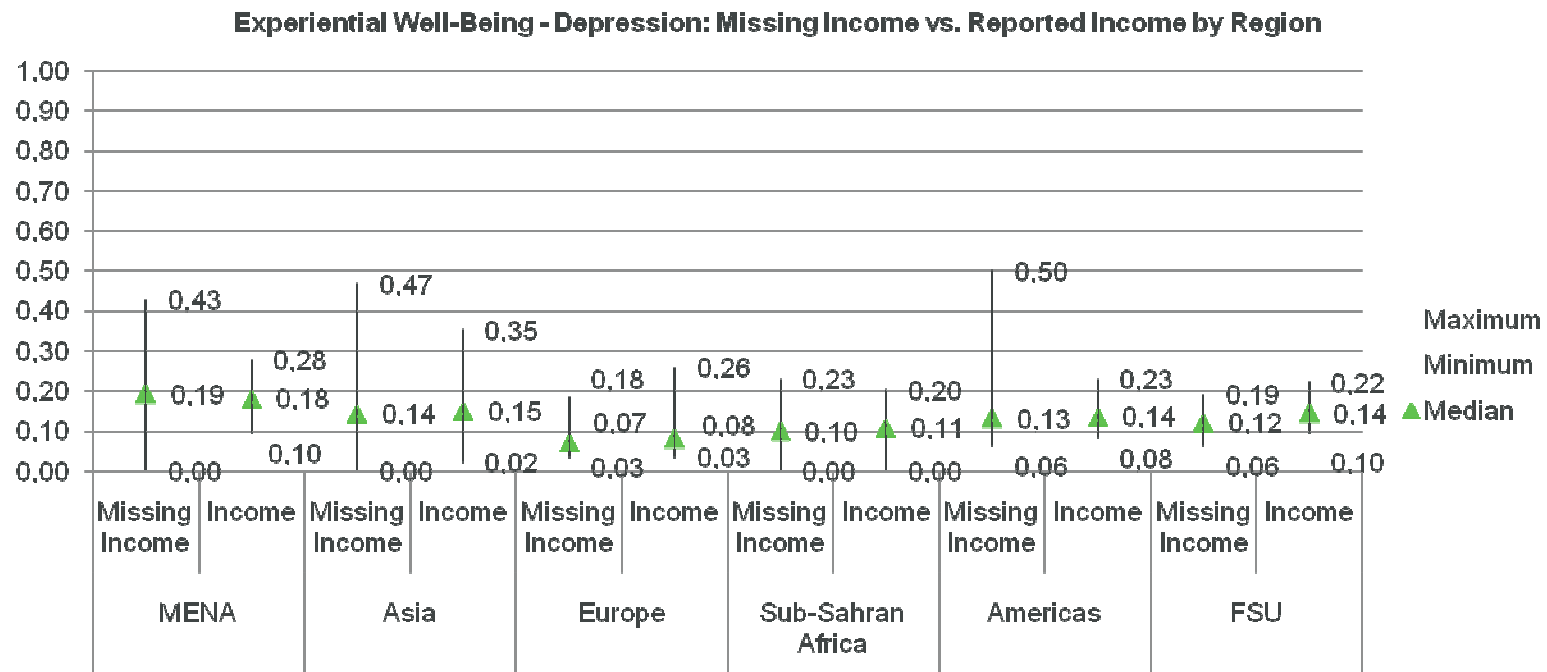
Experiential Well-Being: Negative Affect - Sadness and Depression

At regional level sadness lower (except Asia) for those with missing HH income



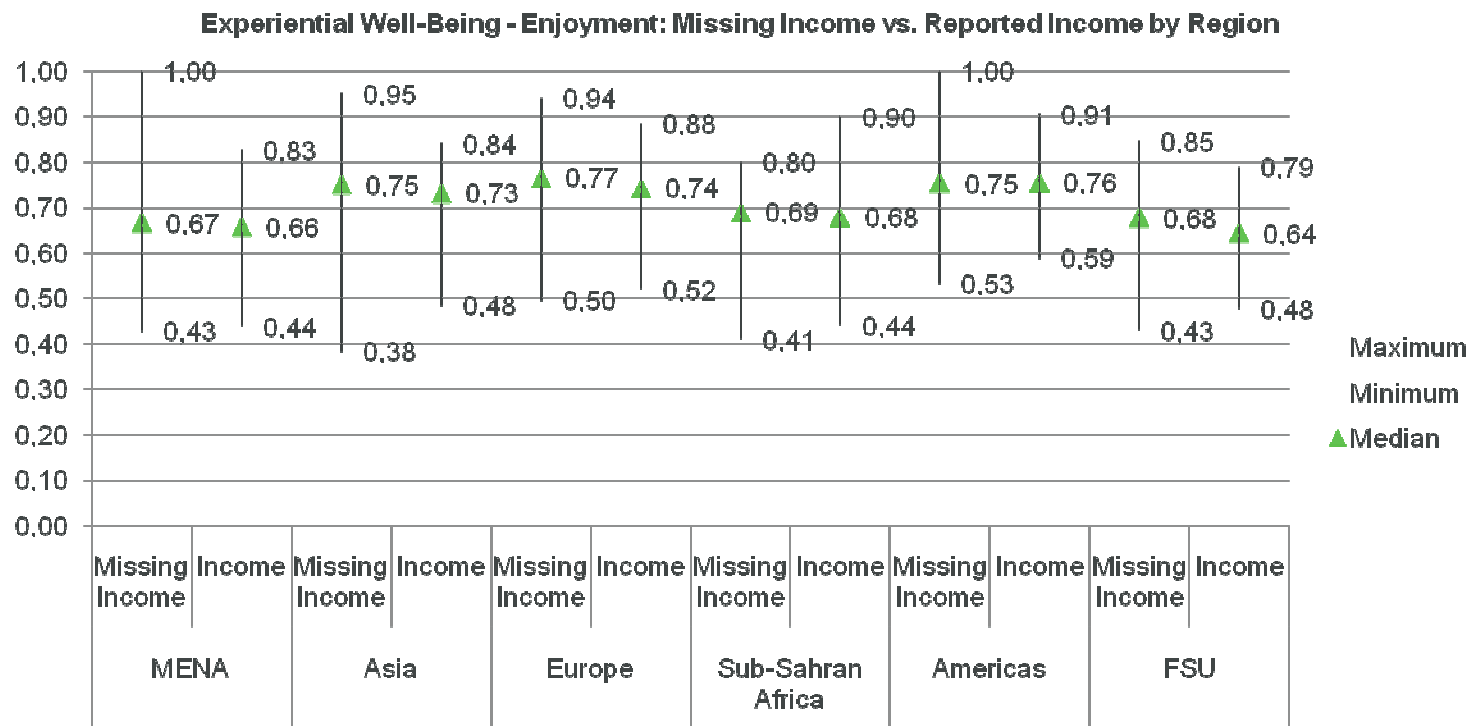
Negative Affect: Sadness and Depression

Mixed comparisons



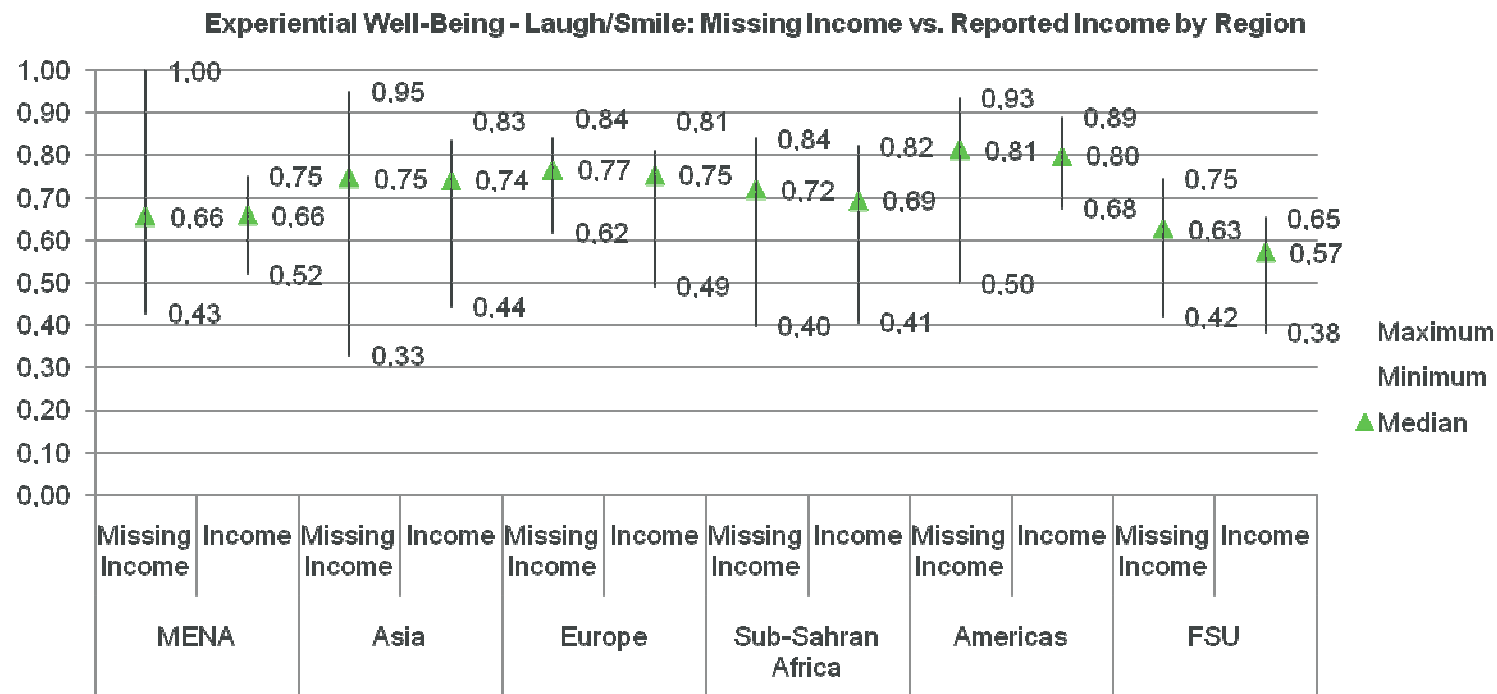
Positive Affect: Enjoyment and Smile/Laugh

At regional level enjoyment higher (except Americas) for those with missing HH income



Positive Affect: Enjoyment and Smile/Laugh

At regional level smile/laugh higher for those with missing HH income



Summary

Low missing data rates for all measures of well-being

HH income has large variability in missing data rates – ranging from a median of 5% in MENA to 32% in Europe

Americas has largest difference in median evaluative well-being
7 of 22 countries significantly different

3 of the 4 measures of experiential well-being are a emotionally positive direction for those not reporting HH income

Conclusions and Future Work

Item nonresponse not an issue for evaluative and experiential well-being

Measuring the impact of missing HH income needs more research

Multivariate models to understand drivers of differences

Add imputed* HH income to analysis

*Gallup has developed a regression based imputation procedure that will be used in this additional analysis