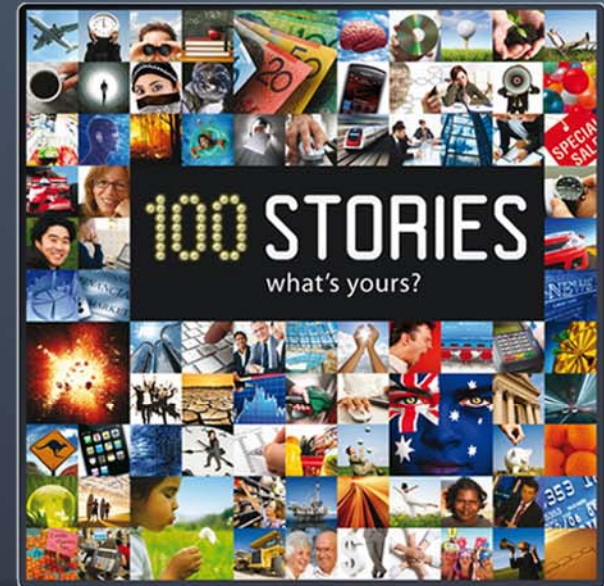


# 100 STORIES

what's yours?

# CONSISTENCY

AMRS  
October 1, 2009



Steven H. Gittelman, Ph.D.



Asia Pacific Research Conference 09



**ekas**  
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# “Unusual Survey Results Have Caused Alarm”

- Ron Gailey, working for WAMU, presented (at the IIR, November 2008) the results of 29 research studies, a total of 40,000 interviews, conducted from 2006 to 2007.
- Problem: demand for financial products was decreased over time; a phenomenon not supported by experience in the market.



- Inconsistency in his sample left Ron struggling to understand the results of two years of tracking work.
- Business decisions were clearly at risk.
- There was no external measure of consistency for Ron to refer to.



“In every study examined...

...people with more panel tenure gave lower demand.”

Ron Gailey, 2008

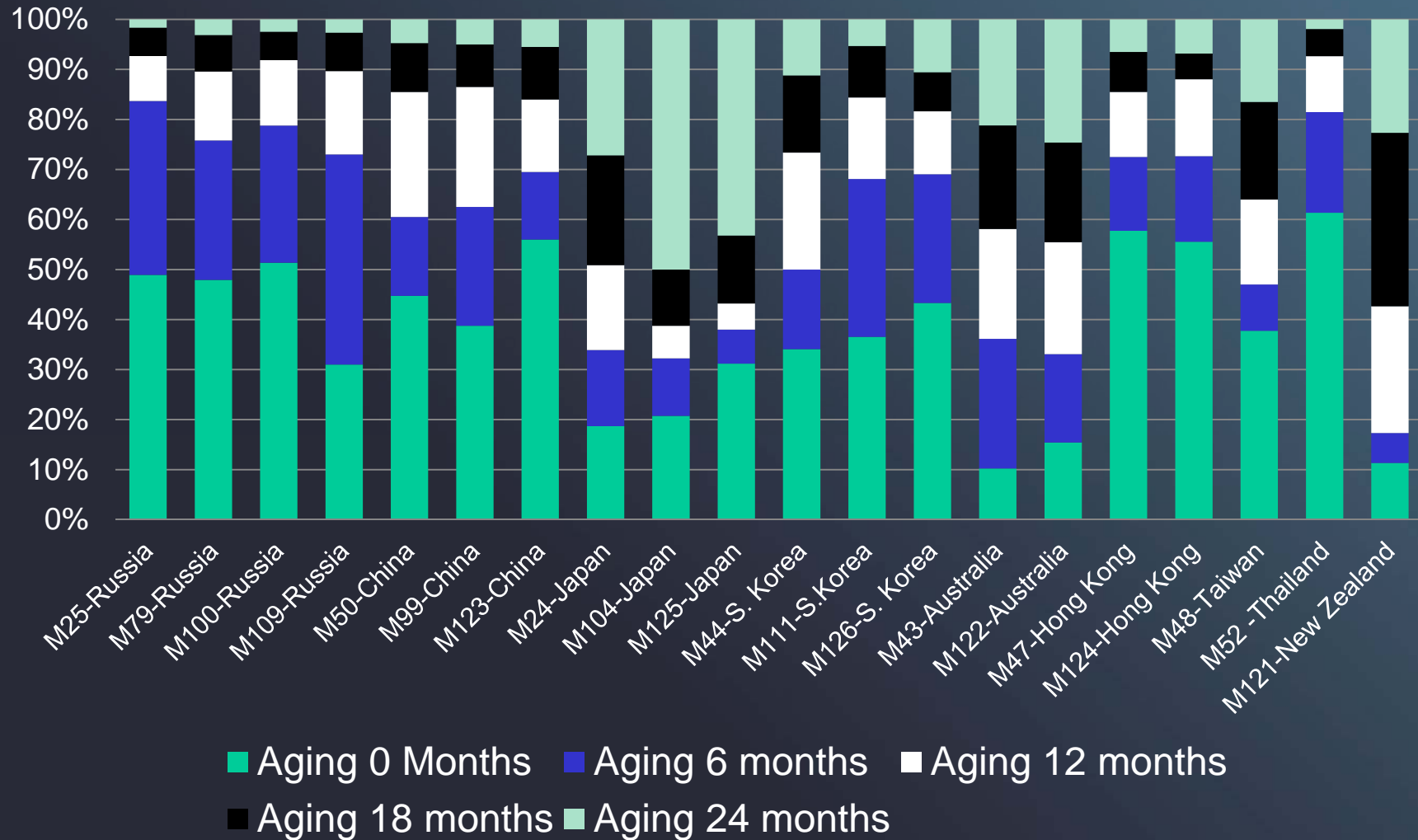


Panel tenure is progressive; it changes  
through time

It represents an  
inconsistency.



# Aging



# A Global Effort

- We began with 17 American Panels as a preliminary sample. Mktg, Inc. released the analysis in January 2009, at CASRO.
- We are now collecting data in 35 countries and 140 panels.
- We call the project the “*Grand Mean*”



# The “*Grand Mean Project*”

“*The Grand Mean*” is the average value of available panel data for a country or region.

For example, a Grand Mean can be maintained for respondent tenure measured across panels within a country.





# So we began.....

- Selected demographic quotas (age, income, gender, ethnicity) were used to simulate census.
- Median length was 15 minutes.
- Questions covered: Technology and the media, Participation in market research, **Buyer Behavior**, Values and lifestyle, Demographics, Questionnaire Satisfaction.

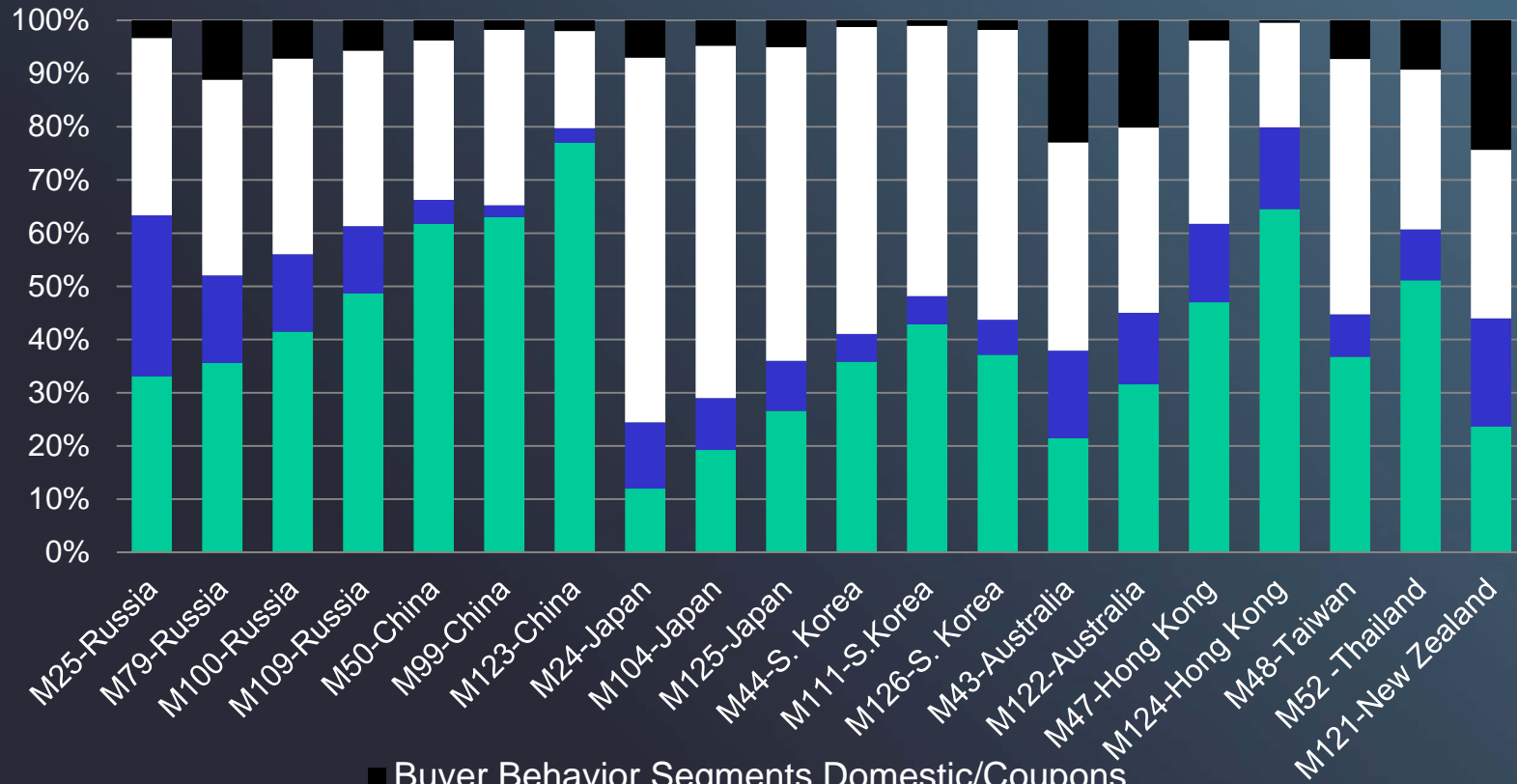


# BUYING BEHAVIOR.....

*.....it's at the core of  
Market Research.*



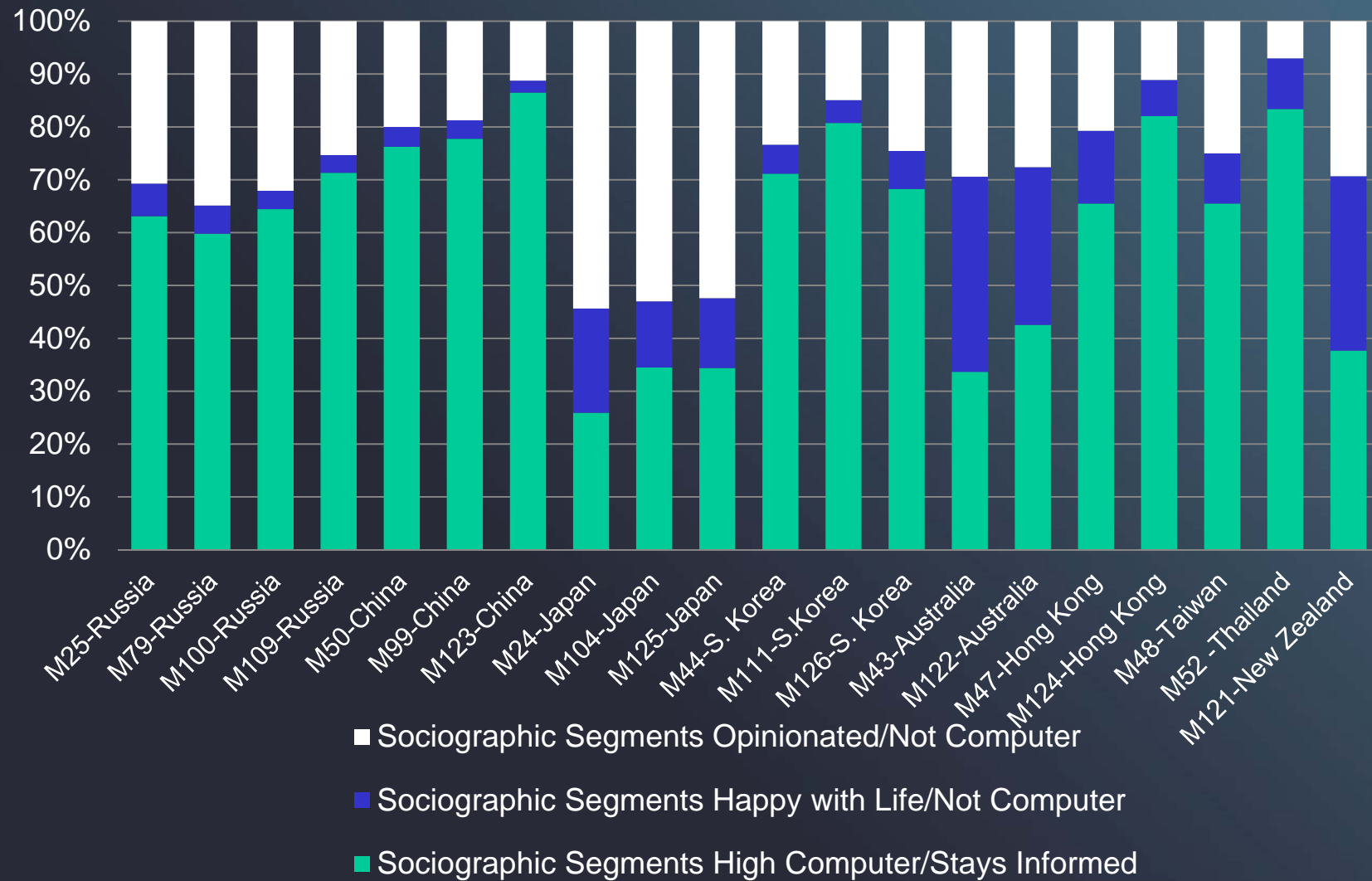
# Buyer Behavior



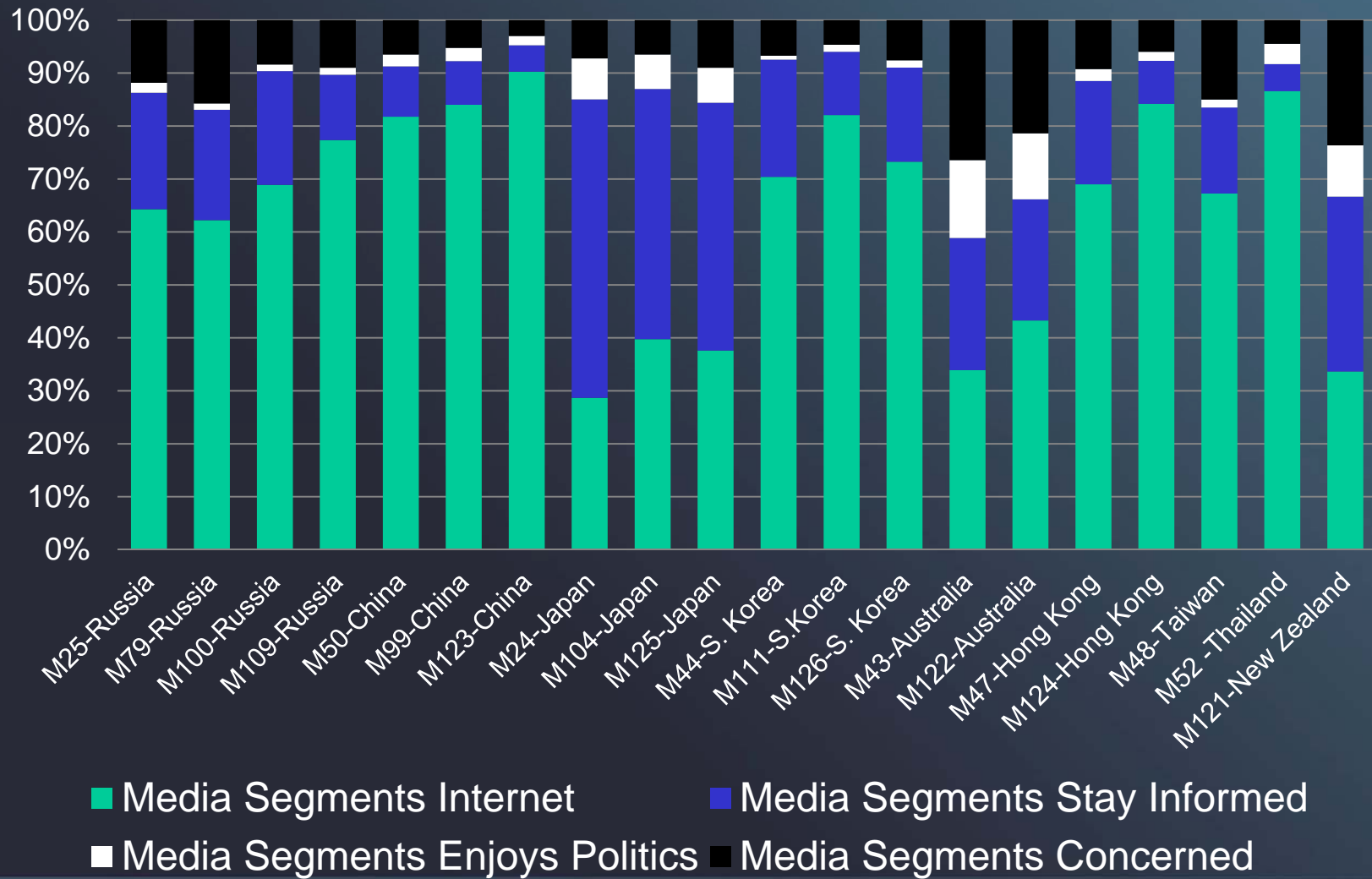
- Buyer Behavior Segments Domestic/Coupons
- Buyer Behavior Segments Credit/Environment
- Buyer Behavior Segments Price Sensitive Shoppers
- Buyer Behavior Segments Broad Range/Credit



## Sociographic



# Media



# What is a researcher to do?

Uncontrolled variables can drive *inconsistency*:

Such as.....

Respondent tenure, professional respondents, speeders, consistency errors, satisficing, shifting sample sources.

In addition, complex weighting schemes mask the problem and are not likely the answer...there is no census to fall back on. ***Especially when the problem is in purchasing intent.***



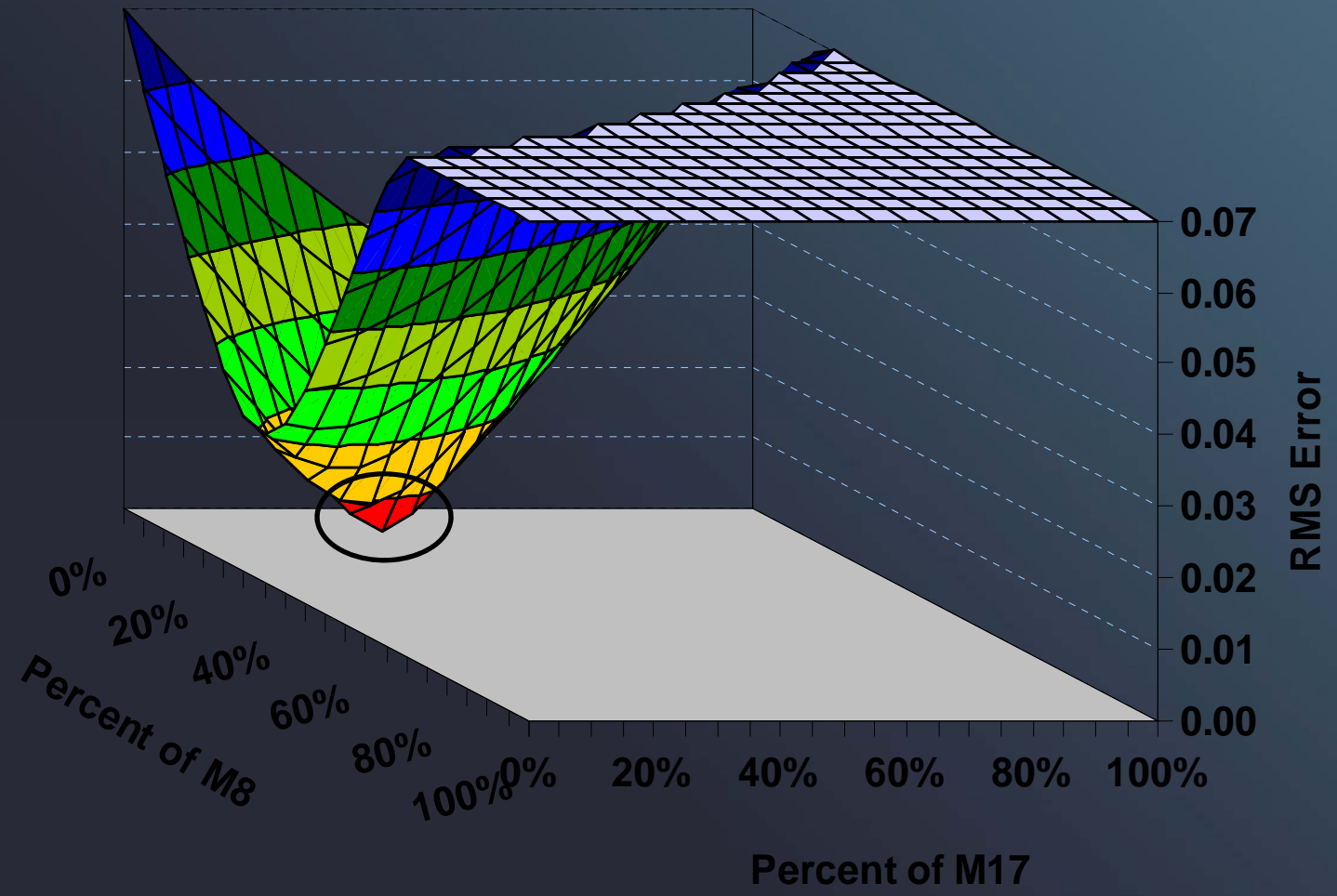
# Optimization

We can minimize the risk of inconsistency by using optimization models.



# Optimization Profile

The third panel is determinate.





# We can optimize to the Grand Mean.

In this example we show the expected standard error from the Grand Mean based on the average of all random choices (8.31%).

Based on equal weighting of three panels selected by optimization to the Grand Mean (2.36%)

... and the same three panels blended in proportions to optimize to the Grand Mean (0.40%).

	Optimum	Average	Expected (1SE)	Inherent (1SE)
<b>Panels</b>				
<b>M8</b>	24%	33%		
<b>M17</b>	26%	33%		
<b>M12</b>	50%	34%		
<b>Root Mean Square Error</b>	<b>0.40%</b>	<b>2.36%</b>	<b>8.31%</b>	<b>2.45%</b>



# CONSISTENCY

We must know if the data shifts we see are real or changes in the sample.

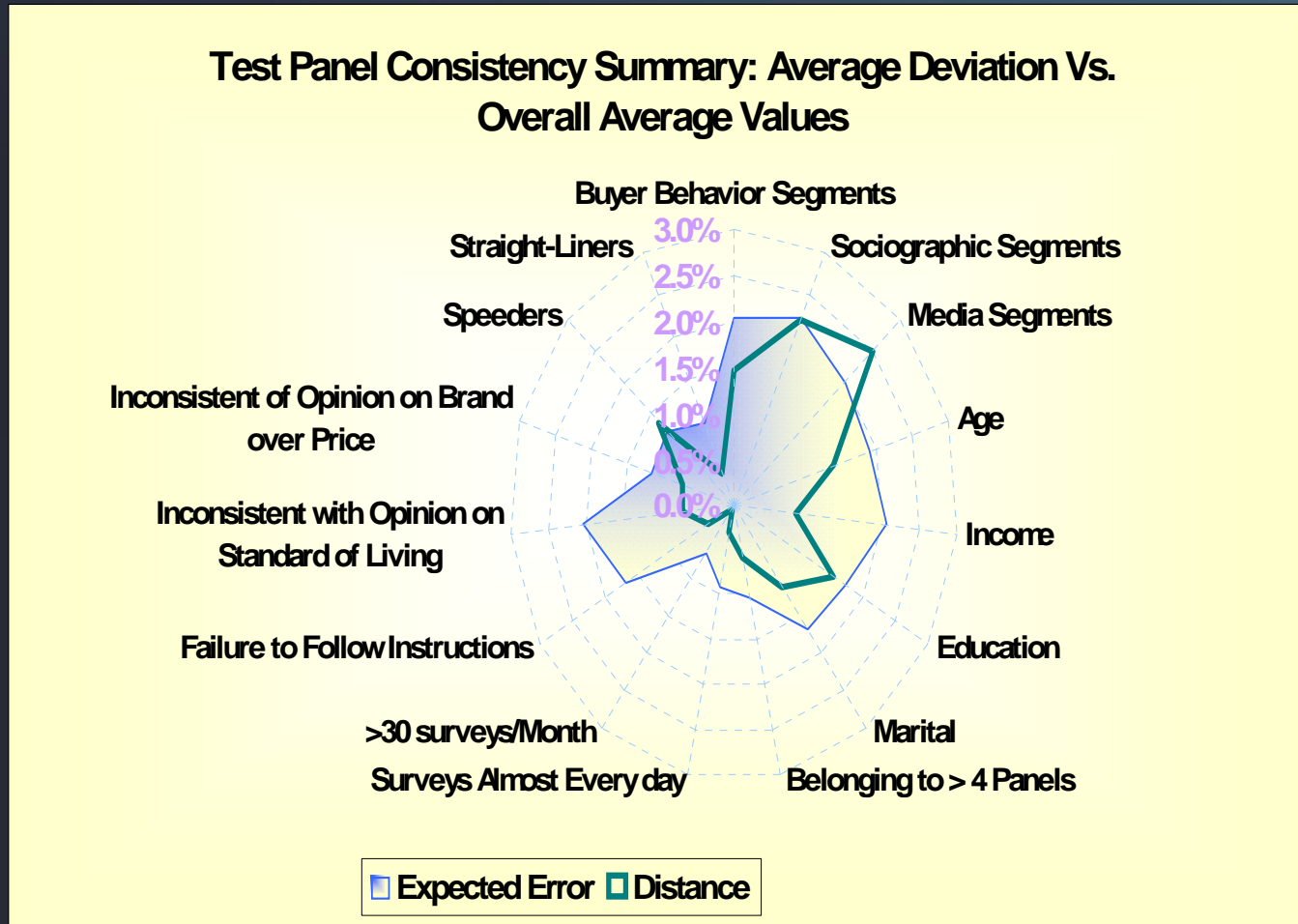


# Consistent Track™ An Audit Program

- The objective is to capture the variability in online sample sources through time. It is a natural off shoot of the *Grand Mean™* project.
- The first wave of data collection for each research partner is potentially the first wave of a consistency analysis.
- A series of repeat studies, when analyzed according to standard quality control metrics, provides a measure of panel variability through time.
- The combination of multiple consistency analysis within a market provides data similar to the Grand Mean Project only in greater volume and sequentially through time.



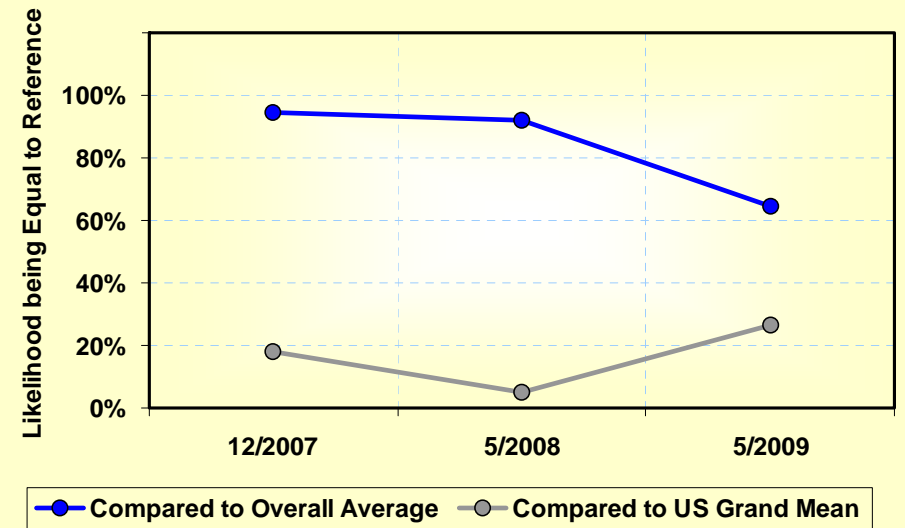
The results of the average consistency of the sample-sets compared to the overall error bound for the various metrics.



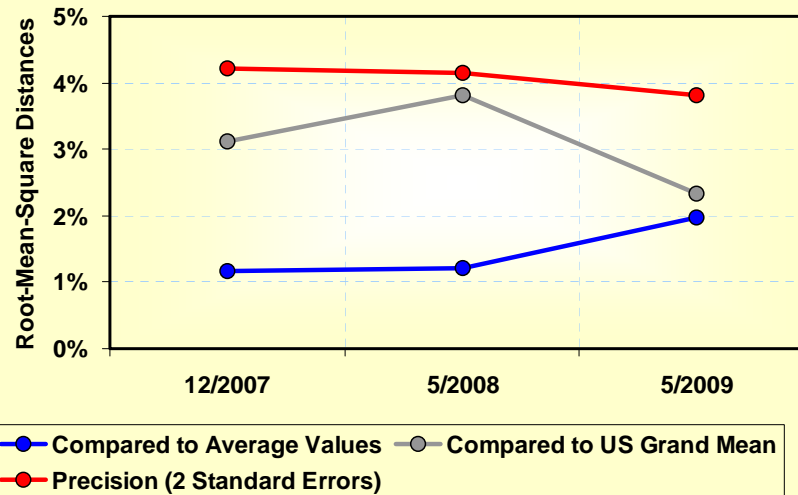
### Buyer Behavior Segment Distribution Profile



### Chi-Square Test of Buyer Behavior Segments



### Distance of Buyer Behavior Segments from the Reference



# A safety net for online tracking data

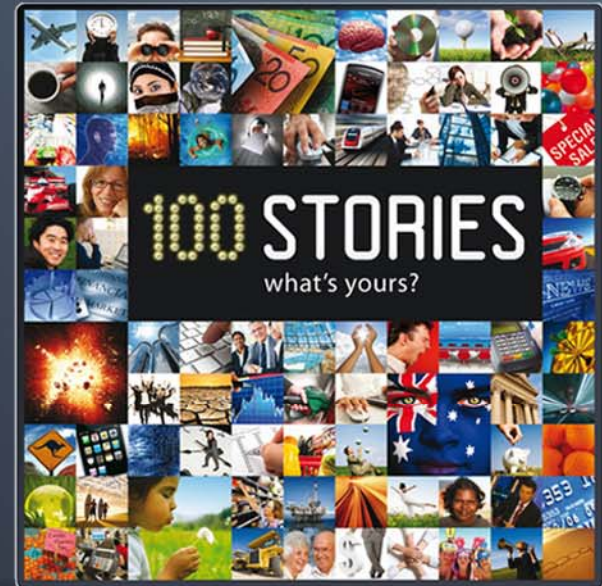
- Sample variability through time is a threat to data interpretation.
- The risk of incorrect business decisions can be tempered by consistent sample.
- *Consistent Track*<sup>™</sup> is here and achievable.
- The *Grand Mean*<sup>™</sup> project provides us with a new metric to anchor our data.
- *Optimization* gives us precision



# 100 STORIES

what's yours?

# THANK YOU!



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