CIMM STUDY RELEASE:

Best Practices in Combining Smart TV and Set-Top Box Data

Howard Shimmel, Janus Strategy & Insights

cimm coalition for innovative media measurement

2021 SUMMIT

CIMM Set Top Box-Smart TV ACR Best Practices for Commingling

02.04.21

pre-meditatedmedia

JANUS
STRATEGY & INSIGHTS

CIMM Study Overview

Goal - Assess strengths and weaknesses of Smart TV ACR and Set Top Box data to inform best practices for combining them at the household level to create granular nationally representative data sets for linear TV programming and advertising use cases

- Phase 1 – **Review of Smart TV ACR and Set Top Box providers** - collection of vital landscape statistics including sample size, data captured and reported, data processing rules

- Phase 2 – **Review of existing methods used to integrate Smart TV ACR and Set Top Box providers** - collection of detailed account of methods for integrating Smart TV ACR and Set Top Box data, covering matching methods at the device and household level as well as the co-mingled processing of viewing data

Feedback gathered from 18 entities

Phase 1 - 18 firms
Phase 2 - 9 firms

MVPDs

altice

NEW YORK INTERCONNECT

Major MVPD

Charter COMMUNICATIONS

dish

AT&T

xandr

OEMs/ Smart TV ACR Providers

VIZIO

Roku

Third-party integrators

FOURTHWALLMEDIA

SAMBA TV

iSpot.tv

alphonso

comscore

6IX 0ERO 5IVE

TiVO

videoamp

gracenote A NIELSEN COMPANY

pre-meditatedmedia

JANUS STRATEGY & INSIGHTS

Background - The Case for Commingling

- Set Top Box and Smart TV ACR data sets have quickly gained an influential marketplace position as metric sources for planning, scheduling, stewardship and post evaluation of TV transactions.
- Demand for analytics that allow advertisers and agencies to precisely plan digital video and CTV on top of linear is rapidly accelerating.
- There is a growing industry need to improve TV measurement systems that supports the exploration and discovery of best practices to commingle these two complementary data sources.

Complementary Audience Measurement

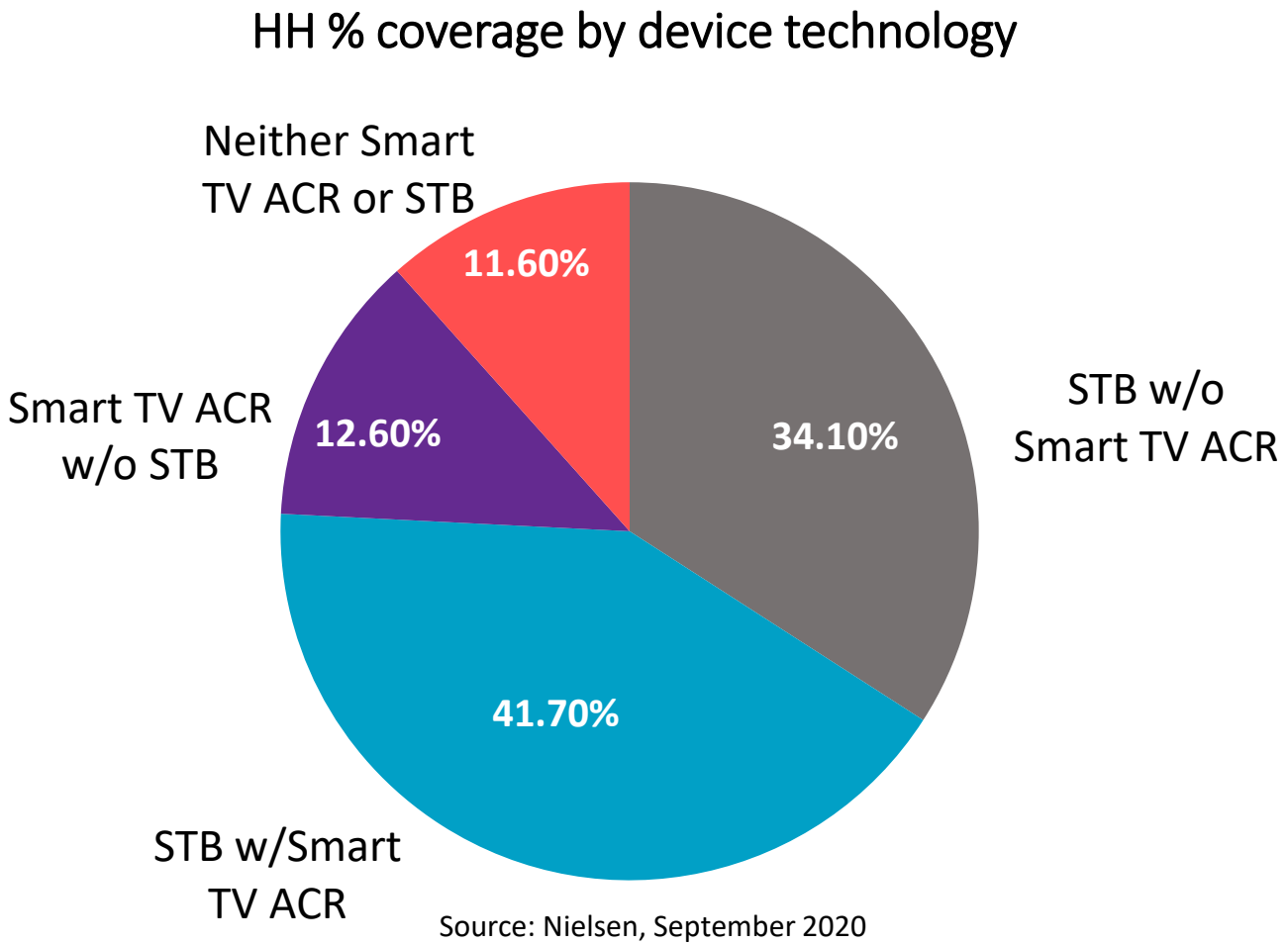
	Set Top Box	Smart TV ACR
Demographic representation		
Contiguous U.S. representation		
Sample Size		
People Measurement		
Cross Device Measurement		
Delayed/non-live viewing DVR, VOD		
Household-level match rate		
Reporting speed		
CTV data collection		
Multi-set data capture		

pre-meditatedmedia

JANUS STRATEGY & INSIGHTS

The universe for commingling Set Top Box and Smart TV ACR

- Nearly 42% of US homes are equipped with both Set Top Boxes and internet-enabled Smart TVs



Source: Nielsen, September 2020

pre-meditatedmedia

JANUS STRATEGY & INSIGHTS

Data set skews

There are unique demographic skews to the contributing data sets, and to the segments that are not captured in contributing data sets

Viewership Segment Profiling Analysis

Segment % Total US - Index to Total US

	STB	ACR	Calibration	Calibration		ACR	Not Captured		ACR	Not Captured
	Pay TV	Enabled Smart TV	Pay TV and Enabled Smart TV	Pay TV w/o Enabled Smart TV	Over-The-Air	Over-The-Air and Enabled Smart TV	Over-The-Air Only w/o Enabled Smart TV	Broadband Only	Broadband Only and Enabled Smart TV	Broadband Only w/o Enabled Smart TV
HOH Age Range < 35	**55**	102	**70**	**37**	95	**122**	**71**	**216**	**218**	**211**
HOH Age Range = 35-54	96	**121**	**117**	**69**	**110**	**130**	91	**126**	**128**	**122**
HOH Age Range = 55+	**120**	**84**	98	**146**	94	**70**	**117**	**39**	**36**	**43**
HOH Origin = Hispanic	**87**	**113**	102	**68**	**162**	**187**	**140**	96	105	**76**
HOH Race = Black	95	96	95	95	**130**	**113**	**146**	**82**	**84**	**80**
HOH Race = White	106	102	104	108	93	94	91	101	99	105
Asian Household	**63**	91	**78**	**45**	**73**	**87**	**60**	**136**	**147**	**114**
Language Class = Spanish Dominant	**72**	91	**76**	**68**	**210**	**210**	**210**	**56**	**62**	**45**
HHLD Income = <$75,000	92	**79**	**72**	**117**	**128**	105	**149**	94	**87**	107
HHLD Income = $75,000+	109	**125**	**133**	**80**	**67**	94	**42**	107	**115**	92

pre-meditatedmedia

Source: Nielsen 9/28/20

JANUS STRATEGY & INSIGHTS

Data Integration Pathway – Mapping Data Loss Example

As each integration layer is added, the number of viewing records enriched with ad and content, demographic and consumer data diminishes, with the original population potentially misrepresented.

REPORTING ELIGIBILITY | **MATCHING - DEMO** | **MATCHING - PRODUCT**

ELIGIBLE

Set Top Box

Cable operators - **1%-3%** homes don't return data
Satellite - 50% of MVPD A homes without RPD
Consumer data opt-outs extremely low
Residential segment filtered by customer records

Customer record-to-household match rates **90%+** **(-10%)**

Net Drop-Off – 47%

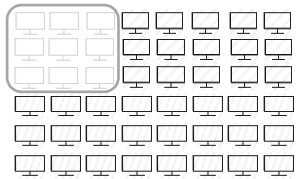
Consumer data opt-outs - **10% - 20%**
Unconnected to internet - NA
Residential segment filtered by IP match and algorithms

IP-to-household match rates **65%** **(-35%)**

For both, Set Top Box and Smart TV ACR, match rates **20% - 40%** depend on consumer target coverage and match partner – Match rates for third-party data at the category level likely to be higher than for first-party brand consumers.

ELIGIBLE

Smart TV ACR



Net Drop-Off – 85%

pre-meditatedmedia

JANUS STRATEGY & INSIGHTS

STB/ACR Integration- Recommendation

Stage 1. Select data sets - situation analysis, key considerations, specific use cases

Stage 2. Establish commingling match cell design, example:

- 1. matched STB/ACR, 2. unmatched STB, 3. unmatched ACR

Stage 3. Execute matches

- Household (demographics)
- Device match (STB to ACR)
- Match validation

Stage 4. Calibration and Weighting

- Calibrations - STB to ACR data; ACR to STB data
- Weighting - Demographics, TV access universe, tuning metrics to all match cells
- Scaling- Scaling ACR to network reach levels from STB data
- Consolidation - combine all match cells to form one reporting data set

Stage 5. Validation

- Universe estimates
- Core tuning metrics to industry benchmark

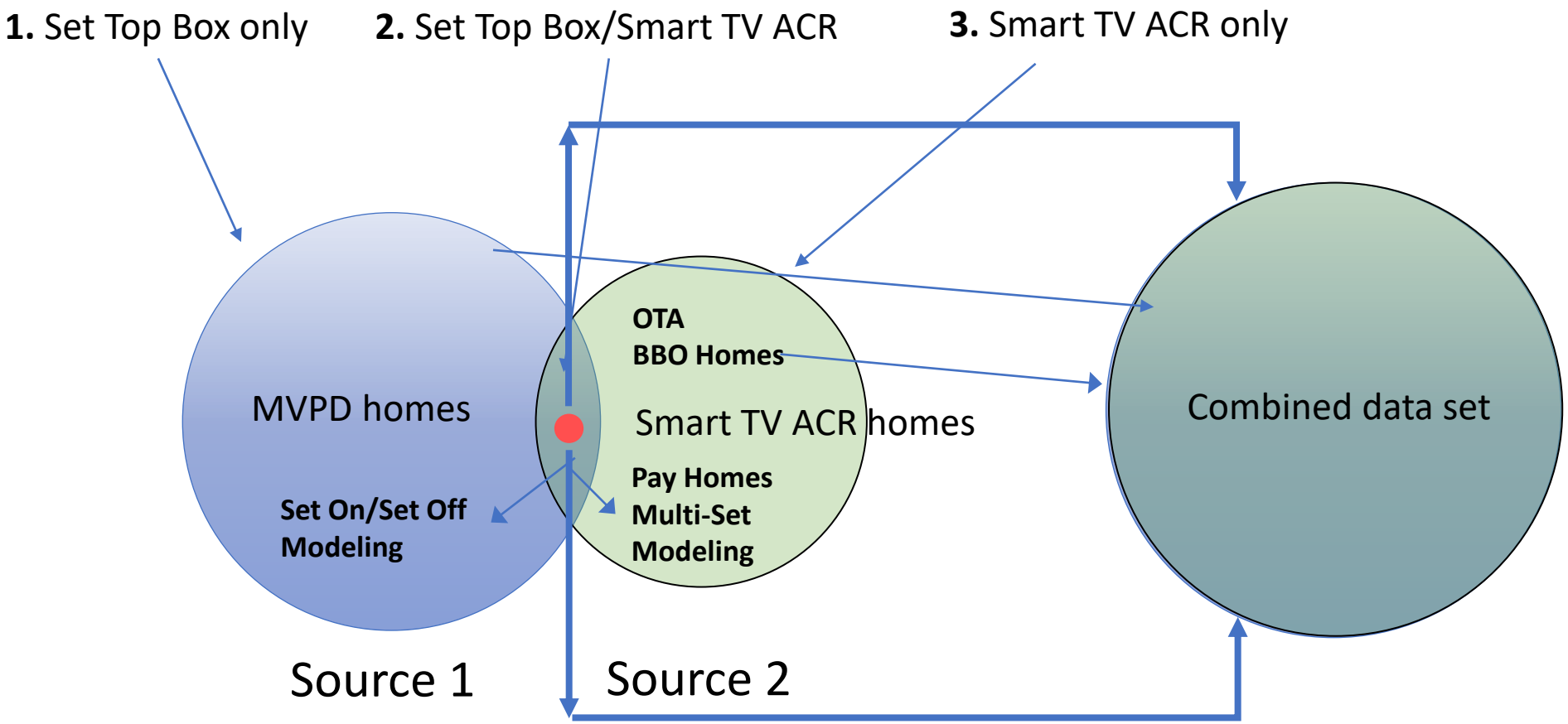
pre-meditatedmedia

JANUS
STRATEGY & INSIGHTS

Establish Match and Commingling Design

- Most commingled approaches use tuning data from two or more sources where device-to-device integration provides insights for calibrating the combined data set

Two-source example: Three data sets underlie the combined data set:



Full Presentation and White Paper available on CIMM Website

www.cimm-us.org

pre-meditatedmedia

JANUS STRATEGY & INSIGHTS

CIMM STUDY DISCUSSION PANEL:

Lessons in Creating Scaled and Representative Granular TV Datasets





David Algranati, Comscore
Josh Chasin, VideoAmp
Caroline Horner, 605
Tom Weiss, MarketCast/Deductive

Gerard Broussard, Pre-Meditated Media

cimm
coalition for innovative media measurement

2021 SUMMIT