



Mobile Digital Television: **The State of the State of Mobile DTV**

WBA Broadcasters Clinic
October 28, 2010
Sterling Davis

Mobile DTV Transmits from Local Broadcasters



Mobile DTV Delivers the Best of Live Local TV



Key Benefits of Mobile DTV

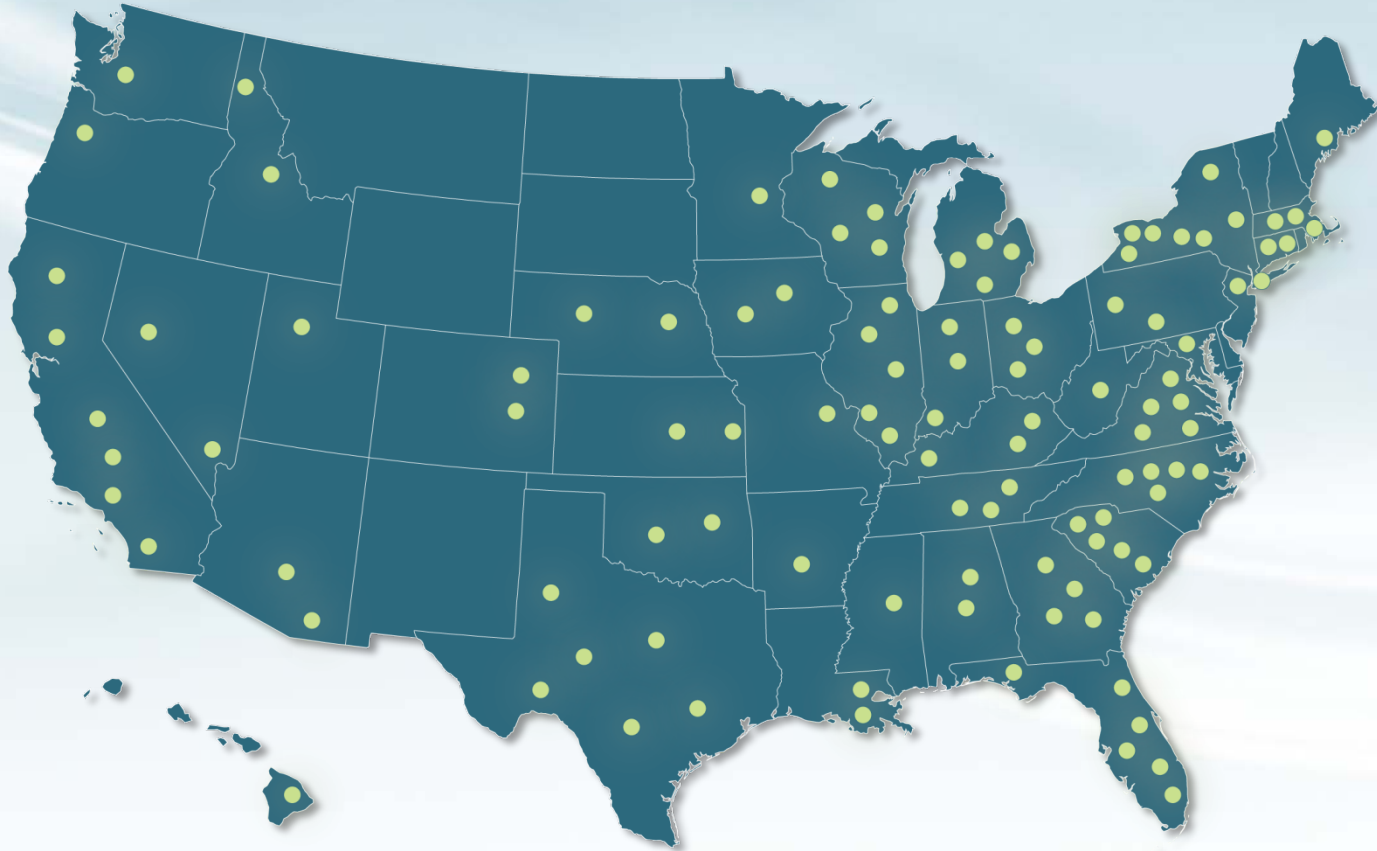
- Exploits Existing Broadcast TV Capabilities
- Low Incremental Cost for National Service
 - Average \$150,000 per station
- Free TV Tier Will Drive Rapid Consumer Adoption
- Highest Quality User Experience
- New Business and Service Models
 - You can measure the audience

OMVC: A Coalition of America's TV Broadcasters

- 32 Member Companies
- 875+ TV Stations, 6 Networks
- 100MM+ Homes Passed
- 70+ Stations Launched to Date



Open Mobile Video Coalition Members



- 103 million households
- All of top 50 Designated Market Areas (DMA's)
- 96 of the top 100 DMA's
- 69 DMA's with more three or more stations
- 98 DMA's with two stations

OMVC: Driving Mobile DTV Ecosystem



New Business Models for Broadcasters



Formed by NBC, Fox, ION, and Pearl (9 TV Station Groups)



38 TV Station Groups representing 500 TV stations throughout U.S.

Both are Developing National Distribution Models for Content that People will want to Watch while On-the-Go



2010 Washington, DC Mobile DTV Consumer Showcase Scope & Purpose

Scope:

- 9 Broadcasters Transmitting 23 Channels
- Includes Core Elements of a Multi-Tier “Free + Pay” Service
 - Local affiliate TV content sent in the clear
 - Premium channels scrambled
 - Electronic Service Guide with advertising

Two-Fold Purpose:

1. Build Out a Local Market Mobile DTV Ecosystem with Local & National Content
2. Determine Consumer Behavior, Attitudes & Expectations with a Variety of Devices



DC Showcase Partners



LG

Life's Good

SAMSUNG
mobile



RENTRAK



SES WORLD SKIES



valups



Showcase Consumer Channel Lineup

CHANNEL NAME	CHANNEL GENRE
WRC NBC4	Local Network
WTGG Fox5	Local Network
WUSA9 CBS	Local Network
Univision	Spanish News/Info
MHz Networks 1	News/Info
MHz Networks 7	News/Info
PBS Mobile	News/Info
PBS Kids	Kids
WAMU 88.5FM	Radio
WETA 90.9FM	Radio
WNUV CW (Baltimore)	News/Info
ThisTV (Baltimore)	Entertainment
TheCOOLTV (Baltimore)	Music/Concert
QUBO	Kids
FoxNews	News/Info
FoxBusiness	News/Info
MSNBC	News/Info
CNBC	News/Info
MTV	Entertainment
Nickelodeon	Kids
Comedy Central	Comedy
E!	Entertainment
Food Network	Lifestyle



Consumer Showcase: Rich Features & Applications Set

FEATURE / APPLICATION	DETAILS
Audience Measurement	Channel Tuning Interstitial Ad viewing Location analysis
Service Protection for Premium Channels	IPSec with fixed Traffic Key
Closed Captioning	EIA 708
Program Metadata in ESG	3 days worth of metadata from stations & Tribune Media
Network Monitoring Ctr @WUSA	Realtime monitoring of channels
Ad Campaign (Ad Council campaign "Project Road Block")	Interstitial & Banner & Interactive Ads
Other Interactive Applications	Voting/Rating Click-to-URL
Co-Frequency Channel Booster	SFN for WNVT enhanced coverage

Mobile DTV Device Capabilities

- Excellent A/V “HD-like” quality
 - 416 x 240 pixels, 48 kbps AAC+ audio
 - 30 fps
- Electronic Service Guide
 - Light interactivity (voting, rating, messaging, URL)
- IPSec-based Conditional Access
- Audience Measurement
 - Viewing logs, GPS capture



Devices for the DC Consumer Showcase



150 Samsung Moment Cell Phones (CDMA - Sprint)

- Android 1.5 Cupcake OS

200 Dell Mini 10 Inspiron Netbooks



Tivizen Wi-Fi Smartphone Accessory (focus group only)

- Broadcaster co-developed
- “TV with battery” unit for iPhone/Touch, BlackBerry with Wi-Fi, others

40 LG Mobile Digital TV/Portable DVD Player



TV and Interactivity in One Device



Voting



Severe Weather Alerts



Advertising During Channel Changes



Polling



Mobile DTV as an Advertising Platform



Channel Banner Ads with Interactivity



Interstitial Ads

- OMVC and the Television Advertising Bureau are collaborating to develop and market mobile ad opportunities for advertisers
- Ad Council / TVB "Project Roadblock" Campaign for Mobile DTV: demonstrates mobile revenue opportunities to stations and provides actual viewer response to mobile creative during Washington Showcase

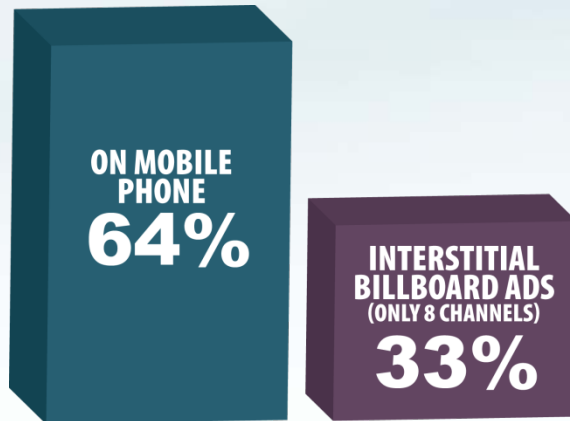


Great Early Insights in to the Power of Advertising on Mobile DTV

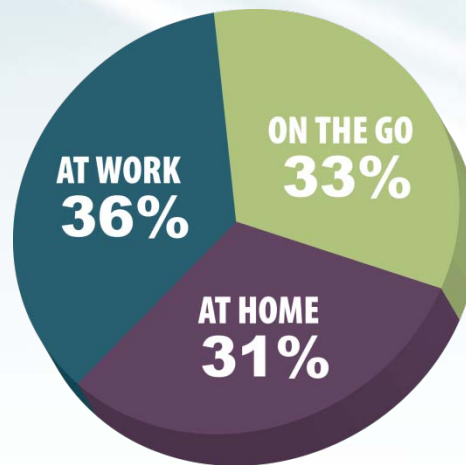
Results Specific to Project Roadblock Mobile Campaign:

Ad Recall Since June More than Doubled

15% → 34%



Location of Ad Recall



Location of Ad Viewing

Key Elements of Ad Campaign were Recalled such as:

“black & white advertisement using buzz words to get your attention about drunk driving”

“That it had the FOX5 logo attached to the advertisement”

“... it’s unexpected... it’s a quiet advertisement, not intrusive.”



Consumer Showcase Market Research



QUALITATIVE

- **Harris Interactive** is managing research & panel management
- Online engagement through Early Adopter Community (EAC), a powerful web-based research tool kit
- Frequent progress reports to members and trial partners



QUANTITATIVE

- **Rentrak Corporation** selected
- Market leader in mobile TV measurement
 - Hiwire, FLOTV
- Mobile TV Essentials™ web-based portal provides very detailed measurement reporting – includes location information
- Frequent progress reporting to members and trial partners



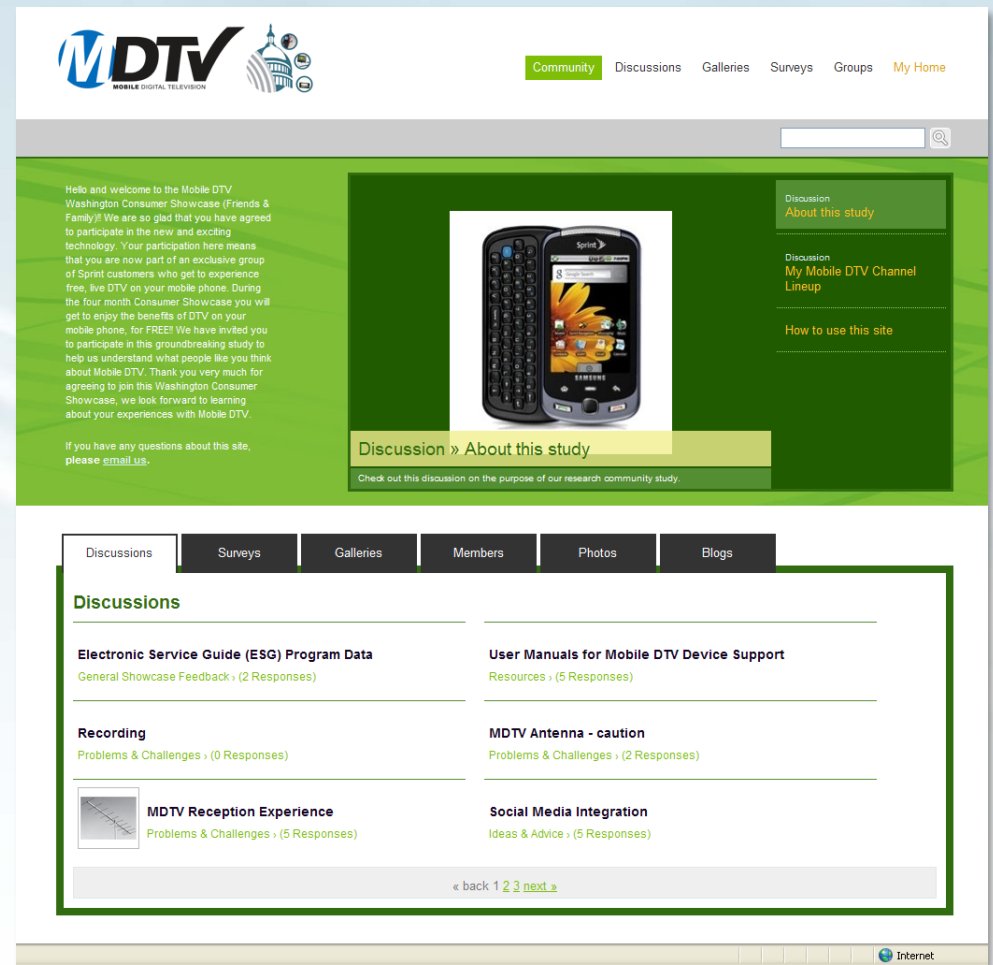
Mobile DTV Washington Consumer Showcase



Research Community Overview

The Community Included the Following:

- Private, invite-only research community site
- Targeted participants based on final screener
- Regular research activities (discussions, polls, projective galleries, surveys) based on study objectives
- Fully moderated and managed



Participation

Participation:

Members then complete the assigned research activities (e.g. discussions, polls, photo galleries)

The screenshot displays the Harris Interactive community website. At the top, the logo "harris INTERACTIVE" is on the left, and navigation links "Community", "Discussions", "Galleries", "Surveys", "Groups", "My Home", and "Admin" are on the right. Below the navigation bar is a search bar. The main content area is divided into several sections:

- User Profile:** On the left, there is a profile for "Ben-Moderator" with a "Change Picture" button and a "★★★" rating.
- Community Navigation:** A row of tabs includes "My Community", "My Feed", "My Info", "My Photos", "My Blog", "My Friends", and "My Groups". Below this, sub-tabs for "My Community", "My Replies", and "My Points" are visible.
- Required Research Activities:** A list of activities with checkboxes: "About Facebook..." (3 months ago), "What's the Mood?" (2 months ago), "Vehicle Shopping 2010" (2 months ago), and "Concept Reaction" (2 months ago).
- Completed Activities:** A list of completed activities with checkmarks: "Vehicle Shopping - Now & Then" (2 months ago), "Impact of the Recession" (3 months ago), "Windows 7 Commercial" (3 months ago), and "C5 New Concept Reaction" (3 months ago).
- Community Feed:** A central section showing posts. It starts with a post from "Ben-Moderator" about shopping for a new vehicle. Below it, a post from "Ben-Moderator" about a new survey "Concept Reaction". Other posts include a discussion by "Matt-Moderator" and a message by "Jonah".
- Recent Activity:** A list of recent uploads and posts, including a blog by "Stella" and several photos of art (Picasso, Pollack, Monet) also by "Stella".



Communities Yielding Tremendous Amount to Traffic and Comments: Results Under Constant Review

Samsung Moment

150 total participants

80 user generated discussions

68 user generated surveys

13 different friend "groups" formed

A total of **8,039** comments have been posted

Dell Netbook

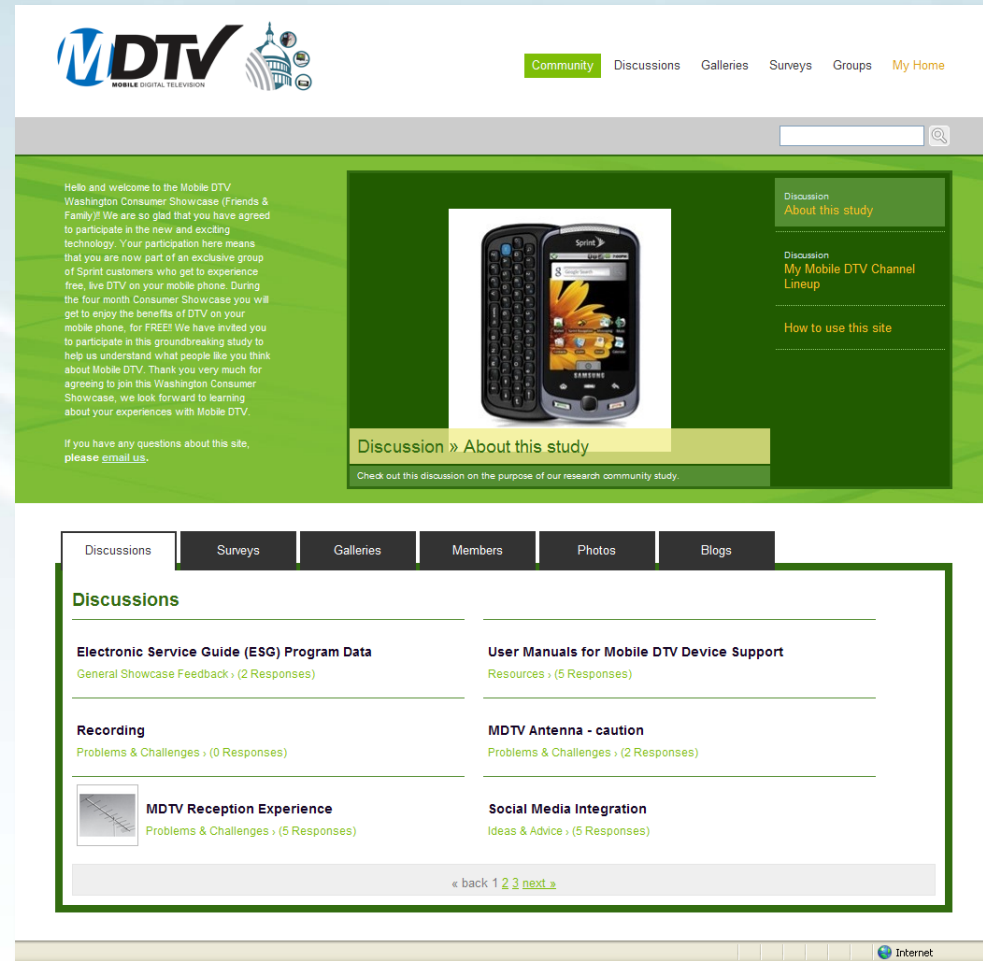
197 participants

33 user-generated discussions

12 user-generated surveys

11 different "friends" groups formed

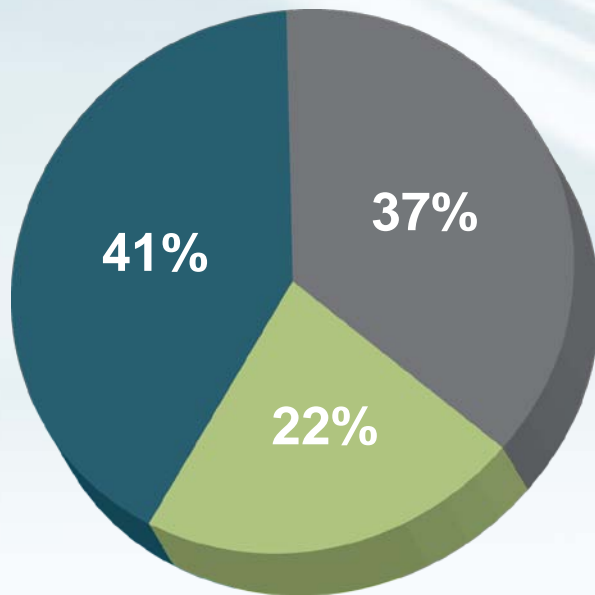
A total of **7,263** comments posted



Moment Self Reported Usage

Daily Use:

Roughly 63% of respondents access the application on a daily basis, with ~22% using it 3 or more times per day.

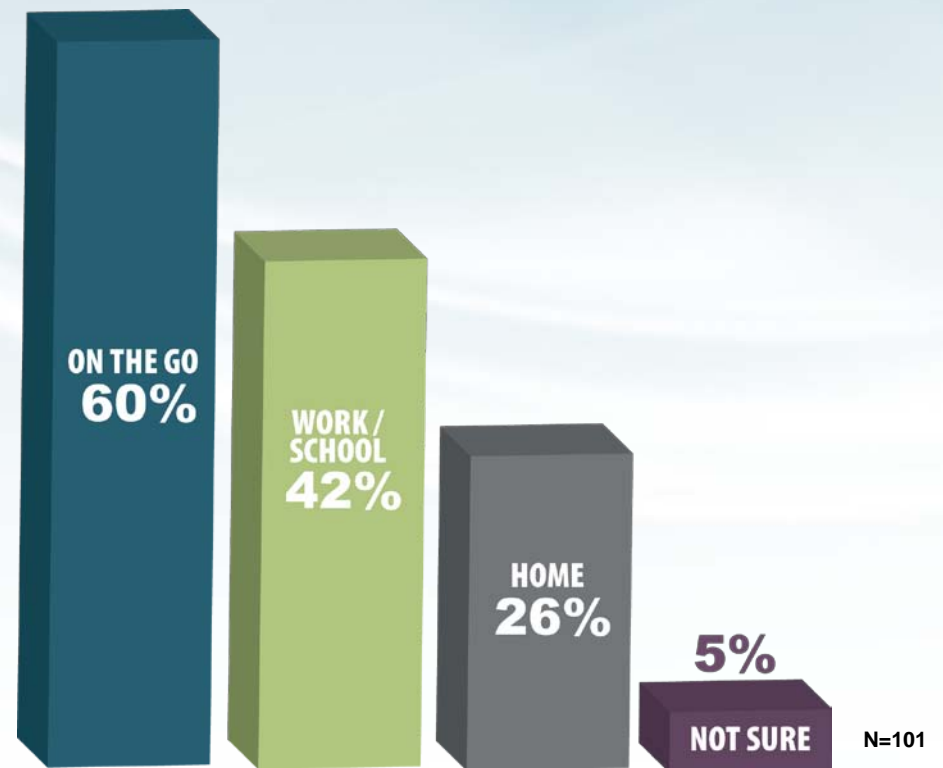


- 3 or more times: 22 respondents (~22%)
- 1 to 2 times per day: 42 respondents (~41%)
- Less than 1 time per day: 37 respondents (~37%)

N=101

Where They Watch:

Nearly 60% of respondents say they watch On the Go. ~42% watch at work/school and ~26% use the device at home.



Convenience Encourages Increased TV Viewing at Off Hours/Odd Locations

- Participants cited watching an increased amount of television due to the convenience of having the MDTV enabled phone.
- Many cited watching MDTV at a variety of locations during the day, including at work. Viewing was both in short spurts and long form.
- They were able to watch live TV in locations where it would not otherwise be available. In some instances it allowed them to continue viewing programs started at home.



"During the evening I'm at work and there's a period in my day... when I'm responsible for just reviewing paperwork and during that time I just kind of sneak off and watch Comedy Central a whole lot..."

"Normally I would stay home and maybe be late for work because I really want to watch [the news]; So, I could start watching it at home and then put on the channel when I'm leaving the house so I could still... listen to it while I'm driving to work."



"I find myself watching TV in places I would normally not watch TV. Like the office. The gym. Doctor's office and the bathroom. Yes, I said it, you know you have done it too..."

"I was at a restaurant and I was watching The Office... because they messed my order [up]. I was ready to go home and finished watching it as soon I walked in. I didn't miss much. That was cool."



Live and Local is King: Local Content Popular/Critical During Emergencies

- Live, local content was a great differentiator from other mobile video services already available. During emergencies and “need to know” situations, participants turned to MDTV.
- More than anything, participants expect local content going forward with this service. It is essential to their enthusiasm for the device.



“[I was] grateful to have something because otherwise [I] would be just trying to read a webpage on [my] phone... It was actually a good chance to have the local broadcast while the power was out.”

“The park ranger [said], ‘You all should move out.’ I turned the television... I probably would’ve [gone] home but I was able to watch the local news [and] see it’s just going to pass.”



“The security officers wouldn’t tell us what’s going on so I turned on the news. I turn on the news [and] find out it’s a darn bomb threat. I was stuck in my mall. I was like are you serious? You could see on the news the mall that I work at, the street that I cross the street to go to work!”

“Local news/weather [is essential]. Having other channels is fun, but not necessarily a necessity.”



Daytime and On-The-Go Usage to Stay Informed is Primary, Love Watching Because of Picture Quality

- Participant's viewing of the MDTV phones centered around daytime viewing, either to catch up on local news, or watch traditional daytime fare.
- While many said they go online for their news, local news reports are the type of programming they viewed most often.
- Even though the screen is small, participants did not cite any concerns AND often raved about the quality of the images.



"I would rather have the weather and a few network shows. Keeps me entertained while I am on the go.."



"Live news and real-time issues are the only reasons I would have this on a phone."

"Local news/weather is the most valuable programming to me. Next would be talk shows, Judge Pirro, Dr. Phil, Judge Mathis, etc..."

"The clarity is beyond what I was expecting. The picture is great..."





RENTRAK

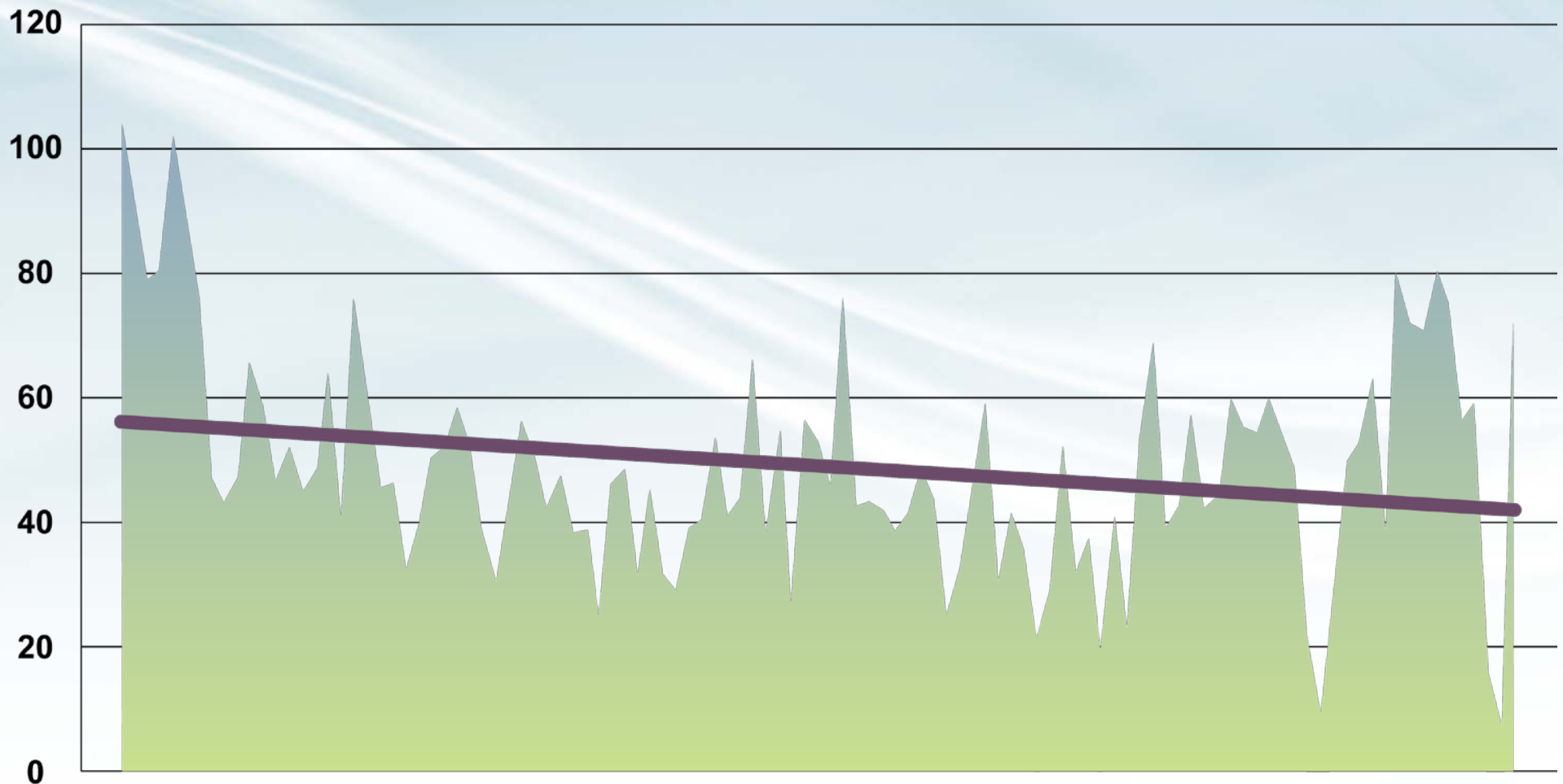
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After the Initial Novelty – Slight Drop in Viewing

Average Daily Minutes Viewed Moment Phone

OMVC Showcase

5/14 - 8/30



Fri 05/14 thru Mon 08/30

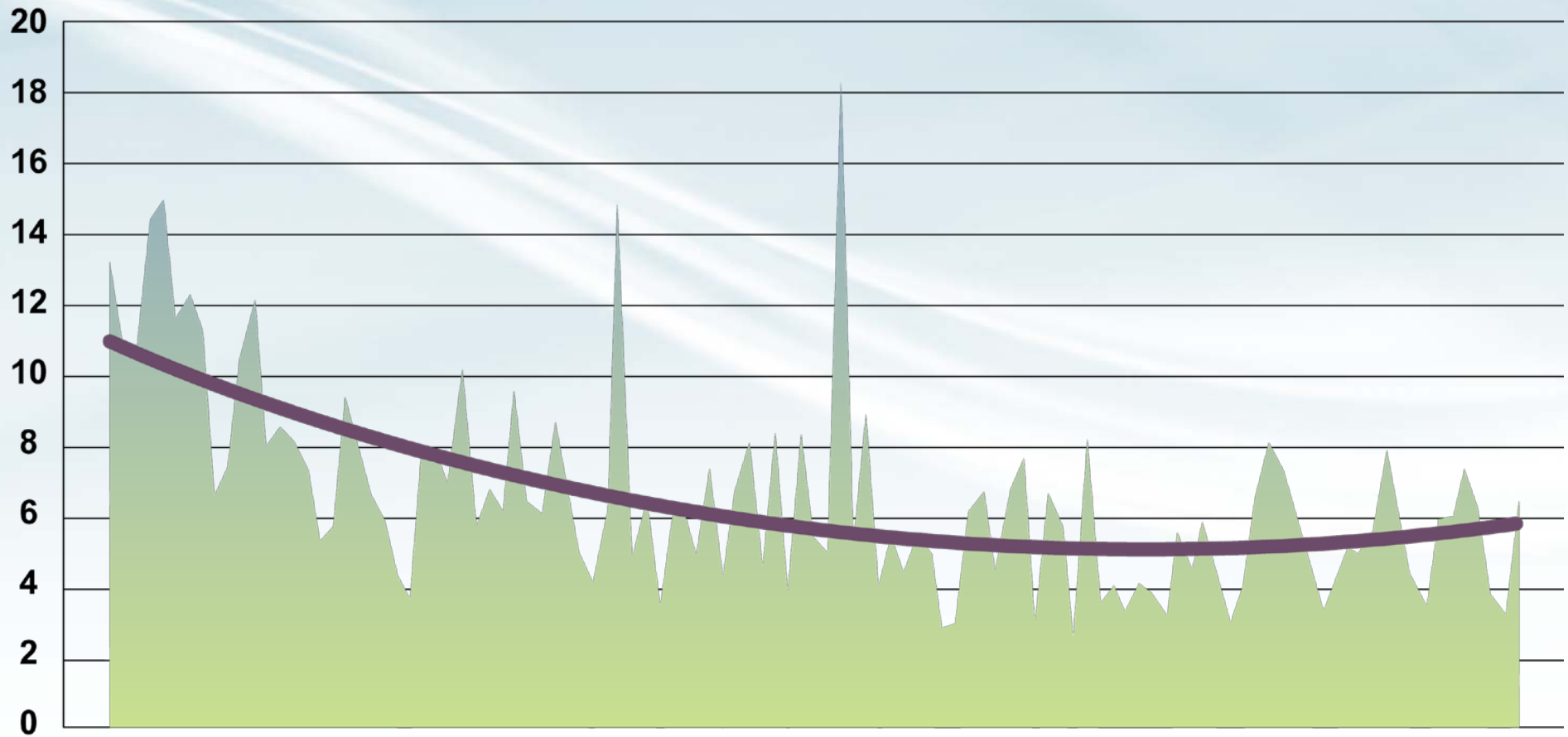


Monday-Friday is Primetime

Daily Frequency of Views for Moment Phone

OMVC Showcase

5/14 to 8/30



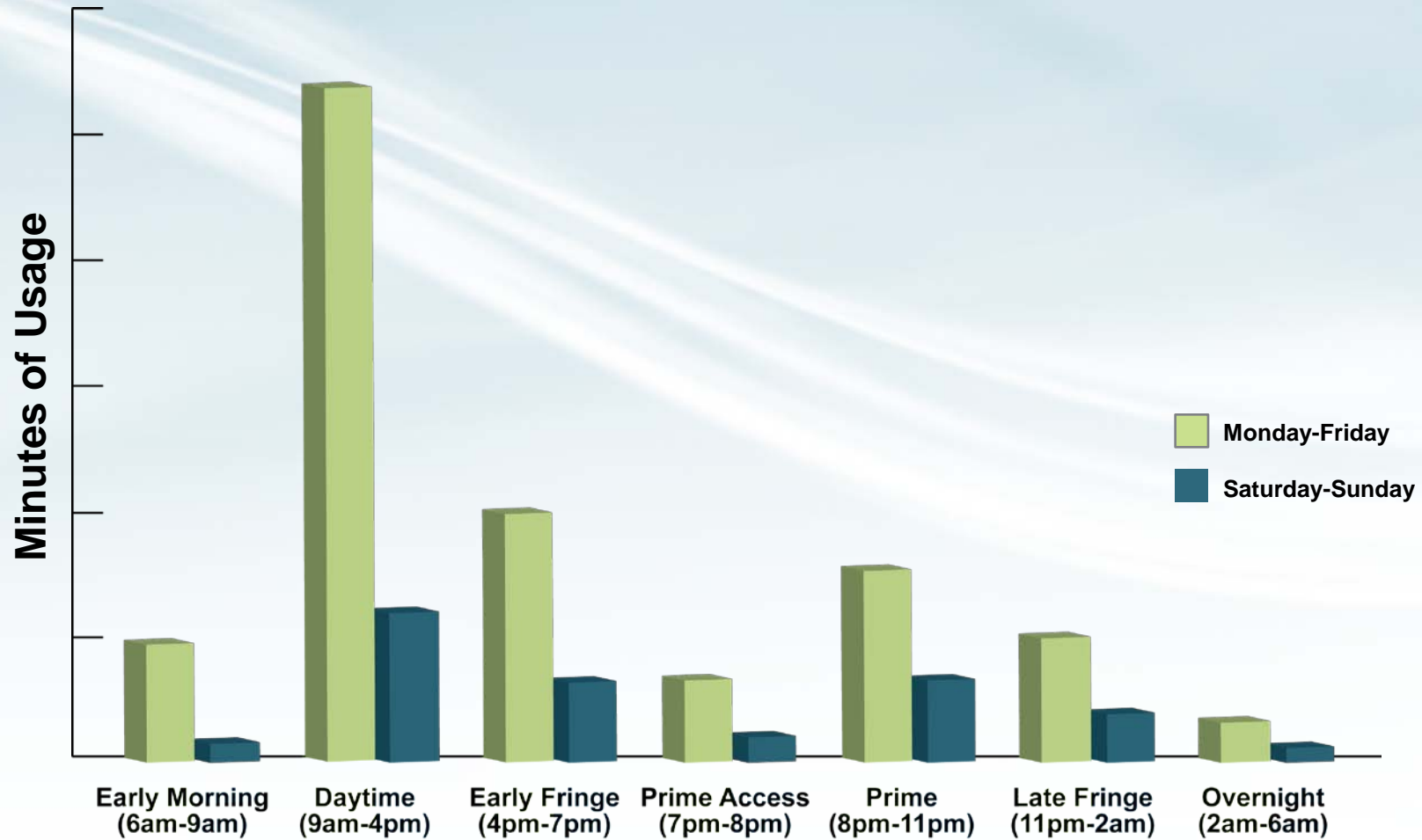
Fri 05/14 thru Mon 08/30



Daytime is Primetime

Usage by Time of Day Moment Phone
OMVC Showcase

5/14 to 8/30

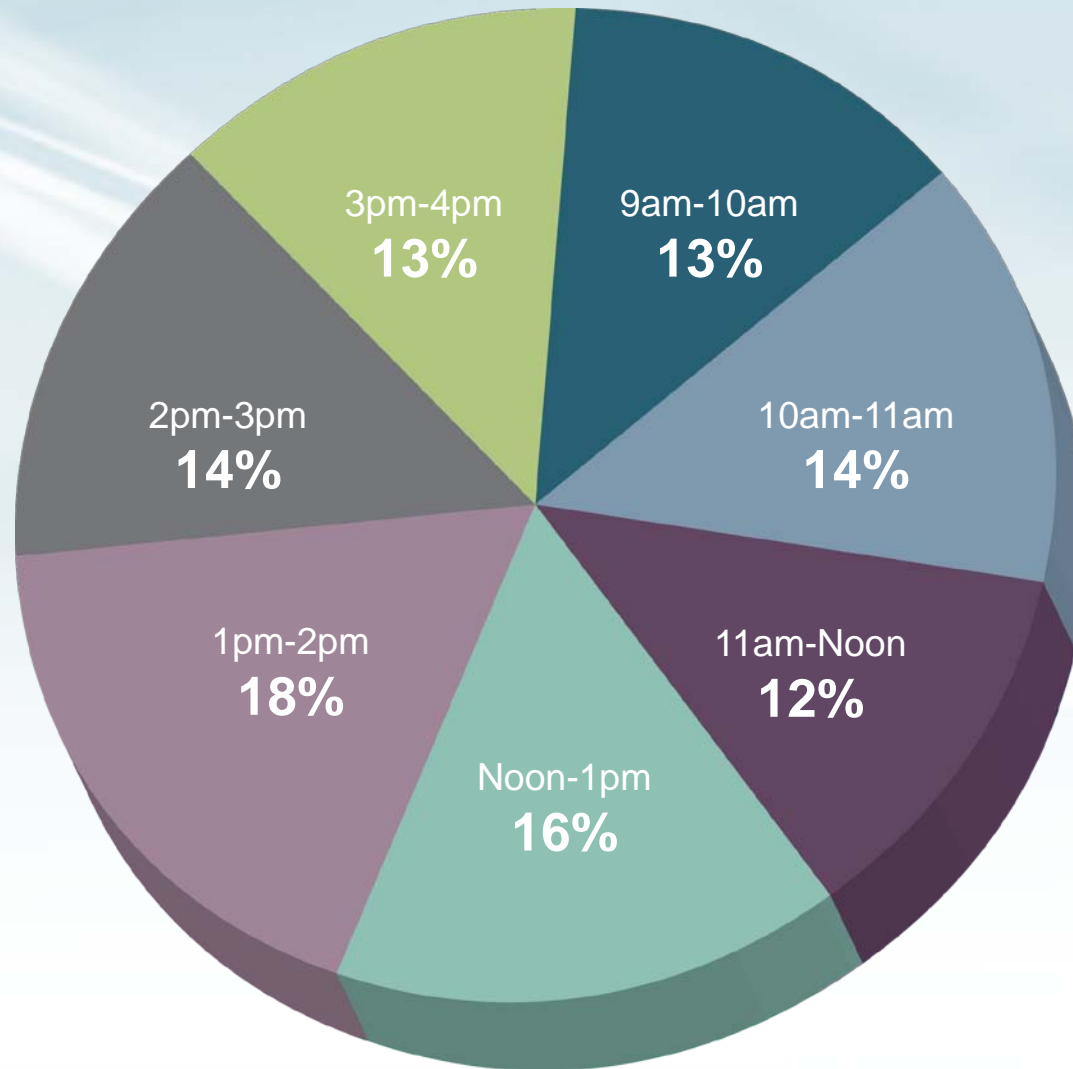


No Heavy Skew During the Weekday Hours

% of Viewing M-F Day by Hour Moment Phone

OMVC Showcase

5/14 to 8/30



Tuesday has More Viewing

Day of the Week Hours Moment Phone

OMVC Showcase

5/14 to 8/30

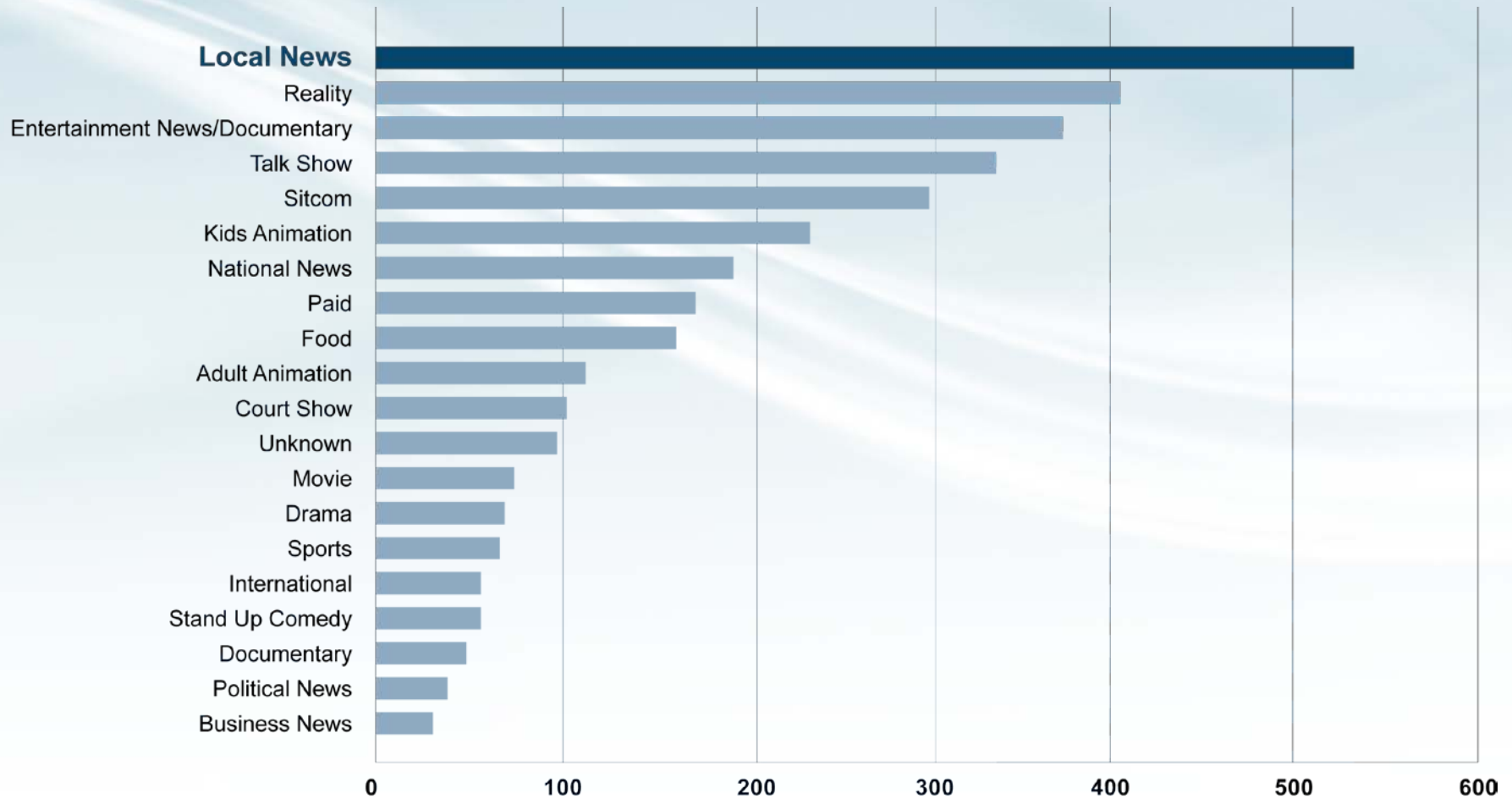


Local News #1

Episodes Tuned in By Genre Moment Phone

OMVC Showcase

5/14 to 8/30

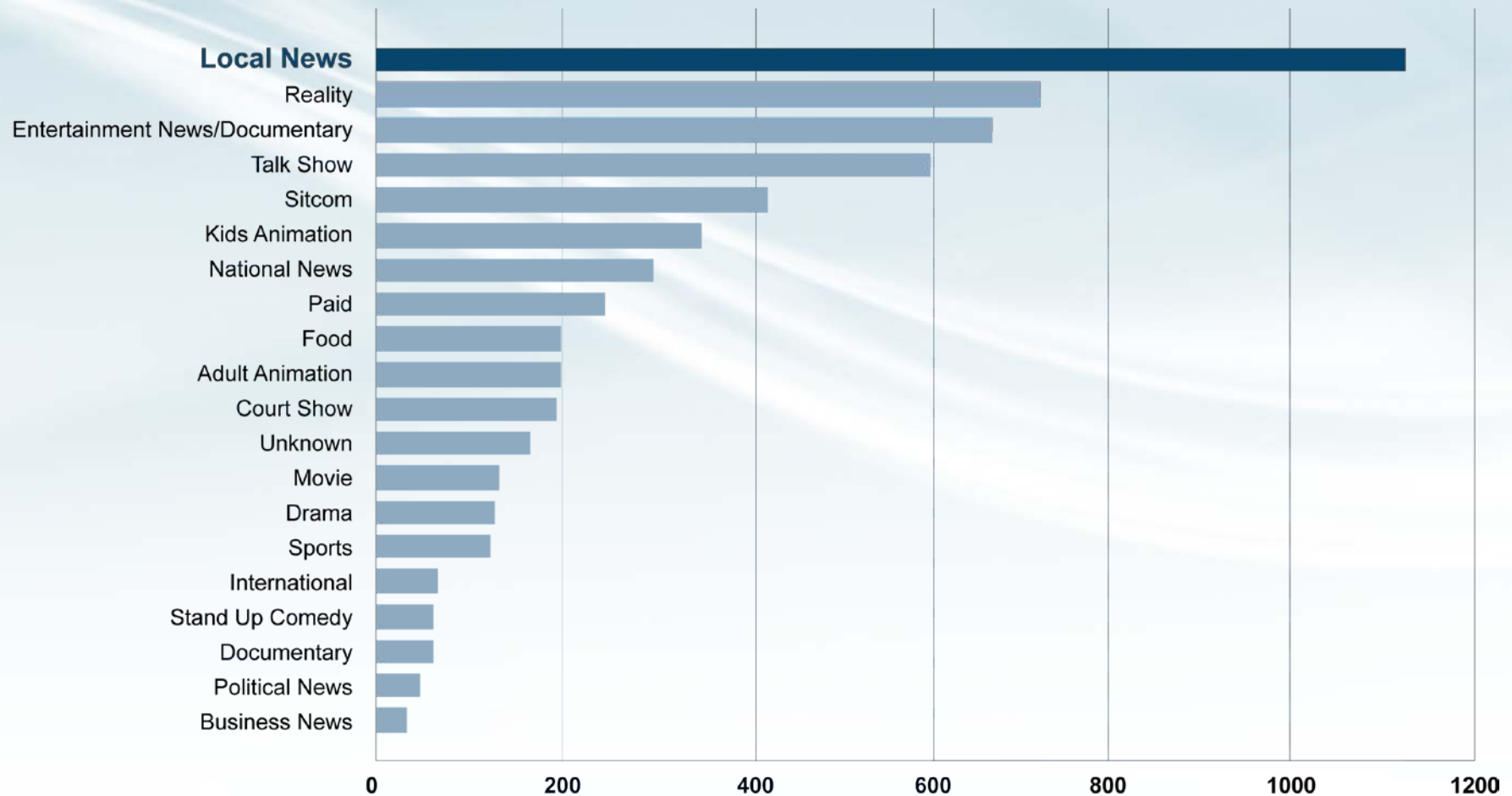


Local News #1

Total Unique Viewers By Genre Moment Phone

OMVC Showcase

5/14 to 8/30



Where to Find Us:

www.OMVC.org

info@omvc.org

