

MATH, ELA

# MILLENNIAL MOVEMENT

## LESSON TIME

45–60 minutes

## OVERVIEW

How are millennials getting their media? We might think that it's all about social platforms, but there's more to the story. Media consumption habits can sometimes be predicted by factors such as age, race, ethnicity, and gender. In this activity, students will research how different young audiences are consuming media and develop predictive models for how their media habits will look in the year 2050.

## GUIDING QUESTION

How will the media habits of millennials change by the year 2050?

## STUDENT OUTCOMES

Through this lesson, students will...

- **Evaluate** the media habits of millennials
- **Analyze** data on media consumption, and
- **Create** a predictive model for how media consumption habits will change over time

## MATERIALS

- Computers with access to the internet and spreadsheet software i.e. Microsoft Excel, Google Sheets
- Chalkboard, whiteboard or large-format sticky paper
- Large-format paper and markers to distribute to groups
- Large-format paper and markers to distribute to groups

- Graph paper (large-format if possible) and writing utensils
- Printed copies or digital copies of
  - Millennial Movement capture sheet (one per student)
  - Flashlight on Data (one per group)

## GET CURIOUS

Have you ever wondered . . .

. . . if everyone sees the same news stories on their social media feeds?

Often it feels like we're in an echo chamber, talking only to others with similar world views. But no one is exactly alike, not even twins! There are thousands of factors and preferences that play into everyone's unique choices. Computers are becoming experts at sorting through all of the data points about us online in order to learn what makes us alike and what makes us different. They then use that knowledge to show us more of the things they like to see. A few categories used to predict consumer habits may include race, age, ethnicity and gender. For instance, millennials are 11% more likely to own a smartphone than baby boomers (those born between 1940 and 1970). Think about how much your smartphone influences your media consumption and how much your worldview might shift without it!

. . . how things about us, like our race and age, determine how we interact with media?

Many factors can help predict our behavior. For instance, millennials have the lowest household income of any living generation.<sup>1</sup> They are more likely to live in cities and less likely to own homes. Based on that information, if someone asked you how likely a millennial would be to purchase a home in the next five years, you'd say that they're less likely than someone in Generation X (those born between 1961–1981). It's important to remember that demographic data helps us understand trends, but it's not the whole picture. Folding other diverse factors into your data set such as cultural nuances, social norms, and other societal influence help to strengthen your story.

## COLLECT AND ANALYZE

1. Begin by asking students to think of how they get their news. As they call out media sources, write them on the board. Students should consider social media, online, and paper-based sources.
2. Once you have a range of media formats, encourage students to identify commonalities among the list. For example:

<sup>1</sup> <http://www.pewresearch.org/fact-tank/2017/09/06/5-facts-about-millennial-households/>

- a. Do I access these news sources on my phone?
  - b. On average, how long are the articles or sources listed?
  - c. Do the sources/outlets listed provide the same information, or is it different?
  - d. Do you go to different media sources for different needs? Do the listed methods on the board fall into identifiable categories?
3. When some commonalities have been identified, explain that the goal of this lesson is to use data as a flashlight. In the case of this exercise, students will work in groups to shine their flashlight on a specific research question. Distribute copies of the **Millennial Movement** capture sheet.
  4. Divide students into groups of 3–4. Provide groups with 2–3 minutes to develop a hypothesis on the following research question: **How will the media habits of millennials change by the year 2050?** Instruct groups to write down their hypotheses on their **Millennial Movement** capture sheets. You may need to define millennials as people born in the 1980s-late 1990s.
  5. Distribute the **Flashlight on Data** student handouts and provide access to laptops to groups, if available. Instruct groups to read through the data by using a mark the text strategy.
    - Circle data that shows increases
    - Underline data that supports your hypothesis
    - Box data that refutes your hypothesis
    - “?” Questions that you still have
  6. Inform students that they are going to work as a team to develop a prediction for how the media habits of the millennial generation could change by the year 2050. They will work together to develop a graph that shows media behavior changes in millennials. As an extension, students may want to map out the demographics of their school, community, or state and see if the same trends in their local demographics would apply to their predicted media consumption behavior.
  7. Distribute graph paper and markers. Provide groups with 20–30 minutes to develop their predictions.

## TELL A STORY WITH DATA

When each group has made their predictions, curate a conversation with the following critical questions:

- How do you anticipate media consumption behavior changing in the millennial generation over time?

- What factors influence your prediction? What events or disruptions would impact your prediction?
- Based on the data you reviewed, do you feel your original hypothesis was accurate? Why or why not?
- Extensions: How did the factors of race and gender influence media consumption? How do you see this changing over time?

### **Extend the Learning With These Additional Resources**

- [Total Audience Report](#)
- [Young Audiences and Digital Devices](#)
- [Millennial Media Habits Change Over Time](#)
- [State of Audio Today](#)

## **STANDARDS**

### **CCSS.MATH.CONTENT.HSN.Q.A.2**

Define appropriate quantities for the purpose of descriptive modeling.

### **CCSS.MATH.CONTENT.HSN.Q.A.3**

Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

### **CCSS.ELA-LITERACY.RST.11-12.8**

Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.

### **CCSS.ELA-LITERACY.RST.11-12.9**

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

## GLOSSARY

**Baby Boomer:** people born from early-to-mid 1940s to 1960s

**Composite:** made up of many parts

**Consumer habits:** study of individuals, groups, or organizations and how they purchase, use, and dispose of goods and services

**Generation:** average period, about 30-years, that people are born and living at the same time

**Generation X:** people born from early-to-mid 1960s and ending in the early 1980s

**Generation Z:** people born from early 2000s to present

**Media consumption:** information and entertainment media about individuals or groups

**Millennial:** people born from 1980s to the early 2000s

**Quintile:** five groups that can be divided equally

All definitions retrieved from Merriam-Webster.

<https://www.merriam-webster.com/>

Consumer Behavior Research

<https://www.fda.gov/Food/FoodScienceResearch/ConsumerBehaviorResearch/default.htm>

# MILLENNIAL MOVEMENT

## CAPTURE SHEET

Use data to tell a story. Begin the story by constructing a hypothesis:

**How will the media habits of millennials change by the year 2050?**

Write down important findings on millennial media habits as you read them:

- 1.
- 2.
- 3.
- 4.
- 5.

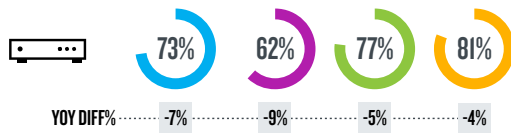
Revisit your hypothesis. Based on your conclusion of media millennial media habits by 2050, what kind of media product, company, and/or service do you think will be relevant to your generation by 2050? Have your thoughts changed from your original hypothesis?

**STUDENT HANDOUT**

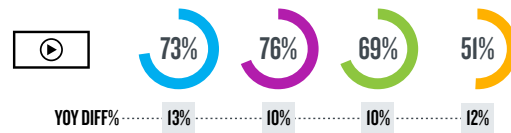
# FLASHLIGHT ON DATA

## HOUSEHOLD TECHNOLOGY OWNERSHIP BY GENERATION

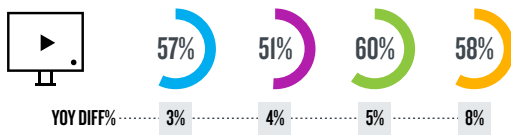
### DVD



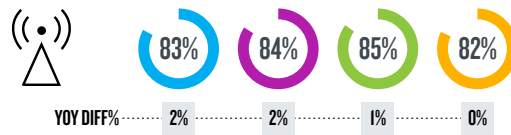
### SUBSCRIPTION VIDEO ON DEMAND



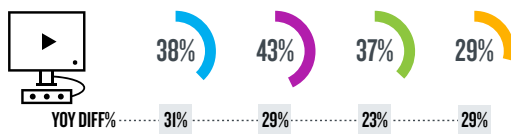
### DVR



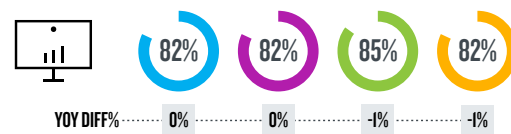
### BROADBAND INTERNET



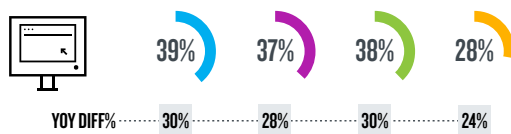
### MULTIMEDIA DEVICE



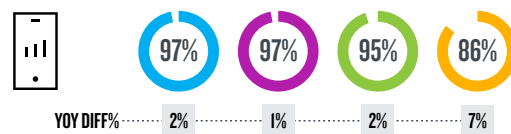
### PC



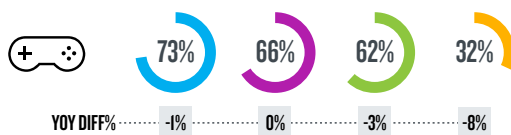
### ENABLED SMART TV



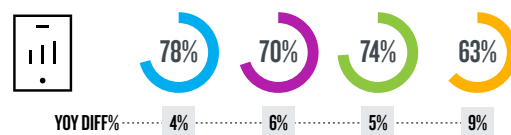
### SMARTPHONE



### VIDEO GAME CONSOLE



### TABLET

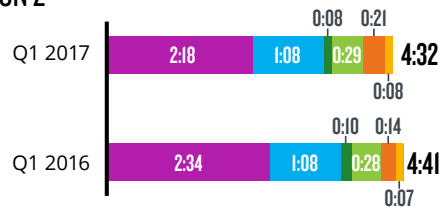


Source: The Nielsen Total Audience Report, Q1 2017

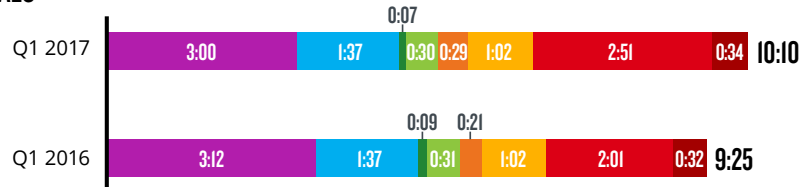
**STUDENT HANDOUT**

**DAILY TIME SPENT AMONG TOTAL POPULATION BY GENERATION**

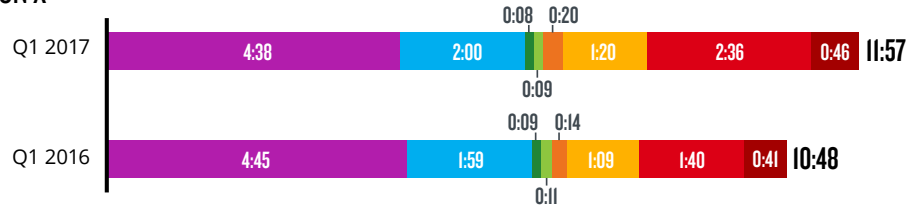
**GENERATION Z\***



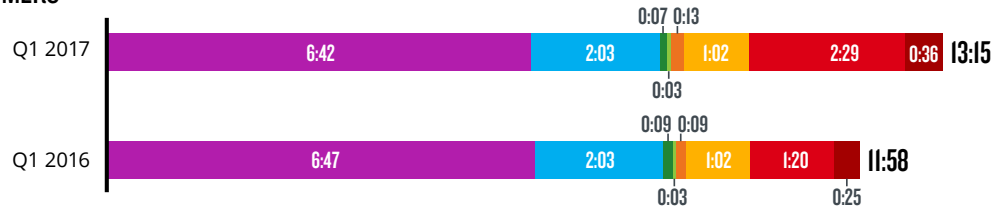
**MILLENNIALS**



**GENERATION X**



**BABY BOOMERS**



■ Live + DVR/Time-shifted TV   
 ■ AM/FM Radio   
 ■ DVD/Blu-Ray Device   
 ■ Game Console

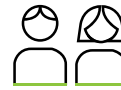
Source: The Nielsen Total Audience Report, Q1 2017



**STUDENT HANDOUT**

**DAILY TIME SPENT AMONG TOTAL POPULATION BY GENERATION**

**BY RACE/ETHNICITY**



**GENERATION Z**

**MILLENNIALS**

**GENERATION X**

**BABY BOOMERS**

|                       | Q1 2016                  | Q1 2017 | Q1 2016 | Q1 2017 | Q1 2016 | Q1 2017 | Q1 2016 | Q1 2017 |      |
|-----------------------|--------------------------|---------|---------|---------|---------|---------|---------|---------|------|
| <b>BLACK</b>          | Live+DVR/Time-shifted TV | 4:05    | 3:40    | 5:05    | 4:37    | 7:03    | 7:02    | 10:01   | 9:46 |
|                       | AM/FM Radio              | 1:12    | 1:16    | 1:38    | 1:40    | 2:02    | 2:05    | 2:13    | 2:15 |
|                       | DVD/Blu-Ray Device       | 0:08    | 0:06    | 0:09    | 0:06    | 0:10    | 0:10    | 0:10    | 0:08 |
|                       | Game Console             | 0:28    | 0:30    | 0:29    | 0:31    | 0:10    | 0:09    | 0:03    | 0:03 |
|                       | Multimedia Device        | 0:10    | 0:19    | 0:17    | 0:27    | 0:12    | 0:20    | 0:07    | 0:12 |
|                       | Internet on a PC         | 0:09    | 0:08    | 1:17    | 1:14    | 1:16    | 1:32    | 1:01    | 1:07 |
|                       | App/Web on a Smartphone  | n/a     | n/a     | 1:58    | 2:57    | 1:43    | 2:48    | 1:42    | 3:02 |
| <b>HISPANIC</b>       | Live+DVR/Time-shifted TV | 2:31    | 2:15    | 2:52    | 2:40    | 3:59    | 3:58    | 5:42    | 5:37 |
|                       | AM/FM Radio              | 1:16    | 1:17    | 1:45    | 1:49    | 2:09    | 2:12    | 2:09    | 2:14 |
|                       | DVD/Blu-Ray Device       | 0:10    | 0:08    | 0:08    | 0:07    | 0:07    | 0:08    | 0:08    | 0:06 |
|                       | Game Console             | 0:26    | 0:27    | 0:23    | 0:22    | 0:08    | 0:08    | 0:04    | 0:03 |
|                       | Multimedia Device        | 0:13    | 0:22    | 0:17    | 0:24    | 0:13    | 0:19    | 0:09    | 0:13 |
|                       | Internet on a PC         | 0:06    | 0:07    | 0:50    | 0:49    | 0:45    | 0:52    | 0:42    | 0:38 |
|                       | App/Web on a Smartphone  | n/a     | n/a     | 2:34    | 3:13    | 1:38    | 2:43    | 1:04    | 2:12 |
| <b>ASIAN AMERICAN</b> | Live+DVR/Time-shifted TV | 1:22    | 1:02    | 1:36    | 1:12    | 2:21    | 2:28    | 2:54    | 2:55 |
|                       | DVD/Blu-Ray Device       | 0:07    | 0:05    | 0:04    | 0:04    | 0:06    | 0:09    | 0:04    | 0:03 |
|                       | Game Console             | 0:17    | 0:14    | 0:17    | 0:15    | 0:06    | 0:08    | 0:02    | 0:01 |
|                       | Multimedia Device        | 0:20    | 0:24    | 0:25    | 0:29    | 0:19    | 0:26    | 0:20    | 0:23 |
|                       | Internet on a PC         | 0:08    | 0:07    | 0:56    | 0:50    | 0:36    | 0:51    | 0:14    | 0:18 |

Source: The Nielsen Total Audience Report, Q1 2017

**STUDENT HANDOUT**

**TABLE 5A – CROSS PLATFORM HOMES RANKED BY IN-HOME VIDEO STREAMING BEHAVIOR**

| Video Streaming Quintile | Composite          |                         |                  |       | Black              |                         |                  |       |
|--------------------------|--------------------|-------------------------|------------------|-------|--------------------|-------------------------|------------------|-------|
|                          | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    |
|                          |                    | (Average Daily Minutes) |                  |       |                    | (Average Daily Minutes) |                  |       |
| Stream 1                 | 16,176             | 29.6                    | 75.9             | 236.2 | 1,622              | 27.1                    | 61.9             | 342.0 |
| Stream 2                 | 16,202             | 3.1                     | 36.7             | 243.2 | 1,595              | 3.2                     | 34.3             | 342.9 |
| Stream 3                 | 16,173             | 0.8                     | 22.2             | 249.5 | 1,604              | 1.0                     | 20.0             | 409.5 |
| Stream 4                 | 16,194             | 0.2                     | 16.7             | 271.5 | 1,607              | 0.2                     | 14.6             | 328.8 |
| Stream 5                 | 16,185             | 0.0                     | 11.4             | 259.8 | 1,609              | 0.0                     | 9.9              | 353.6 |
| Non Streamers            | 167,165            | 0.0                     | 2.5              | 221.0 | 17,681             | 0.0                     | 2.2              | 319.6 |
| All                      | 248,095            | 2.2                     | 12.4             | 231.2 | 25,718             | 2.0                     | 10.4             | 330.9 |

| Video Streaming Quintile | Hispanic           |                         |                  |       | Asian American     |                         |                  |       |
|--------------------------|--------------------|-------------------------|------------------|-------|--------------------|-------------------------|------------------|-------|
|                          | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    |
|                          |                    | (Average Daily Minutes) |                  |       |                    | (Average Daily Minutes) |                  |       |
| Stream 1                 | 1,843              | 29.1                    | 57.1             | 164.1 | 920                | 46.8                    | 77.7             | 67.0  |
| Stream 2                 | 1,846              | 2.6                     | 17.8             | 171.1 | 901                | 4.9                     | 32.5             | 102.3 |
| Stream 3                 | 1,851              | 0.7                     | 13.4             | 155.1 | 918                | 1.2                     | 18.9             | 117.2 |
| Stream 4                 | 1,839              | 0.2                     | 10.2             | 184.3 | 918                | 0.3                     | 13.1             | 143.7 |
| Stream 5                 | 1,845              | 0.0                     | 9.5              | 170.7 | 913                | 0.0                     | 9.7              | 118.8 |
| Non Streamers            | 27,717             | 0.0                     | 1.3              | 176.3 | 12,209             | 0.0                     | 2.2              | 131.4 |
| All                      | 36,941             | 1.6                     | 6.4              | 174.5 | 16,778             | 3.0                     | 9.9              | 125.4 |

Source: The Nielsen Total Audience Report, Q1 2017

**STUDENT HANDOUT**

**TABLE 5B – CROSS PLATFORM HOMES RANKED BY IN-HOME INTERNET BEHAVIOR**

| Internet Quintile  | Composite          |                         |                  |       | Black              |                         |                  |       |
|--------------------|--------------------|-------------------------|------------------|-------|--------------------|-------------------------|------------------|-------|
|                    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    |
|                    |                    | (Average Daily Minutes) |                  |       |                    | (Average Daily Minutes) |                  |       |
| Internet 1         | 29,565             | 14.4                    | 80.4             | 300.9 | 2,957              | 13.0                    | 69.4             | 425.5 |
| Internet 2         | 29,562             | 2.8                     | 16.4             | 254.0 | 2,968              | 3.1                     | 13.7             | 332.9 |
| Internet 3         | 29,586             | 0.9                     | 4.6              | 237.8 | 2,957              | 0.8                     | 4.3              | 331.7 |
| Internet 4         | 29,558             | 0.2                     | 1.2              | 229.1 | 2,959              | 0.2                     | 1.3              | 349.9 |
| Internet 5         | 29,555             | 0.0                     | 0.2              | 215.4 | 2,962              | 0.0                     | 0.2              | 294.4 |
| Non Internet Users | 100,269            | 0.0                     | 0.0              | 206.7 | 10,915             | 0.0                     | 0.0              | 308.6 |
| All                | 248,095            | 2.2                     | 12.4             | 231.2 | 25,718             | 2.0                     | 10.4             | 330.9 |

| Internet Quintile  | Hispanic           |                         |                  |       | Asian American     |                         |                  |       |
|--------------------|--------------------|-------------------------|------------------|-------|--------------------|-------------------------|------------------|-------|
|                    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    |
|                    |                    | (Average Daily Minutes) |                  |       |                    | (Average Daily Minutes) |                  |       |
| Internet 1         | 3,678              | 13.6                    | 51.8             | 206.2 | 1,720              | 23.5                    | 74.0             | 145.4 |
| Internet 2         | 3,683              | 1.8                     | 8.3              | 168.7 | 1,698              | 2.4                     | 16.2             | 155.0 |
| Internet 3         | 3,686              | 0.6                     | 2.4              | 174.6 | 1,715              | 2.4                     | 4.6              | 152.5 |
| Internet 4         | 3,683              | 0.2                     | 0.8              | 166.9 | 1,712              | 0.2                     | 1.1              | 152.8 |
| Internet 5         | 3,678              | 0.0                     | 0.1              | 171.1 | 1,714              | 0.0                     | 0.1              | 133.4 |
| Non Internet Users | 18,534             | 0.0                     | 0.0              | 171.4 | 8,219              | 0.0                     | 0.0              | 101.9 |
| All                | 36,941             | 1.6                     | 6.4              | 174.5 | 16,778             | 3.0                     | 9.9              | 125.4 |

Source: The Nielsen Total Audience Report, Q1 2017

**STUDENT HANDOUT**

**TABLE 5C – CROSS PLATFORM HOMES RANKED BY IN-HOME TELEVISION BEHAVIOR**

| Television Quintile    | Composite          |                         |                  |       | Black              |                         |                  |       |
|------------------------|--------------------|-------------------------|------------------|-------|--------------------|-------------------------|------------------|-------|
|                        | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    |
|                        |                    | (Average Daily Minutes) |                  |       |                    | (Average Daily Minutes) |                  |       |
| Television 1           | 48,931             | 2.4                     | 20.2             | 632.9 | 5,126              | 2.5                     | 17.0             | 820.7 |
| Television 2           | 48,956             | 1.6                     | 12.9             | 296.8 | 5,124              | 1.3                     | 10.7             | 443.1 |
| Television 3           | 48,926             | 1.5                     | 11.0             | 157.2 | 5,115              | 1.7                     | 10.0             | 248.3 |
| Television 4           | 48,931             | 2.0                     | 8.3              | 64.8  | 5,142              | 2.6                     | 6.5              | 111.5 |
| Television 5           | 48,937             | 3.4                     | 9.4              | 12.1  | 5,107              | 2.0                     | 7.5              | 24.4  |
| Non Television Viewers | 3,414              | 5.2                     | 15.4             | 0.0   | 104                | 1.3                     | 8.5              | 0.0   |
| All                    | 248,095            | 2.2                     | 12.4             | 231.2 | 25,718             | 2.0                     | 10.4             | 330.9 |

| Television Quintile    | Hispanic           |                         |                  |       | Asian American     |                         |                  |       |
|------------------------|--------------------|-------------------------|------------------|-------|--------------------|-------------------------|------------------|-------|
|                        | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    | # of Persons (000) | Stream on a PC          | Internet on a PC | TV    |
|                        |                    | (Average Daily Minutes) |                  |       |                    | (Average Daily Minutes) |                  |       |
| Television 1           | 7,347              | 1.1                     | 8.7              | 458.6 | 3,231              | 1.3                     | 12.2             | 407.3 |
| Television 2           | 7,339              | 1.0                     | 6.4              | 224.7 | 3,215              | 1.4                     | 8.4              | 153.7 |
| Television 3           | 7,335              | 1.1                     | 5.5              | 123.2 | 3,232              | 1.1                     | 7.4              | 65.4  |
| Television 4           | 7,343              | 1.8                     | 4.5              | 53.4  | 3,221              | 1.8                     | 6.9              | 20.5  |
| Internet 5             | 7,342              | 3.1                     | 6.7              | 11.7  | 3,227              | 9.0                     | 14.6             | 3.2   |
| Non Television Viewers | 235                | 1.6                     | 3.8              | 0.0   | 653                | 2.6                     | 9.6              | 0.0   |
| All                    | 36,941             | 1.6                     | 6.4              | 174.5 | 16,778             | 3.0                     | 9.9              | 125.4 |

Source: The Nielsen Total Audience Report, Q1 2017

**STUDENT HANDOUT**

**TABLE 6 – TELEVISION DISTRIBUTION SOURCES**  
NUMBER OF HOUSEHOLDS (IN 000'S)

|                               | Composite |         | Black   |         | Hispanic |         | Asian American |         |
|-------------------------------|-----------|---------|---------|---------|----------|---------|----------------|---------|
|                               | Q1 2016   | Q1 2017 | Q1 2016 | Q1 2017 | Q1 2016  | Q1 2017 | Q1 2016        | Q1 2017 |
| <b>Broadcast Only</b>         | 13,301    | 15,216  | 2,314   | 2,560   | 2,535    | 3,050   | 798            | 964     |
| <b>Cable Plus</b>             | 99,225    | 97,812  | 12,684  | 12,443  | 12,165   | 11,908  | 4,234          | 4,271   |
| <b>Wired Cable (No Telco)</b> | 52,273    | 52,452  | 7,054   | 6,764   | 5,512    | 5,953   | 2,243          | 2,347   |
| <b>Telco</b>                  | 12,832    | 9,857   | 1,851   | 1,650   | 1,439    | 958     | 900            | 708     |
| <b>Satellite</b>              | 34,507    | 35,904  | 3,838   | 4,061   | 5,259    | 5,064   | 1,137          | 1,259   |
| <b>Broadband Only</b>         | 3,874     | 5,374   | 235     | 578     | 410      | 632     | 400            | 556     |

Table 6 is based on weighted intab counts.  
Cable Plus is inclusive of Wired Cable, Telco, and Satellite

**TABLE 7 – TELEVISION DISTRIBUTION SOURCES BY ETHNICITY**  
PERCENTAGE OF HOUSEHOLDS

|                               | Composite | White | Black | Hispanic | Asian American |
|-------------------------------|-----------|-------|-------|----------|----------------|
| <b>Broadcast Only</b>         | 13%       | 12%   | 16%   | 20%      | 17%            |
| <b>Cable Plus</b>             | 82%       | 84%   | 80%   | 75%      | 73%            |
| <b>Wired Cable (No Telco)</b> | 44%       | 45%   | 43%   | 38%      | 40%            |
| <b>Telco</b>                  | 8%        | 8%    | 11%   | 7%       | 11%            |
| <b>Satellite</b>              | 30%       | 31%   | 26%   | 31%      | 22%            |
| <b>Broadband Only</b>         | 5%        | 5%    | 3%    | 4%       | 10%            |

Cable Plus is inclusive of Wired Cable, Telco, and Satellite

**Source: The Nielsen Total Audience Report, Q1 2017**

**STUDENT HANDOUT**

**TABLE 8 – PROVIDER TYPE WITH INTERNET STATUS**  
NUMBER OF HOUSEHOLDS (IN 000'S)

|   | Composite |         | Black   |         | Hispanic |         | Asian American |         |
|---|-----------|---------|---------|---------|----------|---------|----------------|---------|
|   | Q1 2016   | Q1 2017 | Q1 2016 | Q1 2017 | Q1 2016  | Q1 2017 | Q1 2016        | Q1 2017 |
| Broadcast Only and Broadband Access           | 7,302     | 8,973   | 726     | 902     | 1,112    | 1,446   | 662            | 836     |
| Broadcast Only and No Internet/Dial-Up Access | 5,999     | 6,243   | 1,587   | 1,658   | 1,423    | 1,603   | 135            | 128     |
| Cable Plus and Broadband Access               | 79,261    | 79,473  | 8,650   | 8,895   | 8,653    | 8,582   | 3,929          | 4,014   |
| Cable Plus and No Internet/Dial-Up Access     | 19,964    | 18,339  | 4,034   | 3,547   | 3,512    | 3,327   | 305            | 257     |

Table 8 is based on weighted intab counts.

**TABLE 9 – DEVICES IN TV HOUSEHOLDS**  
PERCENTAGE OF HOUSEHOLDS

|                              | Composite |         | Black   |         | Hispanic |         | Asian American |         |
|------------------------------|-----------|---------|---------|---------|----------|---------|----------------|---------|
|                              | Q1 2016   | Q1 2017 | Q1 2016 | Q1 2017 | Q1 2016  | Q1 2017 | Q1 2016        | Q1 2017 |
| DVD/Blu-Ray Player           | 77%       | 73%     | 74%     | 68%     | 72%      | 66%     | 68%            | 61%     |
| DVR                          | 50%       | 54%     | 46%     | 51%     | 44%      | 46%     | 42%            | 47%     |
| Enabled Smart TV             | 23%       | 29%     | 18%     | 25%     | 25%      | 34%     | 34%            | 42%     |
| High Definition TV           | 94%       | 96%     | 91%     | 93%     | 95%      | 97%     | 97%            | 99%     |
| Multimedia Device            | 24%       | 31%     | 19%     | 29%     | 25%      | 33%     | 45%            | 52%     |
| Any Smartphone               | 81%       | 86%     | 83%     | 88%     | 91%      | 93%     | 93%            | 94%     |
| Subscription Video on Demand | 50%       | 57%     | 41%     | 48%     | 51%      | 58%     | 66%            | 69%     |
| Any Tablet                   | 58%       | 63%     | 51%     | 56%     | 59%      | 63%     | 72%            | 75%     |
| Video Game Console           | 44%       | 43%     | 43%     | 43%     | 54%      | 52%     | 48%            | 47%     |

Source: The Nielsen Total Audience Report, Q1 2017