Bring Your Own Device and the 2020 Census Research & Testing

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Disclaimer

- This presentation is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed on statistical, methodological, technical, or operational issues are those of the authors and not necessarily those of the U.S. Census Bureau.
Background

- Census Bureau is exploring the “Bring Your Own Device” for the 2020 Census.
  - Reduce Cost
  - Improve Employee Productivity
Ongoing Research

- Ongoing Research:
  - Technical/Security
  - Legal/Policy
  - Operational
  - Consumer Adoption/Market Penetration

- Consumer Adoption/Market Penetration is the focus of this presentation
Census Interviewer Survey

- Sent to 8,725 Field Interviewers with CAPI laptops
  - 4,265 responded
  - AAPOR RR1 = 48.9%
- Purpose: Identify type of devices and internet access interviewers have
Census Interviewer Survey Data

- 49.3% own a smartphone
  - Data plan
    - 39.6% have unlimited data plan
    - 47.1% have 5GB plans or less
  - Voice Plan
    - 38.8% have unlimited voice plan
    - 47.6% have a limited voice plan
- 27.3% own a tablet
Gallup Survey - Background

- AAPOR RR3 = 8.0%
- 6,013 Respondents
  - 3723 In workforce or looking for work
  - 62% of all respondents
What Do We Want To Understand?

1. Of workforce who own a smartphone or tablet, what proportion would be willing to use their own device for:
   a. Work calls?
   b. Work emails?
   c. Download apps for work purposes?

2. If unsure or unwilling for one of the above, is the main concern cost, privacy or something else?

3. What role does compensation play in willingness?

4. Are there demographic differences in the above?
Smartphone/Tablet Ownership

• Of persons in the workforce:
  – 32% own only a smartphone
  – 7% own only a tablet
  – 36% own both
  – 25% own neither

• About 75% of the workforce in this survey own a “smart” device
Work Purposes

• Would you be willing to use your own smartphone or tablet…
  – To make and receive phone calls for work purposes?
    • 69% said yes
  – For work email?
    • 74% said yes
  – To download and use apps for your job?
    • 70% said yes
Logistic Regression

- Type of Devices Owned
- Race/Ethnicity
- Age
- Education
- Gender
- Income
- Tenure
- Type of Job
Logistic Regression (2)

- Type of device, age, and income were significant, and the most obvious, impact.
- Gender and education were significant, but small impact.
Willingness to Do Work Activity by Type of Devices Owned

- **Phone Calls**:
  - Smartphone: 71%
  - Tablet: 49%
  - Both: 71%

- **Emails**:
  - Smartphone: 74%
  - Tablet: 62%
  - Both: 77%

- **Apps**:
  - Smartphone: 71%
  - Tablet: 52%
  - Both: 72%
Willingness to Do Work Activity by Type of Devices Age

Phone Calls
- 18-24: 80%
- 25-44: 72%
- 45-64: 61%
- 65+: 57%

Emails
- 18-24: 90%
- 25-44: 77%
- 45-64: 64%
- 65+: 59%

Apps
- 18-24: 87%
- 25-44: 71%
- 45-64: 61%
- 65+: 56%
Willingness to Do Work Activity by Income

<table>
<thead>
<tr>
<th>Activity</th>
<th>LT $2000/month</th>
<th>$2000 - $7499/month</th>
<th>$7500 or more/month</th>
<th>DK/REF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone Calls</td>
<td>78%</td>
<td>67%</td>
<td>73%</td>
<td>61%</td>
</tr>
<tr>
<td>Emails</td>
<td>82%</td>
<td>73%</td>
<td>77%</td>
<td>65%</td>
</tr>
<tr>
<td>Apps</td>
<td>81%</td>
<td>67%</td>
<td>72%</td>
<td>63%</td>
</tr>
</tbody>
</table>
Concerns

- For respondents who answered “No” to at least one work activity:
- “What are you most concerned about?”
  - Cost
  - Privacy
  - Working After Hours
  - Concerns About IT Security
  - Company *Should* Provide it
  - Other
    - Device being lost or stolen
    - Viruses
    - Device being broken
Concerns (2)

- Privacy: 39%
- Costs: 21%
- Working After Hours: 4%
- Concerns About IT Security: 6%
- Company Should Provide It: 8%
- Other: 19%
- None: 4%
Compensation

• Would you still be willing to use your own device for work if your job did not pay you back for using your data or minutes?
  – 45% indicate they would still be willing to use if not compensated
  – Those who say yes to all uses are basically split (52% said yes).
  – Those who said no to at least one use are not as willing (23% said yes).
Conclusions/Next Steps

• From Gallup results
  – Most people are willing to use their own device
    • Smartphones more so than Tablets
    • Younger Persons
    • Income
    • Economic Outlook
  – Of those who were not willing to use their device for at least one work use, they reported being most concerned with privacy
  – Some persons want to be compensated, but not all
Ongoing Research

• Technical/Security
• Legal/Policy/Privacy
• Operational
Thank you!

Questions?

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