

Commercial Mobile Device Project Overview

2020 Census Program Management Review

12/20/13



Presentation Format

- What is the opportunity?
- How this work fits in the 2020 Program?
- What options exist?
- How is Census working the challenge?
- What have we accomplished?
- Gallup Survey Results



How does this fit in the 2020 Program?

- 2020 Objectives
 - Reduce per housing unit field infrastructure costs including hardware (compared to 2010)
 - Maintain data quality
- Research
 - Examining the feasibility of commercially available hardware-independent solutions.
 - Examining the feasibility of developing software applications for cross-platform use (i.e., Internet, smartphone) and document the mobile design architecture alternatives associated with cross-platform design.
 - Does BYOD drive down costs? Does it increase infrastructure costs? What's the trade-off?



What Options Exist?

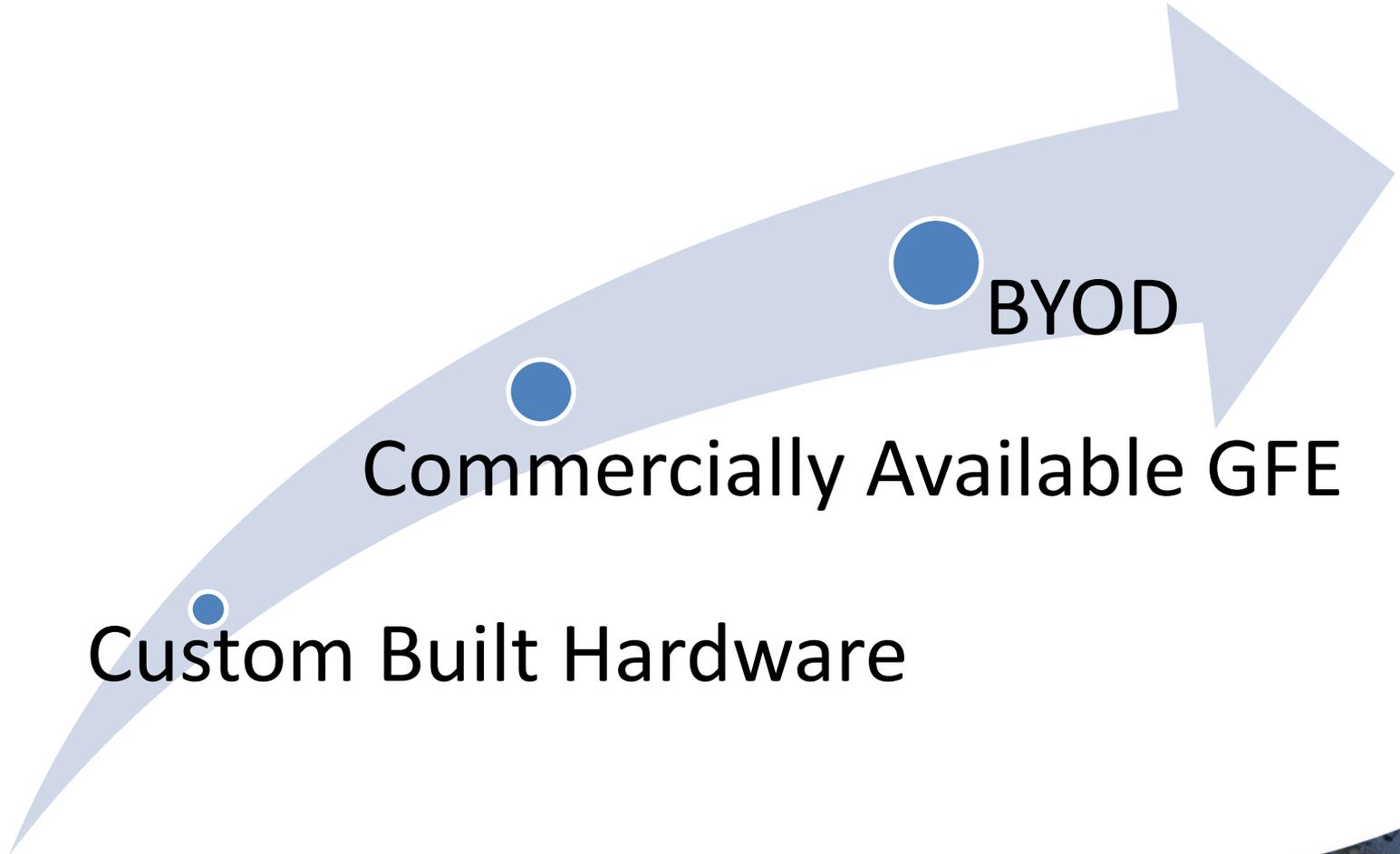
- **Government Furnished Equipment (GFE)** is property that is acquired directly by the government and then made available to employees for use.
- **Bring your own device (BYOD)** a concept that allows employees to utilize their personally-owned technology to stay connected to, access data from, or complete tasks for their organizations. At a minimum, BYOD programs allow users to access employer-provided services and/or data on their personal tablets/eReaders, smartphones and other devices.

Source: Bring Your Own Device: A Toolkit to Support Federal Agencies Implementing Bring Your Own Device (BYOD) Programs – Digital Government Strategy.

- **Corporately- Owned Personally Enabled (COPE)** is an IT business strategy through which an organization buys and provides computing resources and devices to be used and managed by employees.
- **What's Next?**



Which Option is More Likely?



Custom Built Hardware

Commercially Available GFE

BYOD



How is Census working the challenge?

- Commercial Device Pilot
 - Scope: Provide commercial devices for headquarters employees to replace existing Blackberry inventory.
- Census Commercial Mobile Device Project
 - Scope: Develop a strategy for implementing appropriate commercially available mobile technology for the 2020 Census field staff. The appropriate mobile platform to deliver the capabilities needed for the 2020 program could span a continuum from government furnished equipment and services to employee provided equipment and services (i.e., Bring Your Own Device).



2020 Census Commercial Mobile Device Strategy

- Strategy Document will address the following from a mobile perspective:
 - What are we currently doing?
 - Where do we need to go?
 - How will we excel?
- Strategy will include Cost/Benefit Analysis
 - We will quantify:
 - Hardware Costs (all options and combinations of multiple)
 - Technical Costs (software/architecture/infrastructure/security)
 - Legal, Policy and Privacy Costs
 - Service Options and Costs (i.e., voice and data plans)
 - Service Desk Options and Costs
 - Operational Costs
 - Reuse/Disposal Options and Costs
- Planned Completion: FY 15, Q4



What have we accomplished?

- Designed, Developed and Tested COMPASS (iOS, Windows, Android)
- Defined Secure Configuration
- Census Architecture Review Board approved Mobile Application Design Standard
- Identified Policy/Legal Issues (i.e., PII on Personal Devices, Acceptable Use Policy, Device as Condition of Employment)
- Gallup Survey – Adoption/Penetration of Smartphones and Tablets



Gallup Survey - Background

- August 5, 2013 – September 2, 2013
- 8% response rate overall
- 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:
 - 68% own Smartphone
 - 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



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).

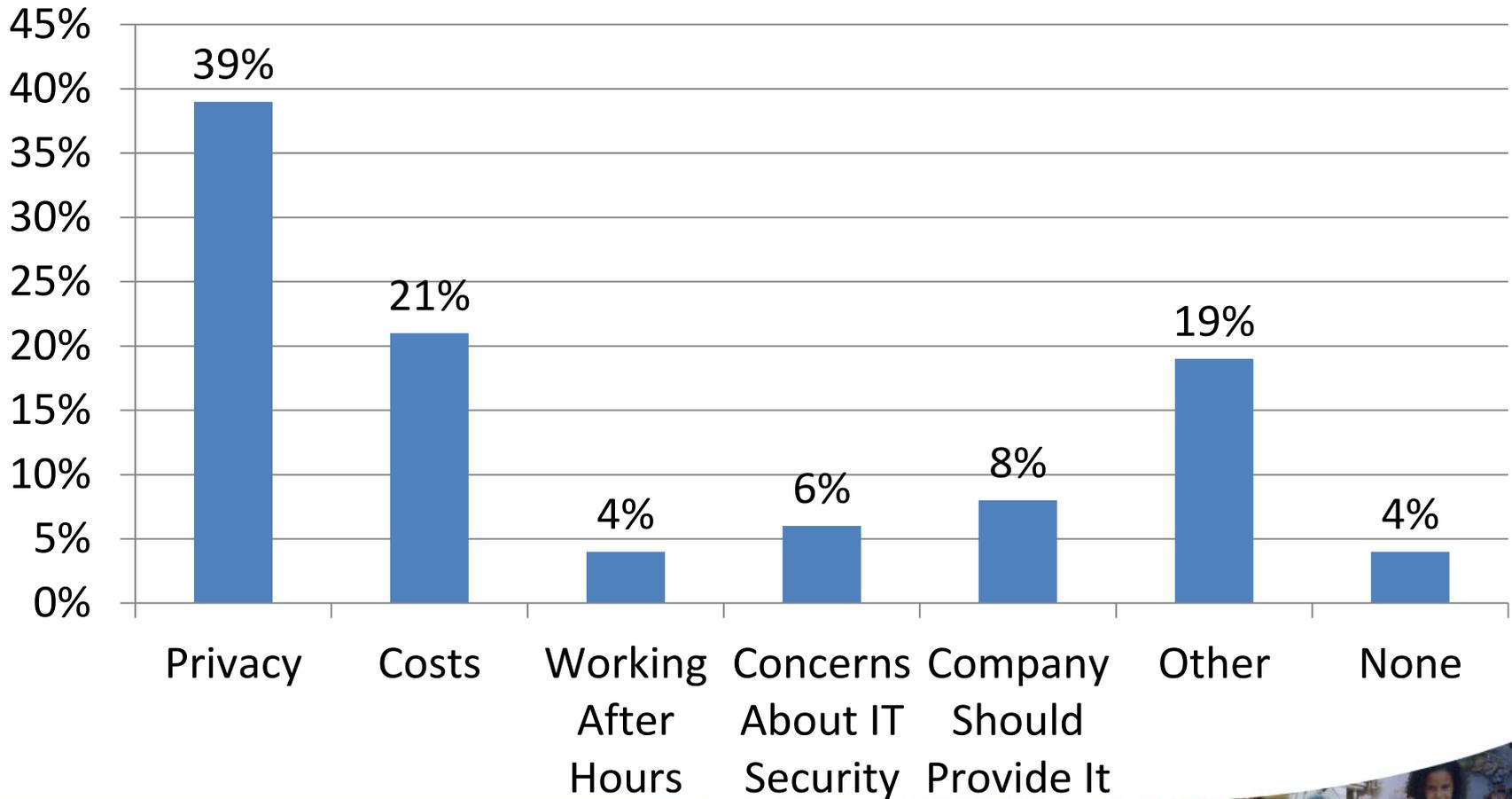


Concerns

- 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)



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



Questions?



Backup Slides



Survey Questions

1. Some cell phones are called smartphones because of certain features they have. Do you have a smartphone, such as an iPhone, Android, Blackberry, or Windows phone, or are you not sure?
2. Do you have a tablet computer like an iPad, Samsung Galaxy, Motorola Xoom, or Kindle Fire?
3. Would you be willing to use your own smartphone/tablet/smartphone or tablet...
 - a. To make and receive phone calls for work purposes?
 - b. For work email?
 - c. To download and use apps for your job?
4. What are you most concerned about? *Responses coded not read.*
5. 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?



Logistic Regression

- **Dependent variable: use device for work purposes**
- Type of Devices Owned
- Race/Ethnicity
- Age
- Education
- Gender
- Income
- Tenure
- Type of Job

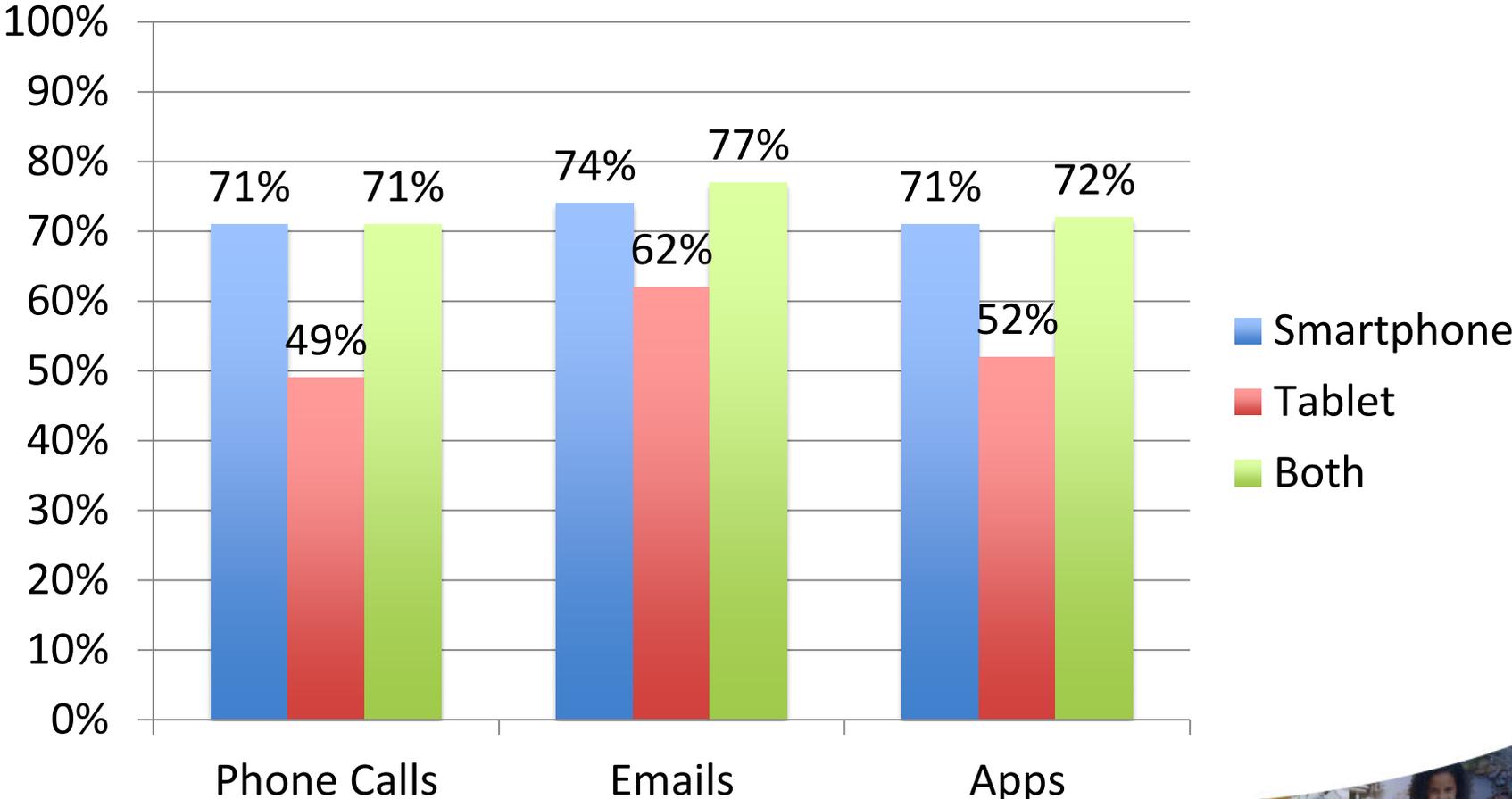


Logistic Regression (2)

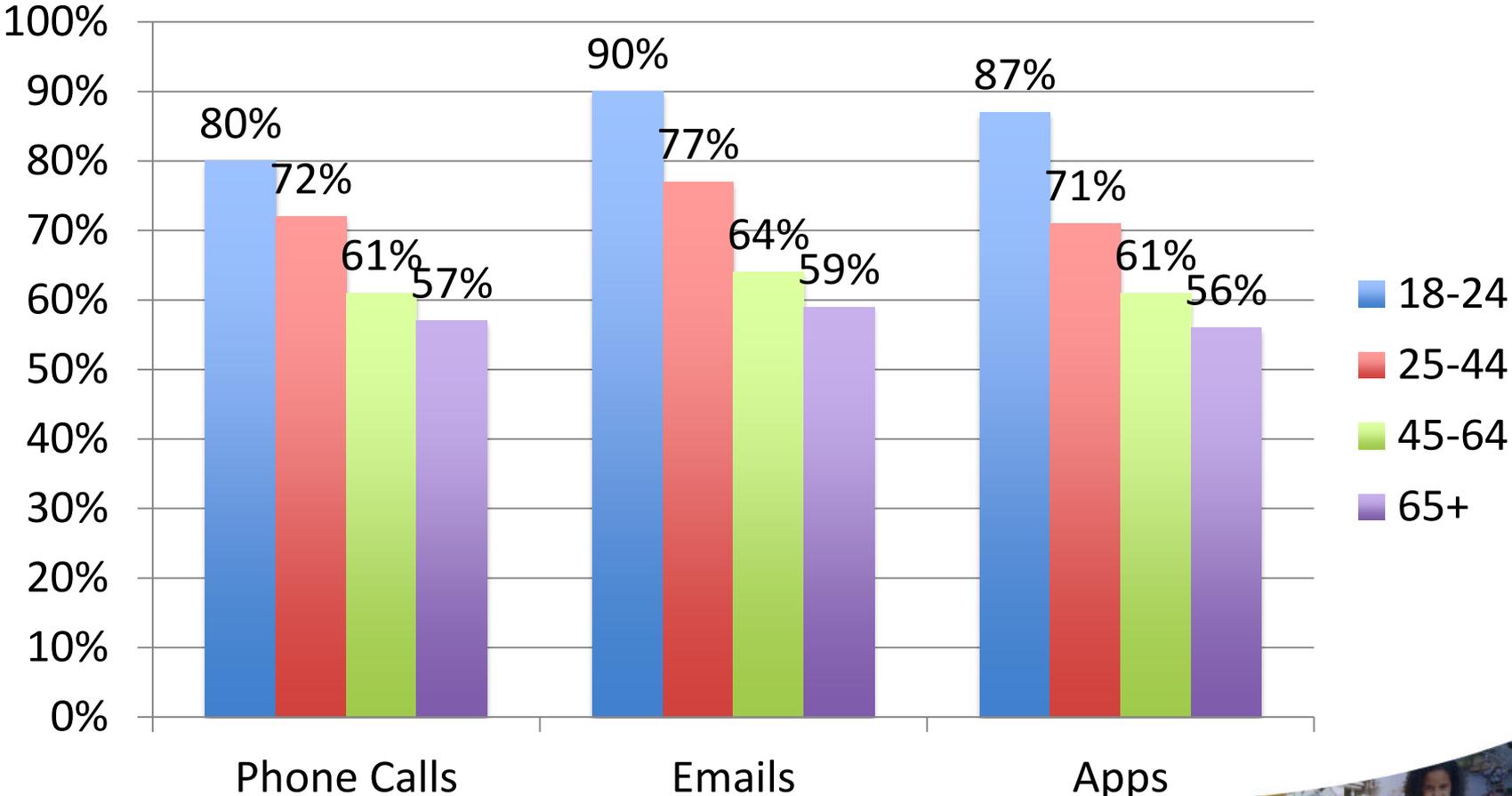
- Type of device, age, and income were significant, and the most obvious, impact.
- Gender and education were significant, but small impact.



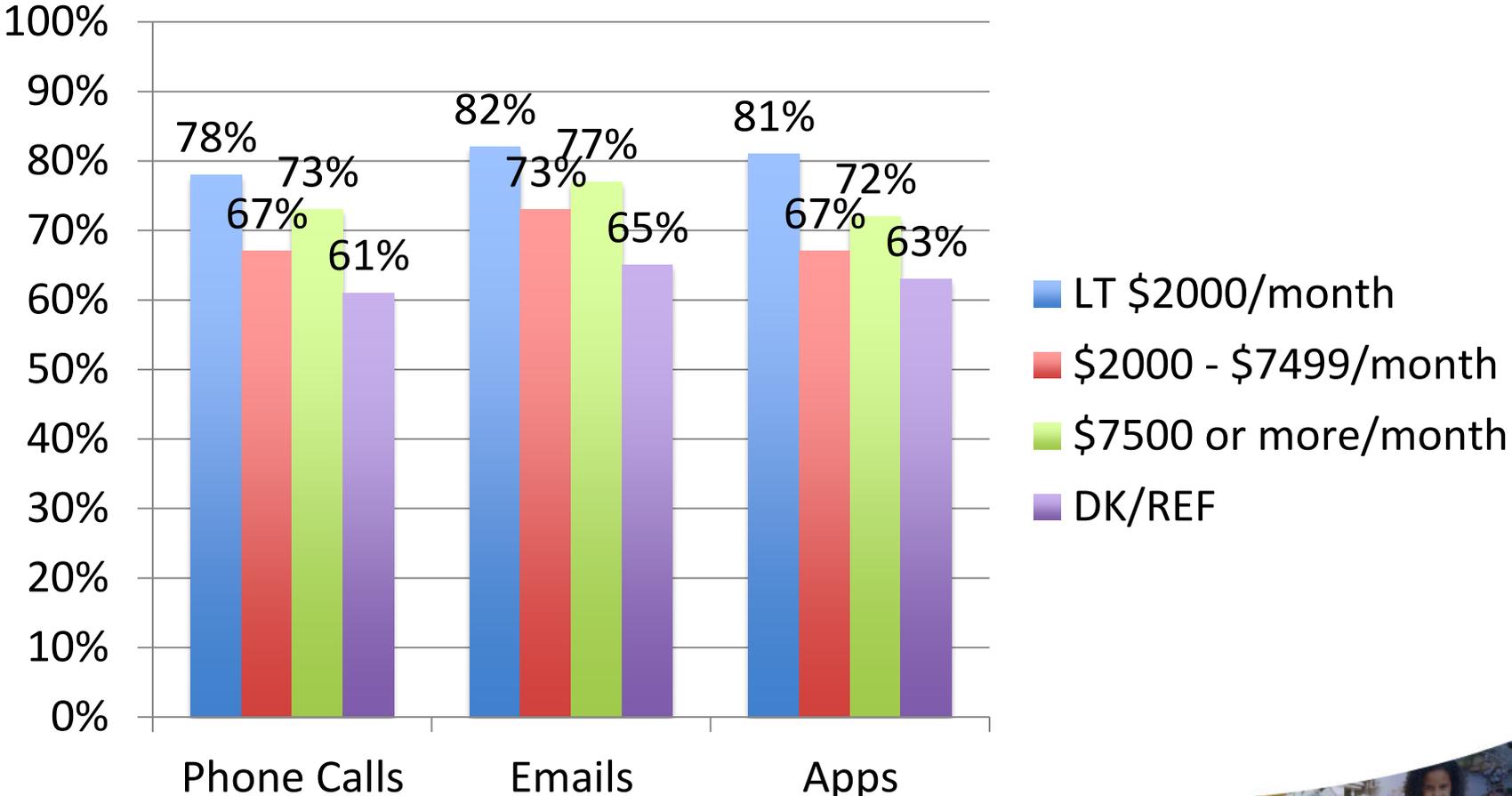
Willingness to Do Work Activity by Type of Devices Owned



Willingness to Do Work Activity by Type of Devices Age



Willingness to Do Work Activity by Income



References

- BYOD – Private Sector
- Indications that private enterprises are widely adapting
 - Suggests 76% of enterprises have adopted BYOD technologies
<http://www.prnewswire.com/news-releases/enterprises-continue-to-embrace-byod-expanding-across-industries-and-the-globe-in-2012-187840531.html>
 - Suggests about 62% of enterprises have seen significant growth in the use of BYOD technologies
<http://www.techpageone.dell.com/technology/byod-adoption-rate-to-top-35-by-2016/#.UmVxyKzNmSq>



Census Interviewer Survey

- July 25, 2013 – August 23, 2013
- Sent to 8,725 Field Interviewers with CAPI laptops
 - 4,265 responded
- 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

