

Federal Reserve Bank 2016 Mobile Banking & Payments Survey

Part 1: Consumer Mobile Banking – Key Findings from Financial Institutions

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Agenda

- Mobile Landscape Developments
- Survey Background & Methodology
- Consumer Mobile Banking Results
- Mobile Banking Security Results
- Key Takeaways
- Q&A

Mobile Definitions

MOBILE BANKING

- Banking activities initiated from mobile phone
 - Access using FI's mobile banking app
 - Access mobile banking website
 - View bank/credit account balances and statements
 - receive account alerts
 - Transfer funds between accounts, pay bills, deposit checks

MOBILE PAYMENTS

- Pay for purchases from mobile phone
 - POS (point-of-sale) using NFC (near field communication) or QR (quick response) codes to tap or scan at POS reader
 - Online, in-app or remote via mobile app or mobile browser
 - Ecommerce goods and services; transit, parking, ticketing; digital content

MOBILE/DIGITAL WALLET

- Application in mobile phone
 - Controls access to credit, debit, prepaid or bank account credentials (or payment token substitutes) stored securely in mobile phone (or cloud); and loyalty programs

Mobile Landscape Developments

- More financial transactions are electronic
- Mobile banking mainstream; capabilities are expanding
- Increasing banking and payment interactions across channels
- Mobile/digital wallets converging
- More FIs and merchants engaging in mobile payment solutions
 - Fostering broader consumer adoption
- Security plays a major role in adoption of mobile banking and mobile payments

Survey Background & Methodology

Objective: Provide industry with an understanding of FIs' mobile banking and payment services, practices, strategies, and adoption trends

- **Survey Background**

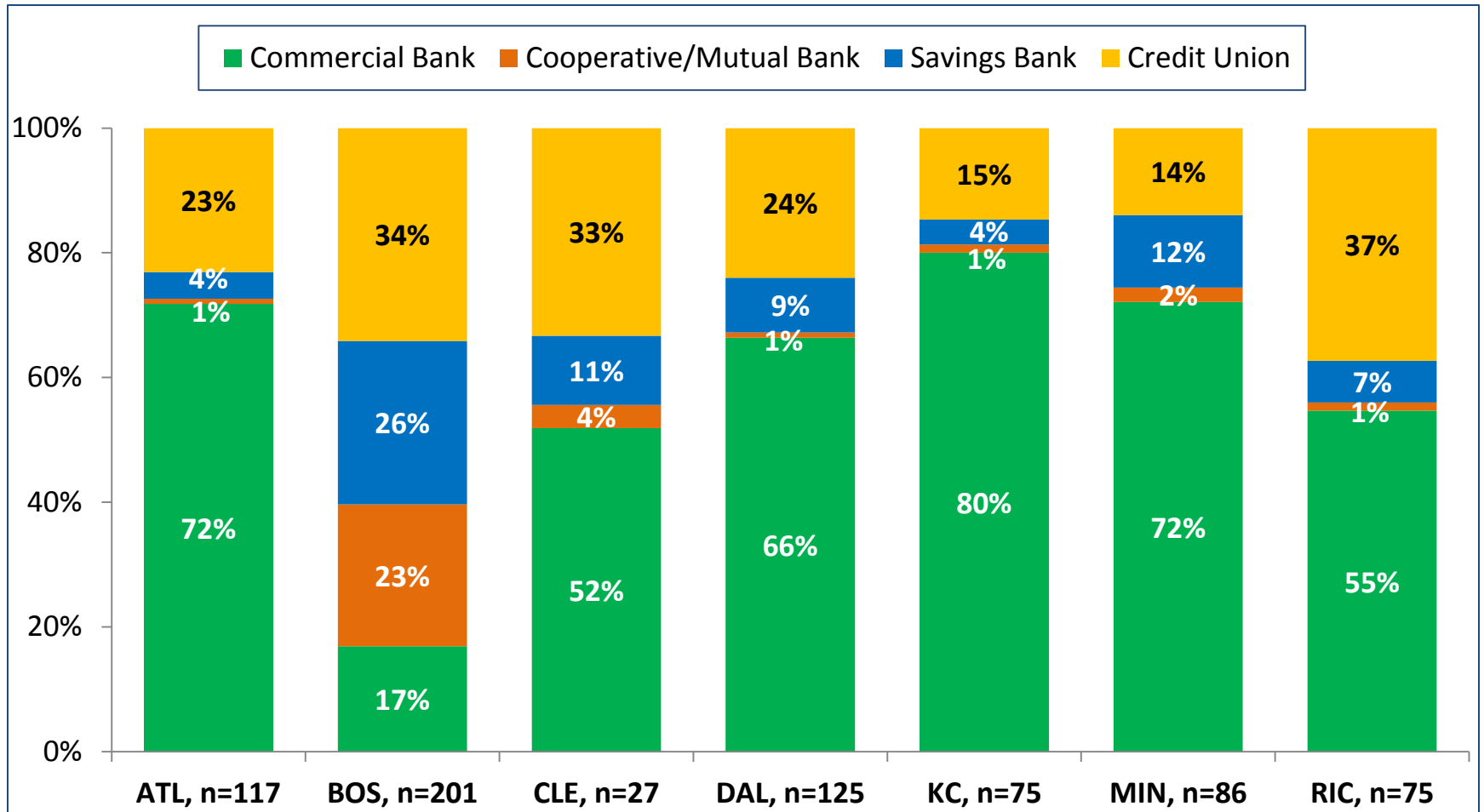
- Boston Fed has surveyed FIs in New England about every two years since 2008
- 2014 survey expanded to include FIs in 5 FR Districts to enhance the impact and value of the study nationally
- 2016 survey: FIs in 7 FR Districts participated: Atlanta, Boston, Cleveland, Dallas, Kansas City, Minneapolis, and Richmond

- **Methodology**

- Survey ran from September to October 2016
- FR Banks solicited 6,074 FIs
- 706 FIs responded:
 - 520 banks and 186 credit unions
 - 12% participation rate
 - Represented 8.7% of all banks and 3.1% of all credit unions nationally

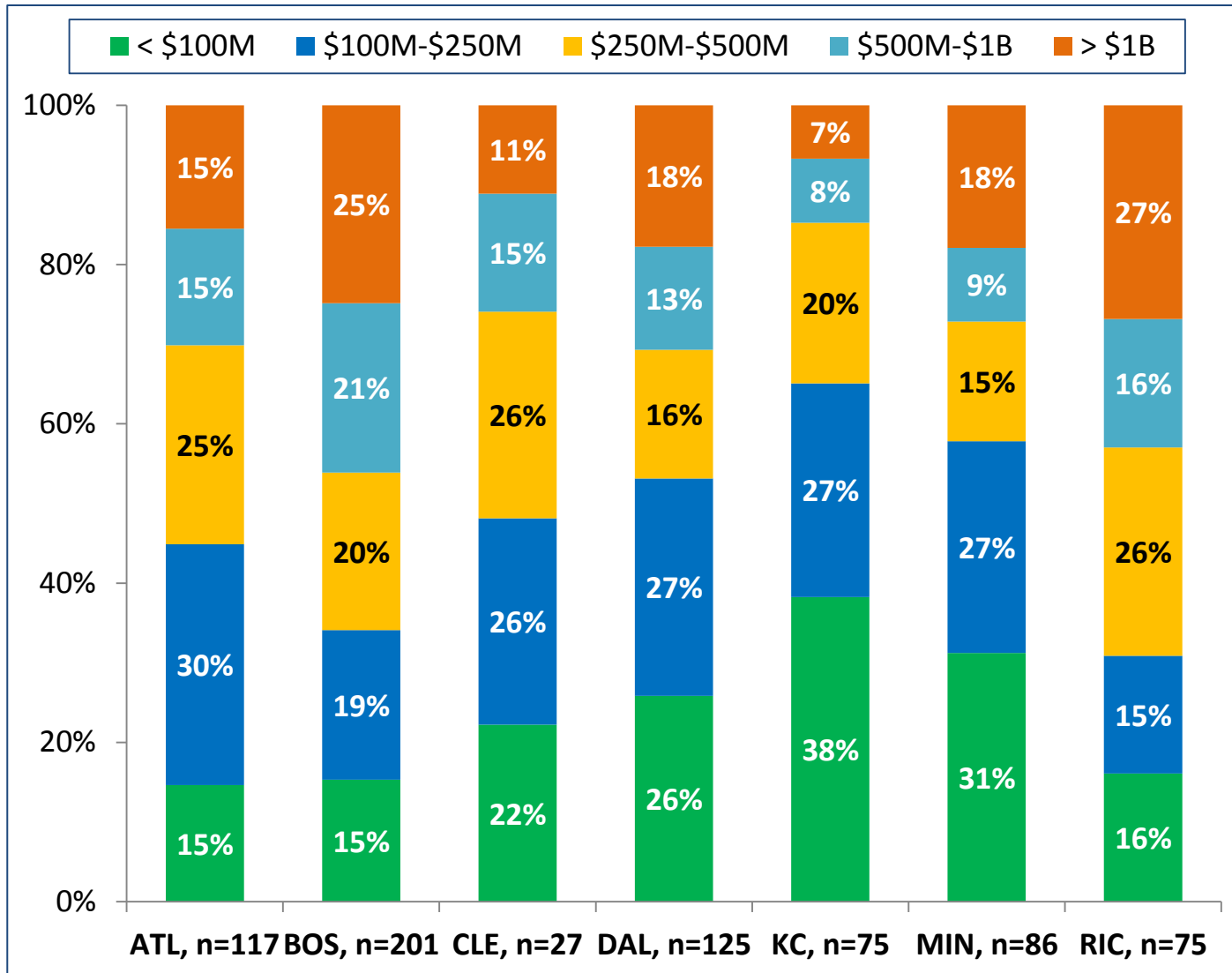
Respondents by FI type within District

In total, commercial banks represent 59% of respondents; credit unions 26%



Respondents by asset size within Districts

Broad representation across Districts and asset tiers



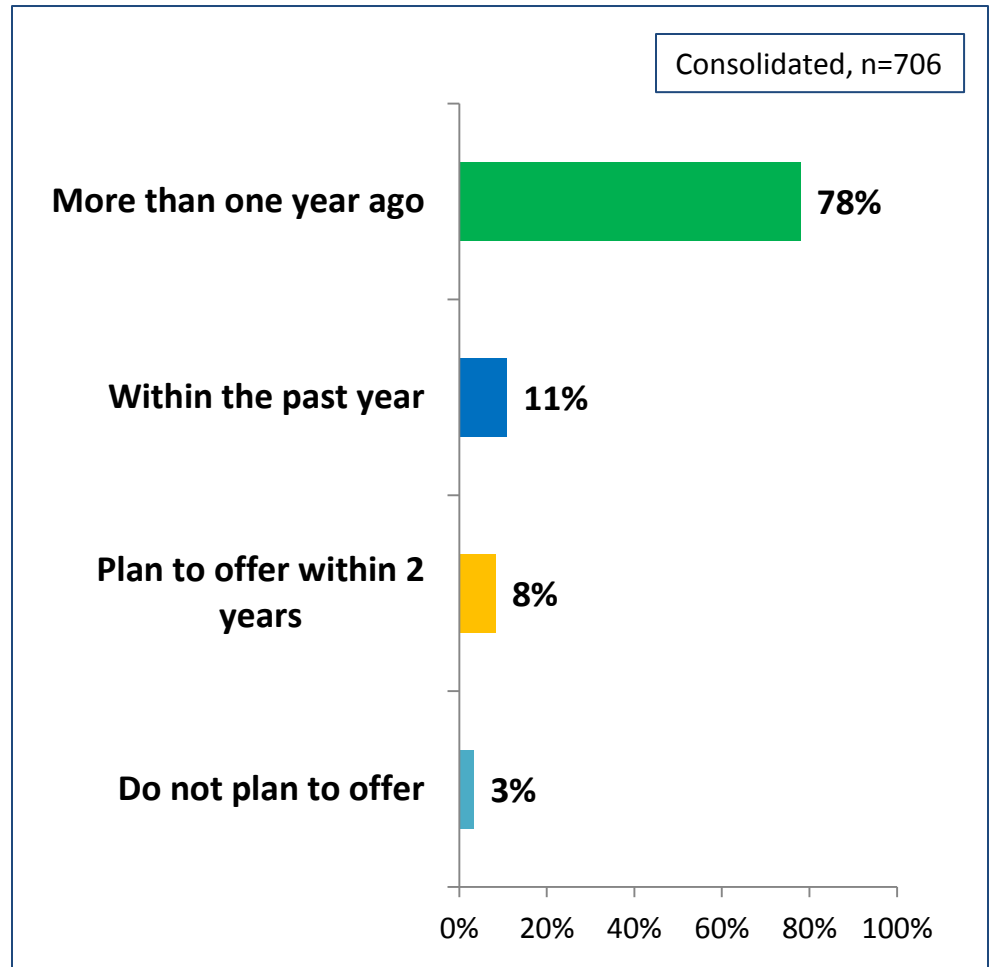
Consolidated Percentages
(n=607)

< \$100M	22%
\$100M-\$250M	24%
\$250M-\$500M	20%
\$500M-\$1B	15%
> \$1B	19%

CONSUMER MOBILE BANKING RESULTS

Offering retail mobile banking is becoming ubiquitous

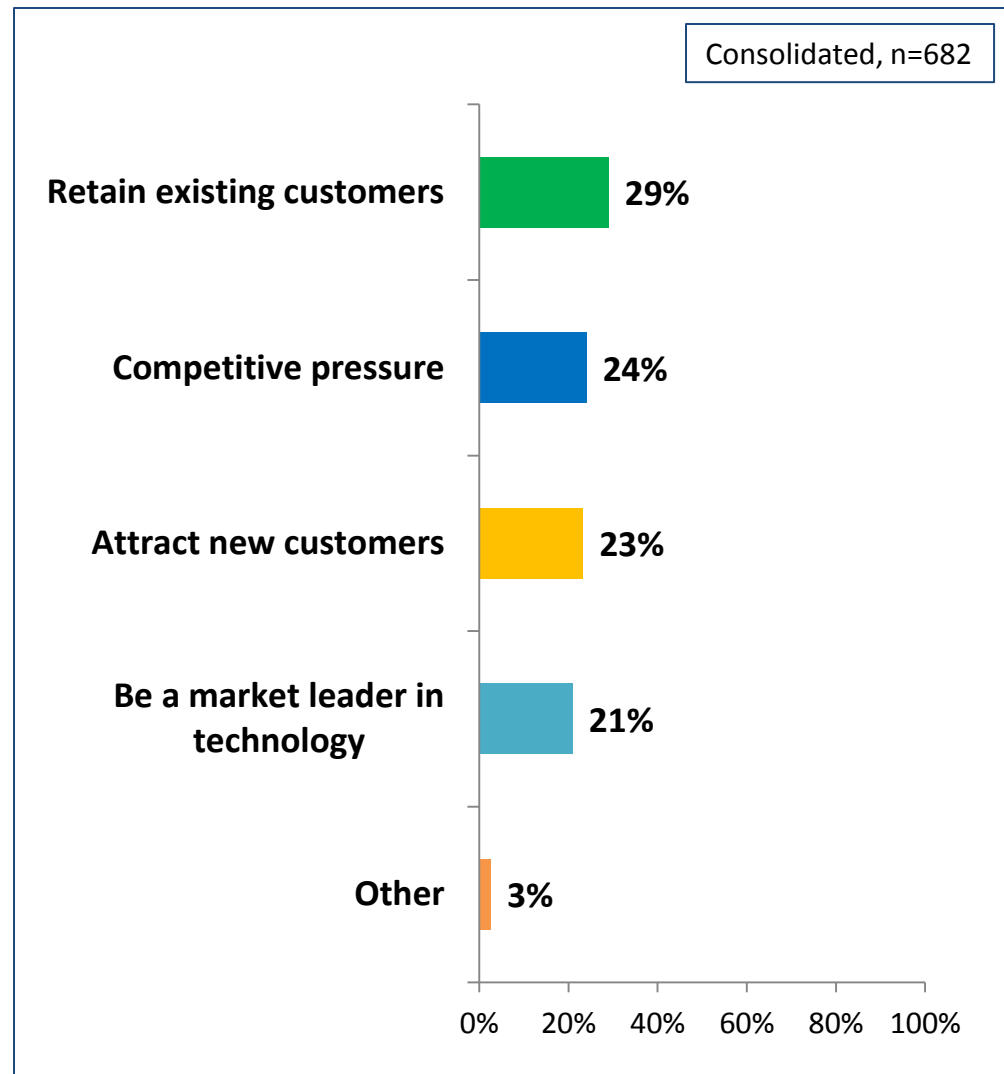
- 97% of respondents will have mobile banking services by year-end 2018
 - 89% already offer
 - 8% in planning stages
- Most large FIs began offering mobile banking over a year ago
- 24 FIs (3% of respondents) have no plans to offer mobile banking
 - Most were FIs with < \$100M in assets



Q12. When did you start offering mobile banking to CONSUMERS? (Check only ONE)

Drivers of mobile banking are converging

- Responses fairly evenly split between 4 drivers
- 29% of respondents are focused on **retaining customers**
- FIs feeling **competitive pressure** and those wanting to **attract new customers** are almost evenly split
- 21% want to leverage their mobile banking services to be a **market leader in technology**
- A few FIs (3%) gave equal importance to several factors

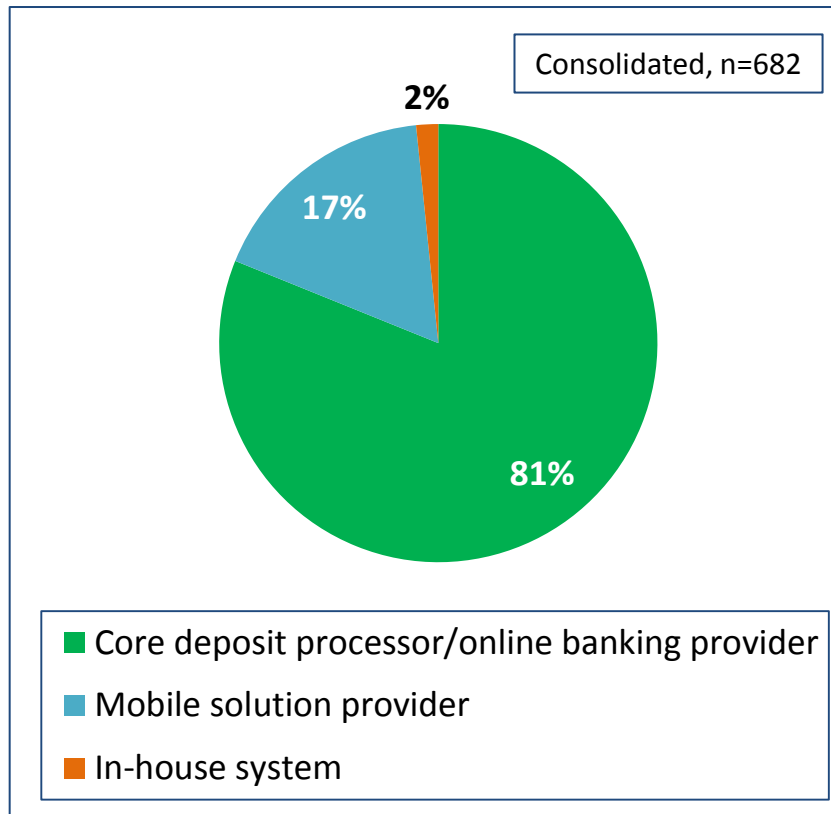


Q13. What is your PRIMARY business reason for offering or planning to offer mobile banking?
(Check only ONE)

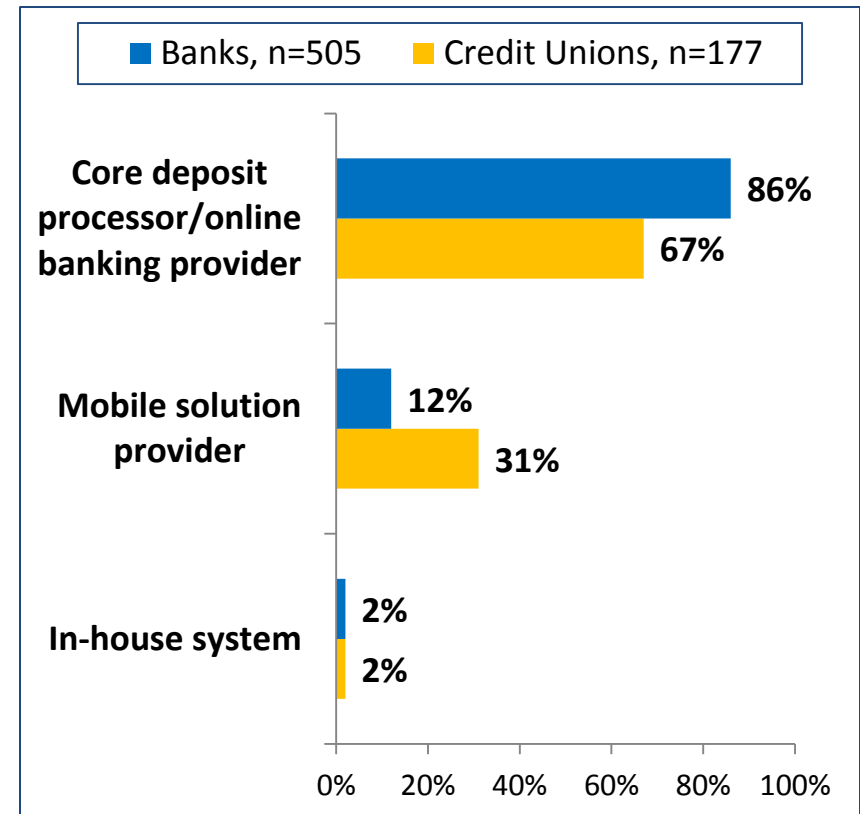
Most FIs use their core providers for mobile banking

More credit unions use a mobile solution provider

Consolidated

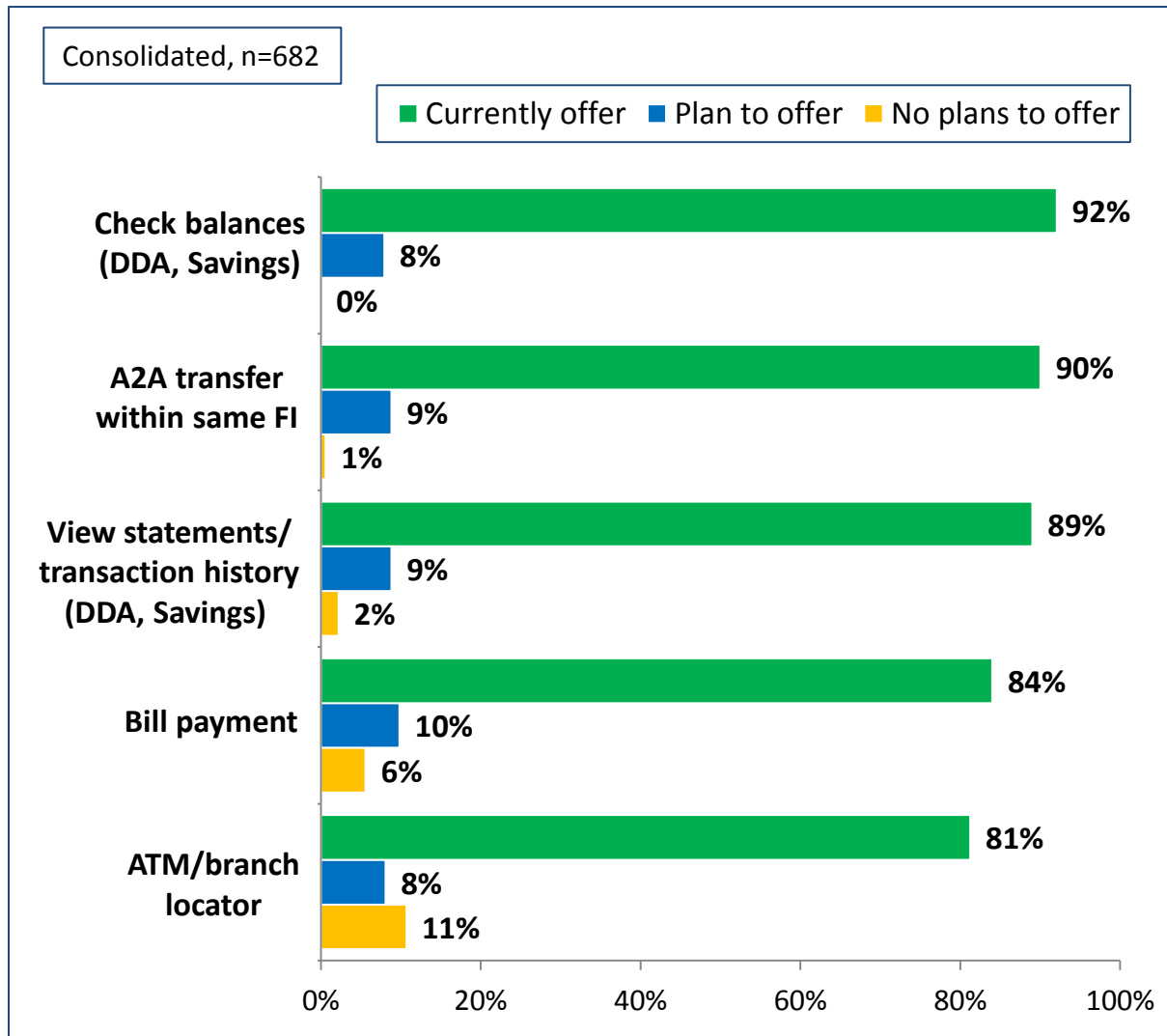


By FI Type



Q16. Who provides or will provide your mobile banking services?

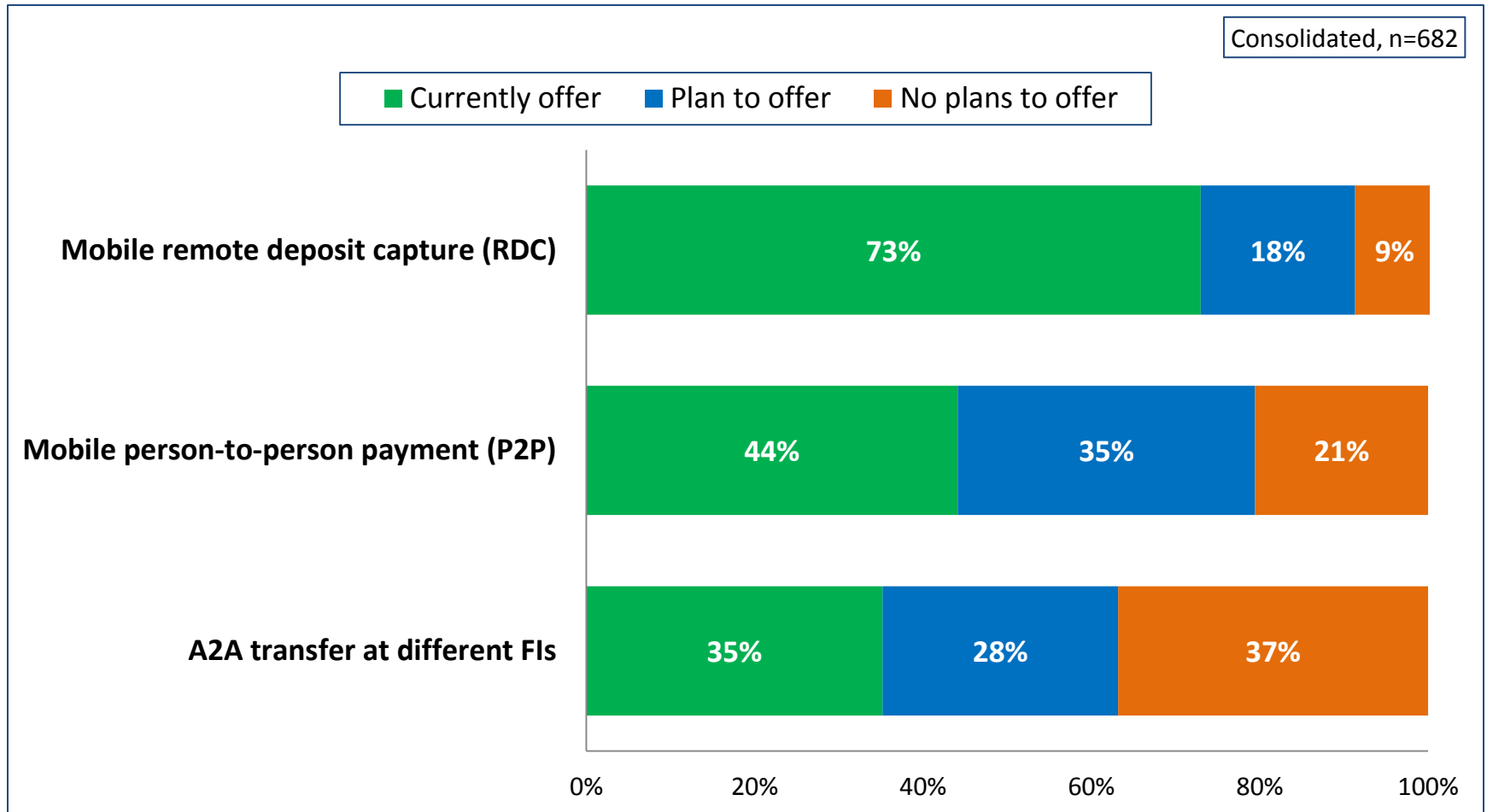
FIs start with the same 5 basic services



- Basic services
 - Simple
 - Informational
 - Lower risk
- Benefits:
 - Reduce calls to customer service
 - Reduce paper check payments (bill pay)

Q17. Which of the following mobile banking features do you currently offer or plan to offer to consumers within the next 2 years? (Check ALL that apply)

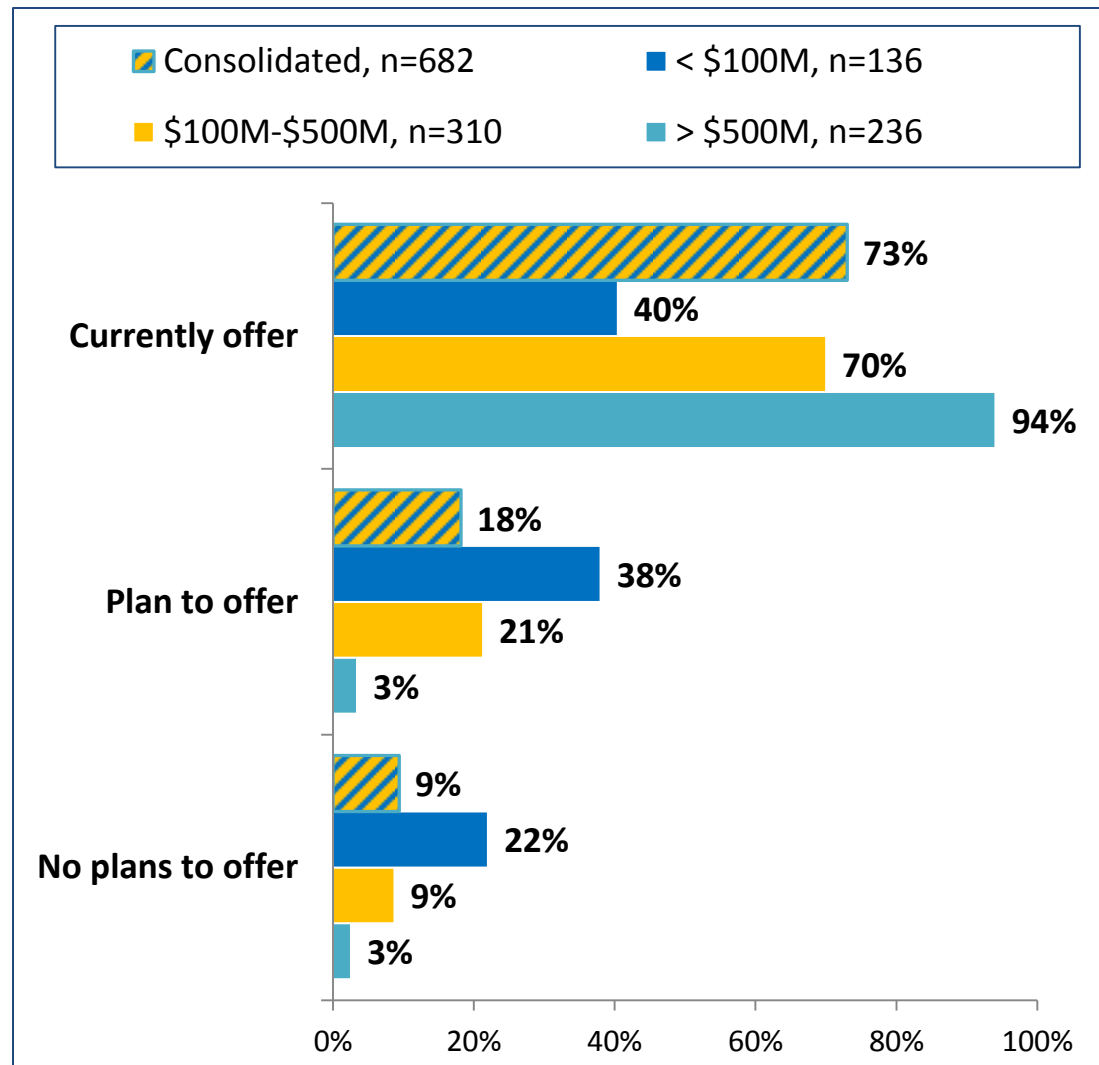
Many FIs offer advanced money movement features



Q17. Which of the following mobile banking features do you currently offer or plan to offer to consumers within the next 2 years? (Check ALL that apply)

Mobile RDC is becoming a basic service

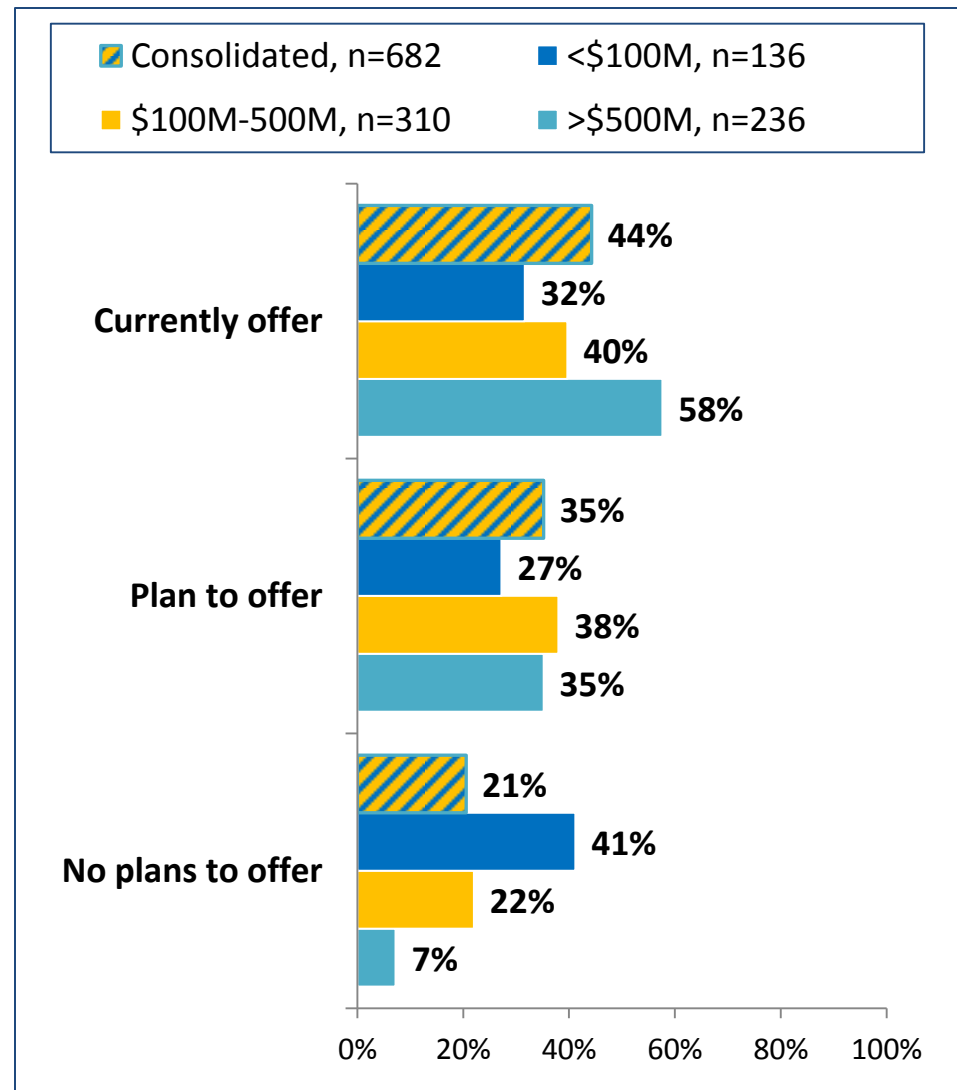
- Mobile RDC provides convenience and speed to consumers
- Large FIs were early implementers:
 - 94% of FIs with >\$500M in assets offer mRDC
- 78% of small FIs (<\$100M) offer or plan to offer mRDC by year-end 2018



Q17. Which of the following mobile banking features do you currently or plan to offer to consumers within the next 2 years? (Check ALL that apply)

Mobile P2P payment growth is accelerating

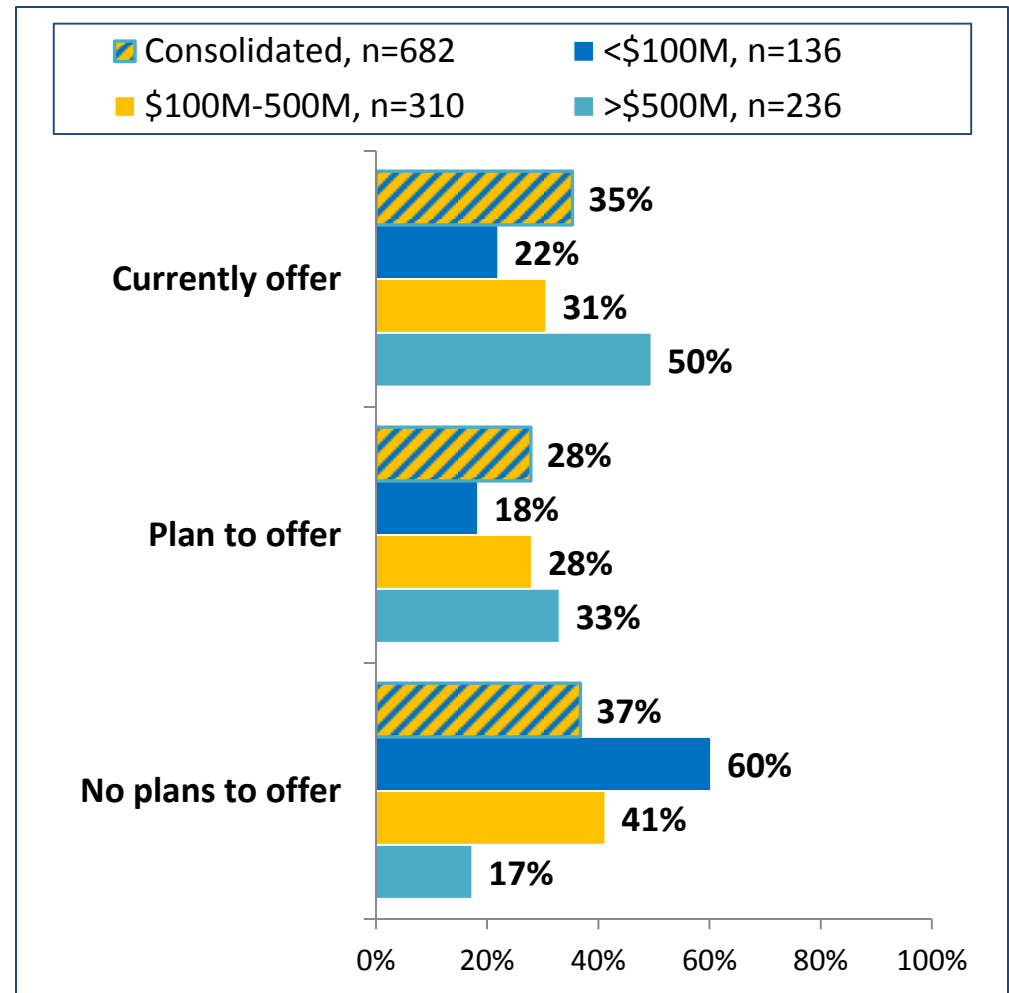
- Total respondents offering mP2P increased 18%
 - From 26% in 2014 to 44% in 2016
- 35% plan to offer mP2P by year-end 2018
- Large FIs first to market
 - Higher percentage offer mP2P, but small and mid-size catching up
- Majority of FIs across asset tiers will offer mP2P payments by year-end 2018



Q17. Which of the following mobile banking features do you currently offer or plan to offer to consumers within the next 2 years? (Check ALL that apply)

More FIs are enabling external A2A transfers via mobile

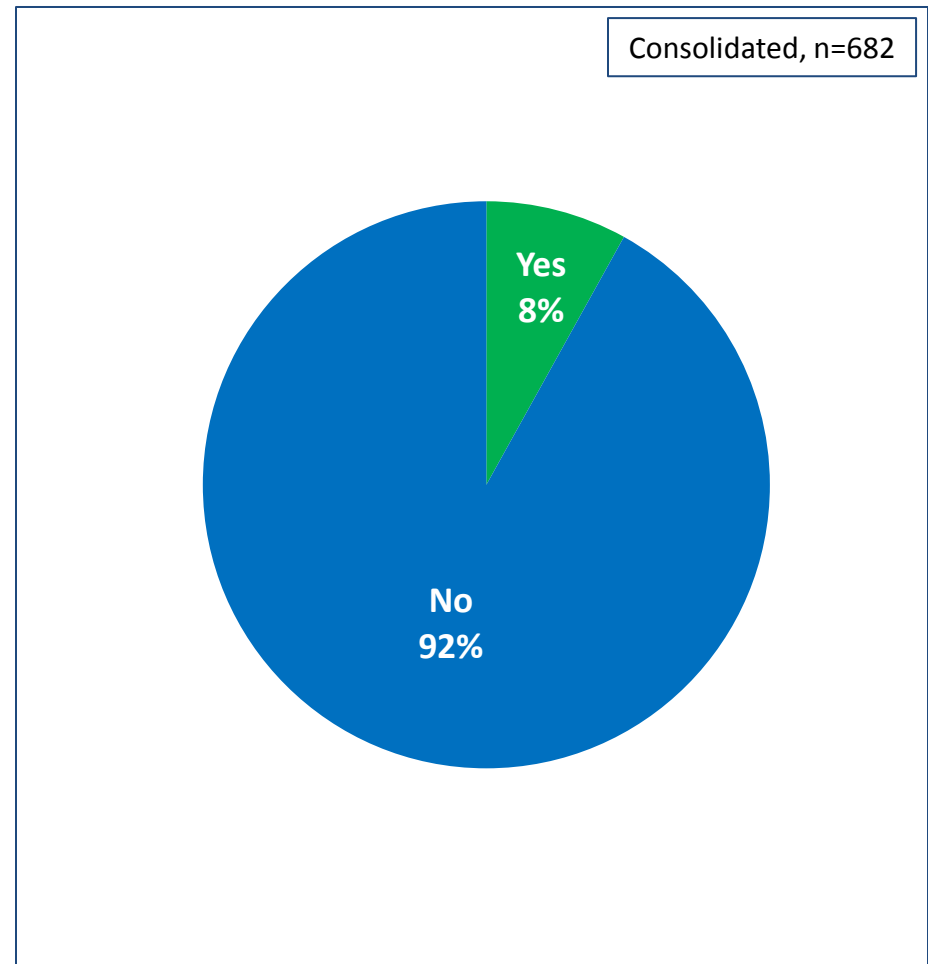
- 35% of all respondents offer external A2A transfers
 - Of which 50% are large FIs
- 59% of mid-size FIs will have implemented by year-end 2018
- Majority of small FIs (60%) have NO plans to offer external A2A transfers



Q17. Which of the following mobile banking features do you currently offer or plan to offer to consumers within the next 2 years? (Check ALL that apply)

Consumers expect mobile banking services to be free

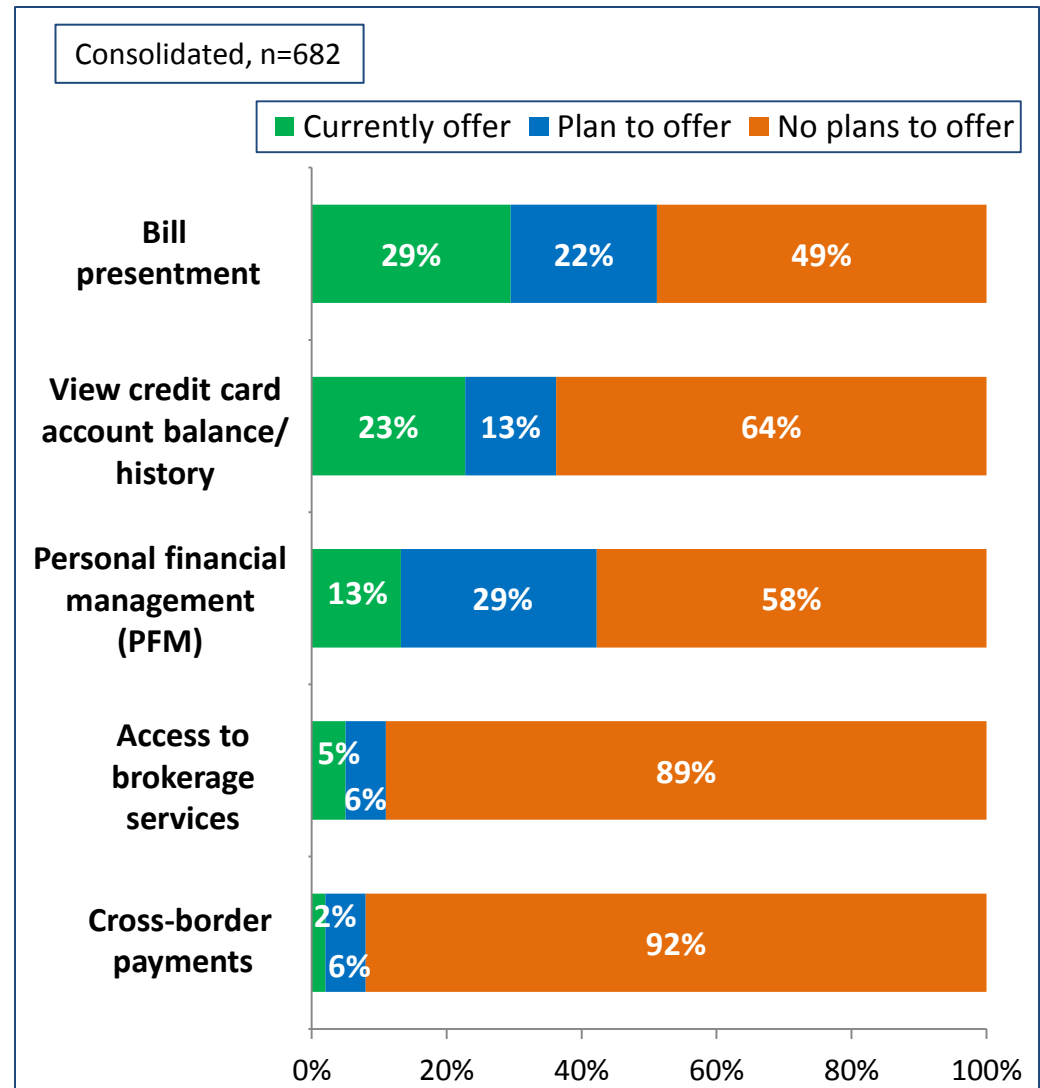
- Consumers have been conditioned to receive free mobile banking services, similar to online banking
- 92% of respondents do not charge
- Only 8% (55) of respondents charge or plan to charge any mobile banking fees
 - 53% of these FIs have assets >\$500M
- Fees typically for:
 - mP2P
 - mRDC
 - External A2A transfers



Q22. Do you charge or plan to charge a fee for any CONSUMER mobile banking services?

Special features meet different customer needs

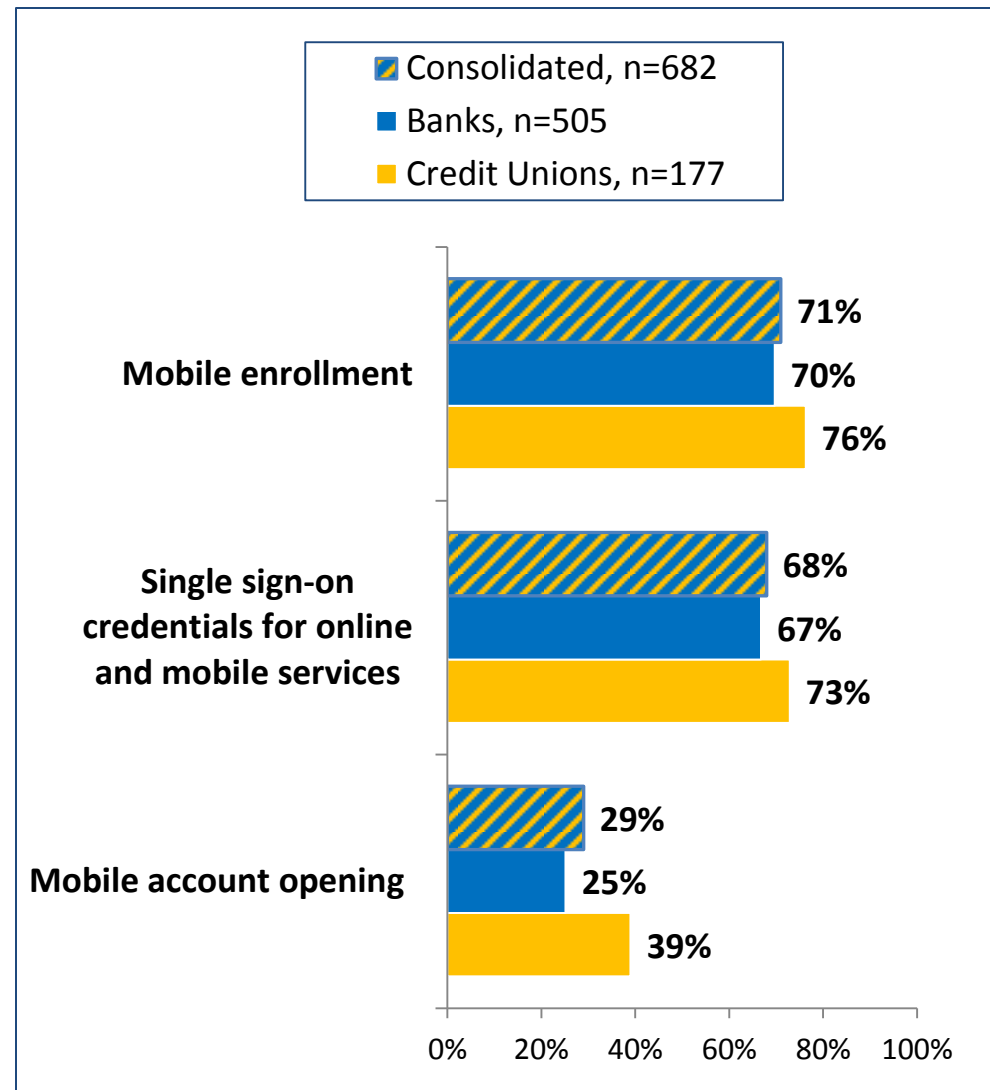
- Small respondents may lack demand to support special features
- Mobile bill presentment offered by highest percentage of FIs (but only 29% of all FIs)
 - Of those FIs, 77% had assets >\$500M
 - May require technical changes/ integration with bill pay provider
- 23% provide access to credit card information via mobile
- Even fewer FIs offer brokerage services or cross-border payments
 - These services target discrete customer segments



Q17. Which of the following mobile banking features do you currently offer or plan to offer to consumers within the next 2 years? (Check ALL that apply)

Most FIs offer two mobile onboarding features

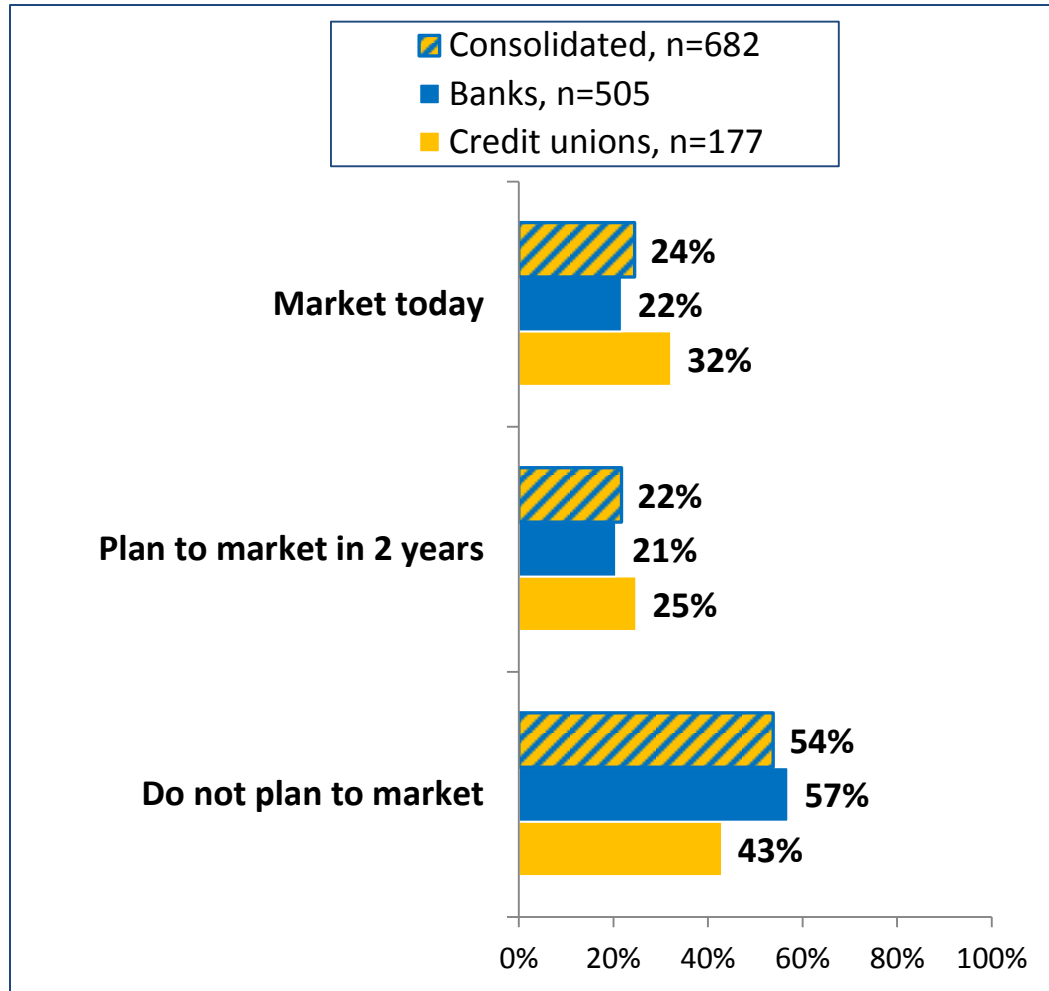
- 71% of respondents allow customers to enroll in mobile banking via mobile phone
- Much lower percentage (only 29%) support opening a bank account via mobile phone
- 68% support single sign-on credentials for online and mobile banking services
- Slightly higher percentage of credit unions than banks support all three features
 - 14% more credit unions allow mobile account opening



Q18. Do you offer or plan to offer the following mobile features? (Check ALL that apply)

Very few FIs market to the underbanked

Even fewer (9%) offer multilingual site/app

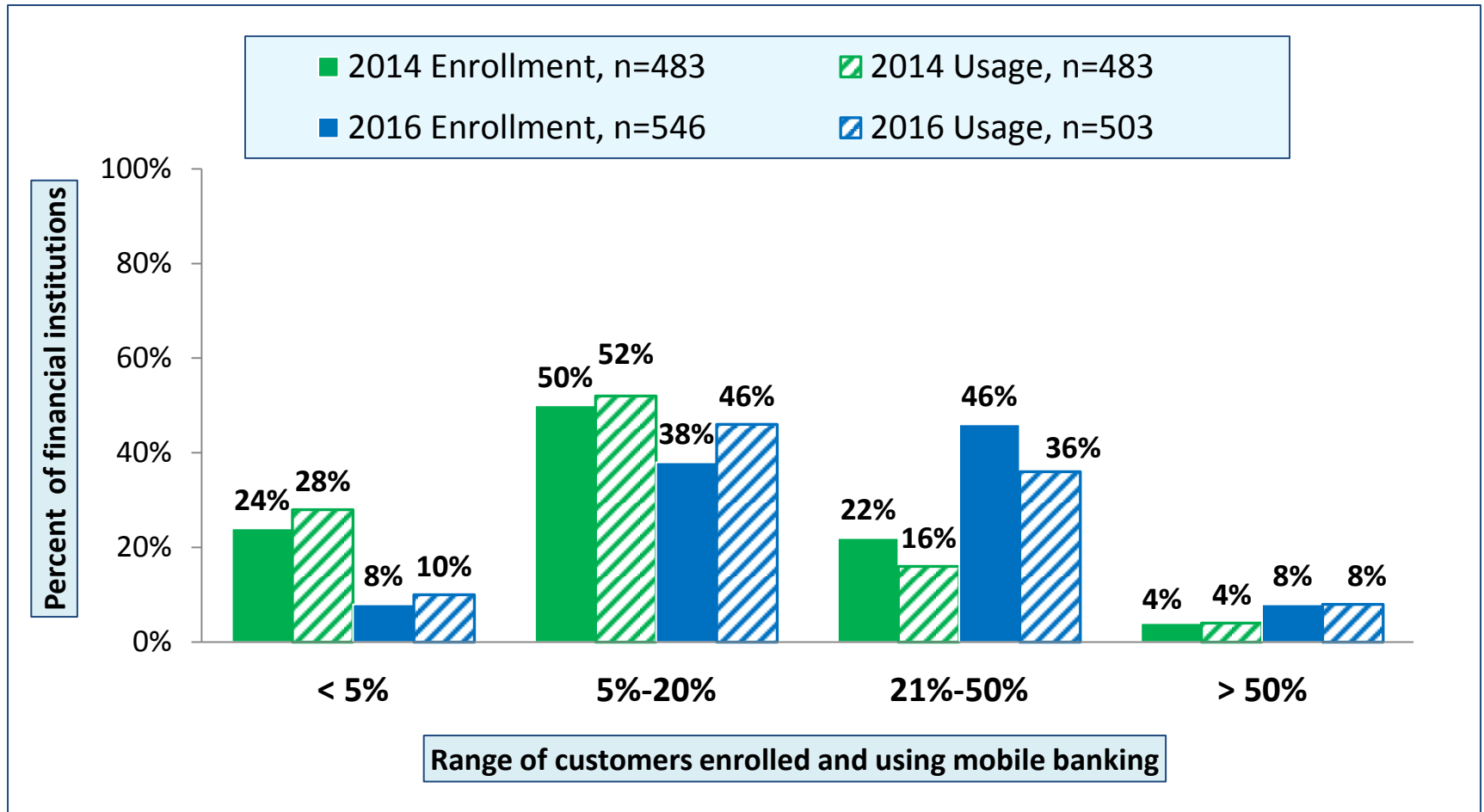


- Only 24% of respondents market mobile banking services to the underbanked today
- Plans to offer services to the underbanked are growing slightly (22%)
- More credit unions (32%) than banks (22%) market to the underbanked

Q19. Do you market or plan to market any mobile banking products to the underbanked?

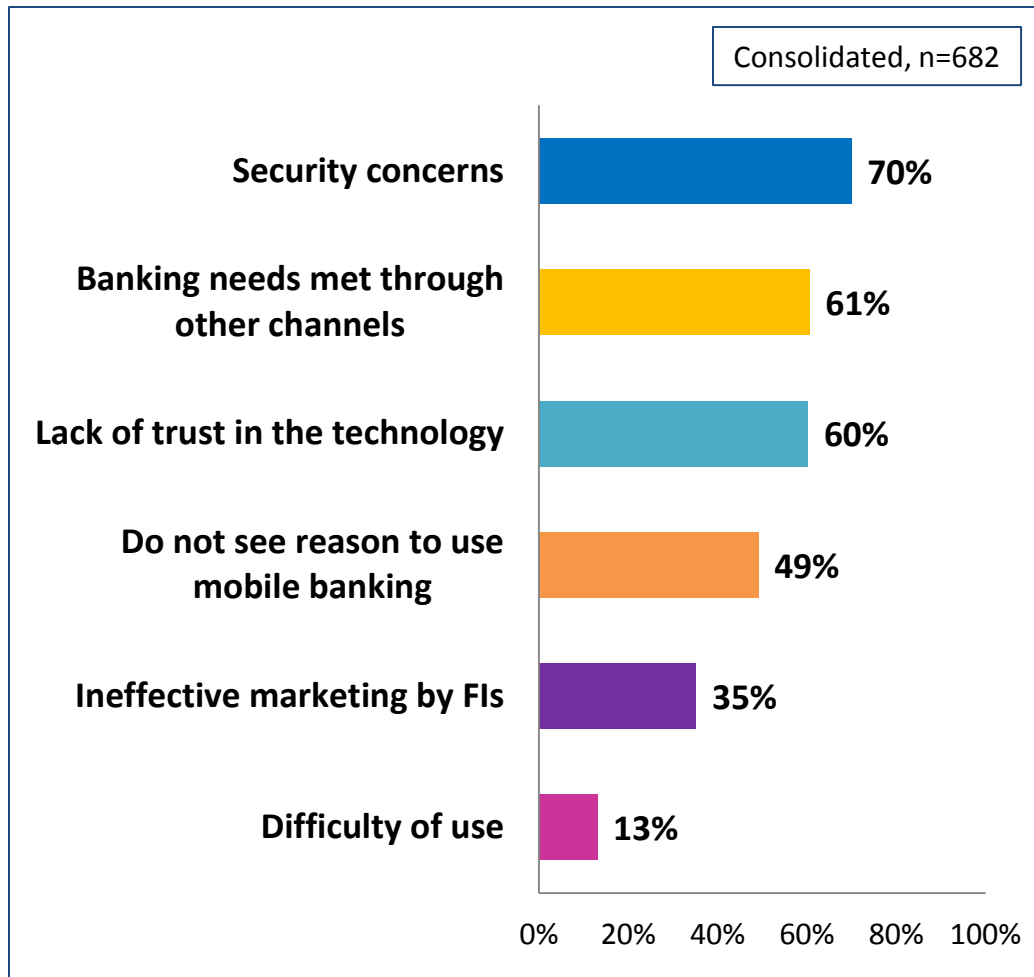
Consumer adoption is accelerating

Percentage of respondents with over 20% of customers enrolled and using mobile banking doubled from 2014 to 2016



Q20. What percentage of your RETAIL customers has used your mobile banking services?

FIs still face barriers to mobile banking adoption



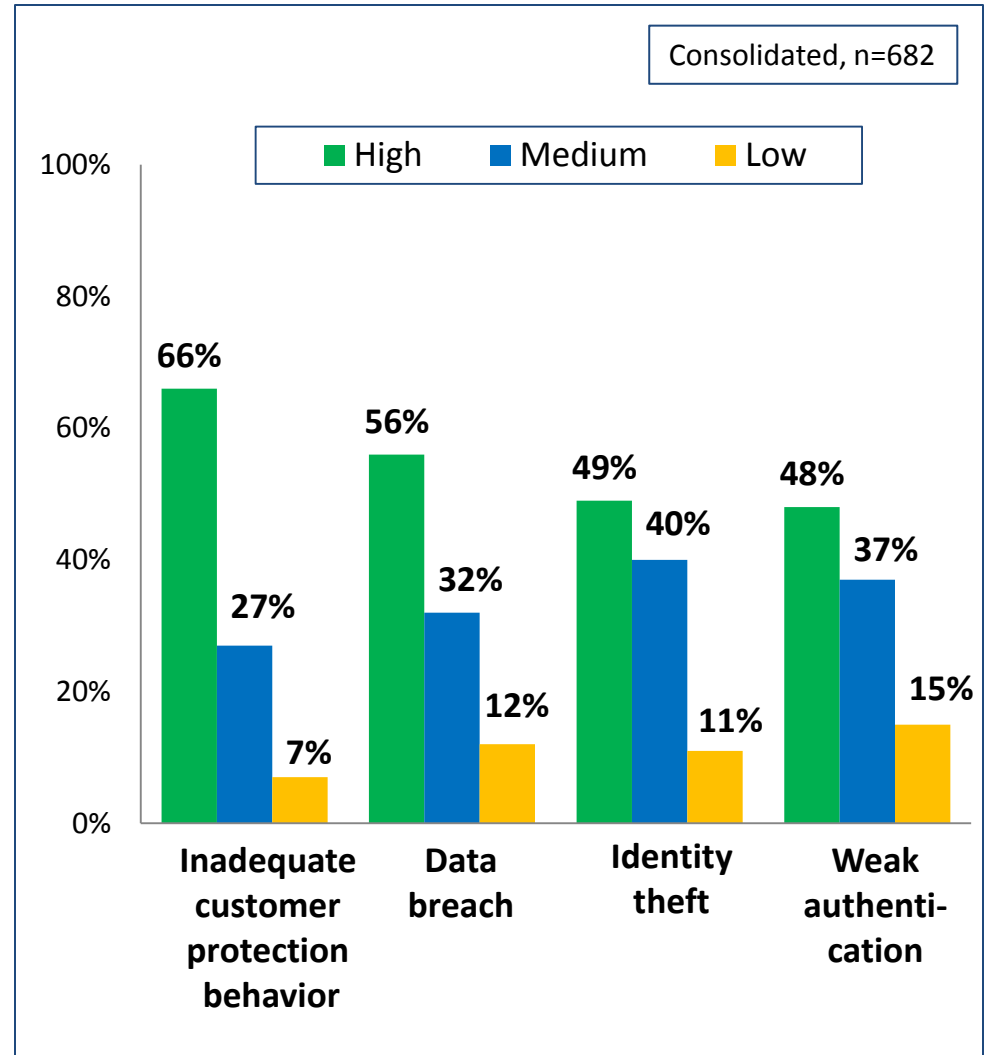
- Three barriers stand out:
 - Security: 70%
 - Banking needs met through other channels: 61%
 - Lack of trust in technology: 60%
- Increasing consumer demand for mobile services will drive value to FIs, and require marketing to stay competitive

Q21. For your FI, which are the THREE most common barriers to greater CONSUMER adoption of mobile banking? (Check only THREE)

MOBILE BANKING SECURITY RESULTS

Security is still a key mobile banking issue

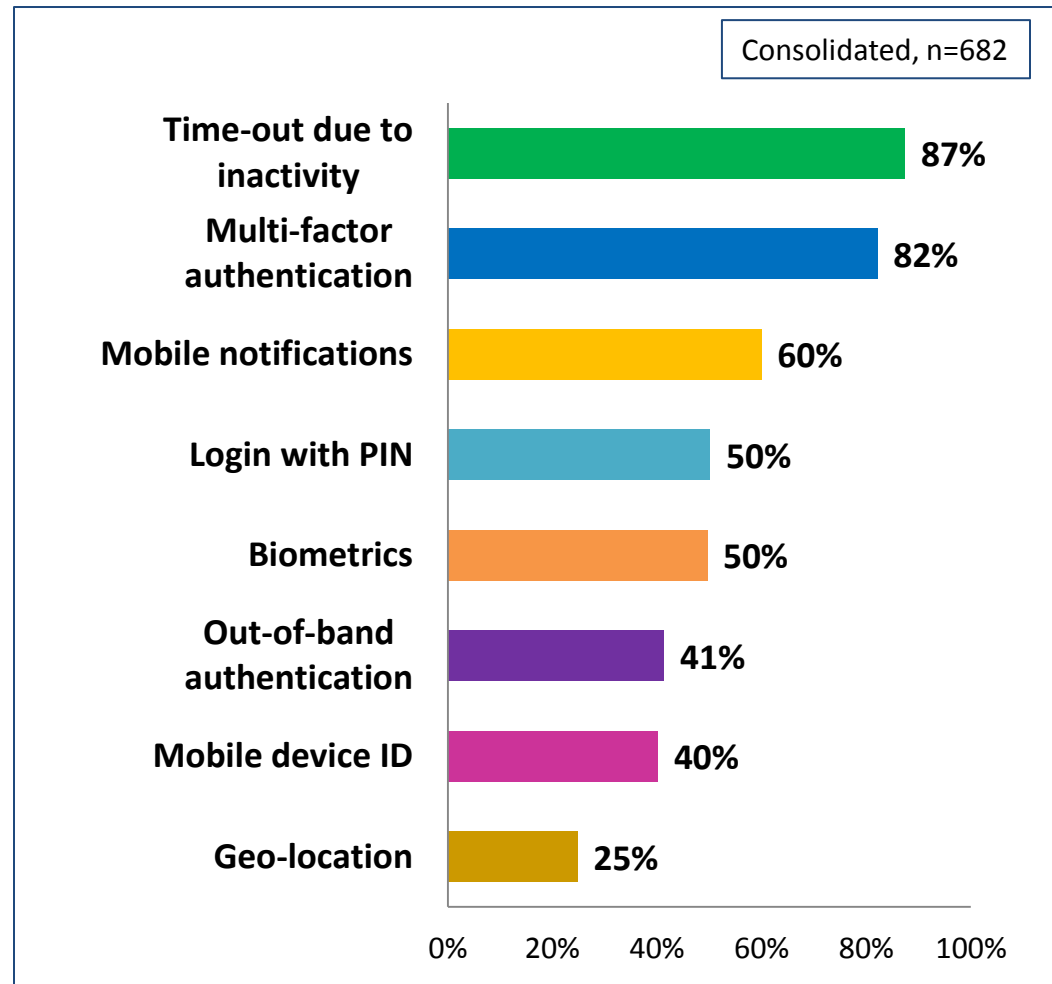
- FIs have wide-ranging security concerns
 - At least half of the FIs rated all 4 risks as HIGH
- Greatest percentage of FIs rated (66%) rated **inadequate customer protection behavior** HIGH
 - Difficult to control what consumers do
- 56% of FIs rated **Data breach** HIGH
 - FIs cannot directly control/prevent attacks on merchant databases
- FIs have more control over protecting customer identity and authentication



Q25. Please RATE the IMPORTANCE of your FI's security concerns associated with offering mobile banking services for consumers.

FIs employ layered security approach to mitigate mobile risk

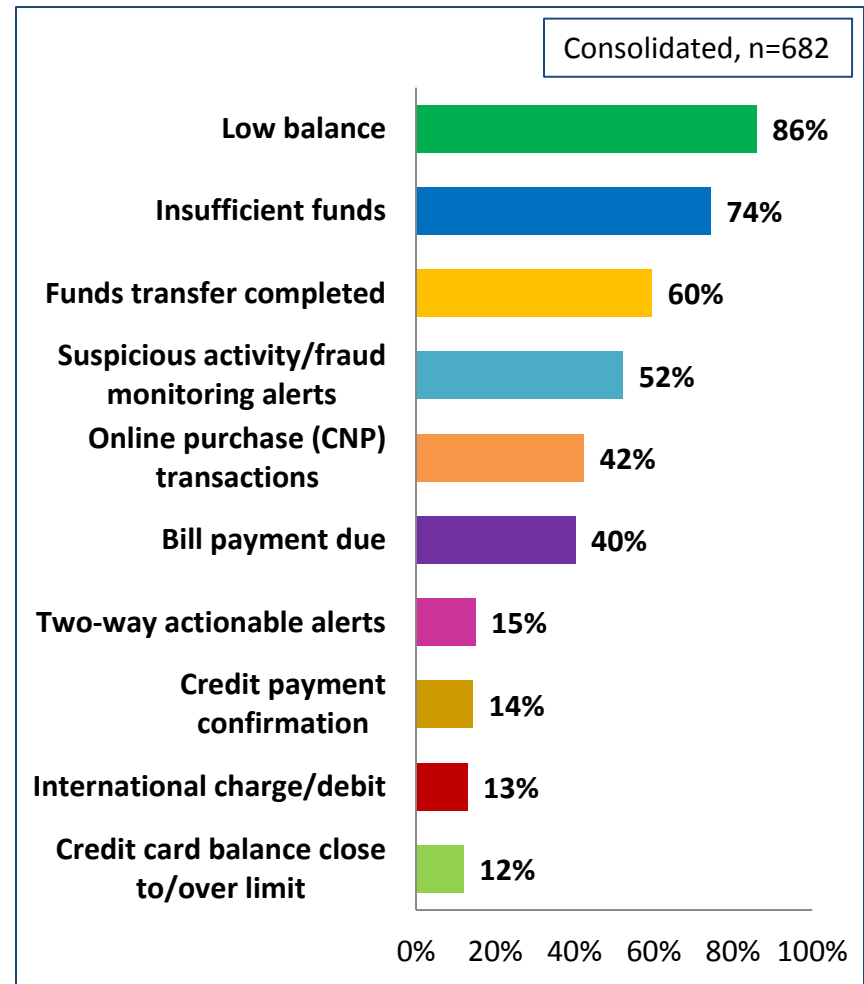
- Top security methods used by most FIs:
 - Time-out due to inactivity: 87%
 - Multi-factor authentication: 82%
- 50% support use of PIN and/or biometrics for login and authentication
- Of those FIs implementing biometrics
 - 83% have assets >\$1B
 - 61% have assets between \$500M-\$1B



Q27. Which of the following does your FI use or plan to use to enhance mobile security?
(Check ALL that apply)

Alerts enable FIs to communicate account status and reduce customer risk

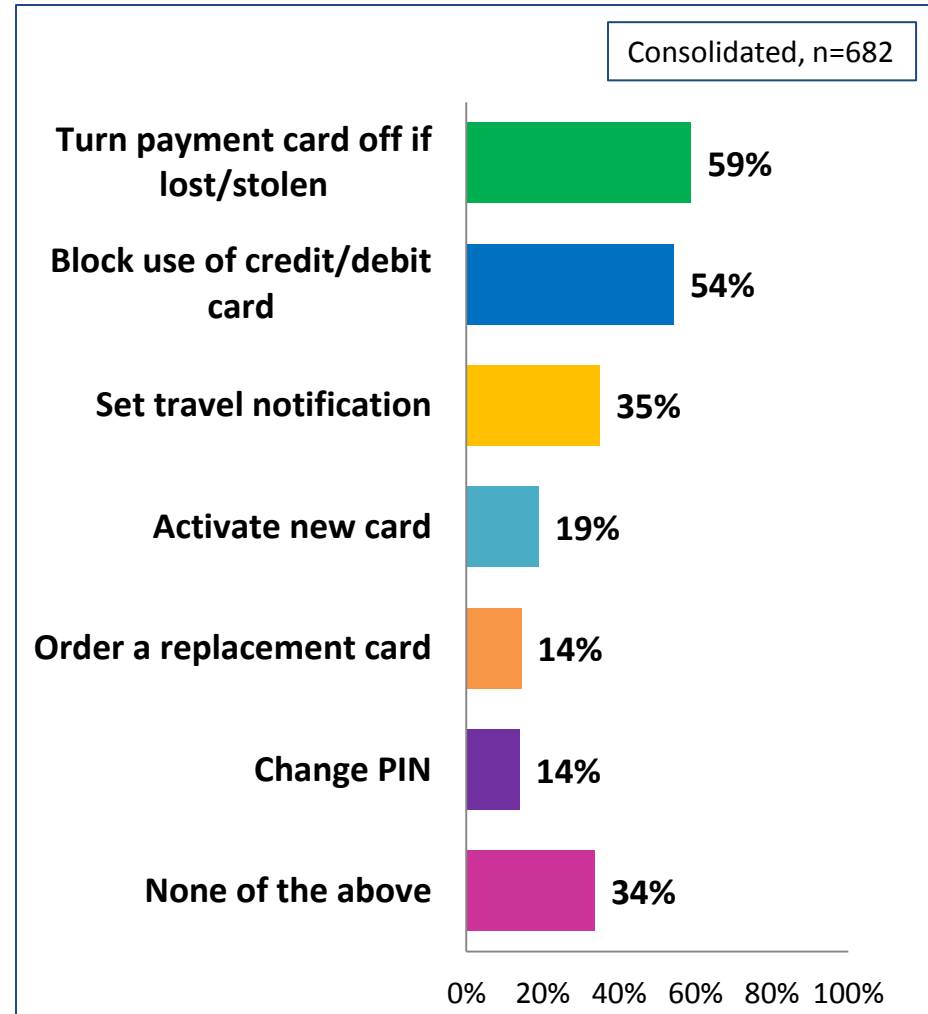
- Benefits of mobile alerts
 - Customer typically has mobile phone 24/7
 - Customer receives just-in-time information to make better financial decisions, avoid fees
 - Customer receives timely notification of suspicious activity to prevent or mitigate fraud
- Top alerts:
 - Low balance: 86%
 - Insufficient funds: 74%
- Security alerts gaining traction:
 - Suspicious activity/other fraud monitoring: 52%
 - Online CNP transactions: 42%



Q24. What types of mobile alerts does your FI offer or plan to offer? (Check ALL that apply)

Mobile card control features can improve security

- Over 50% of respondents support mobile security features that turn off or block use of a lost or stolen credit/debit card
- Fewer than 20% allow customers to make higher-risk card-related changes via mobile
 - Activate a new card
 - Order a replacement card
 - Change PIN via mobile
- 34% do not offer any mobile card security or control features



Q26. Which of the following card control features does your FI's mobile banking app support or plan to support? (Check ALL that apply)

KEY TAKEAWAYS

Key Takeaways

- Based on the survey results, by year-end 2018, retail mobile banking services will be almost ubiquitous at U.S. financial institutions
- Adoption, while still low, has increased substantially since 2014 – indicating momentum and interest among consumers
- As the five key services mature, FIs are moving quickly to support mobile money movement capabilities that offer greater convenience and value for customers
- Mobile banking remains a free retail service
- Security is an ongoing challenge in the mobile environment – FIs continue to struggle with inadequate customer protection behavior
- In response, FIs have implemented stronger mitigation controls and mobile alerts, but changing consumer behavior is a difficult and ongoing issue

Survey Conclusions

- The MFS survey represents perspectives of FIs in various stages of implementing and enhancing mobile banking services
- Findings indicate continued evolution of mobile banking strategies and services at FIs across the U.S.
- Data provides value to participants and broader industry:
 - FIs can gain insights from other institutions and benchmark their mobile services by FI-type, asset tier
 - Study helps inform FR Banks about the status of mobile banking and payments within their respective Districts
 - Completing the survey provides access to adoption trends and security challenges faced by the FIs across multiple states
 - Detailed data in table format is available via link in report
- FIs that did not participate in 2016 MFS survey are encouraged to participate in the next iteration – tentatively planned for Q1 2019

QUESTIONS?



THANK YOU

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Access the full report: **“Mobile Banking and Payment Practices of U.S. Financial Institutions: 2016 Mobile Financial Services Survey Results from FIs in Seven Federal Reserve Districts”**

<https://www.bostonfed.org/publications/mobile-banking-and-payment-surveys/mobile-banking-and-payment-practices-of-us-financial-institutions.aspx>