

Federal Reserve Bank

2016 Mobile Banking & Payments Survey

Part 2: Consumer Mobile Payments – The Next Frontier

Marianne Crowe and Elisa Tavilla
Federal Reserve Bank of Boston

Breffni McGuire
BMCG Consulting

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Agenda

- Mobile Landscape Developments
- Survey Background & Methodology
- Consumer Mobile Payment Results
- Mobile Payment 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**

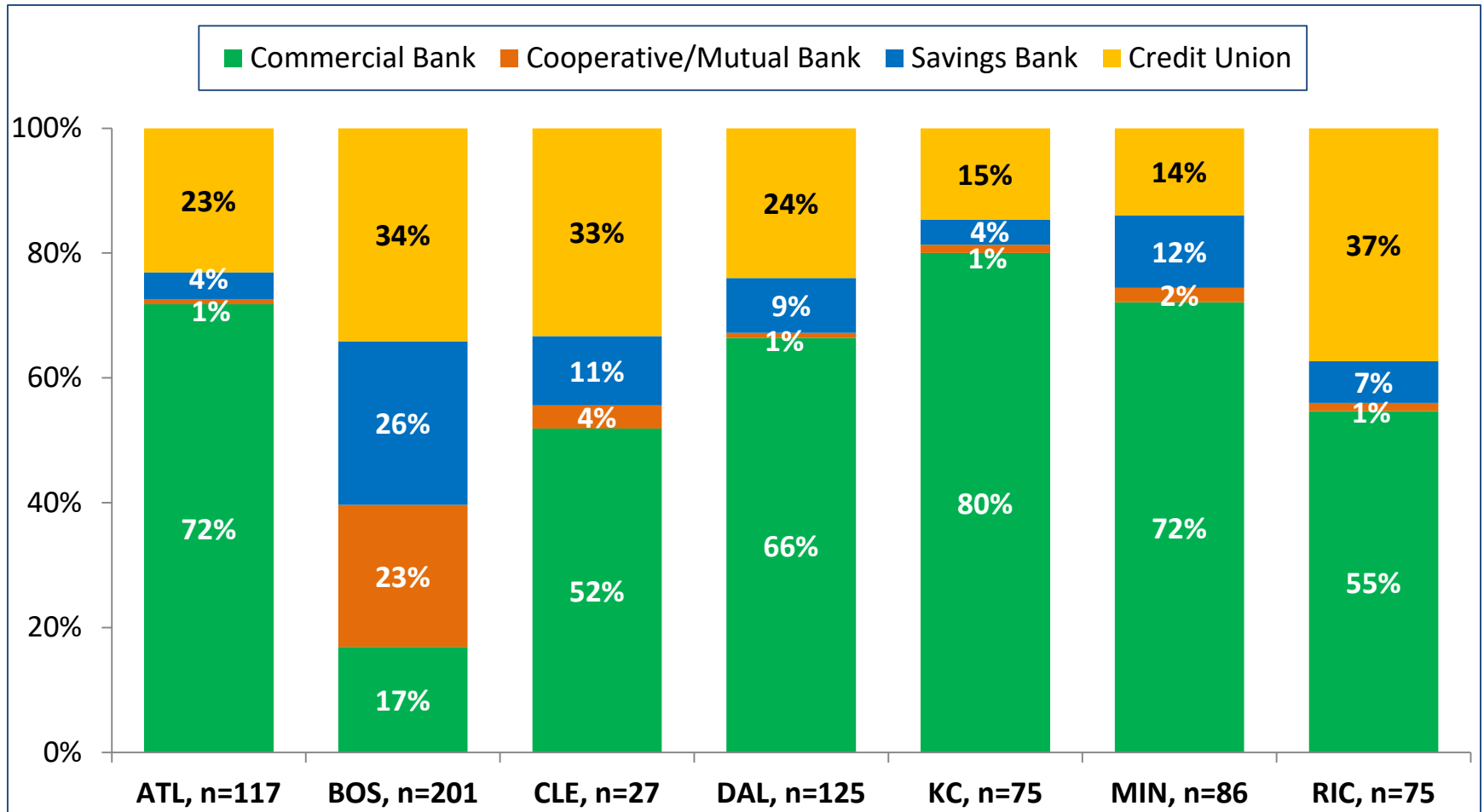
- Boston Fed has surveyed FIs in New England about every two years since 2008
- 2014 survey expanded to include FIs in 5 FR Districts to enhance the impact and value of the study nationally
- 2016 survey: FIs in 7 FR Districts participated: Atlanta, Boston, Cleveland, Dallas, Kansas City, Minneapolis,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

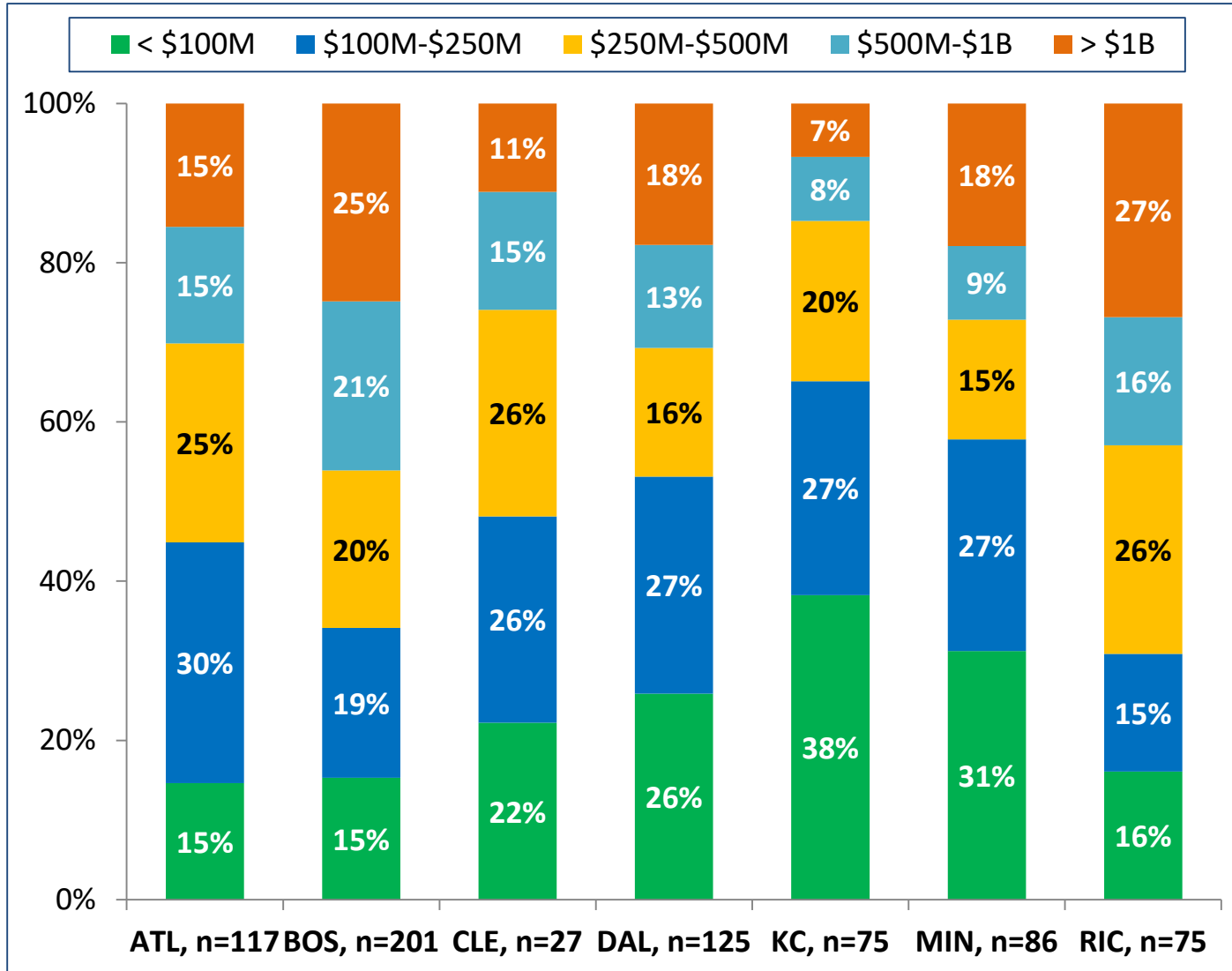
Respondents by FI type within District

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



Respondents by asset size within Districts

Broad representation across Districts and asset tiers



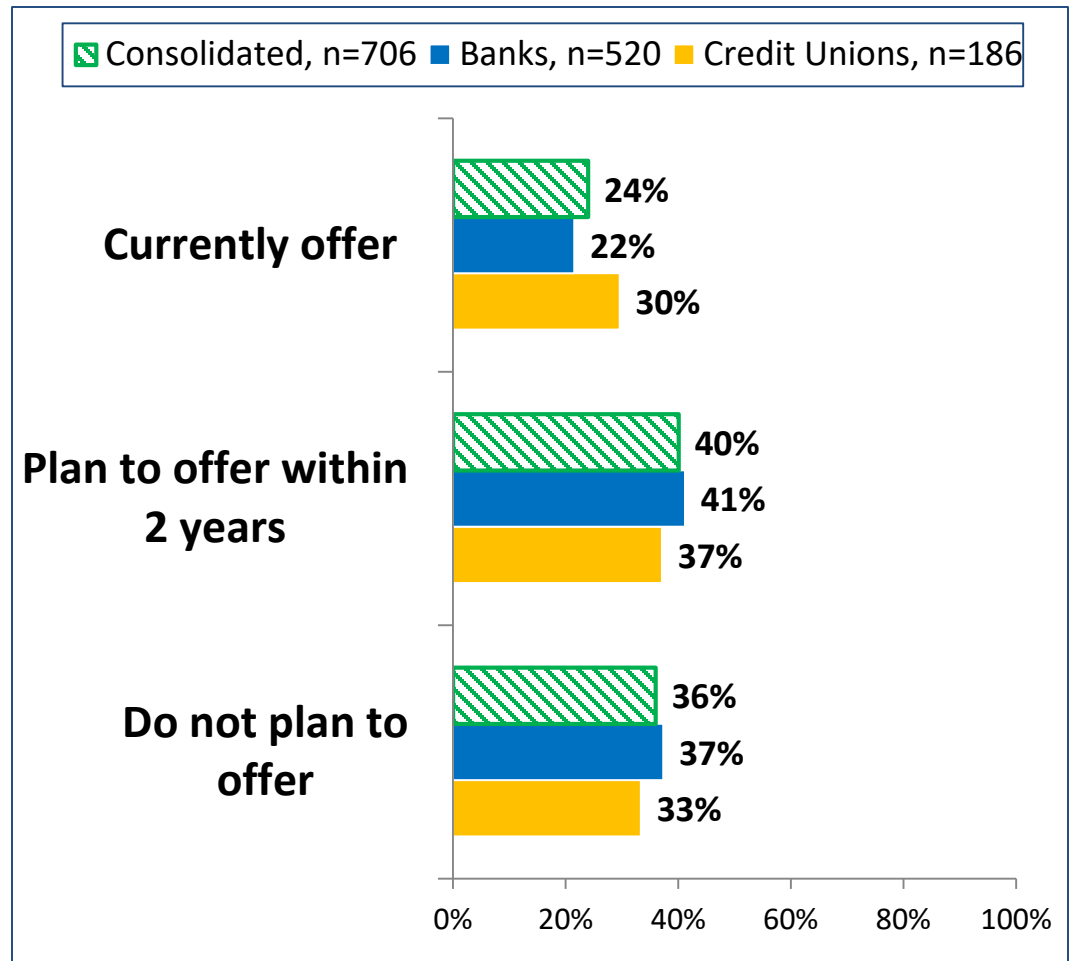
Consolidated Percentages (n=607)

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

CONSUMER MOBILE PAYMENT RESULTS

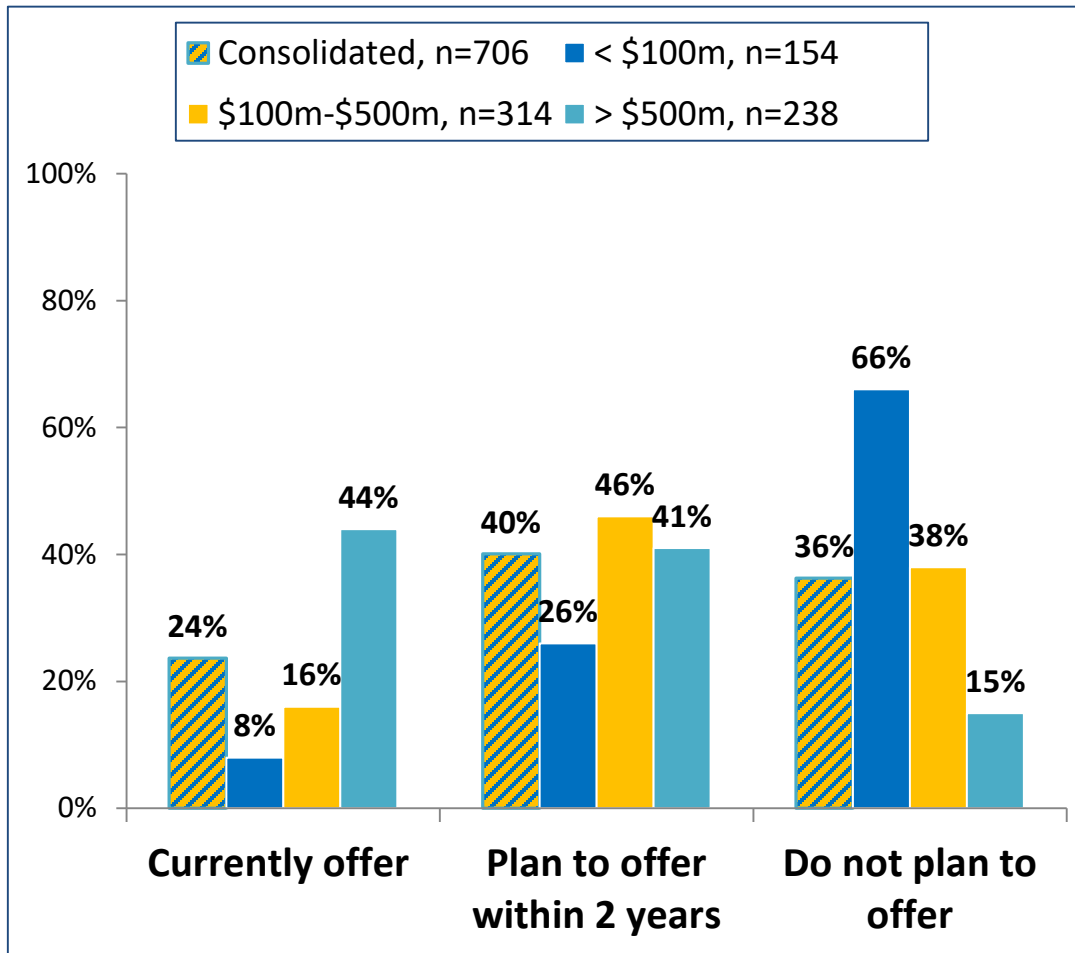
Many respondents will offer mobile payments by year-end 2018

- 24% of FIs already offer mobile payments
- 40% of respondents anticipate offering mobile payments by year-end 2018
- Differences between banks and credit unions
 - Larger percentage of credit unions (30%) than banks (22%) already offer mobile payments
 - About one-third of respondents have no plans to offer mobile payments



Q35. Do you offer or plan to offer mobile payment/wallet services to customers?

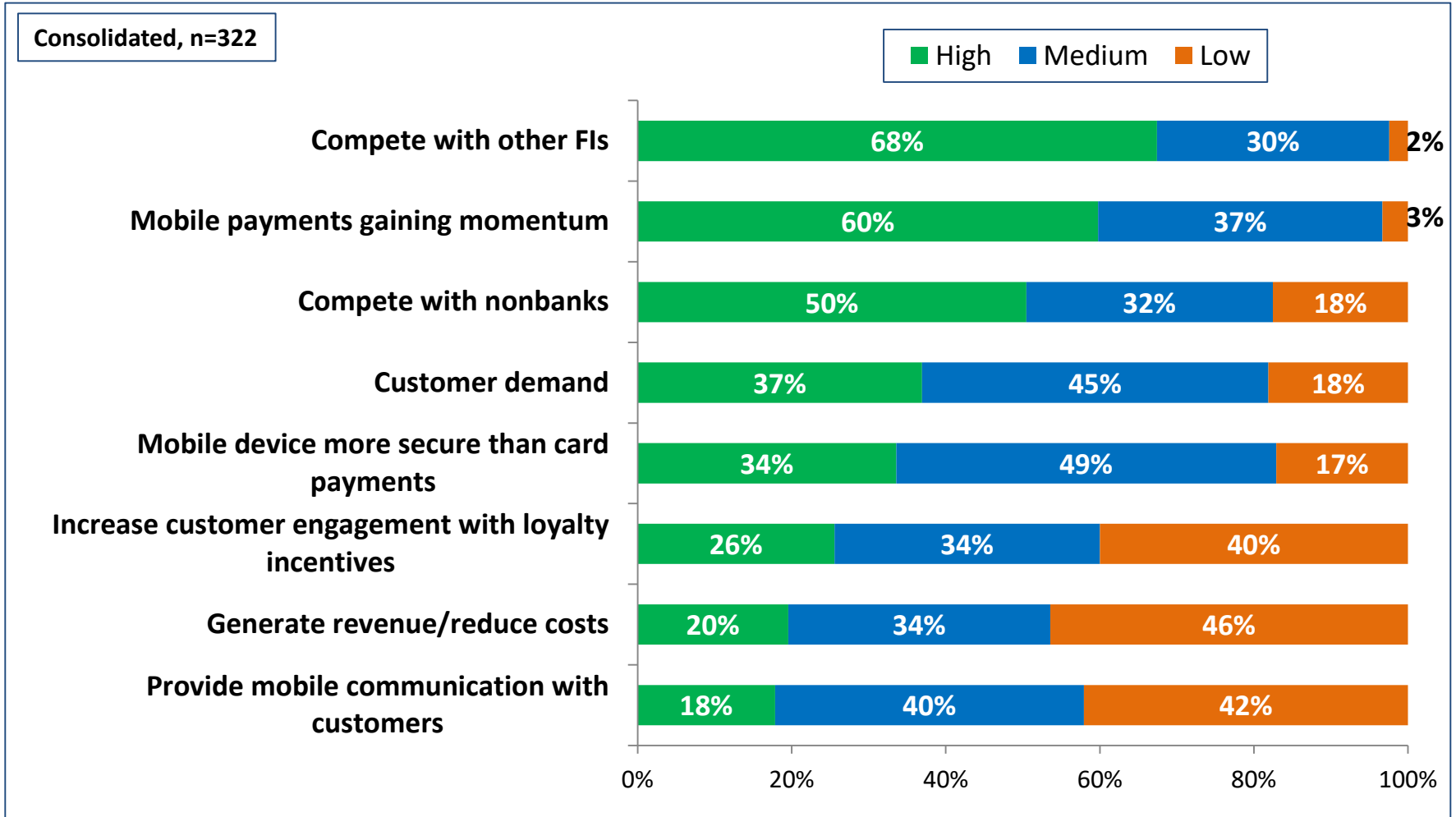
Larger FIs are faster out of the gate in offering mobile payment services



- Large FIs have greater resources to expend on new services, implementations, and security solutions
- Higher percentage (44%) of large FIs (>\$500M) already provide mobile payment services to consumers
- Increasing percentage (46%) of mid-size FIs (\$100M-500M) **plan to offer** mobile payment services by year-end 2018
- Small FIs do not yet perceive the value in offering mobile payments

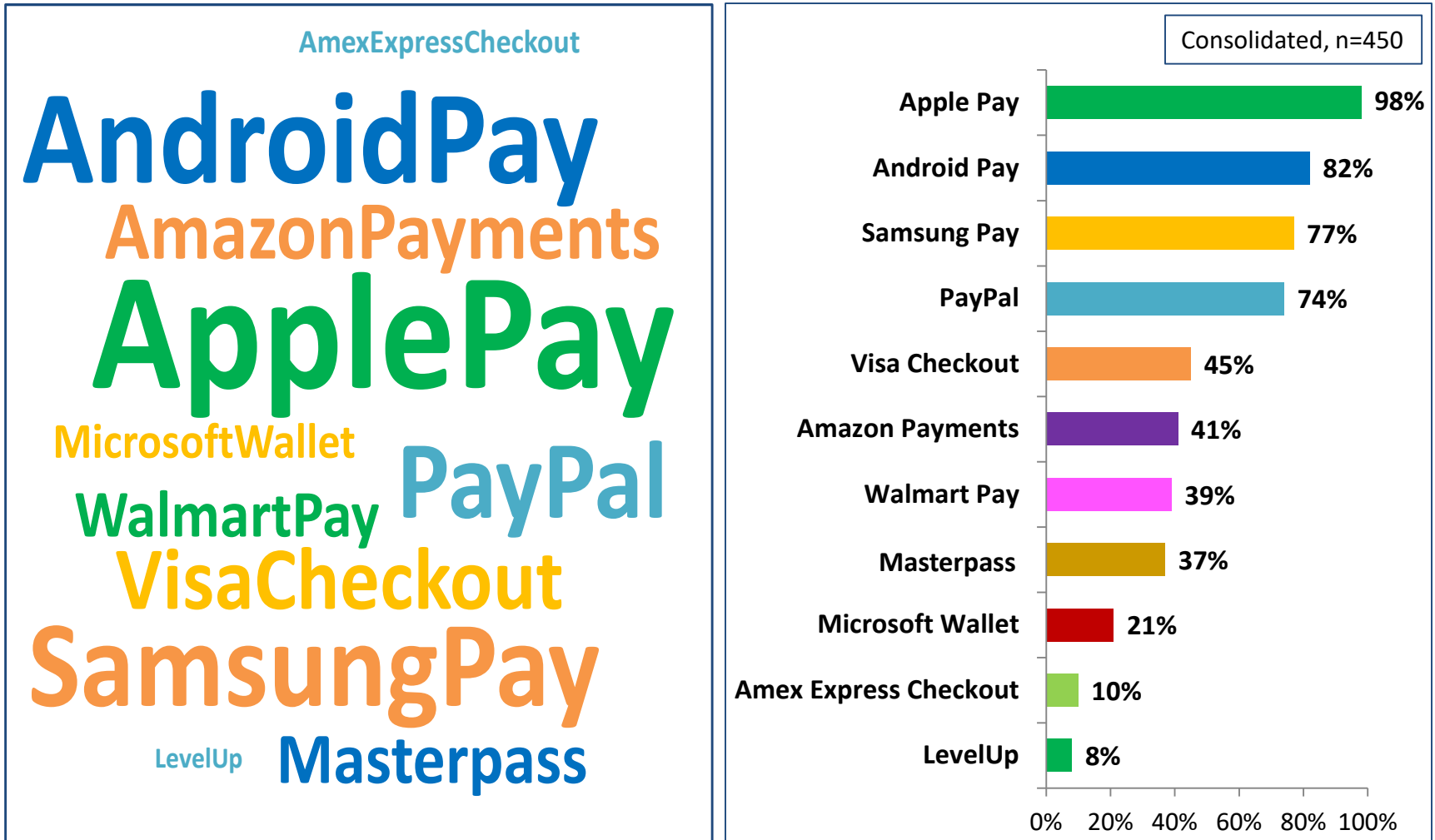
Q35. Do you offer or plan to offer mobile payment/wallet services to customers?

Competitive pressure tops drivers for offering mobile payments



Q36. Please RATE the IMPORTANCE of factors that influenced your FI's decision or plans to offer mobile payments.

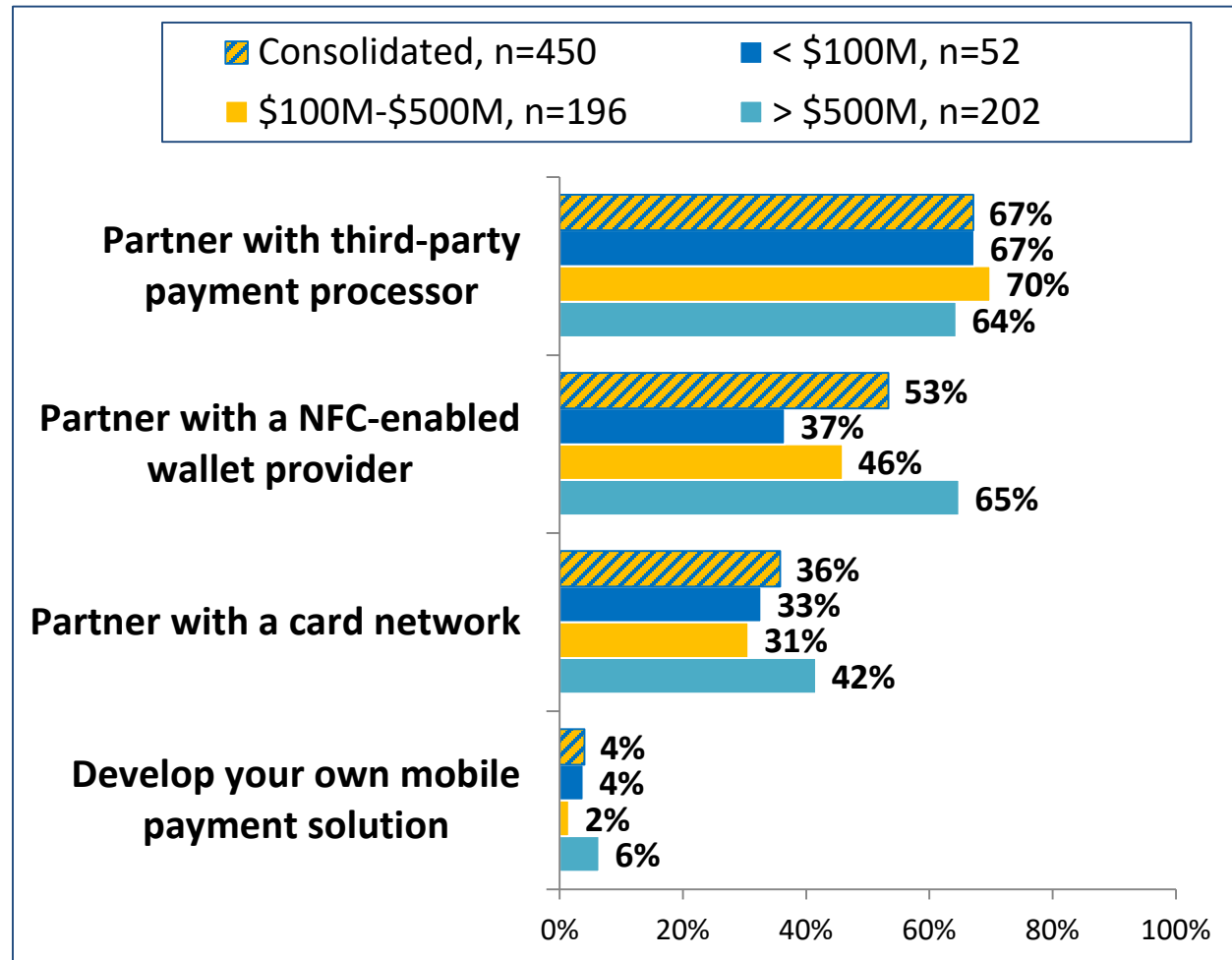
Many respondents aware of different wallets



Q37. Please indicate the mobile wallet service(s) that you are familiar with. (Check ALL that apply)

Partnering is the key strategy – few go it alone

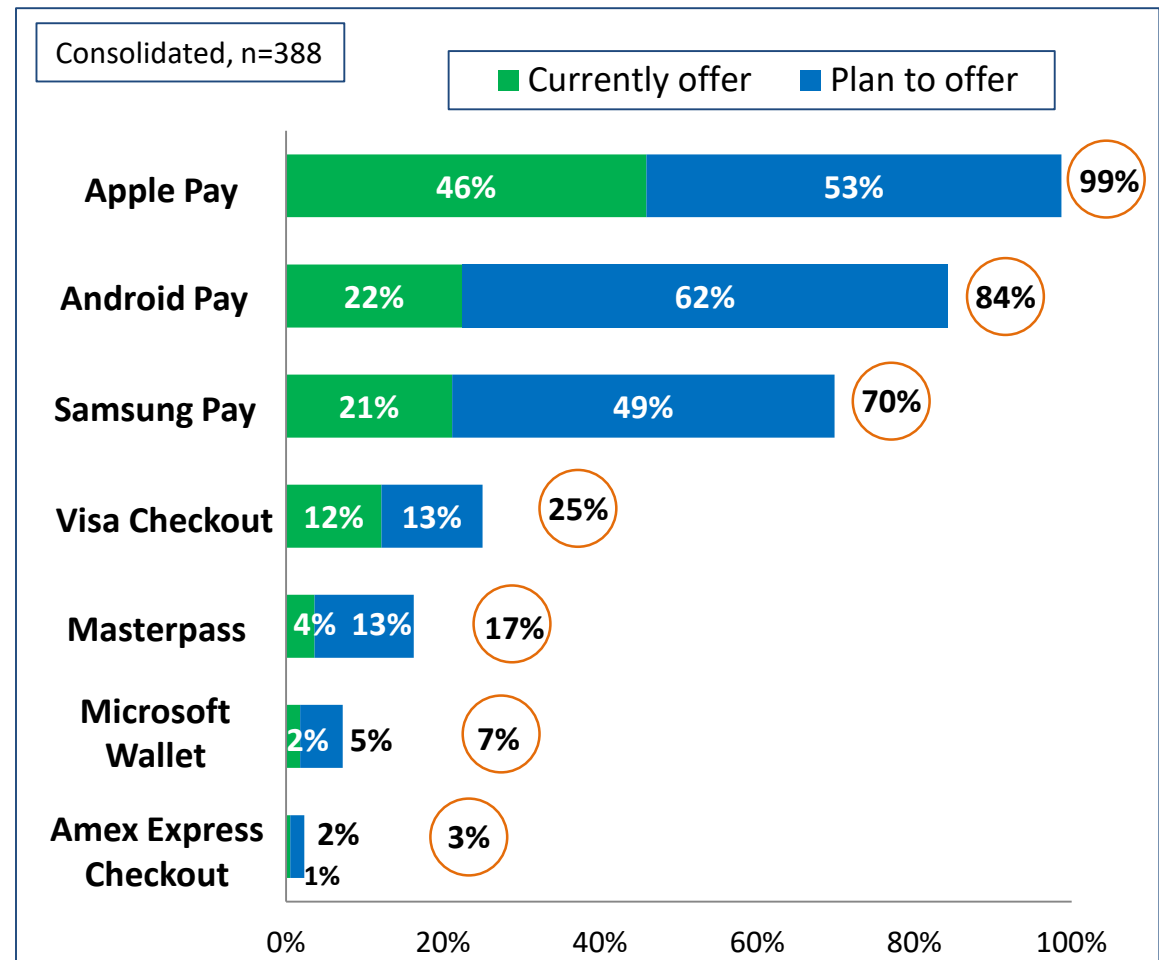
- FIs across asset tiers partner with 3rd party payment processors
- Larger FIs lead with NFC wallets
- Few FIs develop proprietary mobile payment solutions
 - (4%) 11 of 18 had over \$500M in assets



Q38. How do you offer or plan to offer mobile payment/wallet services? (Check ALL that apply)

Most FIs offer or plan to offer one or more NFC “Pay” wallets

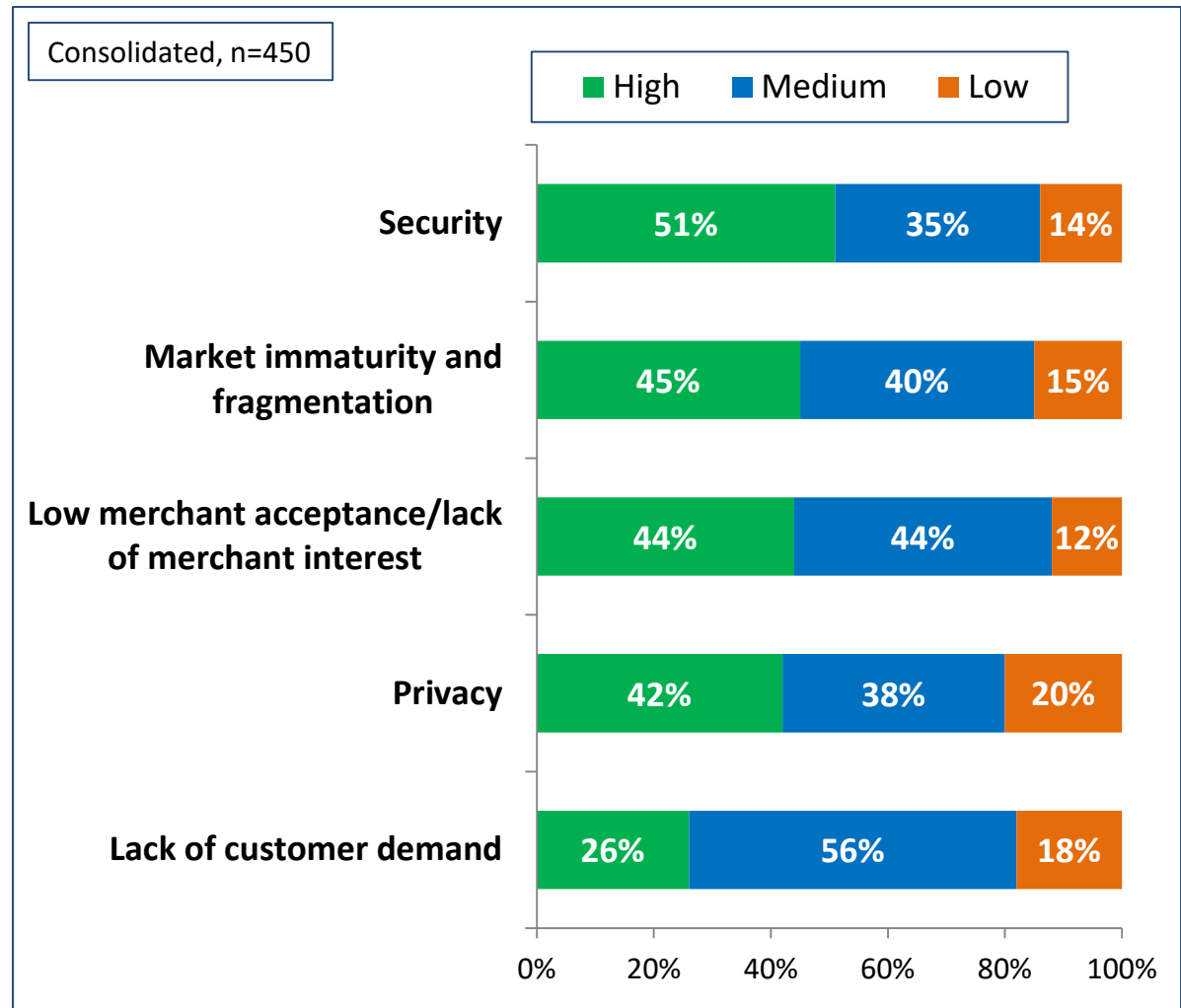
- Findings show very strong FI support for NFC “Pay” wallets by year-end 2018
- NFC “Pay” wallets also offer a turn-key solution for smaller FIs
- Digital wallets support online purchases – starting to gain acceptance



Q39. Which of the following MOBILE WALLET service(s) do you offer or plan to offer? (Check ALL that apply)

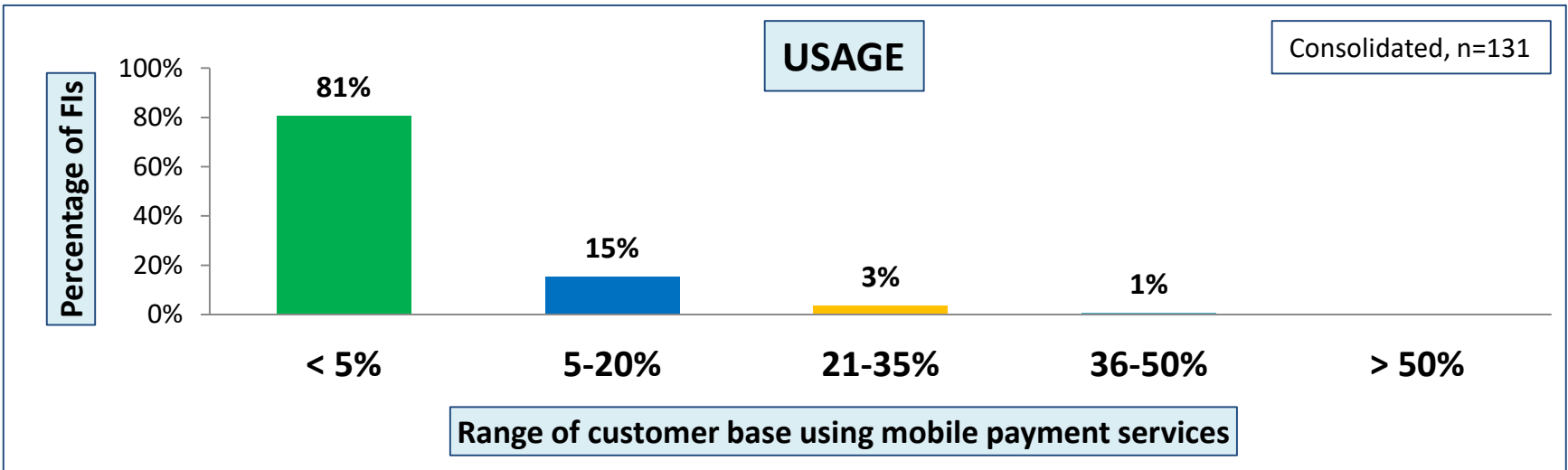
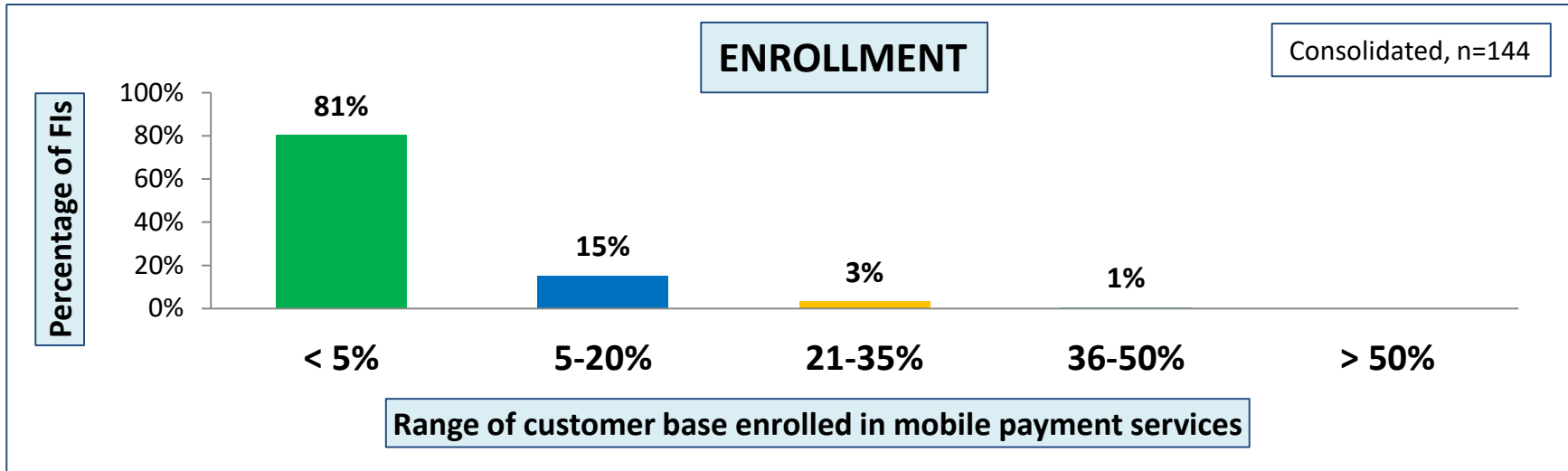
FIs face multiple barriers to customer adoption of mobile payments

- 51% of respondents rated **security** as a high barrier to consumer adoption
- Over 40% rated 3 other factors as **HIGH**:
 - Market immaturity and fragmentation
 - Low merchant acceptance
 - Privacy
- Most FIs (74%) do not consider **lack of customer demand** a major barrier



Q44. From your FI's perspective, please RATE the SIGNIFICANCE of these barriers to consumer adoption of mobile payments.

Mobile payment adoption is growing, albeit slowly

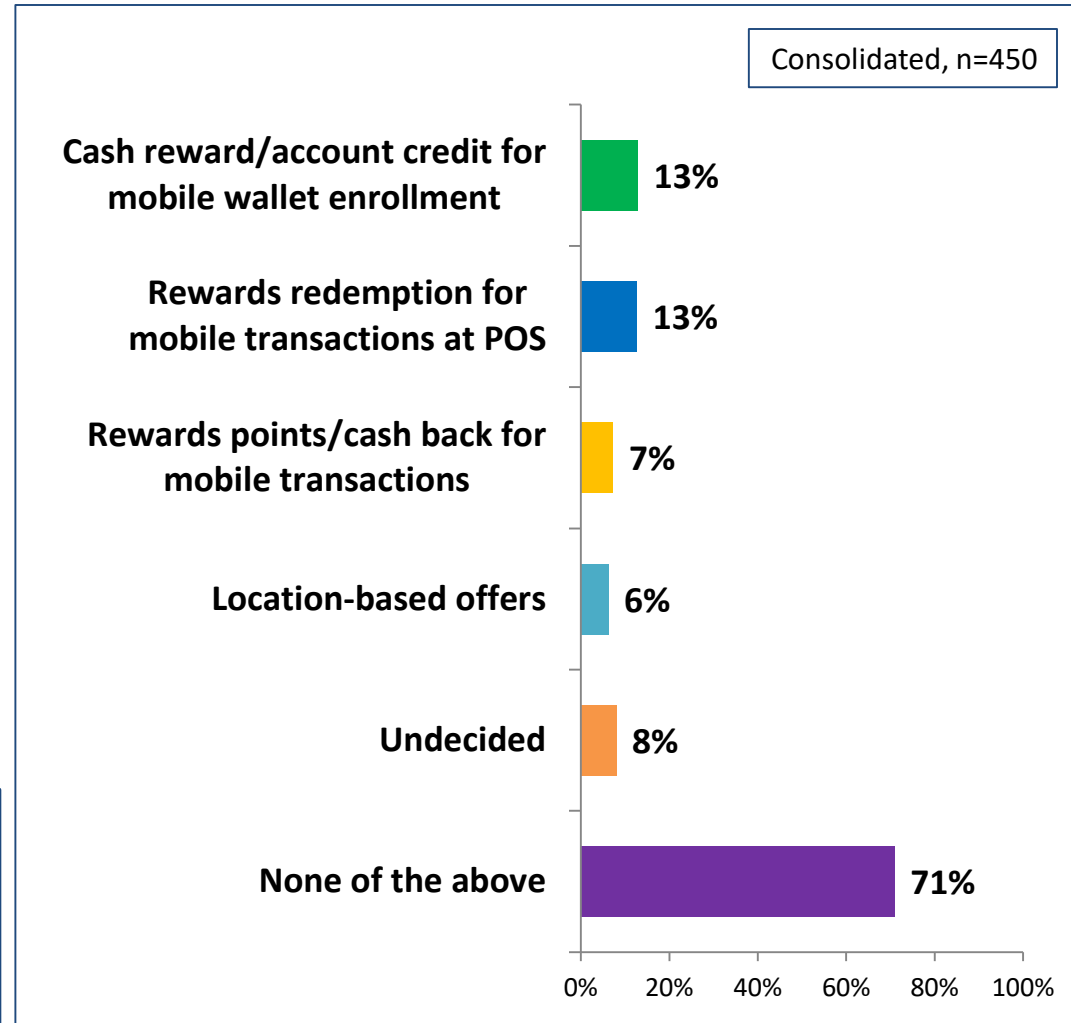


Q43. What percentage of your RETAIL customers uses your mobile payment/wallet services?

Few FIs offer incentives tied to mobile payments

- Only 13% of respondents offer incentives for mobile payments
- 71% of respondents do not perceive their value to increasing adoption
- Some FIs offer credit card loyalty rewards that can link to mobile wallets, but generally do not market them as mobile-exclusive rewards
- Only 6% offer mobile-specific location-based offers

40% of FIs saw little value in “increasing customer engagement with loyalty, rewards and other incentives” when deciding to offer mobile payments, rating it LOW in Q36

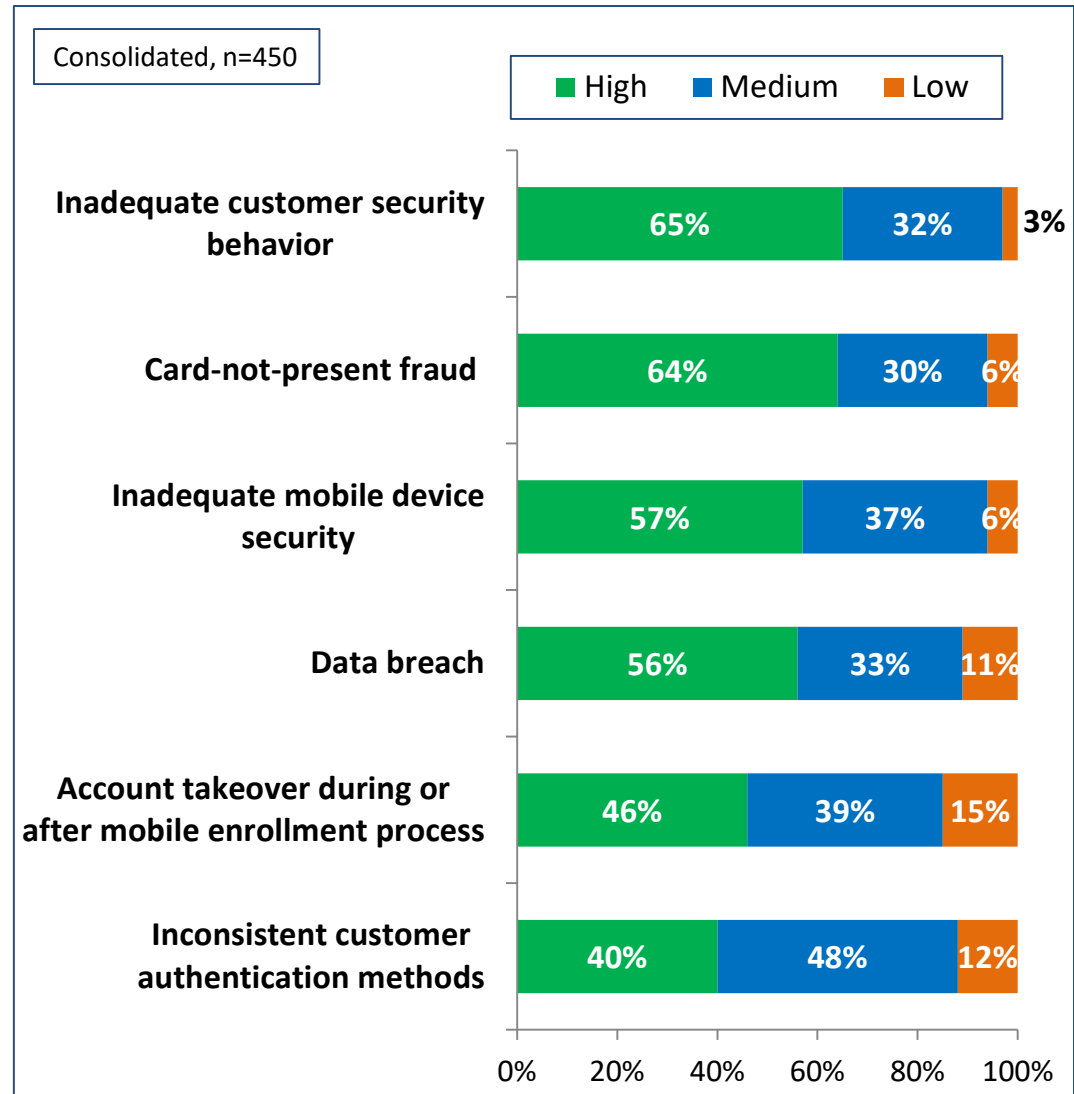


Q42. What types of incentives tied to mobile payments/wallets do you offer or plan to offer?
(Check ALL that apply)

MOBILE PAYMENT SECURITY RESULTS

Mobile payment security is a top priority

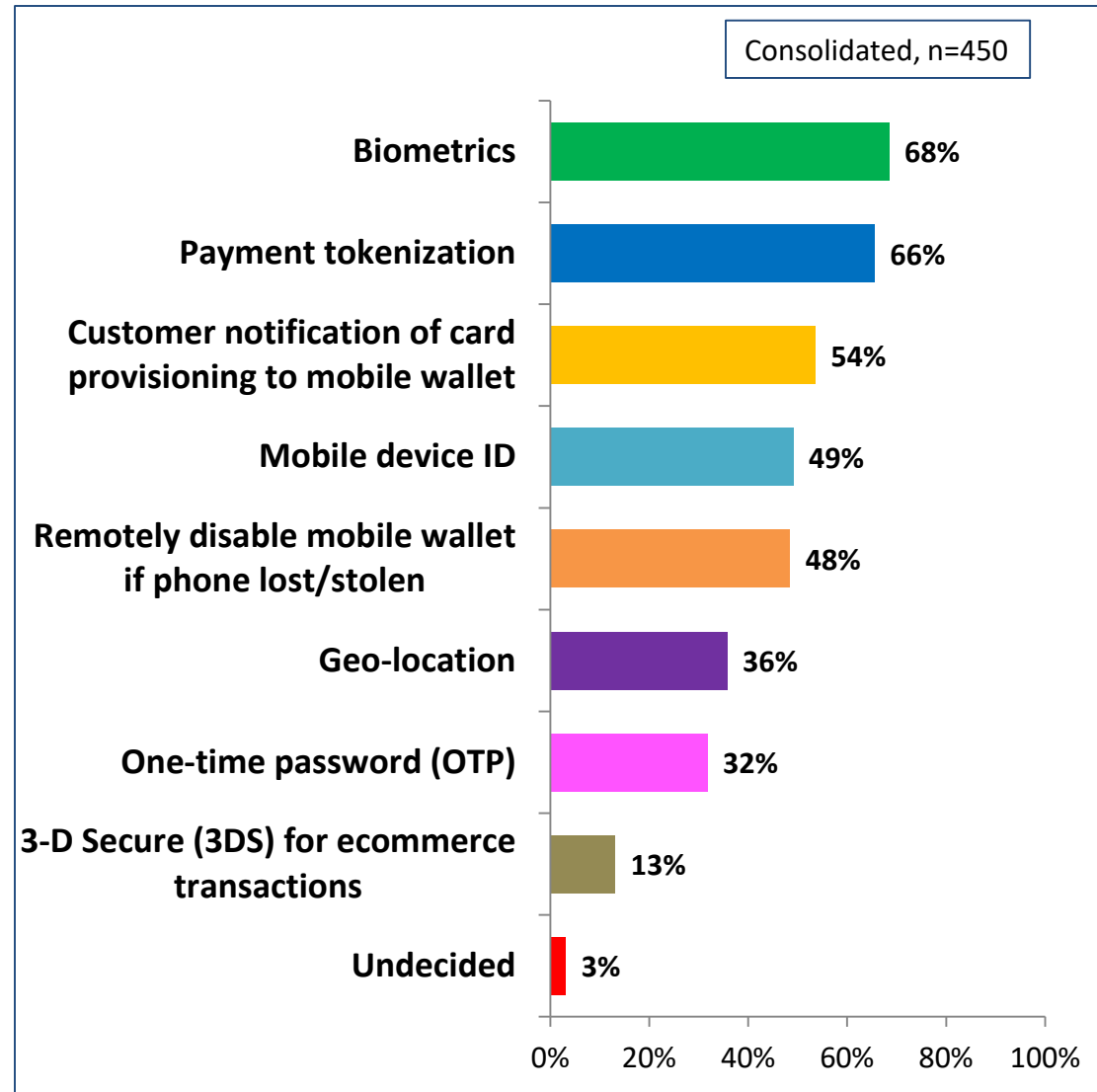
- Customer behavior tops FI security concerns
 - 65% of respondents rated **Inadequate customer security behavior** HIGH
- Followed by **Card-not-present (CNP) fraud** (64% HIGH) as fraud shifts from POS to online
- FIs recognize that securing mobile payments starts with enrollment but many have experience managing risk of account takeover
- Similar to the mobile banking results, no more than 15% of FIs rated any risk as low



Q46. Please RATE the IMPORTANCE of your FI's security concerns associated with mobile payment/wallet services.

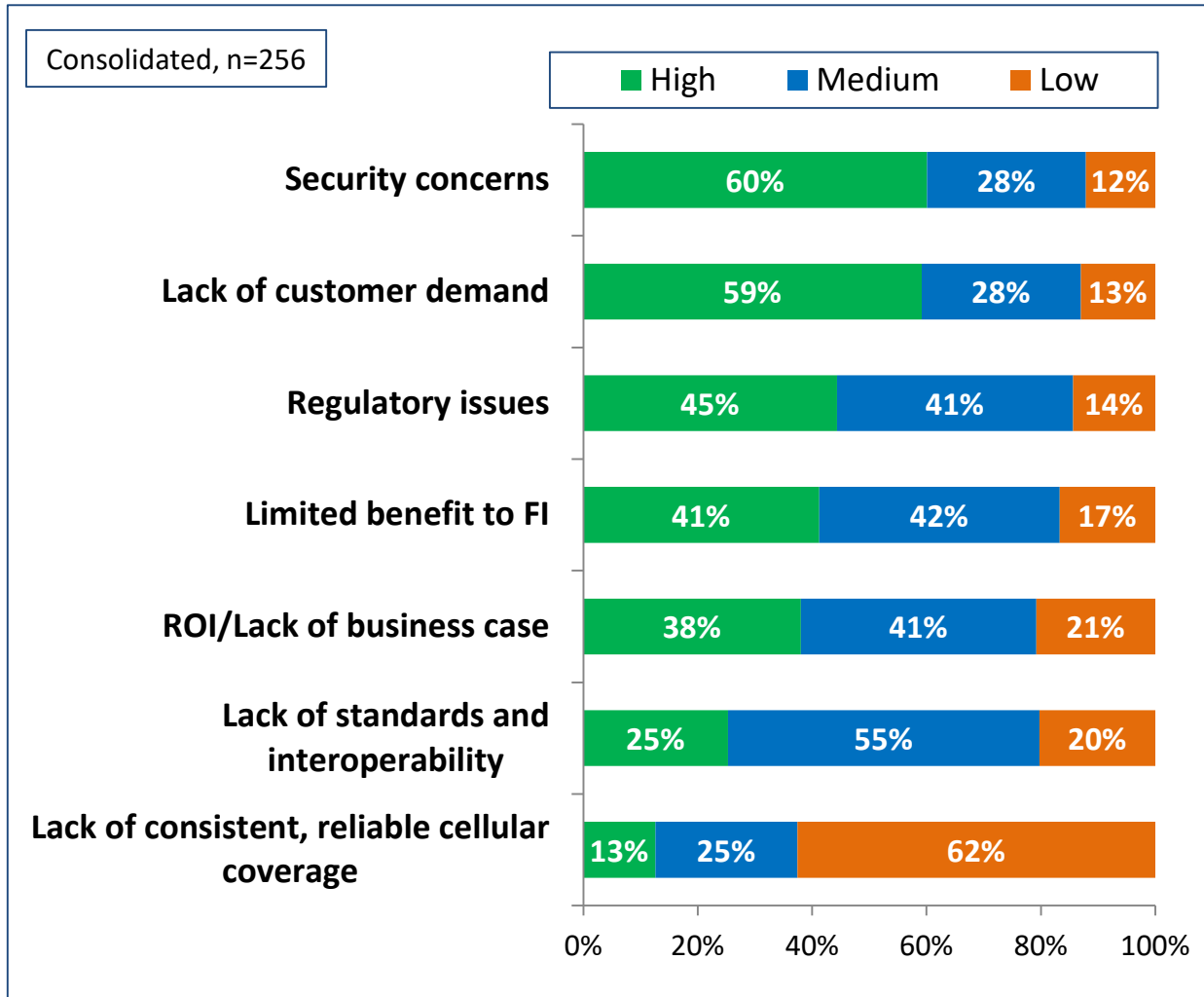
FIs recognize need for layered approach to security

- No one security method can protect payments end-to-end
- FIs apply multiple security tools to mobile payment
- Not all security methods are ubiquitous across wallet solutions
- Biometrics (68%) and payments tokenization (66%) most commonly-supported, in line with higher implementation of NFC “Pay” wallets
- 13% of respondents use or plan to use 3DS to authenticate mobile/ecommerce transactions



Q47. Do you use or plan to use the following mobile security tools? (Check ALL that apply)

60% of FIs not planning to offer mobile payments rated “Security concerns” highest among factors



- **Lack of customer demand** was also a high concern for 59% of respondents
- Non-offering FIs perceive a wide range of challenges – taking a ‘wait and see’ attitude

OPINION QUESTIONS

Most FIs bullish on mobile security tools

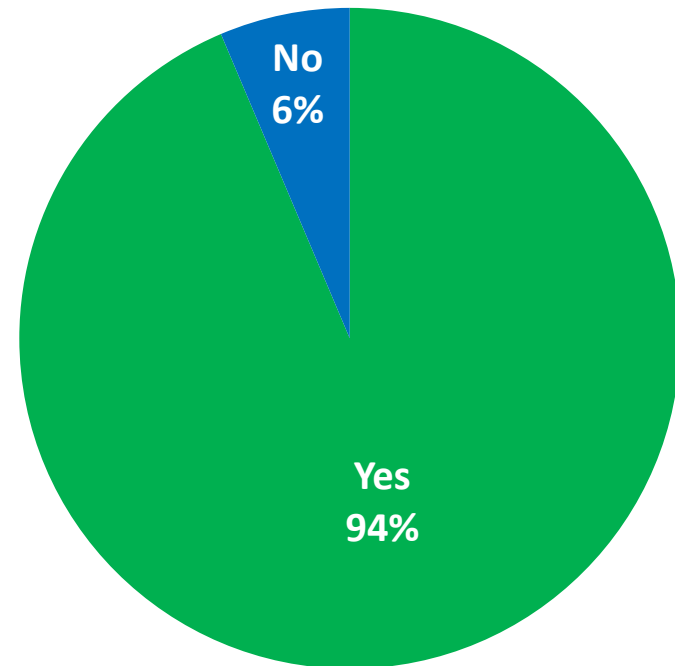
94% of respondents think mobile payments could be most secure

Question to ALL respondents:

Do you think a mobile payment that uses payment tokenization and biometrics is more secure than a card payment?

- **YES: 664 (94%)**
- **NO: 42 (6%)**

Consolidated, n=706



Q49. In your opinion, do you think a mobile payment that uses payment tokenization and biometrics is more secure than a card payment?

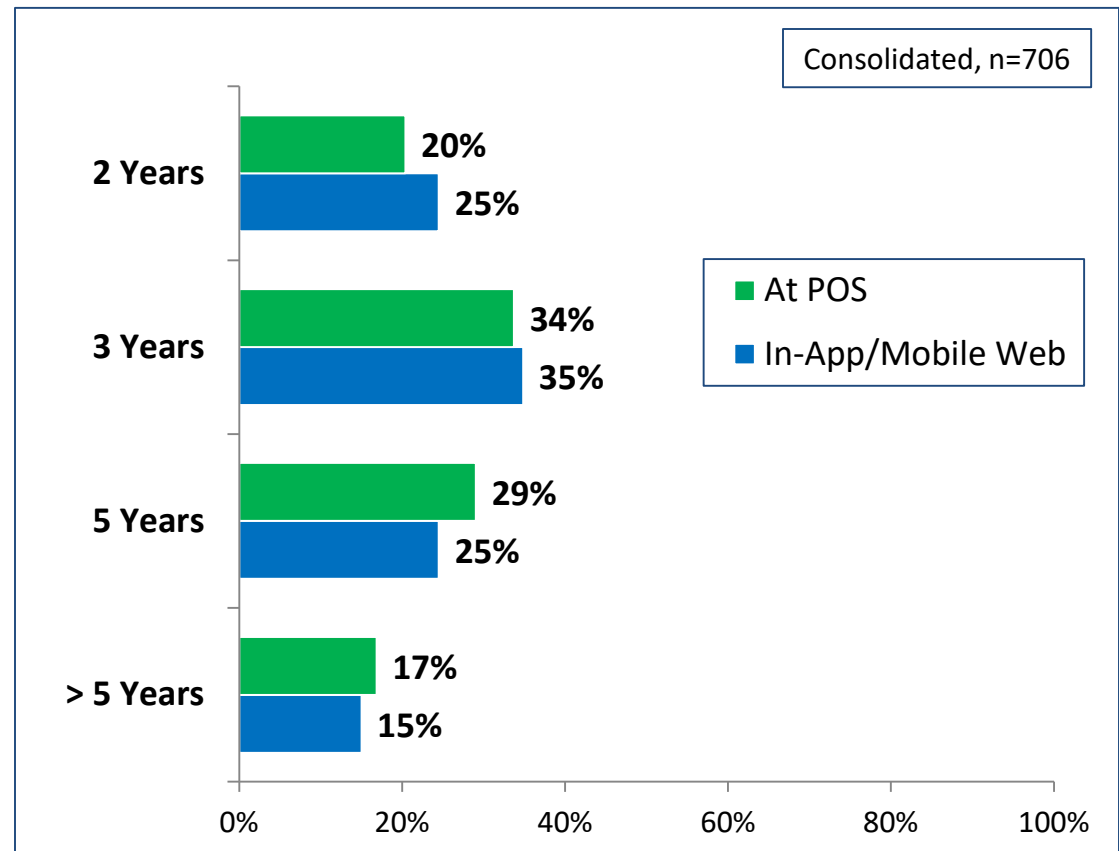
FIs optimistic about achieving industry-wide consumer adoption of mobile payments

Many FIs expect consumer adoption of remote and proximity mobile payments to exceed 50% within three years

Question to ALL respondents:

How long will it take for industry-wide CONSUMER adoption of mobile payments to exceed 50%:

- *At POS?*
- *In-app/mobile web?*



Q50. In your opinion, how long will it take for industry-wide CONSUMER of mobile payments adoption (at least one mobile payment within 90 days) to exceed 50%?

KEY TAKEAWAYS

Key Takeaways

- More FIs are enabling mobile payment services as they respond to competitive pressure and industry momentum
- Some FIs are developing their own branded wallets by integrating mobile payments into their mobile banking apps
- Banks and credit unions may differ in approaches and strategies for mobile payments
- Asset size impacts how and when FIs implement mobile payment functionality
- Security is a gating factor for deciding whether to invest in mobile payments
- More FIs are supporting digital wallets
 - Growth fostered by rapid growth of mobile commerce as a percentage of ecommerce volume as more consumers use mobile phone to make online purchases (mobile commerce)

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 payment 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, region and 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

Marianne.Crowe@bos.frb.org

Elisa.Tavilla@bos.frb.org

BreffniMcGuire@outlook.com

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>