2012 Payments Fraud Survey

Consolidated Results

Payments Information & Outreach Office
Federal Reserve Bank of Minneapolis

September 25, 2012

Topics

- Survey Methodology & Respondent Profile
- Fraud Attempts & Losses
- Risk Mitigation
- Opportunities to Reduce Payments Fraud
- Conclusions

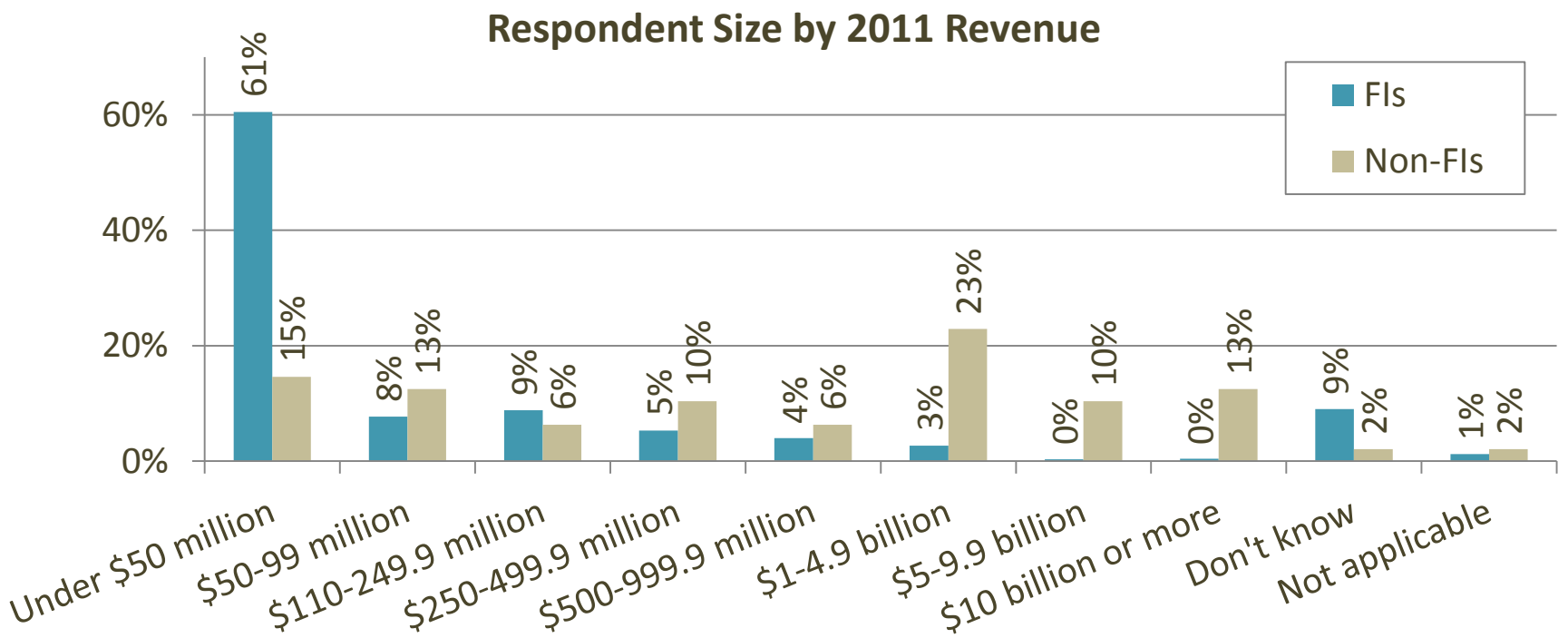
Survey Methodology & Respondent Profile

Payments Fraud Survey

- Sponsored by the Federal Reserve Banks of Minneapolis, Boston, Dallas, & Richmond & the Independent Community Bankers of America (ICBA)
- Conducted in April & May 2012
- Survey participants include financial institution (FI) & non-FI members of regional payment & treasury management associations & ICBA
- 740 respondents – 93% were FIs, 7% were non-FIs

Respondent Size by Revenue

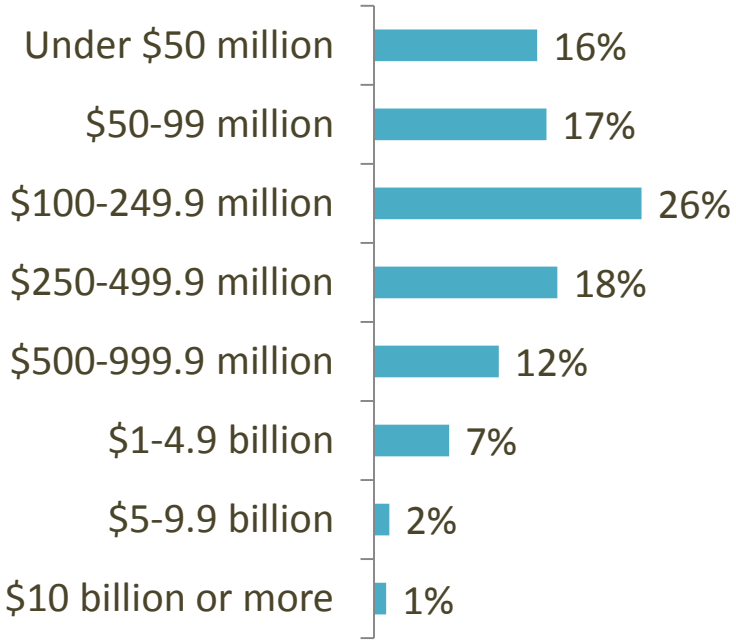
- The majority of respondents (58%) are relatively small with annual revenues less than $50 million



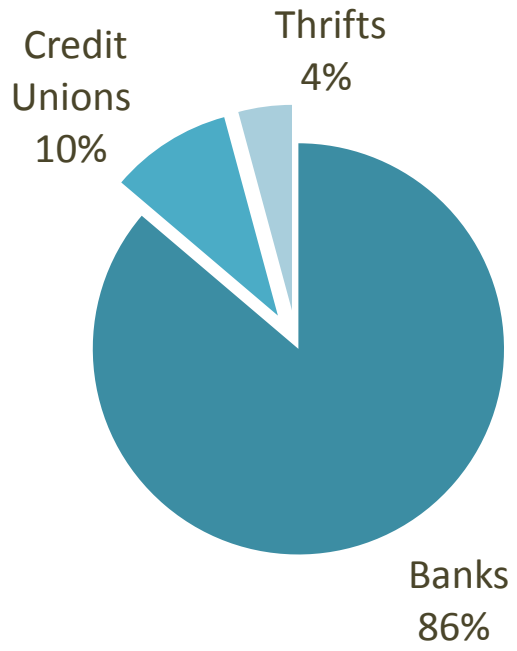
FI Respondents

- 689 Financial Institution (FI) respondents

FI Size by YE 2011 Assets

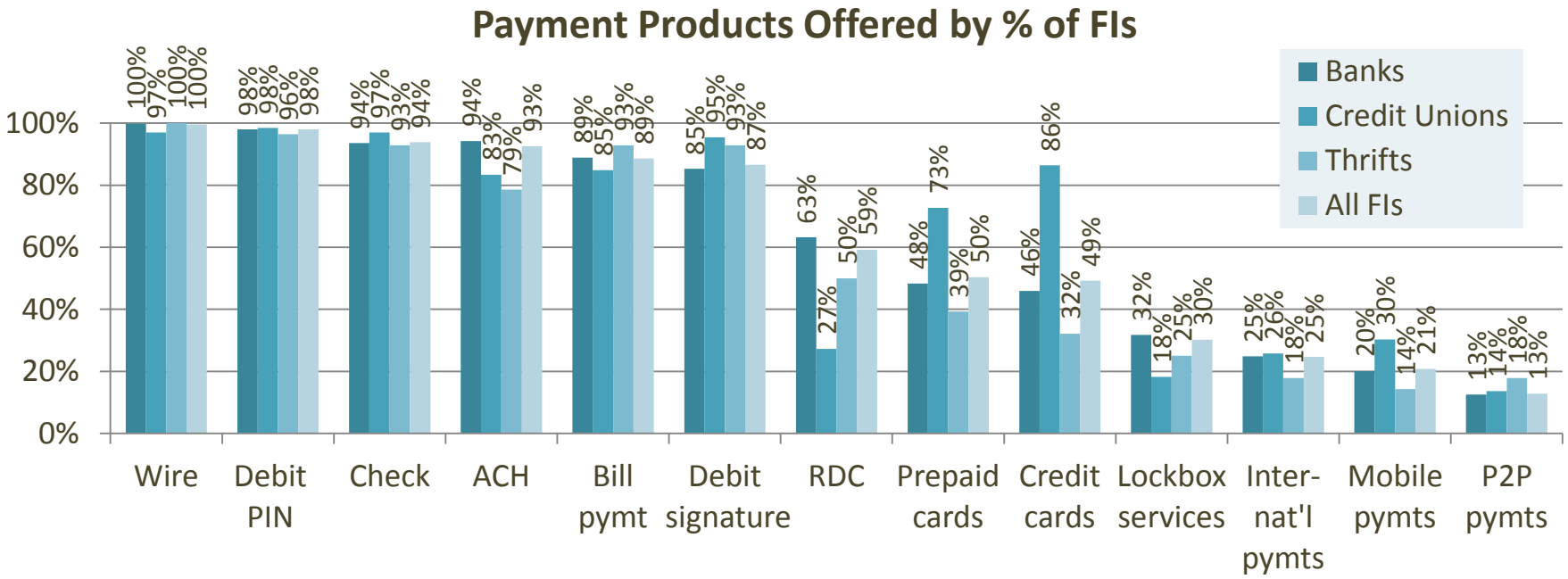


FI Mix



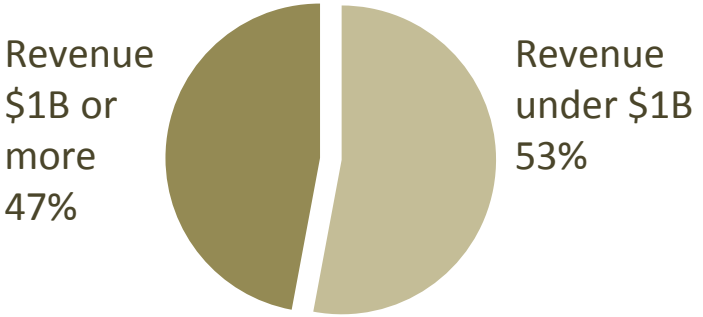
FI Payment Products Offered

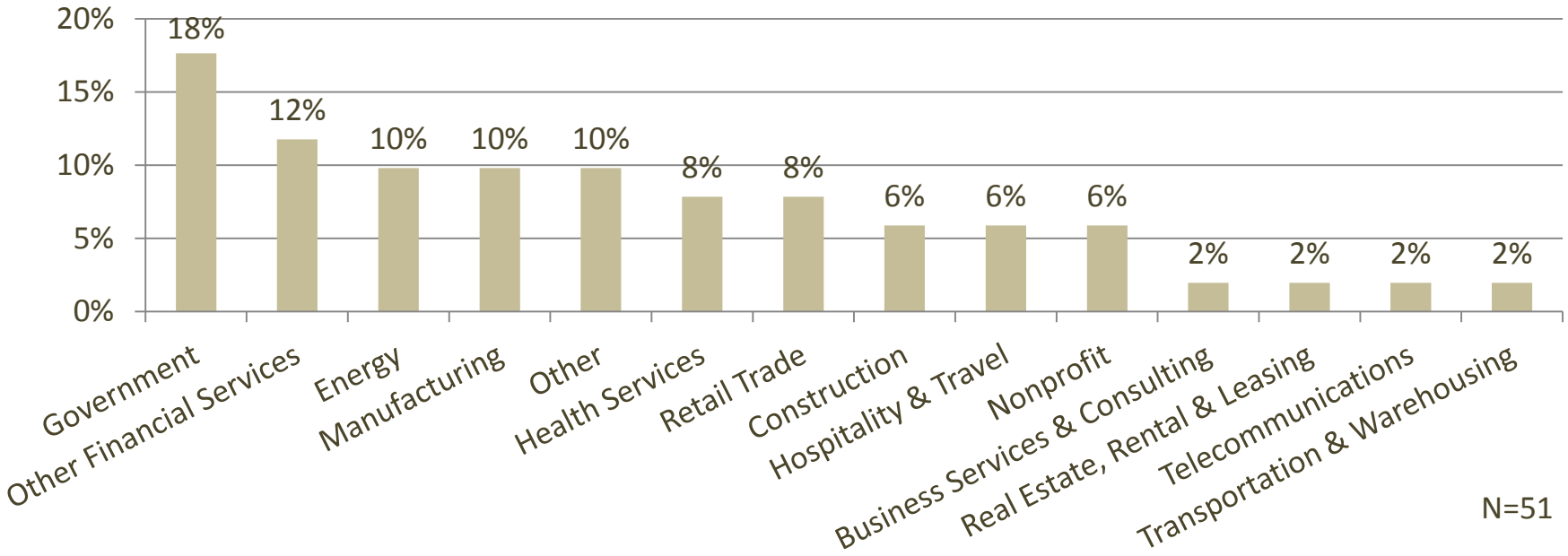
Target Customers	Banks (N=592)	Credit Unions (N=66)	Thrifts (N=29)
Both consumers & business or commercial clients	88%	24%	62%
Primarily to consumers	6%	76%	38%
Primarily business or commercial clients	6%	0%	0%



Non-FI Respondents

- Non-FI respondents from more than 14 industries; 47% were larger organizations with annual revenues over $1 billion

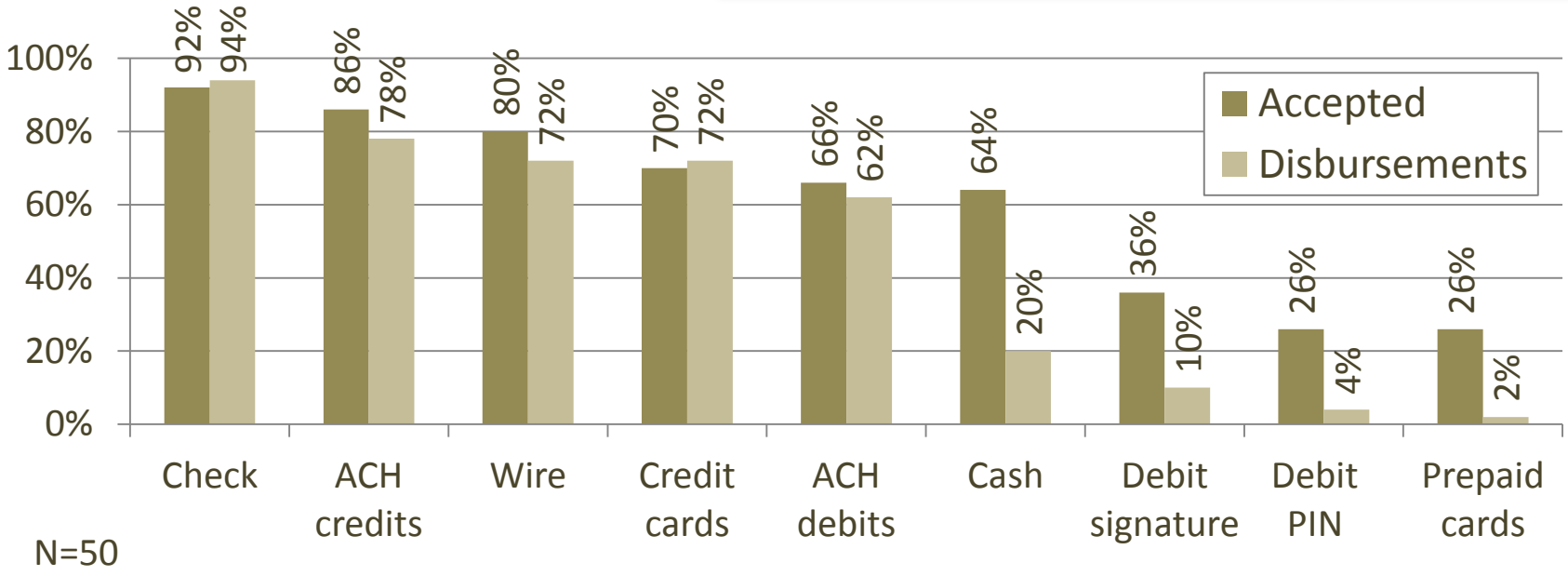




Non-FI Payment Types Used

- Over ¾ of businesses use check, ACH & wire payments

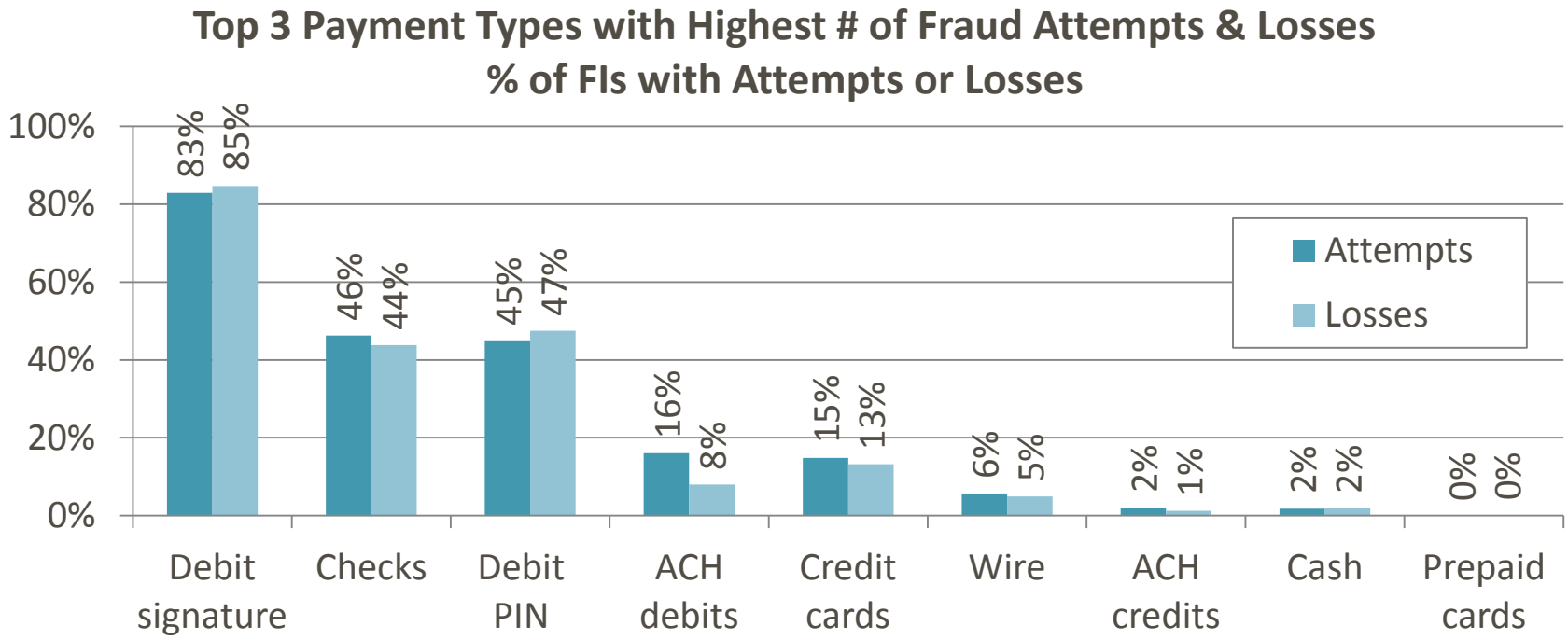
Typical Payment Counterparties	% of Non-FIs
Payments to/from both consumers & businesses	53%
Payments to/from other businesses	39%
Payments to/from consumers	8%



Payment Fraud Attempts & Losses

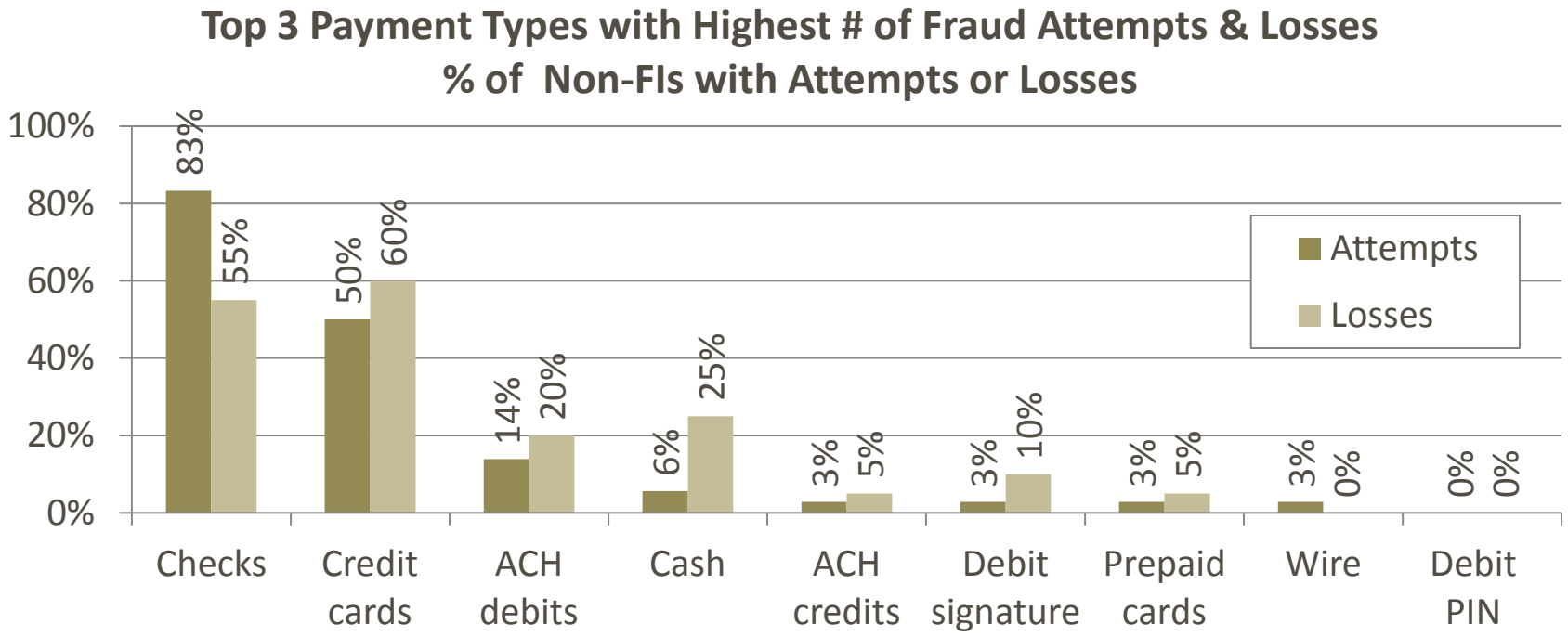
FIs Most Prone to Signature Debit Card Frauds

- 96% of FIs experienced payment fraud attempts & losses



Non-FIs Most Prone to Check & Credit Card Frauds

- 77% of non-FIs experienced payment fraud attempts & 46% experienced losses



Fraud Losses & Trends

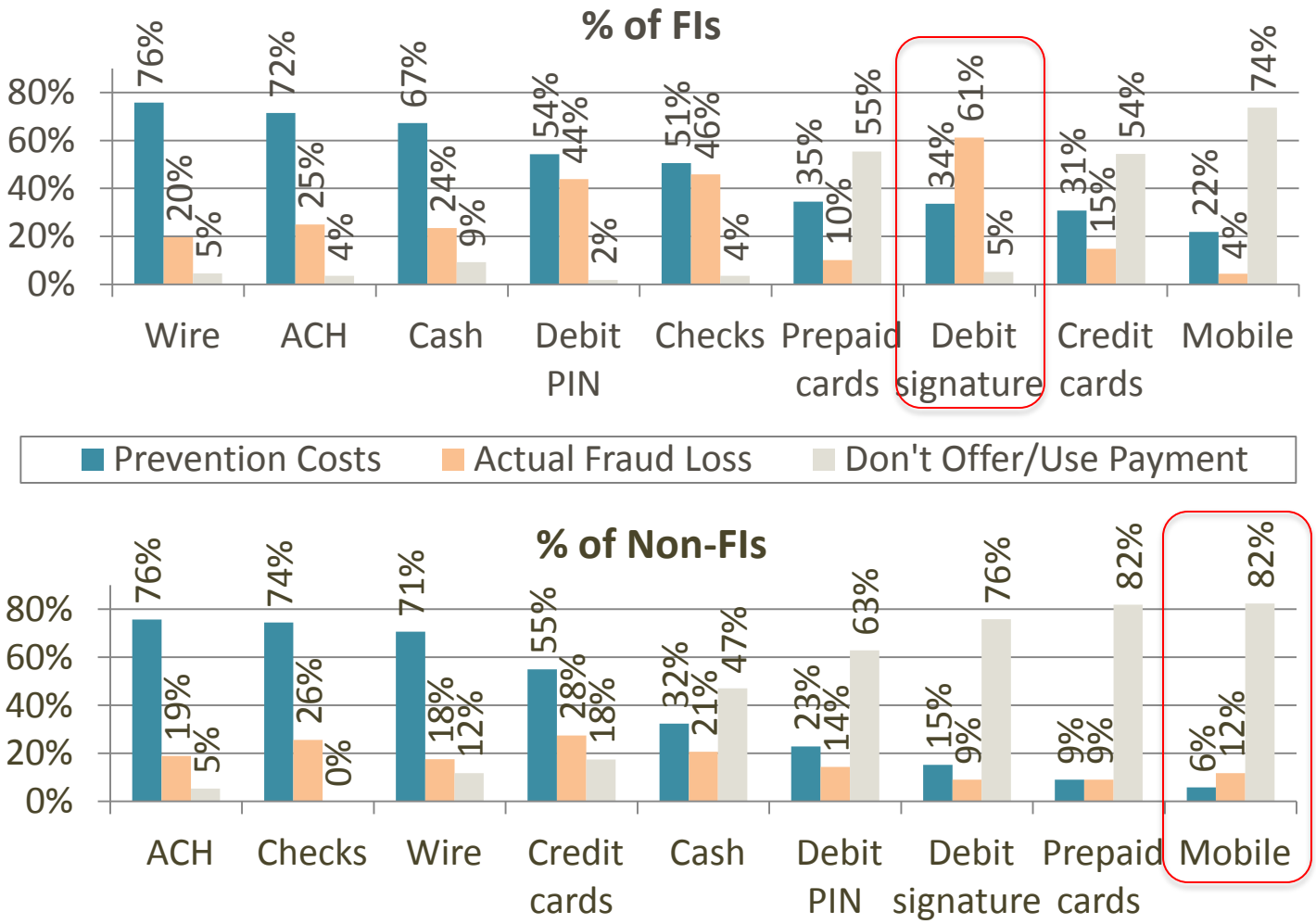
- 7% of respondents reported no fraud losses
- 69% of respondents estimated a financial-loss rate of < 0.3% of revenues
- ~85% of respondents reported fraud losses increased or stayed the same in 2011

Loss Range as a % of Annual Revenue	% of FIs (N=631)	% of Non-FIs (N=43)	% of All Resp. (N=674)
0%	4%	54%	7%
Over 0% < 0.3%	72%	35%	69%
0.3% - 0.5%	14%	2%	13%
0.6% - 1.0%	7%	5%	6%
1.1% - 5.0%	4%	5%	4%
Over 5.0%	1%	0%	1%

Loss Rate	% of FIs (N=646)	% of Non-FIs (N=43)	% of All Resp. (N=689)
Increased	51%	9%	48%
Stayed the Same	34%	67%	36%
Decreased	16%	23%	16%

Column values may not add to 100% due to rounding

Prevention Costs Versus Actual Fraud Losses

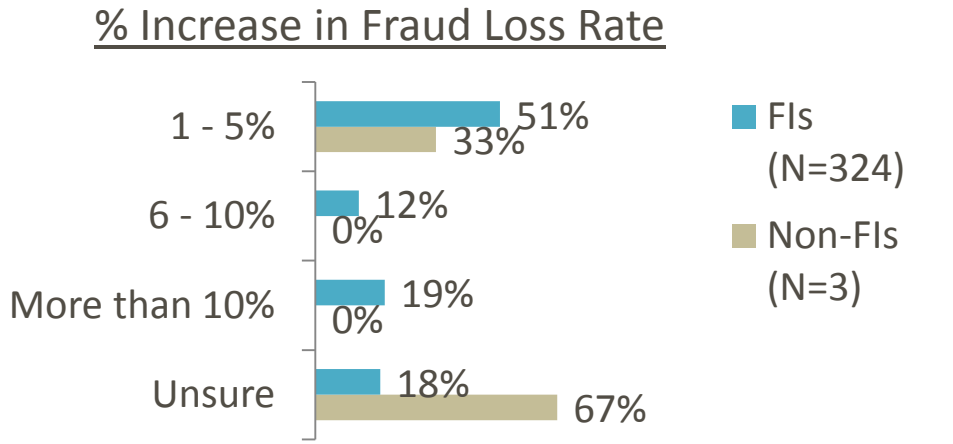


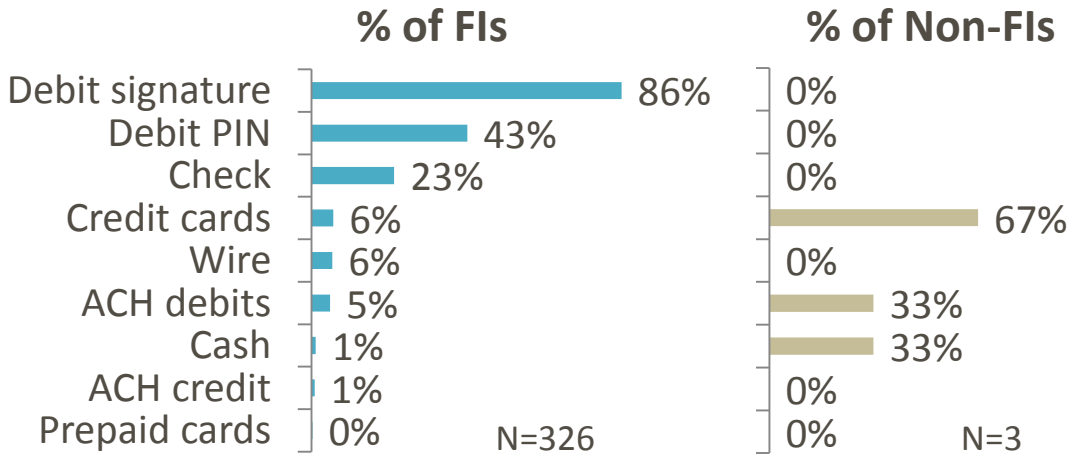
For most payment types, investments in fraud prevention exceed actual losses with two exceptions:

1) Debit signature
2) Mobile payments

Increased Fraud Losses

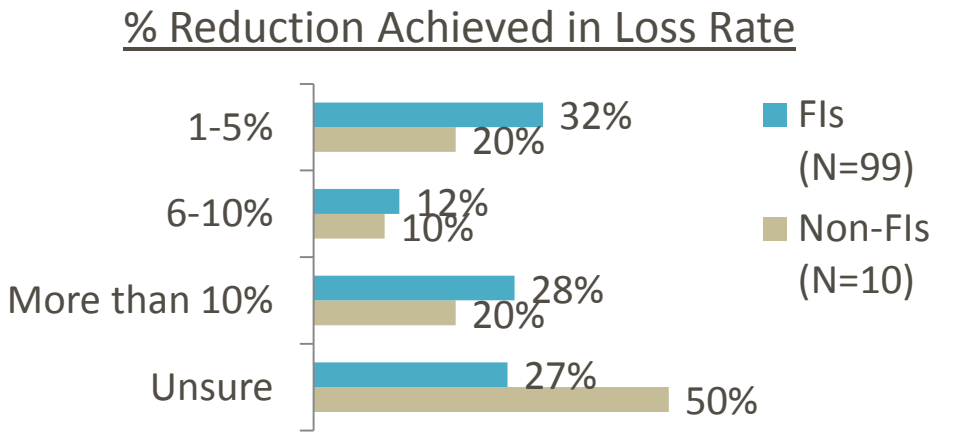
- Half of the respondents with increased losses reported their loss rate up in 2011 by 1% to 5% compared to 2010
- Increased losses were most common among card payments

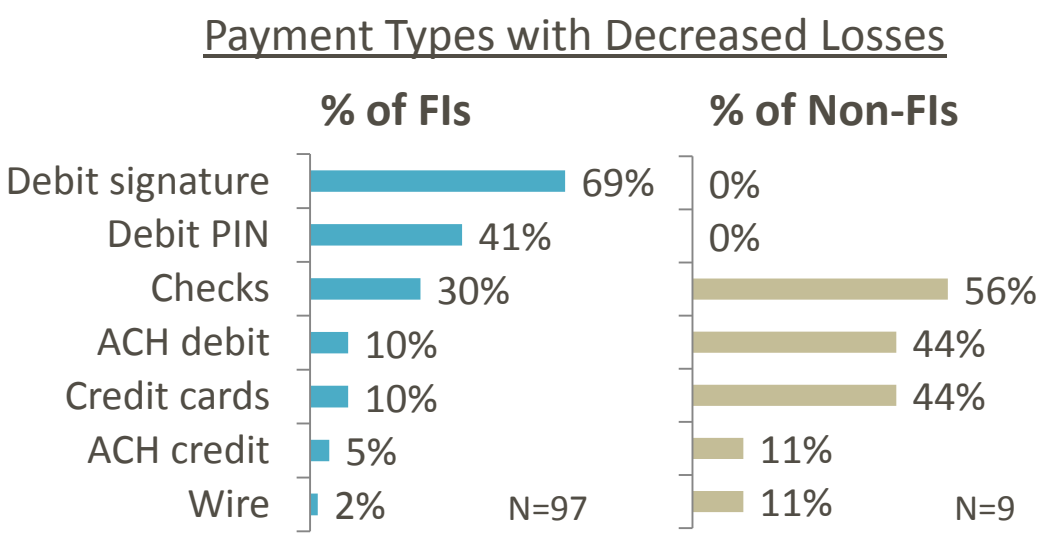




Decreased Fraud Losses

- ~30% of respondents that reduced fraud losses cut their loss rate by over 10%
- Reduced losses were most common among payments most vulnerable to fraud attempts & losses—cards & checks

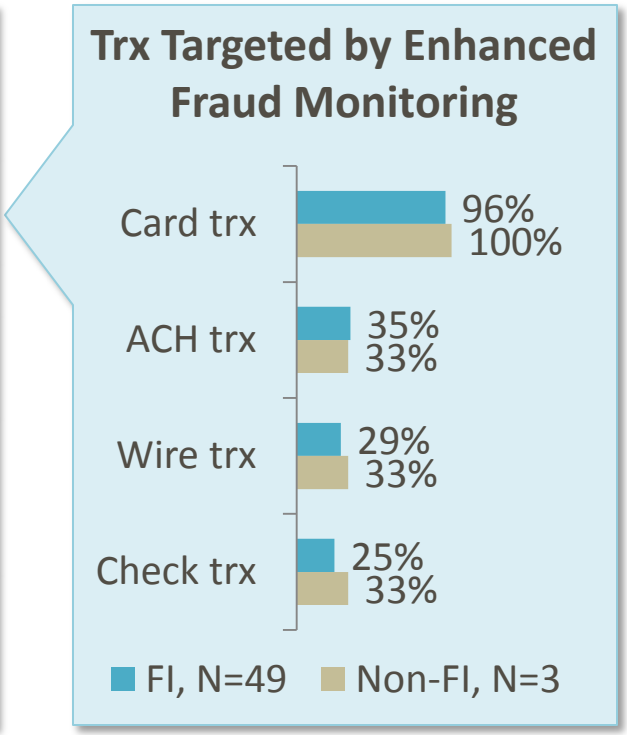




Reducing Fraud Losses

- 68% of respondents said key changes in risk management practices led to decline in losses

Key Changes Made	FIs (N=68)	Non-FIs (N=6)	All (N=74)
Enhanced fraud monitoring system	72%	50%	70%
Staff training & education	62%	83%	64%
Enhanced internal procedures & controls	46%	67%	47%
Adopted/increased use of risk management tools offered by financial service provider	43%	50%	43%
Enhanced method to authenticate customer &/or validate customer account	31%	50%	32%



Perpetrators

- External parties were most often responsible for successful fraud attempts

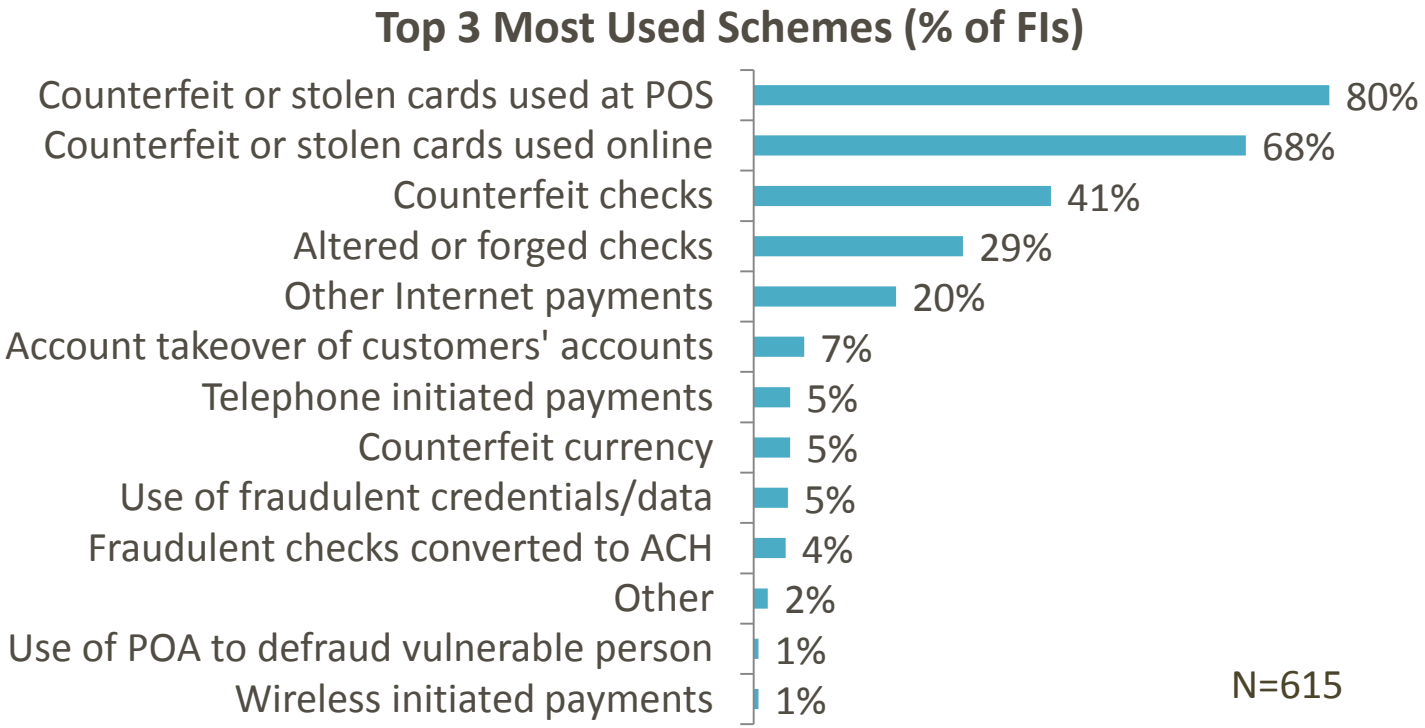
Portion of Successful Payments Fraud by Perpetrators Involved (% of Respondents)					
	100%	76% - 99%	51% - 75%	26% - 50%	1% - 25%
Internal Only	2%	2%	2%	4%	4%
Internal w/External Parties	3%	0%	1%	5%	4%
External Only	58%	7%	2%	3%	4%
Could Not Determine	8%	1%	1%	2%	6%

71% of respondents attributed all successful fraud to a single perpetrator category

29% of respondents attributed a portion of successful fraud to more than one perpetrator category

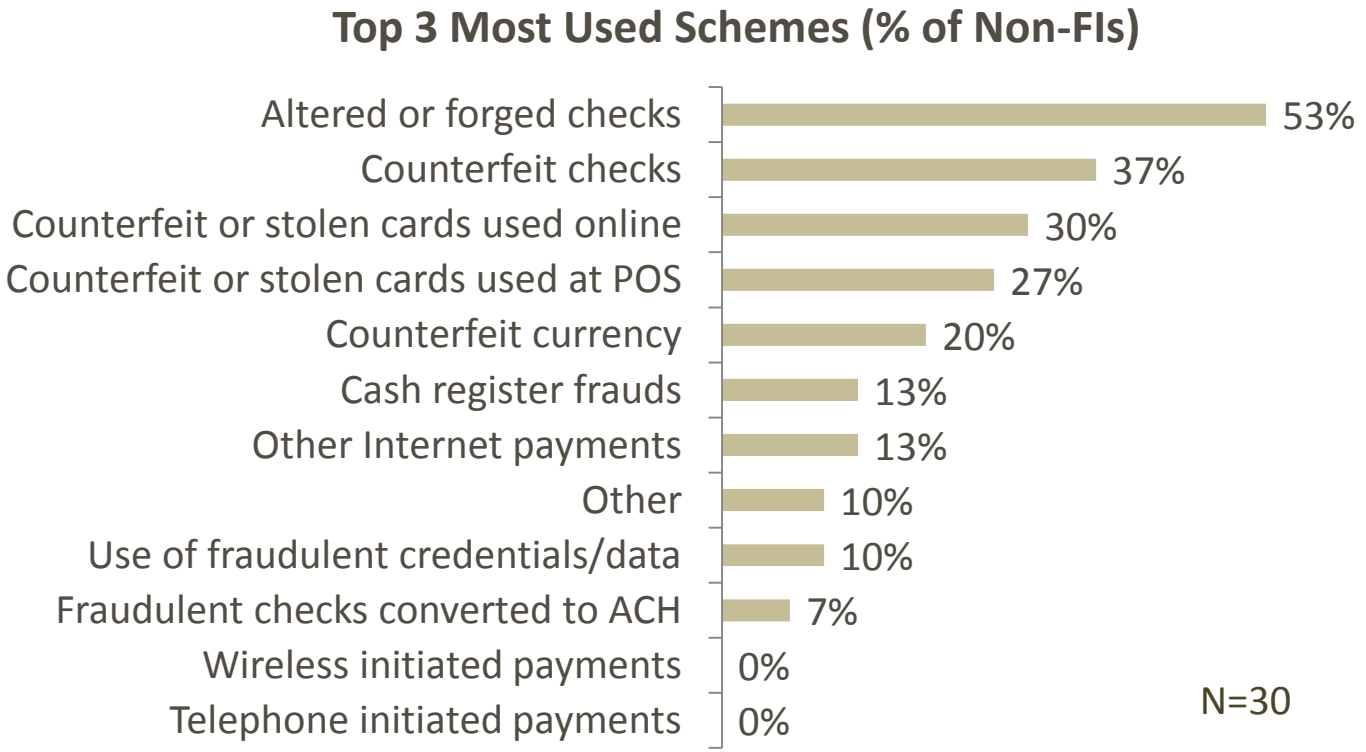
Fraud Schemes Involving FI Customers' Accounts

- Most used schemes are counterfeit or stolen cards used at POS or online



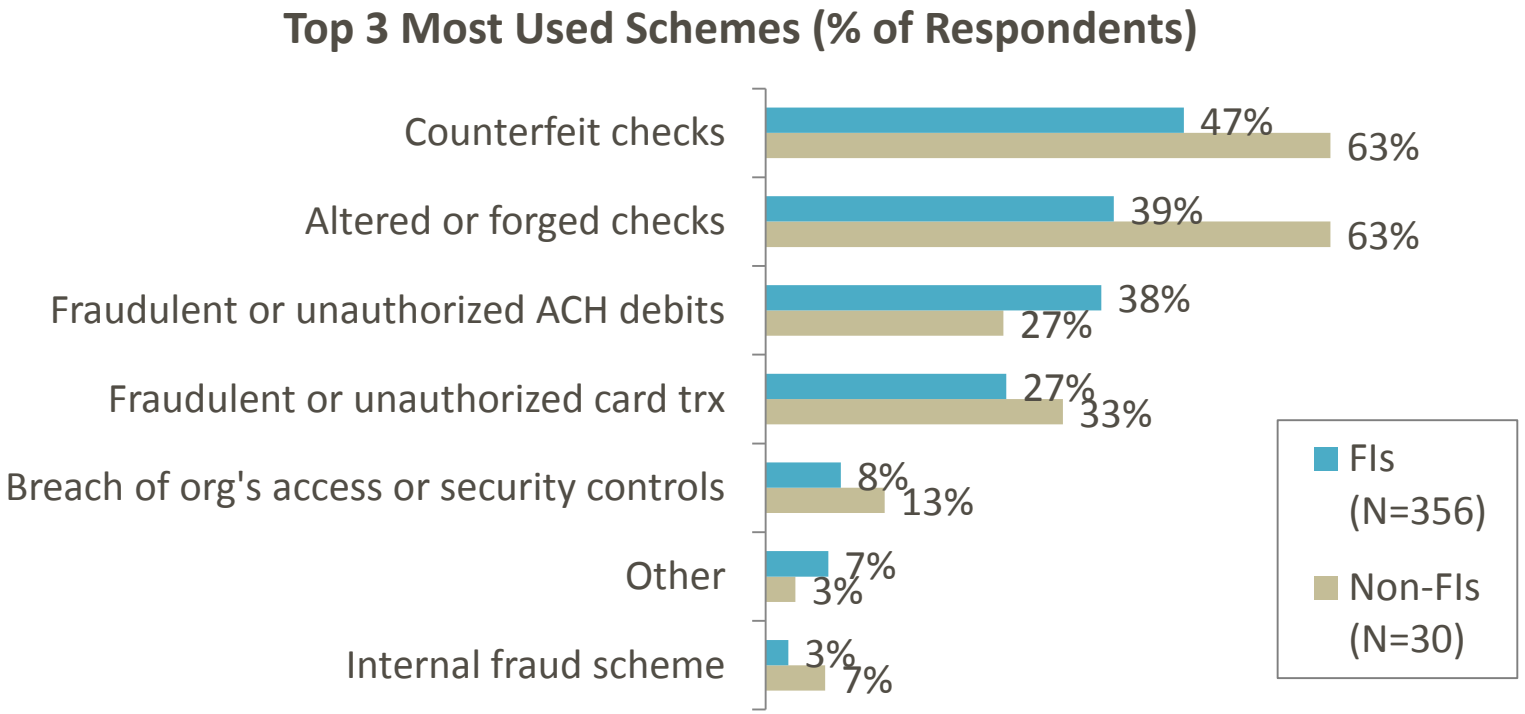
Fraud Schemes Involving Payments Accepted by Non-FIs

- Most used schemes involve checks—altered, forged & counterfeit



Fraud Schemes Involving Organization's Own Banking Accounts

- Most used schemes involve checks—altered, forged & counterfeit



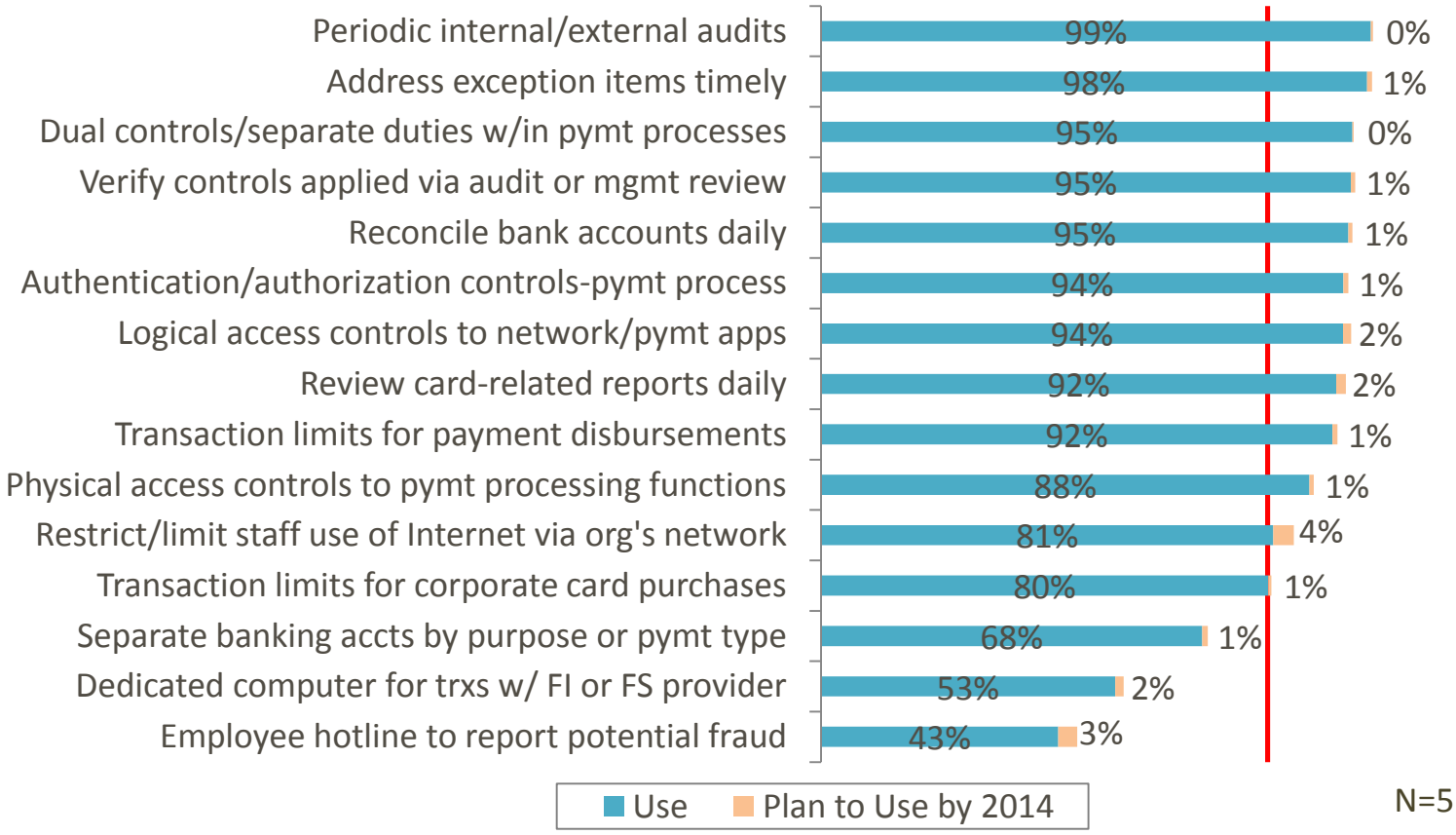
Source of Data Used in Schemes

Top 3 Information Sources Used in Fraud Schemes	FIs (N=590)	Non-FIs (N=33)
"Sensitive" information obtained from lost or stolen card, check, or other physical document or device while in consumer's control	64%	39%
Physical device tampering e.g., use of skimmer on POS terminal or obtaining magnetic stripe information	38%	3%
Email and webpage cyber attacks e.g., phishing, spoofing & pharming to obtain "sensitive" customer information	33%	21%
Data breach due to computer hacking or cyber attacks	26%	15%
Information about customer obtained by family or friend	24%	3%
Organization's information obtained from a legitimate check issued by your organization	17%	67%
Lost or stolen physical documentation or electronic devices while in control of the organization	3%	9%
Employee with legitimate access to organization or customer information	1%	18%

Risk Mitigation

Internal Controls & Procedures Use by FIs

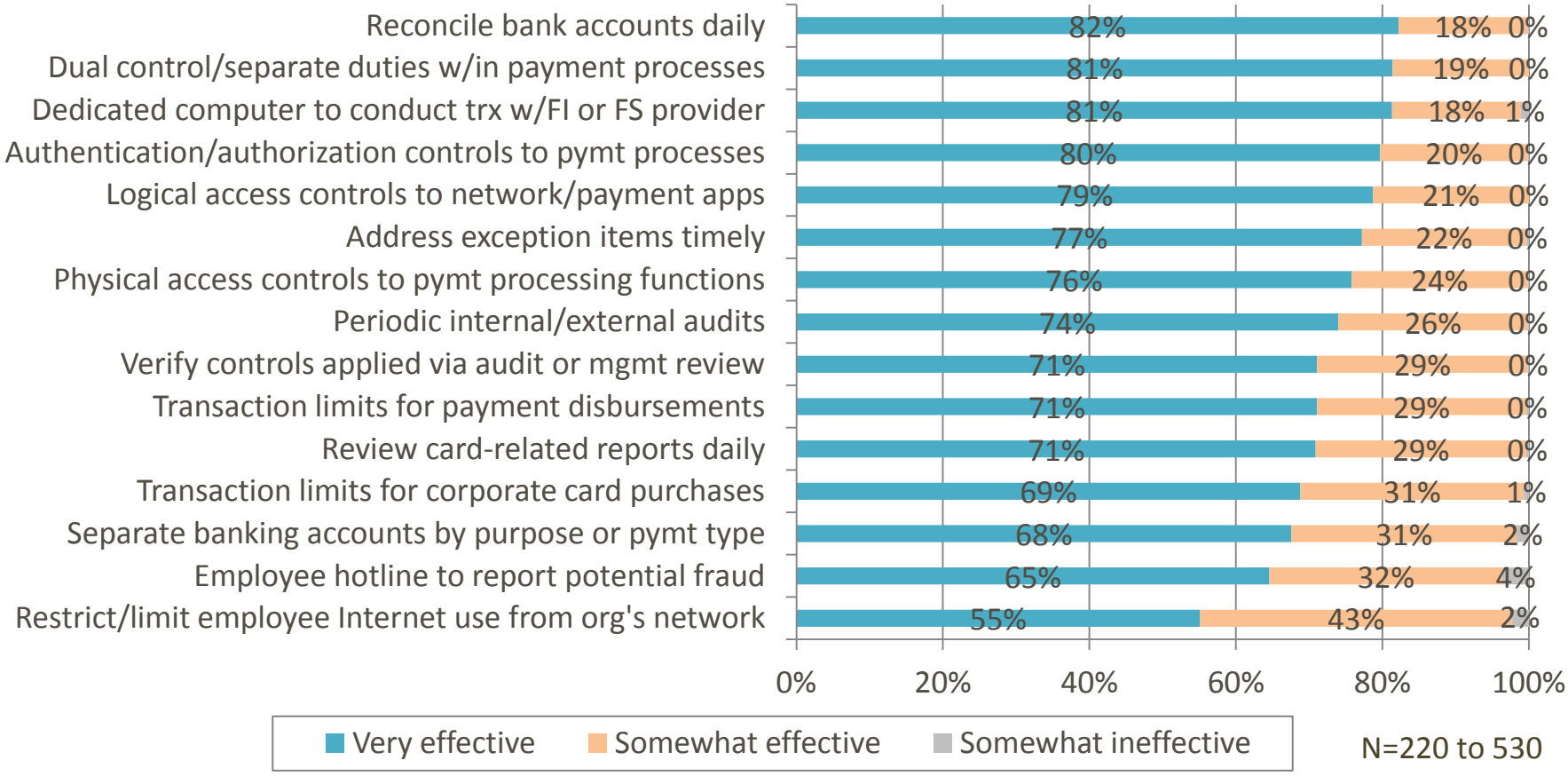
- Over 80% of FIs use 12 of 15 internal controls



N=515 to 546

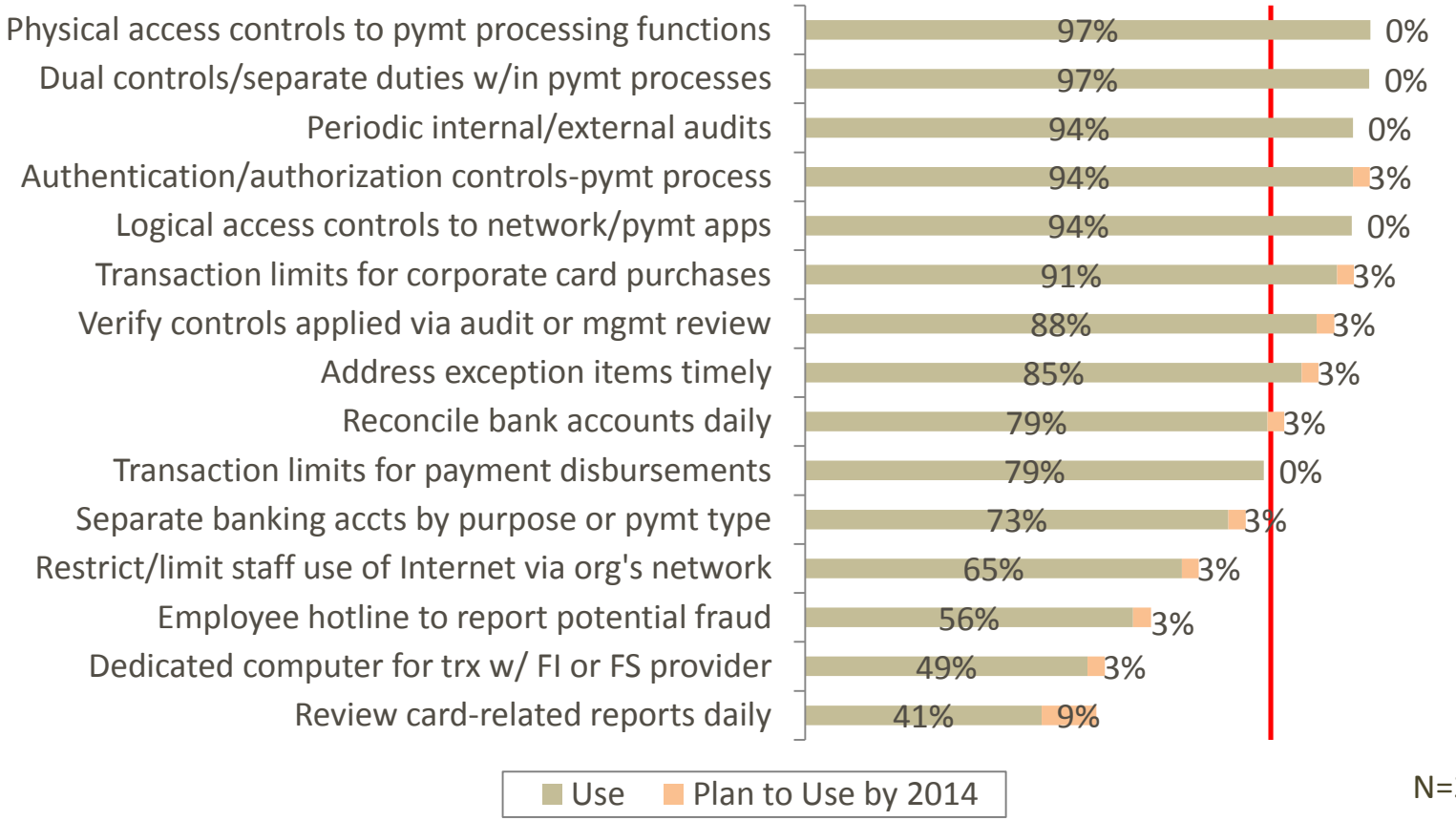
Internal Controls & Procedures Effectiveness Rated by FIs Using

- 95%+ rate all as effective; 55% to 80% rate as very effective



Internal Controls & Procedures Use by Non-FIs

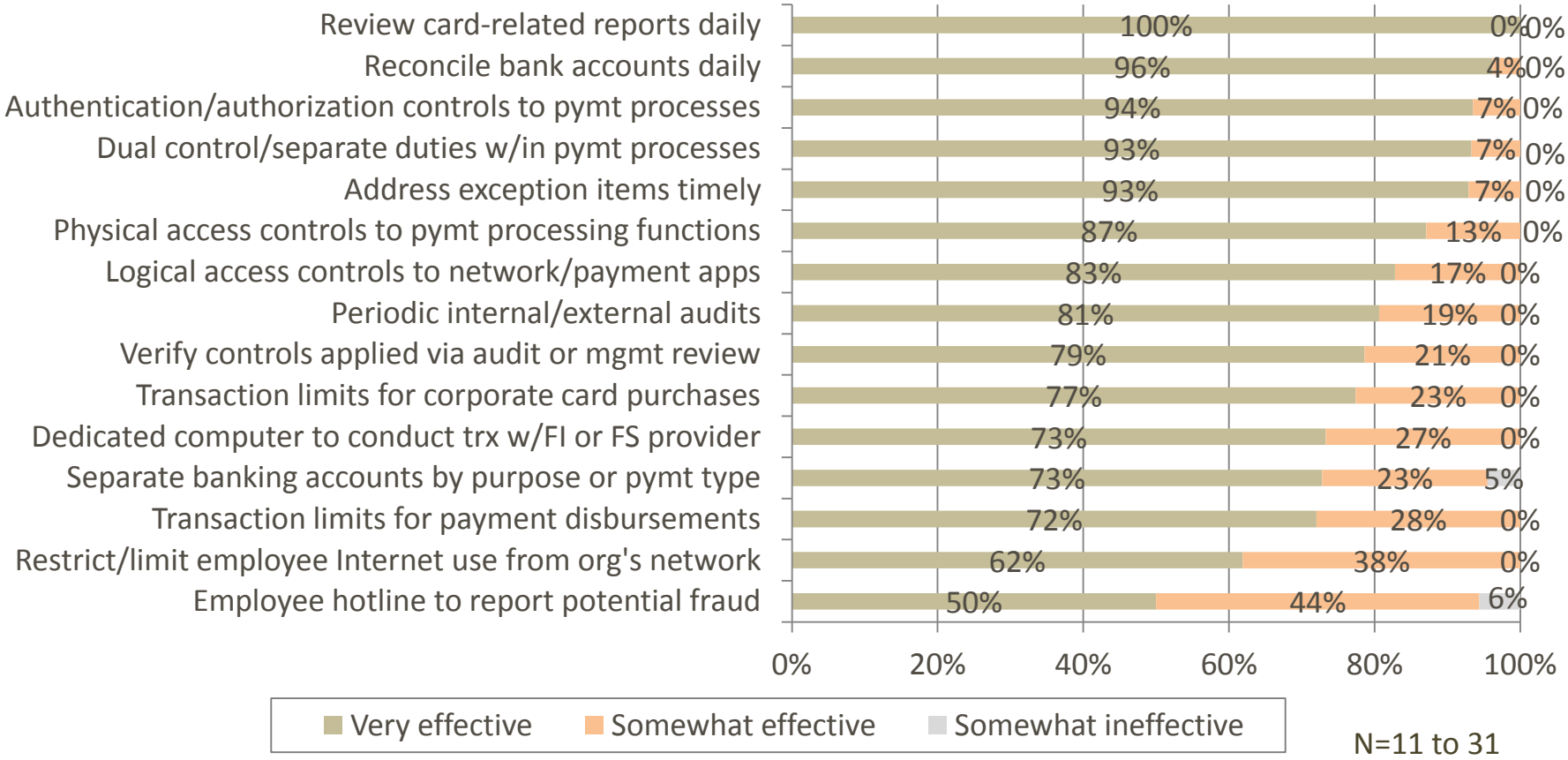
- Over 80% of non-FIs use 8 of 15 internal controls



N=32 to 35

Internal Controls & Procedures Effectiveness Rated by Non-FIs Using

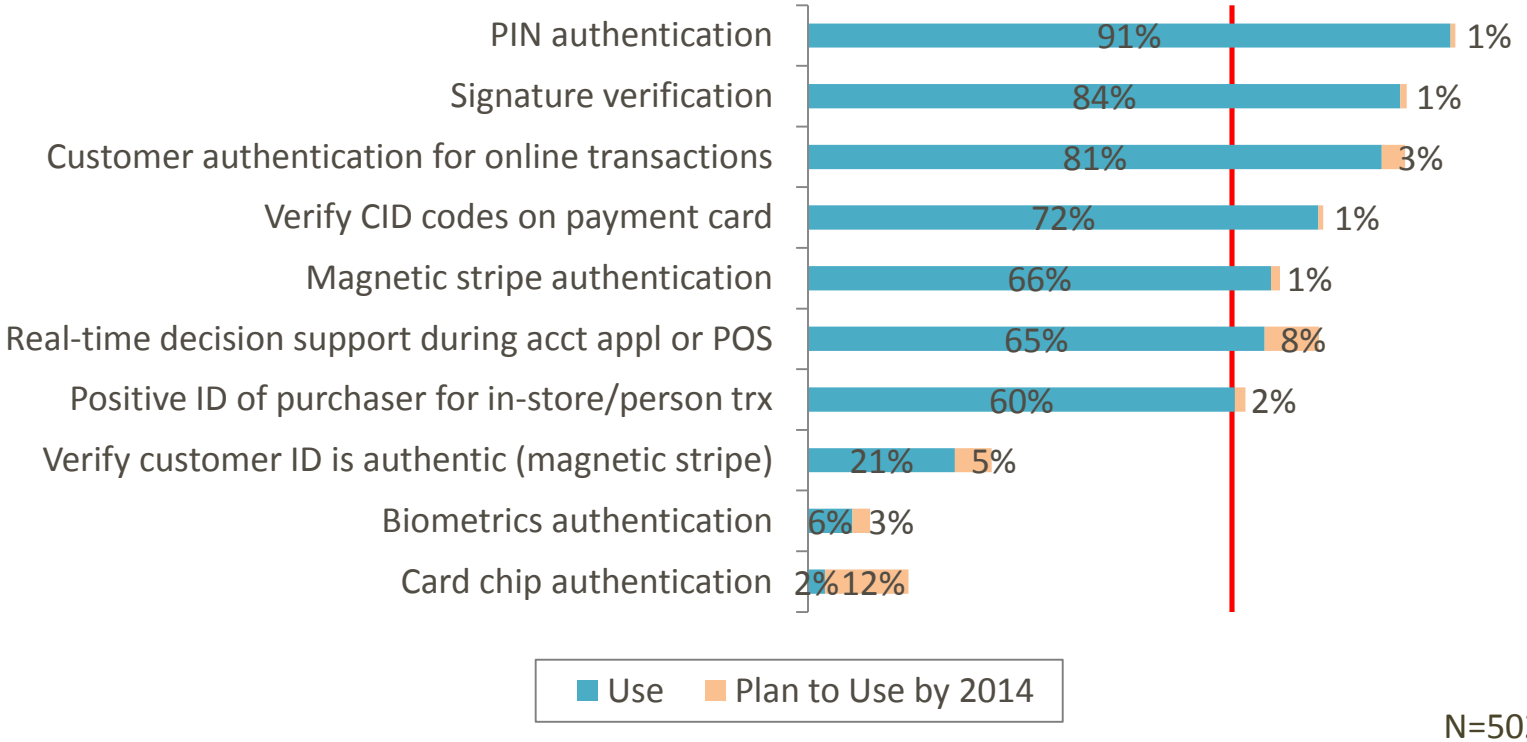
- 90%+ rate all as effective; 70%+ rate most as very effective



N=11 to 31

Customer Authentication Methods Use by FIs

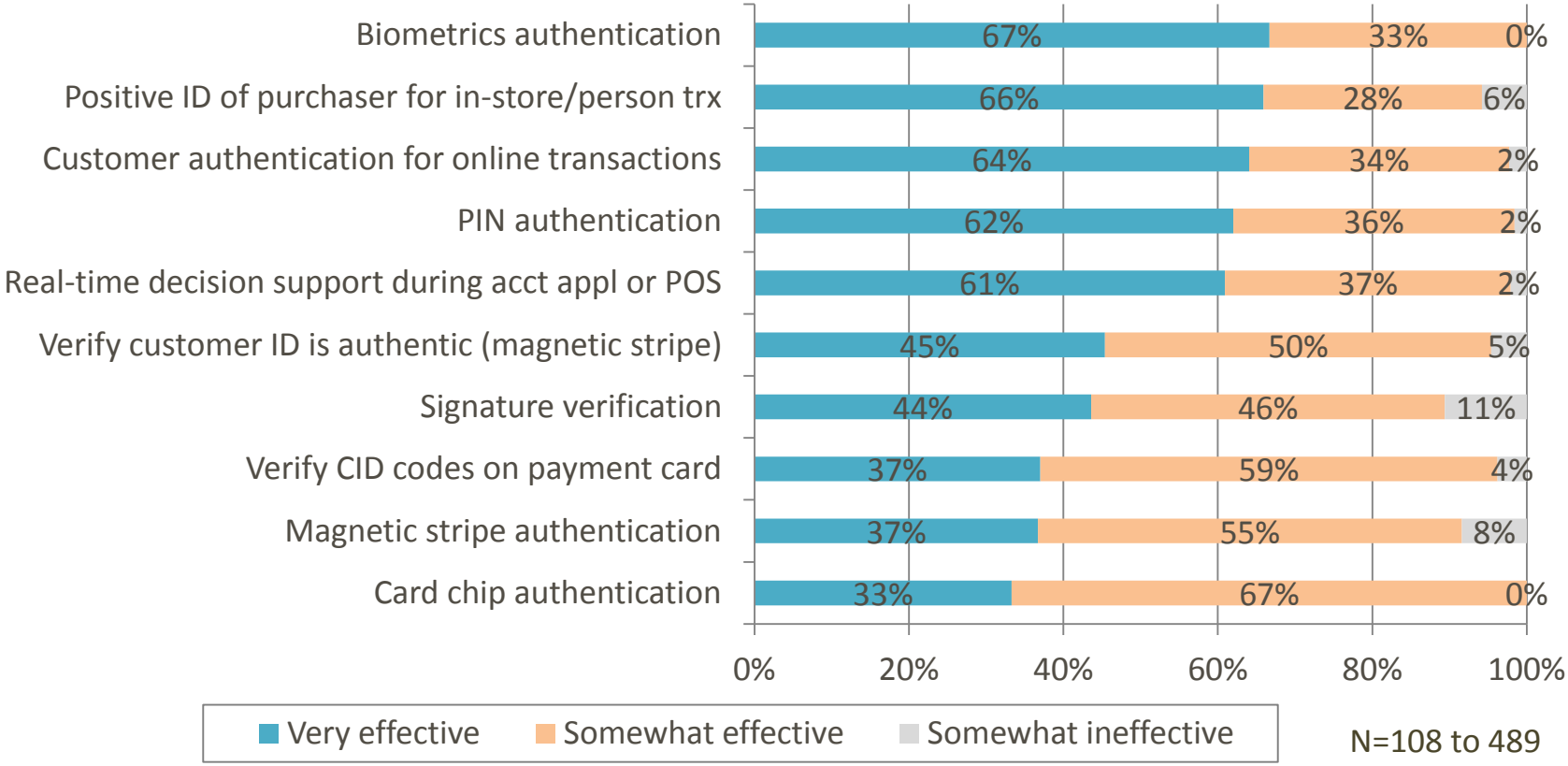
- Over 60% of FIs use 7 of 10 methods; 12% plan to adopt card chip authentication by 2014



N=502 to 557

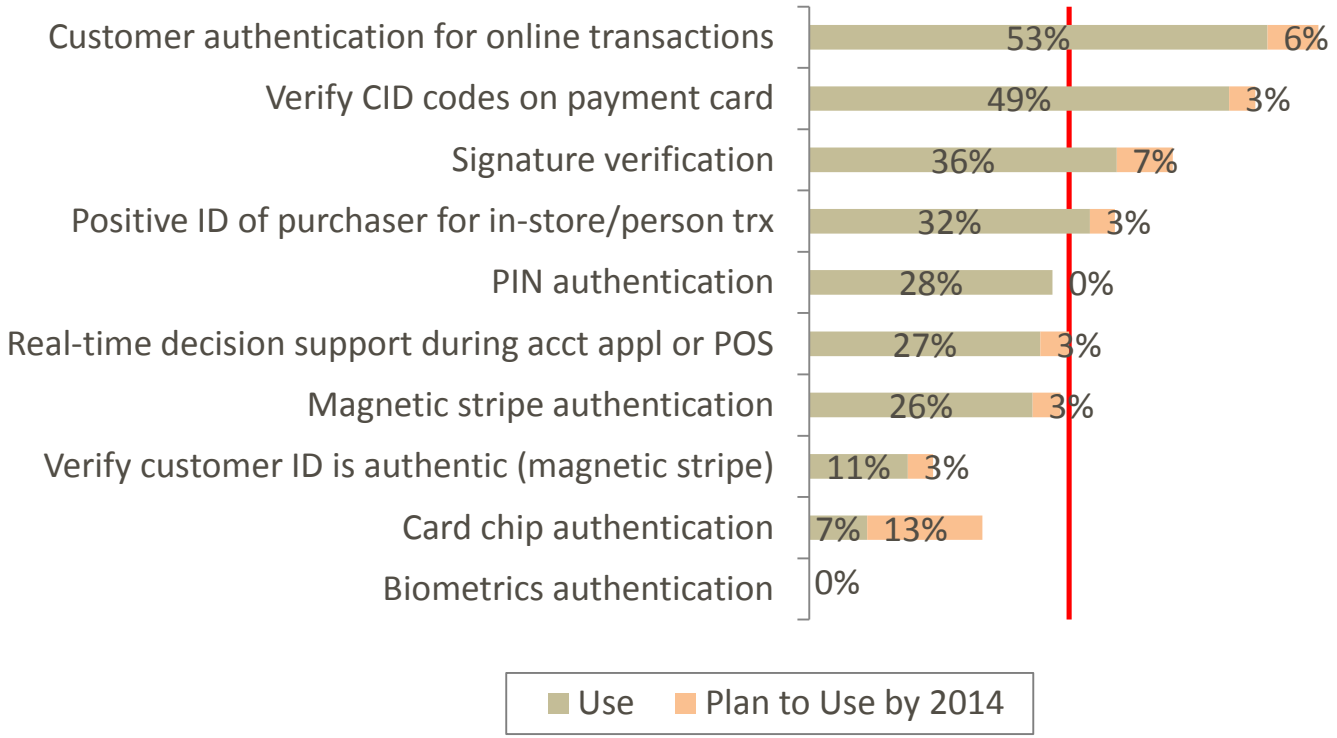
Customer Authentication Methods Effectiveness Rated by FIs Using

- Biometrics, PIN, positive ID & online authentication rated very effective by ~2/3 of FIs that use them



Customer Authentication Methods Use by Non-FIs

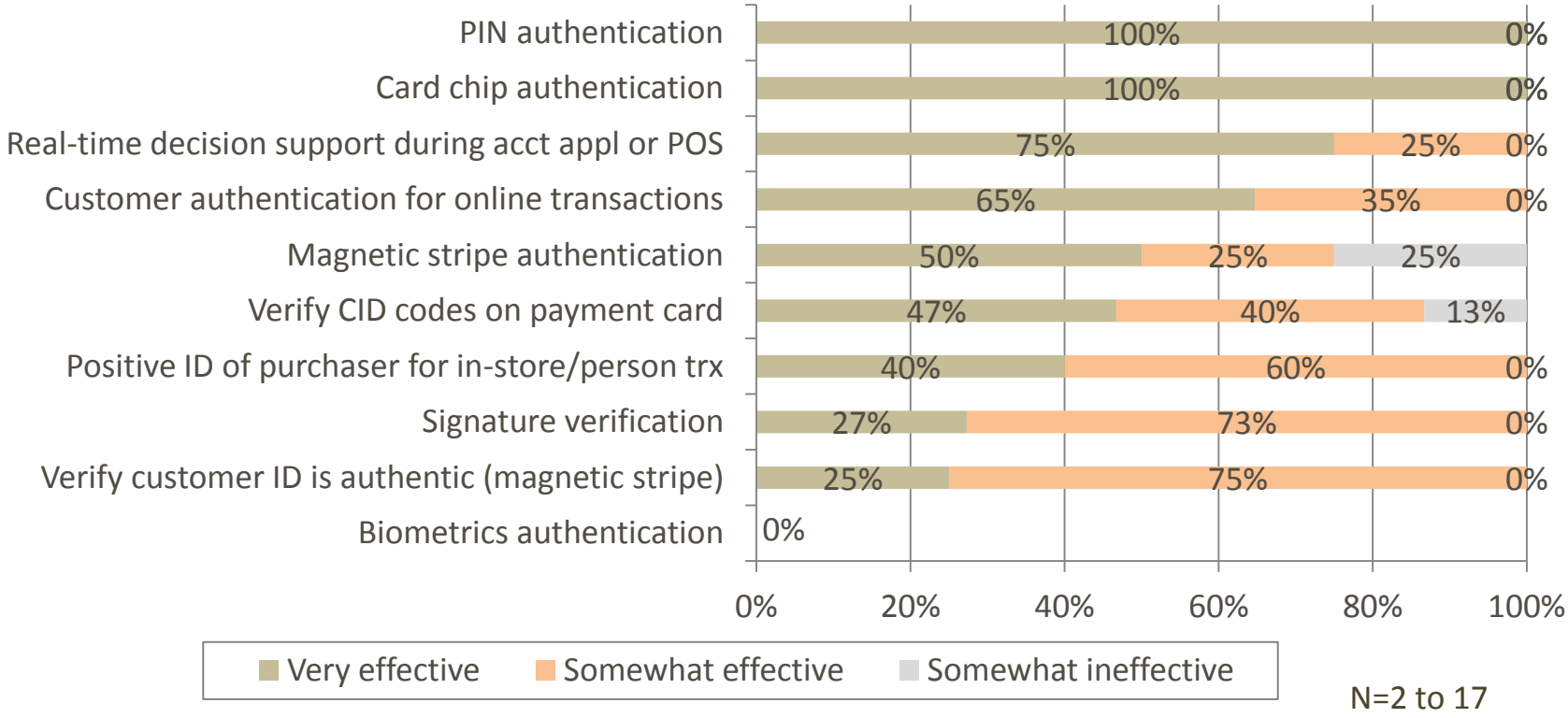
- Over 30% of non-FIs use 4 of 10 methods; 13% plan to adopt card chip authentication by 2014



N=30 to 35

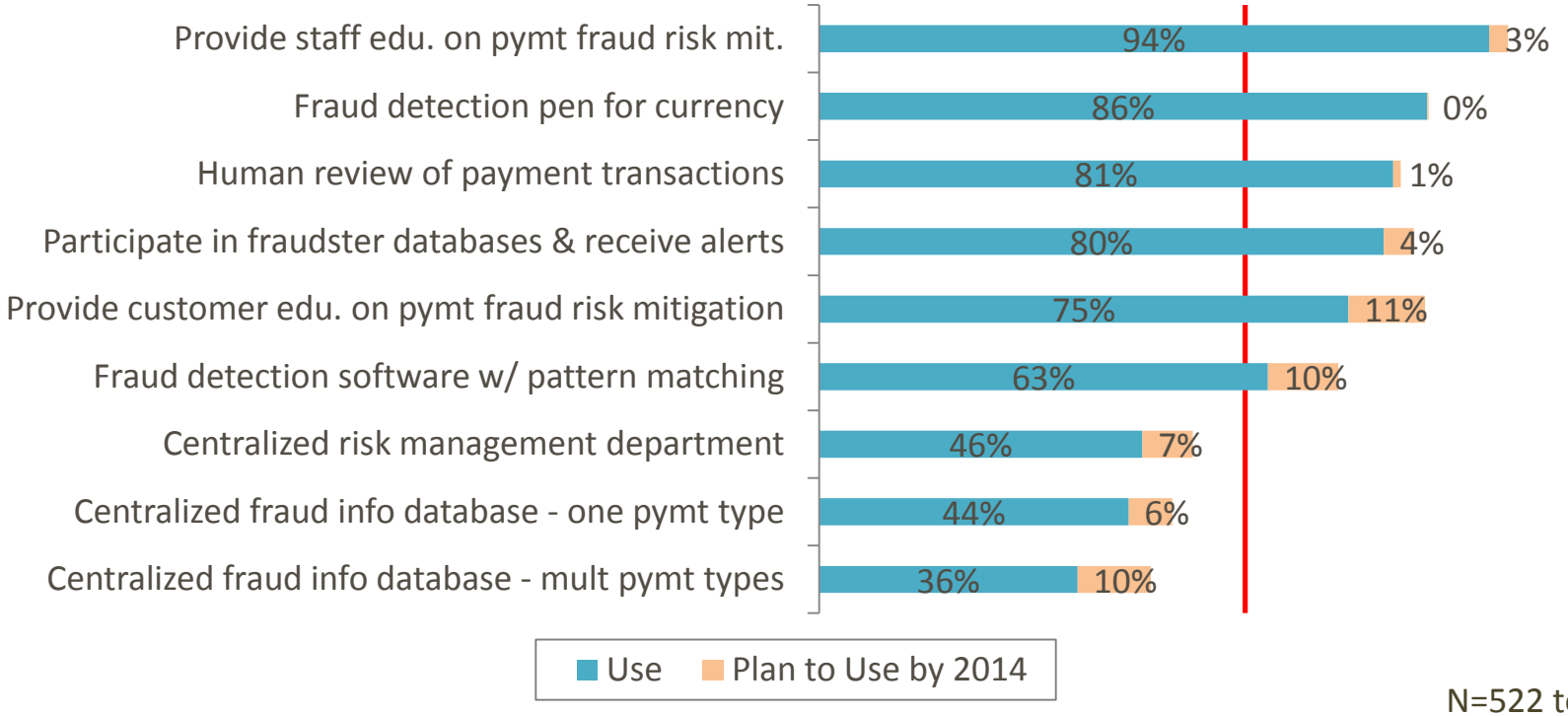
Customer Authentication Methods Effectiveness Rated by Non-FIs Using

- All non-FIs that use PIN or card-chip authentication rate them as very effective



Transaction Screening & Risk Mgmt Methods Use by FIs

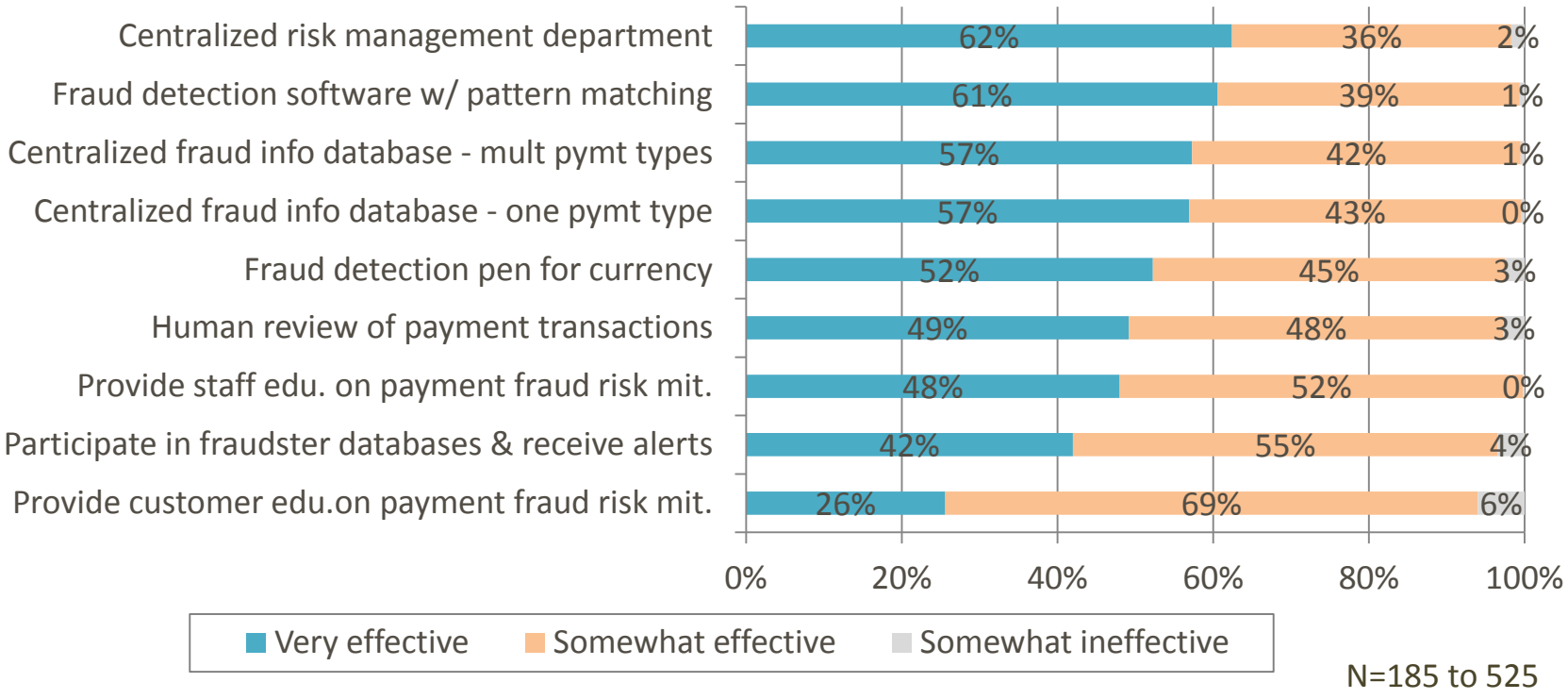
- Over 60% of FIs use 6 of 9 methods; 10% of FIs plan to adopt 3 of the methods by 2014



N=522 to 564

Trx Screening & Risk Mgmt Methods Effectiveness Rated by FIs Using

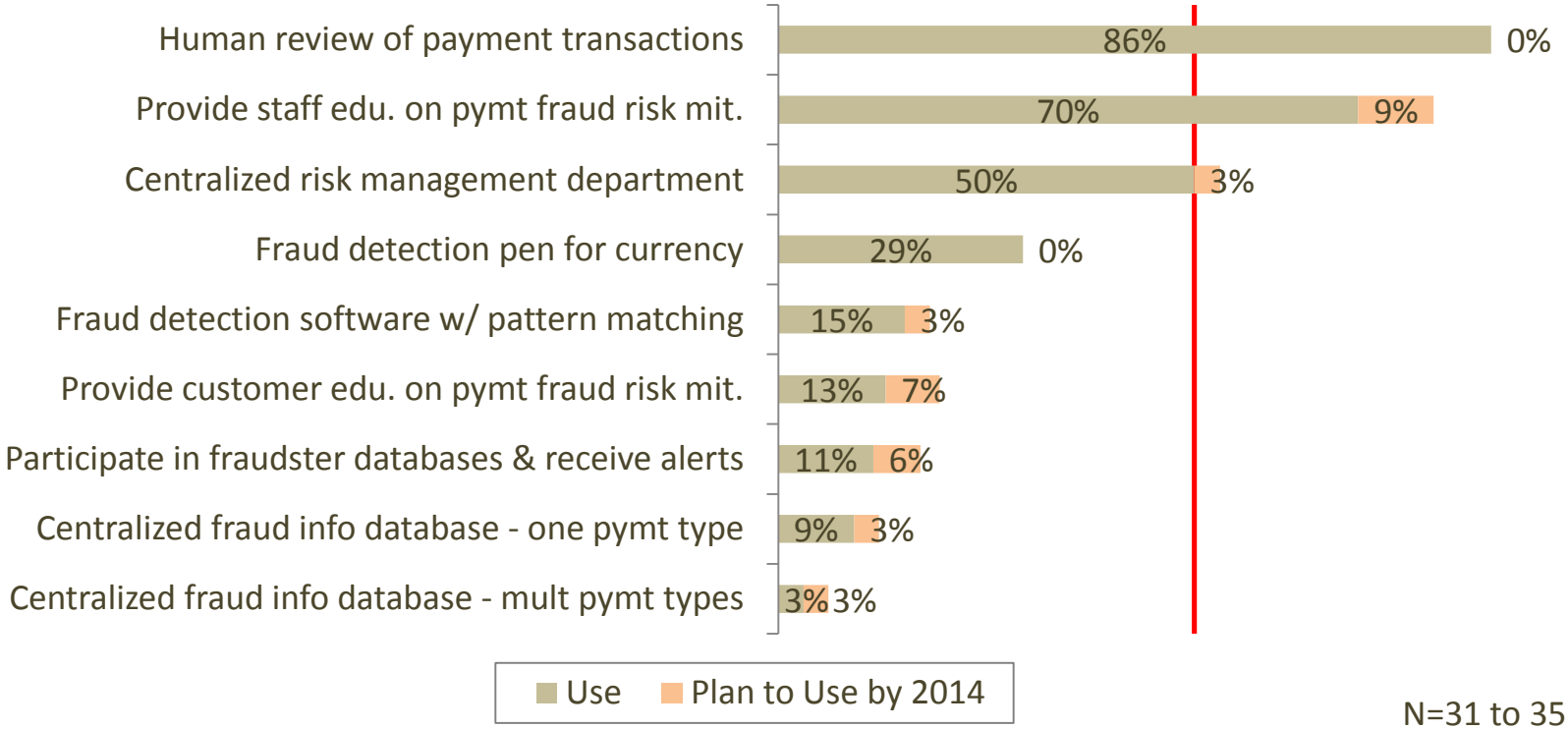
- Centralized risk mgmt & fraud detection software rated very effective by ~60% of FIs that use them



N=185 to 525

Transaction Screening & Risk Mgmt Methods Use by Non-FIs

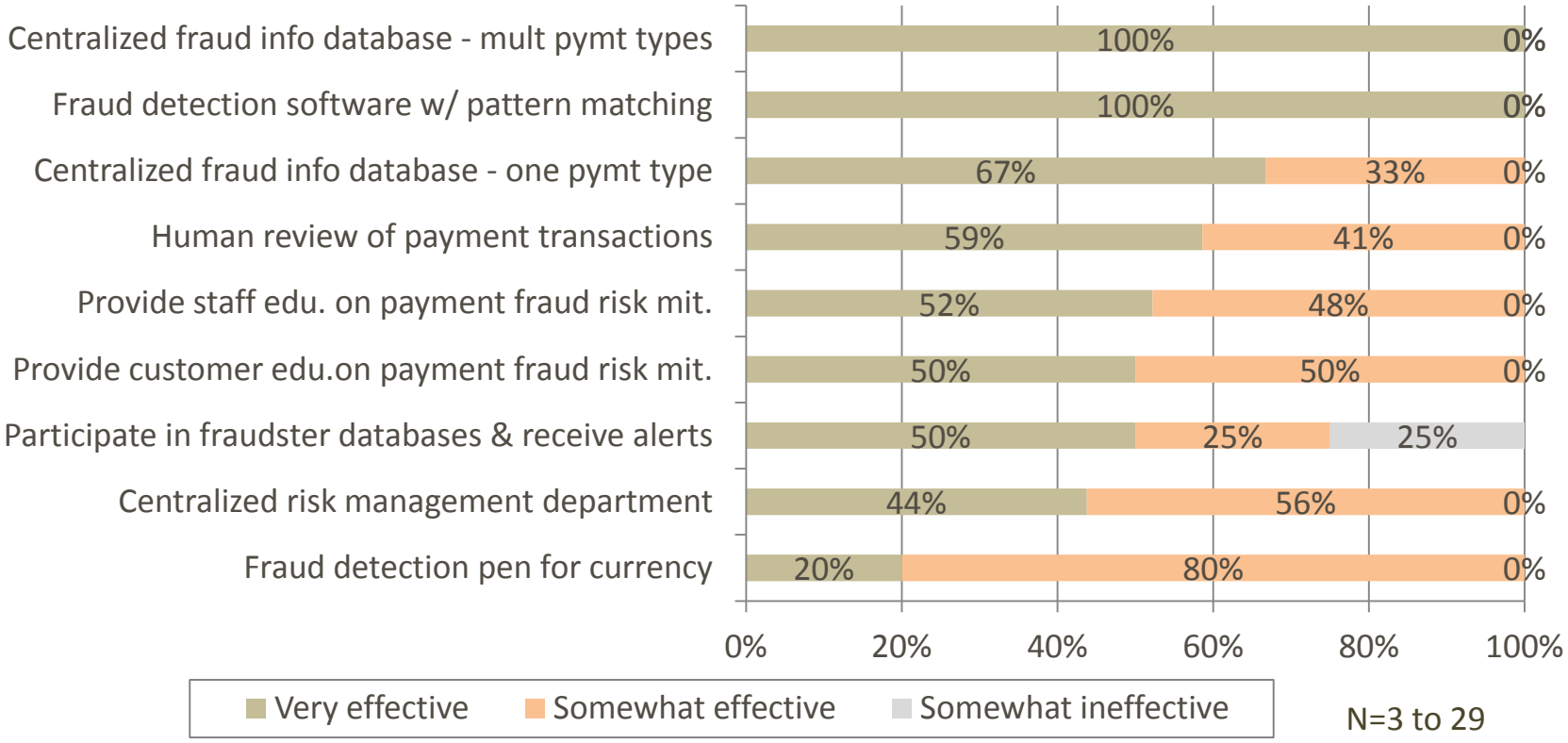
- Over 50% of non-FIs use 3 of 9 methods; 6% -9% plan to provide customer & staff education by 2014



N=31 to 35

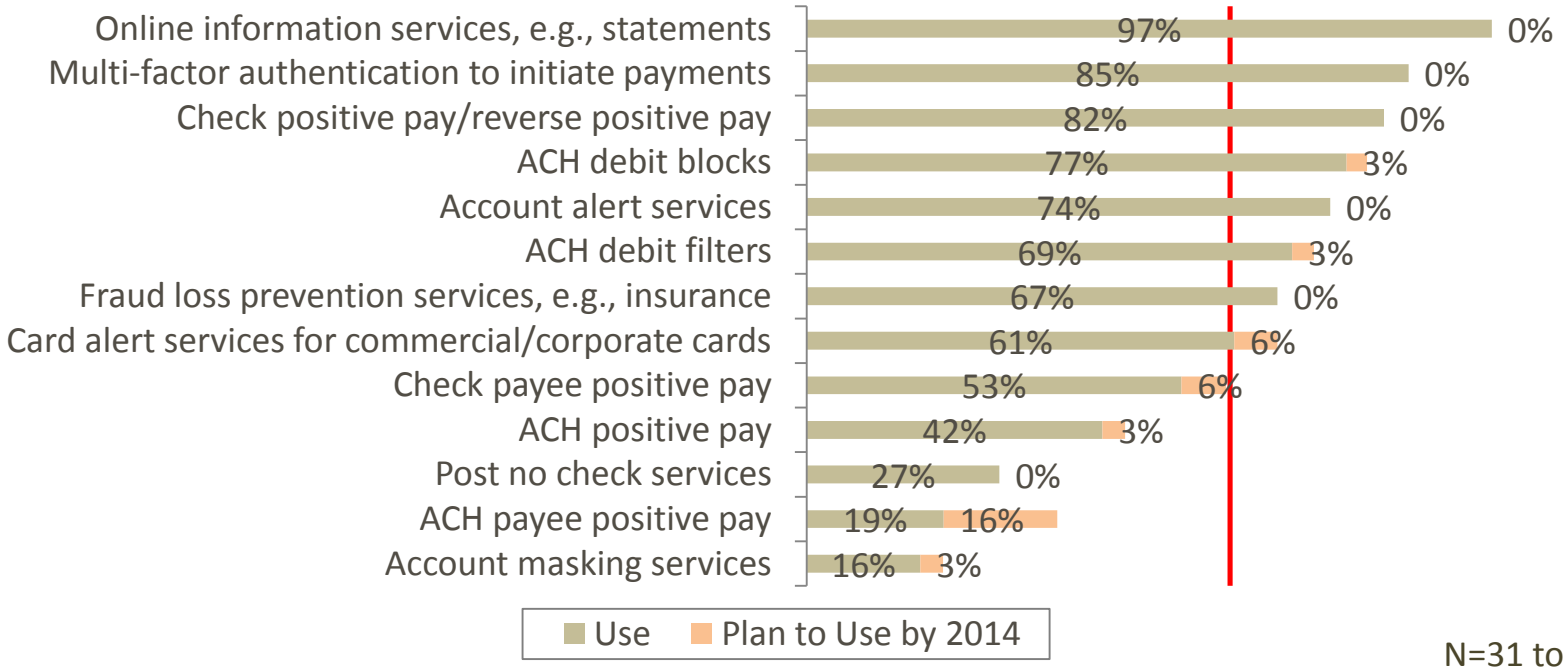
Trx Screening & Risk Mgmt Methods Effectiveness Rated by Non-FIs Using

- 7 of 9 methods rated as very effective by ½ of the non-FIs that use them



FI Risk Services Use by Non-FIs

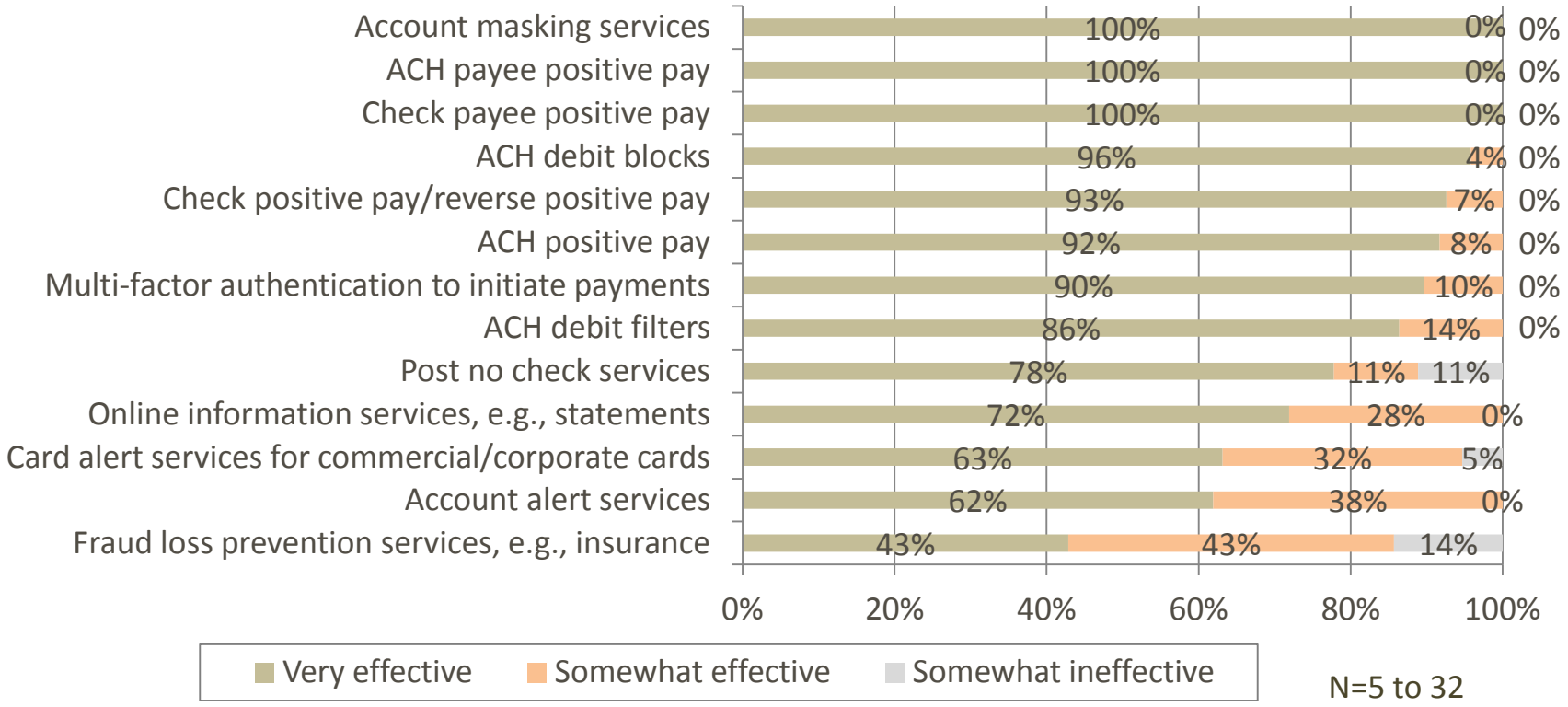
- 60% of non-FI respondents use 8 of 13 risk services offered by FIs; ACH risk services are highest among services companies plan to adopt by 2014



N=31 to 34

FI Risk Services Effectiveness Rated by Non-FIs Using

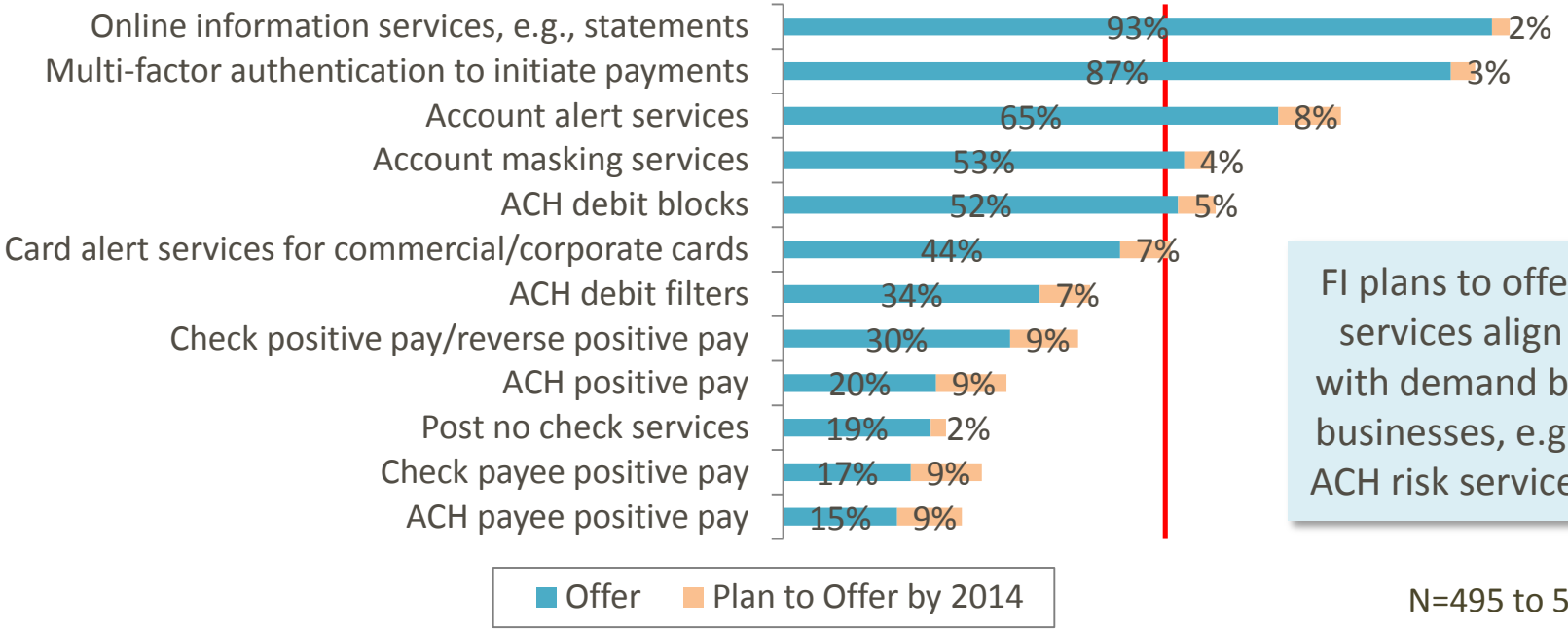
- All positive pay, payee positive pay & acct masking services rated very effective by 90%+ of companies using them



N=5 to 32

FI Risk Services Offered by FIs & FS Providers

- Over 85% of the FIs offer the two services used by most businesses surveyed; 50% of the FIs offer 5 of the 13 services



FI plans to offer services align with demand by businesses, e.g., ACH risk services

N=495 to 531

Barriers to Reducing Payments Fraud

- Most identified some aspect of "cost" as the main barrier

Barriers	FIs	Non-FIs	All
Lack of staff resources	56%	70%	57%
Consumer data privacy issues/concerns	39%	33%	39%
Cost of implementing in-house fraud detection tool/service	39%	7%	37%
Cost of implementing commercially available fraud detection tool/service	38%	19%	37%
Lack of compelling business case (cost vs. benefit) to adopt new or change existing methods	37%	48%	37%
Corporate reluctance to share information due to competitive issues	15%	22%	15%
Unable to combine payment information for review due to operating w/ multiple business areas, states or banks	15%	19%	15%

Opportunities to Reduce Payments Fraud

New Methods Needed

New or Improved Methods Most Needed	FIs (N=537)	Non-FIs (N=32)	All (569)
Controls over Internet payments	66%	41%	65%
Replacement of card/magnetic stripe technology	62%	31%	60%
Consumer education on fraud prevention	62%	47%	61%
More aggressive law enforcement	51%	41%	50%
Information sharing on emerging fraud tactics being conducted by criminal rings	45%	63%	46%
Controls over mobile payments	45%	44%	44%
Industry specific education on best prevention practices for fraud	34%	28%	34%
Industry alert services	29%	31%	29%
Image survivable check security features for biz checks	16%	19%	16%

Authentication Adoption Methods Preferred

- Majority favor a "Chip & PIN" requirement & multi-factor authentication
- Adoption of EMV technology (Chip) is just getting underway in the U.S.

Authentication Method Preferences	FIs	Non-FIs	All
Chip & PIN requirement	60%	39%	59%
Multi-factor authentication	57%	46%	56%
Chip for dynamic authentication	43%	31%	42%
PIN requirement	39%	42%	39%
Out-of-band/channel authentication to authorize payment	38%	15%	37%
Token	38%	62%	39%
Mobile device to authenticate person	28%	27%	27%
Biometrics	24%	8%	23%

Legal or Regulatory Change

- Top three changes identified by respondents that would help reduce payments fraud:
  - Place responsibility to mitigate fraud & shift liability for fraudulent card payments to the entity that initially accepts the card payments
  - Increase penalties to perpetrators for attempted & successful fraud
  - Place more responsibility on consumers & customers to reconcile & protect their payments data

Conclusions

Conclusions

- Considered as a whole, the 2012 payments fraud survey results suggest the following:
  - Payments related fraud remains a significant concern of FIs & others
  - For FIs, signature debit card is the payment instrument most vulnerable to attempted fraud & FI losses
  - Over half of FIs reported that signature debit card losses from fraud exceeded their investment in mitigation to prevent such fraud; this seems to suggest a cost-effective opportunity to increase these fraud prevention investments

Conclusions (continued)

- For non-FIs, check continues to be the payment instrument most vulnerable to attempted fraud & losses
- Corporate account take-over can result in significant losses, but it was not identified as a commonly occurring fraud scheme that affected a high percentage of respondents to this survey
- Most FIs & others report total fraud losses that represent less than 0.3% of their annual revenues
- Strategies to detect & prevent fraud effectively require the use of multiple mitigation methods & tools – i.e., a "layered" strategy

Conclusions (continued)

- Two-thirds of respondents that reduced their fraud losses cited enhanced fraud monitoring systems & employee education & training
- Offering risk mitigation services to customers is a growing area of opportunity for FIs
- Cost is the main barrier that prevents FIs & others from investing more in mitigating payments fraud
- FIs & others are focused now on the need for alternatives to magnetic stripe authentication technology to secure card payments

Regional Survey Results

Regional Survey Results

Federal Reserve Bank Contacts
Marianne Crowe Federal Reserve Bank of Boston Payment Strategies http://www.bostonfed.org/bankinfo/payment-strategies/index.htm
Matt Davies Federal Reserve Bank of Dallas Financial Institution Relationship Management http://www.dallasfed.org/banking/firm/fi.cfm
Claudia Swendseid or Amanda Dorphy Federal Reserve Bank of Minneapolis Payments Information & Outreach Office http://www.minneapolisfed.org/about/whatwedo/paymentsinformation.cfm
Pamela Rabaino Federal Reserve Bank of Richmond Payments Studies Group http://www.richmondfed.org/