



# Informing the Ninth

## Conversations with the Fed

### Payments Fraud & Prevention

### Results of the Federal Reserve Bank of Minneapolis 2010 Payments Fraud Survey

*April 2011*

*Payments Information & Outreach Office*

# Agenda

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- Introduction
- 2010 Payments Fraud Survey Results
  - Payment types most vulnerable to fraud attacks & losses
  - Fraud schemes most prevalent today
  - Fraud mitigation methods use & effectiveness
  - Barriers & opportunities to reducing payments fraud
- Conclusions



# Introduction

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- Federal Reserve roles relevant to payments fraud:
  - FR Board promulgates regulations that govern payments
  - FR Board & FR Banks regulate & supervise aspects of U.S. Banking system & financial markets
  - FR Banks provide payment & settlement services to financial institutions & U. S. government
  - FR Board & FR Banks conduct research & education



# Payments Fraud Defined

## Payments Fraud Definition:

*Fraud that occurs when someone gains financial or material advantage by using a payment instrument or information from a payment instrument to complete a transaction that is not authorized by the legitimate account holder.*



# Payments Fraud Data

## Accurate Data on Payment Fraud is Limited

- No definitive data on total number of payment fraud attacks or amount of losses in the U.S.
- Practices of FIs, companies & industries to monitor fraud are inconsistent
- Fraud data collected is often not shared publically; data that is shared is not comparable
- Fraud “facts” reported are subject to hype

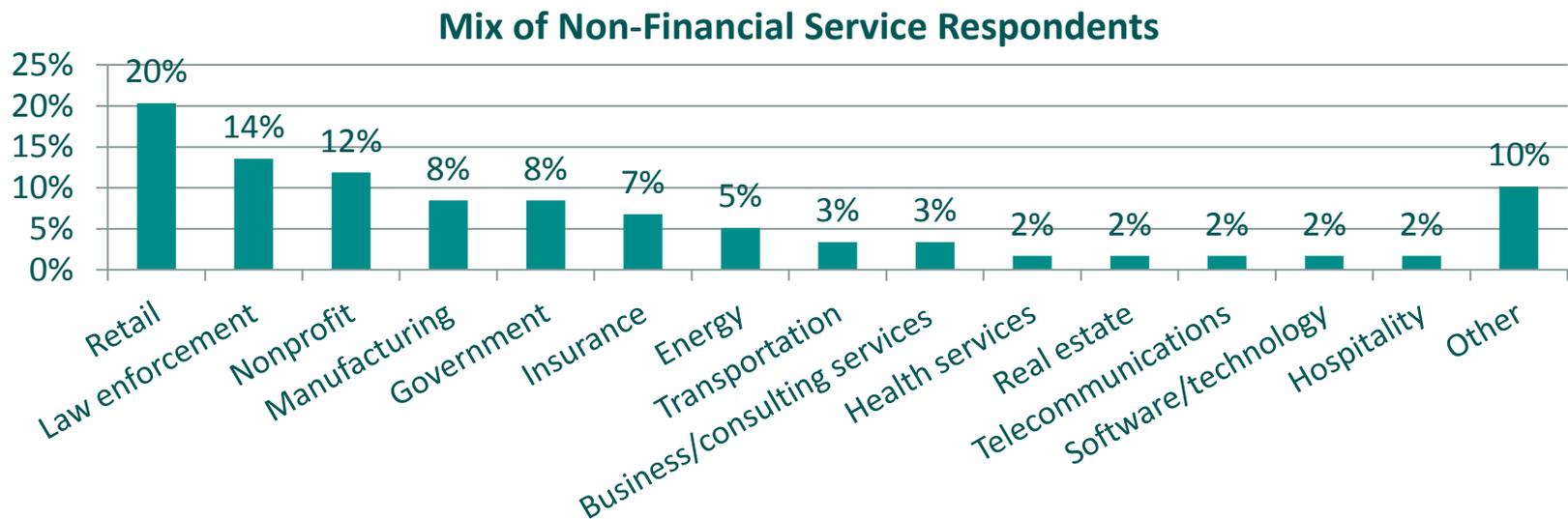
## Why It Matters

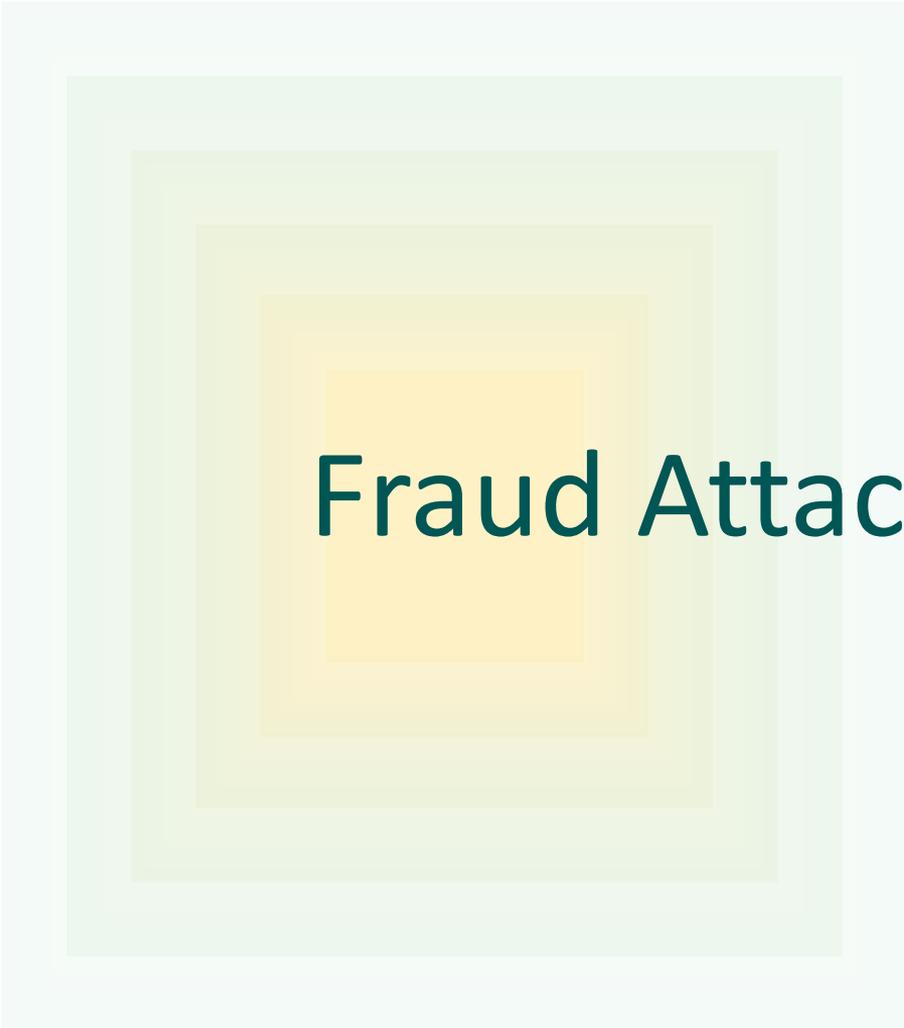
- Unable to make accurate business case to base investment in fraud mitigation
- Unable to make best choices among mitigation strategies
- Unable to price fraud risk accurately, skewing incentives
- Unable to aggregate societal impacts & allocate public resources appropriately



# 2010 Payments Fraud Survey

- Conducted by FRB Minneapolis Payments Information & Outreach Office
- Focus on payments-related fraud experience of area organizations
- 206 survey respondents are members from several regional organizations:
  - 57% under \$100 million in annual revenue
  - 71% financial service organizations; mostly financial institutions (FI)
  - 29% representing 15+ industries





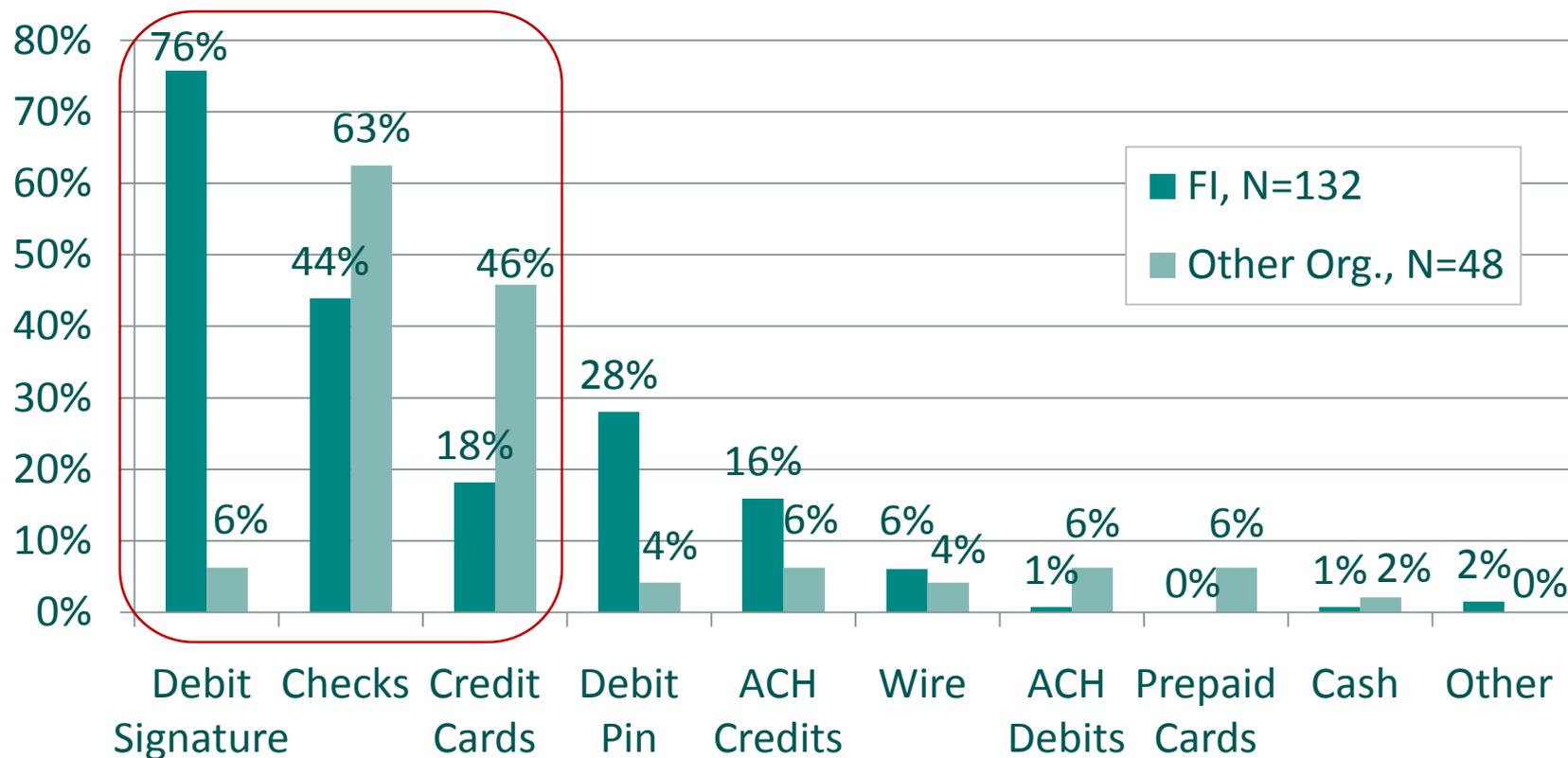
# Fraud Attacks & Losses



# Payments Most Vulnerable to Attacks

## Payment Types with the Highest Number of Fraud Attempts

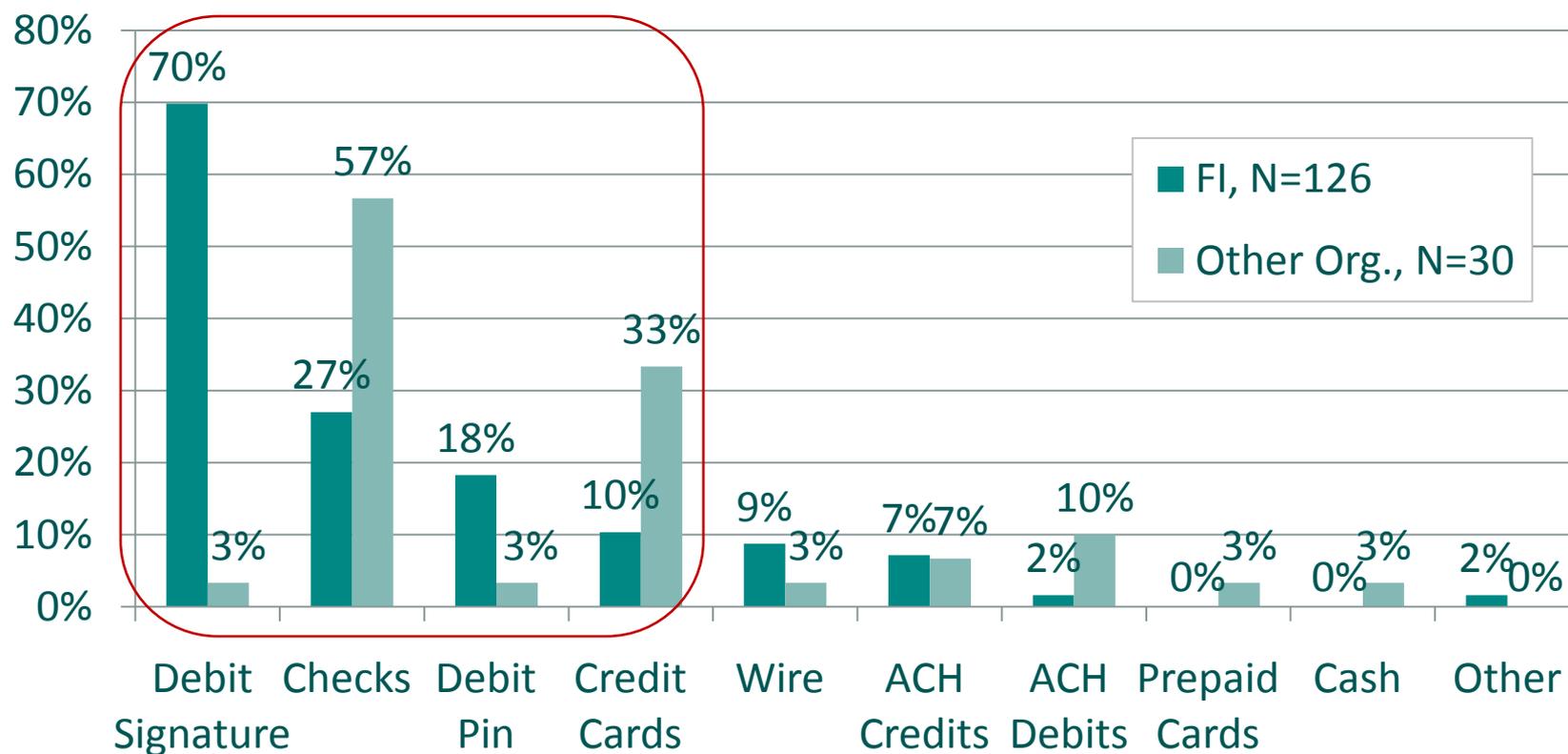
% of Respondents



# Payments Most Vulnerable to Losses

## Payment Types with the Highest Dollar Losses Due to Fraud

% of Respondents



# Payments Fraud Losses & Trends

- 17% of all respondents reported no fraud losses
  - 6% of FIs & 45% of Other Organizations
- 80% of all respondents that incurred payment fraud losses estimated a financial-loss rate as < 0.3% of revenues
- Majority said losses stayed the same or declined

Loss Range as a Percent of Annual Revenue		
Range	% of FIs N=120	% of Other Org. N=28
> 0% to .3%	82%	75%
.3% - .5%	11%	11%
.6% - 1 %	3%	4%
1% - 5%	3%	7%
Over 5%	2%	4%

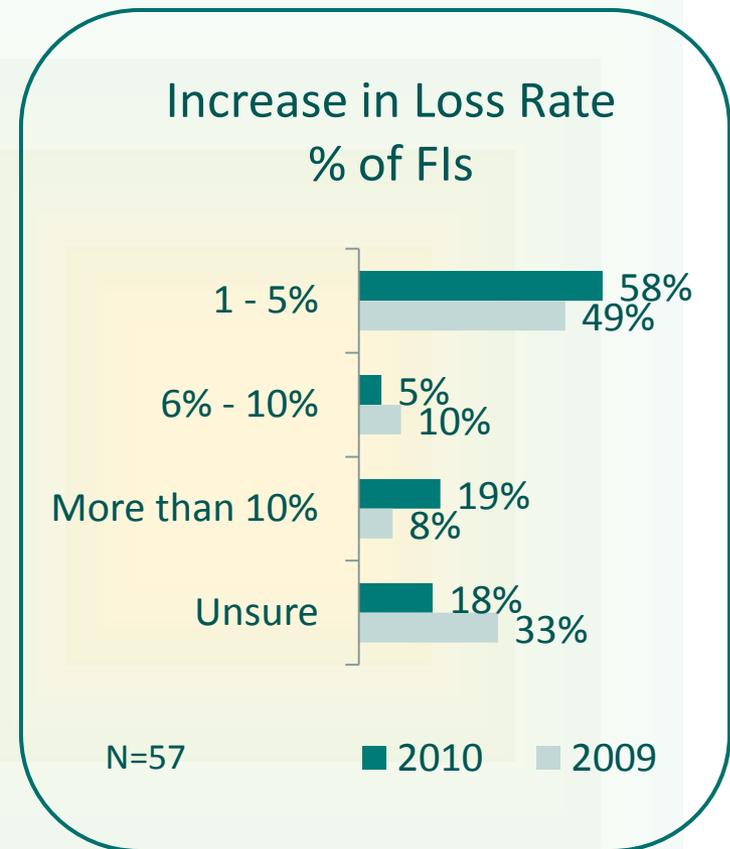
Changes in Payments Fraud Losses in Last 12 Months				
	% of FIs		% of Other Org.	
	2010 N=131	2009 N=137	2010 N=53	2009 N=38
Increased	45%	50%	11%	27%
Stayed the same	42%	41%	79%	50%
Decreased	13%	9%	9%	23%



# Increased Losses & Key Factors

## Financial Institutions

- Over half of FIs with increased fraud loss rates cited increases of 1% to 5%; nearly 20% estimated an increase of over 10%
- Despite increases, total losses estimated as a % of revenue remain relatively small for most FIs
- Top 3 factors reported by FIs:
  - Stolen or counterfeit cards (70%)
  - Use of internet enabling fraud (56%)
  - Data breach at an external organization (46%)



# Increased Losses & Key Factors

## Other Organizations

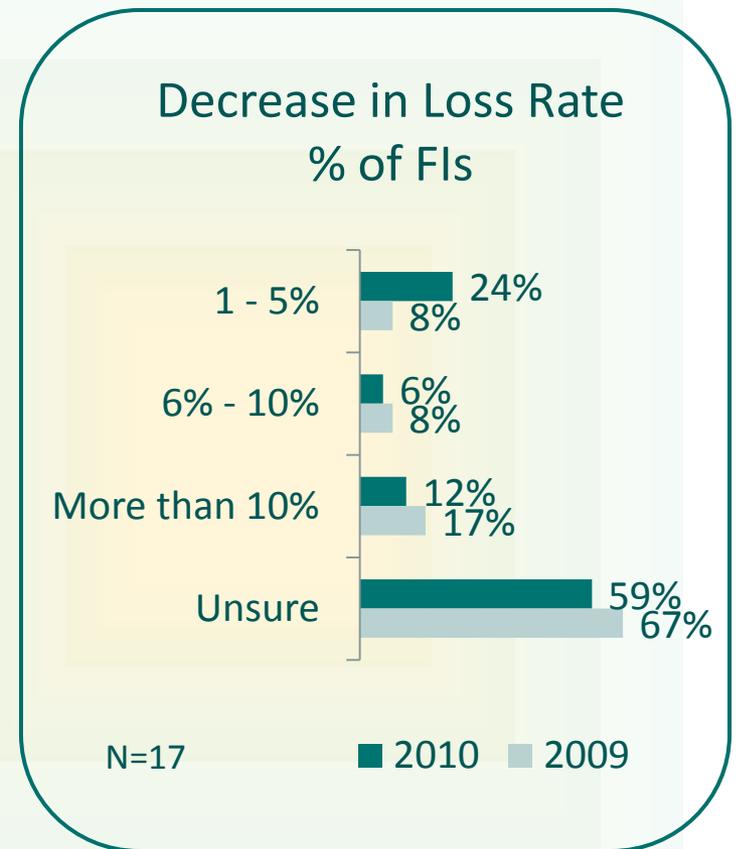
- Only 11% of Other Organizations reported increases in fraud loss rates
- 33% reported an increased rate of more than 10%
- Top 4 factors reported by Other Organizations:
  - Stolen or counterfeit cards (50%)
  - Criminal activity increased due to low likelihood of prosecution & light penalties (50%)
  - State of economy (33%)
  - Data breach at an external organization (33%)



# Decreased Losses & Key Factors

## Financial Institutions

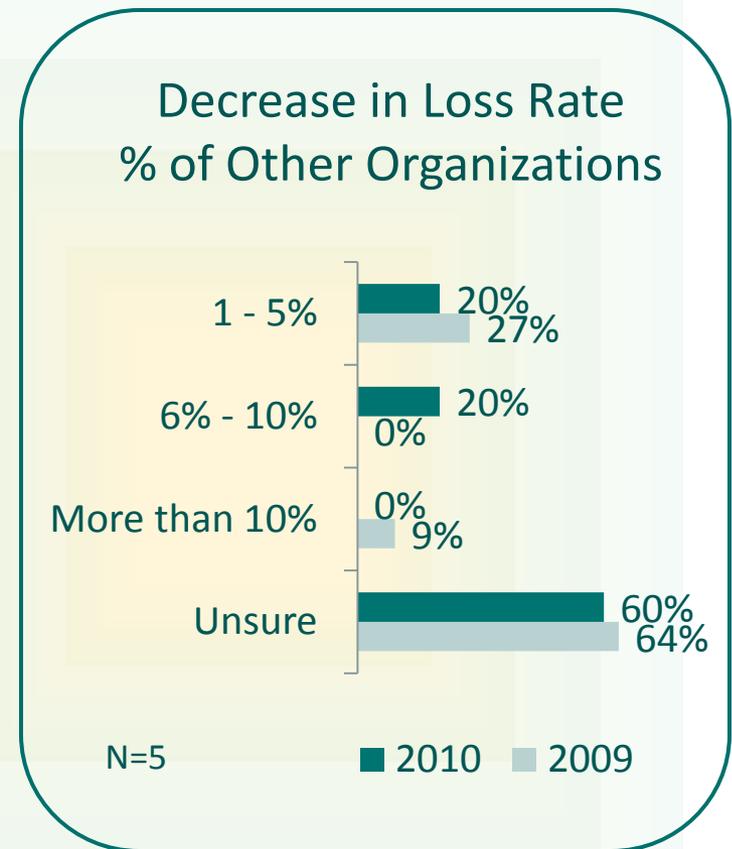
- 13% of FIs reported decreases in fraud loss rates; most were FIs w/ revenue under \$100 million
- Over half of FIs were unsure about decrease size; 24% estimated reduction of 1% to 5%
- Top 3 factors reported by FIs:
  - Staff training & education (82%)
  - Enhanced fraud monitoring system (65%)
  - Enhanced internal controls (59%)



# Decreased Losses & Key Factors

## Other Organizations

- 9% of Other Organizations reported decreases in fraud loss rates
- 60% were unsure about decrease size; 20% estimated reduction of 1% to 5% & 6% to 10%
- Top 2 factors reported by Other Organizations:
  - Staff training & education (80%)
  - Enhanced internal controls (80%)
- ACH controls remained important in 2010, but were not a top factor, i.e., ACH filters, ACH positive pay & payee positive pay



# Fraudsters

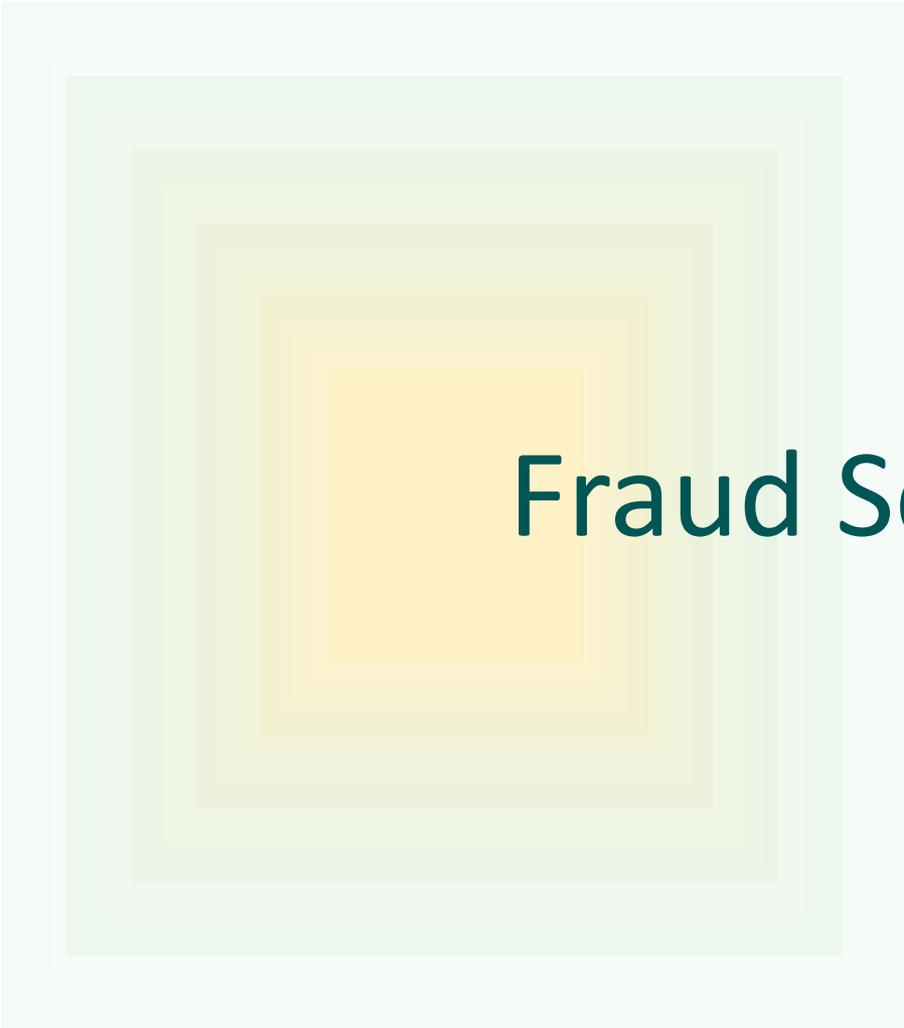
- Respondents reported external parties as most often responsible for successful fraud attempts; 64% attributed all successful fraud to external parties

Portion of Successful Payments Fraud by Perpetrators Involved					
Perpetrators	1-25%	26 - 50%	51-75%	76-99%	100%
Internal Only	4%	1%	1%	1%	2%
Internal w/External	4%	1%	1%	1%	0%
External Only	4%	4%	3%	7%	64%
Could Not Determine	8%	3%	1%	2%	13%

21% attributed a portion of successful fraud to more than one perpetrator category

79% attributed all successful fraud to a single perpetrator category





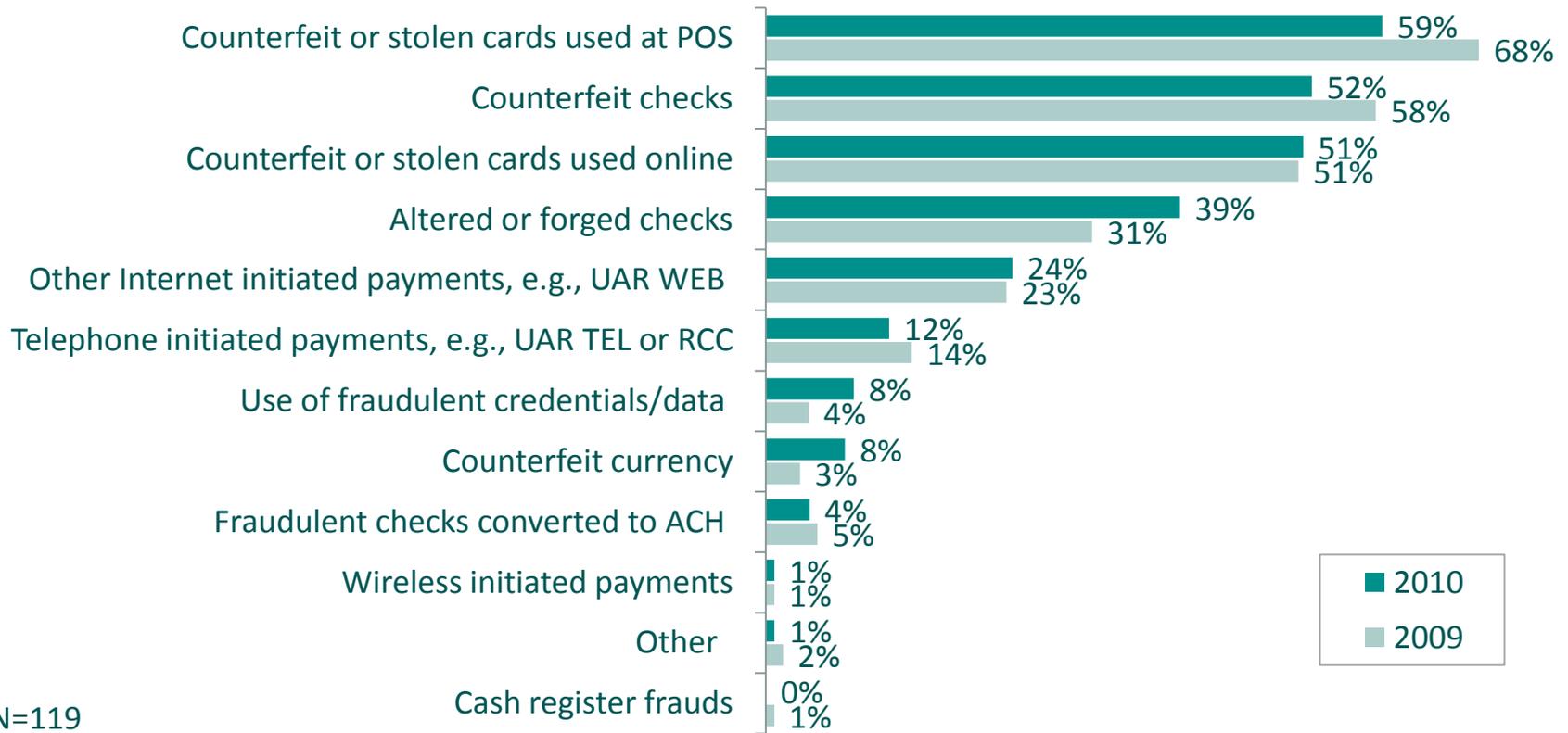
# Fraud Schemes



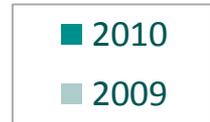
# Fraud Schemes

## Top Schemes Involving Payments Accepted

% of FIs



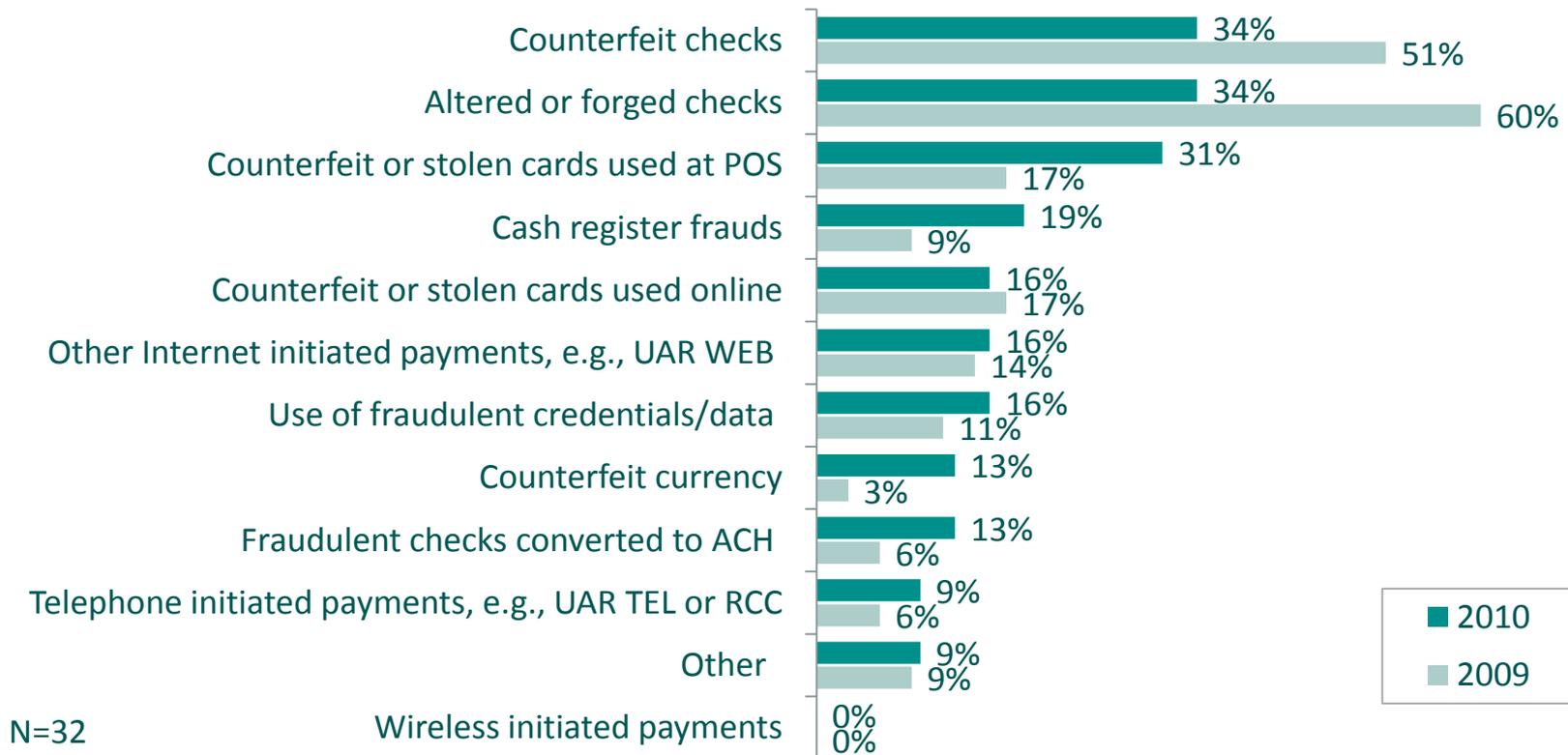
N=119



# Fraud Schemes

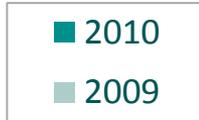
## Top Schemes Involving Payments Accepted

% of Other Organizations



N=32

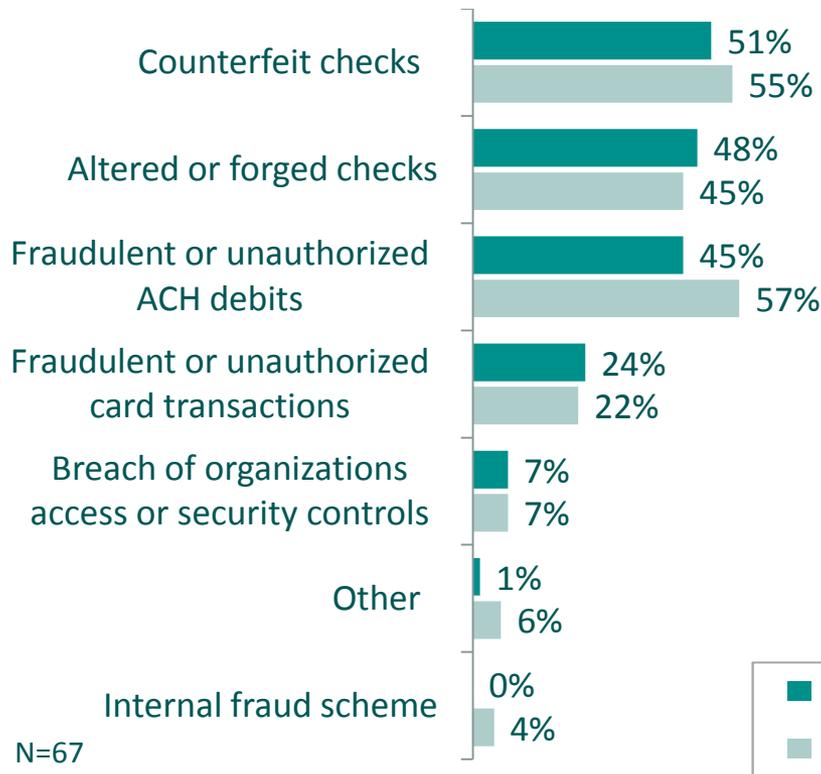
Wireless initiated payments



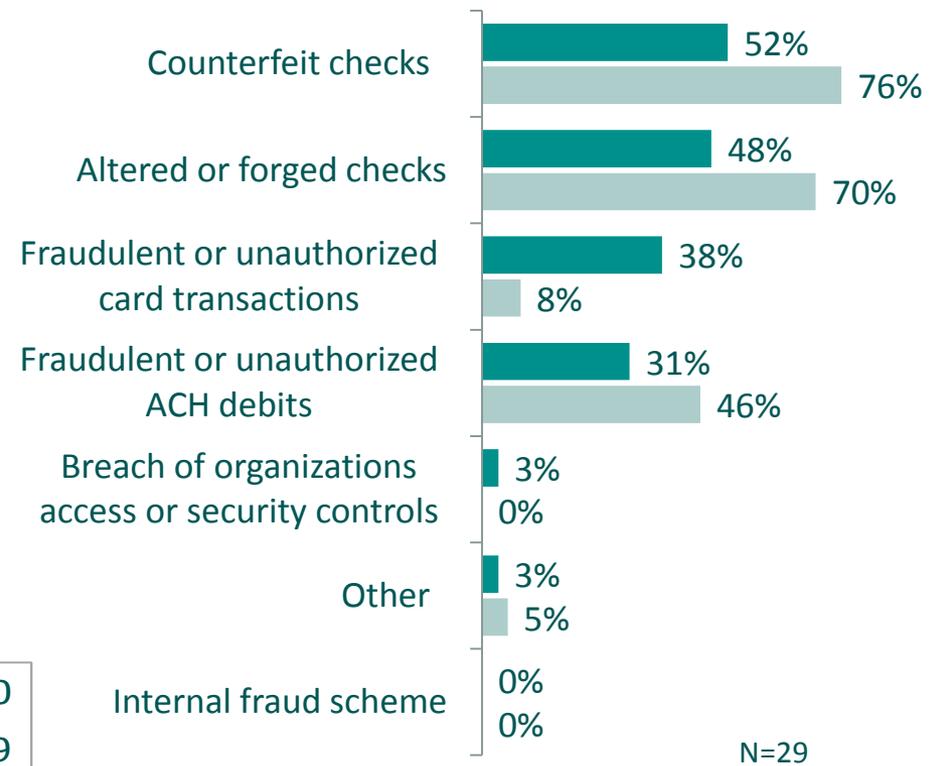
# Fraud Schemes

## Top Schemes Involving Own Accounts

% of FIs



% of Other Organizations



# Source of Information Used

Information Sources Used in Fraud Schemes	FI (N=107)	Other Org. (N=30)	All (N=137)
“Sensitive” information obtained from lost or stolen card, check, or other physical document or device while in consumer’s control	54%	30%	49%
Phishing, spoofing, pharming or other “cyber attacks” used to obtain “sensitive” customer information	49%	17%	42%
Skimming of card magnetic stripe information	41%	3%	33%
Organization’s information obtained from a legitimate check issued by your organization	22%	53%	29%
Information about customer obtained by family or friend	19%	20%	19%
Data breaches due to lost or stolen physical documentation or electronic PC/device while in control of the organization	8%	0%	7%
Employee with legitimate access to organization or customer information	1%	23%	6%
Data breaches due to cyber attacks against organization’s information e.g., computer hacking	6%	3%	5%

# False or Fraudulent Consumer Claims

- FIs estimated fraud involving consumer's claim that an ACH made to their bank account was unauthorized
- Majority estimated some number of claims as fraudulent

Estimated Percent of False or Fraudulent Consumer Claims Made by WSUD*								
	0%	1-5%	6-10%	11-15%	15-20%	21-30%	31-50%	Over 50%
% of Financial Institutions in 2010 (N=104)	25%	46%	6%	4%	3%	3%	5%	9%
% of Financial Institutions in 2009 (N=109)	22%	51%	5%	3%	5%	3%	5%	5%

\*WSUD = Written Statement of Unauthorized Debit



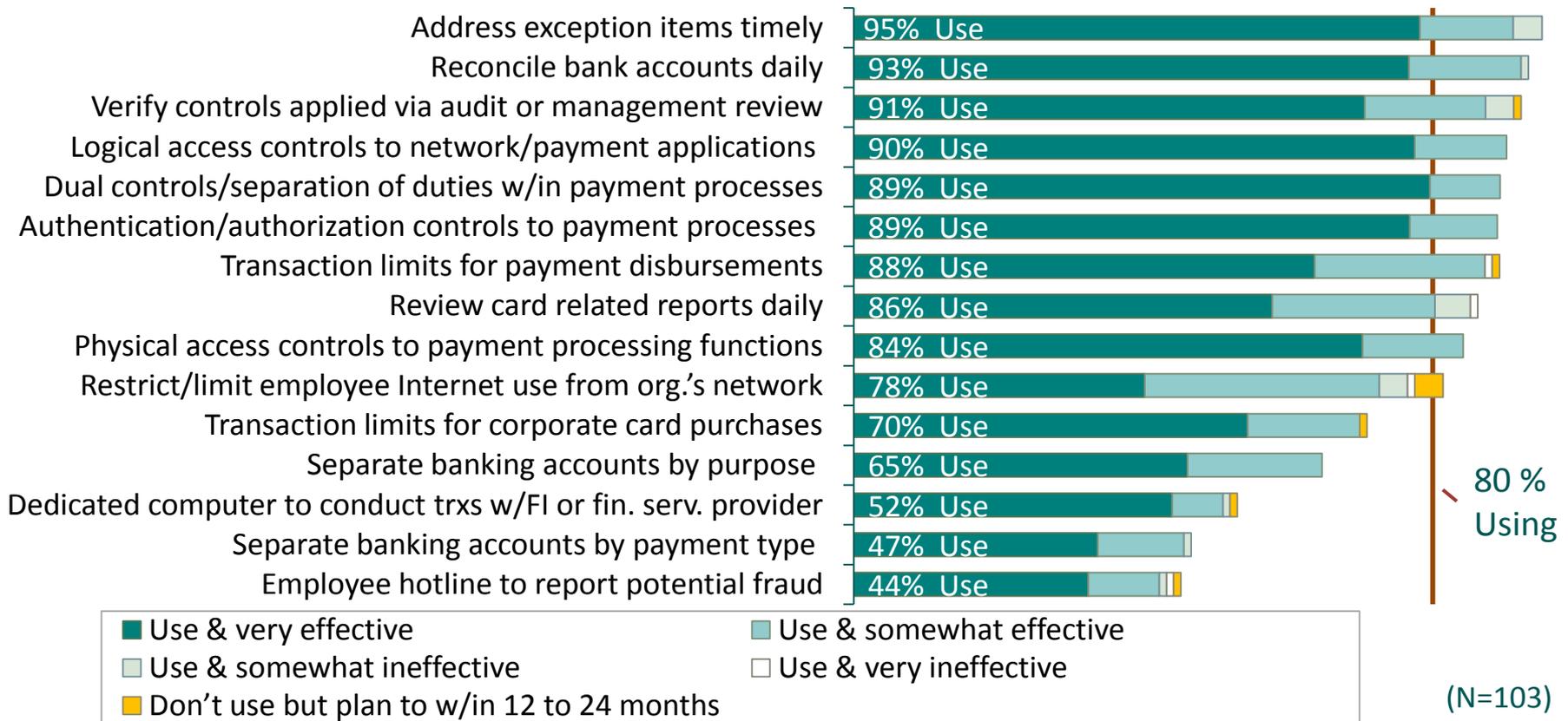
# Fraud Mitigation Methods



# Fraud Mitigation Methods

## Internal Controls & Procedures Use & Effectiveness

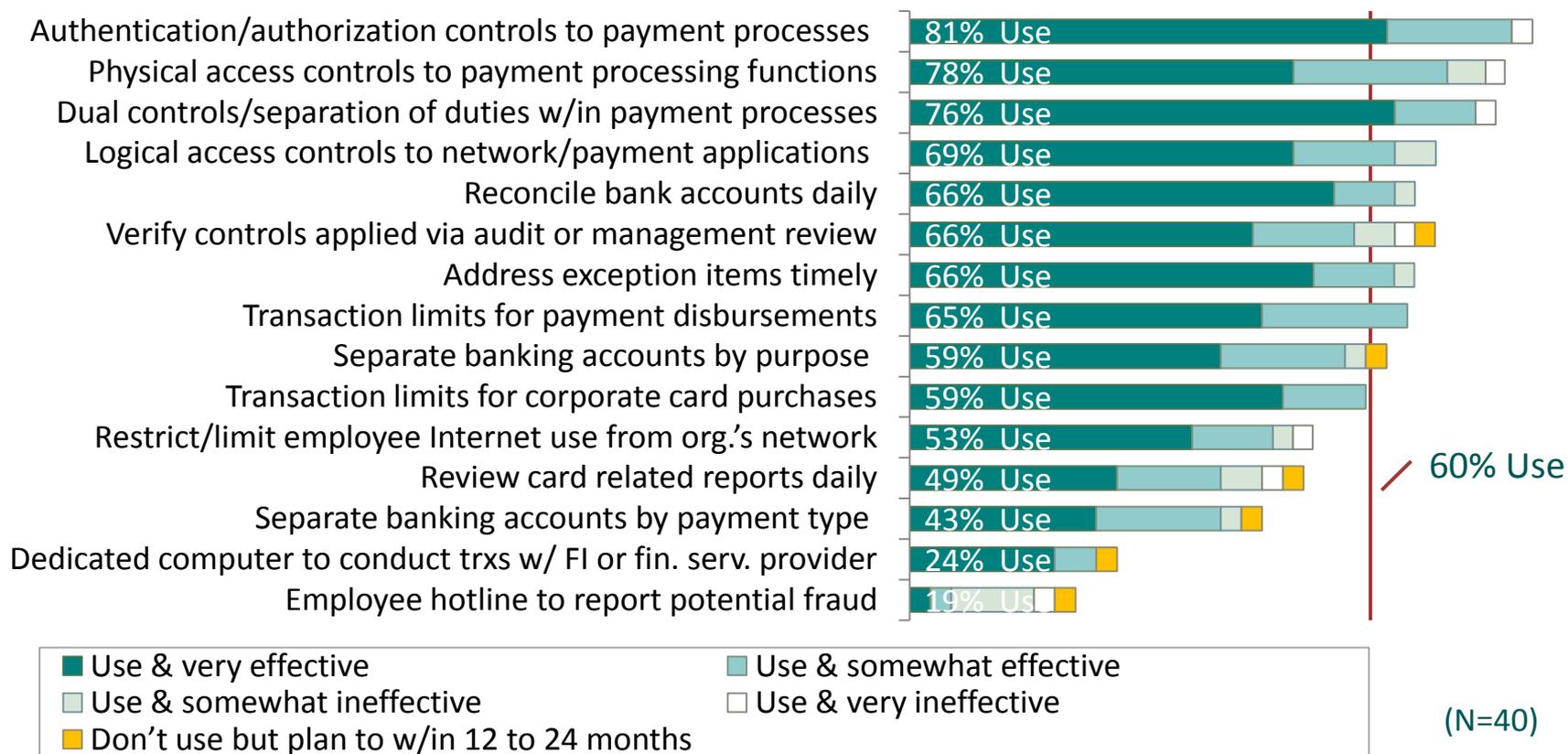
% of FIs



# Fraud Mitigation Methods

## Internal Controls & Procedures Use & Effectiveness

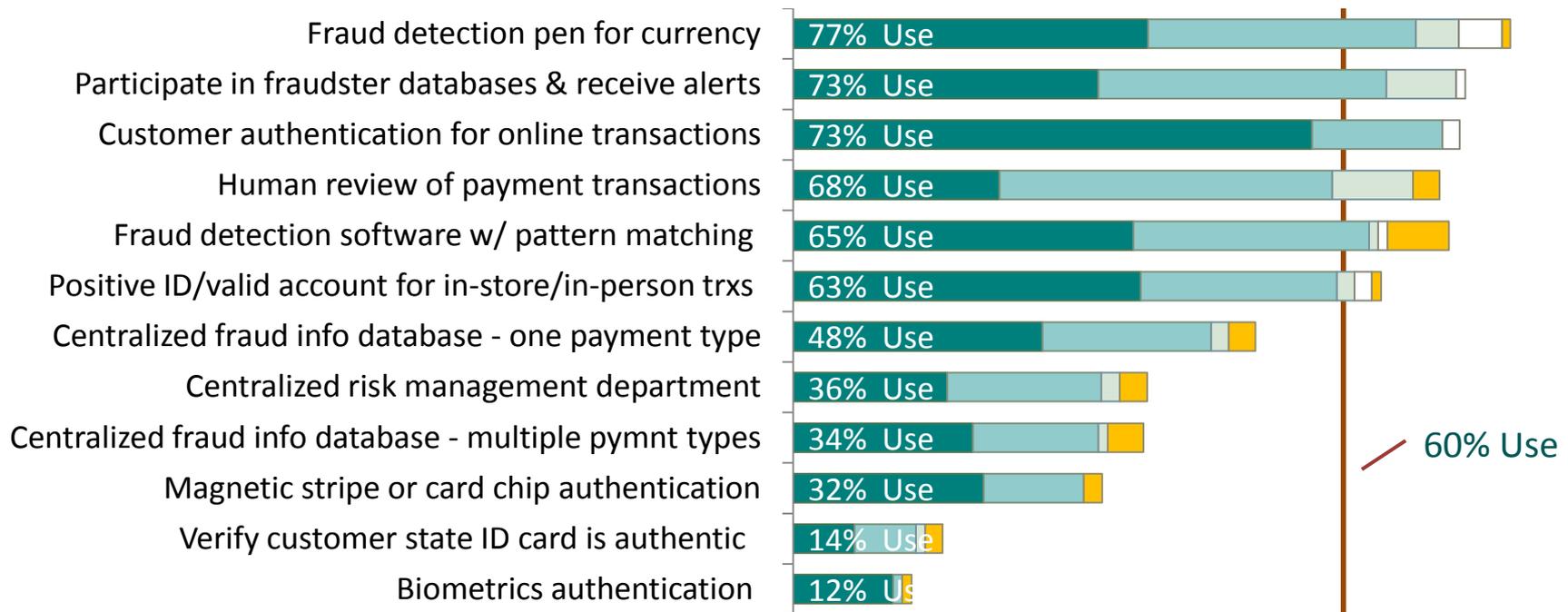
### % of Other Organizations



# Fraud Mitigation Methods

## Authentication, Trx Screening & Risk Management

% of FIs

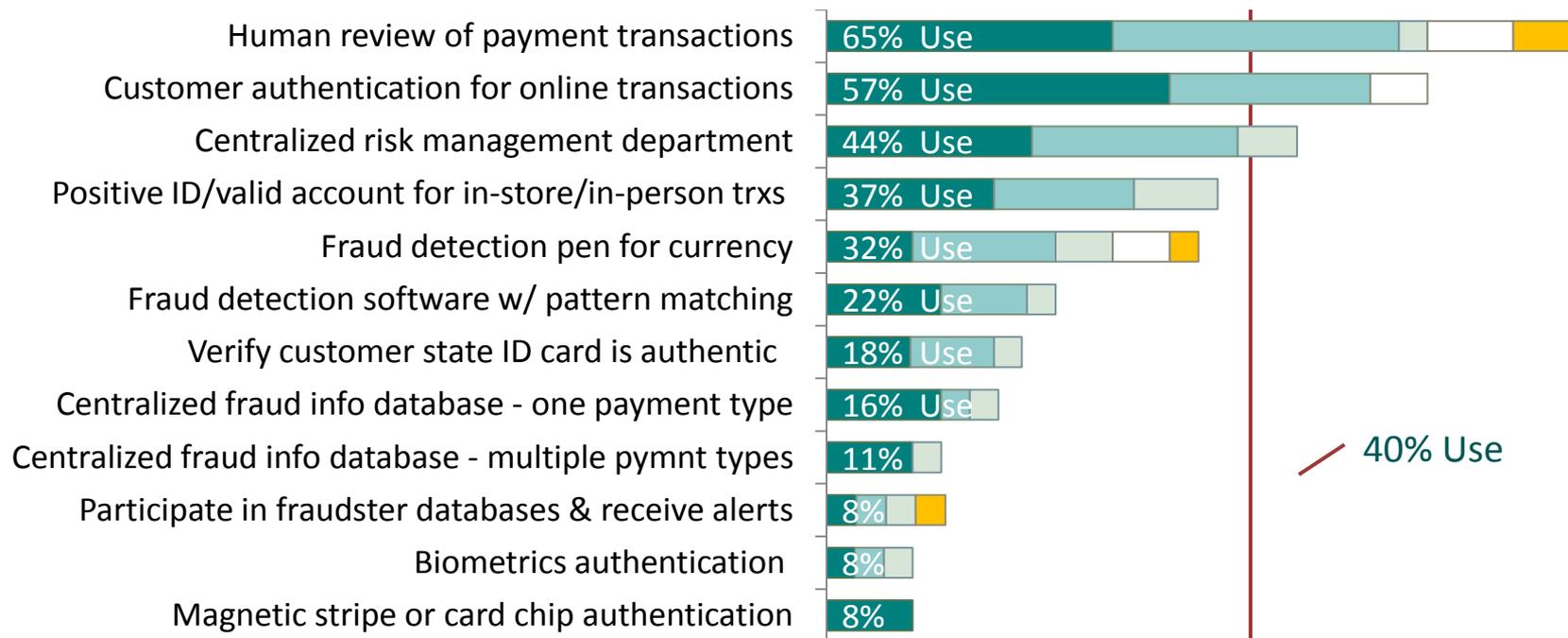


(N=106)

# Fraud Mitigation Methods

## Authentication, Trx Screening & Risk Management

### % of Other Organizations

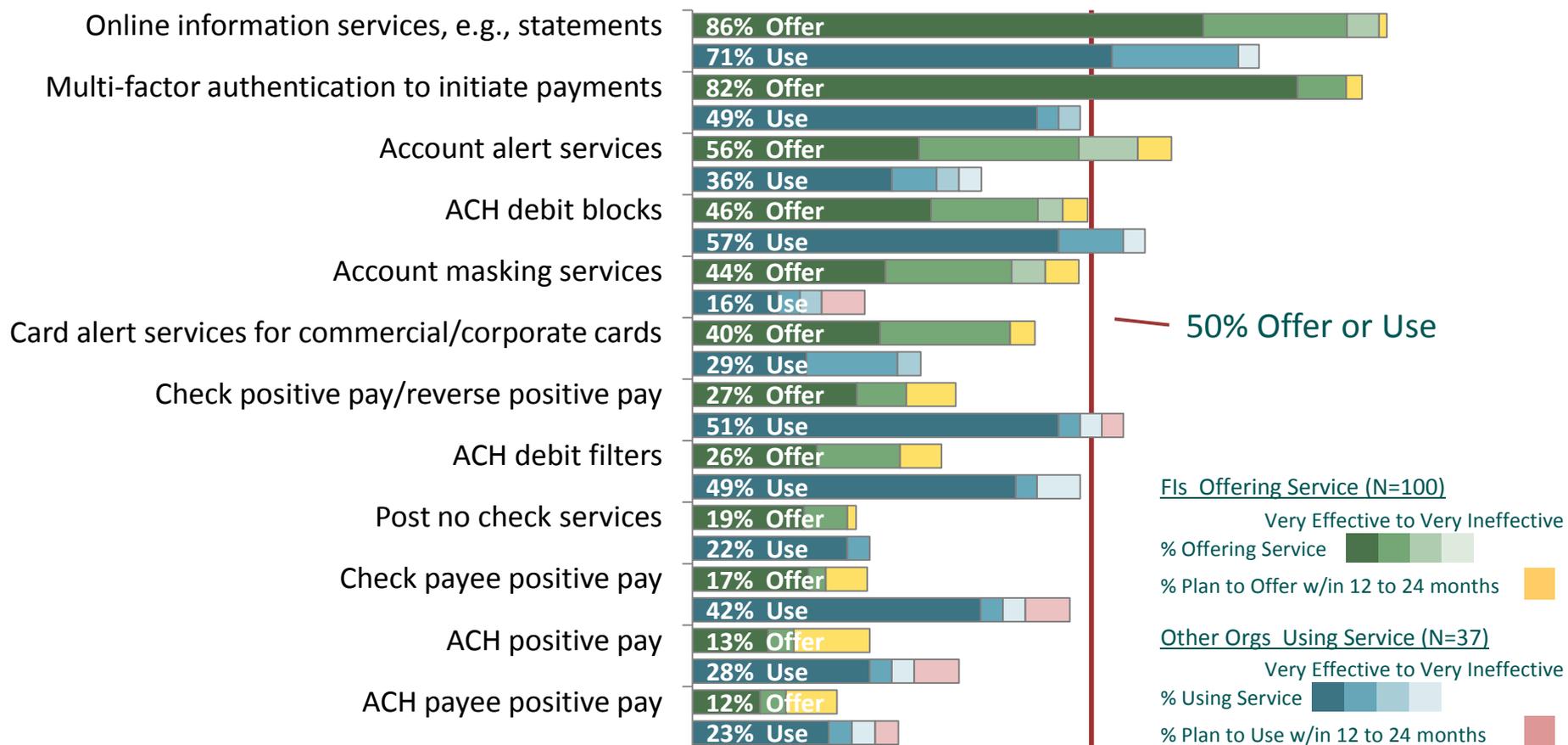


(N=38)



# Fraud Mitigation Methods

## FI Risk Mitigation Services Offered & Used by % of Respondents





# Barriers & Opportunities to Reduce Payments Fraud



# Barriers to Reduce Fraud

- Costs are main barriers

Main Barriers to Payments Fraud Mitigation	% of FI (N=92)		% of Other Org. (N=34)	
	2010	2009	2010	2009
Lack of staff resources	54%	56%	53%	52%
Cost of implementing in-house fraud detection tool/method	52%	62%	38%	48%
Cost of implementing commercially available fraud detection tool/service	48%	57%	41%	52%
Lack of compelling business case (cost versus benefit) to adopt new or change existing methods	47%	36%	35%	55%
Consumer data privacy issues/concerns	38%	37%	41%	34%

# Opportunities to Reduce Fraud

New Methods Needed by Organizations	FI (N=95)	Other Org. (N=31)
Controls over Internet payments	67%	65%
Information sharing on emerging fraud tactics being conducted by criminal rings	62%	74%
Restrict access to customer DDA accounts	23%	26%

Industry Considerations	FI (N=95)	Other Org. (N=38)
Industry specific education on fraud prevention best practices	73%	74%
Industry alert services	66%	61%
Industry sponsored fraudster databases	55%	66%



# Opportunities to Reduce Fraud

Legal & Regulatory Considerations	FI (N=104)	Other Org. (N=39)
Increase penalties for fraud & attempted fraud	70%	67%
Place more responsibility on consumers & customers to reconcile & protect their payments data	79%	26%
Strengthen disincentives to committing fraud through stiffer penalties & more likely prosecution	59%	72%
Place responsibility to mitigate fraud & shift liability for fraudulent card payments to the entity that initially accepts the card payment	79%	18%
Improve law enforcement cooperation on domestic & international payments fraud & fraud rings	38%	69%
Align Regulation E & Regulation CC to reflect changes in check collection systems' use of check images & conversion of checks to ACH	52%	26%

# Conclusions

- Payments related fraud remains a significant concern of FIs & other corporations in the region, including very small organizations that responded to the Minneapolis Fed's 2010 payments fraud survey.
- Most problematic is fraud that affects checks & debit cards, as these are the payment types that were most often attacked by fraud schemes & that sustained the highest losses as a result.
- Most FIs & other corporations report total fraud losses that represent less than 0.3% of their annual revenues.
- Various types of internal controls & procedures are the main methods used by most organizations to mitigate payments fraud risk.
- Cost is the main barrier to organizations adopting more defenses against payments fraud.
- At the industry level, respondents believe that sharing fraud related information among organizations would help to mitigate fraud.





# Questions



# Resources

- Industry Links
  - American Bankers Association [www.aba.com](http://www.aba.com)
  - Association for Financial Professionals [www.afponline.org](http://www.afponline.org)
  - Bank Administration Institute [www.bai.org](http://www.bai.org)
  - BITS [www.bitsinfo.org](http://www.bitsinfo.org)
  - Credit Union National Association [www.cuna.org](http://www.cuna.org)
  - Board of Governors of the Federal Reserve System [www.federalreserve.gov](http://www.federalreserve.gov)
  - Electronic Check Clearing House Organization [www.eccho.com](http://www.eccho.com)
  - Federal Financial Institutions Examination Council's [www.ffiec.gov](http://www.ffiec.gov)
  - Federal Reserve Financial Services [www.frbervices.org](http://www.frbervices.org)
  - Independent Community Bankers of America [www.icba.org](http://www.icba.org)
  - National Automated Clearing House Association [www.nacha.org](http://www.nacha.org)
  - X9, Financial Industry Standards [www.x9.org](http://www.x9.org)



# Contact Information



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