# 2015 Cost of Data Breach Study:
## Impact of Business Continuity Management

## Sponsored by IBM

Presented by Dr. Larry Ponemon

Toronto: November 3, 2015

# The 2015 Cost of Data Breach Study: Global Analysis— definitions and key facts.

- **Data breach:** An event in which an individual's name plus a medical record or financial record or debit card is potentially at risk
- **Data record:** information that identifies the natural person (individual) whose information has been lost or stolen in a data breach
- **Incident:** For this study, a data breach involving between 2,200 to slightly more than 101,000 compromised records
- **Participants:** Organizations that experienced a data breach within the target size range
- **Benchmark research:** The unit of analysis is the organization; in a survey, the unit of analysis is the individual
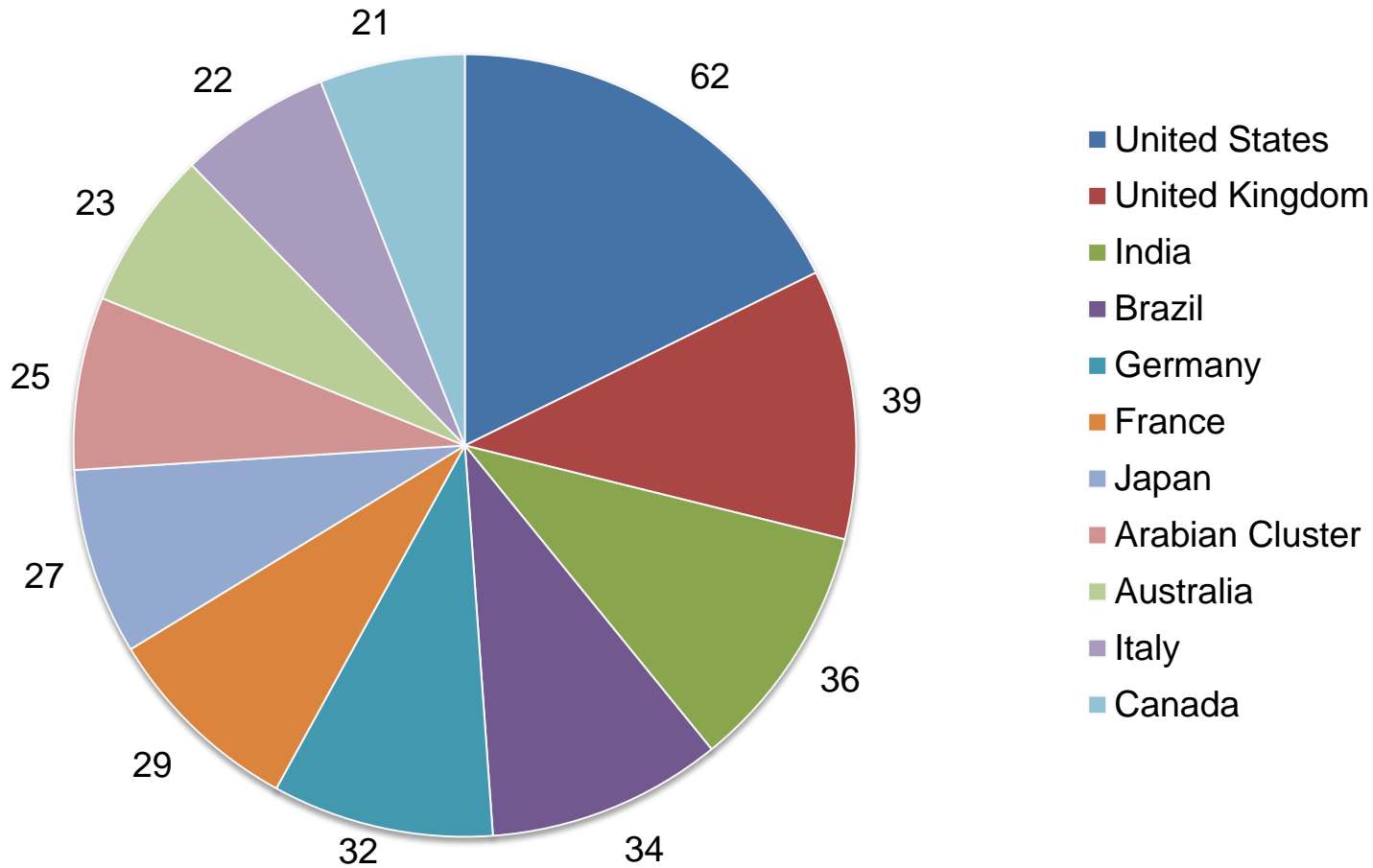
**350** organizations
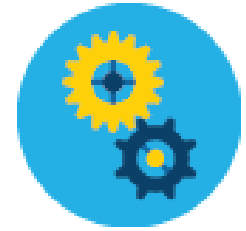
**16** industries

**11** countries

*A mega-breach of more than 100,000 records is not considered typical. The cost data in this study cannot be used to calculate the financial impact of a mega-breach.*

# Frequency of benchmark samples by country

Consolidated view (n = 350)



Legend:
- United States
- United Kingdom
- India
- Brazil
- Germany
- France
- Japan
- Arabian Cluster
- Australia
- Italy
- Canada

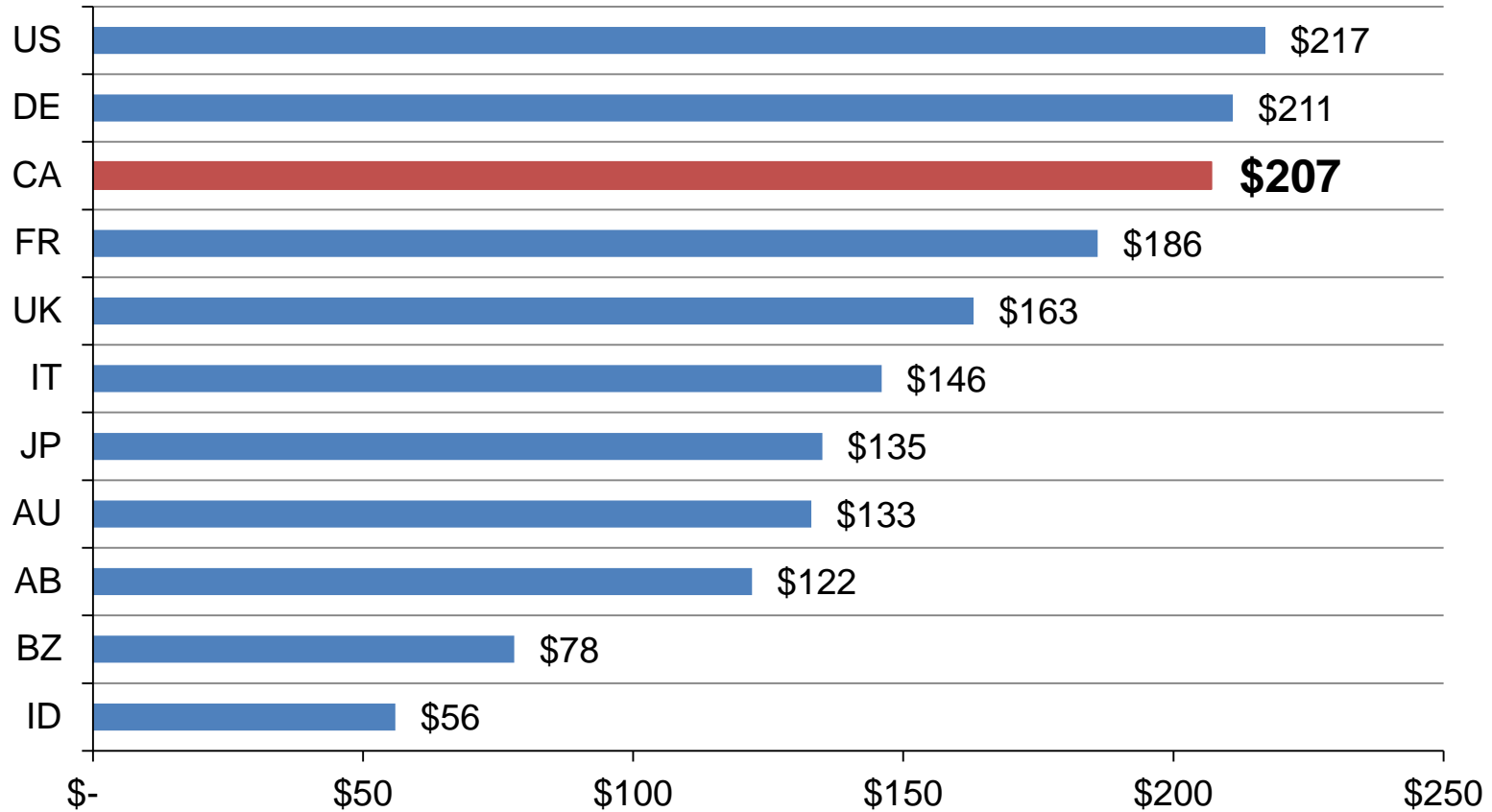Values shown: 62, 39, 36, 34, 32, 29, 27, 25, 23, 22, 21

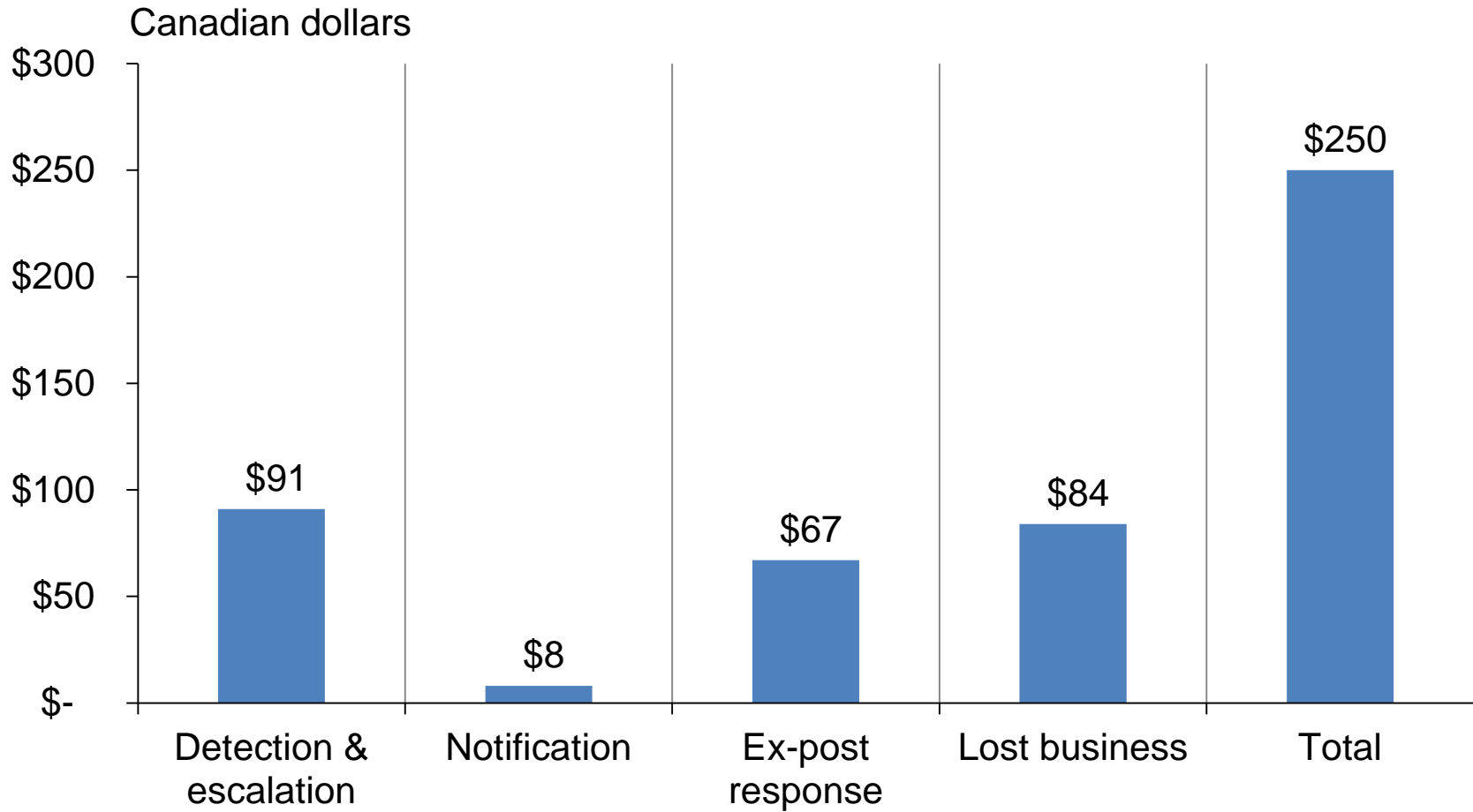# What are the key findings this year?

# Global study introduction

- 350 companies in 11 countries

- Canada added for the first time

- 16 industry sectors

- $3.79 million is the average total cost of data breach

- 23% increase in total cost of data breach since 2013

- $154 is the average cost per lost or stolen record

- 12% percent increase in per capita cost since 2013

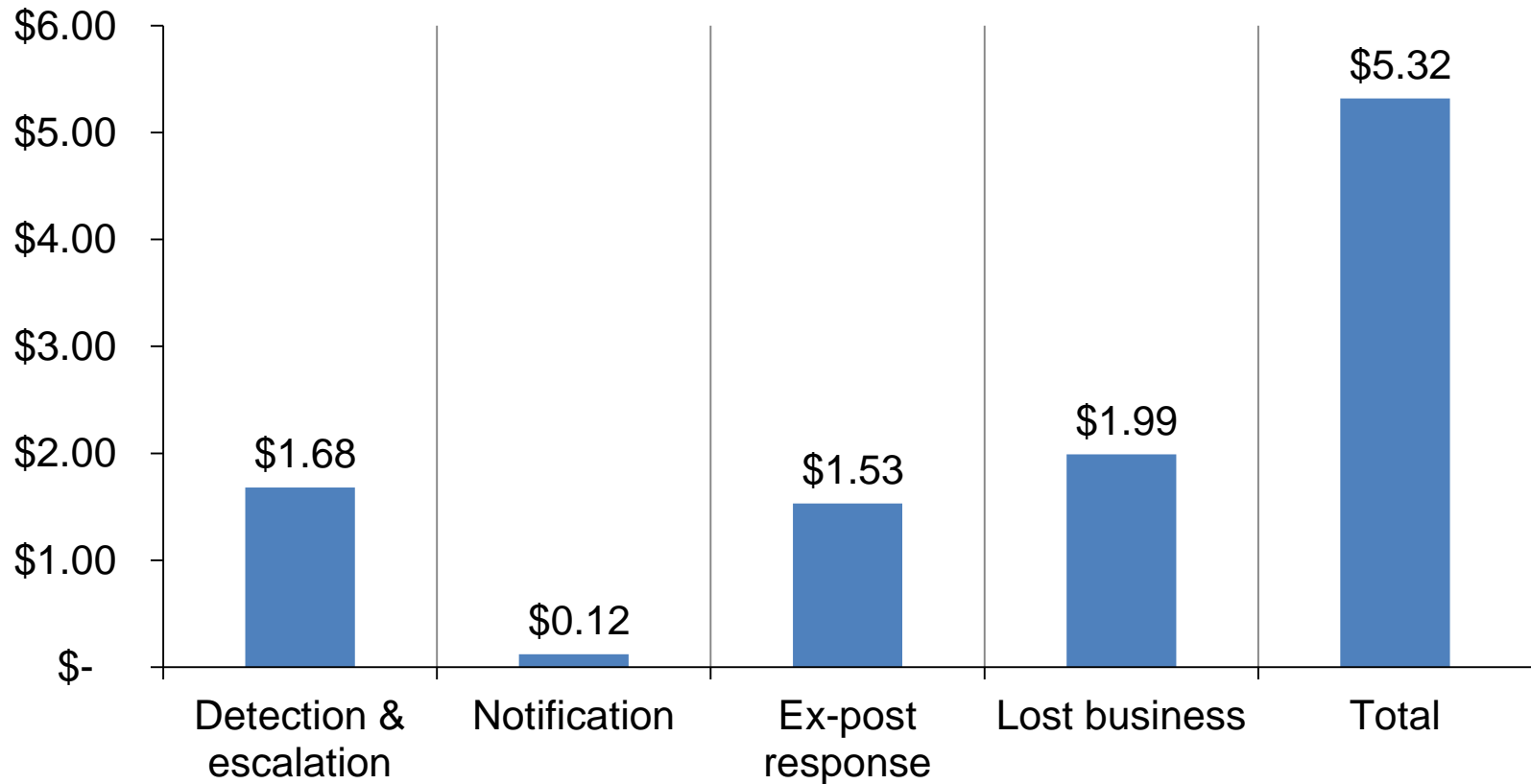# Per capita data breach cost for 11 countries



U.S. dollars

| Country | Cost |
|---|---|
| US | $217 |
| DE | $211 |
| CA | **$207** |
| FR | $186 |
| UK | $163 |
| IT | $146 |
| JP | $135 |
| AU | $133 |
| AB | $122 |
| BZ | $78 |
| ID | $56 |

# Canadian per capita data breach cost

Canadian dollars

# Canadian total average data breach cost

Canadian dollars ($1,000 omitted)

Global and country-specific averages show that the cost of a data breach is on the rise.

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## Cost per record*

**Global average**

$154

12%

increase over two years

**Highest countries**

$217
in the U.S.

$211
in Germany

$78
in Brazil

$56
in India

**Lowest countries**

## Cost per incident*

**Global average**

$3.8M

23%

increase over two years

**Highest countries**

$6.5M
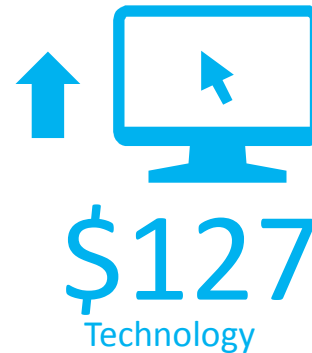in the U.S.

$4.9M
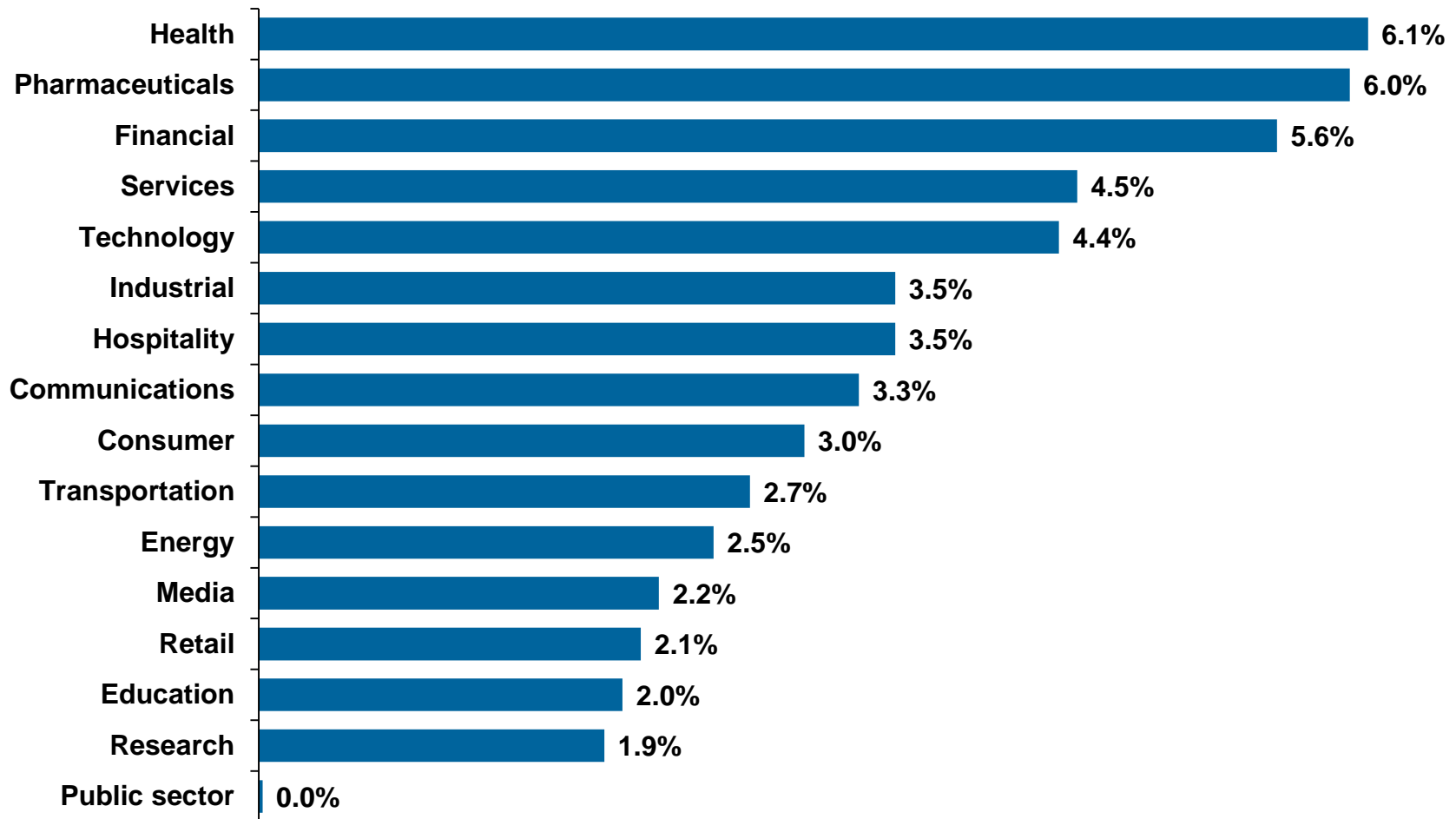in Germany

$1.8M
in Brazil

$1.5M
in India

**Lowest countries**

*Currencies converted to US dollars

Per-record data breach costs vary widely across industries, with a significant year-to-year increase for retail.

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$363
Healthcare

$215
Financial

$165
Retail

$155
Industrial

$136
Consumer

$132
Energy

$127
Technology

$68
Public

Currencies converted to US dollars

# Customer churn following a data breach—and the related impact on the organization's reputation—is a key contributor to cost.

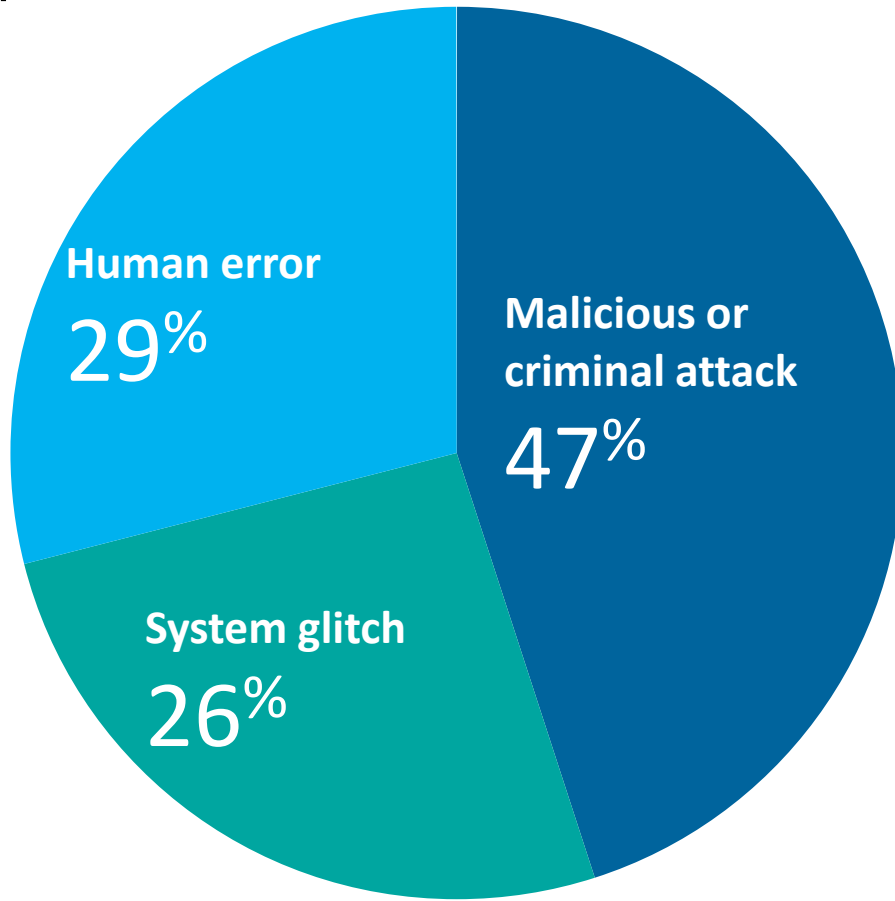| Industry | Churn |
|---|---|
| Health | 6.1% |
| Pharmaceuticals | 6.0% |
| Financial | 5.6% |
| Services | 4.5% |
| Technology | 4.4% |
| Industrial | 3.5% |
| Hospitality | 3.5% |
| Communications | 3.3% |
| Consumer | 3.0% |
| Transportation | 2.7% |
| Energy | 2.5% |
| Media | 2.2% |
| Retail | 2.1% |
| Education | 2.0% |
| Research | 1.9% |
| Public sector | 0.0% |

# With lost business leading, other components of the cost of a data breach include post-event costs, detection and notification.

| Cost category | Cost | Typical components |
|---|---|---|
| **Lost business** | **$1.57M** | Abnormal turnover, increased customer acquisition costs, reputation losses, diminished goodwill |
| **Post-data breach costs** | **$1.07M** | Help desk, inbound communications, investigations, remediation, legal costs, product discounts and other special offers |
| **Detection and escalation** | **$0.99M** | Forensics, assessment, audit services, crisis team management, internal communications |
| **Notification** | **$0.17M** | Contact databases, regulatory requirement research, outside experts, postal expenditures, inbound communications setup |

Currencies converted to US dollars

# Malicious or criminal attacks are the leading root cause of a data breach…and result in the highest cost per record.

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$134
per record

**Human error**
29%

**Malicious or criminal attack**
47%

$170
per record

**System glitch**
26%

$142
per record

Currencies converted to US dollars

# Does business continuity management impact cost?

# The impact of business continuity management on the cost of a data Breach

- 9% reduction in the per capita cost of data breach

- 27% reduction in the mean time to identify a data breach

- 41% reduction in the mean time to contain a data breach

- 28% decrease in the likelihood of a data breach over the next 2 years

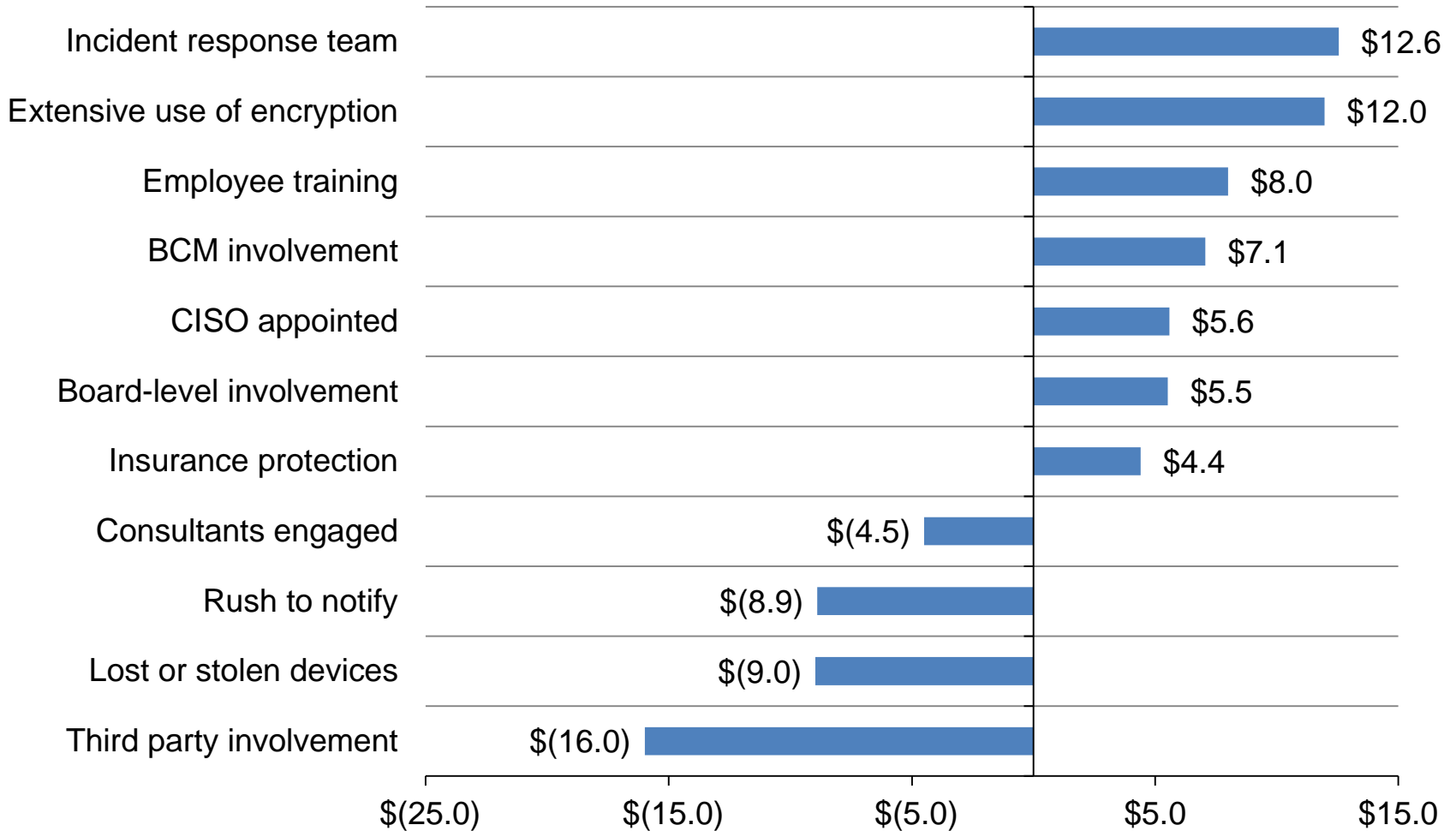# MTTI and MTTC for organizations that involve or fail to involve BCM in the incident response process

Percentage difference for MTTI = 27%; percentage difference for MTTC = 41%
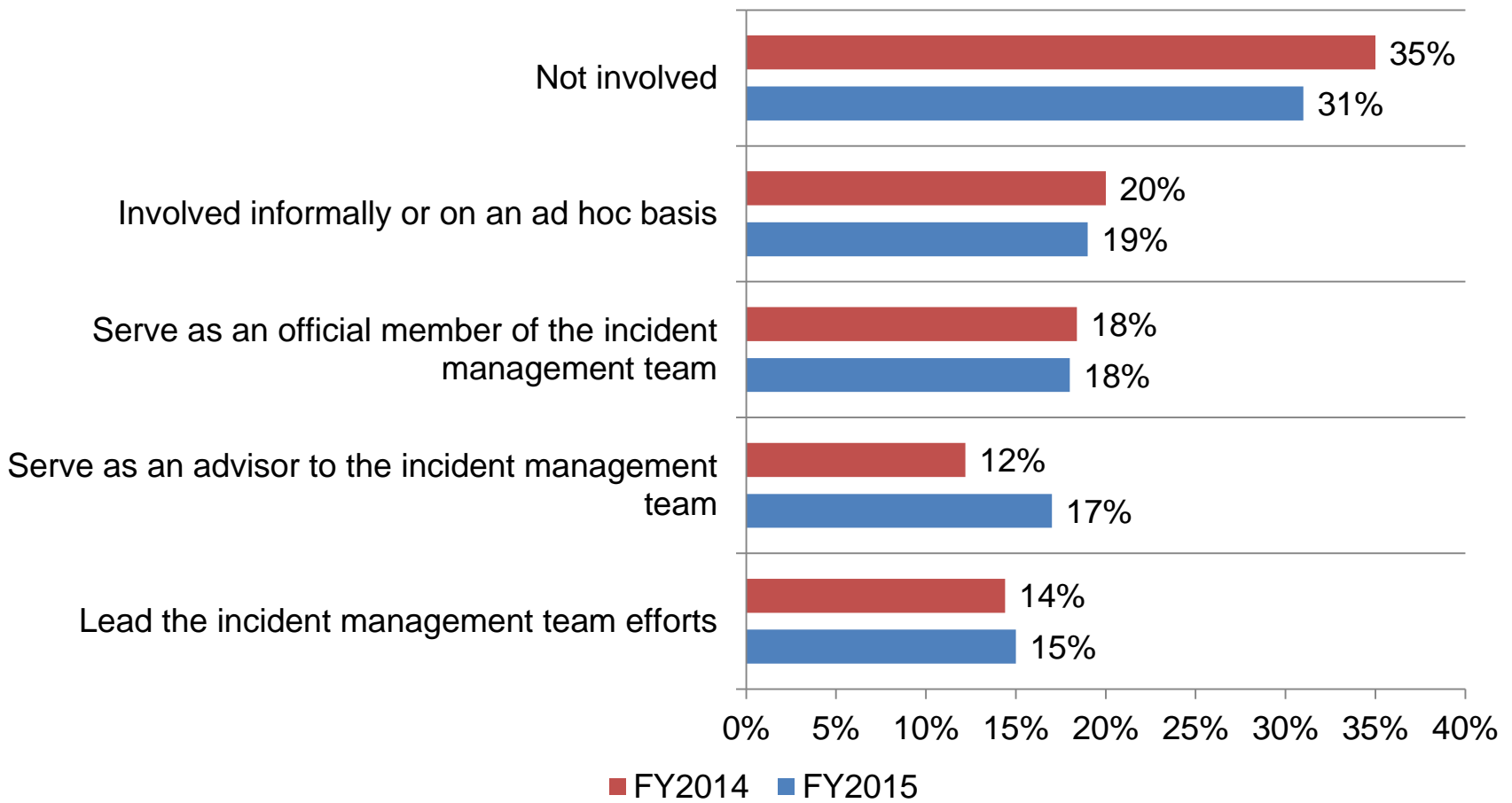Consolidated view (FY 2015 = 350, FY 2014 = 315)
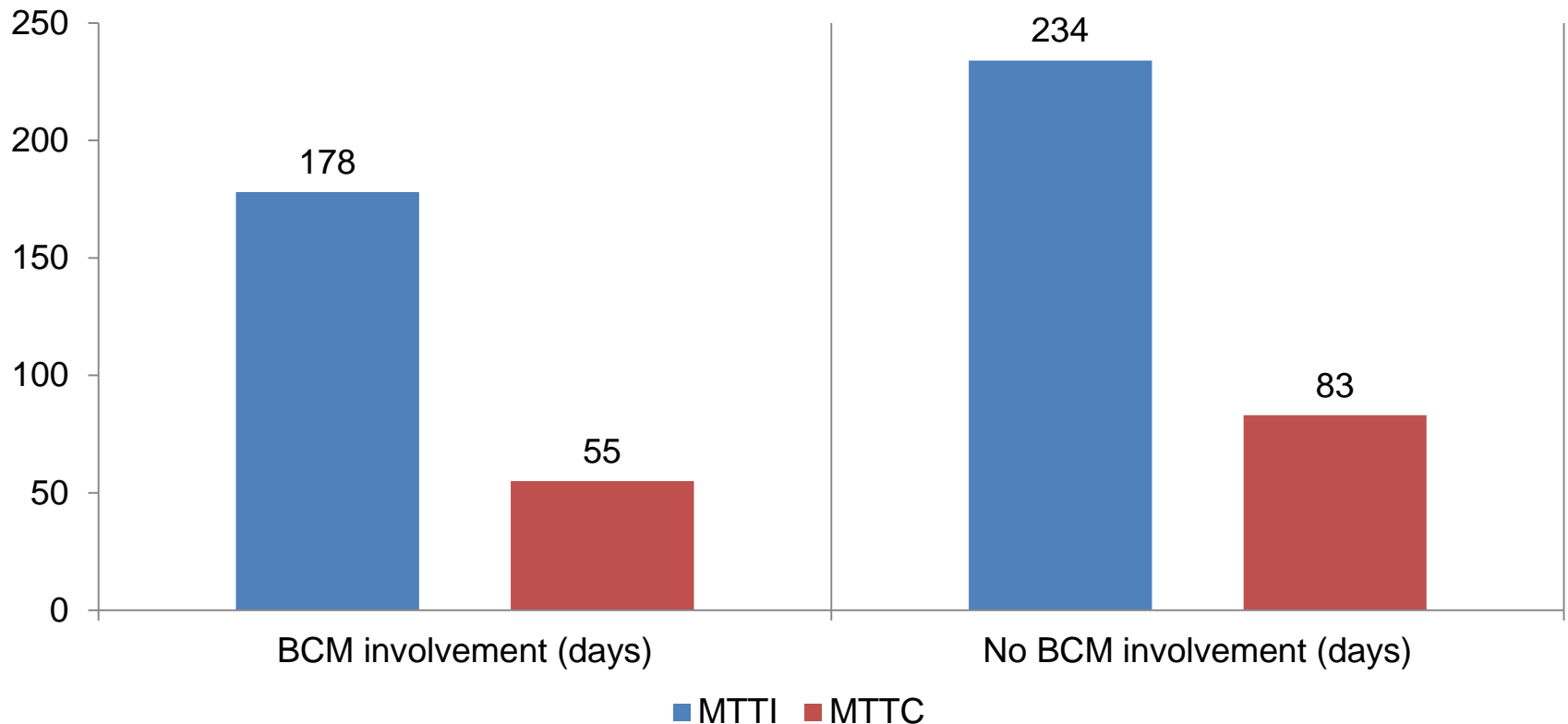
# Impact of 11 factors on the per capita cost of data breach

Measured in US$ consolidated view (n = 350)



| Factor | Value |
|---|---|
| Incident response team | $12.6 |
| Extensive use of encryption | $12.0 |
| Employee training | $8.0 |
| BCM involvement | $7.1 |
| CISO appointed | $5.6 |
| Board-level involvement | $5.5 |
| Insurance protection | $4.4 |
| Consultants engaged | $(4.5) |
| Rush to notify | $(8.9) |
| Lost or stolen devices | $(9.0) |
| Third party involvement | $(16.0) |

$(25.0)   $(15.0)   $(5.0)   $5.0   $15.0

# How does BCM contribute to the data breach incident response process?

Consolidated view (FY 2015 = 350, FY 2014 = 315)



**Not involved**
- FY2014: 35%
- FY2015: 31%

**Involved informally or on an ad hoc basis**
- FY2014: 20%
- FY2015: 19%

**Serve as an official member of the incident management team**
- FY2014: 18%
- FY2015: 18%

**Serve as an advisor to the incident management team**
- FY2014: 12%
- FY2015: 17%

**Lead the incident management team efforts**
- FY2014: 14%
- FY2015: 15%

Legend: ■ FY2014  ■ FY2015

# What best describes BCM's contribution to the incident response process?
Consolidated view (FY 2015 = 350, FY 2014 = 315)
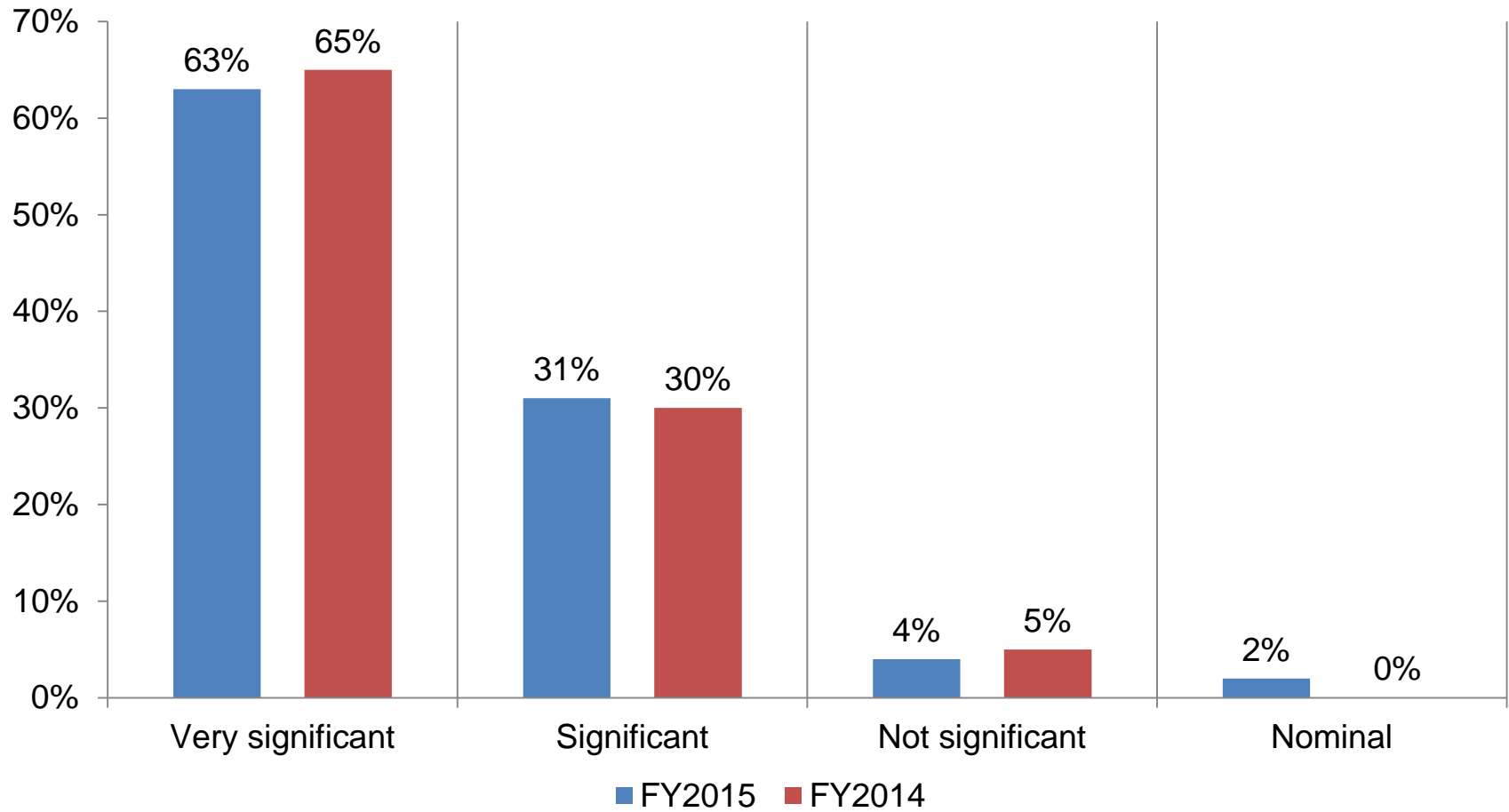
# Per capita cost of data breach for companies with or without BCM involvement

Percentage difference in FY 2015 = 9%; percentage difference in FY 2014 = 13%
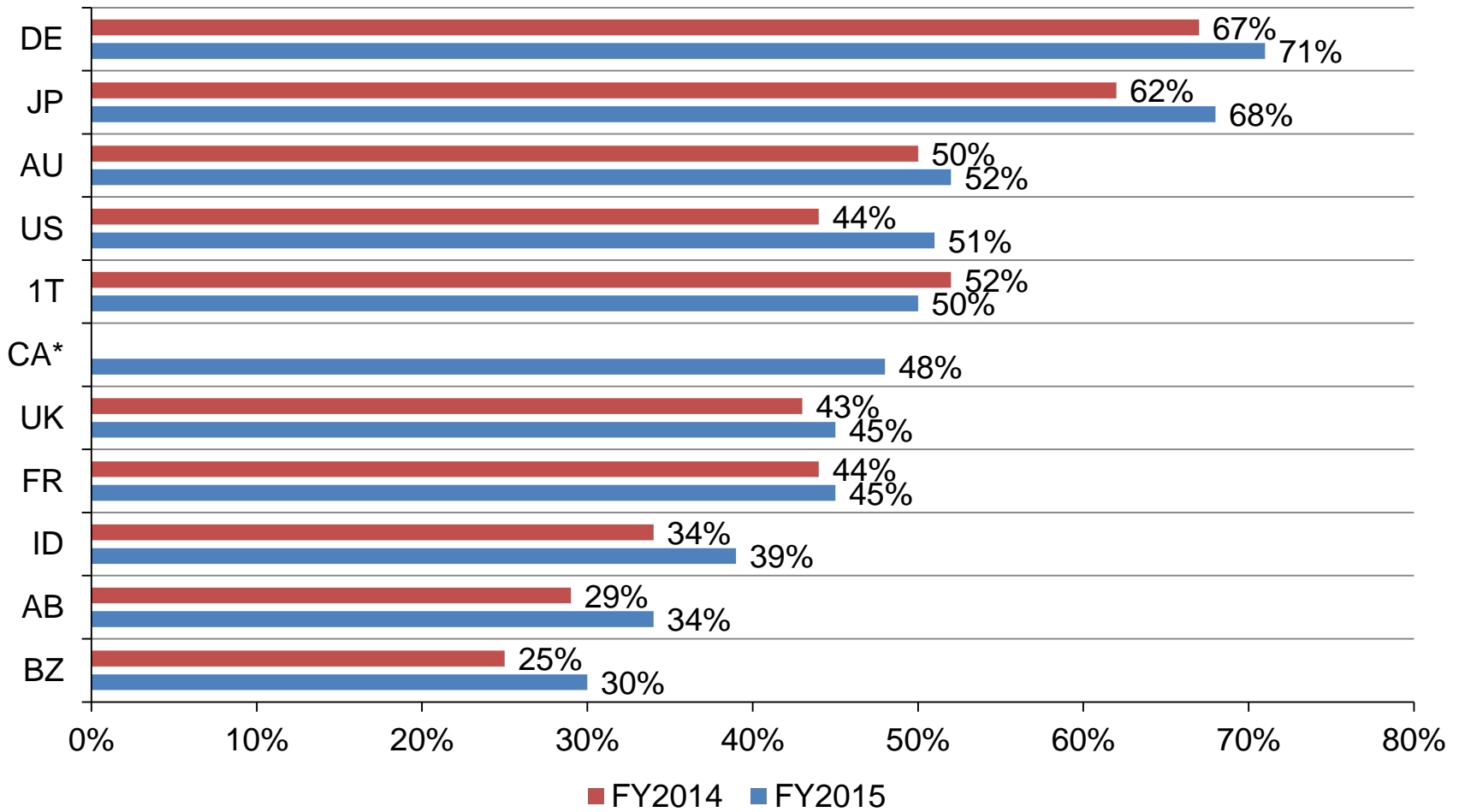Consolidated view (FY 2015 = 350, FY 2014 = 315)
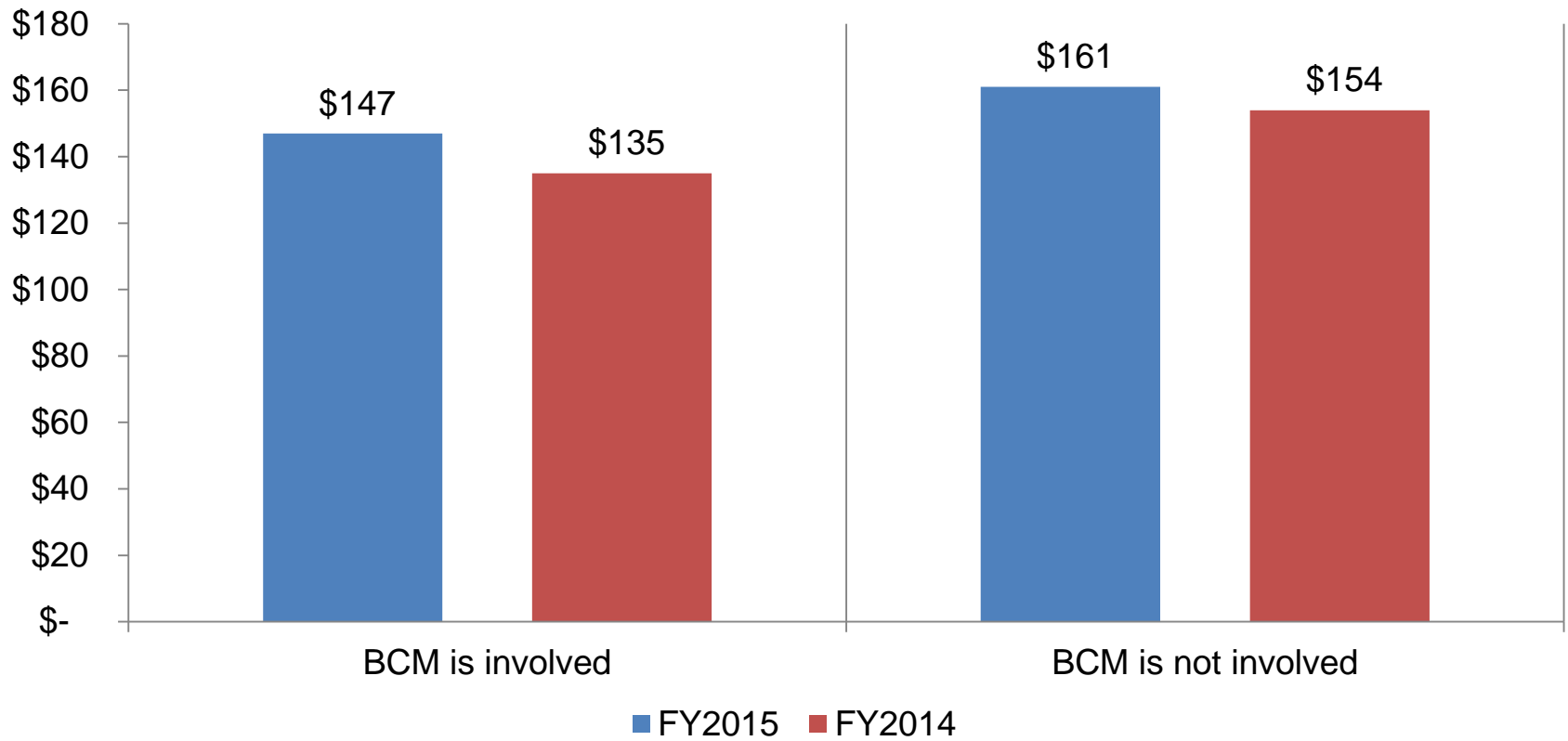
# Total cost of data breach for companies with or without BCM involvement

Percentage difference in FY 2015 = 13%; percentage difference in FY 2014 = 11%
Consolidated view (FY 2015 = 350, FY 2014 = 315)
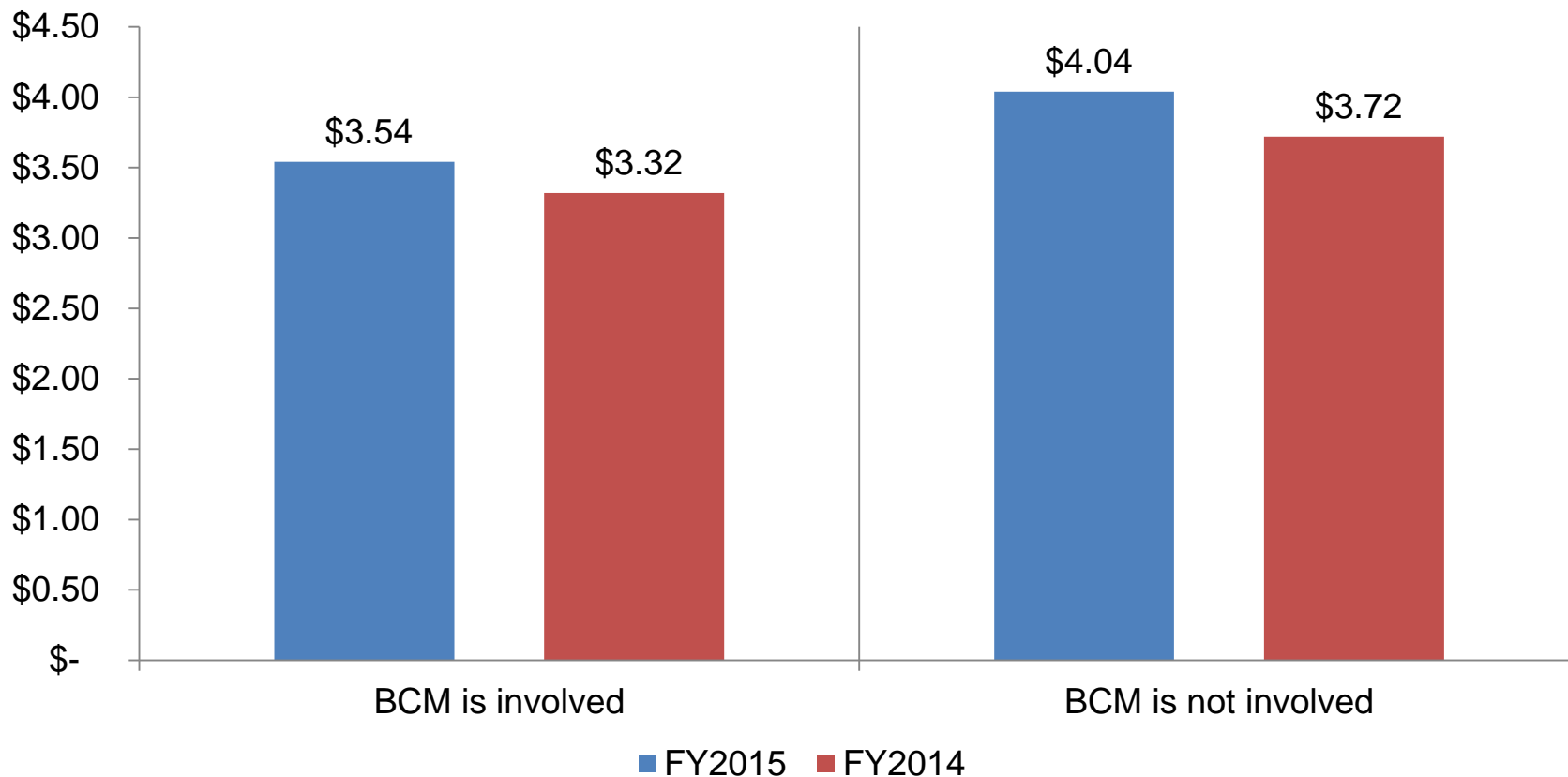
# Likelihood of a material data breach for companies with or without BCM involvement

Percentage difference in FY 2015 = 28%; percentage difference in FY 2014 = 25%
Consolidated view (FY 2015 = 350, FY 2014 = 315)
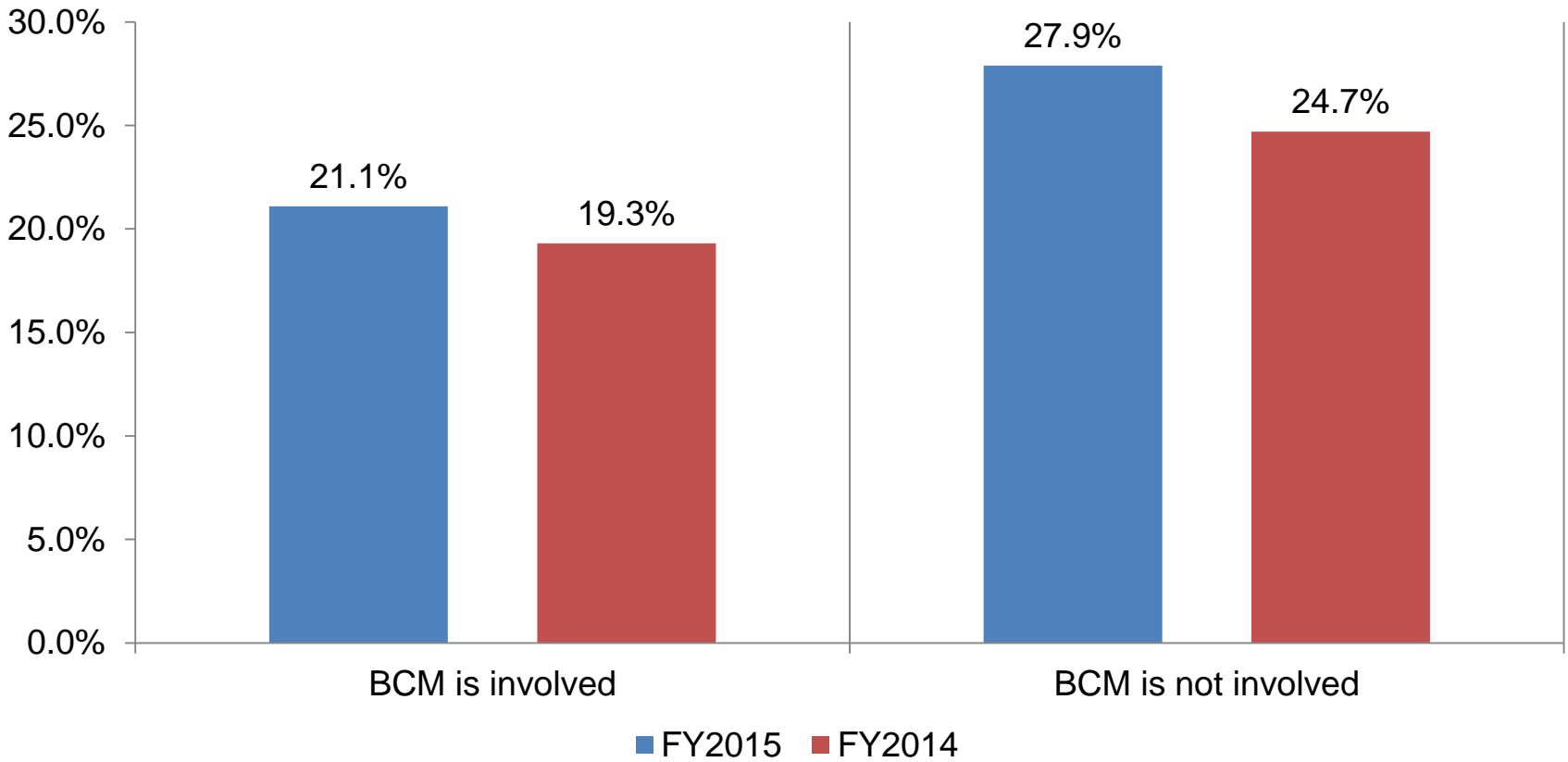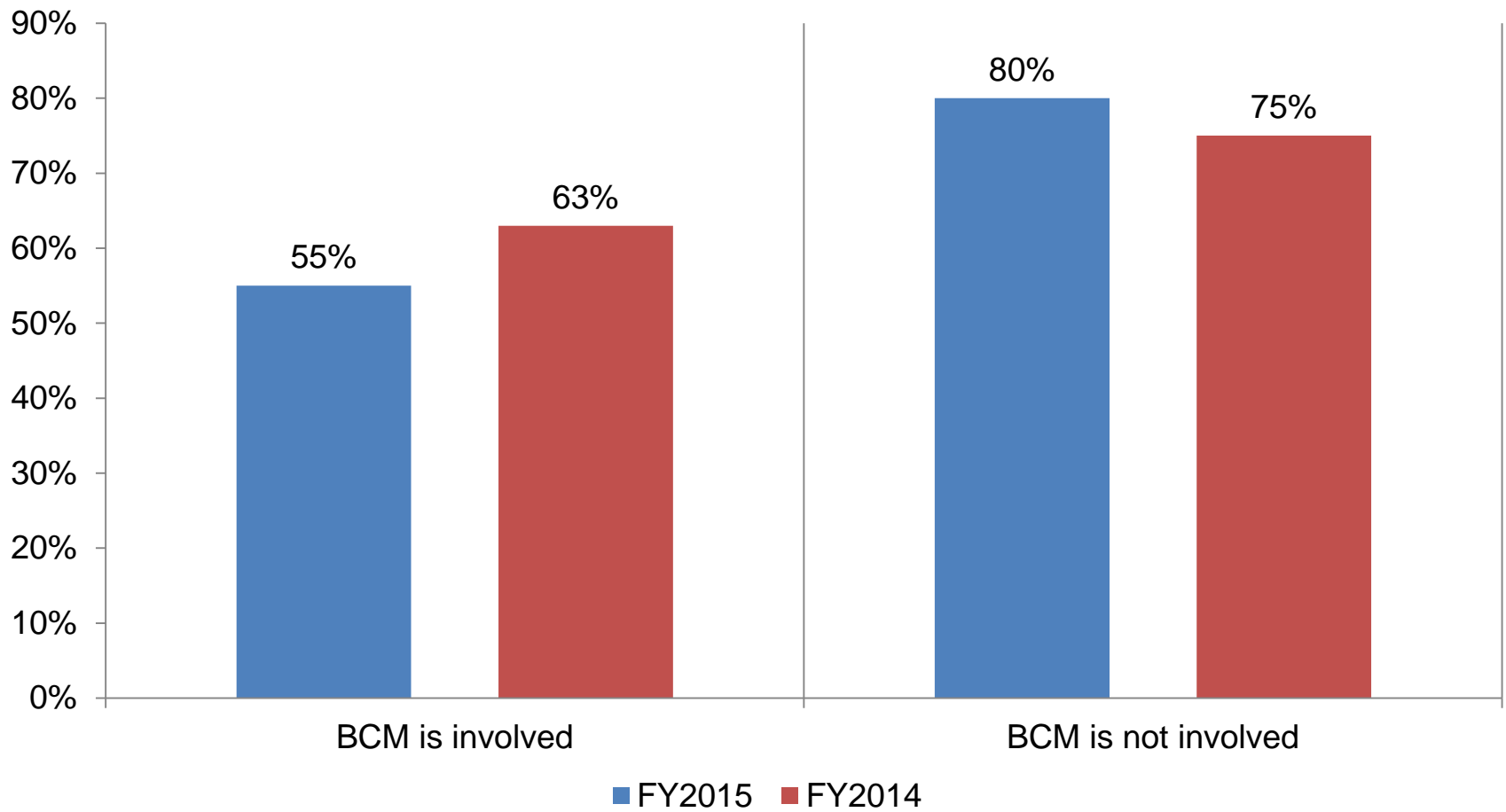
# BCM participation rate by country sample

*Historical data is not available
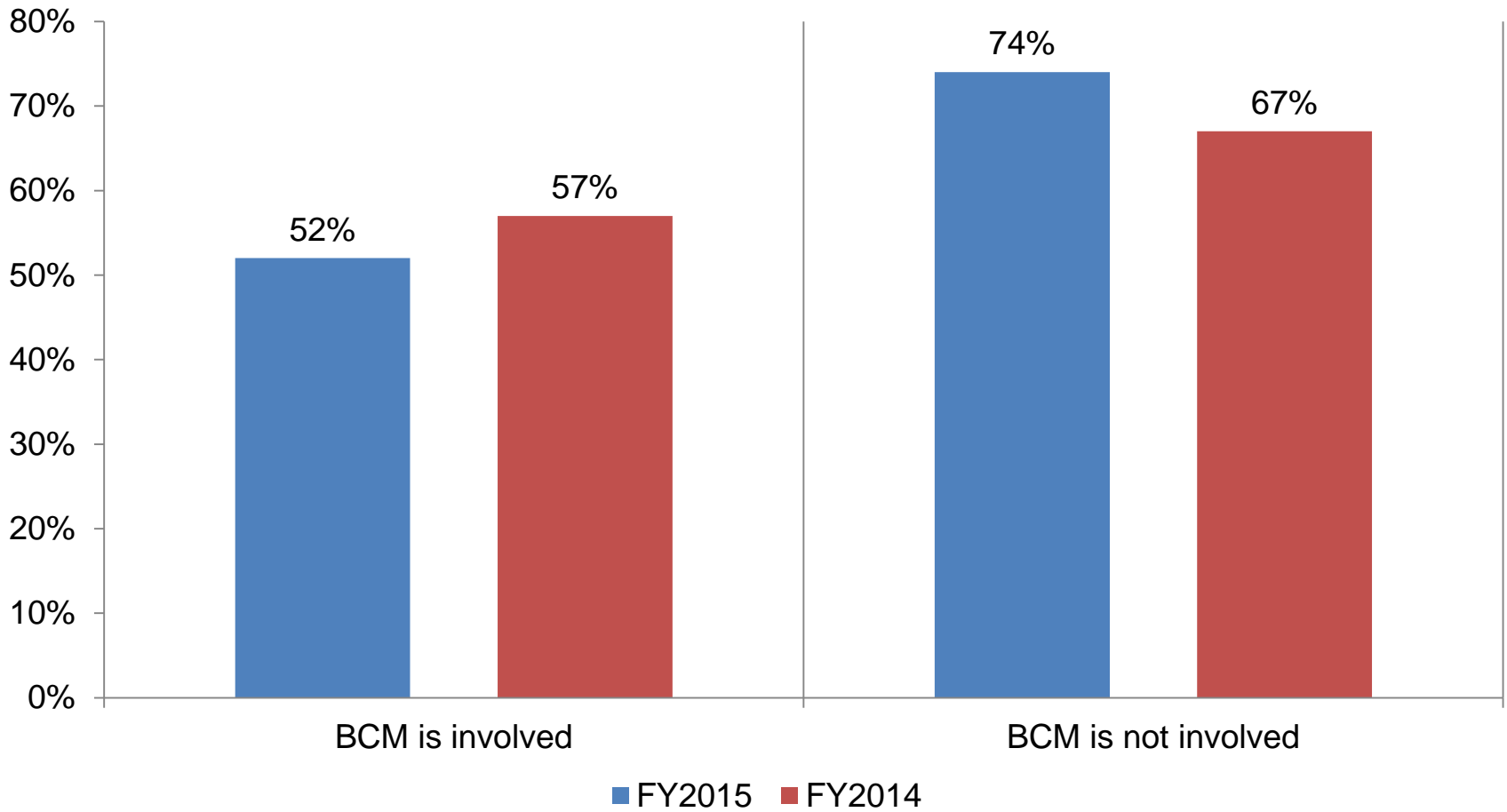(FY 2015 = 350, FY 2014 = 315)

# Did the data breach incident cause a material disruption to business processes?
Consolidated view (FY 2015 = 350, FY 2014 = 315)
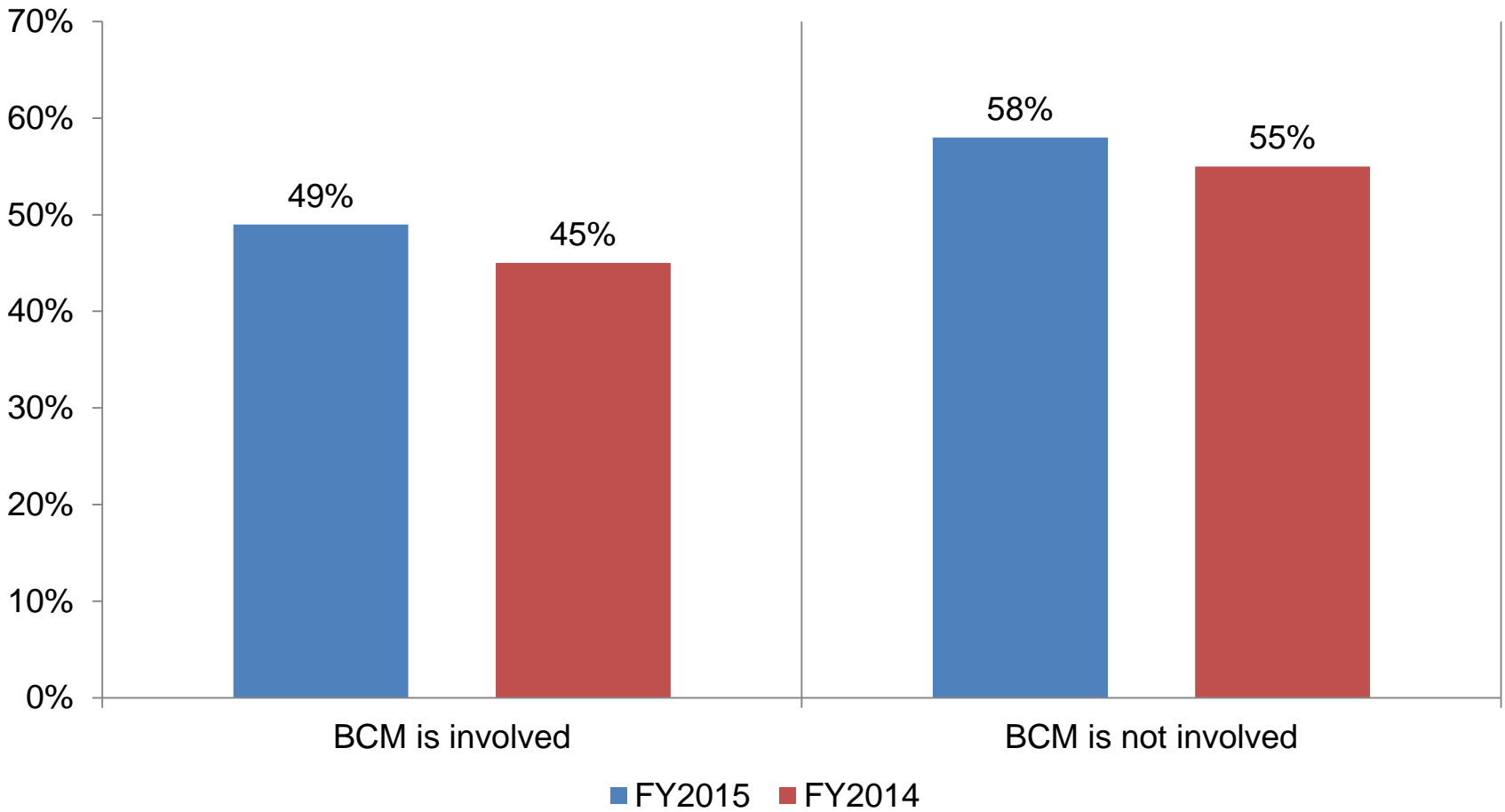


Legend: ■ FY2015  ■ FY2014

# Did the data breach incident cause a material disruption to IT operations?
Consolidated view (FY 2015 = 350, FY 2014 = 315)

# Did the data breach have a material negative impact on the organization's reputation?
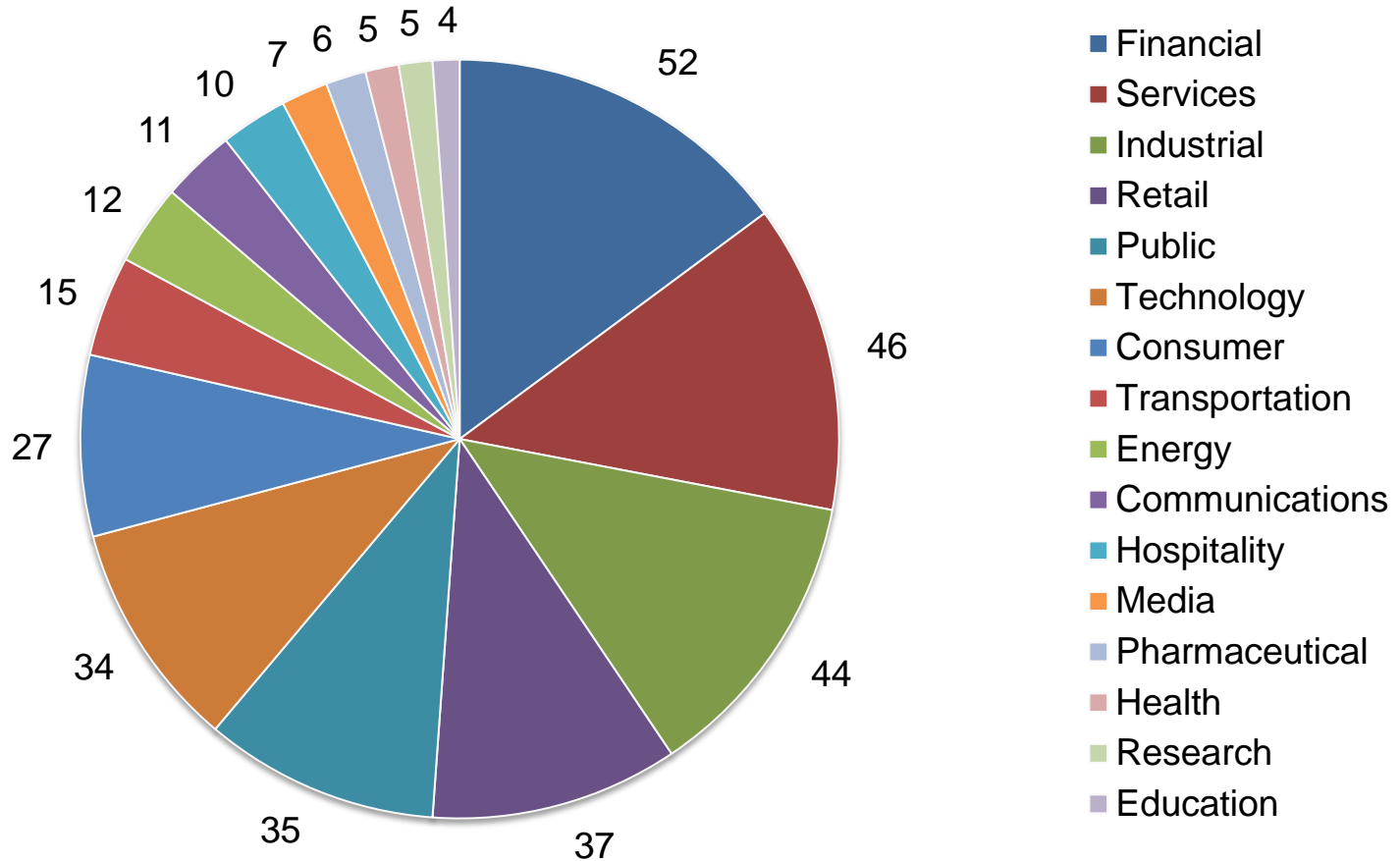
Consolidated view (FY 2015 = 350, FY 2014 = 315)

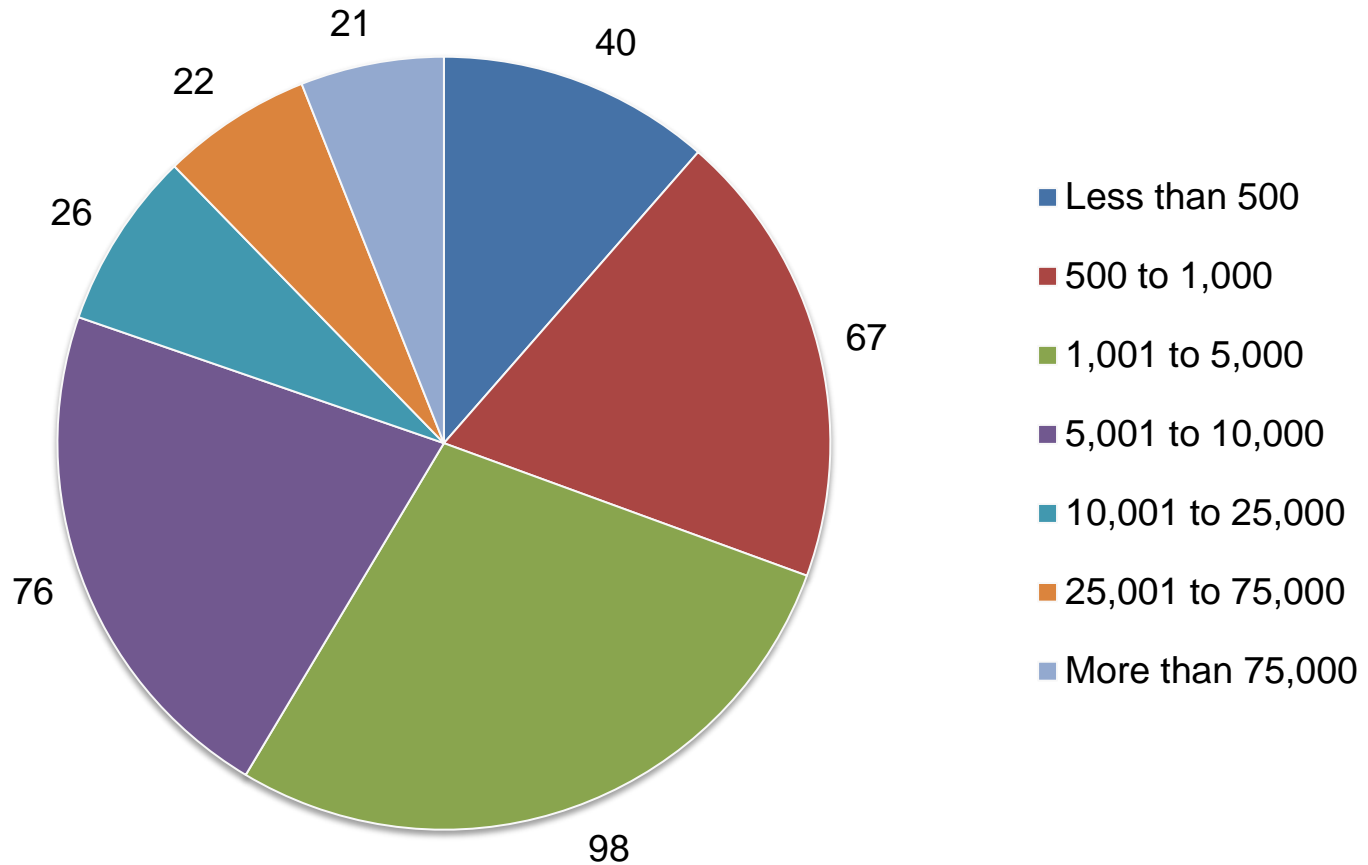# Organizational characteristics and benchmark methods

# Distribution of the benchmark sample by industry segment

Consolidated view (n = 350)

# Global headcount of participating companies

Consolidated view (n = 350)



Legend:
- Less than 500
- 500 to 1,000
- 1,001 to 5,000
- 5,001 to 10,000
- 10,001 to 25,000
- 25,001 to 75,000
- More than 75,000

# Questions?

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