



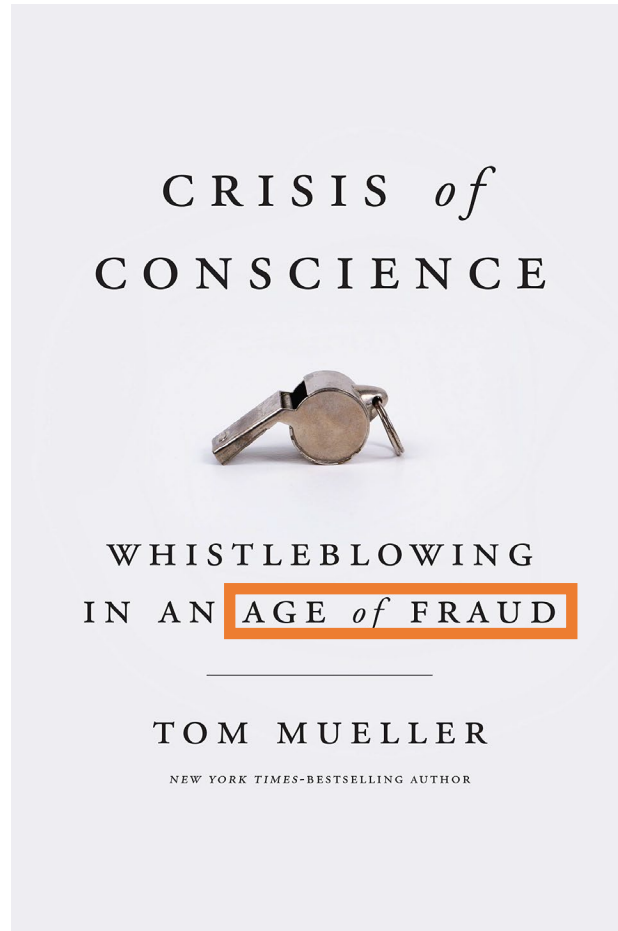
The Value & Storytelling of Compliance Data

Professor Kyle Welch | George Washington University, School of Business

Carrie Penman, Chief Risk & Compliance Officer | NAVEX Global

- Societal Sentiment Against Whistleblowers
- The Research
 - Approach
 - Three Questions
- Findings
- Preview of some new findings

Whistleblowing stories are all over the news



When Data Gives the Wrong Solution

Our understanding of whistleblowing failures limited to court cases and news stories

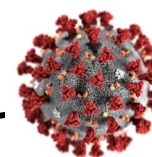
BERNARD L. MADOFF
Investment Securities LLC

ENRON

WORLD COM



Tuskegee

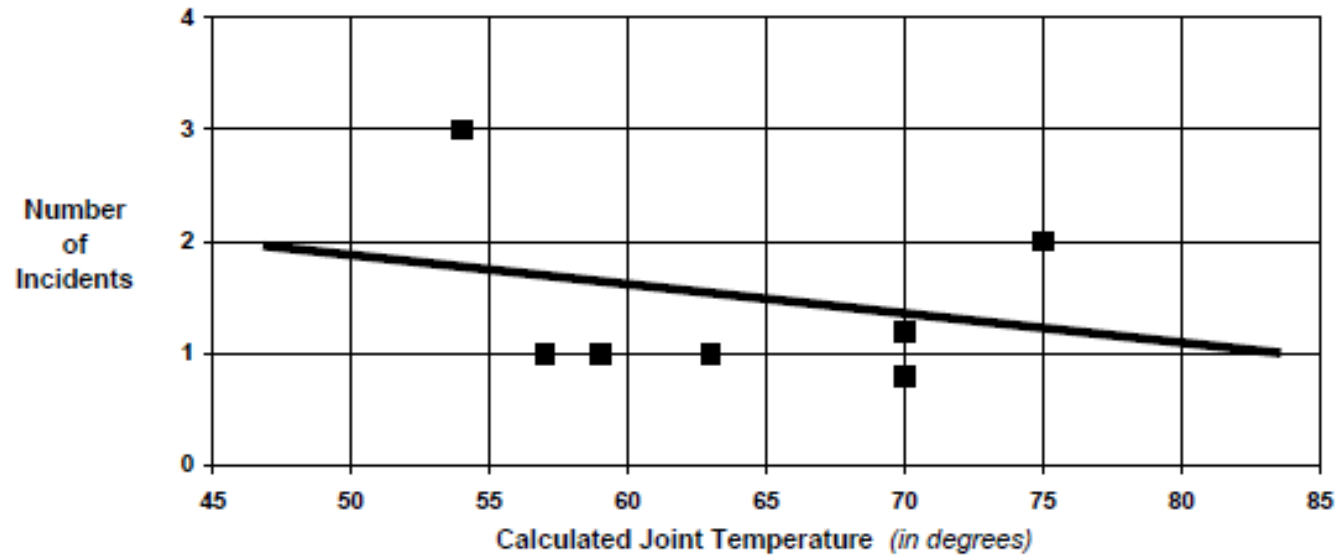


- **Space Shuttle Challenger**
 - NASA eager to move forward; felt pressure to “accommodate a major customer.”
 - Allan McDonald refused to sign off on the launch; supervisor did so.
 - McDonald considered NASA official’s testimony misleading. Raised his hand and said: “Morton Thiokol was so concerned, we recommended not launching below 53 degrees Fahrenheit. We put that in writing and sent that to NASA.”

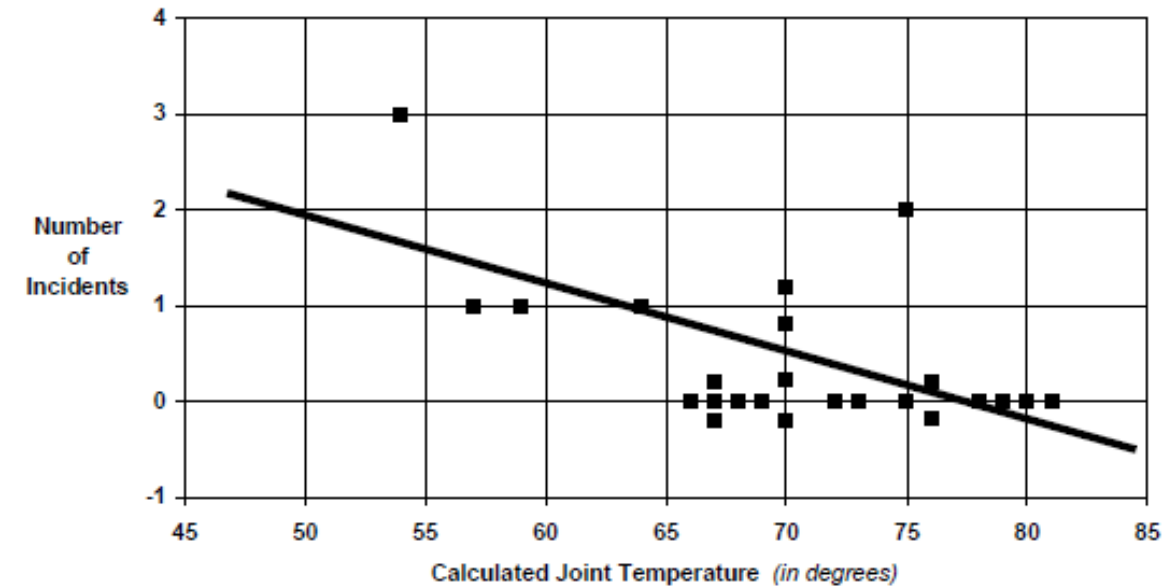


Feedback Failure on Challenger

Flights with O-Ring Thermal Distress

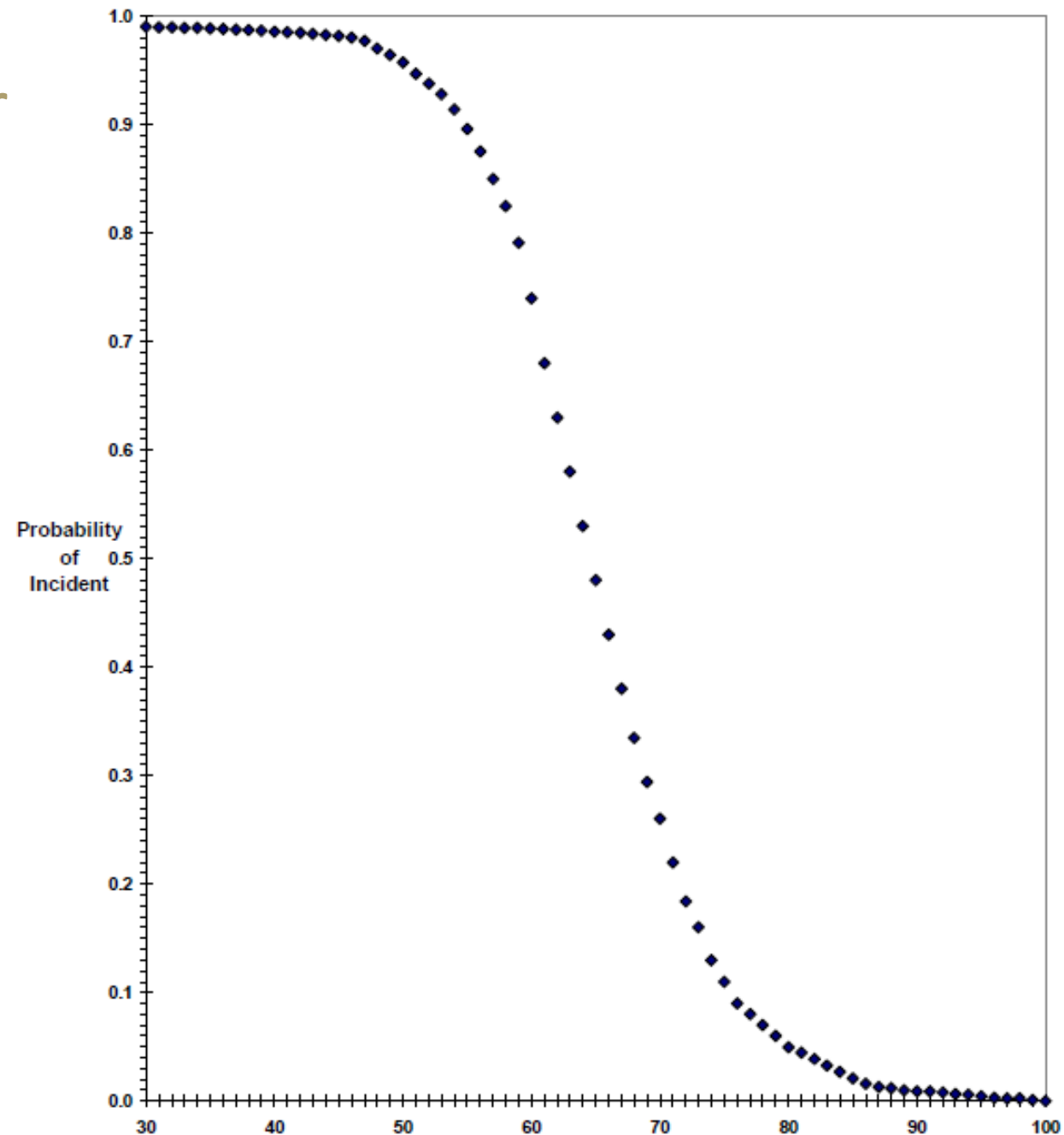


Flights with and without O-Ring Thermal Distress



GW Feedback Failure on Challenger

- The strength of this relationship is apparent when using logistic regression to calculate the odds of a failure
- The temperature on the day of the flight was 36° Fahrenheit.
- When viewing all the data, the probability of O-ring failure of the Challenger on the date of the launch was 99%

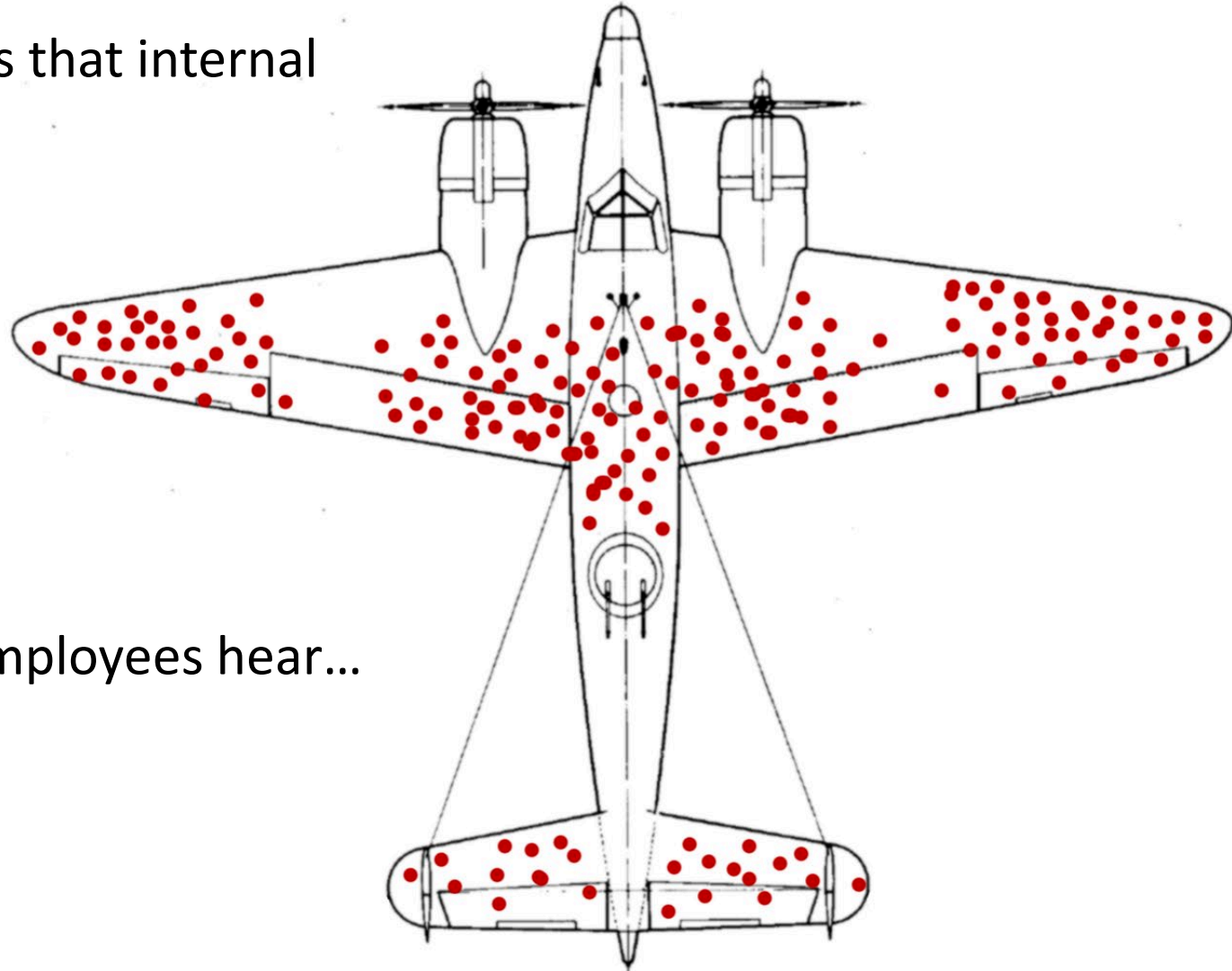


- Our insights and understanding based on failures of whistleblowing
 - Data based court cases
 - Data based on news stories
- Data Analogy
 - More Whistleblowing=More Fraud Happening?
 - #MeToo Reports=Harassment Increasing?
 - Research Analogy: losing keys and looking under the lamppost



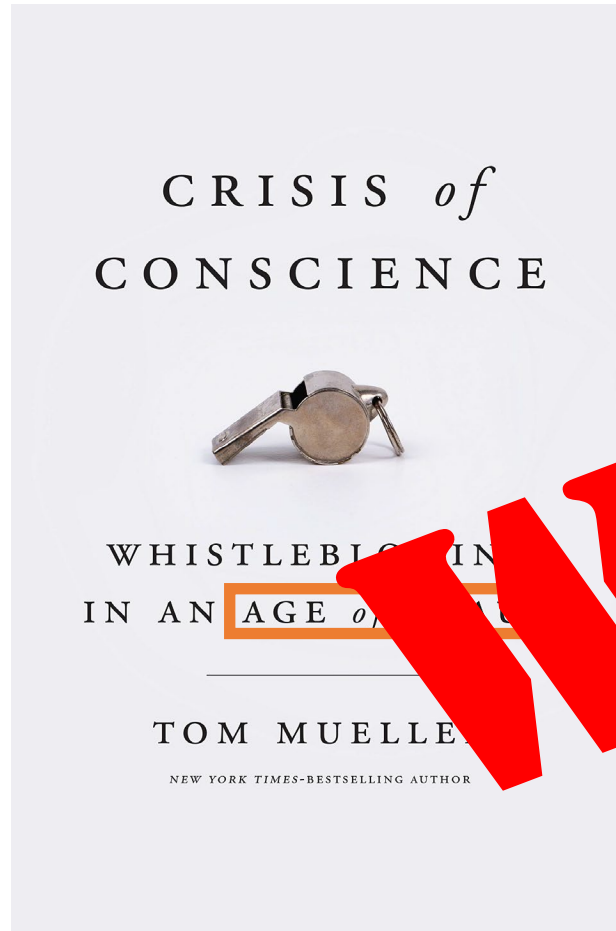
What Does Missing Data From Survivorship Bias Tell Us?

Greatest story never told is that internal Whistleblowing works!



But that is not the story employees hear...

Whistleblowing stories are all over the news

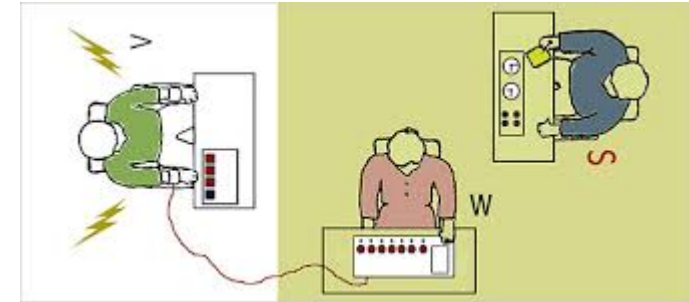


Speaking Up and Social Psychology Experiments

Most are reluctant to defy those in charge:

Shock Experiment (Stanley Milgram)

- 65% of the participants delivered painful, possibly fatal shocks on the experimenter's orders.



Conformity Experiment (Solomon Asch)

- 75% of the participants went along with the confederate group at least once.
- One-third of the time participants conformed to the incorrect answer

Bystander Effect (Bibb Latané and John Darley)

- 75% reported the smoke alone.
- 38% reported the smoke when 2 confederates in the room
- 10% reported the smoke when 2 confederates in the room noted the smoke and then ignored it



- Nearly 2 million internal Whistleblower reports filed with over 1,000 publicly traded U.S. companies through NAVEX Global's EthicsPoint Incident Management system between 2004 and 2017.

Example from George Washington University

<https://secure.ethicspoint.com/domain/media/en/gui/46662/index.html>

Three Research Questions

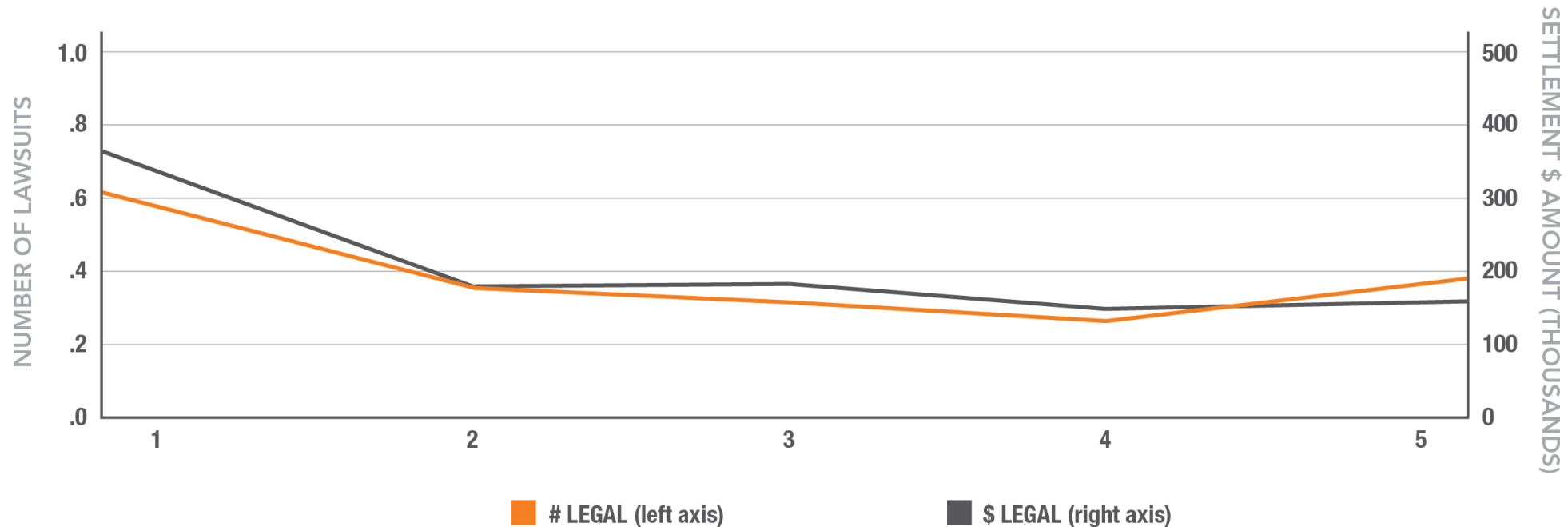
- Which company would you rather lead—one with more issues reported through internal whistleblowing systems or one with fewer issues reported?
- Which internal report is more likely to have a substantiated problem—one submitted by an employee with firsthand information or one submitted by an employee based on secondhand information?
- Which internal report is more likely to have a substantiated problem—one with more details provided or one with fewer details?

1. More reports = BETTER
2. Second-hand reports are (on average) more likely to point to a substantiated problem
3. Reports with less information (on average) more likely to have a substantiated problem

What types of firms have an increased level of hotline usage?

1. More reports = BETTER (cont'd)

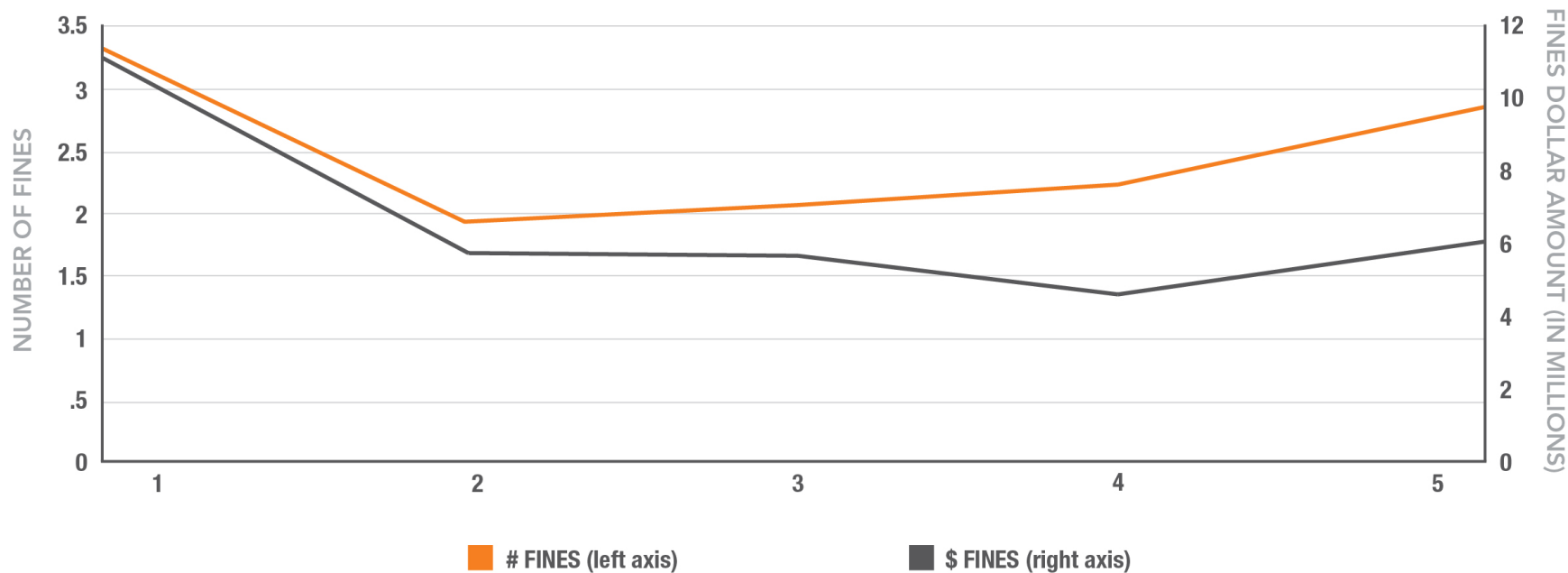
Hotline Usage Associated with Fewer Material Lawsuits and Lower Settlement Costs



What types of firms have an increased level of hotline usage?

1. More reports = BETTER (cont'd)

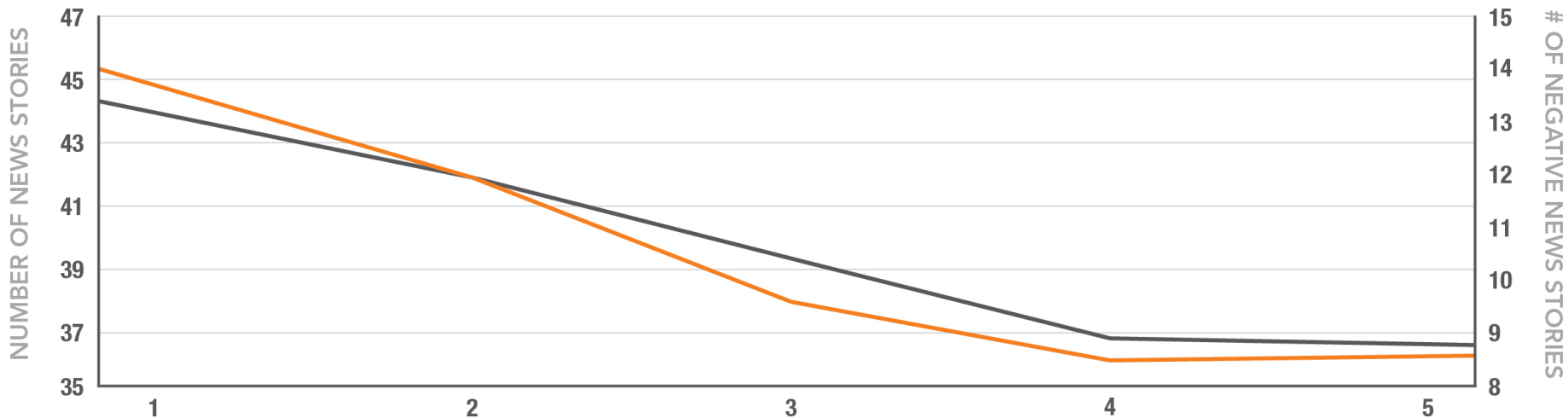
Hotline Usage Associated with Fewer Regulatory Agency Inquiries and Lower Fine Amounts



What types of firms have an increased level of hotline usage?

1. More reports = BETTER (cont'd)

Hotline Usage Associated with Fewer Negative News Stories in the Financial and Business Media



<i>Dep. Var. =</i>	<i>log(#LEGAL_{t+1})</i>		<i>log(\$LEGAL_{t+1})</i>		<i>log(#FINES_{t+1 to 3})</i>		<i>log(\$FINES_{t+1 to 3})</i>	
	Est.	t-stat	Est.	t-stat	Est.	t-stat	Est.	t-stat
<i>log(RPRTS_1ST_INVOLVED_t)</i>	0.006	0.75	0.033	0.51	-0.001	-0.12	0.003	0.03
<i>log(RPRTS_1ST_WITNESSED_t)</i>	-0.008	-0.87	-0.023	-0.40	-0.012	-1.05	-0.080	-0.81
<i>log(RPRTS_2ND_INTERNAL_t)</i>	-0.021	-1.85	-0.121	-1.69	0.016	1.14	0.180	1.50
<i>log(RPRTS_2ND_EXTERNAL_t)</i>	-0.020	-0.71	-0.044	-0.31	-0.112	-2.51	-0.706	-1.88
<i>log(RPRTS_2ND_ACCIDENT_t)</i>	-0.005	-0.26	-0.131	-0.93	-0.003	-0.11	0.043	0.22
<i>log(RPRTS_OTHER_t)</i>	-0.007	-0.73	0.061	1.02	0.001	0.11	0.055	0.62
<i>log(RPRTS_MISSING_t)</i>	-0.022	-2.72	-0.138	-2.65	-0.039	-2.84	-0.309	-2.89
<i>SIZE_t</i>	0.104	4.34	0.359	3.32	0.082	3.06	0.483	2.26
<i>ROA_t</i>	0.096	1.95	0.088	0.25	0.070	0.78	1.048	1.44
<i>GROWTH_t</i>	-0.017	-0.61	0.114	0.48	0.047	1.67	0.064	0.26
<i>VOL_t</i>	-0.120	-1.61	0.664	1.02	0.041	0.47	0.076	0.11
<i>OWN_t</i>	0.059	0.16	-0.263	-0.09	-0.175	-0.42	-4.423	-1.12
<i>AGE_t</i>	0.006	0.43	0.017	0.16	0.000	0.02	0.074	0.55
<i>LITRISK_t</i>	-0.052	-0.99	-0.312	-1.23	-0.018	-0.41	-0.512	-1.07
Firm and Year FE	Yes		Yes		Yes		Yes	
Adjusted R ²	0.375		0.049		0.842		0.744	
N	6,281		6,281		5,506		5,506	

$$\begin{aligned}
 SUBSTANT_{it} = & b_0 + \sum b_i SOURCE_{it} + \sum b_i CATEGORY_{it} + b_{12} DIRECT_t + b_{13} ANON_t \\
 & + b_{14} RETALIAT_t + \sum b_i REPORTER_{it} + \sum b_i MGTAW_{it} + \sum b_i MGTINV_{it} \\
 & + \sum b_i LENGTH_{it} + firm\ FE + year\ FE + e_t
 \end{aligned}$$

<i>Dep. Var. =</i>	<i>SUBSTANT_t</i>		<i>SUBSTANT_t</i>	
	Est.	t-stat	Est.	t-stat
<i>SOURCE=1ST_WITNESSED</i>	0.035	4.46	0.045	5.16
<i>SOURCE=2ND_INTERNAL</i>	0.095	5.35	0.085	5.31
<i>SOURCE=2ND_EXTERNAL</i>	0.034	1.77	0.022	1.09
<i>SOURCE=2ND_ACCIDENT</i>	0.041	3.86	0.049	4.41
<i>SOURCE=OTHER</i>	0.056	3.60	0.045	3.32
<i>SOURCE=MISSING</i>	-0.049	-2.66	-0.043	-1.40

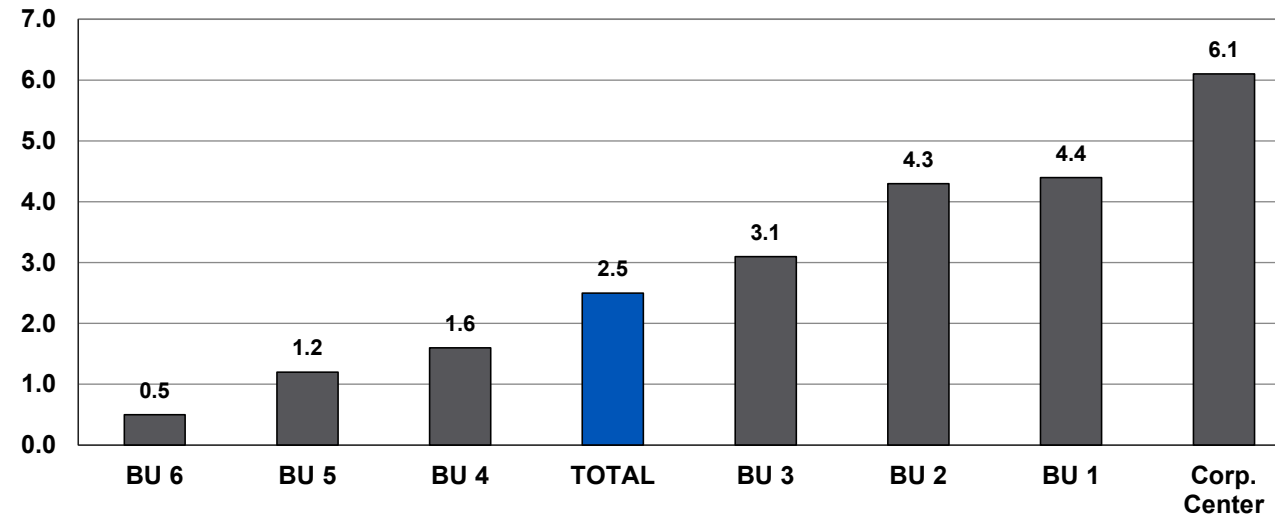
- Calling the system “help line” increases number of reports and decreases overall substantiation rates.
- Geographic dispersion of an organization reduces number of reports.
- When internal controls are a focus, the number of reports increases.

GW What do you see?

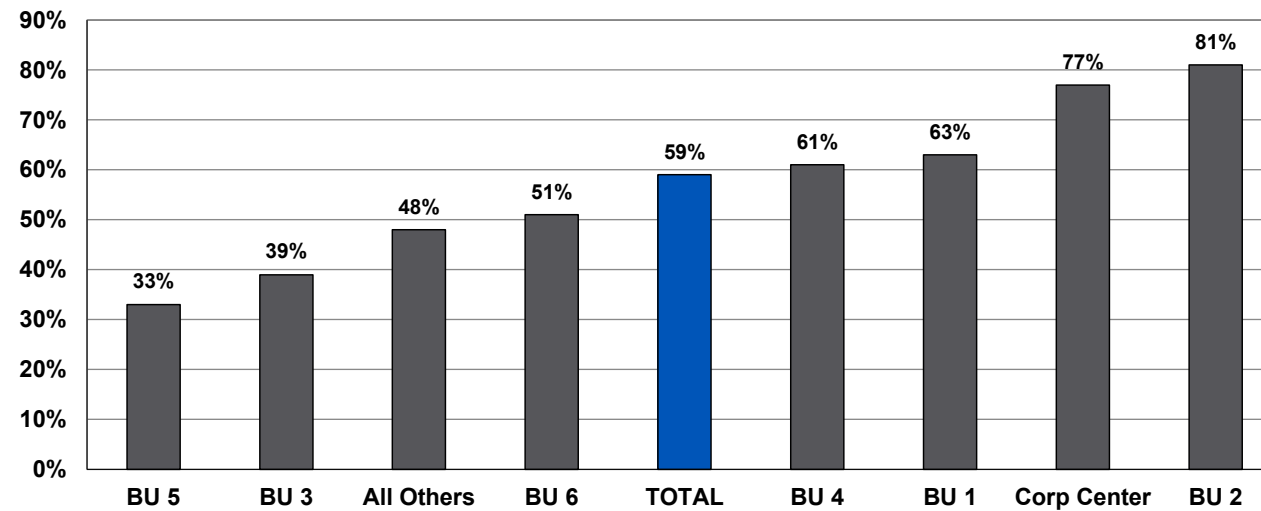


Value of Data – Spotting Potential Problems

Reports per 100 Employees



Anonymous Reports



- Firms with higher levels of hotline reports are *not* lower quality firms with worse protocols and compliance. Instead...
- The number of reports received (normalized for company size) is a good starting point to proxy compliance health
- Firms actively using internal whistleblowing systems are able to get ahead of problems before they become lawsuits and fines

Second Big Takeaway

Don't take anything for granted when working with these systems. There are often counter intuitive principles in their management.

- Secondhand reports
- Alternative anonymity (confidential informant)

Don't use shorthand rules of thumb that might cause you to discount a report. You need them all. This is a counter intuitive information tool

Are you getting everything out of your reports?

Important questions when evaluating systems.

1. Do our employees feel comfortable reporting a problem?
2. Do they know how to report a problem?
3. Do we know how to identify a problem reported?
4. Do we have the resources to investigate reports?



Questions We're Asking

- Is there an upper limit to the useful number of reports?
- Does the quality of information change as the number of reports goes up?
- What can your helpline reports tell you about the maturity of your overall compliance program and employee confidence/trust in your corporate culture?

Thank You

Papers Available on [SSRN](#)
and kylewelch.com

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