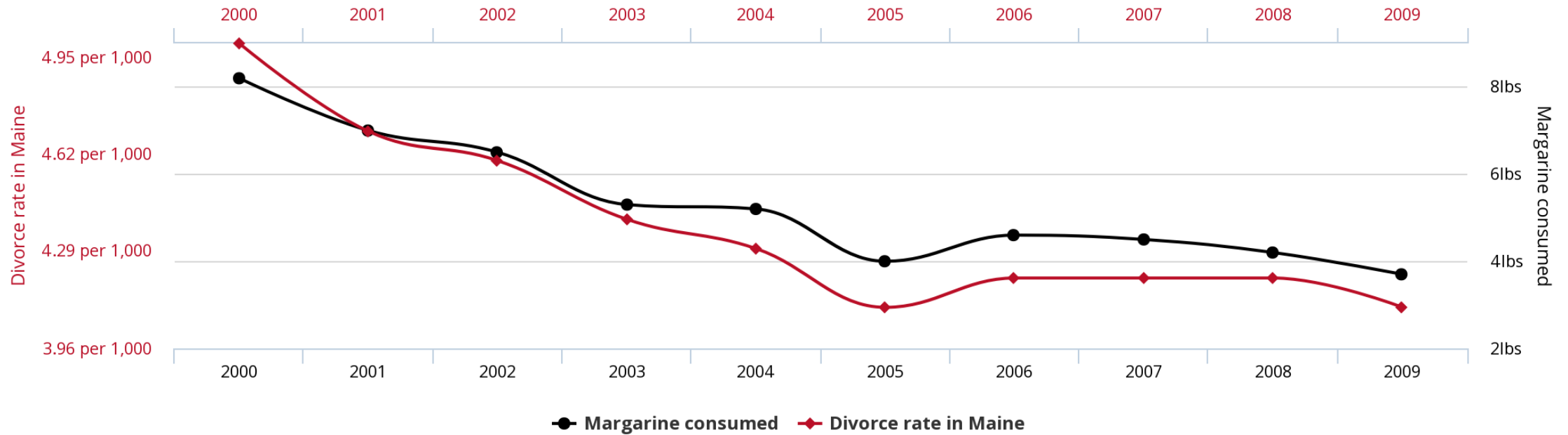


# When Data Speaks, We Should Listen

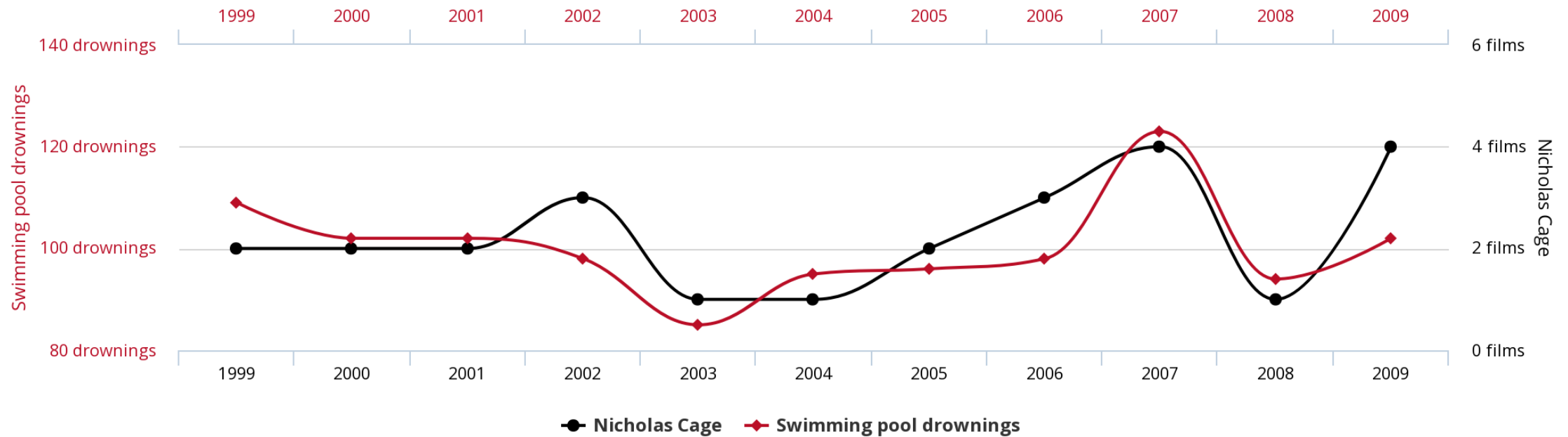
## Divorce rate in Maine correlates with Per capita consumption of margarine



tylervigen.com

# When Data Speaks, We Should Listen

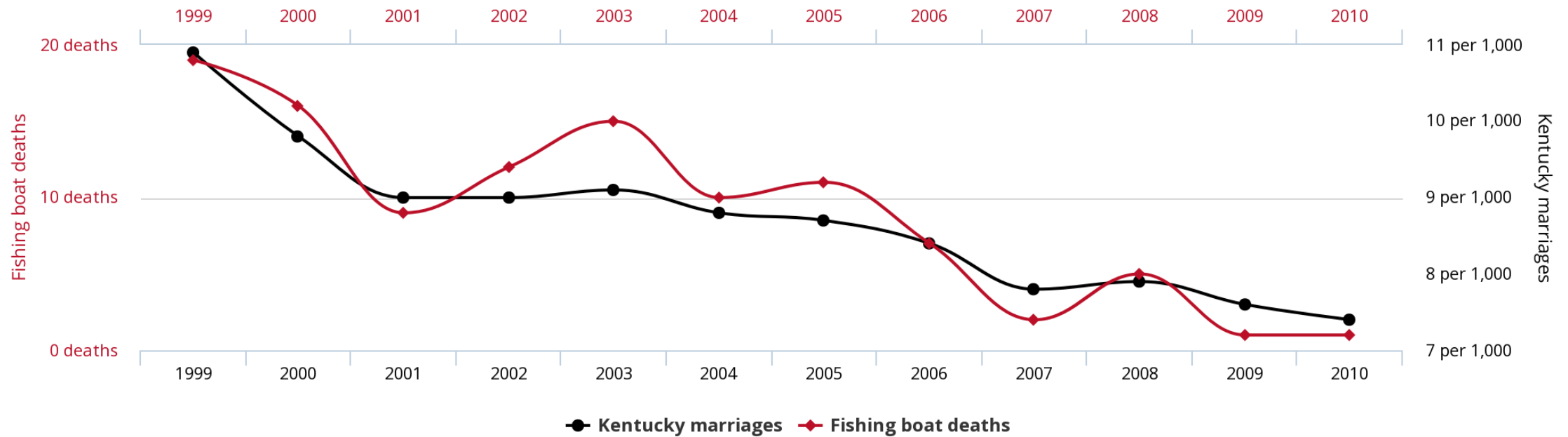
Number of people who drowned by falling into a pool  
correlates with  
Films Nicolas Cage appeared in



tylervigen.com

# When Data Speaks, We Should Listen

## People who drowned after falling out of a fishing boat correlates with Marriage rate in Kentucky



tylervigen.com

# Understanding Data Analytics

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Analytics is the process of...  
discovering, interpreting, and communicating  
significant patterns in data.

*Analytics Helps Us See Insights & Meaningful Data  
That We Might Not Otherwise Detect*

# The Four Types of Data Analytics

---

## Descriptive

### WHAT HAPPENED?

Identifies the facts of what has already happened

## Diagnostic

### WHY DID IT HAPPEN?

Seeks to understand the reasoning behind certain results

## Predictive

### WHAT WILL HAPPEN?

Uses statistics and modelling techniques to make predictions about future outcomes based on historical data

## Prescriptive

### WHAT SHOULD BE DONE?

Identifies best course of action for a scenario based on the available data and alignment of organizational goals

# The Four Types of Data Analytics

---

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# Building Your Analytic Foundation

---

**Descriptive**

**Diagnostic**

**Predictive**

**Prescriptive**

# Building Your Analytic Foundation

---

**Prescriptive**

**Predictive**

**Diagnostic**

**Descriptive**

Can you guess where we can currently find the most value?

We start with Descriptive Analytics and advance up the chain slowly as we add value



# Building Your Analytic Foundation

---

Right now, 80% of the value you will produce in applying analytics to your operation is still found in Descriptive and Diagnostic Analytics...

**Prescriptive**

**Predictive**

**Diagnostic**

**Descriptive**

# 4 Steps To Building Your Analytics Foundation

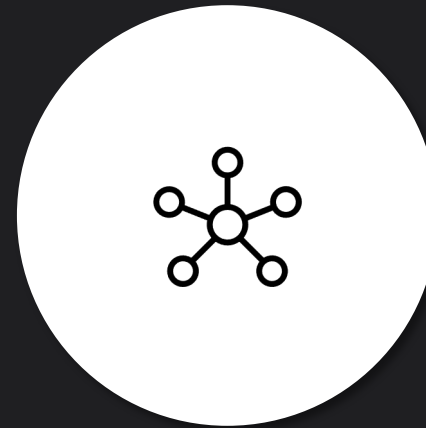
*Start by identifying a specific problem or pain point your people would like to solve... buy-in matters!*



CONNECT



STORE



CONTEXTUALIZE



SHARE

# 4 Steps To Building Your Analytics Foundation



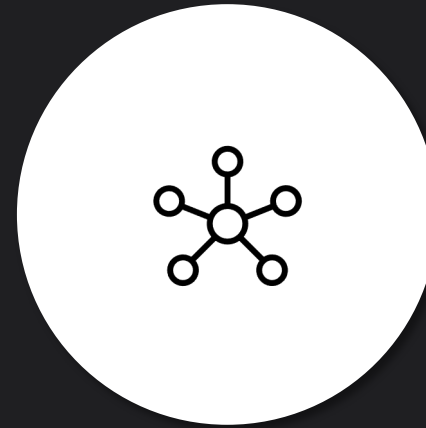
CONNECT

Equipment  
SCADA  
Manual Data  
Other DBs



STORE

Open  
Secure  
Adaptable  
Easy To Use



CONTEXTUALIZE

Standardization  
Assets  
Calculations  
Events



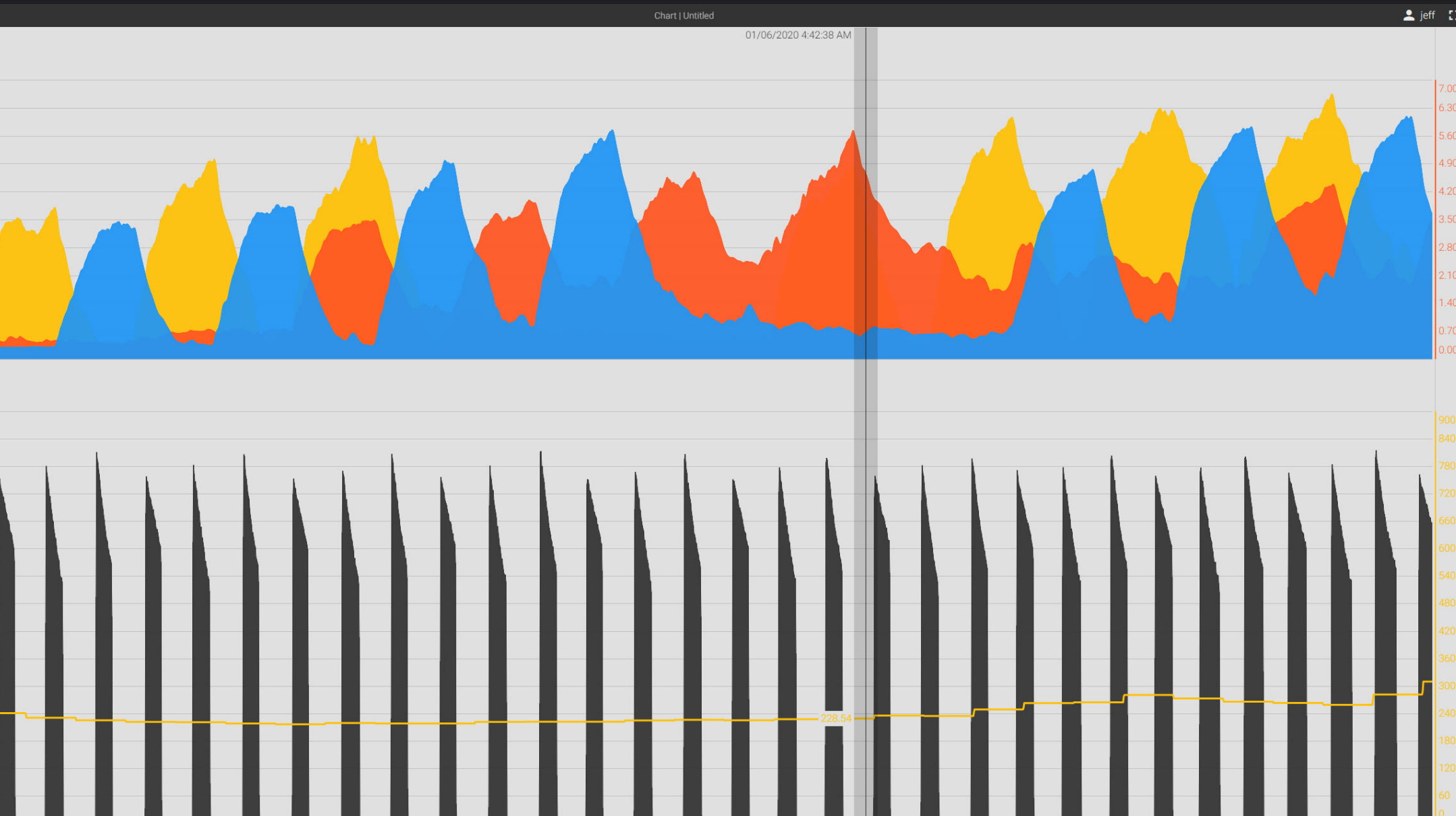
SHARE

Trends  
Dashboards  
Reports  
Other Apps

# Better Data Access Matters



# Better Data Access Matters



# Better Data Access Matters

Application | Read Only\Tradeshov\AVIUM Overview Anonymous

Reports

- REGION VIEW
- SITE VOLUME
- LOW VOLUME
- SITE ALARMS
- TANK ALARMS
- PUMP ALARMS

### Site Alarms

- BLACKBIRD.SITE 1
- BLACKBIRD.SITE 2
- BLACKBIRD.SITE 4
- BLACKBIRD.SITE 5
- BLACKBIRD.SITE 6
- FINCH.SITE 1
- FINCH.SITE 3
- FINCH.SITE 5
- FINCH.SITE 6
- FINCH.SITE 8

50 of 50

### Site Performance

sortby [Projected Volume]	Projected Volume	Yesterday	Today vs 14d
STARLING.SITE 6	43.6	41.70	70.8%
THRUSH.SITE 7	51.0	19.65	69.8%
WREN.SITE 6	51.2	19.26	11.5%
BLACKBIRD.SITE 6	53.6	20.27	29.7%
LARK.SITE 16	55.0	41.29	56.0%
THRUSH.SITE 8	55.2	85.04	206.3%
WREN.SITE 2	55.4	18.16	97.1%
SWALLOW.SITE 7	55.9	0.09	105.3%
FINCH.SITE 3	56.5	14.78	61.5%
JAY.SITE 2	56.6	60.52	127.1%
WREN.SITE 9	57.4	69.14	54.9%
WREN.SITE 13	58.7	59.27	121.5%
BLACKBIRD.SITE 8	58.7	2.41	140.5%
LARK.SITE 9	59.1	81.08	84.1%
FINCH.SITE 1	59.4	10.36	22.7%
WREN.SITE 3	59.4	18.02	3.8%
NIGHTINGALE.SITE 12	59.5	38.71	164.5%
SPARROW.SITE 4	59.7	34.36	165.5%
LARK.SITE 6	60.1	21.76	88.8%
SWALLOW.SITE 3	60.3	91.13	68.6%
JAY.SITE 9	60.3	60.71	125.5%
FINCH.SITE 9	60.4	14.02	65.8%
NIGHTINGALE.SITE 10	60.5	1.43	68.0%
LARK.SITE 4	60.9	92.74	147.5%
FINCH.SITE 11	61.1	51.60	193.1%
NIGHTINGALE.SITE 14	61.4	37.54	88.8%
LARK.SITE 3	61.8	98.28	182.0%
STARLING.SITE 1	61.9	3.26	78.0%
JAY.SITE 8	62.0	69.57	59.2%
SPARROW.SITE 2	62.2	69.11	40.8%
LARK.SITE 5	62.5	22.80	140.2%
NIGHTINGALE.SITE 13	62.6	19.21	100.7%
NIGHTINGALE.SITE 6	63.1	0.88	105.2%

### Overview

sortby [Health Score] desc

	Count	Alarms	%
3 Sites	8	5	63%
3 Pumps	32	0	0%
3 Tanks	16	0	0%

	Count	Alarms	%
3 Sites	3	2	67%
3 Pumps	6	0	0%
3 Tanks	3	0	0%

	Count	Alarms	%
3 Sites	8	5	63%
3 Pumps	18	0	0%
3 Tanks	8	0	0%

### Tank Alarms

- JAY.SITE 1.TANK A
- SWALLOW.SITE 3.TANK A

2 of 2

### Pump Alarms

- JAY.SITE 12.PUMP B
- SWALLOW.SITE 1.PUMP A
- WREN.SITE 5.PUMP A



# Happy To Help You On Your Analytic Journey

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Jeff Knepper

Canary

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