

Online Survey

<https://www.surveymonkey.com/r/2015sia>

Introducing the Big Data Panel



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“Big Data” Panel



Setting the stage

- ⦿ Ask a question
 - > Company A, B, and C come together and collaboratively want to know what the failure trends are on a Dell Poweredge 2950 server
- ⦿ Identify the required data elements
 - > Each company would need to provide:
 - Install base
 - Call history
 - Parts usage
- ⦿ Begin “ELT” (Extract, Load, Transform)

“ELT” (Extract, Load, Transform)

- Extract data from individual sources
- Load into a data warehouse
- Transform the data to normalize it

Company A

Year	Month	Grand Total	Qty Support	Failure Rate	Battery	CPU	Fan
2010	Jan	1	66	1.52%			
2010	Mar	1	226	0.44%			
2010	Apr	2	232	0.86%			
2010	May	1	243	0.41%			
2010	Aug	3	264	1.14%			
2010	Sep	2	1205	0.17%	1		

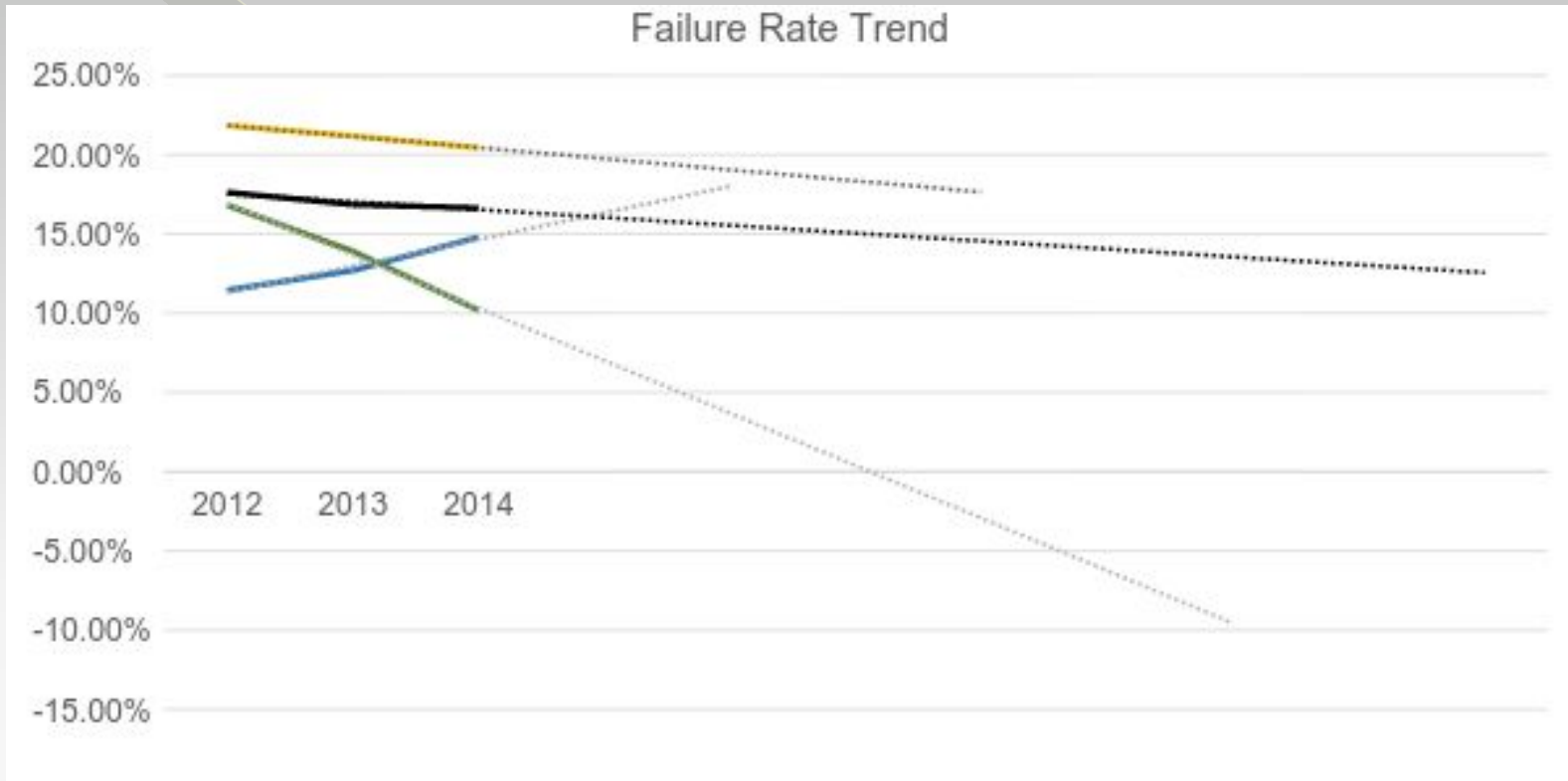
Company B

Ticket	Office	Date	DriveTi	Onsite	Equipm	Part De
283457	Grand Rap	01/01/201	1.5	0.5	POWERED	DISK DRIV
283491	Detroit	01/01/201	0.5	0.5	POWERED	POWER SL
283528	Nashville	01/01/201	2	1	POWERED	DISK DRIV
283852	Louisville	01/01/201	0.5	0.5	POWERED	MEMORY
283852	Louisville	01/01/201	0.5	0.5	POWERED	MEMORY
283852	Louisville	01/01/201	0.5	0.5	POWERED	BATTERY
284001	Milwauke	01/01/201	1	0.25	POWERED	BATTERY
284004	Chicago	01/01/201	2.75	2	POWERED	SYSTEM B

Company C

SO Number	Site City	Site State	Site Zip	Equipment Model.	Equipment Description.	SO Recvd Date	SO Close Date
02000793773	PENNINGTON	NJ	08534	POWEREDGE	POWEREDGE	01/02/12	01/04/12
02000797465	KANSAS CITY	MO	64153	POWEREDGE	POWEREDGE	01/04/12	01/04/12
02000800634	PENNINGTON	NJ	08534	POWEREDGE	POWEREDGE	01/06/12	01/09/12
02000800663	PENNINGTON	NJ	08534	POWEREDGE	POWEREDGE	01/06/12	01/09/12
02000800697	PENNINGTON	NJ	08534	POWEREDGE	POWEREDGE	01/06/12	01/09/12
02000806403	SAN FRANCIS	CA	94103	POWEREDGE	POWEREDGE	01/11/12	01/11/12

Initial results

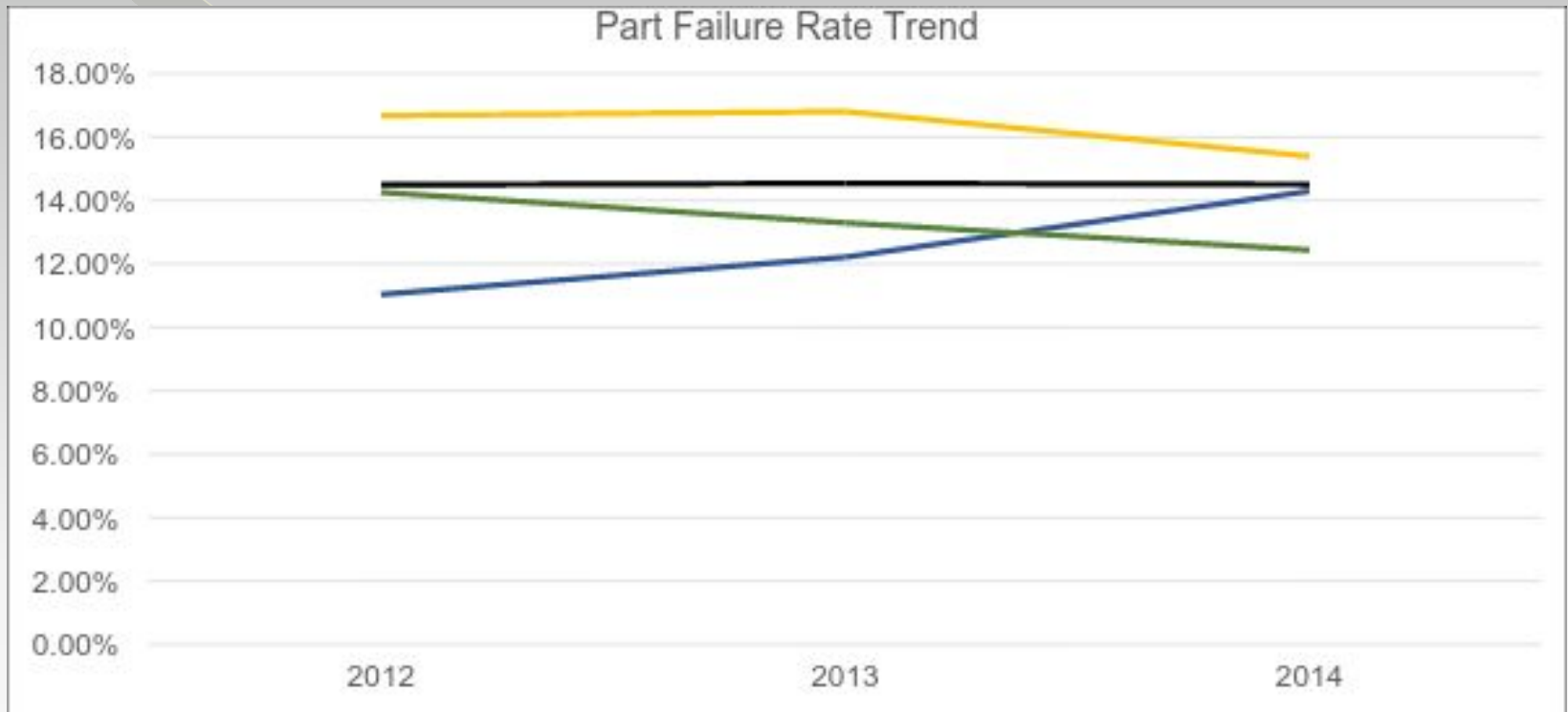


- Average Annual Failure Rate = $17.04\% \pm 4.12$
- High deviation=little insight

Define analytical approach

- Collaborate on definition
 - What does failure rate mean?
- Determine commonalities amongst data sources
 - Chose 'failures requiring a part replacement' as benchmark
- Identify exceptions
 - Remove consumable parts from analysis

Revised results

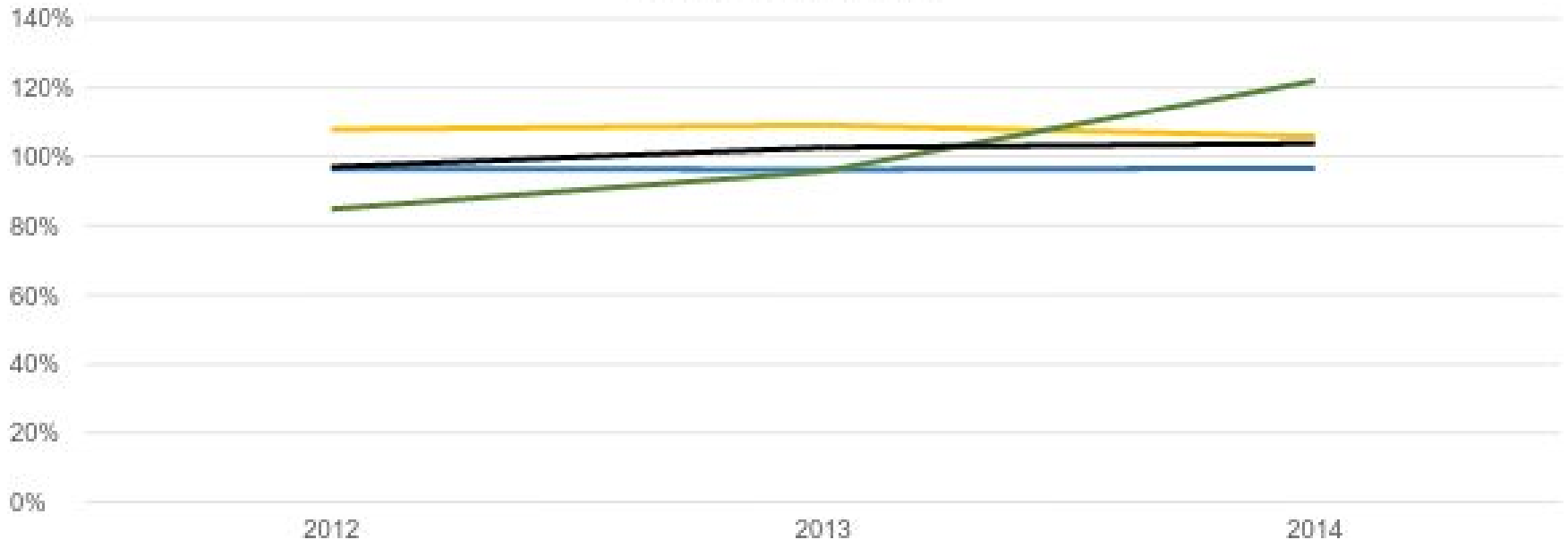


- Average Annual Part Failure Rate = 14.51% ± 1.89
- Low Deviation=Reliable
- Baseline is now set to analyze related elements

Analyze related factors

Poweredge 2950 Data	Company A						Company B						Company C						Average					
	Install Base	Call Volume	Failure Rate	Parts Usage	Part Usage Rate	Part Failure Rate	Install Base	Call Volume	Failure Rate	Parts Usage	Part Usage Rate	Part Failure Rate	Install Base	Call Volume	Failure Rate	Parts Usage	Part Usage Rate	Part Failure Rate	Install Base	Call Volume	Failure Rate	Parts Usage	Part Usage Rate	Part Failure Rate
2012	2,682	307	11.45%	296	96%	11.04%	4,653	720	15.48%	776	108%	16.68%	3745	630	16.82%	534	85%	14.26%	11079	1657	14.96%	1606	97%	14.50%
2013	3,922	498	12.70%	479	96%	12.21%	5,117	789	15.42%	860	109%	16.81%	1970	274	13.91%	262	96%	13.30%	11009	1561	14.18%	1601	103%	14.54%
2014	4,561	675	14.80%	652	97%	14.29%	5,138	748	14.56%	791	106%	15.40%	1737	177	10.19%	216	122%	12.44%	11436	1600	13.99%	1659	104%	14.51%

Parts Usage Rate Trend



Analyze, Discuss, Repeat!!!

Once the baseline is established, ask new questions, and get new answers

- ⦿ How does travel time effect parts usage?
- ⦿ What percentage of the 2950 market share do I hold?
- ⦿ Can we predict future failure trends?

Call to action...

SIA-Commissioned 'Big Data Initiative'

- ⊙ Imagine....
 - > Comparing your standard metrics against a much larger population, anonymously and consistently
 - > Being able to validate the changes in your environment quickly and confidently
 - > "Gartner's" for the Services Industry
- ⊙ Answer the question; "What do you *think* you know about your business"