


Perfectionism vs. Practicality: Can Imperfect Data Still Point Us in the Right Direction?



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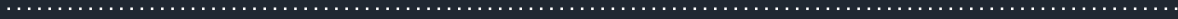
 @SMacLaughlin



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Senior Director of Technology,
GuideStar

 @GuideStarUSA



Downstream Design



What's in a Design?

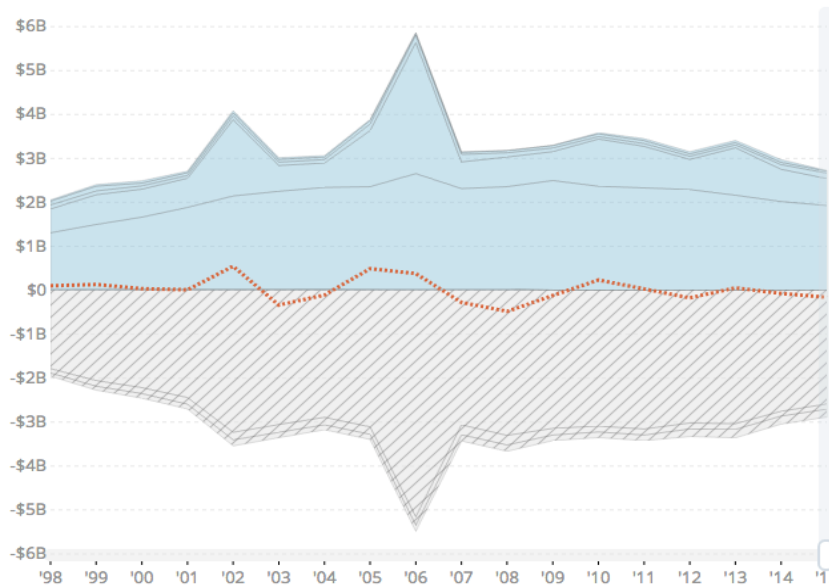
- Understand the data
- Data quality and enhancement
- Design for downstream
- Lack of data

Reimagining GuideStar.org

Revenue vs. Expenses

Comparing revenue to expenses shows how the organizations finances fluctuate over time.

Source: IRS Form 990



2015 Breakdown

Net Gain/Loss: -\$159,330,749 in 2015

Total Revenue:	\$2,726,672,619
Contributions:	\$613,845,159
Gov't Grants:	\$46,190,500
Program Services:	\$1,925,059,348
Investments:	\$123,141,241
Special Events:	\$2,846,067
Sales:	\$0
Other:	\$15,590,304

Total Expenses:	\$2,886,003,368
Program Services:	\$2,587,035,899
Administration:	\$118,033,560
Fundraising:	\$180,933,909

Note: When component data are not available, the graph displays the and/or Expense values.

LIQUIDITY IN 2015

0.72

Average of 0.95 over 18 years

MONTHS OF CASH IN 2015

2.2

Average of 3.1 over 18 years

FRINGE RATE IN 2015

29%

Average of 26% over 18 years

Challenge = NULL

Revenue and Expenses Fiscal Year 2015

Revenue	
Contributions	\$613,845,159
Government Grants	\$46,190,500
Program Services	\$1,925,059,348
Investments	\$123,141,241
Special Events	\$2,846,067
Sales	\$0
Other	\$15,590,304
Total Revenue	\$2,726,672,619

Expenses	
Program Services	\$2,587,035,899
Administration	\$118,033,560
Fundraising	\$180,933,909
Total Expenses	\$2,886,003,368

Net Gain/Loss	(\$159,330,749)
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Functional Expenses	
Accounting Fees	\$1,998,519
Advertising & Promotion	\$22,457,108
Information Technology Expenses	\$30,907,097
Insurance Expenses	\$27,643,941
Interest Expenses	\$41,909,014
Investment Management Fees	\$0
Legal Fees	\$3,166,538
Pension Plan Contributions	\$58,883,696
Professional Fundraising Expenses	\$0

Balance Sheet Fiscal Year 2015

Assets	JUL 01, 2014	JUN 30, 2015	CHANGE
Cash & Equivalents	\$568,461,679	\$517,167,006	(\$51,294,673)
Accounts Receivable	\$190,528,212	\$191,582,186	\$1,053,974
Pledges & Grants Receivable	\$95,811,091	\$84,761,996	(\$11,049,095)
Receivable, Other	\$0	\$0	\$0
Inventories for Sale or Use	\$108,978,514	\$71,554,590	(\$37,423,924)
Investment, Securities	\$1,553,755,940	\$1,385,926,697	(\$167,829,243)
Investment, Other	\$0	\$0	\$0
Fixed Assets (LBE - Depreciation)	\$995,695,128	\$962,131,010	(\$33,564,118)
Other	\$278,412,667	\$273,019,086	(\$5,393,581)
Total Assets	\$3,791,643,231	\$3,486,142,571	(\$305,500,660)

Liabilities	JUL 01, 2014	JUN 30, 2015	CHANGE
Accounts Payable	\$280,868,579	\$260,977,043	(\$19,891,536)
Grants Payable	\$0	\$0	\$0
Deferred Revenue	\$0	\$0	\$0
Loans and Notes	\$532,862,592	\$524,409,939	(\$8,452,653)
Tax-Exempt Bond Liabilities	\$212,890,782	\$120,571,350	(\$92,319,432)
Other	\$804,262,800	\$986,373,910	\$182,111,110
Total Liabilities	\$1,830,884,753	\$1,892,332,242	\$61,447,489

Fund Balance	JUL 01, 2014	JUN 30, 2015	CHANGE
Temporarily Restricted Net Assets	\$857,420,050	\$751,529,004	(\$105,891,046)
Permanently Restricted Net Assets	\$763,761,228	\$792,605,111	\$28,843,883
Unrestricted Net Assets	\$339,577,200	\$49,676,214	(\$289,900,986)
Net Assets	\$1,960,758,478	\$1,593,810,329	(\$366,948,149)

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***“The purpose of models is not
to fit the data but to sharpen
the question.”***

– Samuel Karlin

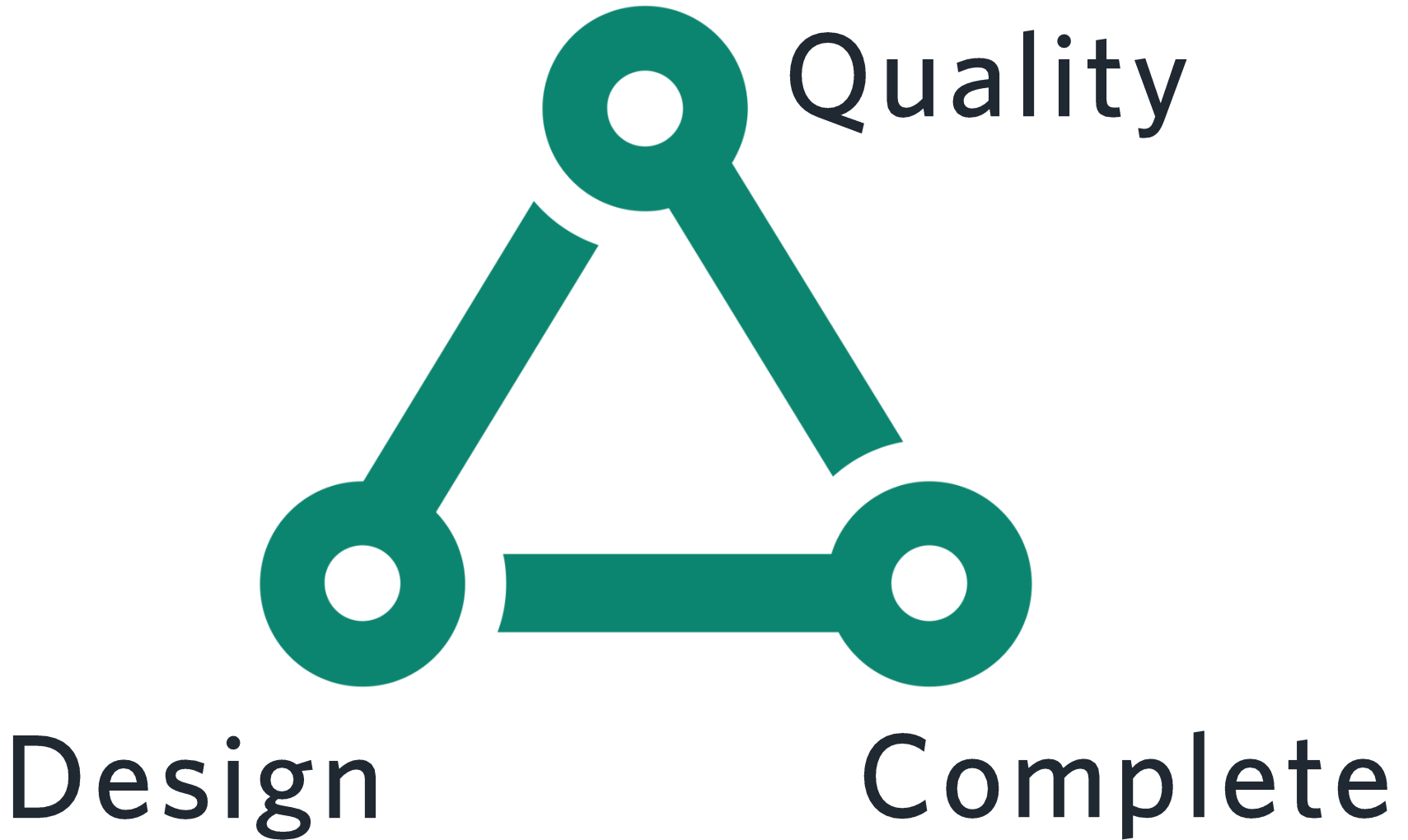
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DATA

IS THE MOST ABUNDANT
ELEMENT IN THE SOCIAL
GOOD SECTOR

DATA HEALTH

IS THE BEGINNING OF WISDOM



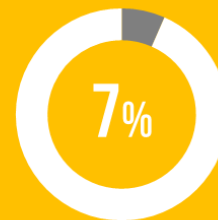
DATA QUALITY



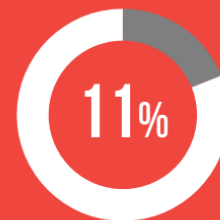
OUTDATED ADDRESSES



BEST NONPROFITS



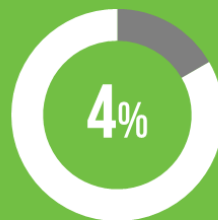
AVG NONPROFITS



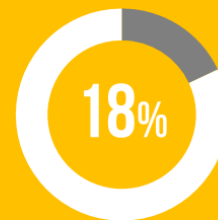
WORST NONPROFITS



INVALID POSTAL ADDRESSES



BEST NONPROFITS



AVG NONPROFITS



WORST NONPROFITS



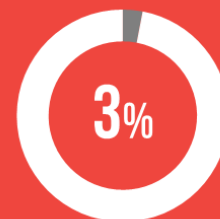
DECEASED SUPPORTERS



BEST NONPROFITS



AVG NONPROFITS



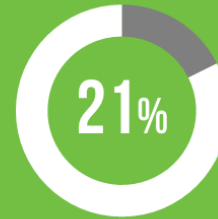
WORST NONPROFITS

Source Target Analytics, a division of Blackbaud

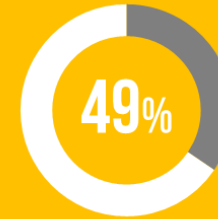
DATA COMPLETENESS



MISSING PHONE NUMBERS



BEST NONPROFITS



AVG NONPROFITS



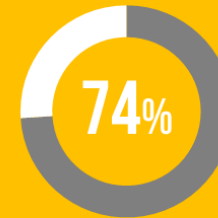
WORST NONPROFITS



MISSING EMAIL ADDRESSES



BEST NONPROFITS



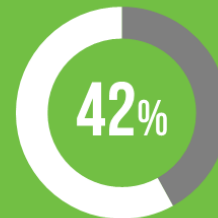
AVG NONPROFITS



WORST NONPROFITS



MISSING AGES



BEST NONPROFITS



AVG NONPROFITS



WORST NONPROFITS

Source Target Analytics, a division of Blackbaud

DATA DESIGN



Adrian Chandler

from **POSSIBILITIES**
to **RESPONSIBILITIES**

#DoGoodData

DATA ON PURPOSE

 DO GOOD DATA



**"CULTURE EATS STRATEGY
FOR BREAKFAST."**

– Peter Drucker



***The Problem – Data
Relationship***









from POSSIBILITIES
to RESPONSIBILITIES

DATA ON PURPOSE

 DO GOOD DATA



from **POSSIBILITIES**
to **RESPONSIBILITIES**

DATA ON PURPOSE

 DO GOOD DATA

**NO
SWIMMING**





***The use determines the
quantity, quality, and
typology required.***

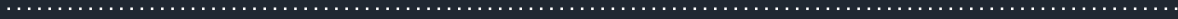




***Directional Accuracy vs
Complete Accuracy***







Proof vs. Evidence



$FP + FP = FP + GP$
 $= FG$
 $FQ + FQ = FQ + GO$
 $> FG$
 GO lies outside
 L (i.e. at) the ellipse




$\alpha = \text{area swept}/r$
 $R \dot{\alpha} = \dot{s}t$
 $\Delta V = \frac{2}{R} (s \dot{\alpha}) = \frac{2}{R} \frac{R \dot{\alpha} s}{\alpha} = \frac{2}{\alpha} \dot{\alpha} s$
 $= V_0 \dot{\alpha} s$



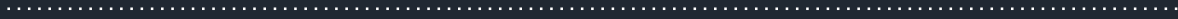
(a) (b) then (c)
 ce toward Sun
 Force as $1/r^2$
 times are
 inversely as the

$\tan \frac{\phi}{2} = \frac{V_a}{V_0} = \frac{2}{2V_0} = \frac{1}{V_0}$
 $\phi = 2 \arctan \frac{1}{V_0}$
 $\phi = 2 \arctan \frac{1}{V_0}$




$\phi = 2 \arctan \frac{1}{V_0}$






Data Quality is not Binary





***Data quality and
completeness constrain use
but don't negate use.***




Audience Q&A



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