

Optimize Individual Donor LTV & Retention through Artificial Intelligence

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*Artificial Intelligence that optimizes Donor
Lifetime Value and Retention*



Arjuna Solutions' Products



ExactAsk

How much to Ask?

- Individually Personalized (AI) pricing algorithm
- Determines the precise "Ask Amount" to request from each donor
- Increases DLV



ExactDonor & ExactCadence

When to Ask Whom?

- Campaign calendar orchestration tools
- ED is Propensity Index for fixed campaign calendars
- EC is alternatively used to optimize donor calendar



ExactMessage

What to Emphasize?

- Identifies key donor drivers by persona group
- Enables targeted messaging with unique value proposition by persona grouping



ExactServices

Professional Services for Nonprofit Marketers

- Optimizes the impact of Arjuna Solutions with agency partners and customers

Sample Size

13 Non Profits

# ExactAsk Campaigns 2016-01-01 to Date	37
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Complete Treatment / Control Campaigns	17
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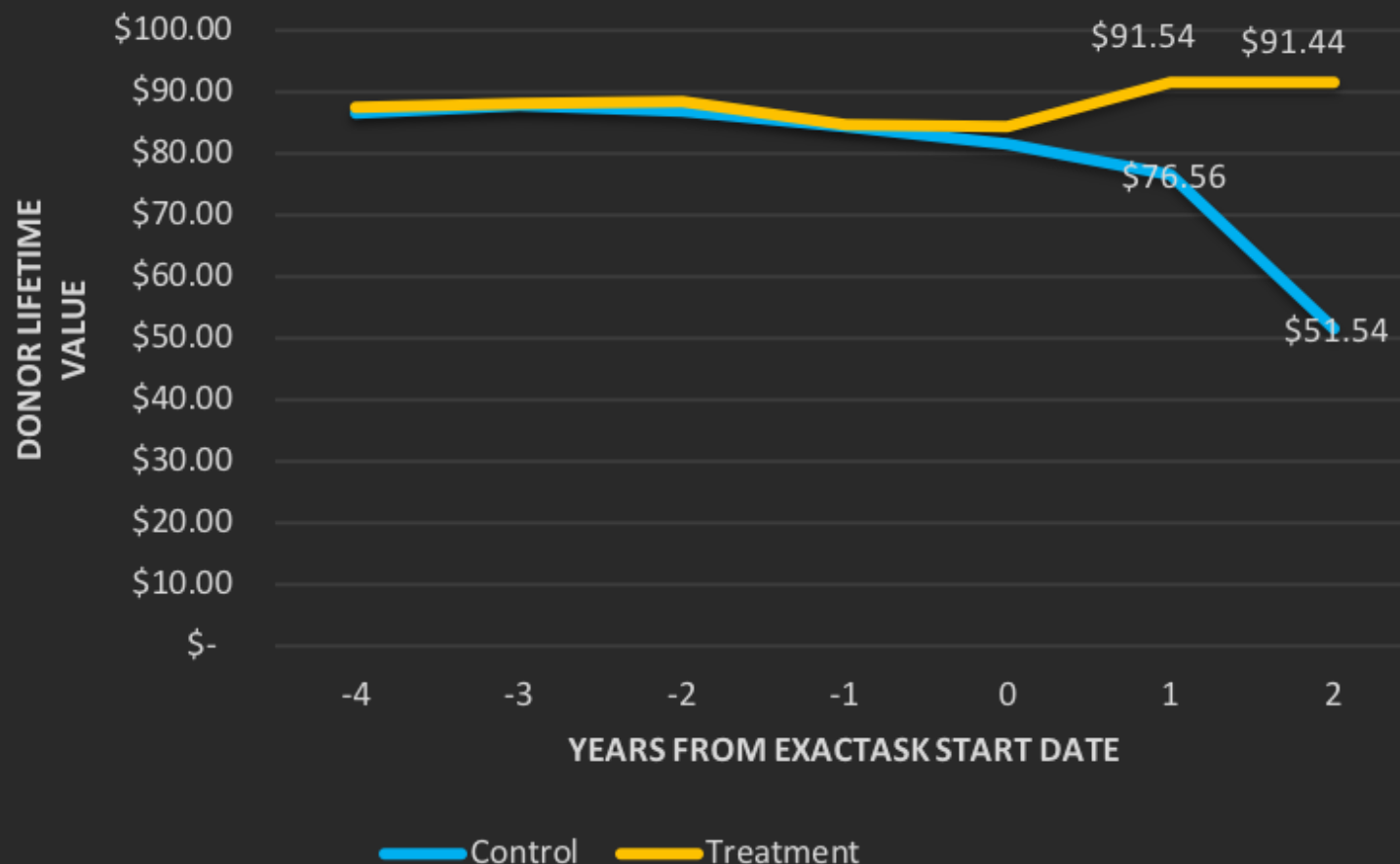
Incomplete Do not yet have results data	5
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Invalid Integrity issue in test	3
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Treatment Only When clients decide to derive the benefit of exact ask on all individuals in a campaign	12
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	Control	Treatment
Count of Solicitations in Completed C/T Campaigns	357,769	358,057

Donor Lifetime Value Enhancements



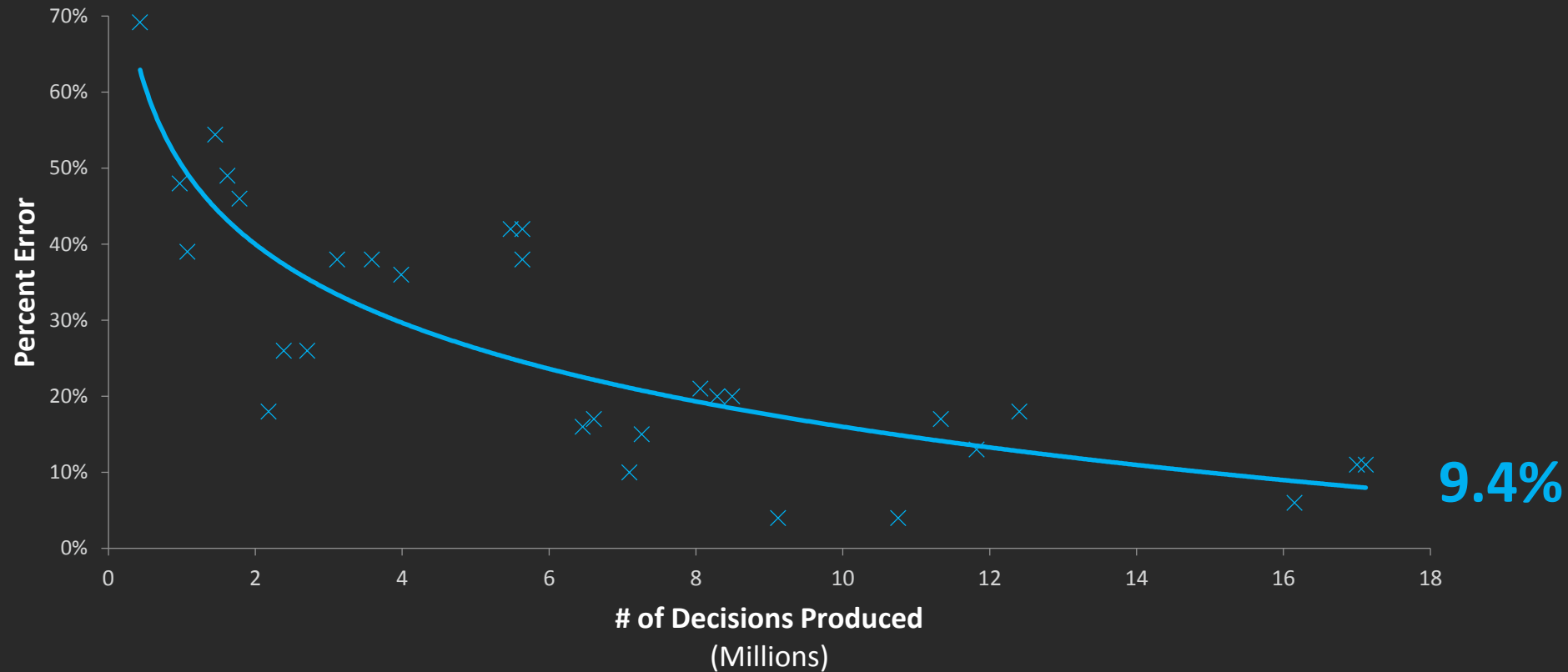
Avg. Lift in Donor Value

Year 1: **+19%**

Year 2: **+72%**

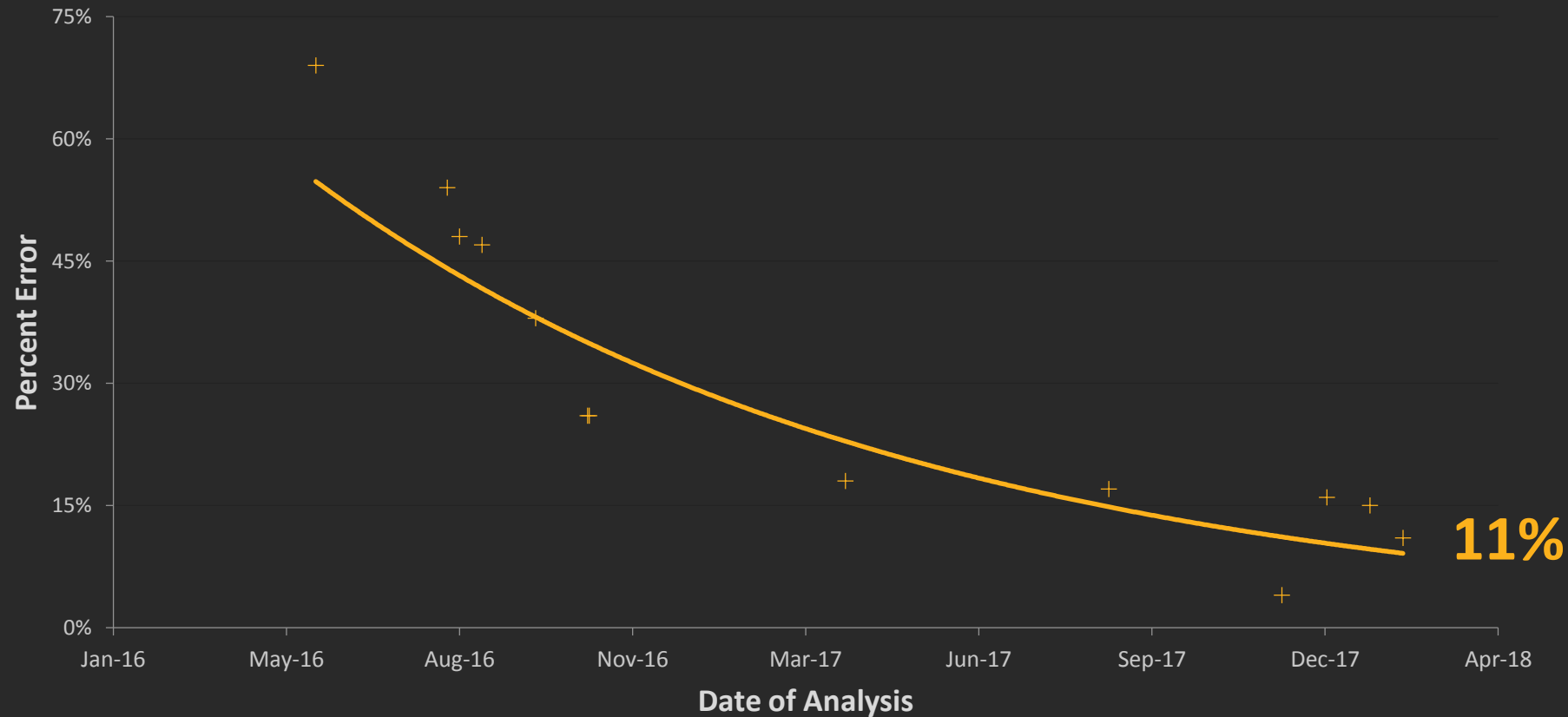
Machine Learning – All Datasets

Arjuna's AI continues to produce less error as the volume of decisions produced increases



Machine Learning – Consumer Pricing Expertise

Arjuna's AI is generating less error when seeing new datasets for the very first time, indicating that it has learned insights about consumer pricing generally



Case Study #1

Partners in Health

CASE: Partners in Health

- Pre-existing relationships with many donors going back many years (20+ years)
- Existing donors with established giving patterns, many of which are currently:
 - Lapsed
 - Declining in value
- Under pressure to return program to growth with static budget
- Continues to generate bulk of revenue from direct mail and traditional programs

Objective

- Generate more revenue from existing donors with established giving patterns by using ExactAsk on renewal campaigns

CASE: Partners in Health

Pilot

- Apply ExactAsk to 3 direct mail renewal campaigns
- Donors targeted in each campaign would be divided by marketing agency into 2 equal sized and balanced groups:
 - Control group
 - Treatment group (ExactAsk treated)
- Once donors assigned to a group, cannot switch groups until pilot completed
- Results shall include all gifts received from targeted donors within 60 days after campaign send date
- Results data uploaded to ExactAsk monthly and ask amounts refreshed for each campaign

RESULTS: Campaign by campaign

		Control			ExactAsk / # Asks			Overall		Lift w/ ExactAsk
Month, Day, Year of Campaign Date		1	2	3	1	2	3	C	T	
September 11, 2017	Group Count	87,500			87,500			87,500	87,500	
	# of Responses	344			346			344	346	
	Participation Rate	0.39%			0.40%			0.39%	0.40%	0.7%
	Avg. Donation Amt	\$53.14			\$62.00			\$53.14	\$62.00	17%
	Total Donations	\$18,280			\$21,471			\$18,280	\$21,471	17%
April 3, 2018	Group Count	9,693	1,755		8,937	2,511		11,448	11,448	
	# of Responses	69	11		81	16		80	97	
	Participation Rate	0.71%	0.63%		0.91%	0.64%		0.70%	0.85%	21%
	Avg. Donation Amt	\$71.70	\$34.18		\$102.28	\$89.13		\$66.54	\$100.11	50%
	Total Donations	\$4,947.00	\$376.00		\$8,285.00	\$1,426.00		\$5,323	\$9,711	82%
June 1, 2018	Group Count	600	9,274	1,642	309	8,764	2,443	11,516	11,516	
	# of Responses	9	73	16	1	99	25	98	125	
	Participation Rate	1.50%	0.79%	0.97%	0.32%	1.13%	1.02%	0.85%	1.09%	28%
	Avg. Donation Amt	\$29.44	\$62.22	\$154.06	\$57.00	\$127.60	\$249.36	\$74.20	\$151.38	104%
	Total Donations	\$265	\$4,542	\$2,465	\$57	\$12,632	\$6,234	\$7,272	\$18,923	160%

Multiple continuous treatments improve outcomes

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		1	Control 2	3	1	ExactAsk 2	3	Overall Results Control ExactAsk		Overall Lift
Donor Value	Total solicitations	97,793	11,029	1,642	96,746	11,275	2,443	110,464	110,464	
	Total Responses (gifts)	422	84	16	486	115	84	522	685	
	Total Response Rate	0.43%	0.76%	0.97%	0.50%	1.02%	3.44%	0.47%	0.62%	31%
	Total Revenue	\$23,492	\$4,918	\$2,465	\$33,163	\$18,953	\$7,501	\$30,875	\$59,617	93%
	Avg. gift size	\$55.67	\$58.55	\$154.06	\$68.19	\$164.81	\$89.30	\$59.15	\$86.99	47%
	# of solicitations per gift	232	131	103	199	98	29	212	161	24%

RESULTS: Donor Lifetime Value

Times Treated	Sample Size (Donor Count)	# of Donor Responses	Lift in Avg. Gift Size	Lift in Response Rate	Lift in Revenue
1	194,539	908	+ 22%	+ 16%	+ 41%
2	22,304	199	+ 181%	+ 34%	+ 285%
3	4,085	100	- 42%	+ 253%	+ 204%

- Multiple continuous treatments improve REVENUE and PARTICIPATION from donors!

Case Study #1

Charity Navigator

CASE: Charity Navigator

- Database of users who register account in order to access proprietary content over web
- Users have never made donation to CN, and these Users very different from CN's historical donors
- CN knows the following about each User:
 - Content consumption
 - Web app usage and behaviors
 - Account registration information
- Begin soliciting users for donations over email

Objective

- Optimize revenue from new donors by using ExactAsk on acquisition campaigns sent to Users with registered Charity Navigator account

CASE: Charity Navigator

Pilot

- Apply ExactAsk to 3 email acquisition campaigns sent to ~46,000 prospects over 6 months
- Donors targeted in each campaign would be divided into 2 equal sized and balanced groups:
 - Control group (23,088 prospects)
 - Treatment group (23,088 prospects)
- Once donors assigned to a group, cannot switch groups until pilot completed
- The same 23,088 prospects in each group shall be targeted with each email campaign
- Results shall include all gifts received from targeted donors within 60 days after campaign send date
- Results data uploaded to ExactAsk monthly and ask amounts refreshed for each campaign

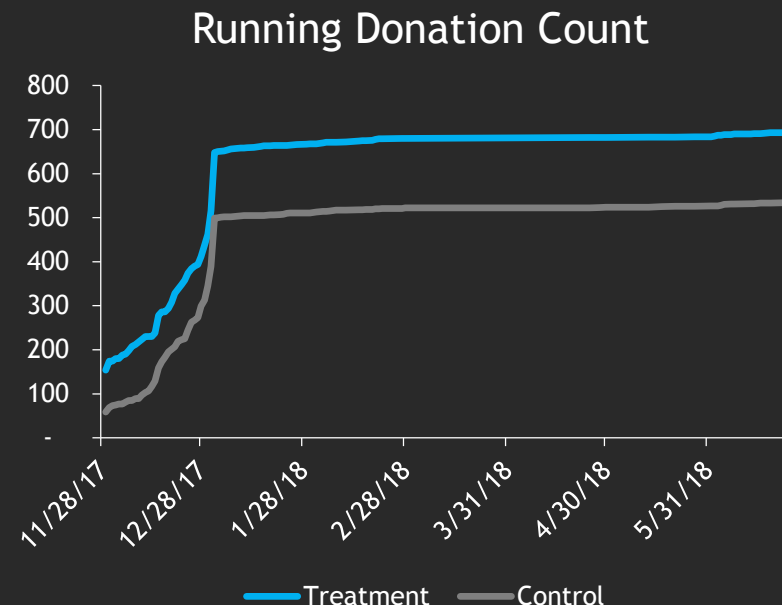
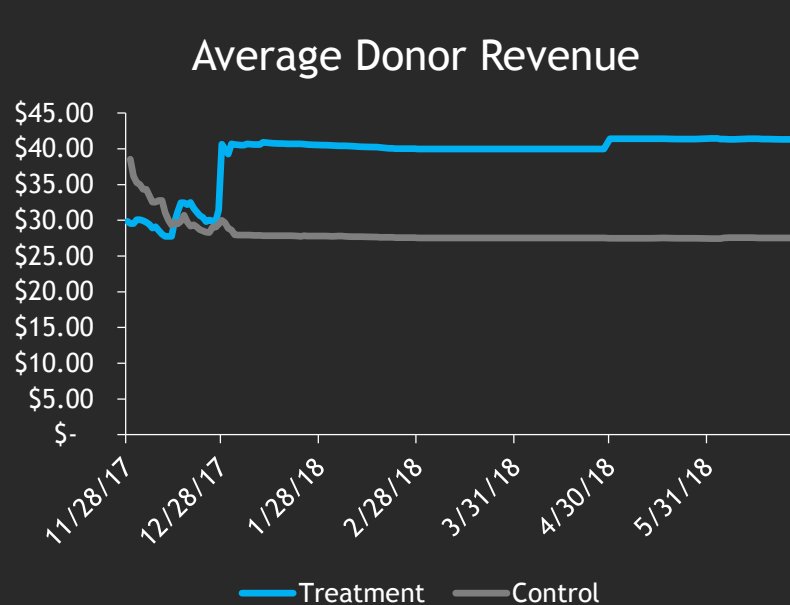
RESULTS: Campaign by campaign

Campaign Date	Metric	Control	ExactAsk	% Difference
November 27, 2017	Send Count	23,088	23,088	
	60 Day Response Rate	1.169%	1.533%	31.1%
	Avg. Donation Amt within 60 Days	\$52.64	\$76.45	45.2%
	Donations60Days	\$14,212.00	\$27,065.00	90.4%
December 12, 2017	Send Count	23,088	23,088	
	60 Day Response Rate	0.888%	0.992%	11.7%
	Avg. Donation Amt within 60 Days	\$52.96	\$90.67	71.2%
	Donations60Days	\$10,857.00	\$20,763.00	91.2%
April 16, 2018	Send Count	23,088	23,088	
	60 Day Response Rate	0.048%	0.035%	-27.3%
	Avg. Donation Amt within 60 Days	\$28.18	\$168.13	496.6%
	Donations60Days	\$310.00	\$1,345.00	333.9%

RESULTS: Donor Lifetime Value for Acquisition

	Control	ExactAsk	% Difference
# of Prospects	23,088	23,088	
# of Sends per Prospect	3	3	
# of Donors Acquired	285	321	
Acquisition Rate	1.2%	1.4%	13%
Avg. # of Gifts per Donor Acquired	1.7	1.8	6%
Avg. Gift Amount	\$25.82	\$42.98	66%
Revenue	\$12,509.79	\$24,833.84	99%

RESULTS: Donor Lifetime Value for Acquisition



➤ More REVENUE and PARTICIPATION from donors!

Case Study #1

AETN

CASE: AETN

- Applying ExactAsk across entire campaigns (no control groups)
- Using ExactAsk + ExactDonor
 - Using ExactAsk since 2016
 - Using ExactDonor since 2017
- Measuring results by comparing revenue of individual donors to each one's historical performance

CASE: AETN

Challenges

- No way of knowing how much individual donors likely to give, across an unknown # of transactions, and over an unknown period of time
- Small budget – cannot afford large capital expense or R&D
- Limited time – cannot use tool that is difficult to use, requires installation, or uses up too much time
- Small donor pool – cannot risk alienating donors and needs immediate wins

Objective

- Optimize lifetime revenue from donors across Renewal, Sustainer, and Additional Gift campaigns

RESULTS: Campaign by campaign

Account	count of Treatments	Campaign Date									
		June 2, 2016		August 25, 2016		July 18, 2017		November 3, 2017		May 7, 2018	
		Avg. Donation Amt within 60 Days	Distinct count of Donor	Avg. Donation Amt within 60 Days	Distinct count of Donor	Avg. Donation Amt within 60 Days	Distinct count of Donor	Avg. Donation Amt within 60 Days	Distinct count of Donor	Avg. Donation Amt within 60 Days	Distinct count of Donor
AETN Foundation	1	\$49.87	422.0	\$58.28	641.0	\$66.58	98.0	\$78.25	118.0	\$60.92	316.0
	2			\$64.50	189.0	\$56.92	420.0	\$93.01	59.0	\$61.81	54.0
	3					\$78.12	58.0	\$82.62	26.0	\$72.86	108.0
	4								0.0	\$121.67	3.0

Overall Case Study Performance Stats

Of the 17 Complete T/C Campaigns, the ExactAsk group brought in more money 15 times (88% campaign win rate)

	Control	ExactAsk	Difference
Total Donation Revenue (within 60 Days of Solicitation)	\$1,334,488	\$1,445,600	\$111,112
		Cost of ExactAsk	\$30,897.30
		ROI	360%