mediaxchange

AUDIENCE DATA TO DRIVE MARGIN AND RETENTION

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New Orleans, LA

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per copy contribution to maximize profitability

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Per copy contribution

o Increase preprint revenue

o Decrease/align acquisition expense

o Increase volumes

o Improve SMC/TMC margin

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Per copy contribution

o Data collection and developing per copy contribution

o Interpretation and practical application

o Case study, results

o Additional, ancillary benefits or extensions of per copy contribution

Developing data

- o Per copy preprint FSI revenue (+)

- o Per copy circulation revenue (+)

- o Per copy newsprint expense (-)

- o Per copy delivery expense (-)

- o Net incremental per copy contribution (=)

Developing data

Sunday only	ZIP-01	ZIP-02
Preprint revenue	$1.11	$0.59
Circulation revenue	$1.88	$1.27
Newsprint expense	$0.19	$0.19
Delivery expense	$0.28	$0.42
Net contribution	$2.52	$1.25

Per copy incremental revenue, expense and contribution

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Practical application

o Associating expenses and revenues to subscribers

    o Aligns with our greater focus on the individual customer

    o Follows, supports and helps direct our pricing and retention strategies

o Customer segmentation

o Targeted acquisition and reacquisition

    o Align acquisition channels

    o Align pricing and acquisition campaigns

    o Align retention scripting

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Practical application, case study

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Align acquisition channels
Align pricing and acquisition campaigns
Sampling
   Volume/penetration
   Preprint revenue

Practical application, case study

Wednesday only	ZIP-01	ZIP-02
Preprint revenue	$0.55	$0.18
Circulation revenue	$0.70	$0.43
Newsprint expense	$0.12	$0.12
Delivery expense	$0.13	$0.19
Net contribution	$1.00	$0.30

Frequency upgrade

Frequency variance x net contribution unpaid x term = opportunity$

      799 x $0.30 x 52 weeks = $12,464

      312 x ($0.13) x 52 weeks = ($2,109)

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Practical application, case study

Sunday SMC	ZIP-01	ZIP-02
Preprint revenue	$0.35	$0.16
Circulation revenue		
Newsprint expense	$0.03	$0.03
Delivery expense	$0.09	$0.16
Net contribution	$0.23	($0.03)

Footprint realignment/elimination

Volume x net contribution variance x term = opportunity$
  3,743 x $0.26 x 52 weeks = $50,605

Volume x net contribution x term = opportunity$
  3,743 x ($0.03) x 52 weeks = ($5,839)

Results

- $4.2MM in overall and incremental expense opportunities in 2017

- Key driver of 3.5% favorable margin variance in a year of declining volumes

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Extensions of per copy contribution

o Benchmarking

o Expense, revenue and budget projection

o Market review and operational recommendations

o Managing contribution at the subscriber level

o Granular market based pricing business rules

o +Retention = customer lifetime value

o +Churn scoring, +content preference = 1:1 customer basis

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Patrick Tornabene

Newsday Media Group

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Content Study - Demand, Serve, Variance Ranking & CLV and Churn Variance
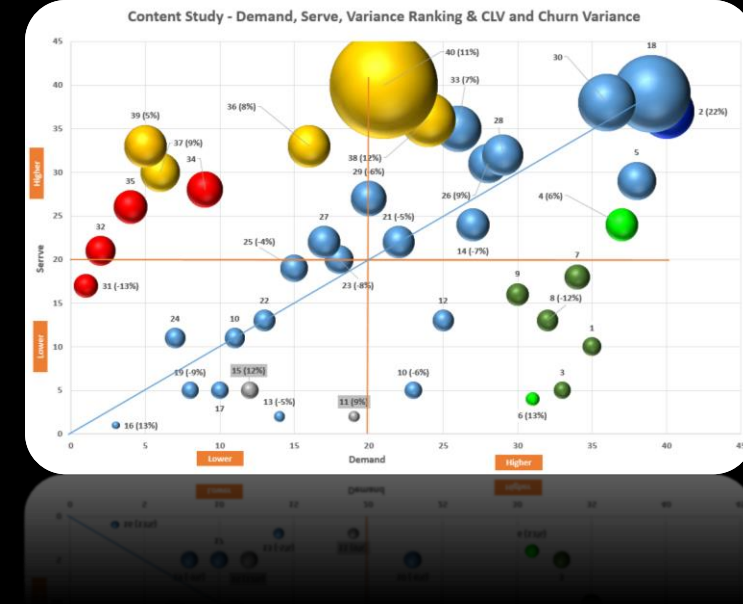
AUDIENCE DATA TO DRIVE MARGIN AND RETENTION

Patrick Tornabene, VP, Audience Development & Analytics, Newsday

Audience Data to Drive Margin and Retention

NMA Media Exchange – May 1st 2017

Patrick Tornabene
VP, Audience Development & Analytics
Newsday Media Group
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Audience Data Paradigm Shift

- **Publisher's Core Monetization** – Audience's growing contribution

- **Customer Experience, Retention, and Price Elasticity** – top of mind in strategic decision making across the organization

- **Predictive Analytics over "Gut Instinct"** – however, it's a careful balance between art and science that exploits data analytics and that will drive us forward

- **Brand Engagement over Platform Consumption** – it's all customer touchpoints

- **Individualized over One Size Fits All** – marketing and content delivery focused on the individual customer

The Bottom Line

- **24% Reduction in Attrition Post Implementation of Data Driven Retention**

  o Top 5 least volume decline in the past 5 years (AAM daily paid)

  o Doubled Average Revenue per Subscriber in the past 5 years

- **5 Data Driven Case Studies Driving this Performance**

  o Billing Period Optimization

  o Dynamic Messaging for Engagement Deviations – Payments

  o Surprise and Delight Retention Marketing

  o Optimizing Surprise and Delight Retention Marketing via Persuasion Modeling

  o Niche Product Opt Ins

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Data and Modeling has answered these questions

- **Quality of the relationship** we have with each of our subscribers

- **Engagement habits and dynamics** for each of our subscribers for the various interactions they have with our brand

- **Probability of canceling** for each of our subscribers

- **Steps and stages of why and when** our subscribers cancel

- **Which subscribers will and will not be influenced** by retention treatments

- **Optimal personalized retention treatment** for each of our subscribers

- **Content types and consumption patterns** that predict great retention and greater price elasticity

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Data Modeling & Retention Marketing

- **Predictive Analytics** –

  - <u>Churn</u> – scores each sub, answers why and when

  - <u>Persuasion/Lift</u> – target responds only if contacted; Segments – Sure, Self Selectors, and Swing

- **Single Customer Record** – Entity Resolution

- **Retention Marketing** – start with identifying each individual subscriber's habits (routine) of engagement with your touchpoints and experiment with stimulus when you detect a change in routine
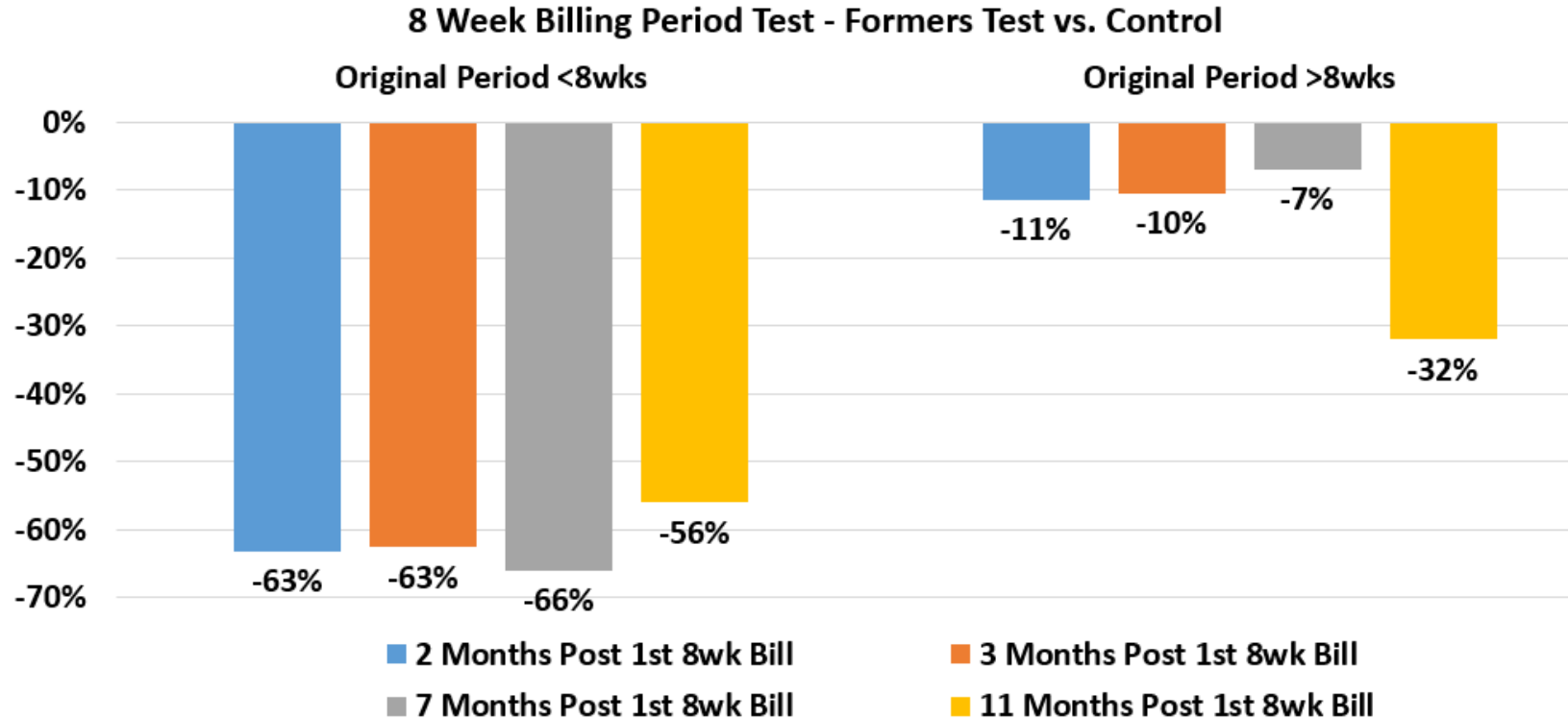
Customer Analytics Warehouse

Fulfillment & Billing
Digital Engagement
Email Engagement
Direct Mail Campaigns
Event Attendance
Customer Exp. Mgmt.
Speech Analytics
Data Mgmt. Platform
Push Notifications
Product Opt Ins

Billing Period Optimization

Assumptions: Churn model identifies billing periods contribution to retention, resulting in 8 weeks being optimal for our billed subs.

Application: Test moving non 8 week periods to 8 week periods.

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Billing Period Optimization

8 Week Billing Period Test - Formers Test vs. Control

Original Period <8wks

2 Months Post 1st 8wk Bill	-63%
3 Months Post 1st 8wk Bill	-63%
7 Months Post 1st 8wk Bill	-66%
11 Months Post 1st 8wk Bill	-56%

Original Period >8wks

2 Months Post 1st 8wk Bill	-11%
3 Months Post 1st 8wk Bill	-10%
7 Months Post 1st 8wk Bill	-7%
11 Months Post 1st 8wk Bill	-32%

Legend:
- 2 Months Post 1st 8wk Bill
- 3 Months Post 1st 8wk Bill
- 7 Months Post 1st 8wk Bill
- 11 Months Post 1st 8wk Bill
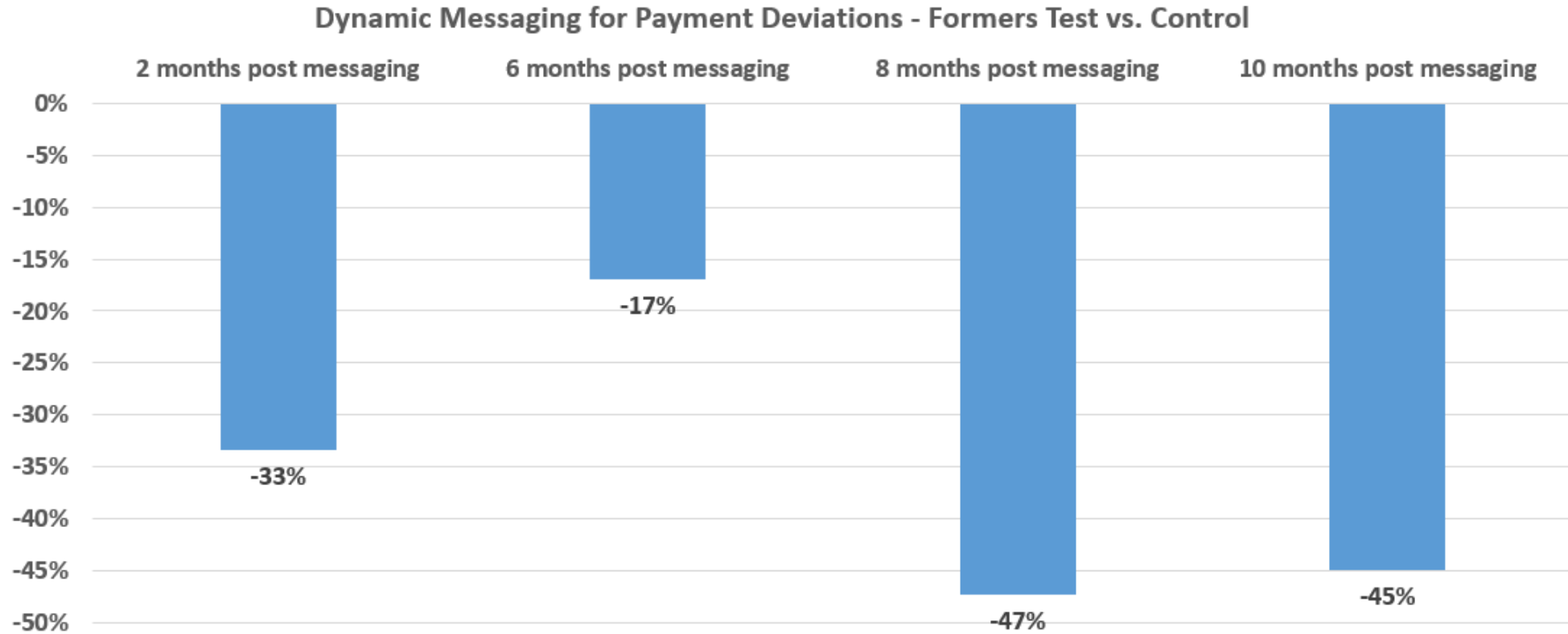
<u>Results</u>: Reduction in formers is over 50% at nearly 1 year for periods <8 weeks; and over 30% for periods >8 weeks.

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Dynamic Messaging for Engagement Deviations – Payments

Assumptions: Change in habit, particularly payment timing, is highly predictive of declining relevancy of product to consumer and subsequently consumer engagement.

Application: Communication sequence during the renewal process is triggered by deviations from prior payment behaviors instead of a generic collections communication sequence applied to all subscribers.

# Dynamic Messaging for Engagement Deviations – Payments

Dynamic Messaging for Payment Deviations - Formers Test vs. Control

Results: Reduction in formers is 45% at 10 months post messaging

Surprise & Delight Retention Marketing

Assumption: Unanticipated gift or gratitude will decrease churn probability of subscribers

Application: Send a gift or expression of gratitude to subscribers with high or accelerating probability of churn
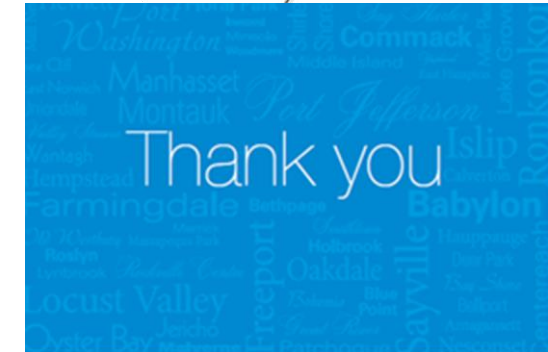
Thank you

I wanted to drop you a quick thank-you note on behalf of all of us at Newsday to say we truly appreciate your subscriber loyalty. It's our passion to provide you with the most relevant and trusted local news that impacts the daily lives of Long Islanders.

At home and on the go, our goal is to serve you with innovative multiplatform content to enhance your lifestyle throughout the year.

Please don't hesitate to contact us should you have any questions regarding your Newsday experience.
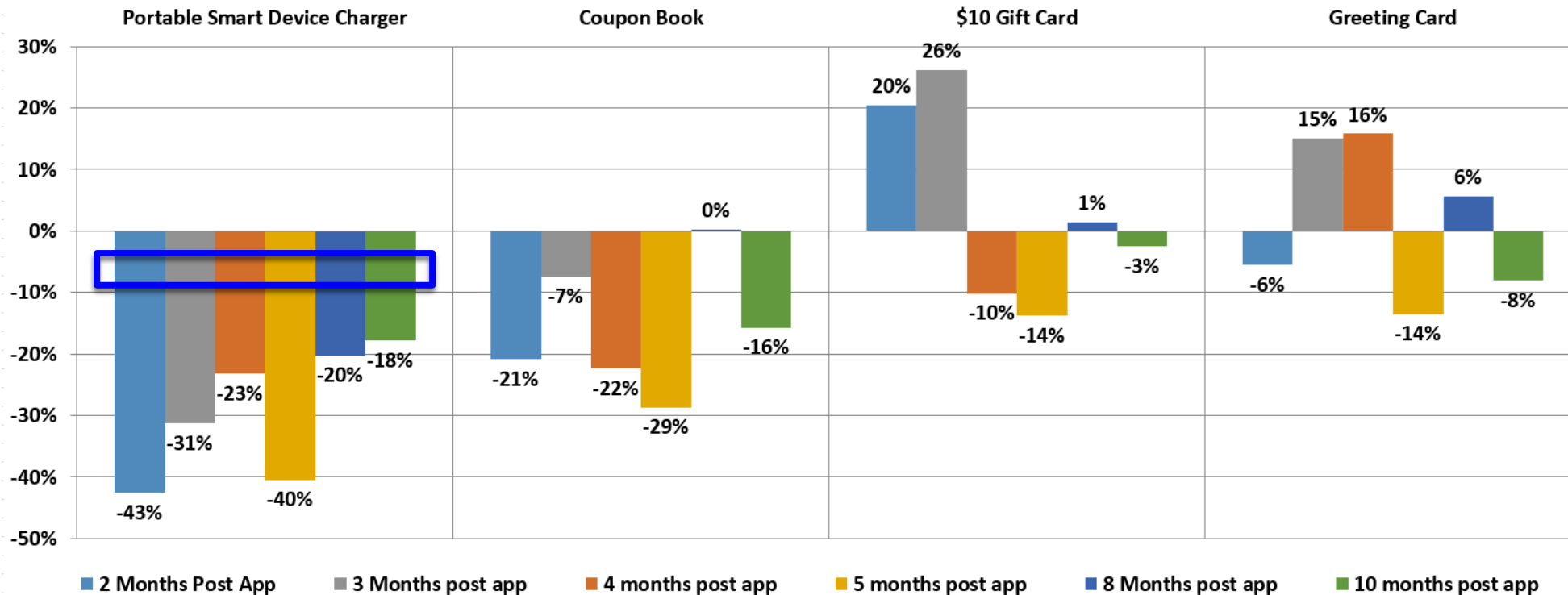
Best regards,

Patrick Tornabene
Vice President of Audience

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# Surprise & Delight Retention Marketing – Applied to Subscribers with High Churn Scores

Suprise & Delight Retention Marketing - Formers Test vs. Control: Subs with High Churn Scores

Portable Smart Device Charger: -43%, -31%, -23%, -40%, -20%, -18%

Coupon Book: -21%, -7%, -22%, -29%, 0%, -16%

$10 Gift Card: 20%, 26%, -10%, -14%, 1%, -3%

Greeting Card: -6%, 15%, 16%, -14%, 6%, -8%

Legend: ■ 2 Months Post App ■ 3 Months post app ■ 4 months post app ■ 5 months post app ■ 8 Months post app ■ 10 months post app

Results: High churn probably subs respond best to a significant gift

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Surprise & Delight Retention Marketing – Applied to Subscribers with Accelerating Churn Scores

Suprise & Delight Retention Marketing - Formers Test vs. Control: Subs with High Churn Scores
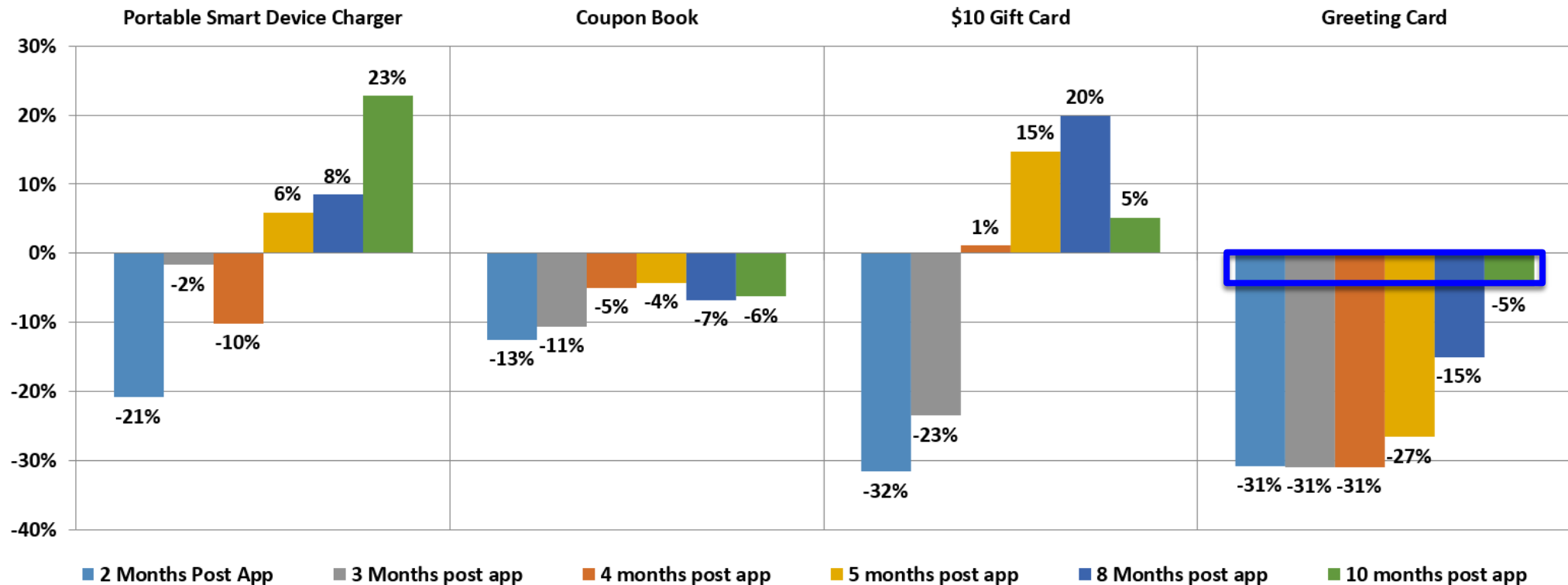
Results: Accelerating churn subs respond best to gratitude

Optimizing Retention Marketing – Net Lift/Persuasion Modeling

- Identifies "swing/persuadable subscribers" through classifying them with combination of significant variables.

- Three groups of subscribers…

  - **Sure** – Will behave like you want them to, even if you don't target them. They are already persuaded.

  - **Self Selectors** – Likely to make decision on their own. Retention efforts could even have an adverse effect.

  - **Swing/Persuadable** – Will have a positive response to retention marketing. Need some convincing and open to being convinced.

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Net Lift/Persuasion Modeling Insights

Typical Subscriber – Greeting Card Treatment

Account_num	23358916	43316337
Net Lift	7%	-5%
pf	0.73	0.04
income	Lowermid	Midscale
age	Younger	Older
period	8	8
tenure	0-1 years	0-1 years
source	DIRR	VOLN
EZpay	0	1
num_comps	0	9
Payment_days	-4	-11.8
Tenure days	177	16
freq	Thursday & Sunday	Thursday & Sunday
Weekly pay	2	2.5
Billing	NON	NON
pf_change	-0.005	-0.024

Subscriber on the right is a typical self-selector

- Started subscribership voluntarily
- 9 complaints in 16 days
- EZpay

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Net Lift/Persuasion Modeling Insights

Typical Subscriber – Charger Treatment

Account_num	71710988	20296878
Net Lift	7%	-4%
pf	0.72	0.22
income	Lowermid	Midscale
age	Younger	Mature
period	8	8
tenure	0-1 years	5 + years
source	BILL	VOLN
EZpay	0	0
num_comps	0	0
Payment_days	57.33	-10.42
tendays	249	9581
freq	Other	Daily
Weekly pay	2	10.09
Billing	2nd renew	NON
pf_change	-0.005	0.0006

Subscriber on the left needs stimulus

- Pays bill 57 days post expire on average
- Just received 2nd (reminder) bill
- Very likely to churn (high pf)

Subscriber on the right doesn't want a charger

- Midscale and mature, might already have chargers
- Already well-engaged

# Persuasion Modeling Optimizing Surprise and Delight

Target **all swing clients** with Net Lift Score >2%, with most suitable treatment optimizing cost per save

	Base case (based on churn level)				Net Lift/Persuasion Model					
	Accelerating	High	Low	Sum	Group 1	Group 2	Group 3	Group 4	Sum	Variance
Treatment	Greeting	Charger	Greeting		Greeting	Charger	Coupon Book	Gift Card		
Population	4,395	11,165	44,907	60,467	113,091	9,579	4,702	3,835	131,207	
% Formers 90 Days Post App										
Treatment	6.8%	4.8%	3.6%		2.8%	2.9%	4.0%	3.1%		
Control	9.7%	6.9%	4.1%		6.1%	6.0%	7.6%	6.3%		
Net Lift ppt	2.9%	2.1%	0.5%		3.3%	3.1%	3.6%	3.2%		
Net Lift %	42.6%	43.8%	13.9%		117.9%	106.9%	90.0%	103.2%		
Expense										
Unit	$0.55	$16	$0.55		$0.55	$16	$7	$8.50		
Total	$2,417	$178,640	$24,699	**$205,756**	$62,200	$153,264	$32,914	$32,598	**$280,976**	**$75,219**
Subs Saved	127	234	235	**596**	3743	296	172	123	**4334**	**3738**
Per Save	$19	$763	$105	**$345**	$17	$518	$191	$265	**$65**	**($280)**

Results: Our net lift model defined that an additional $75k saves 3700 more subscribers; bringing cost per save from $345 to $65 at 3 months post application

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Persuasion Modeling Results

Suprise & Delight Retention Marketing - Formers Test vs. Control: Subs with High Churn Scores
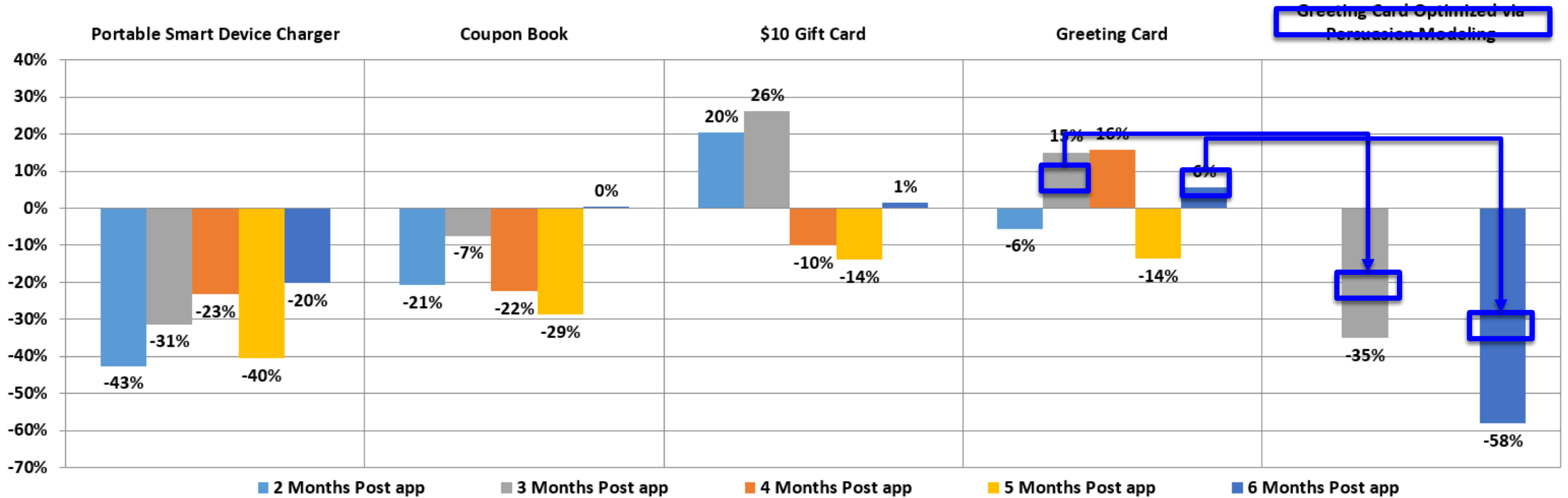
Results: Reduction in formers via gratitude to high churn subs is 35% at 3 months and 58% at 6 months vs. -15% and 6% respectively; prior to persuasion modeling
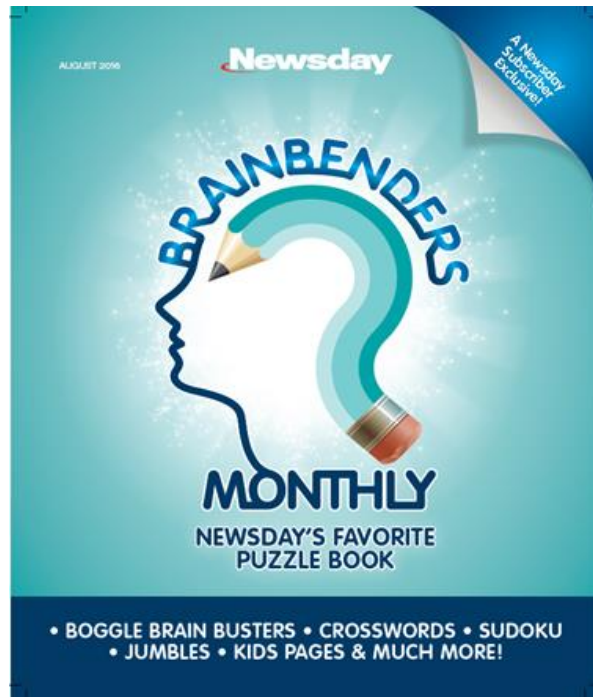
Determining Niche Product Opt Ins

Assumptions:

- Research on content type imbalances between interest and serve, complimented with churn probability, aid in identifying product development opportunities.

- Providing additional products/content on a no charge opt in basics will result in greater retention.

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Determining Niche Product Opt Ins

Application: Developed Brain Benders monthly games and puzzle book in March of 2016; Launched The Newsday Vault Classic Editions in April 2017

Determining Niche Product Opt Ins

Brain Benders Monthly Results:

- 12% reduction in churn probability upon opting

- Greatest contributor to retention in survival model; ~2x EZ-Pay, > tenure 5+ yrs.

- Retain 35% longer post price increase
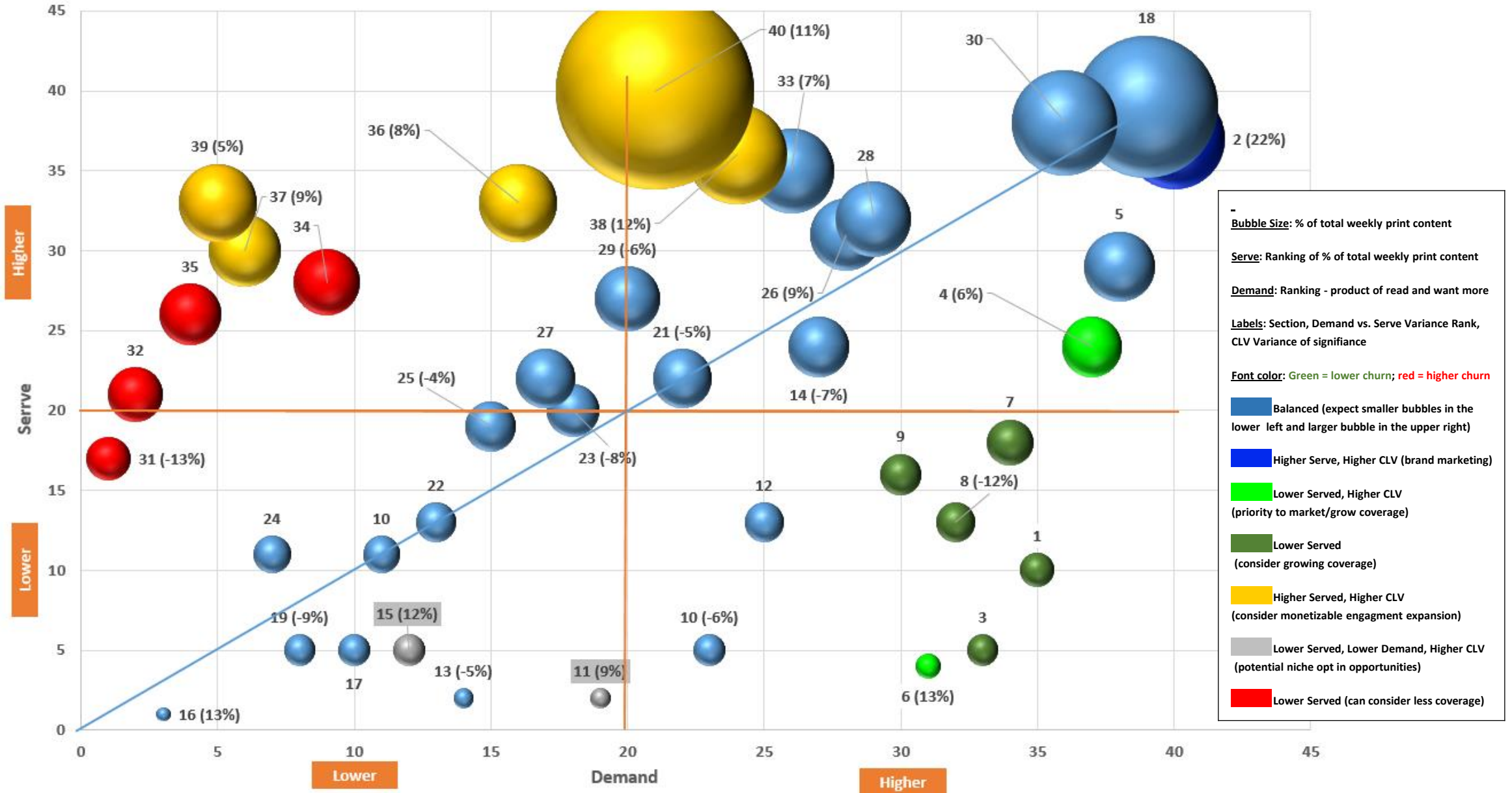
- 6 month retention lift of $2 to 2.5M for the 35k opt ins

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Predictive Analytics Informing Audience, Marketing, and Content Development

<u>Objective</u>: Identify Audience, Marketing, and Content development opportunities aimed at increasing our value proposition to subscribers

<u>Process</u>:

- Survey subscribers on print readership and satisfaction by content type

- Examine content type imbalances between interest and serve

- Incorporate learning about content type relationship to Customer Lifetime Value and Churn Probability to optimize content for pricing and retention

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Content Study - Demand, Serve, Variance Ranking & CLV and Churn Variance

Predictive Analytics Informing Audience, Marketing, and Content Development

Opportunities Identified:

- Brand Marketing – highest CLV, serve, and demand

- Priority to Expand Coverage – high CLV, serve lower than demand

- Expand Coverage – high read, serve lower than demand

- Niche Products – high CLV and read, moderate demand, low serve

- Engagement Expansion – high CLV and read, serve higher than demand

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AUDIENCE DEVELOPMENT

Audience Data to Drive Margin and Retention

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Thank You!
Questions?