

Predicting Which Customers Will Stay with Renewal Models

*A Case Study from
BusinessWeek*

*Presented by
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Discussion Overview

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Speaker Introduction

- Rhonda Knehans Drake
- Current Responsibilities:
 - Founder and President, Drake Direct, New York, NY
 - Assistant Professor in the NYU School of Continuing Professional Studies Master's program for Direct and Interactive Marketing.
- Prior Responsibilities:
 - Database and List Director, Reader's Digest Young Families, Westport, CT
 - Account Director, Client Services, Information Resources, Inc., Darien, CT
 - Manager Market Planning and Analysis, Columbia House Video Club, New York, NY
- Publications and Presentations:
 - A complete listing of Rhonda's publications and industry presentations can be found at www.DrakeDirect.com.
- Education
 - Master of Science, Applied Statistics, University of Iowa
 - Bachelor of Science, Economics (Minors: Mathematics, Statistics), University of Missouri

Renewal Marketing

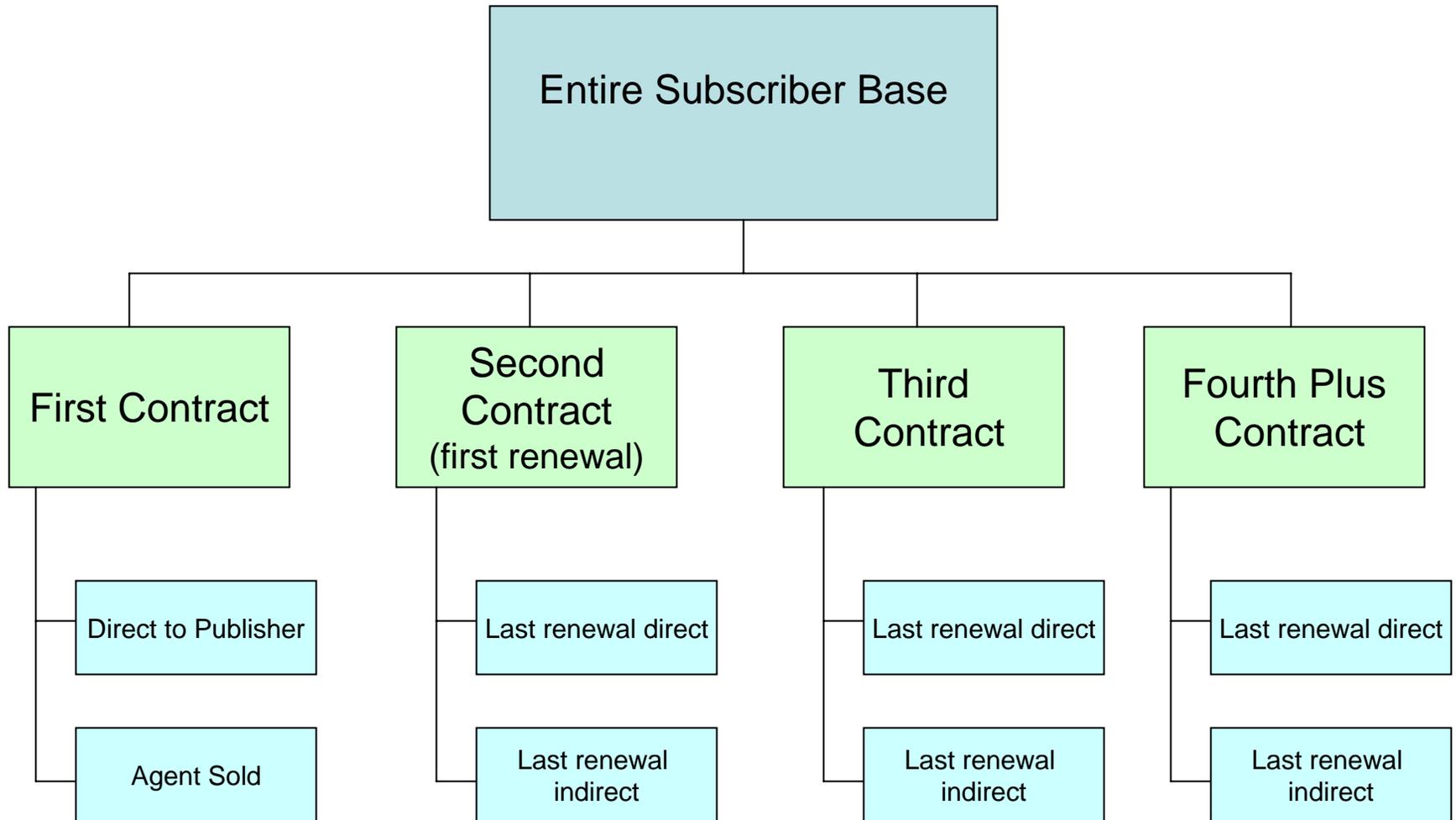
- In aggregate most magazines find that their subscribers renew at profitable rate.
- Models can be leveraged among those subscriber segments which are under-performing relative to the average.

Leveraging models appropriately given the subscriber segment

Models work best when applied to homogeneous groups.

In a subscription marketing business model, key segmentation variables are subscriber lifestage (number of contracts) and source (prior and original).

An Example Segmentation for a Subscription Business Model

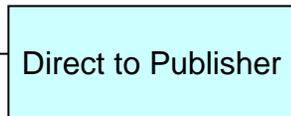
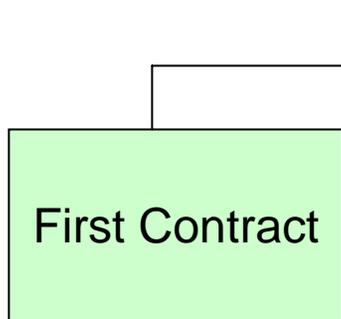
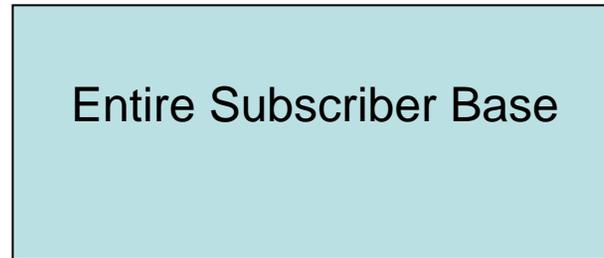


Subscriber's Lifestage

For Circulation Marketers, understanding the subscribers by lifestage is key.

Determining which first contract (brand new) subscribers will renew is critical. Gaining the first renewal is a huge step toward a long and profitable relationship with the subscriber.

First Contract Subscribers



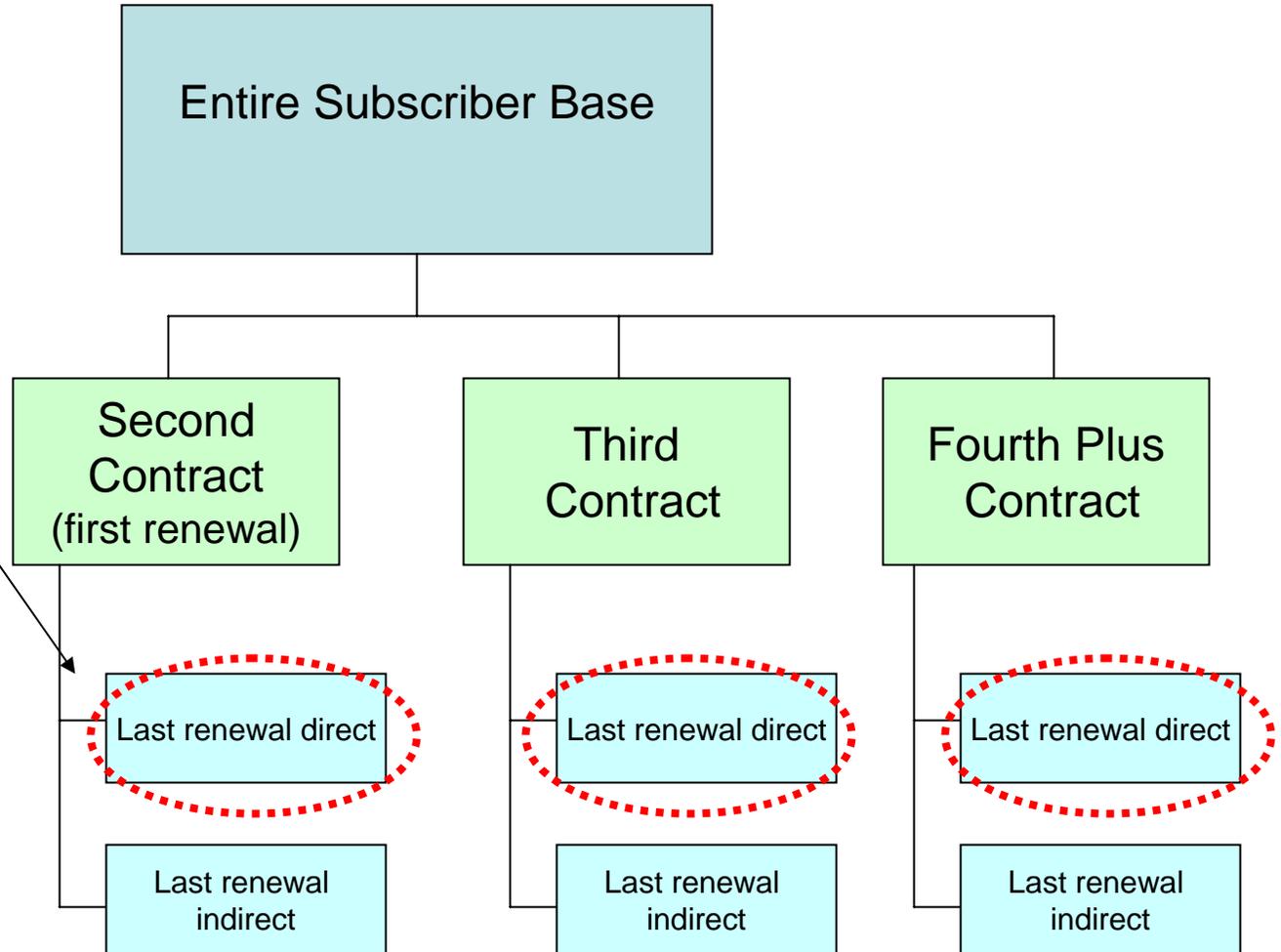
DTP sourced names usually have a higher renewal rate—these subscribers have interacted directly with the publisher responding to direct mail, blow in cards, or via online offers.

Agent sourced names usually have a lower renewal rate since the subscriber has responded to the agent's offer. An agent usually is marketing a wide array of publications and receives a commission from the publisher for each subscription sold.

Behavior Past Conversion

The challenge for publishers is to determine not only who is likely to renew, but who is likely to renew on the renewal effort.

As the relationship with a subscriber lengthens it becomes more likely that they will renew (loyalty) and there is less benefit to response models. The opportunity shifts to predicting timing of response.



Opportunity areas for renewal models in subscription marketing

Q. What are the applications for renewal models?

A. There isn't just one answer. The answer for why a circulation marketer employs a renewal model is dependent on the segment under consideration. The table on the next slide helps to clarify the leverage points by subscriber segment.

Renewal Models Overview of Applications by Segment

Segment	Sub Segment	Opportunity
Conversion	DTP vs Agent	<p><u>Predicting subscribers likely to renew.</u>— Based on results reallocate renewal efforts to send more to those more likely to renew. Fewer to those less likely to renew.</p>
Second or Third contract	Direct vs Indirect renewal	<p><u>Predicting subscribers likely to renew in renewal stream.</u>—By segmenting based on most observed renewal channel utilized reallocation of efforts can be utilized with the knowledge that some proportion of subscribers may renew indirectly (outside of the renewal stream).</p>
Fourth plus contract	Average time to renew prior to expire	<p><u>Predicting the timing for a subscriber to renew.</u>— The benefit of predicting the timing of a subscriber to renew is that efficiencies can be realized in renewal efforts. Heavy efforts early or late as dictated by previous behavior.</p>

Case Study

BusinessWeek Agent Renewal Model

Situation Analysis

BusinessWeek has recognized the potential to improve renewal promotion efficiency and the conversion rate of CAPS sourced subs. This source has a low conversion rate and would benefit from the application of a model to identify subscribers likely to renew.

Utilizing IMT proprietary engineered variables and Drake Direct modeling expertise a model was fit to the CAPS sourced subscribers.

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Discussion of data

The data set represented six months of CAPS sourced names (six classes).

The customer behavior data was frozen at the time the renewal series began, and the effort responded to was recorded for all names who were successfully converted.

Using six months of data minimizes seasonality bias in the data.

Methodology

Data was appended with census level demographic data.

Data was partitioned into two parts: analysis and validation.

Using the analysis data set, a model was fit to the data following the examination of the relationship between independent variables and the response behavior.

Following the creation of the model, the validation dataset was used to validate the gains.

Model overview

The variables shown below were included in the model. They are listed in order of importance.

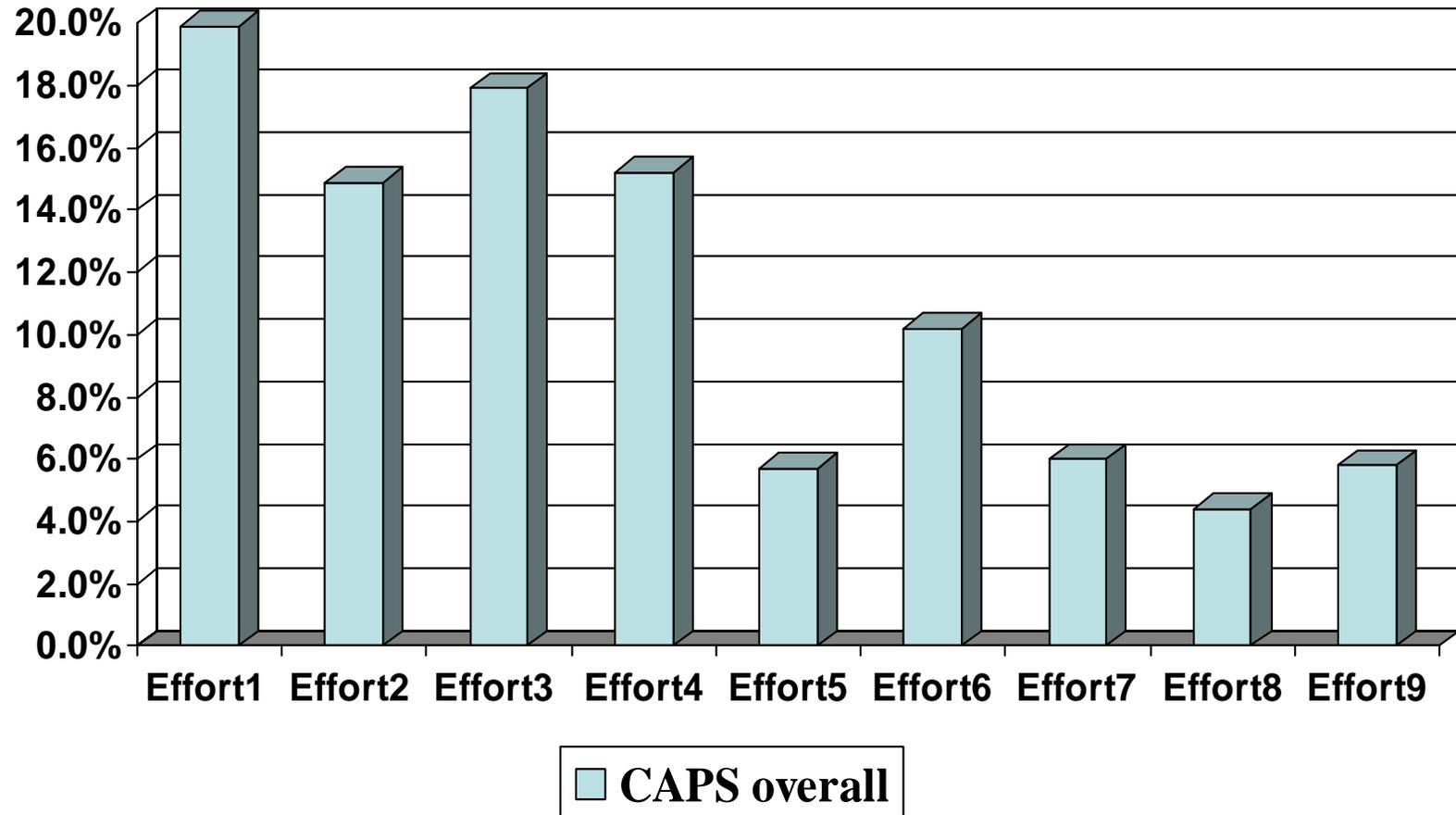
- Net order count total
- email indicator flag
- one or less child present in the home
- New Subscriber status
- Nielsen county designation
- Age 50 plus
- Age 25 to 39
- Net worth top two deciles
- Previous subscribers
- Charitable contributors
- Expendable income index top 10%
- Net order count intro
- Married
- Gross Revenue Current
- Home value 150K plus
- Work at home flag
- Current customer type donor

Gains Chart

Decile	<u>Incremental Gains on Analysis</u>				<u>Incremental Gains on Holdout</u>				<u>Cumulative Gains on Holdout</u>			
	Sample %	Names	Percent Lift	Gain Over Total	Sample %	Names	Percent Lift	Gain Over Total	Sample %	Names	Percent Lift	Gain Over Total
1	10.02%	5,808	216%	116	9.98%	2,462	210%	110	9.98%	2,462	210%	110
2	10.01%	5,804	143%	43	9.99%	2,465	128%	28	19.97%	4,927	169%	69
3	10.24%	5,934	123%	23	10.03%	2,475	129%	29	30.01%	7,402	156%	56
4	9.62%	5,579	98%	-2	10.07%	2,484	104%	4	40.08%	9,886	143%	43
5	10.89%	6,314	96%	-4	10.83%	2,672	105%	5	50.91%	12,558	134%	34
6	8.96%	5,194	83%	-17	8.85%	2,183	91%	-9	59.76%	14,741	128%	28
7	10.22%	5,926	75%	-25	10.22%	2,521	85%	-15	69.98%	17,262	122%	22
8	11.16%	6,473	81%	-19	11.05%	2,725	67%	-33	81.02%	19,987	114%	14
9	10.00%	5,795	50%	-50	9.85%	2,430	51%	-49	90.87%	22,417	107%	7
10	8.88%	5,150	29%	-71	9.13%	2,251	27%	-73	100.00%	24,668	100%	0
TOTAL	100.00%	57,977	100%	0	100.00%	24,668	100%	0	100.00%	24,668	100%	0

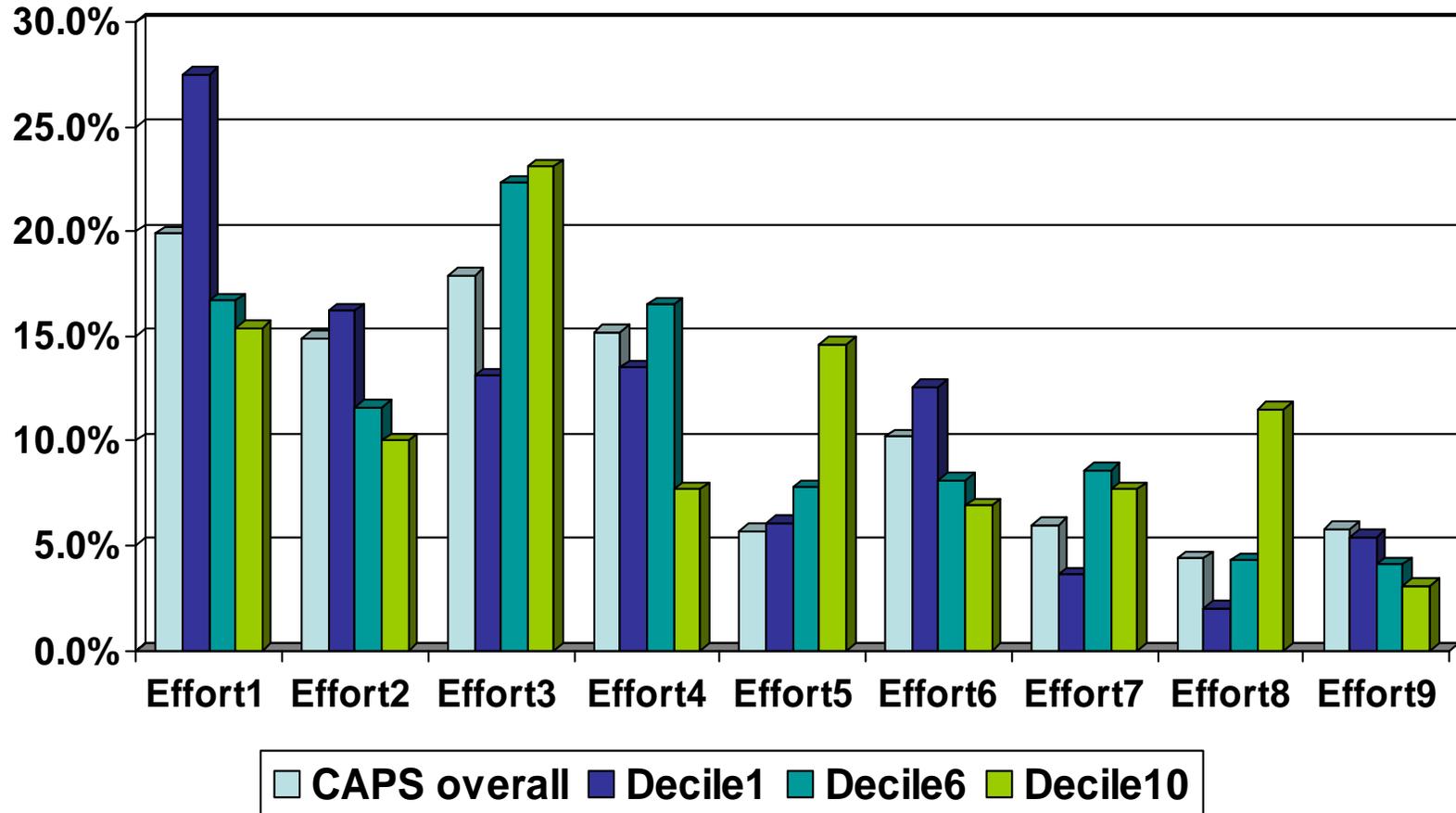
Analysis of timing response

The graph below shows that for the CAPS subs, 84% renew by effort 6 and the remainder renew in efforts 7-9.



Analysis of timing response

Differences in timing of response for renewal occur based on model score



Optimization

Background Facts-

The typical CAPS conversion series is comprised of 8-10 efforts, using mixed media (4 mailed efforts, 4 wrap efforts, and 2 email efforts.)

Objectives -

1. Reduce Costs
 - Reduce promotion effort expense
 - Reduce the quantity and/or type of efforts sent to identified segments
 - Alter the sequence of efforts sent to identified segments
2. Increase Revenue
 - Improve response
 - Alter the type, offer and/or quantity of efforts sent to identified segments

Optimization Options

Option 1 – Reduce promotion costs

- Eliminate 3 of 4 mailed efforts to deciles 9 & 10
 - Estimated mail volume reduction/year = **A reduction of 15%**
 - Send mailed effort early in sequence
- Eliminate 2 of 4 mailed efforts to deciles 6 & 7 & 8
 - Estimated mail volume reduction/year = **A reduction of 15%**
 - Send 1 mailed effort early, 1 late
- Re-sequence and reduce email efforts
 - Push email effort 1st with incentive offer; consider eliminating 2nd email effort

Total cost savings = approx. 30% of promotion costs/ year

Optimization Options (cont)

Option 2 – Improve response / revenue

- Test adding low cost (i.e. non-mailed) efforts or new offer (i.e. premium/price) to deciles 1 - 5
 - Assume lift in response of 10%

Total net revenue gain = approx. 3% of net revenue/ year

Summary

- Retention through subscriber efforts can be made more efficient through modeling.
- Tactics to improve efficiency are driven by a subscriber's lifestage and their previous response behavior (original and prior source).
- Conversion efforts can be improved with response model to predict renewers. This allows reallocation of efforts.
- For more loyal segments, timing models can assist in targeting response closer to a subscriber's decisioning reducing efforts when a subscriber is not likely to respond.