

Project Management For Class Plan Projects

CAS Ratemaking & Product
Management Seminar

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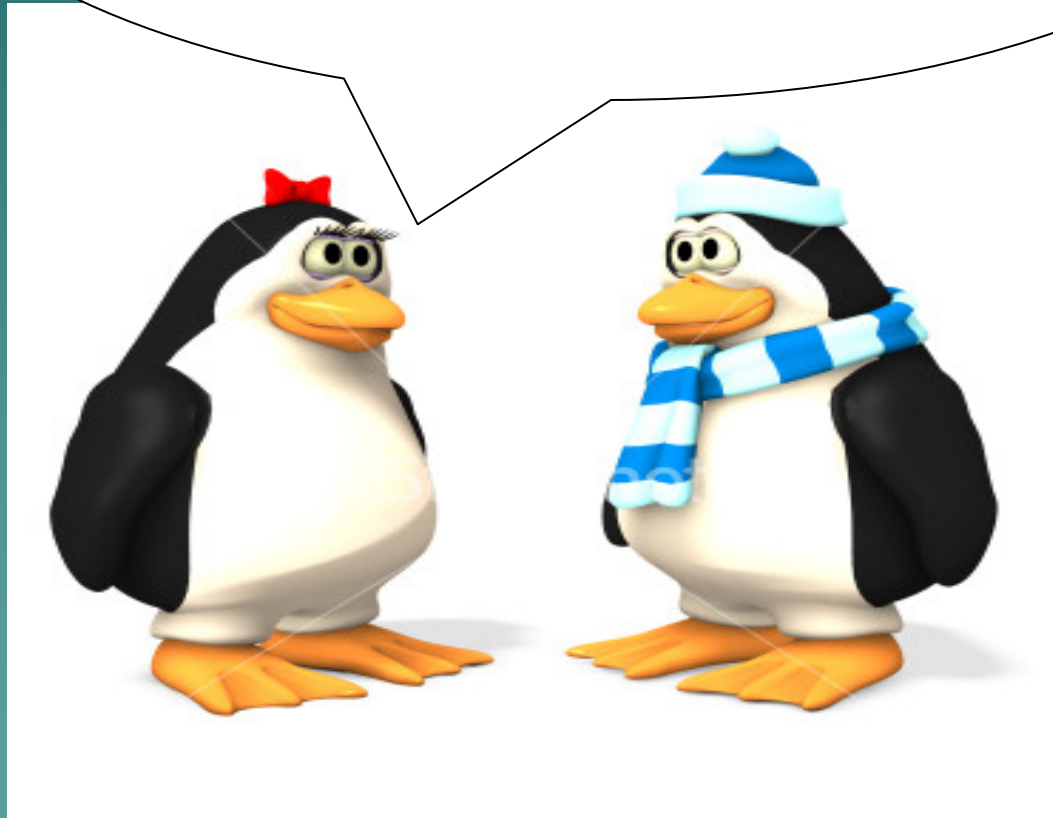
**Jon, how's your
project plan
coming?**



**I don't have time to plan.
I am too busy doing things.
I hope to get to it soon.**



Jon, hope is not a particularly effective project plan.



Class Plan Projects

◆ Impacts many areas

Model Office - product, forms analysis, business rules

Legal

AR&PD Research

Actuarial Pricing

Forms Management

Ratabase development

Output

Underwriting Operations

Claim operations

Financial controls

Systems

 Ratemaking

 Data warehouse

 PL reports

 PL policy administration - data capture, policywriting, rating, interfaces

 Consumer front ends - internet applications

 Corporate billing, financial, publishing, reporting systems

Consumer research

Compliance

IM data management

Product Management

Filing Support

Billing

Marketing

Operations - sales, service, Training

Claim legal

Corporate and statistical reporting

◆ Is critical to the business results

◆ **Must achieve stated objectives and meet project timeframes**

Project Management Basics

- ◆ Set research project goals/objectives
- ◆ Define project tasks
- ◆ Organize – work breakdown structure (WBS)
 - Identify dependencies
 - Sequence of tasks
 - Resource requirements of tasks
 - Duration of tasks
- ◆ Project schedule – Gant chart
- ◆ Project milestones

Planning

- ◆ Clear understanding of the business objectives
 - Where is the plan to be used – Channel/state/
 - Marketing sources
 - Product/business expectations
 - Current competitive position
 - Implementation strategy

Planning

- ◆ Clear research objectives /methodology
 - Statistical methodology
 - Software
 - New data
 - New variables
 - Scope of analysis
 - Required research infrastructure
- ◆ Research vision of end product
- ◆ IT / Operations / U/W ... integration

Defines
Research
Scope



Class Plan Objectives

Case Study

1. Refit existing class plan model
2. Incorporate several external new variables and evaluate lift
3. Incorporate internal billing variables
4. Evaluate vendor's geographic scoring model
5. Evaluate separate class plans by market segment vs. interactions

Class Plan Objectives

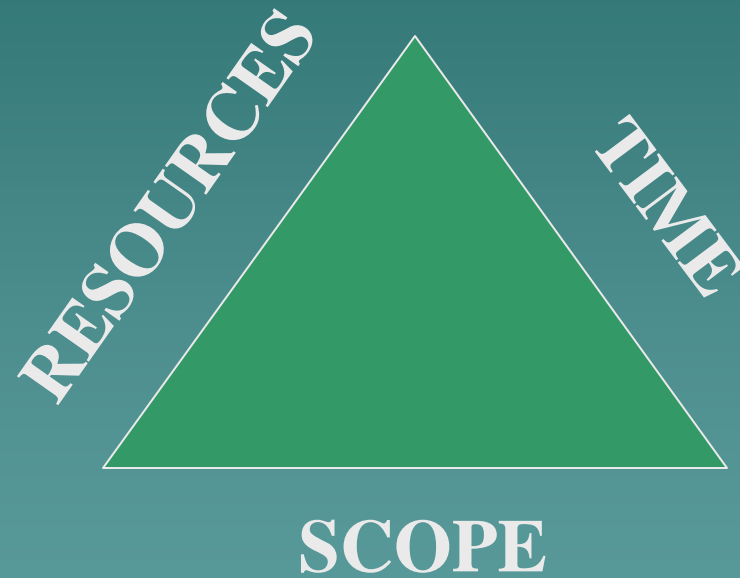
Case Study

6. Develop proprietary vehicle symboling
7. Develop a retention model
8. Analyze discrepancies between win rates and issue rates
9. Analyze the impact of Agency characteristics – financials, size, rank – on class plan model
10. Hybrid vehicle analysis

Net Result



Balancing Triangle

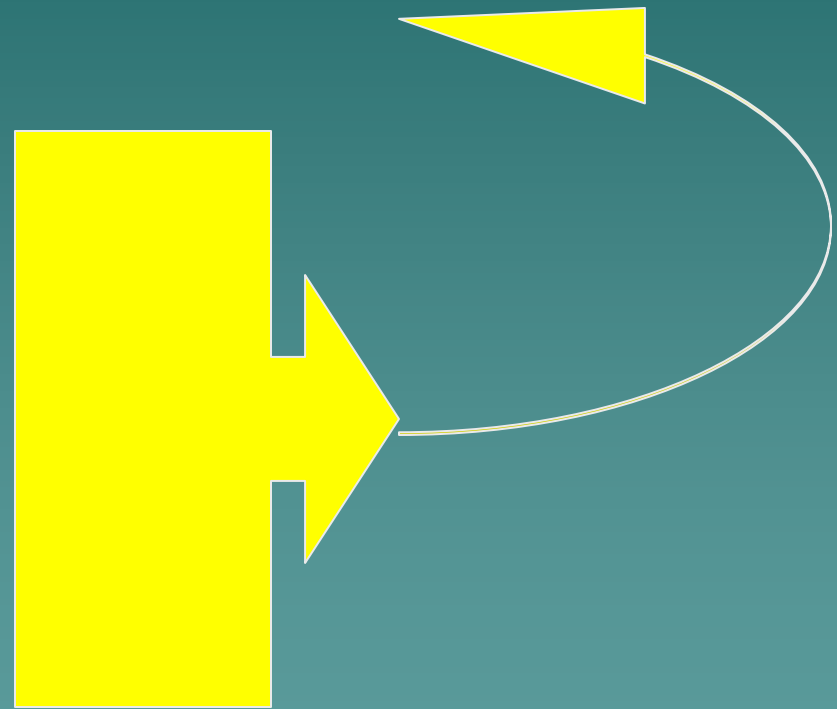


Planning

- ◆ Environmental changes
 - Business strategy
 - Regulatory
- ◆ Vulnerabilities
 - Data
 - Methodology
 - Software
- ◆ Research contingencies
 - What if xxxx does not work?

Phases of a Class Plan Project

1. Planning
2. Data
3. Equity Modeling
4. Selection
5. Implementation
6. Monitoring



Data

- ◆ Internal
 - Previously used
 - New
- ◆ External
 - Hit rate
- ◆ Understand the data
- ◆ Data quality
- ◆ Significant potential for delays

Equity Modeling

- ◆ Many times the simplest phase
- ◆ Modeling options
 - Regression
 - Classification trees
 - Neural nets
- ◆ Dependent variable
 - Loss ratio
 - Claim frequency/claim severity
 - Pure premium

Equity Modeling

- ◆ Holdout sample
- ◆ Threshold for variable inclusion
- ◆ Statistical measures of overall model predictiveness
- ◆ Deliverables
 - Structure
 - Indicated factors
- ◆ Peer Review

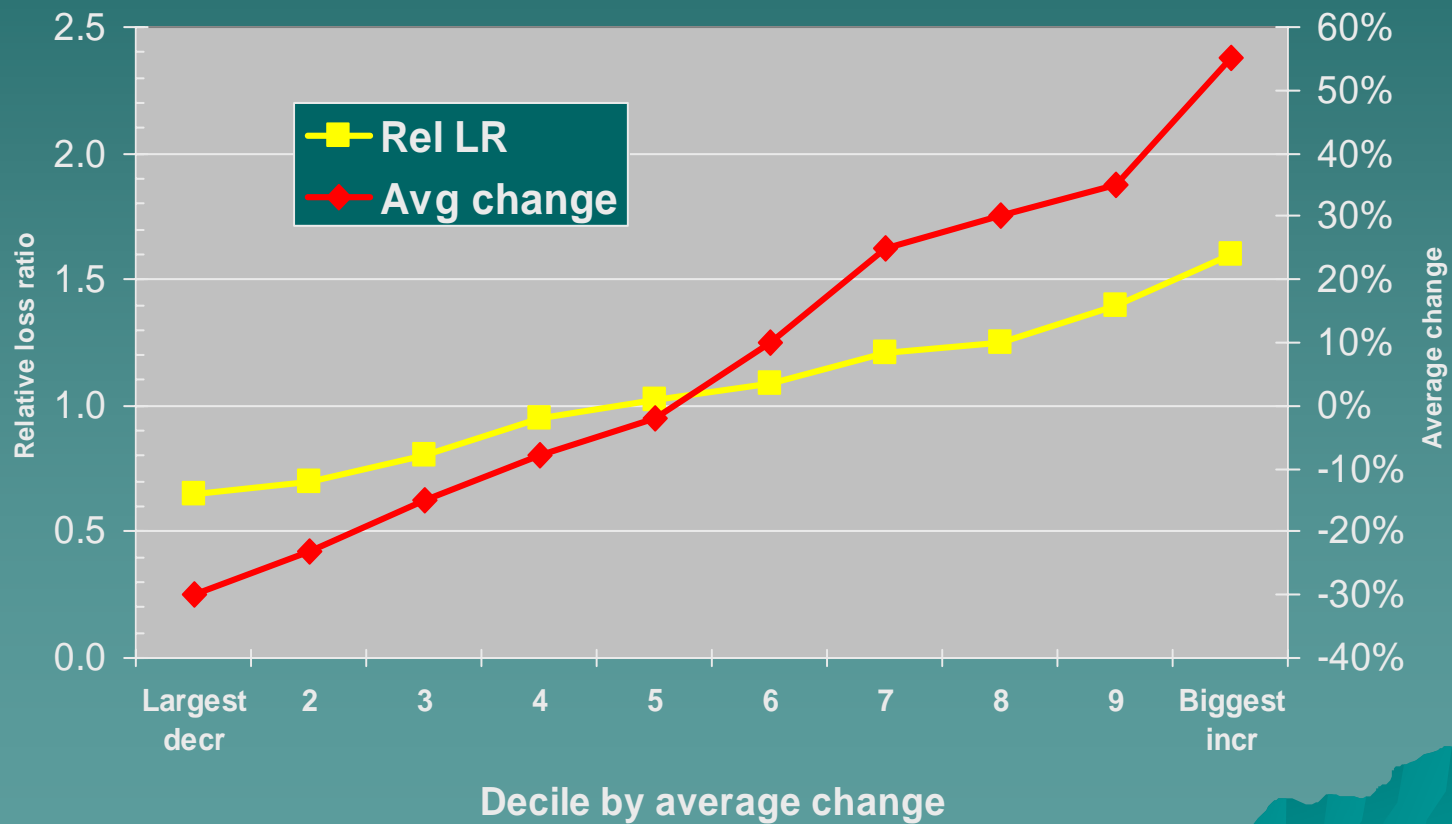
Selections

- 1) Continuity
- 2) Surrogate underwriting
- 3) "I don't believe the data/indications."
- 4) Equity guard – protect against under-pricing
- 5) Adjustment for misreporting of rating info
- 6) **Price optimization**
- 7) Discrepancies between model & plan
- 8) Incorporate variables not in model
- 9) Calculation of non-modeling elements
- 10) **Comparisons with current plan/prior indications**
- 11) **Benefits**

Comparisons of indications or selections with current plan/prior indications

- ◆ Recent performance vs. Modeling indications
- ◆ Premium comparisons - New plan vs. Old plan
 - Dislocation
 - Premium changes by segment

Percentage Change Vs. Observed LR



Price Optimization/Benefits Analysis

- 1) In a completely static environment, a revised off-balanced class plan has no overall impact.
- 2) Benefits are created by the differential impacts on issue rate and retention.
- 3) Price optimization can be seen as an extension of the benefits analysis

Benefits analysis

- ◆ Loss ratio/issue rate & retention rate
- ◆ Requirements
 - Equity model (indicated class plan)
 - Quote data - Issue rate model
 - Retention data - Retention rate model (if applied to renewal business)
 - Re-rating capabilities
 - Competitor pricing data or proxy

Implementation

- ◆ Off-balance
- ◆ Filing support
- ◆ State exceptions – personal auto
 - Credit, driving record, prior carrier info
 - Balance efficiency and accuracy

Off-Balance

- ◆ Assumptions:

- Rate adequacy level of the existing book
- If the new class plan generates the same premium, it will be at the same adequacy level

- ◆ BUT what about

- Changing levels of renewal improvement
- New business based discounts

Monitoring

- ◆ Key metrics
 - Loss performance
 - Issue rate
 - Operational metrics
- ◆ Importance of early reads
 - Leading indicators
- ◆ Benchmarks

Loss Performance Monitoring

- ◆ Determine key variables/segments
- ◆ Establish and calculate benchmarks
- ◆ Look for leading indicators
 - Claim frequency
 - Stable, quick settling coverages
 - Cap severity
 - Credibility weight observed with benchmarks

Issue Rate Monitoring

- ◆ Leading indicator
- ◆ Problem of quotes
- ◆ Comparison points
 - Prior plan
 - Benchmark
- ◆ Do you believe the market or your equity modeling?

Hope Is Not an Effective Project Plan

