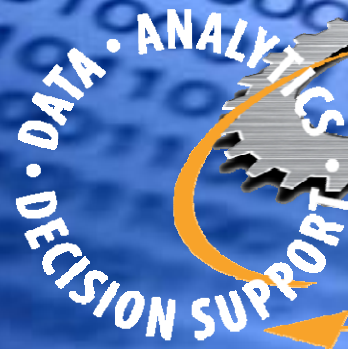


Predictive Modeling & Marketing



DATA • ANALYTIC •
DECISION SUPPORT

The views expressed by the presenter does not necessarily represent the views, positions, or opinions of ISO.

Business Environment

Why things are becoming so data driven.

The Market

- Electronic connectivity is expected
- Touch point knowledge is anticipated
- Personalized service is assumed
- Ease of doing business is desired
- Low tolerance for not learning

Each Company

- Define, attract, retain, and grow "good" customers
- Match offering to customer
- Improve 'customer facing processes'
- Reduce expenses while building skills

Insurance Company System Dynamics

Identify the processes and actions that drive profitability and highlight interactions.

Profitability

Expense

Revenue

Claims

Cost of Revenue

Underwriting

Sales & Marketing

Claim Rates

Inflation

Pricing

Policy Holders

Claim Severity

Complexity

Risk Selection

Agents

Risks

Investments

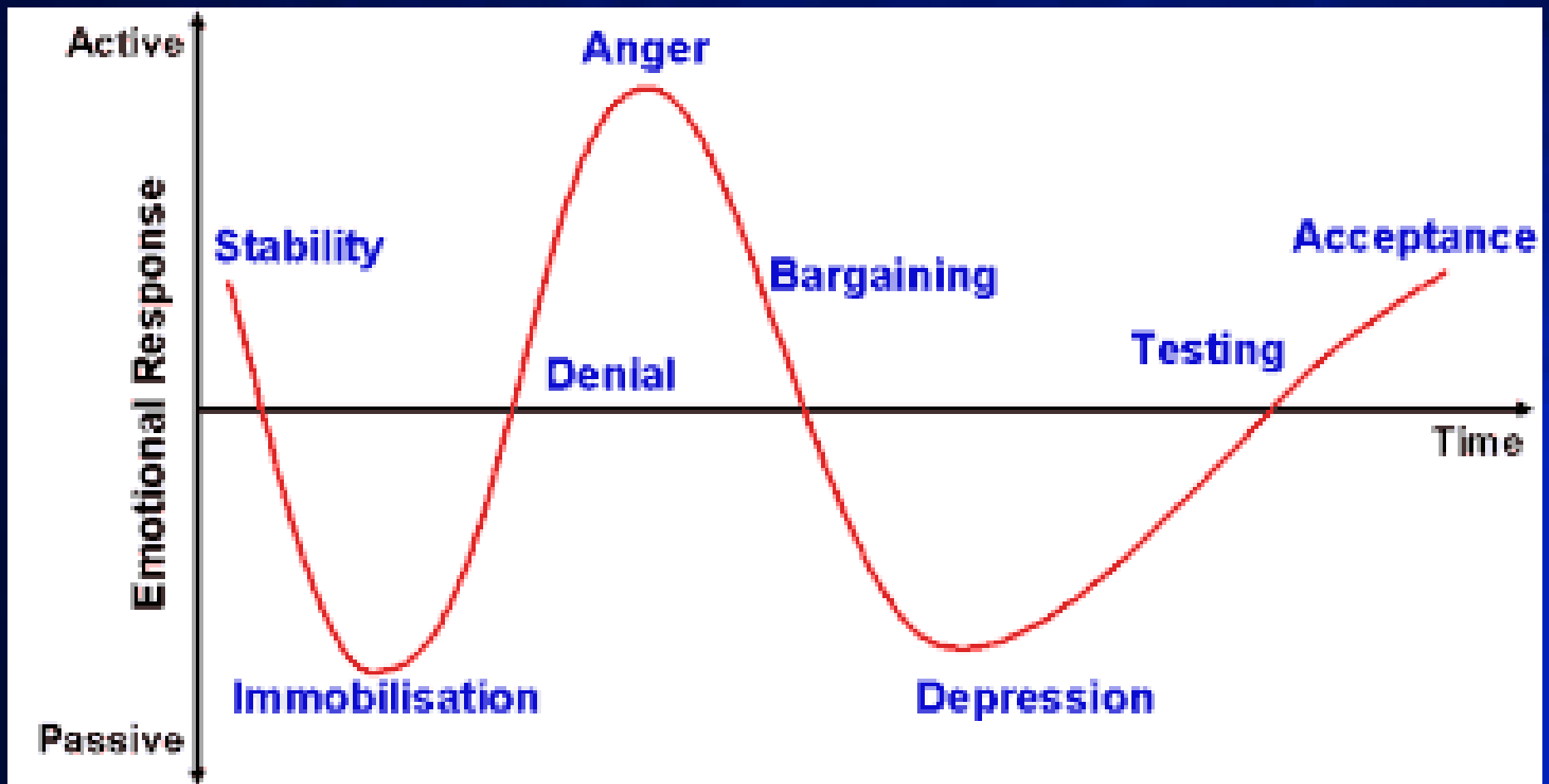
Uncertainty Litigation

Regulations Catastrophe

Competition Stock/Bond Market

Incremental improvements to many areas will be needed.

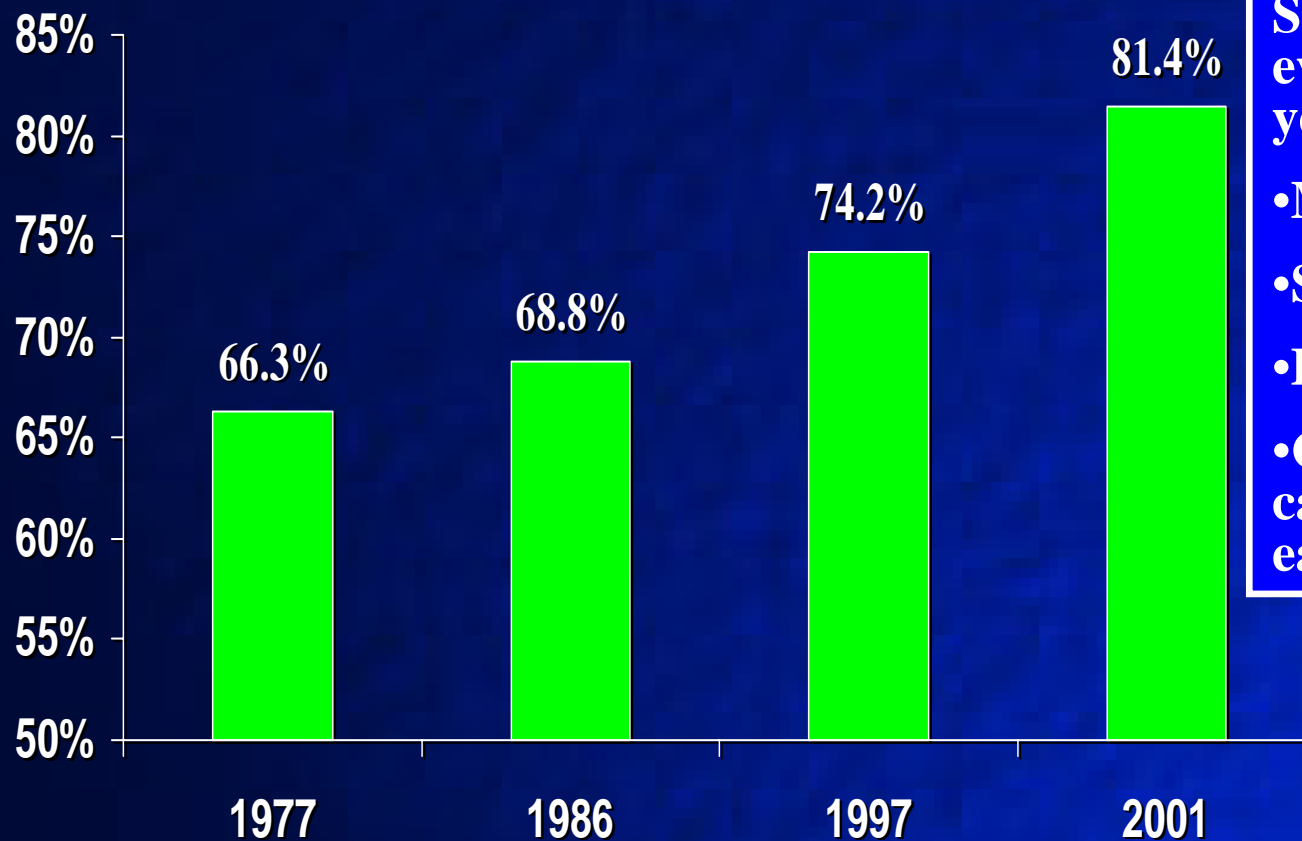
The Grief Cycle



...roller-coaster ride

...as the person wriggles ...in their desperate efforts to avoid the change.

Private Passenger Auto: Top 25 Writers Market Share

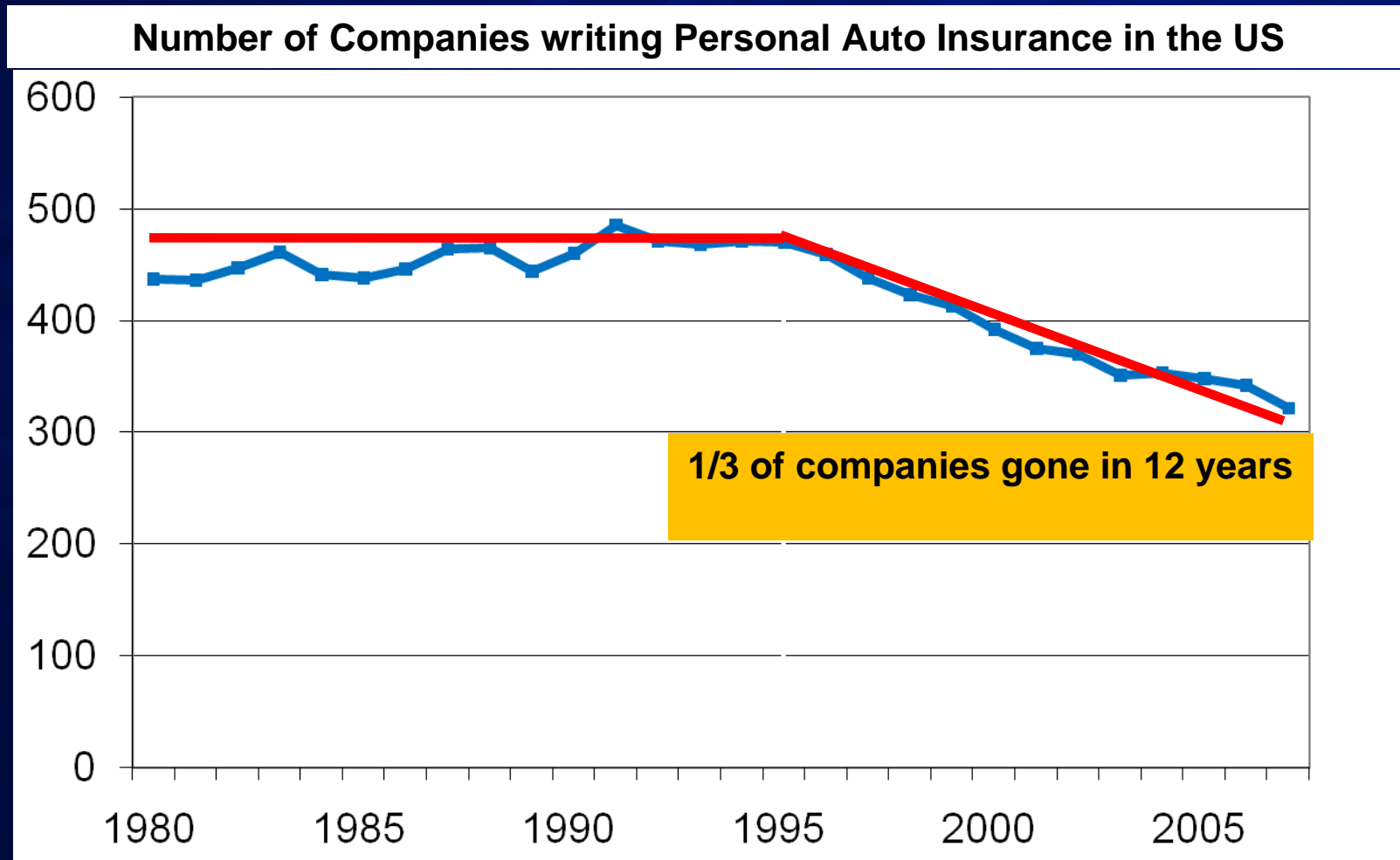


Substantial consolidation evident over the past 25 years, suggesting:

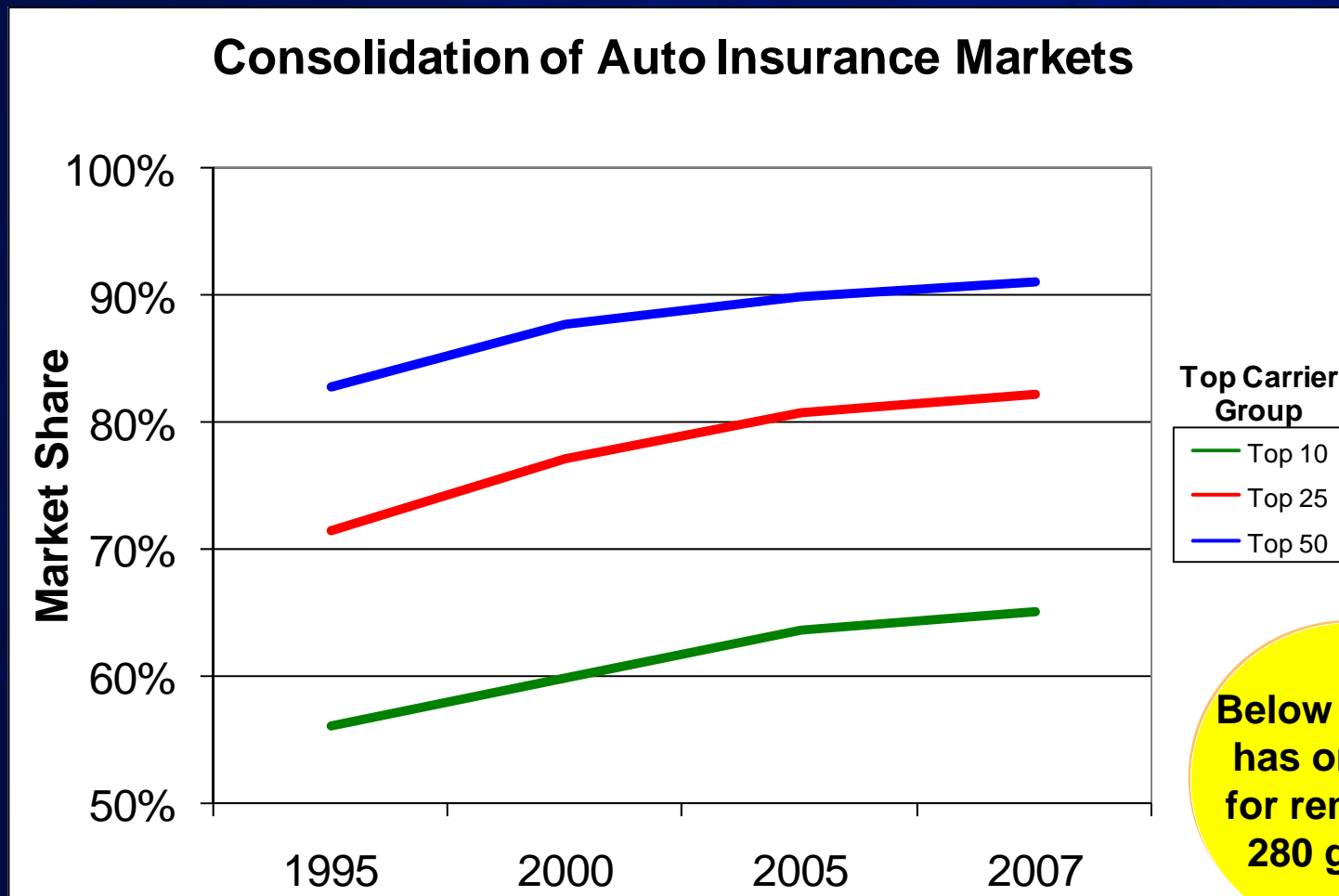
- M&As more successful
- Scale economies
- Barriers to entry exist
- Capital (esp. foreign capital) cannot enter easily

Sources: A.M. Best, Morgan Stanley, Insurance Information Institute.

Indication of Increased Competition



Indication of Increased Competition



Below 50 now has only 9% for remaining 280 groups

How Analytics Fuel Competition

<u>My Book of Business (Actual Cost per Policy)</u>			<u>My Rate (Average)</u>	<u>Total Revenue</u>
\$600	\$800	\$1000	\$800	\$2400
\$600	\$800	\$1000	\$900	\$1800
\$600	\$800	\$1000	\$1000	\$1000

**If your competitor has advanced analytics,
your book and your profitability are vulnerable**

Analytic Value Effort Framework

Reporting = "Having the data"

- Timeliness and accuracy
- Reports and Tables
- Surfacing data with agility

Descriptive Analyses = "Seeing the data"

- Scorecards / Measurements
- Profiles and Exceptions
- Segmentation

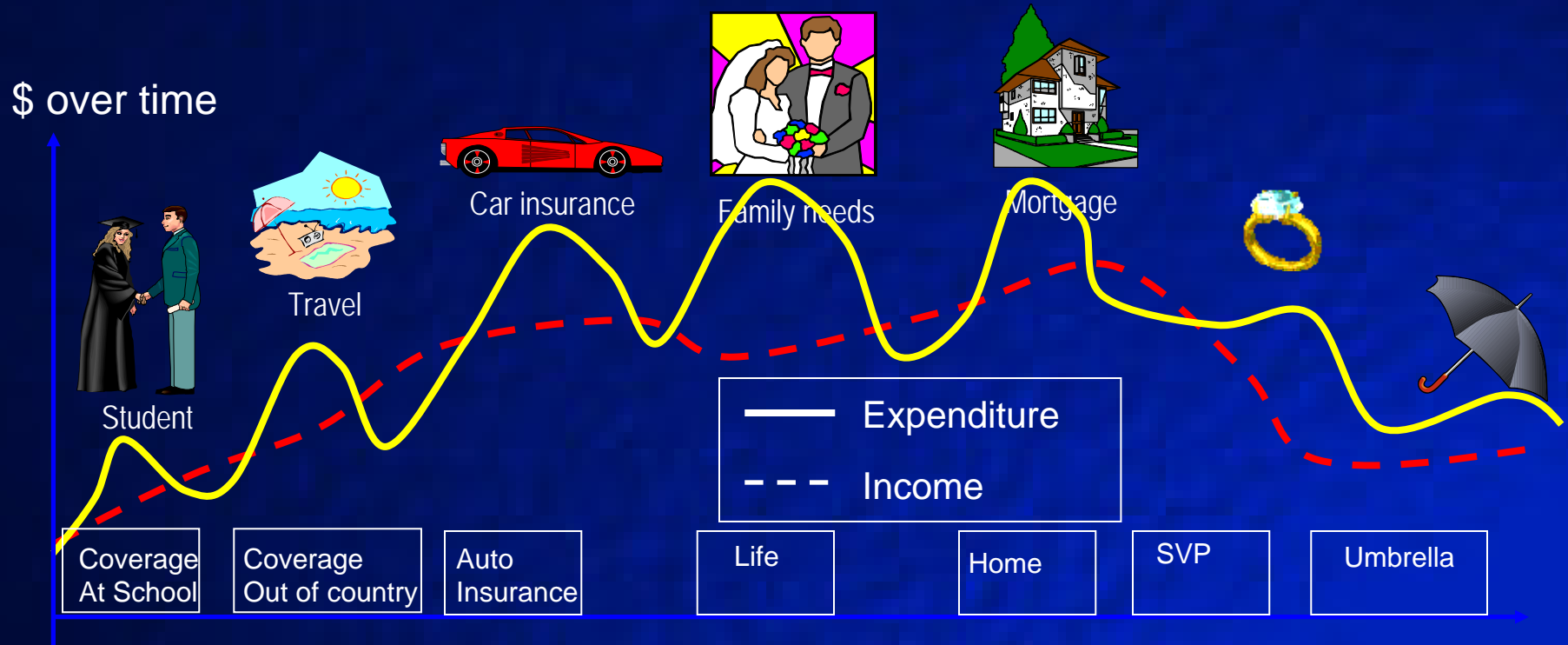
Analytic Modeling = "Knowing the data"

- Understand Trends
- Evaluate Business Practices
- Choice Models and "What ifs"

Predictive Analytics = "Acting on the data"

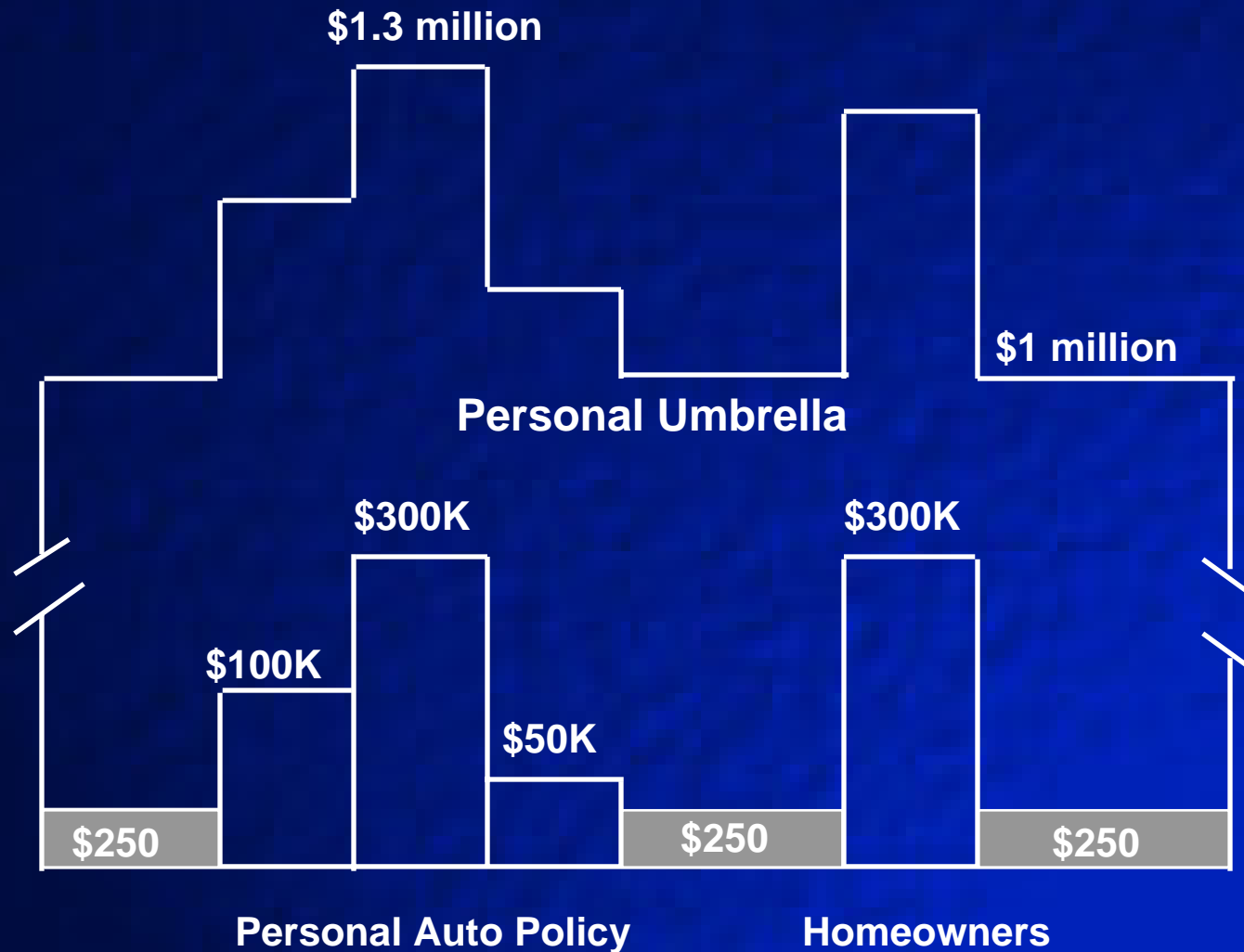
- Informed decision-making
- Actionable Information Engines

Customer Focus: Products across life stages



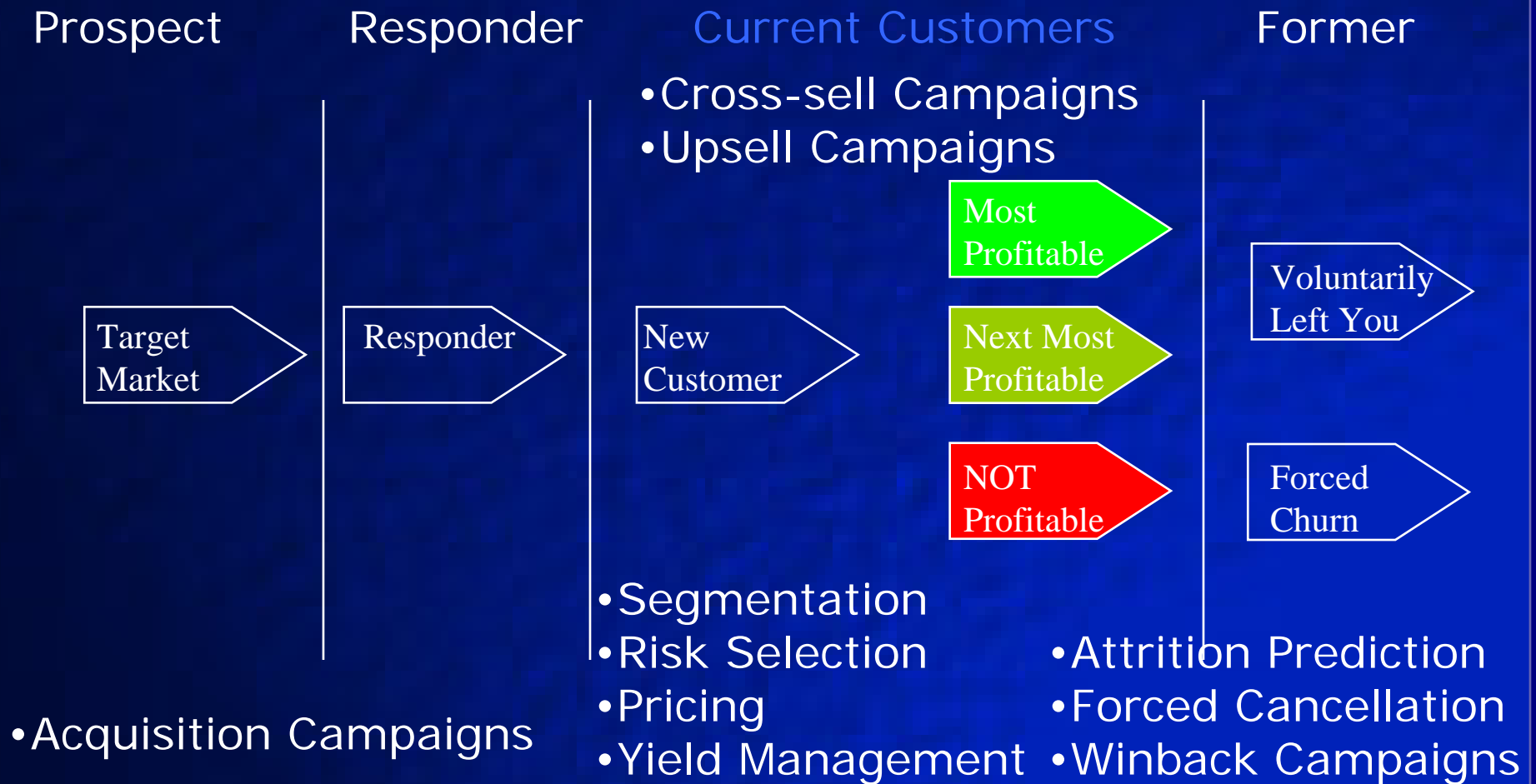
As income increases, the needs for insurance grow

Stackable Coverage can show 'wallet share' of customers and point out opportunities for cross-sell and up-sell



Optimization using Customer Life Cycle Management

Best Practice use of CLTV is to incorporate it into all stages during a customer's lifecycle and longevity



Case Study: Database Marketing Implementation Approach

SERVICE DIFFERENTIATION BASED ON “PORTFOLIO POSITION”

Most Profitable

Retention Programs

Cross-sell / Up-sell

Next Most Profitable

Loss Control Services

Agency Contact

Re-underwriting

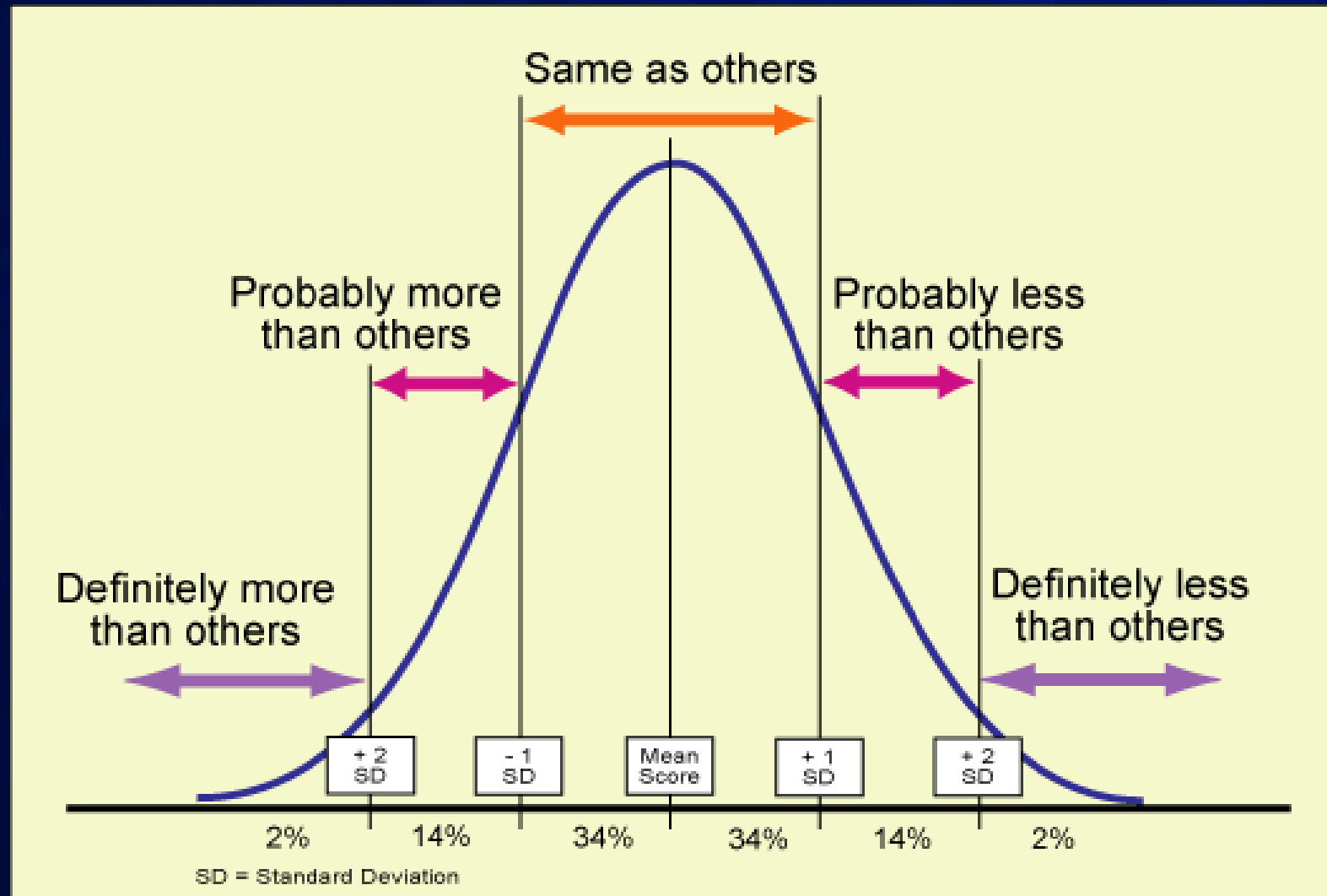
Cross-sell / Up-sell

NOT Profitable

Forced Churn (where legally appropriate)

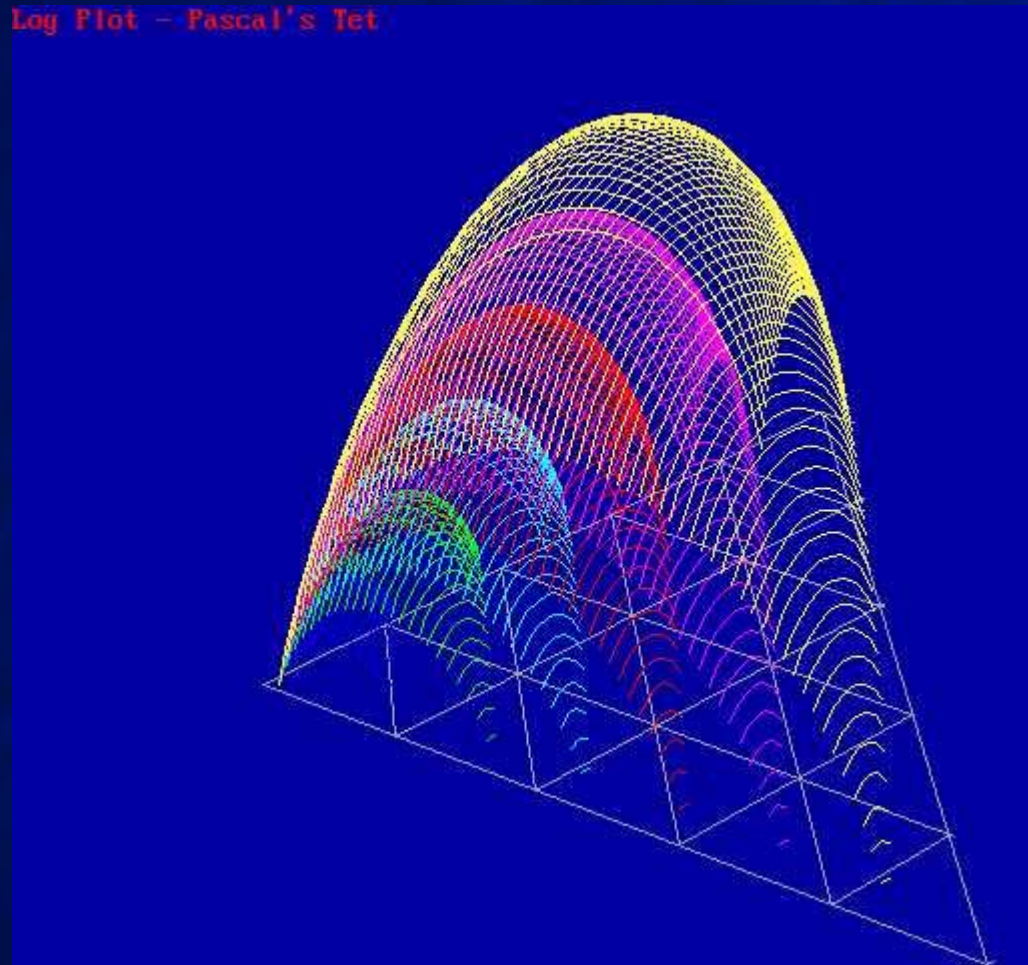
Price to Risk

Portfolio View for Underwriting Analysis

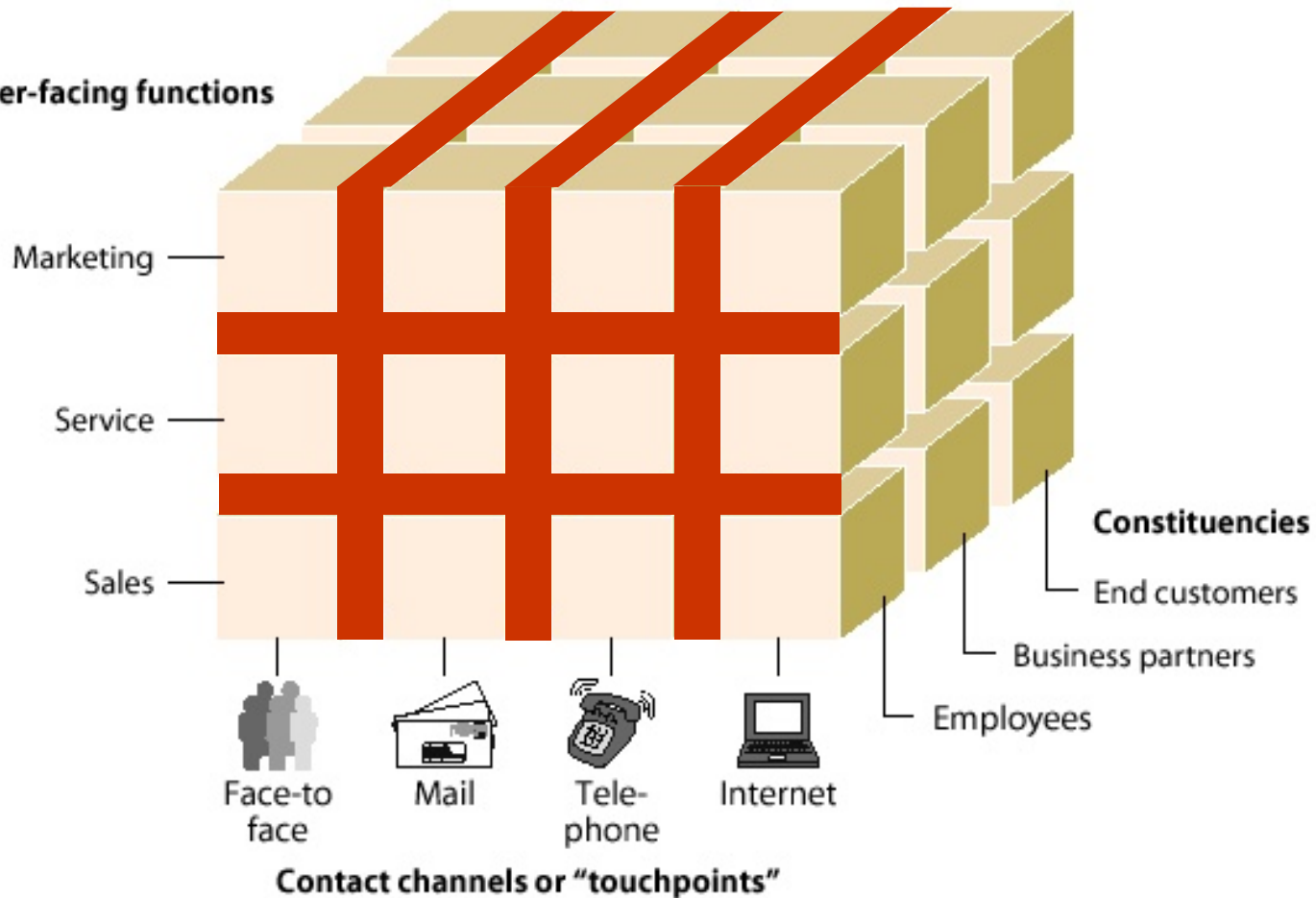


Grow Your Book in the Right Direction

Log Plot - Pascal's Tet



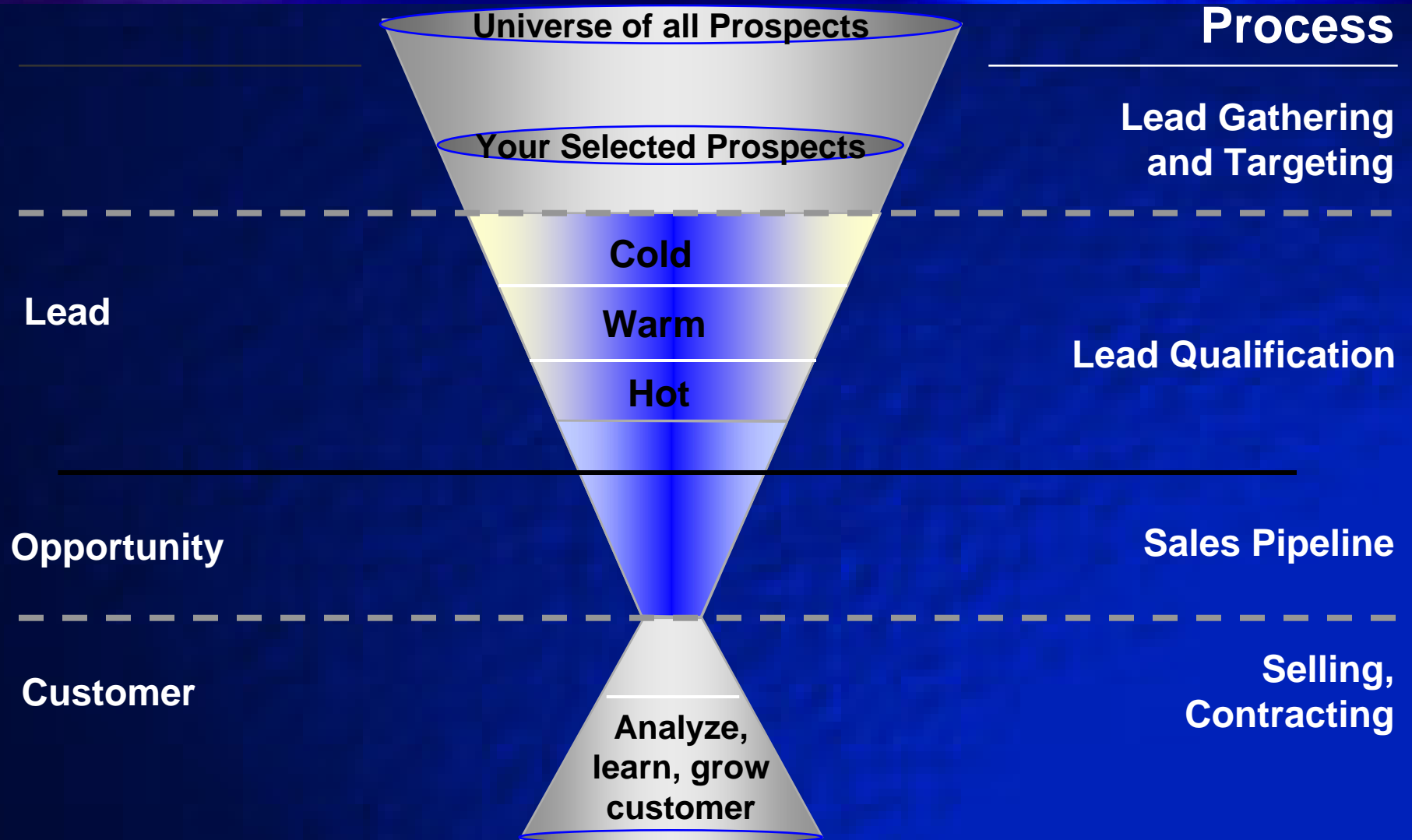
Customer-facing functions



Source: Forrester Research, Inc.

A vast array of CRM applications demand a common glue -- Analytics

Sales Funnel



General Advertising and Direct Mail – A Simple Comparison

Advertising

- Mass
- Competitive Attention
- Breadth
- Remember
- Impression
- Pay for Everyone

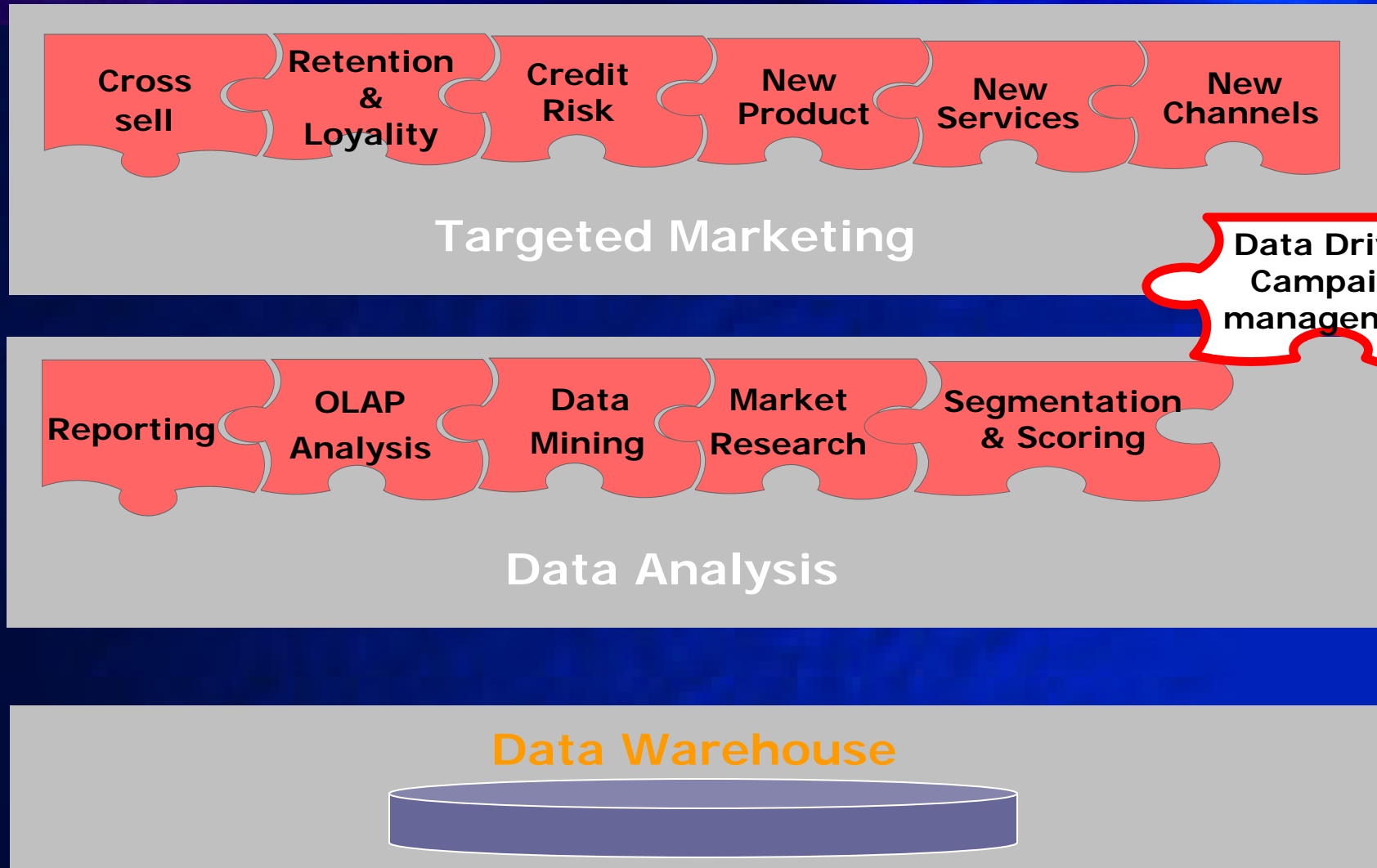
Direct Marketing

- Targeted
- Selective Attention
- Depth
- Respond
- Decision
- Pay for Targets

Selection Factors

- Consumer Lists
 - Age
 - Income
 - Gender
 - Marital Status
 - Homeowner
 - Dwelling Type (home or apartment)
 - Mail order buying (by product type)
 - Interests
 - Presence of children
 - **Geospatially derived estimated loss costs**
- Business Lists
 - SIC (Standard Industrial Classification)
 - Employee Size
 - Annual Sales/Revenue
 - Title
 - Any other information captured on subscription form (publications)
 - Corporate linkage information
 - # of years in business
 - Geographical (zip, SCF, county, state)
 - Credit information

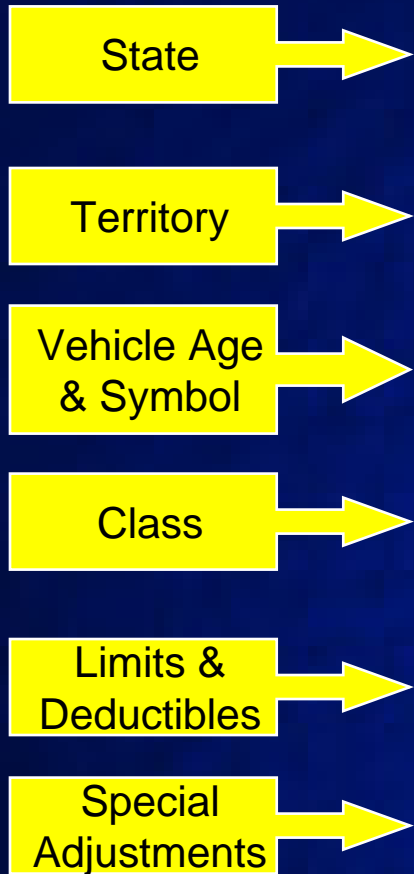
Data Driven Campaign Management and Pricing Optimization



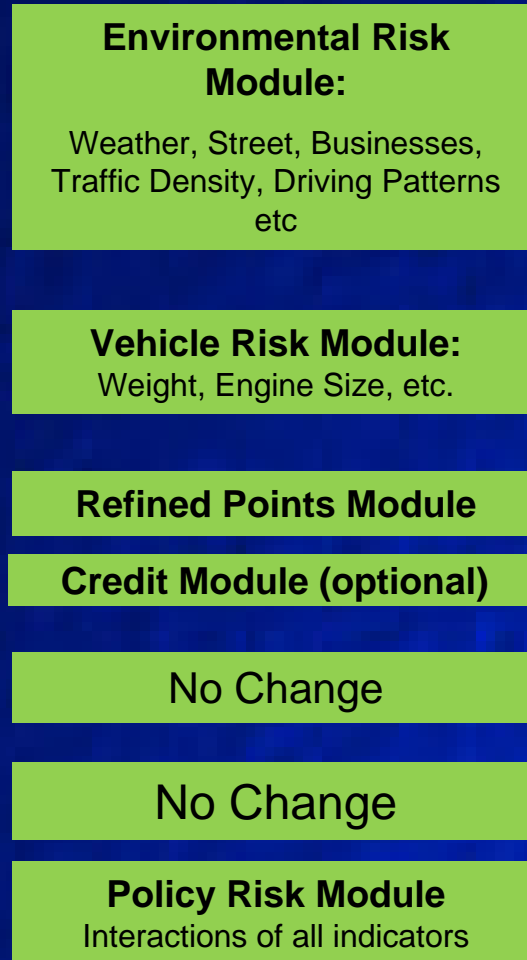
ISO Risk Analyzer[®]

Personal Auto Framework

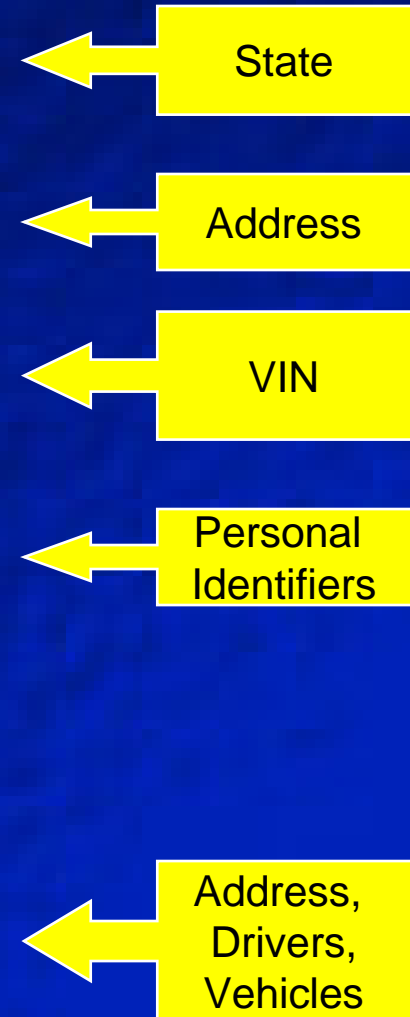
Rating Plan



ISO Risk Analyzer



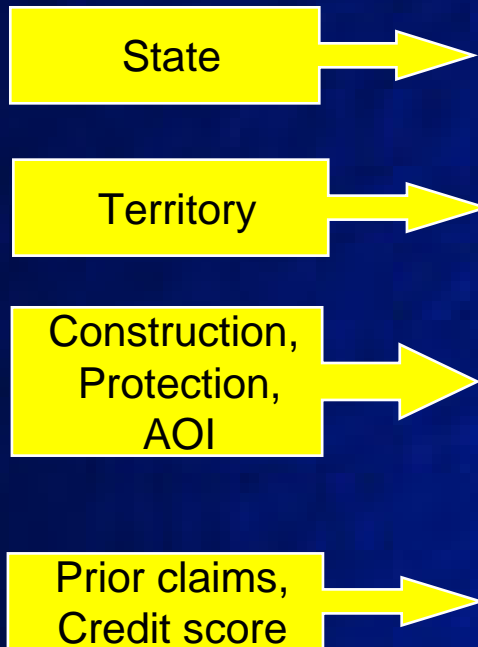
Input



ISO Risk Analyzer[®]

Personal Property Framework

Old Rating Plan



New By Peril Rating Plan

Refined Home Risk Factor:

Weather, Demographic, Distance to Businesses, ISO Stat Plan, BCEGS, mold, Location, AOI, etc.

Resident Risk Factor:

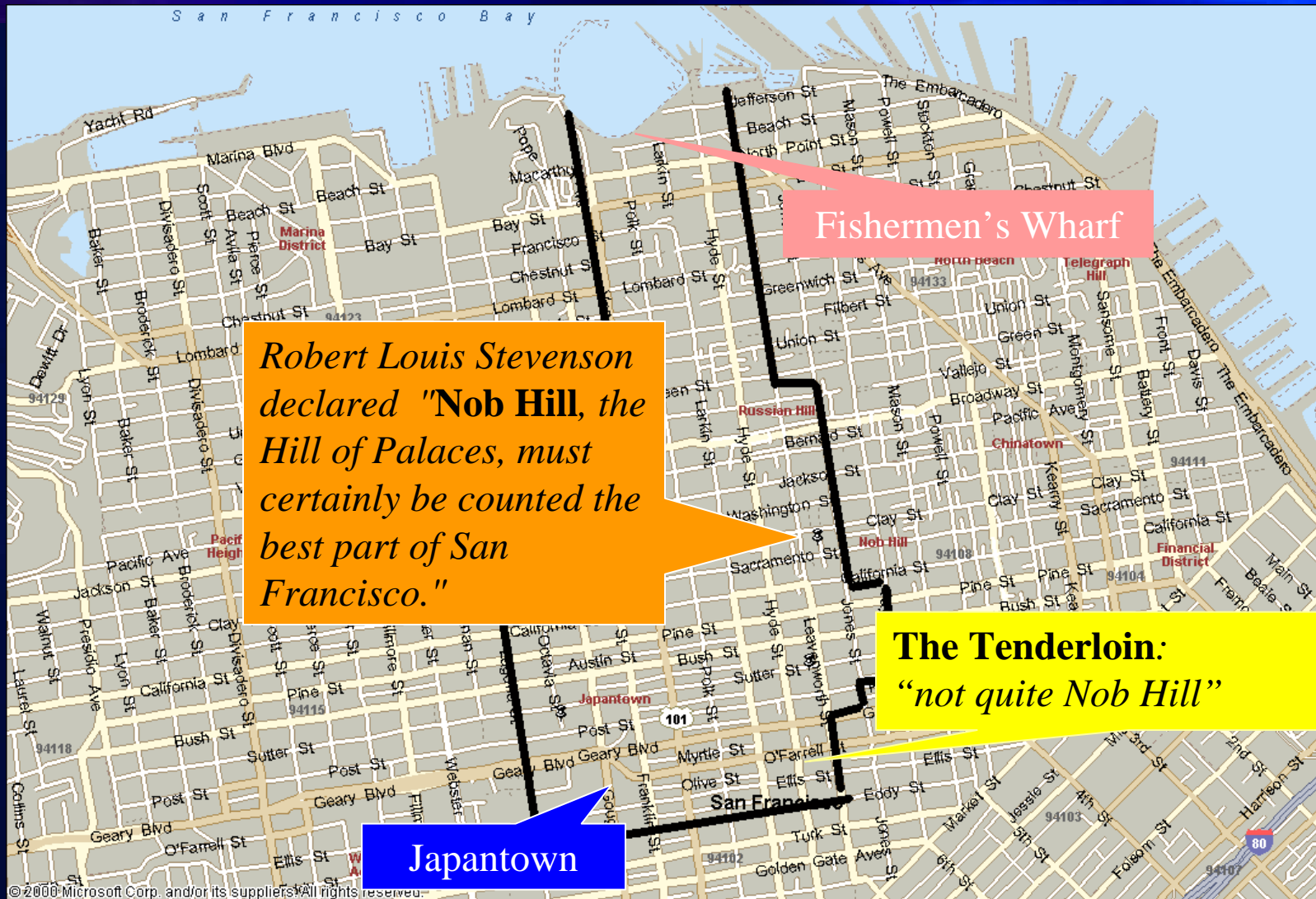
Loss Histories, Gender, Age, Marital Status, Pets, Smoking, etc.

Credit optional

Total Policy Risk

Interactions of all indicators

ZIP Code 94109: A Tour



Robert Louis Stevenson declared "Nob Hill, the Hill of Palaces, must certainly be counted the best part of San Francisco."

Fishermen's Wharf

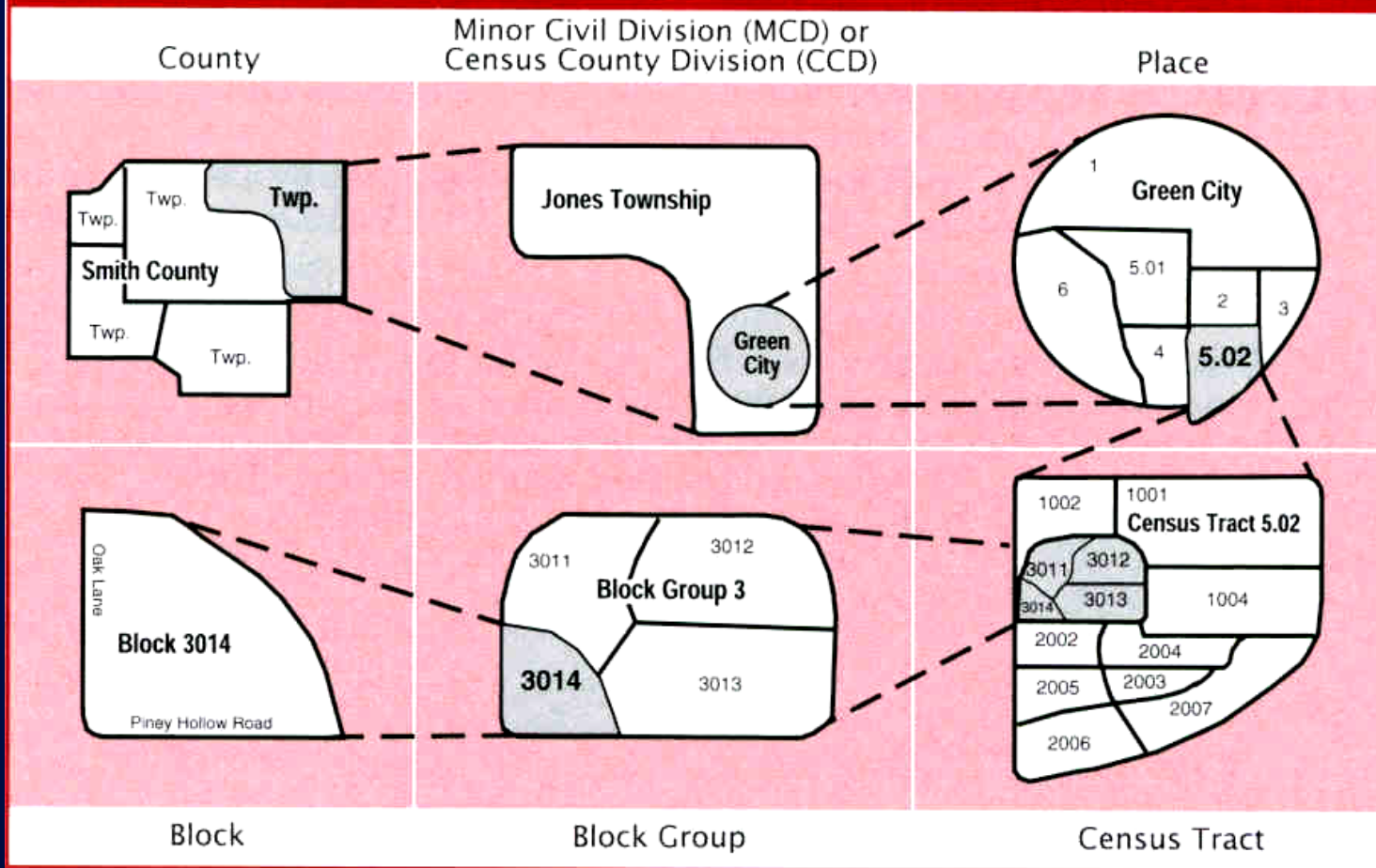
The Tenderloin:
"not quite Nob Hill"

Japantown

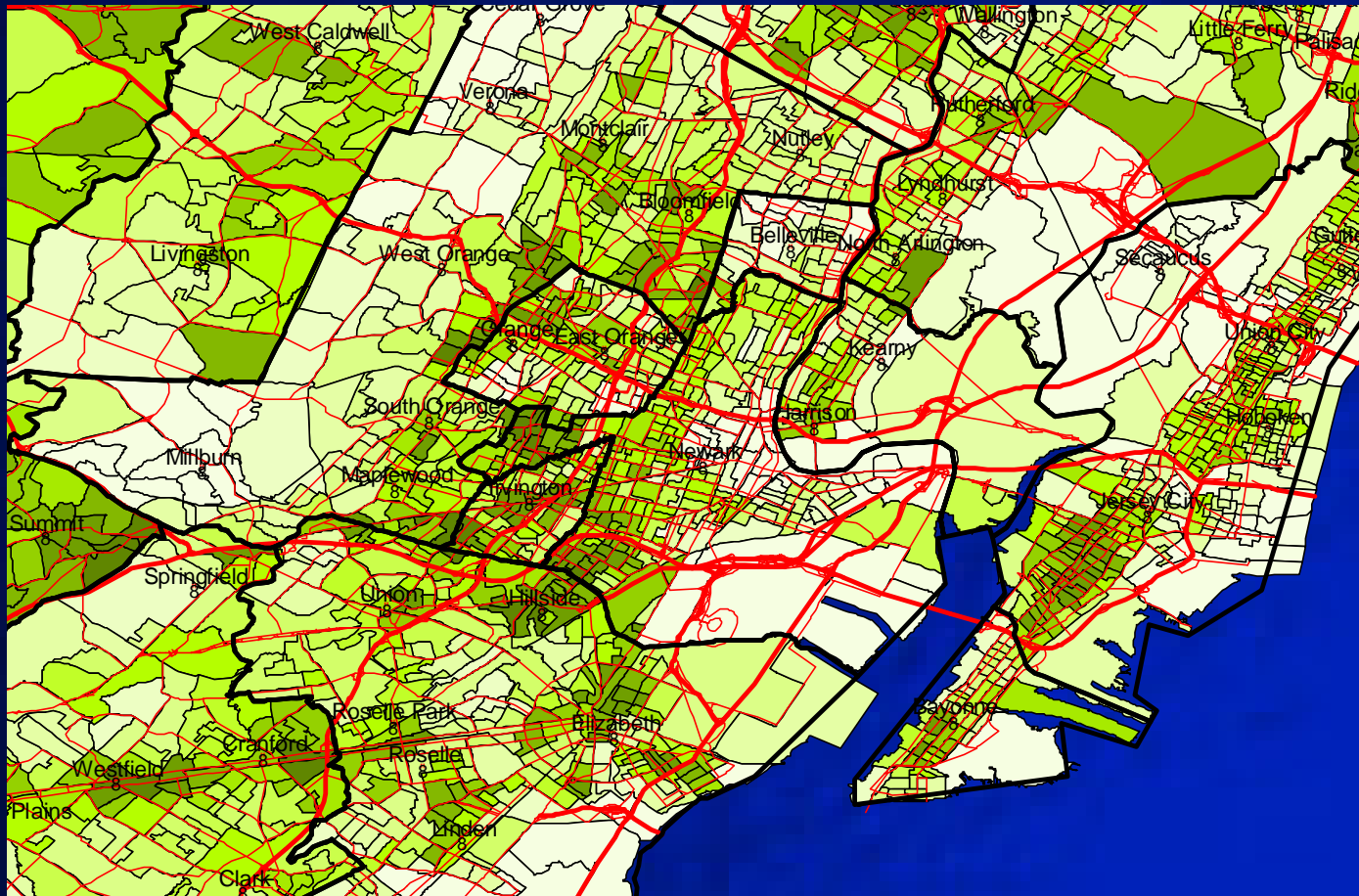
Small-Area Geography Overview

Census Small-Area Geography

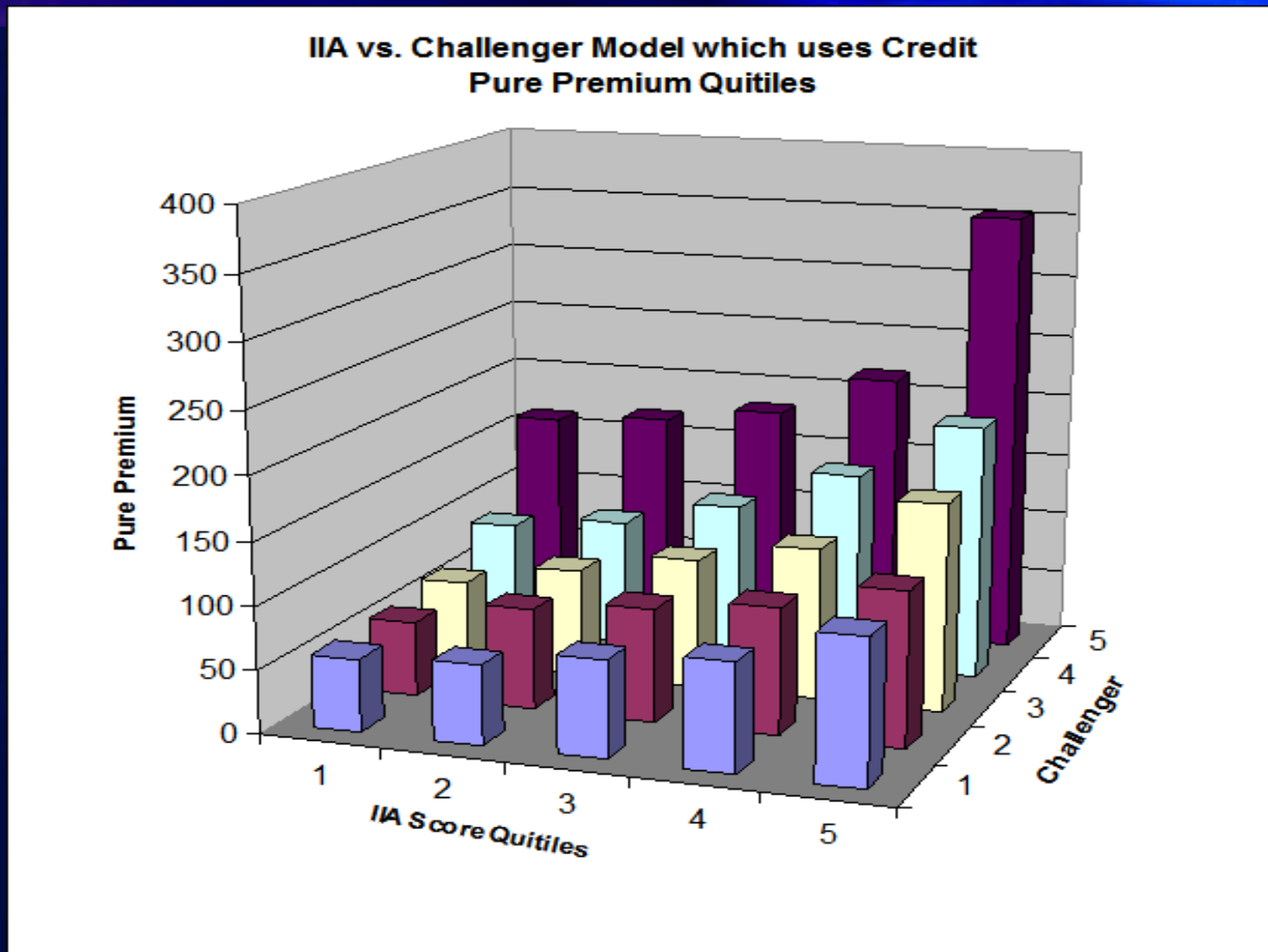
Understanding the Relationships Among U.S. Census Bureau Geographic Entities



Newark NJ Area Combined Relativity

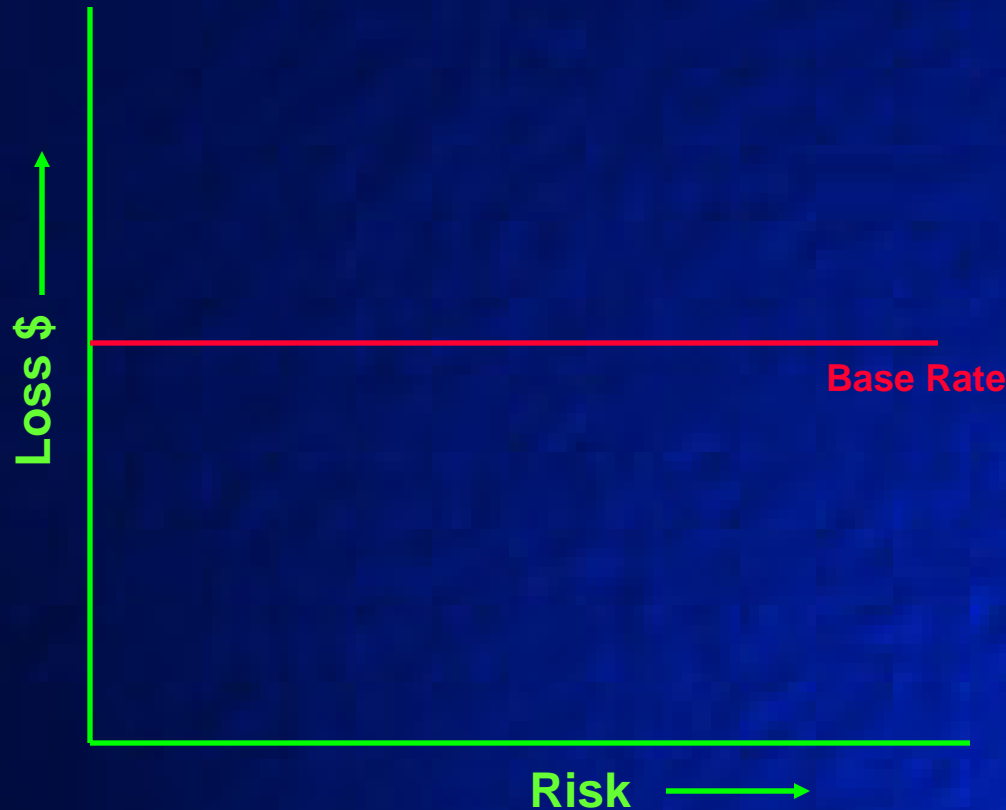


Combining Risk Scores for Marketing

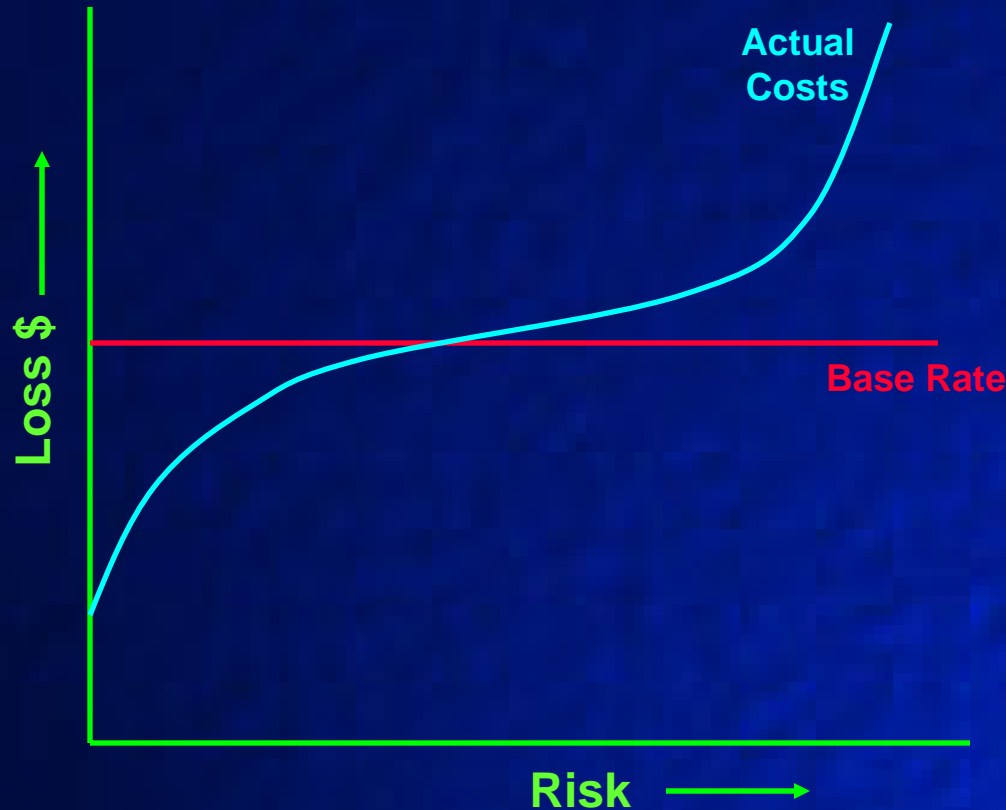


Competitive Advantage

- Carriers establish a base rate for each rating territory that represents the average expected loss cost.

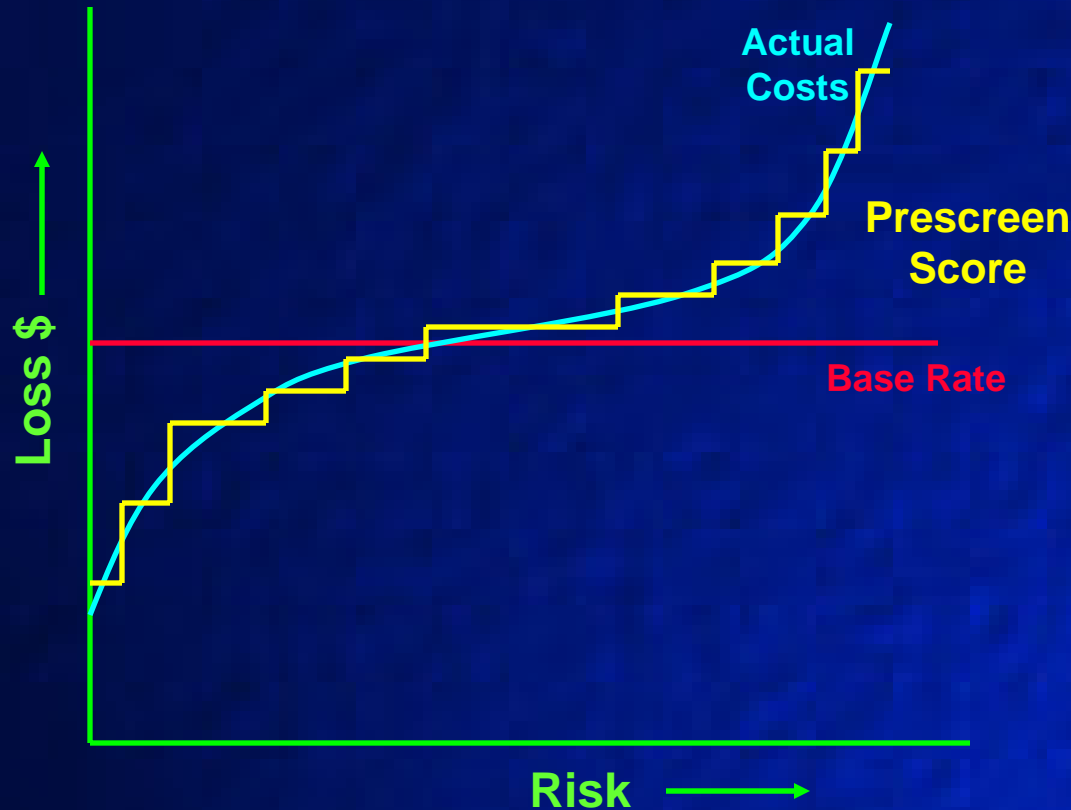


Competitive Advantage



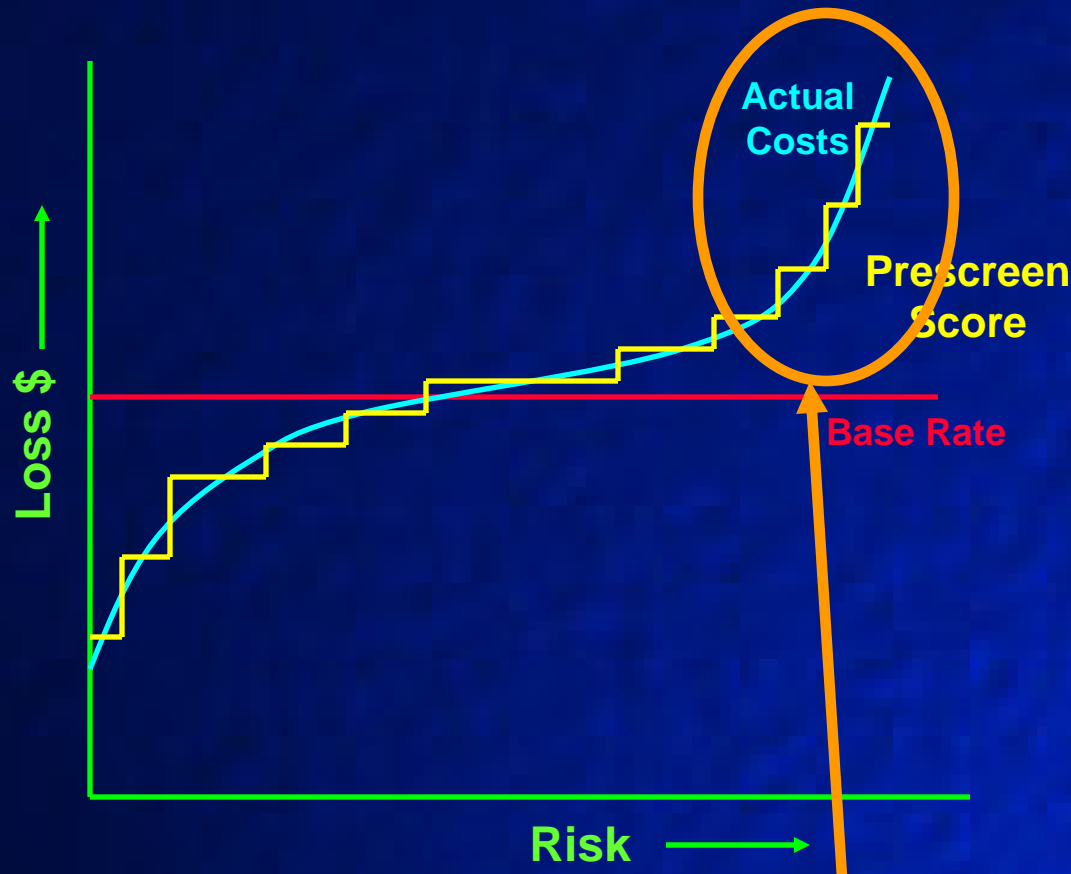
- Carriers establish a base rate for each rating territory that represents the average expected loss cost.
- In reality there is a distribution of risk and expected loss costs, even within a territory.

Competitive Advantage



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- The Prescreen Score more closely follows the actual distribution of risk.

Competitive Advantage



- Carriers establish a base rate for each rating territory that represents the average expected loss cost.
- In reality there is a distribution of risk and expected loss costs, even within a territory.
- The Prescreen Score more closely follows the actual distribution of risk.

Users of Prescreen can let their competitors waste resources chasing these marginal accounts!

Summary

- Portfolio Management is a key to future success
- Sophisticated risk-based pricing will be essential
- Marketers can use sophisticated models
- Underwriting processes should be a focal point

It is not a competitive advantage if you don't use it

Predictive Modeling & Marketing

Presenter :

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