Plenary Session: INNOVATION A Singular Indicator for HMDA Data Analysis

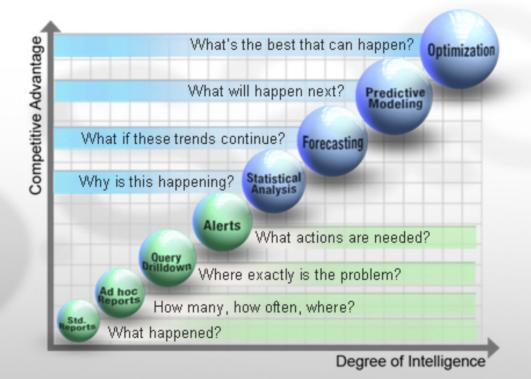
Clark Abrahams, Director of Fair Banking, SAS





Information Alone Does Not Drive Change

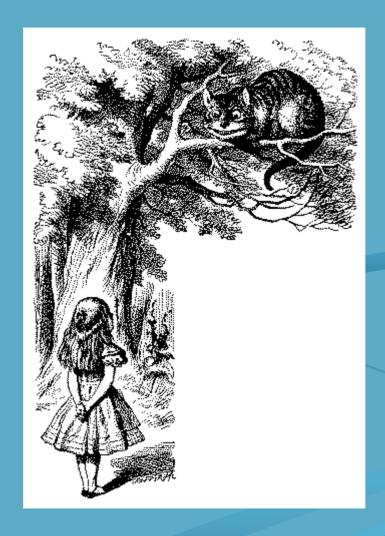
Intelligence Through Analytics Optimization







Shortest Path to Understanding in the HMDA Forest







Focus The purposes behind HMDA analysis include fair lending monitoring and investigations, competitor analysis within geographic markets, compliance benchmarking for CRA examination performance context, merger and acquisition analysis, marketing intelligence for mortgage lending in underserved, or homeownership-deficient, communities, etc.

Data HMDA analysis provides a public view into mortgage lending performance across lenders, markets, loan purposes, dwelling types, lien status, and many other factors, by action result for different groups of applicants based on race, ethnicity, gender, etc.

Use Fair lending analyses target above-trigger pricing incidence, average pricing differences, denial imbalances, market penetration, fallout disparities, origination differences, etc.

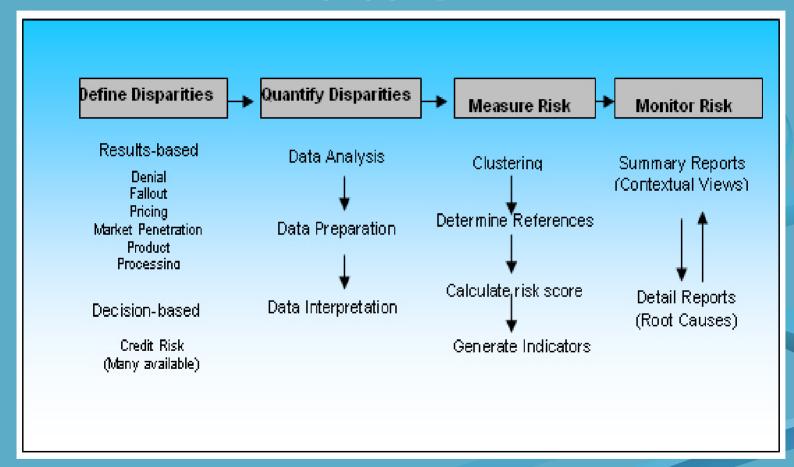
Problem Analyses are fragmented and incomplete, processing is inefficient (unnecessary, redundant,, time consuming), and results don't capture factor interactions

Solution Place HMDA information in the hands of *ready users* and in an *accessible form* that they can use to make effective decisions on urban markets to foster systematic change





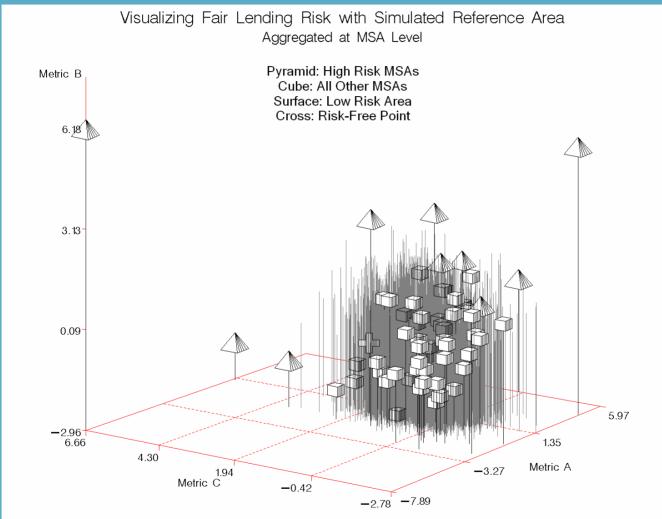
Uniform Performance Indicator







Visualizing Risk / Spotting Outliers







| HMDA Components → | Credit Risk Components → |

MSA	ODI	DDI	FDI	MPI	PRI	IDI	DTIDI	CHDI	LTVDI	BSDI	Global Indicator
27860	1.667	1.605	2.162	0.474	0.913	1.030	0.656	1.250	0.655	1,540	7.37122
22520	1.928	1.710	1.819	0.512	1.310	0.806	0.688	1.375	0.992	0.859	7.16697
26300	1.633	1.613	1.678	0.509	1.896	1.583	0.590	2.146	0.617	0.493	7.06235
19460	1.840	1.505	1.618	0.537	1.280	0.703	0.981	2.083	1.545	1.944	6.84225
39140	1.594	1.472	1.612	0.398	1.428	0.868	0.713	2.143	0.890	0.641	6.78421
26620	1.680	1.869	1.478	0.649	1.655	0.828	0.503	1.487	0.780	1.07B	6.67276
32820	1.624	1.808	1.424	0.821	2.288	0.833	0.719	1.188	0.823	1.188	6.62507

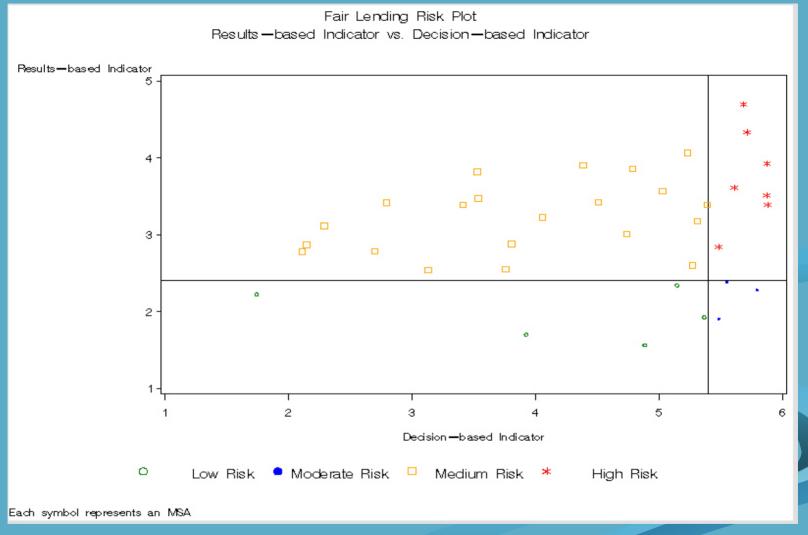
Decompose Into Results-Based & Decision-Based Components

MSA	Results-based Indicator	Decision-based Indicator	Global Indicator
27860 - JONESBORO, AR	4.69511	5.68250	7.37122
22520 - FLORENCE-MUSCLE SHOALS, AL	4.33302	5.70880	7.16697
26300 - HOT SPRINGS, AR	3.92601	5.87054	7.06235
19460 - DECATUR, AL	3.51550	5.87007	6.84225
39140 - PRESCOTT, AZ	3.38907	5.87705	6.78421
26620 - HUNTSVILLE, AL	3.61697	5.60742	6.67276
32820 - MEMPHIS, TN-MS-AR	4.06819	5.22890	6.62507





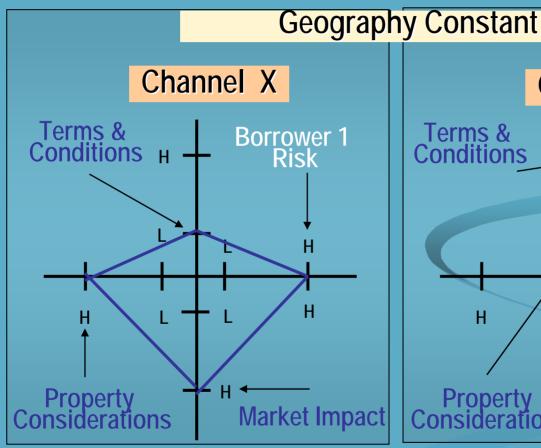
Quadrant Plot of Decision Vs. Results Indicators

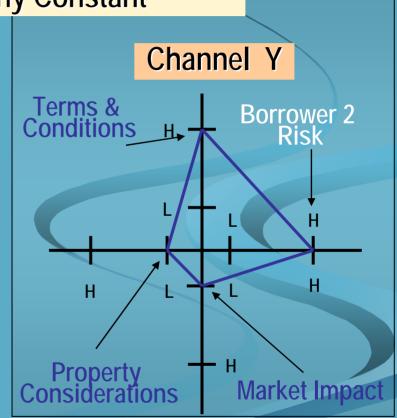






Pricing Dimensions Beyond Borrower Risk









UPI Aimed at Opportunity-Side

Neighborhood Opportunity

- 1. Market size/growth
- 2. Housing profile
- 3. Commercial profile
- 4. Public-sector profile
- 5. Stability/risk profile
- 6. Consumer behavior profile

Mainstreaming Consumers

- 1. Demographics
- 2. Financial Services Usage
- 3. Credit Profile
- 4. Work Status
- 5. Savings Habits
- 6. Non-Credit Payment Profile

Quickly/Thoroughly Rank Based Upon Estimated Value Over Specified Horizon









