

FEDERAL REAL PROPERTY ASSOCIATION

Event Summary: Department of Housing and Urban Development (HUD) - Identifying Real Estate Risk Using Big Data and Analytics

July 18, 2017 – Nationals Stadium, Washington, D.C.

The Federal Real Property Association (FRPA) held the annual event at Nationals Stadium with a presentation from **DJ Lavoy, Deputy Assistant Secretary for the Real Estate Assessment Center at HUD** about using big data to identify risk in real estate.

The Real Estate Assessment Center within HUD has the most robust data warehouse of physical and financial data on affordable housing in the U.S. and perhaps the world. DJ Lavoy, Deputy Assistant Secretary for Real Estate Assessment Center at HUD discussed how employing business intelligence (BI) tools, responding to customer and stakeholder inputs and needs, and tailoring analyses to the identified requirements is proving to move the needle in the direction of good government and value added to the tax payer.

Mr. Lavoy demonstrated how HUD has used the Performance Risk Dashboard as shown below to better analyze risk associated with its asset portfolio.

Peer Group Profile		Project Profile		Project Program/Finance Profile as of December 31, 2015									
Size: Medium	Hub: State "X"	Project Name: XXXX	Contract ID: YYY	Property Category/Assisted-Previously Insured	HUD Affiliated (Yes/No): Yes								
Program: All Hud Programs	Property ID: ZZZ	HUD Affiliated Program(s): Subsidized											
Project Level Data													
Financial Risk Aversion Indicators		Management Risk Aversion Indicators		Building/Property Physical Condition Risk Aversion Indicators									
Year	Units	Peer Group Affiliation Code	Operating Cost Coverage Ratio (OCCR) Total Revenue/Operating Cost	Per Unit Year Surplus Cash	Quick Ratio (QR)	Debt Service Coverage Ratio (DSCR) *	Excessive Tenant Accounts Receivable	Occupancy Rate	Inspection Scores (PASS MF) *	Accumulated Reserves for Replacement (RAR) Per Unit Year	Property Construction Year	RAR & Property Age & PASS Combined Risk Aversion Color	FAS-MF Performance Indicator *
2013	88	HFA	1.05	\$1,785	0.104	0.59	0.22	98%	89	\$573	1970	Yellow	75
2014	88	HFA	1.03	\$1,752	0.101	0.56	0.26	96%	59	\$416	1970	Yellow	
2013	88	HFA	1.22	\$1,122	0.133	2.17	0.61	97%	91	\$419	1970	Green	
2012	88	HFA	1.03	\$462	1.203	0.50	0.19	96%	91	\$667	1970	Yellow	
2011	88	HFA	1.17	\$62	1.269	0.27	0.48	97%	91	\$4,644	1970	Yellow	
HFA Peer Group						HFA Peer Group Averages for "X" State for Size S1 units to 150 units (limits inclusive)							
Year	Units	Property Count *	Operating Cost Coverage Ratio	Per Unit Year Surplus Cash	Quick Ratio (QR)	Debt Service Coverage Ratio (DSCR) *	Excessive Tenant Accounts Receivable	Occupancy Rate	Inspection Scores (PASS MF) *	Accumulated Reserves for Replacement (RAR) Per Unit Year	Property Construction Year	RAR & Property Age & PASS Combined Risk Aversion Color	FAS-MF Performance Indicator *
2013	92	45	1.51	\$1,524	2.703	3.35	0.17	98%	91	\$4,476	1950	Green	
2014	92	43	1.54	\$1,705	2.753	1.63	0.20	98%	91	\$1,920	1941	Green	
2013	94	43	1.57	\$1,437	2.195	1.70	0.19	98%	92	\$3,103	1943	Green	
2012	96	73	1.79	\$1,418	2.889	1.47	0.11	99%	93	\$4,935	1956	Green	
2011	98	66	1.73	\$1,151	3.791	0.91	0.11	98%	92	\$1,988	1955	Green	
HFA Peer Group						HFA Peer Group Averages for "X" State for Size S1 units to 150 units (limits inclusive)							
Year	Units	Property Count *	Operating Cost Coverage Ratio	Per Unit Year Surplus Cash	Quick Ratio (QR)	Debt Service Coverage Ratio (DSCR) *	Excessive Tenant Accounts Receivable	Occupancy Rate	Inspection Scores (PASS MF) *	Accumulated Reserves for Replacement (RAR) Per Unit Year	Property Construction Year	RAR & Property Age & PASS Combined Risk Aversion Color	FAS-MF Performance Indicator *
2013	84	155	1.68	\$1,672	2.083	1.50	0.26	98%	92	\$5,546	1957	Green	75
2014	84	147	1.64	\$1,856	2.992	1.36	0.29	98%	91	\$7,688	1958	Green	73
2013	93	129	1.64	\$1,560	1.995	1.18	0.07	98%	89	\$5,953	1957	Green	74
2012	93	124	1.68	\$1,618	2.490	1.40	0.06	98%	87	\$5,399	1955	Green	74
2011	92	123	1.70	\$1,265	1.921	0.95	0.26	98%	87	\$5,498	1954	Green	72
Individual Indicators Performance Threshold Levels													
High Risk	<=1.5	<=50	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	Age < 15	<=1.00	<=1.00
Medium Risk	>1.5 & <=1.8	>=50 & <=100	>=1.00 & <=1.20	>=1.00 & <=1.20	>=1.00 & <=1.20	>=1.00 & <=1.20	>=1.00 & <=1.20	>=1.00 & <=1.20	>=1.00 & <=1.20	>=1.00 & <=1.20	Age >= 15 & <= 15	>=1.00 & <=1.20	>=1.00 & <=1.20
Low Risk	>1.8	>=100	>=1.20	>=1.20	>=1.20	>=1.20	>=1.20	>=1.20	>=1.20	>=1.20	Age > 15	>=1.20	>=1.20
RAR & Property Age & PASS Combined Threshold Levels													
High Risk	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00	<=1.00
Medium Risk	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50	>1.00 & <=1.50
Low Risk	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50	>1.50

SPEAKER BIO

D.J. LaVoy is the Deputy Assistant Secretary Public and Indian Housing (PIH) for the Real Estate Assessment Center (REAC). He is a retired Marine Officer, Naval Aviator and combat veteran. His professional focus is change management and leading organizations to excellence.

As the Deputy Assistant Secretary for Field Operations he has re-structured the PIH field offices nationwide to reflect a focus on partnership and effective regulatory oversight emphasizing financial management and governance. He returned to the REAC as the Deputy Assistant Secretary in 2013 and has focused on several areas: upgrading all the IT systems utilizing AGILE development methods and migrating to a cloud environment, utilizing business process improvement to enhance the REAC inspection processes and protocols and transitioning the REAC to becoming a shared service provider.

The Federal Real Property Association (FRPA) is a 501(c)(3) non-profit community of Federal property asset managers and real estate professional working together to solve today's asset management and workplace challenges. For information on upcoming events and to see the latest of Federal Real Property through papers and news visit www.frpa.us.