**OBSERVATIONS**

The contributions of the responding institutes located in the five states of Virginia, Delaware, West Virginia, DC, Maryland, are studied here. This can be used to study our competition at present as well as can be further expanded to include predictions on the trends that can project their shares say 5 years in future. Thus this will help us in modelling our product segment according to the pitfalls in the products of the competitors by further analyzing their loan types share. Also included is the count of purchase and refinance loans for the given three years. We observe a steep increase in purchase loan in the span of 2012-13 and fall in refinance loan in the span of 3 years which indicates that there might be increased rates for refinancing as the rates of refinance mortgage loans is more sensitive. These can indicate a rise in loan pricing, high rates or financial strains in that economic zone.

The plot form Aggregate.pdf corresponds to the study of the total state-wise loan asset amount for the three years. From this we observe whether there is a rise or fall in the market share with respect to the state. This helps us in understanding that if there is an increase in share there has been either an increase in real estate i.e. it is a hot zone for new purchases. This can be inferred if we further partition the data according to loan purchase reason. If it is higher new purchase loans than it is definitely a market that we should keep an eye on and consider for further investigations because if it is showing prediction based trends like Plano-Frisco zone then it is definitely a ripe zone for entering the home loans market. The plot on loan count refers to the number of loans reported per state. This gives trends on the loan originations per state. The observations here can be used in manner similar to aggregates.

The other insights that were observed here are with respect to the key fields in the data:

1. When the loan purpose is the attribute the percentage decline in refinancing 66% to 59% (11% change) while home purchase applications increased from 30% to 35% (17% change) in 2013 with respect to the data in 2012.
2. New mortgage loans increased 38 percent in 2012 with  54 percent increase in refinancing loans, compared to only a 13 percent increase in home purchase loans.
3. Government financing accounted for 45 percent in 2012
4. median income of borrowers who got home purchase loans from the FHA was about 40 percent lower than the median for conventional (non-government) home purchase loans in 2012

**Observations from the 2014 Data (**as per the data downloaded from HMDA web site)

* The total number of **originated loans** of all types and purposes declined by about 2.7 million, or 31 percent, from 2013.
* **Refinance** originations declined by 55 percent, whereas home purchase lending increased by about 4.0 percent
* share of refinance loans to low- and moderate-income borrowers increased slightly from 20 percent to 21 percent.
* homebuyers relied heavily on government-backed mortgages, particularly those insured by the FHA or guaranteed by the VA, to finance their purchases due to the financial crisis
* the FHA-insured share of first-lien home purchase loans for 1-4 family, site-built owner-occupied properties was 21 percent
* conventional loans accounted for 81 percent of all first-lien refinance
* down from about 84 percent in 2013
* FHA-insured loans accounted for about 9 percent same as 2013.
* The VA-guaranteed share of refinance loans increased from 6 percent to 10 percent since 2013.

**Reference**:

HMDA data set: <http://www.consumerfinance.gov/hmda/explore>

HMDA reports

Aggregate.pdf,