

# Data Quality Report

## Initial Findings

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### Continuous Features:

1. There is a very high number of customers who use very few minutes
2. People rarely keep their handset past 18 or 24 months
3. The largest chunk of customers are in pay grade 7/10 (6/9)
4. The largest chunk of customers are churned after ~12 months (when contract ends)
5. Out of ~40 retention calls, ~20 retention offers were accepted such that the retention rate from retention calls is about 50%
6. There are quite a few outliers who have their handsets for longer than three years - some even longer than four years.
7. Very few people incur roaming charges due to phone calls made abroad
  - a. Can be used to market free roaming to incentivise more customers, could cost little for calls
8. Customers experience dropped calls frequently

### Categorical Features:

1. There are a significant number of customer accounts lacking information - especially occupation, region type, and marriage status. This information could be useful to market data analysis
2. Most of the customers live in a suburban area, followed by town people. It would be beneficial to ascertain which region types the unknown category reside in. The majority of these customers *could* reside in rural region types that could greatly impact this result
3. Finding out the marriage status of the customers could be beneficial. It is possible to direct curated advertising to customers with a specific attribute (as Andrew Pole did in 2002 for Target in USA)
4. A small number of customers have no smart phones. Converting these customers to smart phone plans will increase monthly revenue from these customers
5. About  $\frac{1}{3}$  of customers are homeowners, there is a possibility that a significant number of non-homeowners are in long-term leases. Providing a broadband service for the demographic of those owning homes or renting could be possible. More details are needed to discern what proportion of non-homeowners could become broadband customers
6. The churn rate is **too** high for this company. Without a doubt seeding funds into a bigger retention team would be incredibly beneficial