The Data Incubator Project

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Can Economically Intuitive Factors Predict Defaults of Peer-to-Peer Loans?

Fact:

- Peer-to-peer lending platforms use proprietary algorithms to determine credit risk

Research Question:

- Are these algorithms effective in predicting loan defaults?
- Do these algorithms incorporate traditional credit risk measures?
  - Macroeconomic factors
  - Borrower characteristics

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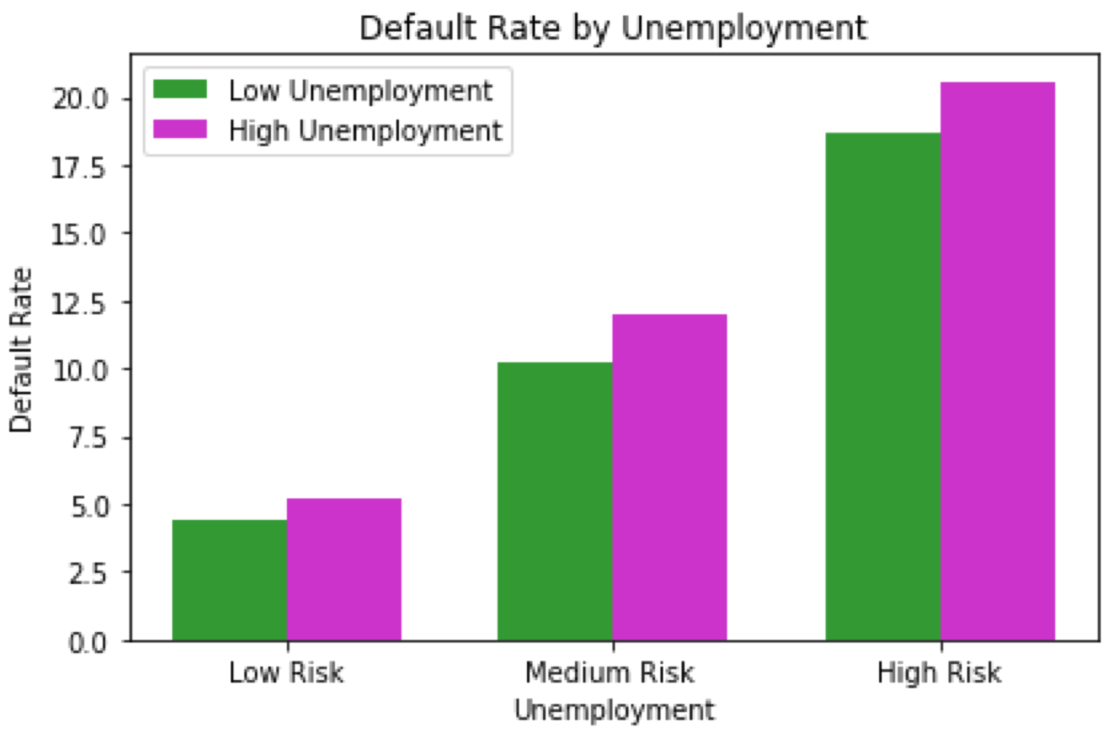
Findings: One

- Loans originated in high unemployment areas are more likely to default.
- Among loans with high interest rates (“High Risk”), those issued in high unemployment areas default **two percent** more than the ones originated in low unemployment areas.



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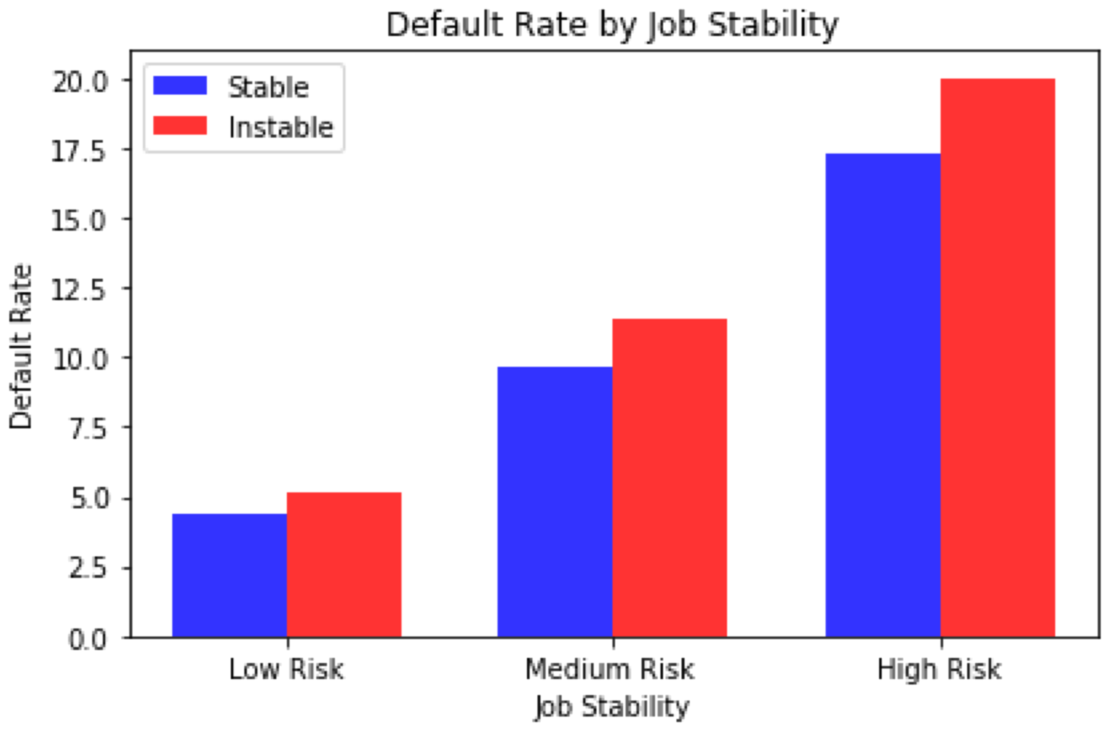
Findings: Two

- Job Stability = Having a government job
- Among loans with high interest rates ("High Risk"), borrowers with lower job stability default **five percent** more than borrowers with greater job stability



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What will Atay do?

1. Expand analysis to recent years to test if proprietary algorithms improved their ability to predict default rates
   - Analyze more than 500 MB of additional data

2. Develop new measures of job-stability to test its importance on loan defaults
   - Does it matter when there is ample amount of job opportunities?

3. Develop a forecast model based on borrower characteristics as reported by Lending Club, as well as by factoring macroeconomic variables.
   - Proprietary algorithm Vs. traditional risk factors