

Predicting Earthquake Building Damage in Nepal

Benjamin Bowman

Problem Description

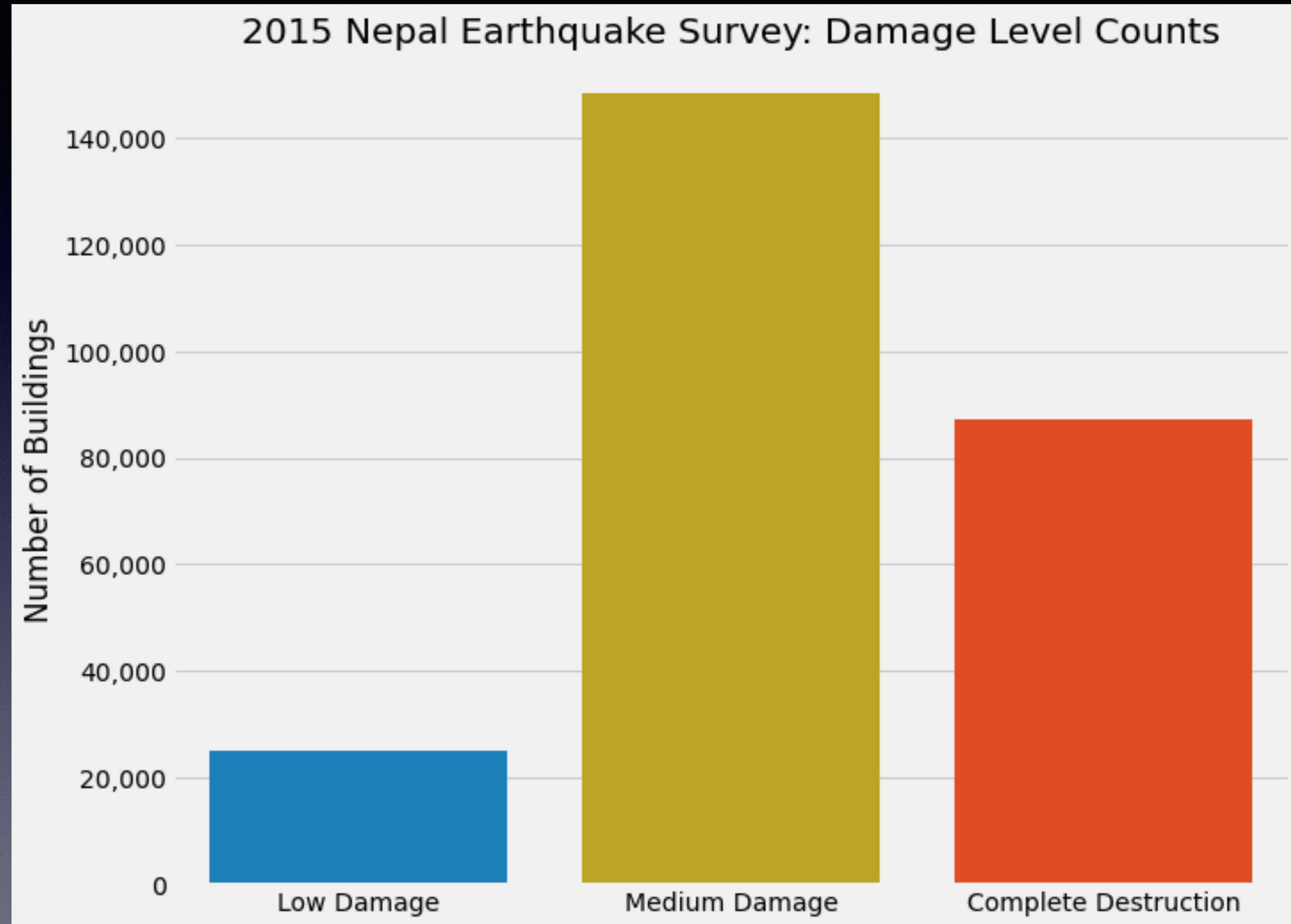


DATA

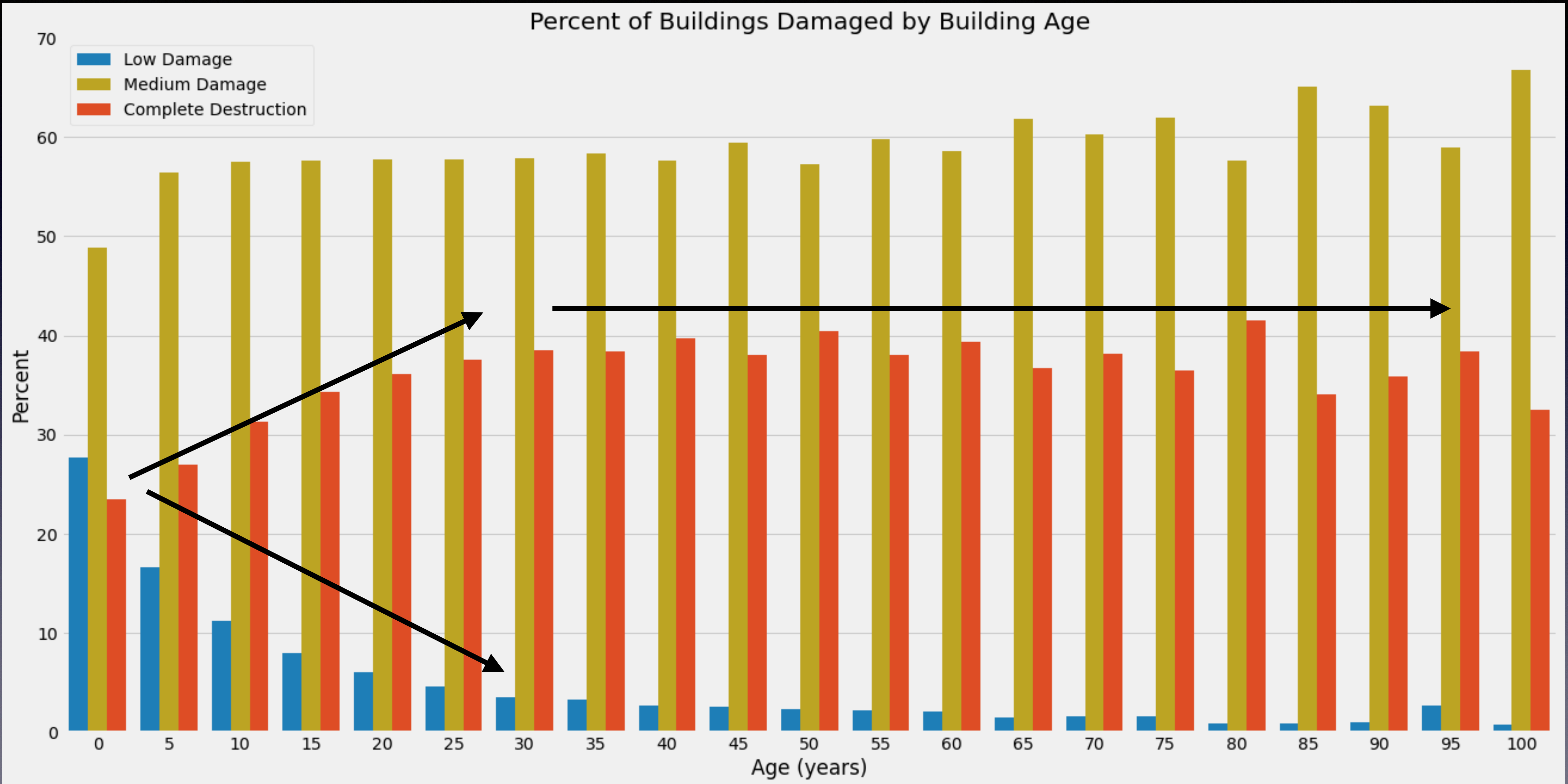
- Data from: DrivenData.org (sourced from 2015 Nepal Earthquake Open Data Portal)
- Over 260,000 building records
- Each describes 38 building characteristics

Damage Levels

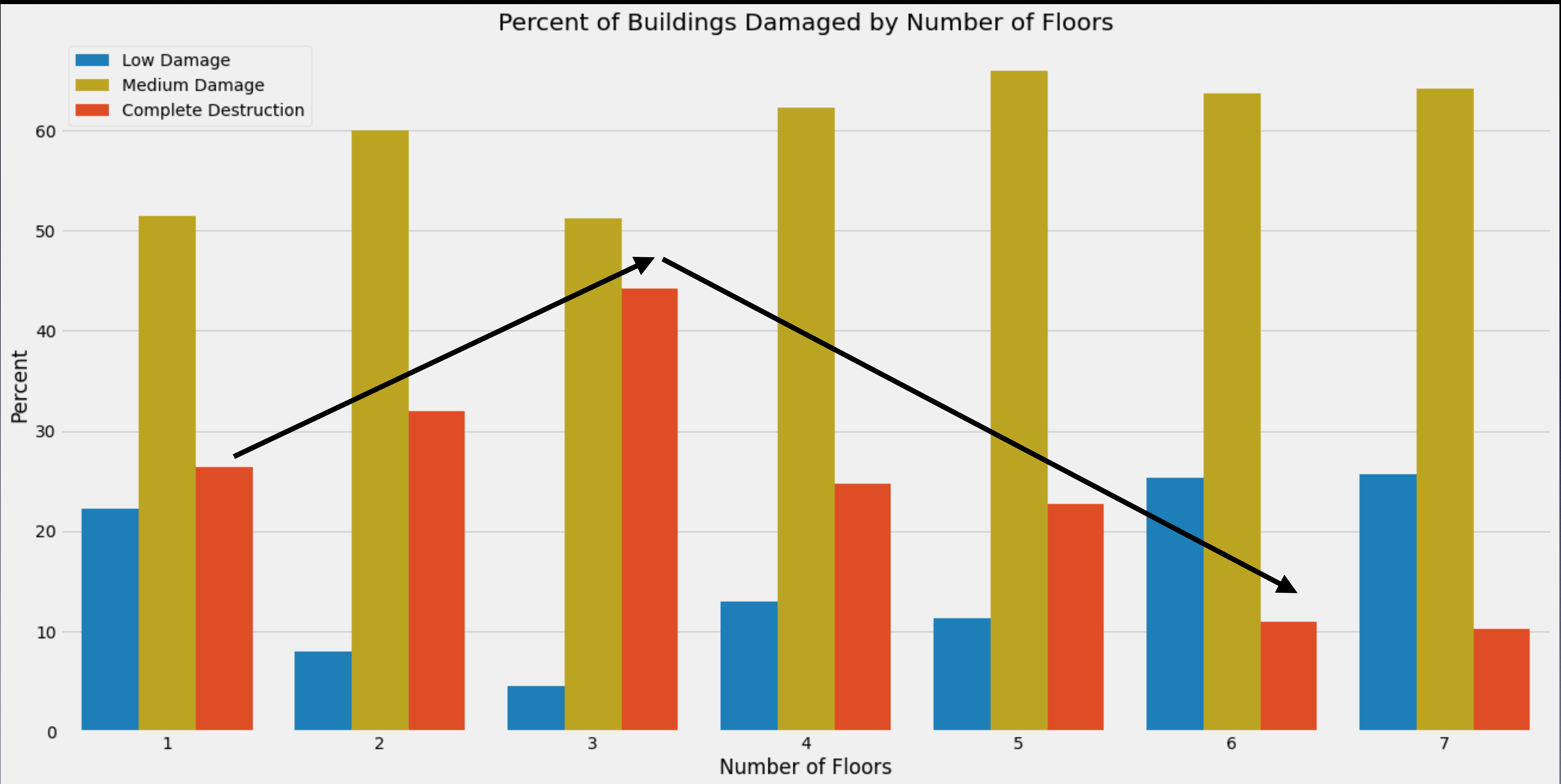
- Low Damage: 9.7%
- Medium Damage: 56.9%
- Complete Destruction: 33.5%



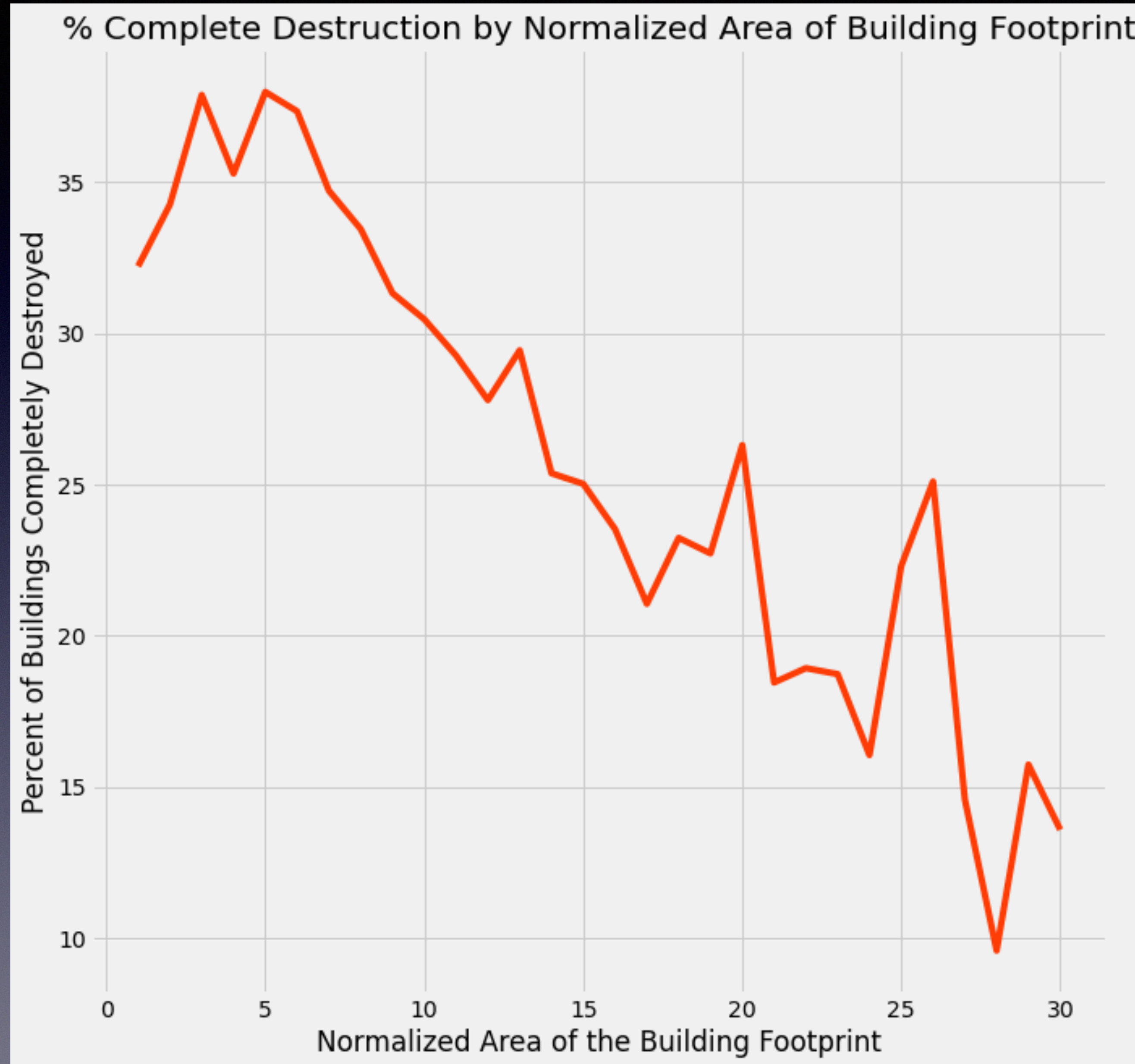
Age of the Building



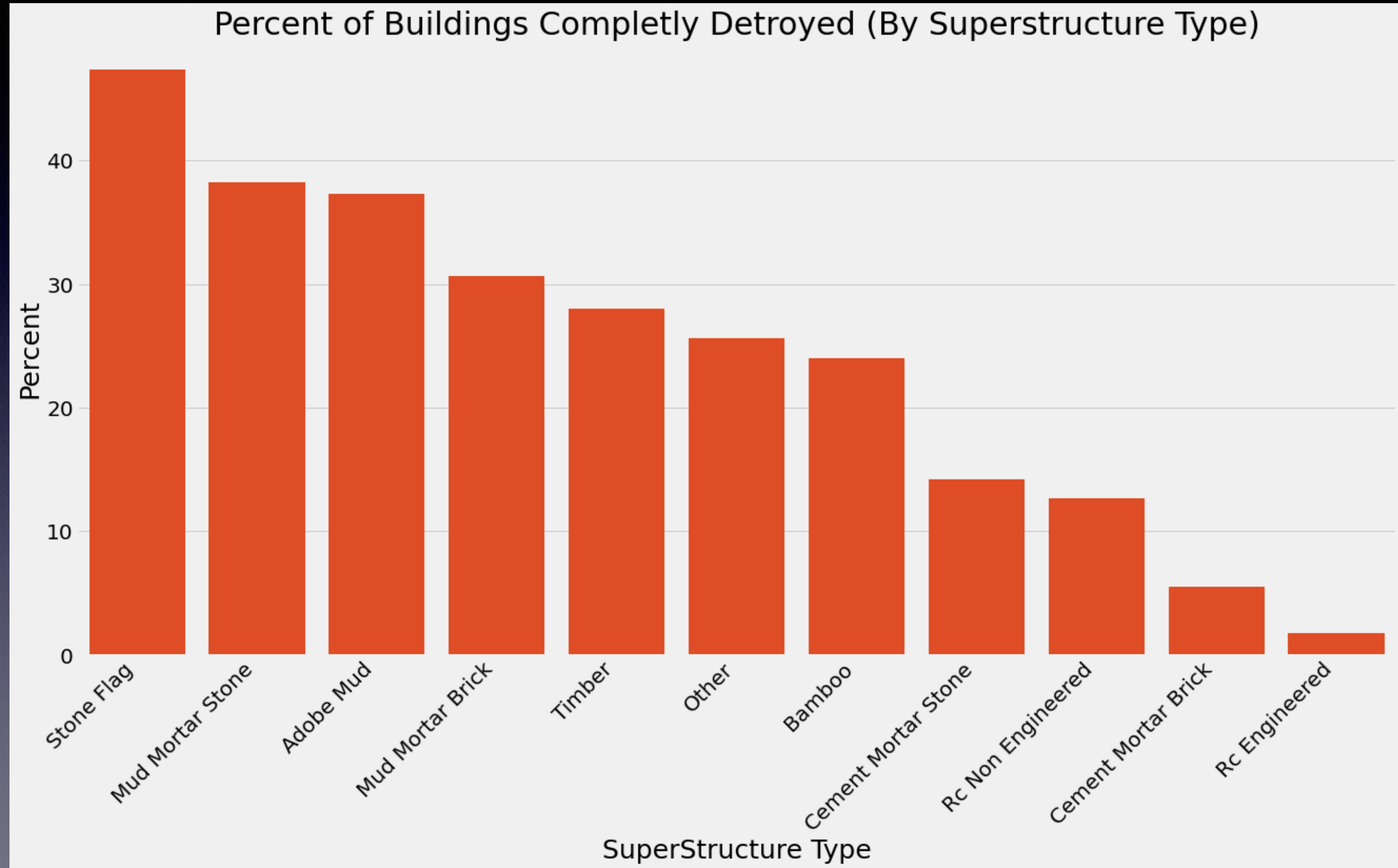
Number of Floors



Building Footprint



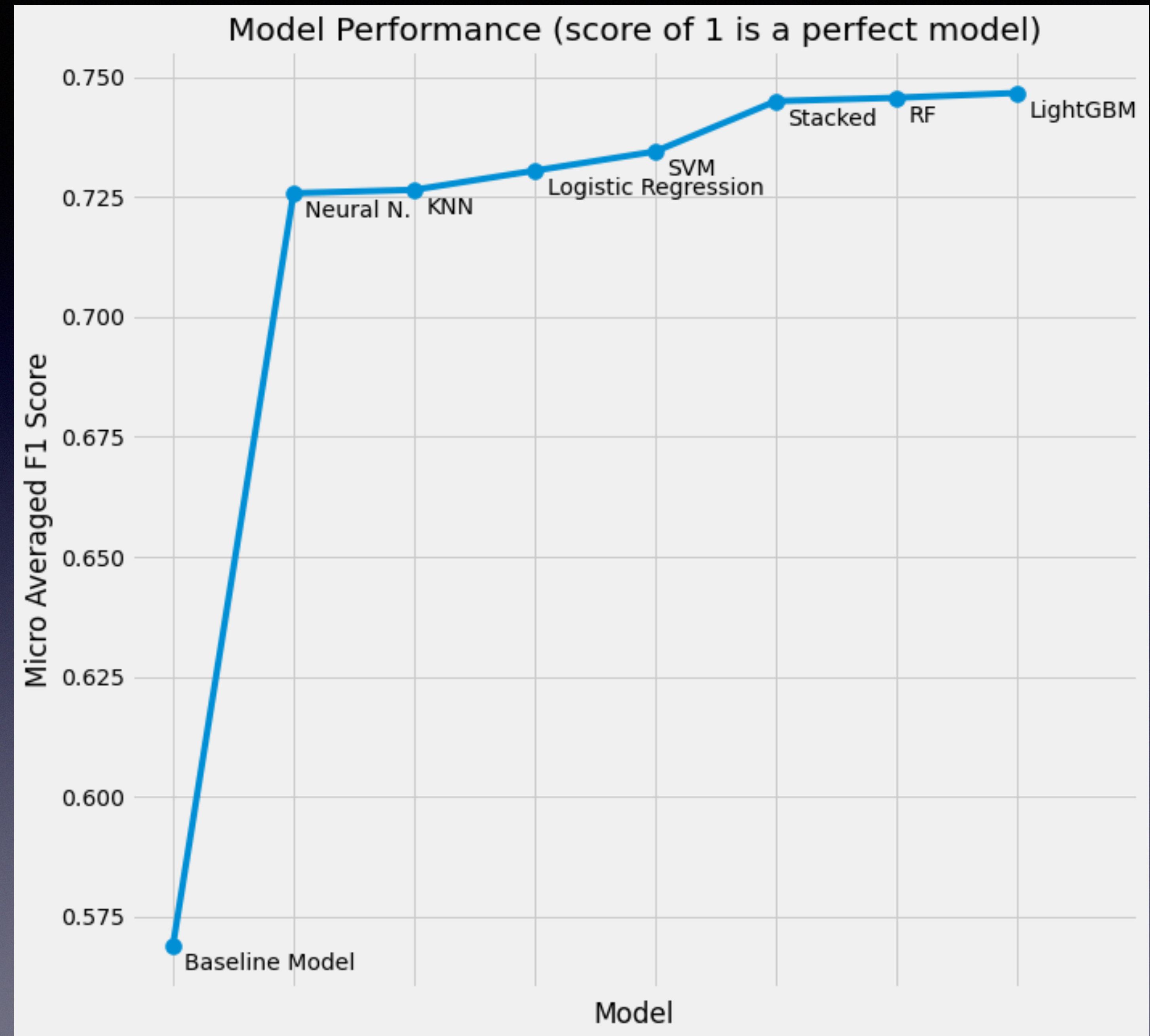
Superstructure



Model Performance

Best Model Correctly Identifies:

- 56% of Low Damaged Buildings
- 84% of Medium Damaged Buildings
- 65% of Completely Destroyed Buildings



Additional Work

- Further feature engineering and tuning
- Model performance close to a ceiling

Questions & Contact

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