Home Loan Algorithm Project



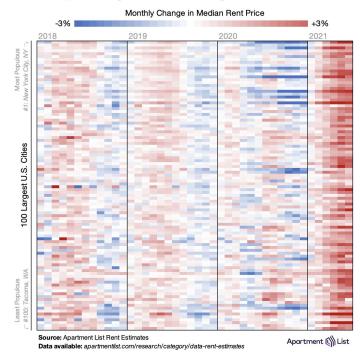
Why Home Loans?

In most places in the US, there aren't strong renter protection laws, like rent stabilization or rent control (like exists in New York City and Los Angeles).

Home-ownership remains one way to stabilize housing costs.

Rents Are Rising Quickly, Everywhere

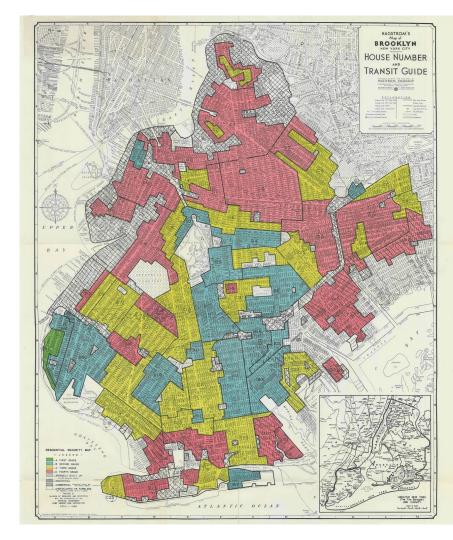
Monthly price change in each of the 100 largest U.S. cities, 2018-present



Redlining

Redlining is the practice of systematically discriminating against borrowing funds and opening lines of credit based on a neighborhoods ethnic makeup.

Banks would discriminate against individual families, making it difficult to prove a lager system, however, when examined in aggregate, clear patterns of "redlines" of denied loans, appeared.



Fair Housing Act

In 1968, after years of direct action from Housing and Social Justice Advocates, the Fair Housing Act was passed and signed into law. The Act made the practice of Redlining illegal, along with many other discriminatory practices.



FAIR HOUSING ACT















DISABILITY RACE

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SEX

COLOR

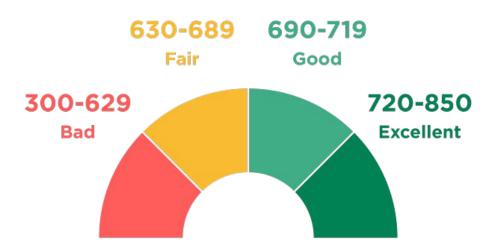
RELIGION

FAMILY STATUS

FICO Credit Score

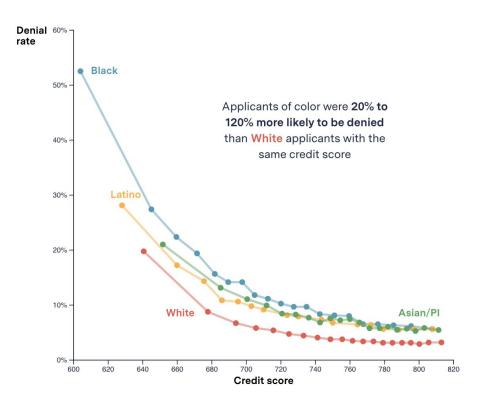


FICO Credit Score



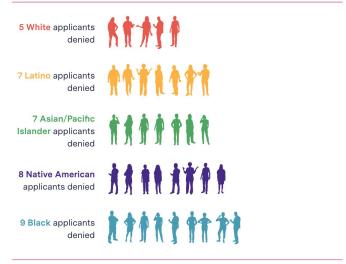
Credit Score Bias

Applicants of color were significantly more likely to be denied than White applicants with comparable credit scores



Applicants of color denied at higher rates

To illustrate the odds of denial that our analysis revealed, we calculated how many people of each race/ethnic group would likely be denied if 100 similarly qualified applicants from each group applied for mortgages in the United States



Source: 2019 HMDA Data, illustrations from ProPublica. We applied the odds ratios from our regression to White applicants' actual denial rates to calculate the number of denials for each racial and ethnic group above. These numbers are not the actual denials or actual number of applications in each location, but rather have been standardized for comparison. We rounded to the nearest person.

Payday Loans



Unbanked or Underbanked

Almost One-Quarter of the U.S. Public is Underbanked Share of U.S. adults who are fully banked, underbanked, and unbanked UNBANKED Do not have a checking or savings account UNDERBANKED Have a checking or savings account and have used alternative financial services' in

*Using alternative financial services is defined as purchasing a money order, paying bills or cashing a check through a service other than a bank or credit union in the past year.

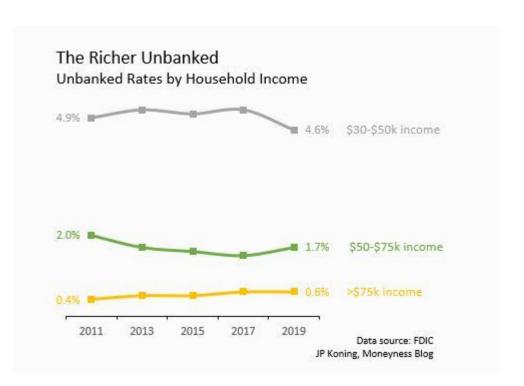
FULLY BANKED

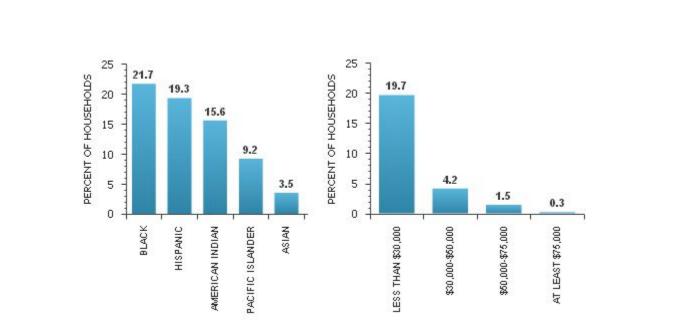
Have a checking or savings account and have not used alternative financial services* in the past year.

Poll conducted July 29 - August 1, 2021, among 4,400 U.S. adults, with a margin of error of +/-2%.

the past year.

MORNING CONSULT



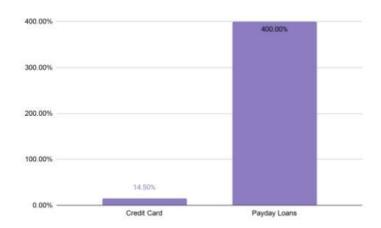


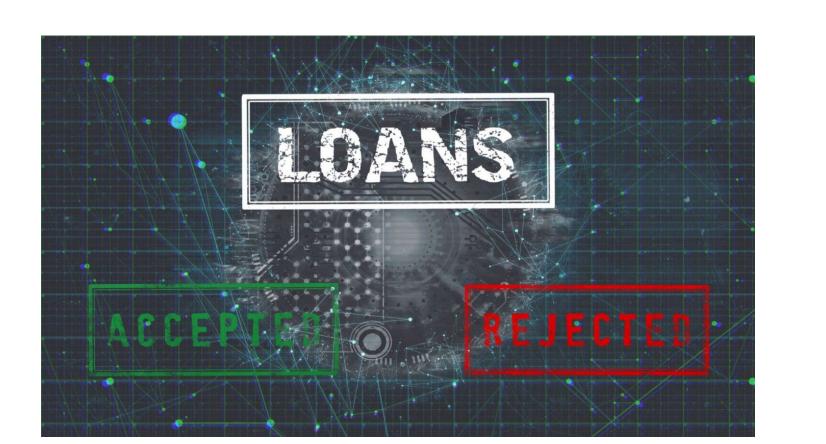
Payday Loans

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The average APR for a payday loan is around 400%.

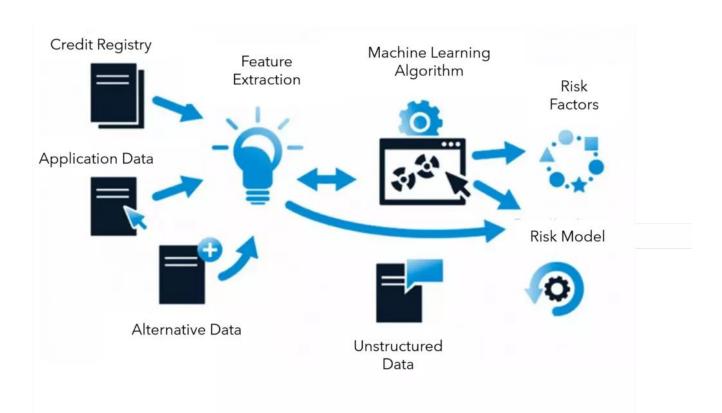
By contrast, an average credit card APR is around 14.5%.











Augmenting underwriting with AI

Munich RE

Vision of the future: hybrid of AI, rules, human assessment

