

Redlining - All Grades

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February 2023

- January 31, 2023: added median values
- February 1, 2023: combining grades A and B
- February 2, 2023: added Education and Crime Rate

Redlining Data

Pulling some demographic / descriptive variables and categorizing based off HOLC grades for Redlining Presentation for Black History Month 2023.

Pulling the categorical data

The spreadsheet created by Emily to classify census tracts

GEOID	Census Tract	HOLC Grade	A (%)	B (%)	C (%)	D (%)	pop1950
25025070103	701.03	D	NA	NA	NA	26.9107341	21
25025060603	606.03	NonRes	NA	NA	NA	NA	75
25025060602	606.02	NonRes	NA	NA	NA	NA	121
25025981100	9811	NonRes	NA	0.1884359	1.309991	NA	122
25025070104	701.04	NonRes	NA	NA	NA	0.1182820	168
25025061204	612.04	NonRes	NA	NA	NA	0.3834014	232

Census Data

Now to look at specific variables.

Population

NOTE: I replaced some of the missing 1950 population values with 0 to use the summary values, but that kind of throws off the % change (as I'm assuming some of the 2020 tracts in Boston were not "Boston" in 1950, or they weren't developed at all)

HOLC Grade	pop1950	pop2021	perc_pop_change
A/B	47848	44649	-0.0668575
C	385069	364149	-0.0543279
D	360731	245221	-0.3202109

HOLC Grade	pop1950	pop2021	perc_pop_change
NonRes	7796	18795	1.4108517

Tenure

HOLC Grade	total_housingunits_1950	Ownership Rate 1950	Ownership Rate 2021	Change in units	Change in ownership rate
A/B	19375	13625	0.3889174	0.4842323	0.0953148
C	140100	110020	0.2974823	0.3694575	0.0719753
D	105036	96958	0.1641123	0.2950322	0.1309199
NonRes	7439	NA	NA	0.3289421	NA

Race and Ethnicity

Race and Ethnicity in 5 categories, counts:

HOLC Grade	White	Black	APIA	AIAN	Other	Hispanic/Latino
A/B	30002	3882	4115	15	1268	5367
C	140979	105091	30732	434	19603	67310
D	113480	35609	26726	869	9957	58580
NonRes	11426	1368	3236	45	645	2075

Race and Ethnicity in 5 categories, as a share of each HOLC grade:

HOLC Grade	White	Black	APIA	AIAN	Other	Hispanic/Latino
A/B	0.6719523	0.0869448	0.0921633	0.0003360	0.0283993	0.1202043
C	0.3871465	0.2885934	0.0843940	0.0011918	0.0538324	0.1848419
D	0.4627662	0.1452119	0.1089874	0.0035437	0.0406042	0.2388866
NonRes	0.6079276	0.0727853	0.1721735	0.0023943	0.0343176	0.1104017

Poverty

HOLC Grade	total	in_pov	Poverty Rate
A/B	40224	4694	0.1166965
C	345858	58277	0.1684998
D	230212	44803	0.1946163
NonRes	13827	3221	0.2329500

Aggregate Household Income

HOLC Grade	Aggregate Household Income
A/B	3242063900

HOLC Grade	Aggregate Housheold Income
C	14517522400
D	13502691100
NonRes	NA

Education

HOLC Grade	Less than HS	HS or equiv	Some College	BA+
A/B	1601	3813	3675	23662
C	26675	51501	51739	118324
D	26137	30143	25006	93604
NonRes	876	955	1389	7859

Share by HOLC grade:

HOLC Grade	Less than HS	HS or equiv	Some College	BA+
A/B	0.0488840	0.1164239	0.1122103	0.7224818
C	0.1074569	0.2074654	0.2084241	0.4766535
D	0.1494482	0.1723541	0.1429813	0.5352164
NonRes	0.0790685	0.0861991	0.1253723	0.7093601

Household Type

HOLC Grade	Married	Male HH	Female HH	Non-family
A/B	7391	337	1157	10490
C	40480	6744	24706	68170
D	27213	3951	13164	60708
NonRes	2308	153	543	4435

Share by HOLC Grade:

HOLC Grade	Married	Male HH	Female HH	Non-family
A/B	0.3814710	0.0173935	0.0597161	0.5414194
C	0.2889365	0.0481370	0.1763455	0.4865810
D	0.2590826	0.0376157	0.1253285	0.5779733
NonRes	0.3102568	0.0205673	0.0729937	0.5961823

Median Values

- Also being pulled will be household income, value, and gross rent
- The dollar values are in 2021\$

.	A/B	C	D	NonRes	Boston
housing value	733309	532588	709458	265181	659700
household income	113797	76738	80874	118673	79283
gross rent	1535	1385	1357	2205	1808
travel time to work (minutes)	30	32	28	19	27

Household Type

Other Data Sources

Crime Rates

- Looking at the crime rate per HOLC grading zones
- The crime data comes from <https://data.boston.gov/dataset/crime-incident-reports-august-2015-to-date-source-new-system>
- Used the data from 2021
- dropped “NA” assigned HOLC grades, something to investigate later?

HOLC Grade	Reported Crimes	Population	Crime Rate
A/B	2478	44649	0.0554996
C	30835	364149	0.0846769
D	31863	245221	0.1299359
NonRes	3600	18795	0.1915403