Mortgage Lending in Philadelphia
Key Take-Aways from the 2018 Home Mortgage Disclosure Act Data Release

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Introduction
Each year, lending institutions across the country report their mortgage lending activity under the federal Home Mortgage Disclosure Act (HMDA). Enacted by Congress in 1975 and amended several times since, data reported under the HMDA are a critical resource to understand how dollars flow into communities to support home purchasing, refinancing of existing mortgages, extracting equity from one’s home (e.g., for costs associated with a medical emergency or paying a child’s college tuition) or making home improvements.

The HMDA database has proven to be an invaluable resource – one that time and again fulfills Congress’ original purpose when it passed HMDA. Regulators have a long history of using HMDA data for various purposes, which include assessments of lenders’ community reinvestment obligations and adherence to civil rights laws. Decades ago, researchers from the Federal Reserve Bank of Boston and the Council of Economic Advisors broke ground with their study of mortgage lending in Boston using augmented HMDA data by demonstrating credit disparities between minority and White mortgage applicants after controlling for an unprecedented set of credit characteristics.1

Community-based organizations (CBOs) too have a long history of using HMDA data. For example, Chicago’s Woodstock Institute has a long history of CRA activism, and using HMDA data to support those efforts.2 To this day, they continue to push HMDA data out to the public so that the Congressional intent for HMDA of mortgage lending transparency is supported for Chicago neighborhoods.3 Journalists have long used HMDA to understand illegal discrimination in the mortgage markets. An early notable example is the Atlanta Journal-Constitution’s 1988 Pulitzer Prize winning expose on mortgage lending discrimination in the Atlanta area.4 In 2018, making extensive use of HMDA data, Reveal (from The Center for Investigative Reporting) released an award-winning analysis of “modern-day redlining” which highlighted credit discrimination issues across numerous metropolitan areas, including Philadelphia.5

The 2018 HMDA data are substantially different than what was previously reported under the Act. These differences are a function of changes written into the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, a revised HMDA Rule in 2015 (implementing the Dodd-Frank changes), and the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) passed by Congress in 2017. The 2015 Rule expanded HMDA; EGRRCPA created some exemptions for certain institutions as to what is reported.6

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2 See: https://woodstockinst.org/about/history/
3 See: https://woodstockinst.org/data-portal/mortgage-lending/
More specifically, these changes both impacted the specific loan-level fields institutions were to report as well as which loans were required to be part of the report (i.e., covered loans). Additionally, the Consumer Financial Protection Bureau (CFPB) had latitude to shield from public disclosure certain fields of data necessary, in their determination “…to protect applicant and borrower privacy while also fulfilling HMDA’s public disclosure purposes”. Several fields (e.g., credit score) were held back from public disclosure by the CFPB.

Changes to HMDA aside, the recently released 2018 HMDA data provide an opportunity to look at the local mortgage lending environment – trends in loan volume, the kinds of loans being made, where loans are made, experiences of how different groups are able to access credit, and what lenders are originating mortgages in Philadelphia.

Highlights of the CFPB’s national overview report include: a small drop (3.9%) in institutions reporting under HMDA since 2017; stable volume of originated home purchase mortgages; a decline in originated mortgage refinesances; increase in the share of mortgages to purchase homes by Black applicants; increase in the share of loans made to low- and moderate-income borrowers; a slight increase in the share of loans made by non-depositories; and decline in government-insured mortgages (including for minority borrowers). Minority borrowers still receive a greater share of government-insured mortgages compared to White borrowers.

Mortgage Applications & Originations Continue to Bounce Back Slowly

Figure 1 displays mortgage applications by purpose (i.e., a “purchase” loan to buy a home, or a “refinance” to create a new loan and pay off an existing home loan(s)) and action taken by the lender (i.e., all applications and just those that led to a mortgage being disbursed or originated). Solid lines represent all applications for home purchase and refinance mortgages; dashed lines represent originations.

In 2011, the volume of home purchase mortgages in Philadelphia hit its lowest point with around 7,000 home purchase mortgage originations; the refinance bottom did not come until 2014 with only about 6,300 mortgage refinances. In 2018, home purchase mortgages continued to rebound with more than 12,300 home purchase mortgage originations. Refinancing activity is generally driven by changes in the interest rate environment (and in the post-recession period, the need to get out of subprime and adjustable rate mortgages (ARMs) when those interest rates adjusted up). As shown in Figure 2, with interest rates continuing to increase in 2018, refinance activity continued to decline in Philadelphia, and remains relatively low by historic standards.

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7 Ibid. Page 6.
9 Nationally, home purchase mortgage origination volume was flat between 2017 and 2018.
10 Nationally, mortgage refinance origination volume dropped from 2.5 million in 2017 to 1.9 million in 2018 (a 24% decline) - substantially greater than Philadelphia.
Figure 1: Home Purchase and Refinance Mortgage Application and Origination Volume, 2005-2018

Figure 2: Average Annual 30-Year Fixed-Rate Mortgage Interest Rates (Freddie Mac), 1972-2019
Not all applicants for mortgages obtain a mortgage. Figure 3 presents the origination rate for home purchase and refinance mortgages in Philadelphia from 2005 to 2018.

From 2005 to 2016, the origination rate for home purchase mortgages in Philadelphia generally increased, but declined slightly in 2017 and again in 2018. In 2018, 70.1% of Philadelphia applicants obtained a mortgage loan to purchase their home, representing a slight decline in the overall origination rate for owner occupied, single family home purchases. The origination rate of refinance applicants is much lower, but continued to increase in 2018 to nearly 42%.

**FHA/VA Market Share Continues to Recede**

One primary shift in the mortgage market after the recession was the resurgence of government-insured mortgage products – principally Federal Housing Administration (FHA) insured mortgages in Philadelphia. Government-insured mortgages continued to flow into communities, even during the recession when conventional (prime or subprime) products did not. Figure 4 shows the percent of all home purchase loans originated that carried the security of FHA or VA (US Department of Veterans Affairs) insurance in Philadelphia from 2005 to 2018.
Government-insured mortgage products peaked in market share at over 60% of home purchase loans in 2010 in Philadelphia. By 2018, the FHA/VA market share declined by more than half as the economy has continued to strengthen. Yet it remains the mortgage product for nearly 29% of homebuyers in Philadelphia and FHA/VA volume is well above its pre-recession average.11

The FHA/VA mortgage product is important in the market because of its relaxed borrower standards and the security it offers to lenders. Those benefits, however, come at a cost. FHA/VA loans have fees (i.e., insurance premiums) that make borrowing somewhat more expensive for borrowers, especially those with higher credit scores who could potentially get more advantageous terms with a loan that would be sold to a Government-Sponsored Enterprise (Fannie Mae or Freddie Mac).12 Consequently, it is important to understand to whom and where these mortgages are made in Philadelphia and whether the additional flexibility, cost, and security of the FHA/VA is necessary. Figure 5 displays the market share of FHA/VA mortgages by the income level of Philadelphia Census tracts (compared to the area median) from 2005 to 2018.

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11 Philadelphia’s government-insured market share—which in 2009 was more than 7 percentage points above the national share—is now below the national government-insured market share, which is approximately 32%.
12 The FHA up front insurance premium and annual mortgage insurance premiums currently stand at 175 and 85 basis points, respectively. For a history of these fee levels, see: https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-december-2019/view/full_report. See also: https://www.hud.gov/sites/documents/17-07ML.PDF.
Before the recession, FHA/VA mortgages were almost absent from the middle- and higher-income markets and comprised less than 10% of the lending in the lower income areas of Philadelphia; at that time, conventional subprime mortgages proliferated through these communities. By 2010, FHA/VA mortgages became the dominant loan products in lower income areas comprising 7-of-10 originated home purchase mortgages; in middle-income markets, FHA accounted for more than half of originated home purchase mortgages. FHA/VA market share continues to decline but remains the product for over one-third of home purchase loans in Philadelphia’s lower and middle-income markets compared to under 15% in higher income markets.
Figure 6 presents FHA/VA market share by tract minority percentage in Philadelphia from 2005 to 2018. The blue line represents Philadelphia census tracts with more than 50% non-white residents (i.e. substantially minority tracts); the orange line represents Philadelphia census tracts with fewer than 50% minority residents (i.e. not-substantially minority tracts).

The overall decline in government-insured mortgages is reflected both in Philadelphia’s minority and non-minority Census tracts. That said, minority Census tracts have nearly double the percentage (38.6%) of government-insured home mortgages as tracts with lower percentages of minority residents (20.3%).
Map 1 displays where in Philadelphia the use of government-insured mortgages for home purchases was most prevalent in 2018. The inner core Census tracts of Philadelphia – inclusive of the downtown and rapidly appreciating areas adjacent – do not show high use of government-insured mortgages to purchase homes. On the other hand, in neighborhoods expanding outward from these areas, the use of government-insured mortgages rises substantially.
Map 2 presents the relationship between the utilization of government-insured mortgages and the racial/ethnic composition of an area. Philadelphia’s minority areas show much higher rates of government-insured mortgage utilization than areas that are home to non-minority residents. This pattern does vary across the city. In several areas identified as minority areas with low rates of government-insured mortgages (e.g., the area labeled “Point Breeze”) are places that are experiencing rapid change in the racial composition owing to a demonstrable process of gentrification. The same is true for the areas north of “Northern Liberties” and north of “Fairmount”.
Denial Rates Remain Unevenly Distributed Across Different Borrower Race/Ethnicity and Income Levels

As shown in Table 1, the overall denial rate for conventional home purchase mortgages in 2018 stood at 9.6%, well above the national denial rate (7.8%). In Philadelphia, this represented a slight increase from 2017, but overall denial rates in 2018 remained well below denial rates of recent years. Philadelphia’s FHA/VA denial rate of 12.6% represents a decline over the last three years, yet approximately two percentage points above the national average (10.6%).

Denial rates vary substantially by applicants’ race, ethnicity and income. Notably, for both conventional and FHA/VA mortgages, the denial rates of Black/African American applicants and Hispanic applicants remain substantially above those of White applicants (nearly three-fold). The data also show that low/moderate income and middle-income applicants have substantially higher denial rates than upper income applicants, a pattern within both conventional and FHA/VA mortgages.

Table 2 presents Philadelphia denial rates for different racial groups at different income levels from 2014 to 2018 (above/below $57,000 per year, which is roughly the Philadelphia average in 2018). Although there are many financial factors that are used by financial institutions to render a decision on an application for credit, income is uniformly available in the HMDA data and stands as a reasonable, albeit imperfect, way of grouping economically similar applicants.13

The unevenness of denial rates among different populations also carries implications for places throughout Philadelphia that are home to large non-white and lower income residents. Map 3 presents the spatial variation in denial rates across the city of Philadelphia in 2018.

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13 Many of those critical financial factors used in underwriting (e.g., credit score, debt-to-income ratio, loan-to-value ratio, etc.) were added to the HMDA database in the 2015 amendment. However, owing to subsequent changes to HMDA, several of those financial factors were either not released publicly, not required of all financial institutions/transactions, and/or were populated in the database in an inconsistent manner.
### Table 1: Denial Rates for Home Purchase Mortgages by Applicant Race/Ethnicity and Income, 2014-2018

<table>
<thead>
<tr>
<th>Home Purchase Loans</th>
<th>Total</th>
<th>Race</th>
<th>Ethnicity</th>
<th>Income</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>White</td>
<td>Hispanic</td>
<td>Low/Mod</td>
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<tr>
<td>2018 Denial Rate</td>
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<tr>
<td>Conventional</td>
<td>9.6%</td>
<td>6.4%</td>
<td>18.3%</td>
<td>16.4%</td>
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<tr>
<td>Govt Insured</td>
<td>12.6%</td>
<td>8.7%</td>
<td>15.1%</td>
<td>14.0%</td>
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<td>2017 Denial Rate</td>
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<tr>
<td>Conventional</td>
<td>9.1%</td>
<td>6.8%</td>
<td>19.8%</td>
<td>13.8%</td>
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<tr>
<td>Govt Insured</td>
<td>13.0%</td>
<td>9.0%</td>
<td>16.1%</td>
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<td>2016 Denial Rate</td>
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<tr>
<td>Conventional</td>
<td>10.0%</td>
<td>7.2%</td>
<td>22.8%</td>
<td>15.6%</td>
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<tr>
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<td>2015 Denial Rate</td>
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<tr>
<td>Conventional</td>
<td>11.3%</td>
<td>8.6%</td>
<td>25.6%</td>
<td>16.0%</td>
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<tr>
<td>Govt Insured</td>
<td>13.6%</td>
<td>9.9%</td>
<td>16.3%</td>
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<td>2014 Denial Rate</td>
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<tr>
<td>Conventional</td>
<td>11.0%</td>
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<td>22.2%</td>
<td>19.9%</td>
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<tr>
<td>Govt Insured</td>
<td>16.0%</td>
<td>10.4%</td>
<td>20.9%</td>
<td>12.7%</td>
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14 Low/Mod Income includes applicants whose income is less than 80% of the area median; middle income applicants have incomes between 80 and 199% of area median; upper income applicants have incomes equal to or above 120% of the area median. “Govt Insured” includes FHA and VA applications.

### Table 2: Denial Rates for Home Purchase Mortgages by Applicants Race/Ethnicity Controlling for Income, 2014-2018

<table>
<thead>
<tr>
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14 Low/Mod Income includes applicants whose income is less than 80% of the area median; middle income applicants have incomes between 80 and 199% of area median; upper income applicants have incomes equal to or above 120% of the area median. “Govt Insured” includes FHA and VA applications.
As seen in Map 3, the most elevated denial rates in the city are concentrated in North Philadelphia, and parts of West Philadelphia beyond University City and Southwest Philadelphia. Elevated denial rates are also found in more modest income areas including Germantown, the Oak Lanes and Lower Northeast neighborhoods. Map 4 presents the same distribution of denial rates as Map 3, with an overlay for ‘high minority’ areas of the city.
As observed in Map 4, communities with elevated denial rates in Philadelphia are generally home to majority non-white (including immigrant group members) populations. And although not shown on this map, many of these areas are home to households with relatively modest incomes. Raw differences in denial rates by race and ethnicity could be a function of many factors. But, as noted in Table 2, difference in income does not fully explain the denial rate differences observed by race.

Three primary concerns related to Philadelphia’s elevated, differential, denial rates include: (1) impaired access to capital in neighborhoods is tantamount to cutting off the “lifeblood” to a part of the body – it weakens; (2) such differentials call for a deeper understanding of the extent to which there remains illegal discrimination in the city’s mortgage credit markets; and (3) without mortgages to purchase homes, transactions become increasingly cash-based transactions between investors carrying implications for homeownership. Using data from Philadelphia’s Office of Property Assessment
reflecting the number of home sales, Map 4 presents the percentage of home sales that had a HMDA-reported mortgage associated with the transaction in 2018.\textsuperscript{15}

\textit{Map 5: Home Purchase Transactions Using Mortgage Financing, 2018}

In many ways Map 5 is largely a mirror image of Map 3. In those parts of the city with elevated denial rates, homes continue to sell but these markets have become dominated by transactions without HMDA-reported mortgages – transactions with institutions that do not meet the HMDA reporting requirement threshold or to investors (i.e., non-owner occupants who use cash) rather than homeowners.

\textsuperscript{15} The HMDA database does not capture every home mortgage made in the United States. There are rules that articulate which institutions must report. Between 2016 and 2017, owing to changes in those rules, the number of HMDA reporting institutions declined by 13.5% (see: https://www.consumerfinance.gov/data-research/hmda/learn-more). Accordingly, some of the transactions without mortgages may in fact have mortgages with those institutions that are not required to report or may be mortgages for which the mortgagor is not listed as an owner occupant.
Map 6 depicts where HMDA-reported mortgages are associated with actual home sale transactions and identifies where Philadelphia’s racial/ethnic minority populations reside. Many of Philadelphia’s predominantly Black and Hispanic areas are also places where cash sales (or mortgages made by non-HMDA lenders) are the norm.
A Small Number of Institutions Have a Substantial Share of the Home Purchase and Refinance Markets

In 2018, the most prolific home purchase mortgage lenders in Philadelphia were Trident Mortgage, Guaranteed Rate Inc., Meridian Bank, Finance of America Mortgage, and Movement Mortgage, whose collective activity accounted for 23.2% of all loans to purchase homes. The refinance market is more concentrated, with five lenders: The Police and Fire Federal Credit Union, Quicken Loans, Citizens Bank of Pennsylvania, PNC Bank NA, and Wells Fargo Bank NA, originating 50.1% of all refinance loans.

2018 New Data Points

One of the changes in HMDA is data reported relating to credit scoring. Although actual credit scores – or ranges of credit scores – are reported by lenders in their HMDA submissions to the regulators, these data are not publicly disclosed; the type of credit scoring model used by the lender is public. The scoring model information was reported for 76.9% of all applications. Equifax Beacon 5.0, FICO Risk Score Classic 04, and Experian Fair Isaac were the three most commonly reported credit scoring models at 30.8%, 28.3% and 24.7% of total applications, respectively.

Combined loan-to-value ratio (CLTV), generally understood as the total value of loans secured by the home (e.g., 1st and 2nd mortgages) in relation to the value of the home, was reported for 79.1% of total applications. For originations of closed-end, conventional home purchase loans, the median CLTV was 90, with 58.6% of originations over 80. For originations of closed-end, FHA-insured home purchase loans, the median CLTV was 96.5, with 26.9% over 96.5.

Debt-to-income ratio (DTI), generally understood as the combined value or one’s monthly debt in relation to monthly gross income, was reported for 81.2% of total applications. Approximately 42.7% of applications had DTIs between 36.0% and 50%, with 7.0% of applications with less than 20% and 2.7% with greater than 60%.

Property value was reported for 81.1% of all applications. The median property value for originated conventional purchase loans was $275,000, and for originated FHA/VA loans the median property value was $175,000. Philadelphia’s median home sale price for Philadelphia (Q4, 2018) is reported to have been $161,000.¹⁶ The substantial gap between the median property value reported in HMDA and the median price of all home sales reflects the large expanses of Philadelphia where cash transactions predominate – those areas generally have lower home sale prices.

Conclusion

The HMDA database is an amazing resource to monitor the flow of mortgage credit to the households and neighborhoods of the city of Philadelphia. This most current release suggests some improvements in terms of mortgage volume and the return of the conventional mortgage product across Philadelphia, and even some improvement in the differential denial rates for home purchase mortgages by race and income. That said, substantial disparities do remain in the likelihood that minority group members – and residents of minority neighborhoods in Philadelphia – are denied mortgage credit even when incomes exceed those of White applicants.

Perhaps more concerning for Philadelphia is the extent to which there are relatively few HMDA-reported mortgages in areas with substantial Black and Hispanic populations. Many, although certainly not all, of these minority areas also experienced substantial and disproportionate declines in the rate of homeownership since 2013. While declines in minority homeownership are a function of many things, lack of access to safe and sustainable mortgage credit in predominantly minority communities has not helped.

There was the possibility that when HMDA was amended in 2015 that additional fields such as age, credit, CLTV and property value would allow for a more comprehensive and sophisticated test of racial disparities in mortgage lending—like that which researchers published in the classic Boston Fed study. In fact, the agency commentary for the 2015 amendment to HMDA makes clear that the expansion of the HMDA data was, at least in part, an effort to provide sufficient data to more fully understand discrimination in the home mortgage credit market.17

However, with many of those data fields suppressed from the public file, presented in an inconsistent fashion or missing from 20% of transactions, such tests remain a challenge. For these reasons this overview of the 2018 HMDA data for Philadelphia does not attempt to statistically control for additional legitimate underwriting factors in the examination of the relationship between race/ethnicity and lending activity. That said, the current HMDA database has the potential to be more informative than the data released in prior years. As more regulators, researchers, journalists and advocates gain experience with the database, more actionable information will be generated.

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HEMAP’s Enduring Impact in Pennsylvania

2019
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