

CALENDAR YEAR 2017

City Treasurer's Office 1401 JFK Boulevard, Room 640 Philadelphia, PA 19102

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TECHNICAL APPENDIX A -LEGISLATIVE/REGULATORY/ ECONOMIC CONTEXT

Technical Appendix A Summary

Background

Resolution No. 051161 is best understood within the overall federal, state, and local legislative context in which banks operate. Within this context, such resolutions grant policymakers tools and information to provide oversight and accountability in the area of fair lending. Given the recession that commenced in December 2007, which included significant distress in the financial and housing markets, and which resulted in unprecedented intervention by the federal government, such efforts towards oversight and accountability are of particular value. At present, legislatures at all levels are debating policy modifications to better regulate lending practices.

- In response to the financial crisis of 2008, the Federal Government enacted several new policies to help mediate the struggling real estate market and protect borrowers: the American Recovery and Reinvestment Act of 2009, the Helping Families Save Their Homes Act of 2009, the Fraud Enforcement and Recovery Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, and the Truth in Lending Act and Homeownership and Equity Protection Act of 2011 established by the Federal Reserve Board.
- The Commonwealth of Pennsylvania has also enacted several laws to ensure fair lending practices, including the Pennsylvania Loan Interest and Protection Law, the Secondary Mortgage Loan Act of 1980, and multiple mortgage-lending licensing reforms in 2008 and 2009. Former Pennsylvania Governor Tom Corbett signed Act 23 into law, designed to update and modernize Pennsylvania's banking laws.
- Locally, the City of Philadelphia has established its own legislation in an effort to combat unfair lending practices, including Resolution No. 051161, Chapter 9-2400 ("Prohibition against Predatory Lending"), and several anti-predatory lending hotlines. In 2014, Chapter 19-200 of the Philadelphia Code was amended to require recipients of City Payroll Deposits (authorized depositories) to provide quarterly updates on their fair lending plans.

A.1 Overview

Section A outlines legislation relevant to fair lending practices at the federal, state, and local levels. It is followed by a brief summary of each of the City's Authorized Depositories that details their current organizational size and structure as well as summarizes their attainment of community reinvestment goals established for 2017. This section concludes with an overview of current mortgage foreclosure issues.

A.2 Legislative and Institutional Context

Over the past forty years, legislation has been enacted at the federal, state, and local levels to regulate the banking industry and protect individuals against unfair lending practices. In 2007, due in large part to unsustainable lending practices, the U.S. began to feel the impact of a pronounced global recession. By 2008, the financial market and credit crisis had worsened, prompting Congress and the Federal Treasury to implement a number of programs to help stabilize the economy, including providing additional monies to banks, major companies, and lenders. The combination of a decrease in consumer credit options and a weak economic climate caused many Americans, some of whom were already burdened with sub-prime financial instruments, to default on a wide variety of financial products including mortgages. In 2009, the federal government implemented legislation to help protect consumers from unfair mortgage lending practices. As a result, legislatures at all levels responded with proposals for strong new laws and policy modifications to better regulate lending practices.

A.2.1 Federal

In 1968, the Fair Housing Act, a component of the Title VIII of the Civil Rights Act, expanded upon previous legislation and expressly prohibited discrimination on the basis of race, color, national origin, religion, sex, familial status, or handicap (disability) status when performing the following:

- Approving a mortgage loan;
- Providing information regarding loans;
- Providing terms or conditions on a loan, such as interest rates, points, or fees;
- Appraising property; or
- Purchasing a loan or setting terms or conditions for purchasing a loan.

Created by the Federal Reserve Board, the Home Mortgage Disclosure Act (HMDA) was enacted by Congress in 1975 and implemented nationwide. It mandates that all financial institutions annually disclose loan data on home purchases, home purchase pre-approvals, home improvement, and refinance applications. The financial institutions directed to participate include savings associations, credit unions, and other mortgage lending institutions.

In summary, the HMDA was instituted for the following reasons:

- To determine if financial institutions are serving the housing needs of their communities;
- To assist public officials in distributing public sector investments, so as to attract private investment to areas with the greatest need; and
- To identify potential discriminatory lending patterns.

The annually reported data, in accordance with HMDA mandates, enables public agencies to thoroughly analyze the performance and practices of the depositories. In particular, the public agencies evaluate the financial institutions based on their observed lending practices and patterns.

In 1977, Congress enacted the Community Reinvestment Act (CRA) to encourage depository institutions to help meet the credit needs of the communities in which they operate without overlooking moderate- to low-income neighborhoods. Through federal supervision, the CRA discourages redlining and encourages community reinvestment. Each bank, lending, or savings institution is overseen by one of four federal oversight bodies – the Office of the Comptroller of the Currency (OCC), Board of Governors of the Federal Reserve System (FRB), Office of Thrift Supervision (OTS), or the Federal Deposit Insurance Corporation (FDIC). The information collected in their review is used to assign a CRA rating, which is taken into consideration when approving an institution's application for new deposit facilities.

There have been three major federal laws passed to protect consumers against predatory lending. These are the Truth in Lending Act (TILA) (1968), the Real Estate Settlement Procedures Act (RESPA) (1974), and the Home Ownership and Equity Protection Act (HOEPA) (1994).

- TILA requires companies to make disclosures on credit rates and terms and regulates certain aspects of credit card and high rate credit.
- RESPA sets the requirements for providing GFE and HUD-1 settlement costs by lenders and regulates escrow funds.
- HOEPA requires companies to make loan terms disclosures in cases of high and extremely high rates. This law also addresses prepayment penalties, balloon payments, negative amortization and the borrower's payment ability.

On July 30, 2008, the Housing and Economic Recovery Act was enacted. This Act was specifically designed to address the subprime housing crisis. Making a number of changes to the federal housing policy, the Act: ¹

- Established a single regulator—the Federal Housing Finance Agency (FHFA)—for government-sponsored enterprises (GSEs) involved in the home mortgage market. The GSEs that are regulated by FHFA include the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), and the Federal Home Loan Banks (FHLBs).
- Required Fannie Mae and Freddie Mac to annually pay amounts equal to 4.2 basis points on each dollar of unpaid principal balances of each enterprise's total new business purchases. These assessments began Fiscal Year 2009 and were deposited into federal funds.

¹United States. Cong. Senate. Senate Committee on Banking, Housing, and Urban Affairs. CONGRESSIONAL BUDGET OFFICE: Federal Housing Finance Regulatory Reform Act of 2008. Comp. Chad Chirico, Mark Booth, Elizabeth Cove, and Paige Piper/Bach. By Peter Fontaine and G. Thomas Woodward. 110 Cong. S. Rept. Print.

- Authorized from October 1, 2008, through September 30, 2011 a new mortgage guarantee program under the Federal Housing Administration (FHA) that allows certain at-risk borrowers to refinance their mortgages after the mortgage holder (lender or servicer) agrees to a write-down of the existing loan (that is, a reduction in the amount of loan principal).
- Required loan originators to participate in a Nationwide Mortgage Licensing System and Registry (NMLSR) that is administered by either a nonfederal entity or the Department of Housing and Urban Development (HUD) in coordination with the federal banking regulatory agencies.
- Authorized the appropriation of such sums as are necessary for the Treasury Department's Office of
 Financial Education to provide grants to state and local governments, Indian tribes, and other entities
 to support financial education and counseling services.

Some of the provisions of this law were modified by the American Recovery and Reinvestment Act of 2009 that was signed into law on February 17, 2009.

Congress continued to implement new laws including The Helping Families Save Their Homes Act and the Fraud Enforcement and Recovery Act, which were both instituted on May 20, 2009.

The Helping Families Save Their Homes Act assists homeowners by increasing the flow of credit and strengthening the U.S. housing sector. The Fraud Enforcement and Recovery Act provides the federal government with new tools and resources to prevent lending fraud.

- The Helping Families Save Their Homes Act authorized:
 - o Extending a temporary increase in deposit insurance
 - o Increasing borrowing authority for the Federal Deposit Insurance Corporation (FDIC) to \$100 billion
 - o Increasing borrowing authority for the National Credit Union Administration (NCUA) to \$6
 - o Establishing protections for renters living in foreclosed homes
 - o Establishing the right of a homeowner to know who owns their mortgage
 - o Increasing aid to homeless Americans
- The Fraud Enforcement and Recovery Act authorized:
 - o Covering private mortgage brokers and other companies
 - o Expanding the Department of Justice's authority to prosecute mortgage fraud involving private mortgage institutions
 - O Changing the definition of "financial institution" to include private mortgage brokers and other non-bank lenders
 - o Prohibiting manipulation of the mortgage lending business
 - o Protecting TARP and the Recovery Act
 - o Covering commodity futures and options in anti-fraud statutes
 - o Broadening the False Claims Act
 - o Expanding the government's ability to prosecute those who engage in fraudulent schemes
 - o Strengthening the federal government's full regulatory and enforcement capacity (FBI, US Attorney's Offices, HUD, SEC, US Postal Inspection Service)

On July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (formerly H.R. 4173 and S. 3217) was signed into law. The Dodd-Frank Act incorporated much of the Mortgage Reform and Anti-Predatory Lending Act under its Title XIV Provision. It established a new Consumer Financial Protection Bureau (CFPB) with broad powers to supervise and enforce consumer protection laws. The CFPB has broad rule-making authority for a wide range of consumer protection laws that apply to all banks and savings institutions, including the authority to prohibit "unfair, deceptive or abusive" acts and practices. In addition, the CFPB has examination and enforcement authority over all banks and savings institutions with more than \$10 billion in assets.

The Dodd-Frank Act provides mortgage reform provisions regarding a customer's ability to repay, restricting variable rate lending by requiring the ability to repay to be determined for variable-rate loans by using the maximum rate that will apply during the first five years of a variable-rate loan term, and making more loans subject to provisions for higher cost loans, new disclosures, and certain other revisions. It also requires creditors to make a reasonable and good faith determination, based on verified and documented information, that the consumer has a reasonable ability to repay a residential mortgage loan at the time the loan is consummated. Other important aspects of the act include:²

- **Steering incentive ban.** Prohibits yield spread premiums and other mortgage loan originator compensation that varies based on the terms of the loan (other than the amount of the principal).
- **Prepayment penalty phase-out.** Phases out prepayment penalties and prohibits them after 3 years. For adjustable rate and certain higher-priced mortgages, prepayment penalties are prohibited upon enactment of the legislation.
- **Interest rate reset notice.** Requires creditors to notify consumers at least 6 months before the interest rate on a hybrid adjustable rate mortgage is scheduled to reset.
- **Escrows.** Requires escrows for taxes and insurance for certain mortgages (including those exceeding specified interest rate thresholds).
- **Broader HOEPA coverage.** More loans will receive the protections for high-cost mortgages under the Home Ownership and Equity Protection Act (HOEPA) of 1994.
- Appraisal reform. "Higher-risk mortgages," require written appraisals based on physical inspection of the property, and in some cases, second appraisals. FRB interim final regulations are required no later than 90 days after enactment. A broker price opinion may not be used as the primary basis for determining the value of property that would secure a mortgage for the purchase of a consumer's principal dwelling. The FRB, FDIC, OCC, NCUA, FHFA, and CFPB may issue additional joint regulations and guidance on appraiser independence, and they are required to issue joint regulations on the appraisal requirements for higher-risk mortgages, appraisal management companies, and automated valuation models.

On December 29, 2010, the Helping Heroes Keep Their Homes Act of 2010, which extends the Housing and Economic Recovery Act of 2008 through December 31, 2012, was signed into law. It specifies protection for service members against mortgage foreclosure and defines the length of proceedings period as 9 months instead of 90 days, as under previous law.

² Federal Deposit Insurance Corporation. "FDIC Staff Summary of Certain Provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act (formerly H.R. 4173/S. 3217)." Last modified September 14, 2010. https://fdic.gov/regulations/reform/summary.html.

As of 2011, the Consumer Financial Protection Bureau (CFPB) began exercising supervisory review of banks under its jurisdiction and focused its rulemaking efforts on a variety of mortgage-related topics, such as the steering of consumers toward certain products, analyzing abusive or unfair lending practices, increasing disclosure requirements, updating mortgage underwriting standards and improving mortgage servicing standards. In July 2011, the CFPB assumed authority for prescribing rules governing the provision of consumer financial products and services such as credit cards, loans, deposits, and residential mortgages. Additionally, new provisions concerning the applicability of state consumer protection laws to national banks became effective in July 2011.

The CFPB has powers assigned by Dodd-Frank to issue regulations and to take enforcement actions to prevent and remedy acts and practices relating to consumer financial products and services that it deems to be unfair, deceptive or abusive. The agency also has authority to impose new disclosure requirements for any consumer financial product or service. These powers are in addition to those that the CFPB assumed in July 2011 under existing consumer financial law governing the provision of consumer financial products and services.

Under H.R. 3081 (Making Continuing Appropriations for Fiscal Year 2011, and for Other Purposes-Sections 144 and 145) part of this federal law stated that, for home equity conversion mortgages (HECMs, or reverse mortgages) for elderly homeowners for which the mortgagee issues credit approval for the borrower during fiscal year 2011, mortgage insurance benefits may not exceed 150% of the maximum dollar amount in effect of the original principal obligation of conventional mortgages purchased by the Federal Home Loan Mortgage Corporation (Freddie Mac). This law also extended through fiscal year 2011 the Federal Housing Administration (FHA), Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Corporation (Freddie Mac), and Government National Mortgage Association (Ginnie Mae) loan limits for high-cost areas, allowing agency discretion to increase such limits for sub-areas meeting specified requirements.

The Federal Reserve Board (Board) published final rules in April 2011 amending Regulation Z, which implements the Truth in Lending Act and Home Ownership and Equity Protection Act.³ The purpose of the final rule is to protect consumers in the mortgage market from unfair or abusive lending practices that can arise from certain loan originator compensation practices, while preserving responsible lending and sustainable homeownership. The final rule prohibits payments to loan originators, which includes mortgage brokers and loan officers, based on the terms or conditions of the transaction other than the amount of credit extended. It further prohibits any person other than the consumer from paying compensation to a loan originator in a transaction where the consumer pays the loan originator directly. The final rules apply to closed-end transactions secured by a dwelling where the creditor receives a loan application on or after April 1, 2011.

In December 2012, the Bureau of Consumer Financial Protection (CFPB) published a final rule amending the official commentary that interprets the requirements of the Bureau's Regulation C (Home Mortgage Disclosure) to reflect a change in the asset-size exemption threshold for banks, savings associations, and credit unions based on the annual percentage change in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). The exemption threshold was adjusted to increase to \$42 million from \$41 million. The adjustment is based on the 2.23 percent increase in the average of the CPI-W for the 12-month period ending in November 2012. Therefore, banks, savings associations, and credit unions with assets of \$42 million or less as of December 31, 2012, are exempt from collecting data in 2013.⁴

^{3 12} Code of Federal Regulations Part 226 (Regulation Z Docket No. R-1366).

⁴ Federal Register, December 31, 2012, pgs. 76839 -76840

In December 2013, the exemption threshold was adjusted to increase to \$43 million from \$42 million. The adjustment was based on the 1.4 percent increase in the average of the CPI-W for the 12-month period ending in November 2013. Therefore, banks, savings associations, and credit unions with assets of \$43 million or less as of December 31, 2013, were exempt from collecting data in 2014.⁵

Similarly, in December 2014, the exemption threshold was adjusted to increase to \$44 million from \$43 million. The adjustment is based on the 1.1 percent increase in the average of the CPI-W for the 12-month period ending in November 2014. Therefore, banks, savings associations, and credit unions with assets of \$44 million or less as of December 31, 2014, are exempt from collecting data in 2015.6

In March 2014, the Department of Justice published a final rule raising the maximum civil penalties, for violations occurring on or after April 28, 2014, under the Fair Housing Act (FHA) which prohibits discrimination in home mortgage loans, home improvement loans, and other home credit transactions due to race, color, religion, sex, national origin, familial status or disability. Under the rule, the maximum civil penalty for the first violation increased from \$55,000 to \$75,000. All subsequent violations are subject to a maximum of \$150,000.

In December 2015, CFPB announced that the asset-size exemption threshold would remain at \$44 million. The adjustment is based on the 0.4 percent decrease in the average of the CPI-W for the 12-month period ending in November 2015. Therefore, banks, savings associations, and credit unions with assets of \$44 million or less as of December 31, 2015, are exempt from collecting data in 2016.8

Based on the CPI-W in effect as of June 1, 2016, the exemption threshold will remain at \$25,500 through 2017. If there is no annual percentage increase in the CPI-W, the OCC, the Board and the Bureau will not adjust this exemption threshold from the prior year. The final rule will memorialize this as well as the agencies' calculation method for determining the adjustment in years following a year in which there is no annual percentage increase in the CPI-W9.

In 2017 the Financial Choice Act which would have effectively repealed The Dodd Frank Act, passed the House of Representatives but was rejected by the Senate. A compromise bill was being negotiated.

H.R. 1447 was introduced in March, 2017. This bill would amend the Fair Housing Act to add sexual orientation and gender identity as classes against discrimination in the sale, rental or financing of housing. 10

A.2.2 State

In addition to federal mandates, the Commonwealth of Pennsylvania's General Assembly enacted several important laws that further ensure fair lending practices in financial institutions. Enacted in 1974, the Pennsylvania Loan Interest and Protection Law requires that lenders clearly explain the terms and conditions of any variable loans offered and provide fixed-rate alternatives. Additionally, the Secondary Mortgage Loan Act of 1980 and the Mortgage Bankers and Brokers and Consumer Equity Protection Act of 1989 were added to regulate the licensing of mortgage brokers and to outline rules of conduct. Finally, the Credit Services Act was established in 1992 to regulate the credit service industry.

⁵ Federal Register, December 31, 2012, pgs. 79285 -79286

⁶ Federal Register, December 31, 2014, pgs. 77854 -77855

⁷ Federal Register, December 31, 2014, pgs. 17434 -17435

⁸ Federal Register, December 23, 2015, pgs. 79673 -79674

 $^{^{9}}$ Federal Register, November 30, 2016, pgs. 86250 -86256

^{10 (}H.R. 1447 - Fair and Equal Housing Act of 2017)

In 2003, due to concern over rising foreclosure rates, the Pennsylvania House of Representatives requested that the Commonwealth initiate a study to review residential lending practices and identify those that were considered harmful to consumers. This information was consolidated into a report entitled, "Losing the American Dream: A Report on Residential Mortgage Foreclosures and Abusive Lending Practices" and was presented to the General Assembly. In response to this report, the Commonwealth released "Pennsylvania Mortgage Lending Reform Recommendations" in 2007.

In 2008, the Commonwealth enacted five new bills relating to the mortgage industry. This change in legislation was used to overhaul the Commonwealth's longstanding licensing practices for first and second mortgage lending, to make substantial revisions to the Commonwealth's usury law, and to change the Commonwealth's preforeclosure notice requirements. A summary of the bills is as follows:¹¹

- Bill 2179 (p/n 4020) or Act 2008-56 repeals much of the Commonwealth's Mortgage Bankers and Brokers and Consumer Equity Protection Act and all of Pennsylvania's Secondary Mortgage Loan Act. It replaces them with one consolidated Mortgage Loan Industry Licensing and Consumer Protection Law.
- Bill 483 (p/n 2163) or Act 2008-57 changes the Commonwealth's general usury law (formally titled the "Loan Interest and Protection Law" and popularly known as "Act 6"). This includes increasing coverage for residential mortgage loans, broadening exception for business loans, and increasing enforcement authority.
- Bill 484 (p/n 2251) or Act 2008-58 allows the Commonwealth's Department of Banking to require licensees to use a national electronic licensing system and pay associated licensing processing fees.
- Bill 485 (p/n 2252) or Act 2008-59 amended the Commonwealth's Real Estate Appraisers

 Certification Act to expand and change the composition of the State Board of Certified Real Estate

 Appraisers and establish a new license category for "appraiser trainees." Effective Sept. 5, 2008, Bill 485

 requires such trainees to operate under the supervision of either a Certified Residential Appraiser or

 a Certified General Appraiser. The amendment increases the civil penalty from \$1,000 to \$10,000 that
 the Board may impose for violations of the Act. It also adds the Pennsylvania Attorney General and
 the Pennsylvania Secretary of Banking, or their respective designees, to the State Board of Certified
 Real Estate Appraisers.
- Bill 486 (p/n 1752) or Act 2008-60 requires the housing finance agency to maintain a list of approved consumer credit counseling agencies and to publish that list on its website.

In 2009, to address the mortgage lending crisis, the Commonwealth passed two key legislative amendments.

- Act 31 of 2009 (PA House Bill 1654) amended the existing Pennsylvania mortgage licensing law 7 Pa.C.S. Chapter 61 and ensured compliance with the federal Secure and Fair Enforcement for Mortgage Licensing Act of 2008 (the "SAFE Act"), 12 U.S.C. § 5101 et seq. Some of its policies include the following:
 - All employees who work for mortgage companies must be licensed by the Pennsylvania Department of Banking. Companies and their employees must register on the Nationwide Mortgage Licensing System (NMLS), a web-based system used by state regulators to monitor the industry.

[&]quot;Bernstein, Leonard A., and Barbara S. Mishkin. "New Legislation Changes." Editorial. Fig July 2008: 1-6. Reed Smith. Reed Smith's Financial Services Regulatory Group, July 2008. Web. Oct. 2009.

- o Mortgage companies must begin using a new disclosure form that clearly states whether a loan has any of the following features: an adjustable interest rate, a prepayment penalty, a balloon payment, or a negative amortization. The disclosure form must also indicate whether the monthly payment includes property taxes and hazard insurance.
- o Mortgage companies must obtain proof of income, fixed expenses, and other relevant information in order to evaluate a borrower's ability to repay an offered loan. This requirement seeks to restrict low- and no-documentation mortgages in which applicants do not have to provide such information.
- Mortgage Loan Business Practices- Statement of Policy 39 Pa.B. 3172 was amended on June 27, 2009, by the Pennsylvania Department of Banking under the authority of the 7 Pa.C.S. § 6138(a) (4) (Mortgage Act). The statement of policy was initiated to provide guidance to licensees under section 310(a) of the Mortgage Bankers and Brokers and Consumer Equity Protection Act (MBBCEPA) (63 P. S. § 456.310(a)).

Enacted on November 23, 2010, the PA House Bill 2547 amends Chapter 61 (Mortgage Loan Industry Licensing and Consumer Protection) of Title 7 (Banks and Banking), Pa.C.S., which was established by Act 56 of 2008 and amended by Act 31 of 2009, to remove the unintentional double licensing requirements for installment sellers of manufactured homes who are currently licensed under the Motor Vehicle Sales Finance Act (1947, P.L.1110, No. 476), also administered by the Department of Banking. Under this bill, the originators must still be licensed but the company only needs to be registered with the department.

On May 28, 2011, Pennsylvania published notice 41 Pa.B. 2789, which indicated that by July 1, 2011, the PA Housing Finance Agency would have insufficient money available in the Homeowner's Emergency Mortgage Assistance Program (HEMAP) to accept new applications for emergency mortgage assistance. As of July 31, 2011, mortgagees were no longer subject to the provisions of Article IV-C of the act (35 P.S. §§ 1680.401c—1680.412c), and mortgagees could, at any time on or after August 1, 2011, take legal action to enforce the mortgage without any further restriction or requirement of the article. However, mortgagees could not take legal action against mortgagors who applied for mortgage assistance on or before July 1, 2011, and whose application was approved by the Agency in a timely manner; while continuing mortgage assistance disbursements are being made on their behalf by the Agency; or during the time that their mortgage assistance loan was being prepared for closing by the Agency. A supplemental notice was published at 41 Pa.B. 3943 (July 16, 2011) to clarify that on or after August 27, 2011, lenders could take legal action to enforce a mortgage without having to send an Act 91 notice.

On July 9, 2011, Pennsylvania Notice 41 Pa.B. 3738 indicated that under Section 6135(a) (2) of 7 Pa.C.S. (Relating to licensee requirements) all 7 Pa.C.S. Chapter 61 (relating to Mortgage Licensing Act) licensee records be preserved and kept available for investigation or examination by the Department of Banking (Department) for a minimum of 4 years, and that the Department reserves the right to require a licensee to preserve records for a longer period if circumstances should warrant. These records relate to provisions of the Mortgage Licensing Act of 2008, and as amended in 2009, that provide guidance with respect to the factors that the Department will consider when reviewing licensee conduct for dishonest, fraudulent or illegal practices or conduct in any business, unfair or unethical practices or conduct in connection with the mortgage loan business and negligence or incompetence in performing any act for which a licensee is required to hold a license under the act as well as examples of these kinds of activities within the context of the mortgage loan business.

The Homeowner Assistance Settlement Act (Act 70) passed by the PA General Assembly and signed into law by Governor Corbett on June 22, 2012, approved disbursement of the funds as a result of this national settlement and established funding of the Homeowner's Emergency Mortgage Assistance Program (HEMAP). Since 1983, HEMAP has provided foreclosure prevention assistance to more than 46,000 families. With an 85 percent success rate for helping families stay in their homes, the program has become a national model for foreclosure prevention.

On June 24, 2013, Governor Tom Corbett signed Senate Bill 371 into law as Act 23 passed by the PA General Assembly. Act 23 is the fourth and last part of a package of bills designed to update and modernize Pennsylvania's banking laws. The governor previously signed the other three parts of the package into law in 2012. Act 23 of 2013 repeals the Savings Association Code of 1967, which required the remaining four state-charted savings loan associations either to convert to another state charter, convert to a federal charter or merge with another depository institution.¹²

Governor Tom Wolf announced in October 2015 that the Pennsylvania Housing Finance Agency (PHFA) approved roughly \$8.1 million to improve housing availability and affordability in 28 counties. The PHFA's board of directors chose 44 housing projects proposed by local governments and other organizations that would garner the most immediate and positive impact for residents. Additionally, in November 2015, Governor Tom Wolf signed House Bill 792 that expanded the Pennsylvania Housing Affordability and Rehabilitation Enhancement Act's (PHARE) reach from 37 to all 67 Pennsylvania counties. PHARE, previously only funded by a portion of the Marcellus Shale impact fees, draws revenues from future growth in the existing Realty Transfer Tax in order to support homes that are affordable to veterans, seniors, people with disabilities, and working low income families. Furthermore, the Commonwealth of Pennsylvania was recognized as having the greatest number of assistance programs for homeowners and home-buyers in the United States with a total of 11 programs. Through PHFA, these 11 programs aid residents with down payment and closing cost assistance, among other services for homebuyers.

Senator Yudichak proposed in October 2016 An Act amending Titles 12 (Commerce and Trade) and 18 (Crimes and Offenses) of the Pennsylvania Consolidated Statutes, providing for financial services credit ladder and imposing penalties; in forgery and fraudulent practices, further providing for deceptive or fraudulent business practices; and, in trade and commerce, providing for unlicensed installment lender. This legislation was based on the Consumer Financial Protection Bureau (CFPB) proposals to create a Pennsylvania Financial Services Credit Ladder. This bill is still awaiting committee and floor votes.

A.2.3 Local

help-buving-home-state-programs/

In the City of Philadelphia, lawmakers have continued to establish and enforce rules and regulations above and beyond those issued by either the state or federal government. In terms of fair lending practices, this includes Resolution No. 051161, which was a request by the City Council for the Office of the City Treasurer to commission an annual report on lending disparities by City depositories. This resolution mandates that the depositories annually submit a comprehensive analysis of their home lending, small business lending, and branching patterns as well as the measurement of community reinvestment and fair lending performance.

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¹² Pennsylvania General Assembly. "Regular Session 2013-2014, Senate Bill 371." Last modified January 11, 2013. http://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2013&sind=0&body=S&type=B&BN=0371

Pennsylvania Housing Finance Agency. (October 13, 2015). "PHFA Developments". http://www.phfa.org/forms/newsletter/phfa_developments/2015/october_2015_developments_final_with_links.pdf
 PA State Housing Trust Fund. "Gov. Wolf Signs Housing Trust Fund Expansion, Act 58". November 5, 2015. http://www.homesnotblight.org/2015/11/gov-wolf-signs-housing-trust-fund-expansion-act-58/
 Salisbury, I. (2015, July 23). These States Offer the Most Help for Buying a Home. Retrieved December 2, 2017, from http://time.com/money/3966393/help-buying-home-state-programs/#money/3966393/

¹⁶ Pennsylvania General Assembly. "Regular Session 2015-2016, Senate Bill 1379." Last modified October 13, 2017. http://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2015&sind=0&body=S&type=B&bn=1379

In 2000, the City also enacted Chapter 9-2400 of the Philadelphia Code. This chapter prohibits all financial institutions and their affiliates from making, issuing or arranging any subprime or high-cost loan, or assisting others in doing so, in any manner which has been determined to be abusive, unscrupulous and misleading. It also established a Predatory Lending Review Committee that was tasked with reviewing and investigating any alleged predatory loans. This committee also provides penalties for business entities that do not comply and assistance to the aggrieved parties.¹⁷

Approved on December 21, 2011, the City Council Bill No. 110758 amended Chapter 9-2400, titled Prohibition against Predatory Lending Practices, to include a requirement for Certification of Compliance to be recorded. At the time of recording a mortgage, the lender and, if applicable the mortgage broker, must submit a certification document of compliance to the Department of Records for recording along with the mortgage instrument and deed, which will be made available to the public. The certification document will certify if the mortgage of record is a threshold or high cost loan; indicate whether or not the borrower has received housing counseling, and if so, if certification of housing counseling is attached to the document; and whether or not the mortgage violates any provisions of Chapter 9-2400 of the Philadelphia Code.¹⁸

The City Council Bill No. 110758 also includes a provision that any person or business entity that receives any grant funds from the City or a City Agency, which are subject to regulation under Chapter 21-1100 of the Philadelphia Code, to assist a borrower in securing a high cost or predatory loan shall forfeit all such funds to the City, provided that nothing shall restrict the ability of any agency receiving grant funds from the City from providing counseling services to borrowers of threshold and high cost loans. In addition, any contract, lease, grant condition or other agreement entered into by the City with any City-related Agency will contain a provision requiring that the City-related Agency, in the administration of governmental housing assistance funds abide by the provisions of the amendment as though its administration of such funds was directly subject to the provisions of this amendment.¹⁹

City Council Bill No. 120650, enacted in October 2012, amended Chapter 19-200 of The Philadelphia Code, entitled "City Funds - Deposits, Investments, Disbursements," by authorizing the establishment of a Responsible Banking Review Committee as an agency of Council for the purpose of reviewing the implementation, effectiveness and enforcement of subsection (2)(f), which mandates that depositories provide the City with an annual statement of community reinvestment goals including the number of small business loans, home mortgages, home improvement loans, and community development investments to be made within low and moderate-income neighborhoods in the City of Philadelphia.²⁰

The City Council Bill No. 130011, approved on April 2, 2013, amended Chapter 19-200 of The Philadelphia Code, entitled "City Funds - Deposits, Investments, Disbursements," by requiring that the recipients of City Payroll Deposits provide quarterly updates on their fair lending plans.²¹

TiCity Council City of Philadelphia. Amending Title 9 of The Philadelphia Code, entitled 'Regulation of Businesses, Trades and Professions' by adding a new Section 9-2400." Last modified December 14, 2000. https://phila.legistar.com/LegislationDetail.aspx?ID=1225231&GUID=E18512 0F-9470-4309-A561-76748047C02D&Options=ID]Text|&Search=Prohibition.

¹⁸ City Council City of Philadelphia. Amending Title 9 of the Philadelphia Code." Last modified December 21, 2001. https://phila.legistar.com/LegislationDetail.aspx?ID=1235795&GUID=0FB65A71-2E40-4355-9E7C-A67C14676E6C&Options=IDITextl&Search=110758.

¹⁹ City Council City of Philadelphia. Amending Title 9 of the Philadelphia Code." Last modified December 21, 2001. https://phila.legistar.com/LegislationDetail.aspx?ID=1235795&GUID=0FB65A71-2E40-4355-9E7C-A67C14676F6C&Options=IDITextl&Search=110758.

²⁰ City Council City of Philadelphia. "Amending Chapter 19-200 of The Philadelphia Code, entitled 'City Funds - Deposits, Investments, Disbursements." Last modified October 17, 2012. https://phila.legistar.com/LegislationDetail.aspx?ID=12366348GUID=964FB268-2117-4AD3-9355-5BE042DBC55B&Options=ID|Text|&Search=120650

²¹ City Council City of Philadelphia. "Amending Chapter 19-200 of The Philadelphia Code, entitled 'City Funds - Deposits, Investments, Disbursements." Last modified April 2, 2013. https://phila.legistar.com/ LegislationDetail.aspx?ID=1306767&GUID=D4B35577-BF91-4F8A-8A95-A2211688CBC6&Options=ID|Text|&Search=130011

The City Council Bill No. 160484, approved on May 5, 2016, urged the Pennsylvania General Assembly to oppose legislation that would weaken existing protections against predatory lending and harm the citizens of our Commonwealth by legalizing high-cost, long-term payday loans.²²

The City's Division of Housing and Community Development (DHCD), previously known as OHCD, oversees the Anti-Predatory Lending Initiative that offers consumer education and outreach, legal assistance, and alternative loan products to homeowners. In addition, DHCD oversees the following homeowner's assistance programs:

- "Save Your Home Philly" Hotline provides free counseling assistance for homeowners behind on mortgage payments or facing foreclosure.
- City of Philadelphia Legal Assistance Predatory Lending Hotline takes calls from homeowners who
 want more information about loans, home equity or mortgage loans or people who think they may
 be victims of predatory lending. The Hotline has been publicized in the local press, on TV, and in the
 City's water bills. Hotline operators refer callers in need to housing counseling agencies for further
 assistance.
- The Philadelphia Regional Office of the U.S. Department of Housing and Urban Development (HUD) provides counselors through its Housing Counseling Program for help with foreclosure and lending issues. In North Central Philadelphia, a \$30 million HUD grant is leveraging \$200 million in the Choice Neighborhoods Initiative.
- Attorneys at Community Legal Services provide advice to housing counselors on complex predatory lending cases and, where possible, litigate cases to seek relief for homeowners that have been victimized. Callers to the Save Your Home Philly Hotline are sometimes referred directly for legal assistance.

²² City Council of Philadelphia. "Amending Chapter 19-200 of The Philadelphia Code, entitled "Predatory Lending." Last modified May 12, 2017. https://phila.legistar.com/LegislationDetail.aspx?ID=2723644&GUID=89A29D50-B9D6-4D71-B13B-289486BE8C7F&Options=Advanced&Search=&FullText=1.

A.3 Mortgage Foreclosures

In 2008, America faced a foreclosure and unemployment crisis that devastated communities and dramatically changed the social and physical fabric of neighborhoods. While the impact of foreclosure was most immediately felt by defaulting homeowners who were economically ruined, physically dislocated, and psychologically distraught, it also had a dramatic impact on their immediate neighborhoods and cities. The boom and bust in non-prime and non-traditional mortgage lending in the United States was unprecedented. In the fall of 2008, the housing finance system, which had delivered trillions of mortgages to borrowers by sourcing capital from around the world, reached the brink of collapse.

Although it is difficult to state for certain the causes of the boom and the particular characteristics of the bust that followed, there are four likely factors that each played a significant role. These are:

- 1. Global liquidity which led to low interest rates, expectations of rapidly rising home prices and greater leverage;
- 2. The origination of mortgage loans with unprecedented risks through relaxation of mortgage underwriting standards and the layering of risks, especially in the private-label securities market and in the portfolios of some large banks and thrifts;
- 3. The magnification, multiplication, and mispricing of this risk through financial engineering in the capital markets; and
- 4. Regulatory and market failures.

The following section provides an additional narrative with data to describe the landscape circa 2017 as it relates to the current foreclosure situation in the US. It also describes the legislative measures that have been implemented at the federal, state, and local levels.

2017 Foreclosure Statistics

Total foreclosure filings – default notices, scheduled auctions and bank repossessions – were reported on 676,535 U.S. properties in 2017, which was down 27 percent from 2016 to the lowest level since 2005, when there were 532,833 properties with foreclosure filings nationwide. Additionally, 0.5 percent of all U.S. housing units had at least one foreclosure filing in 2017, the lowest annual foreclosure rate nationwide since 2006, when 0.6 percent of housing units had at least one foreclosure filing.²³

U.S. foreclosures in December 2017 increased by 1 percent from the previous month but were still 25 percent lower than a year ago marking the 27th consecutive month with a year-over-year decrease in foreclosures. Foreclosure starts increased from a year ago in only 6 states listed below:

1.	District of Columbia	54 Percent
2.	West Virginia	32 Percent
3.	Vermont	27 Percent
4.	Oklahoma	23 Percent
5.	Illinois	2 Percent
6.	Louisiana	2 Percent

²³ ATTOM Data Solutions. "Year-End 2017 U.S. Foreclosure Market Report." Last modified on January 16, 2018. www.ATTOMdata.com.

The number of U.S. properties that were repossessed by lenders decreased to a total of 291,579 in 2017, down 23 percent from 2016 and down 72 percent from the peak of 1,050,500 bank repossessions in 2010 to the lowest level since 2006. Bank repossessions increased in 7 states and the District of Columbia in 2017, including New Jersey (up 19 percent), Delaware (up 16 percent), Montana (up 12 percent), and Wyoming (up 10 percent)²⁴

States with the highest foreclosure rate in 2017 were as follows:

1.	New Jersey	1.6 Percent
2.	Deleware	1.1 Percent
3.	Maryland	1.0 Percent
4.	Illinois	0.9 Percent
5.	Connecticut	0.8 Percent

The nation's largest metro areas with the highest foreclosure rate were:

1.	Atlantic City, NJ	2.7 Percent
2.	Trenton, NJ	1.7 Percent
3.	Philadelphia, PA	1.3 Percent
4.	Fayetteville, NC	1.2 Percent
5.	Rockford, IL	1.1 Percent
6.	Cleveland, OH	1.1 Percent
7.	Columbia, SC	1.1 Percent
8.	Baltimore, MD	1.1 Percent
9.	Chicago, II	1.0 Percent
10.	Albuquerque, NM	1.0 Percent

Response to the Mortgage Foreclosure Issue

Federal, state, and local governments have implemented measures to help homeowners prevent or manage their home foreclosures. The following section is a summary of those legislative efforts:

Joint State and Federal Efforts

In September 2014, 49 state attorneys general, the District of Columbia, and the federal government announced a Settlement with SunTrust. A small number of the loans involved were sub-serviced by Residential Credit Solutions, Inc. (RCS). This bipartisan settlement will provide approximately \$40 million in direct payments to foreclosed borrowers. The agreement settles state and federal investigations finding that SunTrust engaged in various abuses during the mortgage servicing and foreclosure process.

²⁴ Ibid.

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Key provisions of the settlement include:

- Immediate aid to homeowners needing loan modifications. SunTrust is required to work off up to \$500 million in relief to homeowners still in their homes. This relief may take a variety of forms, including first lien principal reduction. Past experience with the National Mortgage Settlement has shown that principal reduction is an effective tool in combating foreclosure and that it does not lead to widespread defaults by borrowers who can afford to pay.
- Nationwide reforms to servicing standards. These servicing standards require a single point of
 contact, adequate staffing levels and training, better communication with borrowers, appropriate
 standards for executing documents in foreclosure cases, ending improper fees, and ending dual-track
 foreclosures for many loans.

Compliance Oversight:

- SunTrust will be required to regularly report on its compliance with the settlement to an independent, outside monitor that reports to the participating state and federal agencies.
- SunTrust may have to pay penalties for non-compliance with the settlement, including missed deadlines.

This settlement holds SunTrust accountable for its wrongdoing regarding mortgage servicing, but it does not address other potential legal issues. The agreement and its release preserve other legal options, if appropriate.

Specifically, this settlement does not:

- Release any criminal liability or grant any criminal immunity.
- Release any private claims by individuals or any class action claims.
- Release claims related to the securitization of mortgage backed securities that were at the heart of the financial crisis.
- Release claims against Mortgage Electronic Registration Systems or MERSCORP.
- Release any claims by a state that chooses not to sign the settlement.
- End state attorneys general investigations of Wall Street related to financial fraud or to the financial crisis.

Ocwen National Servicing Settlement²⁵

In December 2013, 49 state attorneys general, the District of Columbia, state mortgage regulators, and the Consumer Financial Protection Bureau announced a settlement with the following three mortgage servicers: Ocwen, Homeward Residential Holdings (previously known as American Home Mortgage Servicing (AHMSI)), and Litton Loan Servicing. This bipartisan settlement has provided approximately \$125 million in direct payments to borrowers.

The agreement settles state and federal investigation findings that these mortgage servicers engaged in various acts of misconduct during the servicing and foreclosure process, including signing foreclosure related documents outside the presence of a notary public without knowing whether the facts they contained were correct.

²⁵Ocwen National Servicing Settlement. Last modified on December 2013. www.nationalocwensettlement.com

Key provisions of the settlement include:

- Immediate aid to homeowners needing loan modifications now, including first lien principal reduction. Ocwen is required to work off up to \$2 billion in first lien principal reduction nationwide. Past experience with the National Mortgage Settlement has shown that principal reduction is an effective tool in combating foreclosure and that it does not lead to widespread defaults by borrowers who can afford to pay.
- Payments to borrowers who lost their homes to foreclosure without having to release private claims against the servicers. Approximately \$125 million was distributed nationwide to eligible borrowers in early December 2014. The National Ocwen Settlement Administrator mailed Notice Letters and Claim Forms in June 2014 to approximately 200,000 borrowers who lost their home due to foreclosure between January 1, 2009 and December 31, 2012 and whose loans were serviced at the time of foreclosure by one of the three mortgage servicers that are parties to the Settlement.
- Nationwide reforms to servicing standards. These servicing standards require single point of
 contact, adequate staffing levels and training, better communication with borrowers, appropriate
 standards for executing documents in foreclosure cases, ending improper fees, and ending dual-track
 foreclosures for many loans.

Compliance Oversight:

- Ocwen has been required to regularly report compliance with the settlement to an independent, outside monitoring entity that reports to the participating state and federal agencies.
- Ocwen will pay heavy penalties for non-compliance with the settlement, including missed deadlines.

This settlement holds Ocwen accountable for its wrongdoing in robo-signing and mortgage servicing, but it does not address other potential legal issues. The agreement and its release preserve other legal options, if appropriate.

Specifically, this settlement does not:

- Release any criminal liability or grant any criminal immunity.
- Release any private claims by individuals or any class action claims.
- Release claims related to the securitization of mortgage backed securities that were at the heart of the financial crisis.
- Release claims against Mortgage Electronic Registration Systems or MERSCORP.
- Release any claims by a state that chooses not to sign the settlement.
- End state attorneys general investigations of Wall Street related to financial fraud or to the financial crisis.

National Mortgage Settlement

In February 2012, forty-nine state attorneys general and the federal government announced a historic joint state-federal settlement with the country's five largest mortgage servicers: Ally (formerly GMAC), Bank of America, Citi, JPMorgan Chase, and Wells Fargo. The settlement provides as much as \$25 billion in relief to distressed borrowers and in direct payments to states and the federal government. It is the largest consumer financial

National Mortgage Settlement. "Joint State-Federal National Mortgage Servicing Settlements." www.nationalmortgagesettlement.com.

protection settlement in US history. The agreement settles state and federal investigation findings that the country's five largest mortgage servicers routinely signed foreclosure related documents outside the presence of a notary public and without knowing whether the facts they contained were correct. Both of these practices violate the law. The settlement provides benefits to borrowers whose loans are owned by the settling banks as well as to many of the borrowers whose loans they service. Key provisions of the settlement include:

- Immediate aid to homeowners needing loan modifications now, including first and second lien principal reduction. The servicers are required to work off up to \$17 billion in principal reduction and other forms of loan modification relief nationwide. State attorneys general anticipate the settlement's requirement for principal reduction will show other lenders that principal reduction is an effective tool to combat foreclosure and will not lead to widespread defaults by borrowers who really can afford to pay.
- Immediate aid to borrowers who are current, but whose mortgages currently exceed their home's value. Borrowers will be able to refinance at today's low interest rates. Servicers will have to provide up to \$3 billion in refinancing relief nationwide.
- Payments to borrowers who lost their homes to foreclosure with no requirement to prove financial harm and without having to release private claims against the servicers or the right to participate in the OCC review process. \$1.5 billion will be distributed nationwide to eligible borrowers. The National Mortgage Settlement Administrator mailed Notice Letters and Claim Forms in late September through early October 2012 to approximately 2 million borrowers who lost their home due to foreclosure between January 1, 2008 and December 31, 2011 and whose loans were serviced by one of the five mortgage servicers that are parties to the settlement. These materials explained how to receive payment if eligible.
- Immediate payments to signing states to help fund consumer protection and state foreclosure protection efforts.
- First ever nationwide reforms to servicing standards. These servicing standards require single point of
 contact, adequate staffing levels and training, better communication with borrowers, and appropriate
 standards for executing documents in foreclosure cases, ending improper fees, and ending dual-track
 foreclosures for many loans.
- State AG oversight of national banks for the first time. National banks will be required to regularly report compliance with the settlement to an independent, outside monitor that reports to state Attorneys General. Servicers will have to pay heavy penalties for non-compliance with the settlement, including missed deadlines.

This agreement holds the banks accountable for their wrongdoing on robo-signing and mortgage servicing. This settlement does not seek to hold them responsible for all their wrongs over the years and the agreement and its release preserve legal options for others to pursue.

Specifically, this settlement does not:

- Release any criminal liability or grant any criminal immunity.
- Release any private claims by individuals or any class action claims.
- Release claims related to the securitization of mortgage backed securities that were at the heart of the financial crisis.
- Release claims against Mortgage Electronic Registration Systems or MERSCORP.

- Release any claims by a state that chooses not to sign the settlement.
- End state attorneys general investigations of Wall Street related to financial fraud or the financial crisis.

The agreement settles only some aspects of the banks conduct related to the financial crisis (foreclosure practices, loan servicing, and origination of loans) in return for the second largest state attorneys general recovery in history and direct relief to distressed borrowers. State cases against the rating agencies and bid-rigging in the municipal bond market along with investigations into how Wall Street packaged mortgages into securities continue.

Since the passage of the National Mortgage Settlement, the mortgage services in question distributed \$50.63 billion in direct relief to over 620,000 homeowners, or roughly \$81,000 per homeowner, according to a progress update released in December 2013 by independent settlement monitor Joseph A. Smith of the Office of Mortgage Settlement Oversight.²⁷

Federal

On January 10, 2014, the Consumer Financial Protection Bureau (CFPB) issued new mortgage servicing rules designed to protect borrowers pursuant to the Dodd-Frank Act. The purpose of the rules is to protect consumers by:

- Providing borrowers with better information about their mortgage loans;
- Providing borrowers with assistance if they are having difficulty making mortgage payments; and
- Protecting borrowers from wrongful actions by mortgage servicers.

The new rules require mortgage servicers to:

- Abolish "Dual Tracking" Practices: The new rules restrict "dual tracking" where a servicer is simultaneously evaluating a borrower for a loan modification or other alternatives while pursuing a foreclosure on the property.
- **Send Periodic Billing Statements:** The mortgage servicer must provide a written monthly mortgage statement to the borrower.
- Send Interest-Rate Adjustment Notices: If the mortgage loan has an adjustable interest rate, the servicer must provide the borrower with a notice containing the new rate and new payment (or an estimate):
 - o Between 210 and 240 days (7-8 months) days prior to the first payment due after the rate first adjusts, and
 - o Between 60 and 120 days (2-4 months) before payment at a new level is due when a rate adjustment causes a payment change.
- Promptly Credit Mortgage Payments: Servicers must promptly credit the borrower for the full
 payment the day it is received.
- Respond Quickly to Payoff Requests: The servicer must provide an accurate payoff balance to a
 borrower no later than seven business days after receiving a written request asking how much it will
 cost to pay off the mortgage.

²⁷ U.S. Department of Housing and Urban Development. "NATIONAL MORTGAGE SETTLEMENT PROVIDES MORE THAN \$50 BILLION IN CONSUMER RELIEF." Last modified on May 21, 2013. http://portal.hud.gov/hudportal/HUD?src=/press/press_releases_media_advisories/2013/HUDNo.13-079

- **Provide Options to Avoid Force-Placed Insurance:** Mortgages require homeowners to maintain adequate insurance on the property so that the lender's interest is protected in case of fire or other casualty. Under the new rules, the servicer:
 - o must send notice at least 45 days before it purchases a force-placed insurance policy (giving borrowers sufficient time to purchase their own policy)
 - o must send notice again at least 30 days later (and at least 15 days before charging the borrower for force-placed insurance coverage) if they have not received proof from the borrower that insurance has been purchased, and
 - o generally must continue the existing insurance policy if there is an escrow account from which the servicer pays the insurance bill, even if the servicer needs to advance funds to the borrower's escrow account to do so.
- Quickly Resolve Errors and Respond to information Requests: A mortgage servicer must, in most cases, acknowledge receipt of a written information request or complaint of errors (such as misapplication of payments, improper fees, etc.) within five days and respond within 30 days. The 30-day period may generally be extended for an additional 15 days if the servicer notifies the borrower within the 30-day period of the extension and provides the reasons for delay in responding.

Another major development occurred in May 2014, when the Federal Reserve announced monetary sanctions totaling \$929,700,000 against seven banking organizations for unsafe and unsound processes and practices in residential mortgage loan servicing and foreclosure processing.²⁸ These monetary sanctions, announced beginning in February 2012, were based on the same deficiencies that the servicers were required to correct under the 2011 and 2012 enforcement actions. The amount of sanctions takes into account the maximum amount prescribed for unsafe and unsound practices under applicable statutory limits, the comparative severity of each banking organization's misconduct, and the comparative size of each banking organization's foreclosure activities.

HUD Foreclosure Protection for Commonwealth of Pennsylvania residents: In January 2013, the U.S. Housing and Urban Development (HUD) announced that it would provide federal disaster assistance to the Commonwealth of Pennsylvania in addition to resources being provided by FEMA and other federal partners. HUD provided support to homeowners and low-income renters forced from their homes due to Hurricane Sandy.²⁹ Specifically, HUD:

- Offered the Commonwealth of Pennsylvania and other entitlement communities the ability to re-allocate existing federal resources toward disaster relief.
- Granted a ninety-day moratorium on foreclosures and forbearance on foreclosures of Federal Housing Administration (FHA)-insured home mortgages.
- Made mortgage insurance available to disaster victims who have lost their homes and are facing the daunting task of rebuilding or buying another home.
- Made insurance available for both mortgages and home rehabilitation by enabling those who have
 lost their homes to finance the purchase or refinance of a house along with its repair through a single
 mortgage.
- Offering state and local governments federally guaranteed loans for housing rehabilitation, economic development and repair of public infrastructure.

²⁸ These seven banking organizations are Ally Financial, Bank of America, Citigroup, JPMorgan Chase, MetLife, SunTrust, and Wells Fargo.- http://www.federalreserve.gov/publications/other-reports/files/independent-foreclosure-review-2014.pdf

²⁹ U.S. Department of Housing and Urban Development. "HUD SECRETARY ANNOUNCES FORECLOSURE PROTECTION

FOR DISPLACED PENNSYLVANIA STORM VICTIMS." Last modified on January 31, 2013. http://portal.hud.gov/hudportal/HUD?src=/press/press_releases_media_advisories/2013/HUDNo.13-013

Fannie Mae suspends conventional 97% LTV home loan: On September 24, 2013, Fannie Mae announced that it would implement a flow delivery cut-off for mortgage loans with loan-to-value (LTV) ratios exceeding 95%. This decision meant that the conventional 97% LTV home loan would no longer be available to homebuyers. Conventional 97% LTV loans are characterized by a minimum 3% down payment, no minimum borrower contribution, and a minimum credit score of 640. In addition, to be eligible to apply for this loan, at least one borrower must be a first-time homebuyer. These affordable low down payment mortgage products were commonly used at the Federal Housing Administration (FHA), various state housing finance agencies, and, until the more recent political backlash in the wake of the foreclosure crisis, at Fannie Mae and Freddie Mac. However, this decision by Fannie Mae reveals the continued effort on the part of the federal government to prevent high mortgage default rates.³⁰

Qualified Mortgage (QM) Definition: The Dodd-Frank Act requires the U.S. Department of Housing and Urban Development (HUD) to propose a definition for a qualified mortgage that is aligned with the Ability-to-Repay criteria set out in the Truth-in-Lending Act (TILA) as well as the Department's historic mission to promote affordable mortgage financing options for underserved borrowers. HUD's mortgage insurance and loan guarantee programs play a central role in the housing market and act as a stabilizing force during times of economic distress, facilitating mortgage financing during periods of severe constriction in conventional markets. The final rule aims to ensure the continuity of access to mortgage financing to creditworthy, yet underserved borrowers while further strengthening protections for FHA borrowers and taxpayers, alike. In December 2013, building off of the existing QM rule finalized by the Consumer Financial Protection Bureau, HUD proposed a QM definition, 31 which stipulates that mortgage loans must:

- Require periodic payments without risky features;
- Have terms not to exceed 30 years;
- Limit upfront points and fees to no more than three percent with adjustments to facilitate smaller loans (except for Title I, Title II Manufactured Housing, Section 184, Section 184A loans and others as detailed below); and
- Be insured or guaranteed by FHA or HUD.

Making Home Affordable Program (MHA): This program is a key part of the federal government's broad strategy to help homeowners avoid foreclosure, stabilize the country's housing market, and improve the nation's economy. Homeowners can lower their monthly mortgage payments and get more stable loans at current low rates. And for those homeowners for whom homeownership is no longer affordable or desirable, the program can provide a way out which avoids foreclosure. Additionally, in an effort to be responsive to the needs of homeowners, there are also options for unemployed homeowners and homeowners who owe more than their homes are worth.³²

- 1) Home Affordable Modification Program (HAMP): was designed to lower monthly mortgage payments to 31 percent of the homeowner's verified monthly gross (pre-tax) income to make payments more affordable. In an effort to continue to provide meaningful solutions to the housing crisis, effective June 1, 2012, the federal government expanded the population of homeowners that may be eligible for the HAMP to include:
 - o Homeowners who are applying for a modification on a home that is not their primary residence, but the property is currently rented or the homeowner intends to rent it.
 - Homeowners who previously did not qualify for HAMP because their debt-to-income ratio was 31% or lower.

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³⁰ Fannie Mae. "Selling Guide Announcement SEL-2013-07." Last modified on September 24, 2013. https://www.fanniemae.com/content/announcement/sel1307.pdf ³¹ U.S. Department of Housing and Urban Development. "HUD PROPOSES 'QUALIFIED MORTGAGE' DEFINITION." Last modified on September 30, 2013. http://portal.hud.gov/hudportal/HUD?src=/press/ press releases media advisories/2013/HUDNo.13-151

EU.S. Department of Housing and Urban Development. "Making Home Affordable." Last modified November 2013. http://portal.hud.gov/hudportal/documents/huddoc?id=Nov2013MHAReport.pdf

- o Homeowners who previously received a HAMP trial period plan, but defaulted in their trial payments.
- Homeowners who previously received a HAMP permanent modification, but defaulted in their payments, therefore losing good standing.
- 2) **Home Affordable Refinance Program (HARP):** helps those homeowners who are current on their mortgage and have been unable to obtain a traditional refinance because the value of their home has declined, may be eligible to refinance into a new affordable, more stable mortgage through HARP.
- 3) **Treasury/FHA Second Lien Program (FHA2LP):** helps those who have a second mortgage. If the mortgage servicer of the first mortgage agrees to participate in FHA Short Refinance, homeowners may qualify to have their second mortgage on the same home reduced or eliminated through FHA2LP. If the servicer of the second mortgage agrees to participate, the total amount of the homeowners' mortgage debt after the refinance cannot exceed 115% of the home's current value.
- 4) **Principal Reduction Alternative (PRA):** was designed to help homeowners whose homes are worth significantly less than they owe by encouraging servicers and investors to reduce the amount owed on the home.
- 5) **Home Affordable Unemployment Program (UP):** was designed to help homeowners who are unemployed by providing a temporary reduction or suspension of mortgage payments for <u>at least twelve</u> <u>months</u> while the homeowner seeks re-employment.
- 6) **Home Affordable Foreclosure Alternatives (HAFA):** if mortgage payments are unaffordable and the homeowner is interested in transitioning to more affordable housing, the homeowner may be eligible for a short sale or deed-in-lieu of foreclosure through HAFA SM.
- 7) **National Servicing Center (NSC) of the FHA**: offers a number of various loss mitigation programs and informational resources to assist FHA-insured homeowners and <u>home equity conversion mortgage (HECM)</u> <u>borrowers</u> facing financial hardship or unemployment and whose mortgage is either in default or at risk of default.
- 8) **Second Lien Modification Program (2MP):** If a first mortgage was permanently modified under HAMPSM and a homeowner has a second mortgage on the same property, he/she may be eligible for a modification or principal reduction on the second mortgage under 2MP. The program works in tandem with HAMP to provide comprehensive solutions for homeowners with second mortgages to increase long-term affordability and sustainability.
- 9) **Redemption** is a period after your home has already been sold at a foreclosure sale when you can still reclaim your home. You will need to pay the outstanding mortgage balance and all costs incurred during the foreclosure process.
- 10) FHA Special Forbearance for Unemployed Homeowners: Federal Housing Administration (FHA) requirements now require servicers to extend the forbearance period for unemployed homeowners to 12 months. Since 2011, servicers must extend the forbearance period for FHA borrowers who qualify for the program from four months to 12 months and remove upfront hurdles to make it easier for unemployed borrowers to qualify.

Commonwealth of Pennsylvania

In response to the mortgage crisis, some states have made changes to their foreclosure processes to provide more opportunities for homeowners to avoid foreclosures. These states have extended the length of the foreclosure process in order to increase the amount of time a homeowner is given to find alternatives to foreclosure. Others have specific provisions designed to provide greater notice to homeowners to provide improved access to counseling or legal services that encourage or require communication among parties. Regulations include minimum licensure standards for mortgage brokers to ensure their financial solvency and technical fitness, to minimize underwriting, and to verify loan products standards (e.g. ability to pay verification). Other regulations include prohibition of no documentation loans, restriction of pre-payment penalties, and increased enforcement of existing laws and penalties for fraud.

The Commonwealth of Pennsylvania established a judicial foreclosure process. In Pennsylvania there are two forms of foreclosures: judicial and non-judicial. Judicial foreclosures must go through the court system to prove a borrower has defaulted, whereas non-judicial foreclosures are carried out without court procedure because the lender's right to sell in a case of default is written into the mortgage instrument.

In August 2012, the Commonwealth of Pennsylvania received \$66.5 million of the \$25 billion state-federal settlement with the nation's five largest mortgage loan servicers. Pennsylvania's share of this money was used to assist homeowners with various housing issues, most notably with home foreclosure, through the Homeowners' Emergency Mortgage Assistance Program (HEMAP). HEMAP is slated to receive 90 percent of Pennsylvania's share of the settlement funding during a multi-year period, with the remaining 10 percent to be split between consumer protection services provided by the state Attorney General's Office and legal assistance for consumers related to housing issues. HEMAP also received an additional \$6 million to address an anticipated backlog of foreclosure applicants.

Additionally, the Pennsylvania Housing Finance Agency (PHFA), a state-affiliated agency, established the Foreclosure Mitigation Counseling Initiative to help interested homeowners save their homes. There are 452 approved counselling agencies with PHFA out of which 47 are located in Philadelphia County.

Mortgage foreclosure mitigation assistance is made available to homeowners of owner-occupied homes with mortgages in default or in danger of default. These mortgages may be subject to a foreclosure action. Homeowners are provided with assistance to prevent foreclosures and to result in the "long-term affordability" of the mortgage or other positive outcomes for the homeowner.

Counseling sessions associated with this initiative are free for the homeowner and include a reasonable analysis of the borrower's financial situation, an evaluation of the current value of the property that is subject to the mortgage, and counseling regarding the possible purchase of the mortgage in question. Counseling and advice of all likely restructuring and refinancing strategies along with the approval of a workout strategy by all interested parties is required.

In March 2013, the General Assembly of Pennsylvania passed House Bill No. 853, the Foreclosed Property Maintenance Act, which provides for foreclosed property maintenance. The owner of a foreclosed property shall register the property with the municipality in which the property is located within seven calendar days of initiating foreclosure proceedings on an application developed by the department, but provided by the municipality or obtained from the department's Internet website. The foreclosed property registration applications shall be signed by both the municipal code officer and the owner or responsible party for the foreclosed property. Foreclosed property registrations are valid for one year from the date of the initial filing. An annual registration fee of \$100 and a certified copy of the deed to the property shall accompany the registration application. Subsequent annual registrations and fees are due within 30 days of the expiration of the previous registration and shall certify whether the foreclosing or foreclosed property is or remains vacant.³³

On March 14, 2014, Governor Tom Corbett signed Senate Bill 84, amending Title 42 (Judiciary and Judicial Procedure) of the Pennsylvania Consolidated Statuses. The bill is designed to address issues that develop when real property collateral securing the same loan is located in more than one county. Under the legislation, the court for the county in which the collateral real property of the adjusted value is located is designated as the deficiency court. Under the bill, petitions to establish a deficiency judgement or for redetermination of the fair market value following a sheriff's sale, must be commenced within six months.³⁴

There are new 2016 Fannie Mae Guidelines on Mortgage after Foreclosure in qualifying for a conventional loan. 2016 Fannie Mae Guidelines On Mortgage Part Of Bankruptcy states that if you had a mortgage, or mortgages (if you were a real estate investor or had second and/or vacation homes as well) as part of your Chapter 7 Bankruptcy, the waiting period to qualify for a conventional loan starts on the discharged date of your Chapter 7 Bankruptcy and not the recorded date of your foreclosure. The waiting period if you had a mortgage part of bankruptcy is four years from the discharge date of your bankruptcy, regardless of when the foreclosure was recorded.³⁵

In 2017, Governor Wolf signed into law Senate Bill 751 which amends the Mortgage Licensing Act. Pennsylvania joined 36 other states that have taken on the responsibility to oversee non-bank mortgage servicers, providing significant protections for homeowners who may be harmed by mortgage servicers. The implementation of this law is a victory for homeowners. Mortgage servicing is a critically important presence in a homeowner's life - and one they often do not have a choice in selecting. The protections offered to homeowners under this law will ensure their rights are being protected.36

City of Philadelphia

In 1983 as well as in 2004, in response to rising foreclosures, the Philadelphia Court of Common Pleas granted temporary relief to residential homeowners facing foreclosures by postponing sheriff sales of foreclosed properties. The Honorable Annette M. Rizzo was at the forefront of this effort. In 2008, the City of Philadelphia created the Mortgage Foreclosure Diversion Program, one of the first of its kind in the nation. Under the First Judicial District of Philadelphia, Court of Common Pleas, Regulation No. 2008-01, conciliation conferences to explore alternatives to sheriff sales are mandated for all new foreclosure actions. Housing counselors, lenders, and legal counsel are available during the conciliation process to assist homeowners. Since its inception in 2008, according to the Office of Housing and Community Development, the City has saved over 11,000 homes from foreclosure.

³⁰ General Assembly of Pennsylvania. "House Bill No. 853." Last modified on March 11, 2013. http://www.legis.state.pa.us/CFDOCS/Legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2013&sessInd=0&bi IIBody=H&billTyn=B&billNbr=0853&pn=0996

^{*} http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=20

* Gustan Cho Team. "2017 Fannie Mae Guidelines On Mortgage After Foreclosure." Last modified December 29, 2015. https://gustancho.com/2017-fannie-mae-guidelines-on-mortgage-after-foreclosure 36 PA Dept of Banking and securities; www.dobs.pa.gov



TECHNICAL APPENDIX B - HOME LENDING IN PHILADELPHIA

Technical Appendix B Summary

All Loans

- Out of a total of approximately 33,000 loan applications, there were over 18,000 loans made in 2017. Of these loans, just under 17,000 were prime loans and just over 1,400 were subprime loans. There were approximately 6,500 applications that were denied, meaning an overall denial rate of 19.6 percent.
- Total loans decreased between 2016 and 2017 by 4.7 percent after an increase of 13.4 percent from 2015 to 2016.
- The number of prime loans (16,995) decreased by 30.6 percent from 2009 to 2017, and decreased by 6.0 percent from 2016 through 2017.
- The number of subprime loans (1,413) decreased by 15.3 percent from 2009 to 2017 and increased by 14.1 percent from 2016 to 2017.
- Prime loans made up 92.3 percent of total loans, with subprime loans comprising the remaining 7.7 percent in 2017. In 2016, the split was 93.6 percent prime and 6.4 percent subprime. In 2009, 93.6 percent of loans were prime and 6.4 percent were subprime as well.
- The overall denial rate (19.6 percent) decreased from 2016 (24.0 percent), rather than following the pattern of increasing denial rates since 2014.
- The overall number of loans issued to African American borrowers increased by 7.0 percent from 2016 to 2017, after increasing (13.9 percent) between 2015 and 2016. From 2009 to 2017, total loans to African American borrowers decreased by 8.7 percent. Prime loans increased by 4.3 percent and subprime loans increased by 22.3 percent between 2016 and 2017. From 2009 to 2017, prime loans for African American borrowers decreased by 11.8 percent, while subprime loans increased by 10.8 percent.

- Borrowers in the LMI income group received 73.0 percent of subprime loans, maintaining the same rate from the previous year. Low income borrowers received the largest share of the subprime loans issued (38.2 percent, when compared among the four sub-divided income groups).
- From 2016 to 2017, the number of loans made to homes in census tracts with less than 50 percent minority residents (non-minority tracts) decreased by 10.2 percent, while loans made to homes in census tracts with more than 50 percent minority residents (minority tracts) increased by 3.5 percent. Overall, loans decreased by 4.7 percent. From 2009 to 2017, loans to non-minority tracts decreased by 44.2 percent, while loans to minority tracts increased by 5.9 percent. Overall, loans decreased by 29.6 percent during that period.
- Similar to the previous year, upper income tracts received the most loans of the four sub-divided groups (7,150 or 38.8 percent). Consequently, they also received the most prime loans (6,930, or 40.1 percent). In 2017, moderate income tract borrowers received the greatest number of subprime loans (590, or 41.8 percent). In 2016, moderate income tract borrowers received 393 subprime loans, the second highest number of all tract income borrower groups, behind the middle income group which saw 541 subprime loans that year.
- Total loans to women decreased slightly by 0.1 percent from 2016 to 2017, and decreased by 24.3 percent from 2009 to 2017. Total loans to men decreased by 24.0 percent from 2009 to 2017, and decreased by 5.0 percent between 2016 and 2017. Total loans to joint gender households also decreased (by 8.7 percent) between 2016 and 2017; joint gender households had the largest decrease in total loans of all gender categories between 2009 and 2017 (43.1 percent decrease).

Table B.1: All Loan Applications and Originations in Philadelphia

YEAR	APPLICATIONS	DENIALS	DENIAL RATE	LOANS ORIGINATED	PRIME LOANS	SUBPRIME LOANS	TOTAL LOAN AMOUNT (IN \$B)
2009	50,114	12,440	24.8%	26,159	24,490	1,669	\$4.54
2016	36,716	8,817	24.0%	19,312	18,074	1,238	\$3.94
2017	33,485	6,563	19.6%	18,408	16,995	1,413	\$3.94
2009-2017	-33.2%	-47.2%	-21.0%	-29.6%	-30.6%	-15.3%	-13.2%
2016-2017	-8.8%	-25.6%	-18.4%	-4.7%	-6.0%	14.1%	0.0%

Loan Type

• In 2017, there were 16,224 applications for home purchase loans, a 6.7 percent increase from the 15,209 applications in 2016. From 2009 to 2017, there was a 12.1 percent increase in applications for home purchase loans. Of the 2017 applications, 11,514 loans were made, a 5.4 percent increase from 2016. From 2009 to 2017, the total number of home purchase loans has increased by 15.4 percent. In 2017, the denial rate was 10.4 percent, which was lower than both the 11.6 percent rate of 2016, and the 14.3 percent rate of 2009. Of the 11,514 loans that were made in 2017, 90.7 percent were prime loans and 9.3 percent were subprime loans. In 2009, 93.8 percent of home purchase loans were prime loans and 6.2 percent were subprime loans (see Table B.2).

- In 2017, there were 15,541 applications for home refinance loans, a decrease of 21.5 percent from 2016. Out of that pool, 4,281 applications were denied, yielding a denial rate of 27.6 percent. Of the 6,153 home refinance loans that lenders made, 5,856 were prime loans (or 95.2 percent) and 297 were subprime (or 4.8 percent). The numbers of home refinance prime loans decreased by 20.7 percent from 2016 to 2017, and also decreased by 59.8 percent from 2009 to 2017. The number of subprime loans decreased by 6.9 percent from 2016 to 2017, and also decreased by 64.0 percent from 2009 to 2017 (see Table B.3).
- In 2017, there were 2,849 applications for home improvement loans, a 3.5 percent increase from 2016. Of these applications, 1,073, or 37.7 percent, were denied, a decrease of 4.0 percent. From 2009 to 2017, applications decreased by 49.4 percent, and denials also decreased by 64.9 percent. From 2016 to 2017, subprime loans decreased by 29.0 percent, while prime loans increased by 13.6 percent (see Table B.4).

Table B.2: Home Purchase Loan Applications and Originations in Philadelphia

YEAR	APPLICATIONS	DENIALS	DENIAL RATE	LOANS ORIGINATED	PRIME LOANS	SUBPRIME LOANS
2009	14,479	2,077	14.3%	9,976	9,356	620
2016	15,209	1,770	11.6%	10,925	10,069	856
2017	16,224	1,688	10.4%	11,514	10,447	1,067
2009-2017	12.1%	-18.7%	-27.2%	15.4%	11.7%	72.1%
2016-2017	6.7%	-4.6%	-10.6%	5.4%	3.8%	24.7%

Table B.3: Home Refinance Loan Applications and Originations in Philadelphia

YEAR	APPLICATIONS	DENIALS	DENIAL RATE	LOANS ORIGINATED	PRIME LOANS	SUBPRIME LOANS
2009	33,030	9,008	27.3%	15,395	14,569	826
2016	19,804	6,378	32.2%	7,706	7,387	319
2017	15,541	4,281	27.6%	6,153	5,856	297
2009-2017	-52.9%	-52.5%	0.9%	-60.0%	-59.8%	-64.0%
2016-2017	-21.5%	-32.9%	-14.5%	-20.2%	-20.7%	-6.9%

Table B.4: Home Improvement Loan Applications and Originations in Philadelphia

YEAR	APPLICATIONS	DENIALS	DENIAL RATE	LOANS ORIGINATED	PRIME LOANS	SUBPRIME LOANS
2009	5,635	3,060	54.3%	1,728	1,435	293
2016	2,753	1,118	40.6%	1,139	1,008	131
2017	2,849	1,073	37.7%	1,238	1,145	93
2009-2017	-49.4%	-64.9%	-30.6%	-28.4%	-20.2%	-68.3%
2016-2017	3.5%	-4.0%	-7.3%	8.7%	13.6%	-29.0%

B.1 Prime and Subprime Home Lending in Philadelphia

Lending patterns for each loan type were analyzed by borrower race, borrower income, tract minority level, tract income level, and borrower gender. For both borrower income and tract income analyses, borrowers and tracts were divided into groups based on their reported income and the median family income for the Metropolitan Statistical Area.³⁷

B.2 All Loans

B.2.1 All Loans - Overall Observations (see Table B.5)

Out of a total of approximately 33,000 loan applications, there were over 18,000 loans made in 2017. Of these loans, just under 17,000 were prime loans and just over 1,400 were subprime loans. There were approximately 6,500 applications that were denied, meaning an overall denial rate of about 19.6 percent.

- Total loans decreased between 2016 and 2017 by 4.7 percent after an increase of 13.4 percent from 2015 to 2016.
- The number of prime loans (16,995) decreased by 30.6 percent from 2009 to 2017, and decreased by 6.0 percent from 2016 through 2017.
- The number of subprime loans (1,413) decreased by 15.3 percent from 2009 to 2017 and increased by 14.1 percent from 2016 to 2017.
- Prime loans made up 92.3 percent of total loans, with subprime loans comprising the remaining 7.7 percent in 2017. In 2016, the split was 93.6 percent prime and 6.4 percent subprime. In 2009, 93.6 percent of loans were prime and 6.4 percent were subprime.
- The overall denial rate (19.6 percent) decreased from 2016 (24.0 percent), rather than following the pattern of increasing denial rates since 2014.

Philadelphia County's 2015 median family income was \$81,122, as calculated by the Department of Housing and Urban Development. Below are the income subsets

Low-to-moderate-income (LMI): less than 80 percent of the median family income (less than \$64,898).

[•] Middle-to-upper-income (MUI): 80 percent or more of the median family income \$64,898 and higher).

Table B.5: All Loan Applications and Originations in Philadelphia

YEAR	APPLICATIONS	DENIALS	DENIAL RATE	LOANS	PRIME LOANS	SUBPRIME LOANS	TOTAL LOAN AMOUNT (IN \$B)
2009	50,114	12,440	24.8%	26,159	24,490	1,669	\$4.54
2010	40,767	9,447	23.2%	21,632	20,780	852	\$3.76
2011	35,933	8,645	24.1%	18,531	17,150	1,381	\$3.20
2012	41,781	9,952	23.8%	22,282	21,396	886	\$3.98
2013	38,336	9,352	24.4%	20,545	19,522	1,023	\$3.64
2014	27,391	7,169	26.2%	14,280	12,537	1,743	\$2.56
2015	31,976	7,698	24.1%	17,029	15,920	1,109	\$3.36
2016	36,716	8,817	24.0%	19,312	18,074	1,238	\$3.94
2017	33,485	6,563	19.6%	18,408	16,995	1,413	\$3.94
2009-2017	-33.2%	-47.2%	-21.0%	-29.6%	-30.6%	-15.3%	-26.0%
2016-2017	-8.8%	-25.6%	-18.4%	-4.7%	-6.0%	14.1%	-14.7%

(See Technical Appendix C.1-C.5)

B.2.2 All Loans – by Borrower Race (see Table B.6)

- The overall number of prime loans given to White borrowers decreased by 10.7 percent from 2016 to 2017 after an increase of 13.1 percent from 2015 to 2016. Prime loans to White borrowers decreased by 36.5 percent from 2009 to 2017. Subprime loans to Whites decreased by 4.2 percent in 2017 following a decrease of 10.1 percent between 2015 and 2016. Subprime loans to White borrowers decreased by 49.1 percent from 2009 to 2017.
- The total number of loan applications for Whites decreased by 13.9 percent from 2016 to 2017, while total denials decreased by 34.7 percent. From 2009 to 2017, the total number of loan applications for Whites decreased by 39.3 percent, while total application denials decreased by 58.2 percent.
- The overall number of loans issued to African American borrowers increased by 7.0 percent from 2016 to 2017, after increasing (13.9 percent) between 2015 and 2016. From 2009 to 2017, total loans to African American borrowers decreased by 8.7 percent. Prime loans increased by 4.3 percent and subprime loans increased by 22.3 percent between 2016 and 2017. From 2009 to 2017, prime loans for African American borrowers decreased by 11.8 percent, while subprime loans increased by 10.8 percent.
- Subprime loans accounted for 16.9 percent of total loans to African Americans in 2017, an increase from 14.8 percent in 2016. In 2009, subprime loans were 13.9 percent of the total loans issued to African Americans.
- African American borrowers were denied over twice as often as White borrowers in 2017 (2.23 times as often), an increase from the frequency in 2016 (2.04 times as often). In 2009, this ratio was 1.98.
- In 2017, the denial rate for African American applicants decreased from 33.7 percent to 28.1 percent. This group has the highest denial rate, followed by Hispanic applicants at 21.4 percent. The overall denial rate was 19.6 percent.

- Loans to Asian borrowers decreased by 0.9 percent in 2017, following a 10.4 percent increase between 2015 and 2016. From 2009 to 2017, the total number of loans to Asian borrowers decreased by 15.1 percent.
- Despite representing the smallest percentage of total Philadelphia households, in 2017, Asian borrowers generated the highest numbers of prime loan shares versus household shares than the other racial groups studied (1.47 population to share ratio). In other words, they represent 5.6 percent of households but 8.2 percent of prime loans. This was a slight increase from the proportion for Asian borrowers in 2016 (1.38) and a decrease from the findings of 2009 (1.93).
- Total applications by Asians decreased by 5.5 percent from 2016 to 2017, following a 10.0 percent increase from 2015 to 2016. From 2009 to 2017, total applications from Asians decreased by 26.2 percent. Total applications decreased by 23.3 percent between 2016 and 2017, and decreased by 50.7 percent between 2009 and 2017.
- The number of prime loans to Hispanic borrowers decreased by 2.2 percent from 2016 to 2017, following an increase of 24.8 percent from 2015 to 2016. Prime loans to Hispanic borrowers increased by 1.6 percent from 2009 to 2017. The number of subprime loans to Hispanic borrowers increased by 31.5 percent from 2016 to 2017, following an increase of 16.5 percent between 2015 and 2016. From 2009 to 2017, the number of subprime loans to Hispanic borrowers increased by 45.8 percent.
- Between 2016 and 2017, the denial rate ratio for Hispanic applicants compared to that of their white counterparts increased from 1.65 to 1.70. In 2009, this ratio was 1.77.
- The proportion of subprime loans to total loans increased from 6.4 percent in 2016 to 7.7 percent in 2017, following an increase from 2015 to 2016. From 2009 to 2017, the proportion of subprime loans as a total of all loans increased for African American and Hispanic borrowers, with the overall proportion of subprime loans to total loans increasing by 20.3 percent.

Table B.6: Share of All Loans in Philadelphia by Borrower Race (2017)

BORROWER RACE	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	PERCENT OF ALL LOANS	PERCENT OF ALL HOUSEHOLDS
White	61.0%	25.9%	58.2%	45.5%
African American	22.2%	52.0%	24.5%	42.0%
Asian	8.2%	2.6%	7.7%	5.6%
Hispanic	8.7%	19.4%	9.5%	10.8%

(See Technical Appendix C.1)

B.2.3 All Loans - by Borrower Income (see Table B.7)

Prime loans decreased in every category, except the moderate group (which grew 0.3 percent), from 2016 to 2017, breaking the trend of increasing prime loans across all income groups since 2014. The low income group saw the largest decline at 11.9 percent. From 2009 to 2017, prime loans decreased across almost all income groups, with the moderate income group experiencing the largest decrease of 38.6 percent. Low income groups witnessed a decrease of 7.1 percent.

- Subprime loans increased across all income groups, with upper income groups experiencing the largest increase of 15.5 percent between 2016 and 2017. Between 2009 and 2017, subprime loans decreased for all income groups except the upper income group, which saw an increase of 0.8 percent. The low income group witnessed the highest decrease at 14.8 percent.
- Borrowers in the LMI income group received 73.0 percent of subprime loans, maintaining the same rate from the previous year. Low income borrowers received the largest share of the subprime loans issued (38.2 percent) when compared among the four sub-divided income groups.
- The prime/subprime split of loans to the low income group was 88.1 percent to 11.9 percent. This was the income group with the lowest proportion of prime loans to all loans. The proportion of prime loans increases as income rises, with borrowers in the upper income group receiving a prime/subprime split of 97.3 percent to 2.7 percent. This continues the trend from previous years.
- In 2017, all income groups received a larger proportion of subprime loans than in 2016.
- The number of applications decreased across all income categories. The low income category saw the greatest decrease of 15.0 percent between 2016 and 2017. From 2009 to 2017, the highest decreases in applications came from moderate and middle income applicants at 39.1 and 34.1 percent, respectively.
- Between 2016 and 2017, the number of application denials decreased in all income groups. The upper income group saw the greatest decrease (29.9 percent); followed by the low income group (28.0 percent), the middle income group at 25.1 percent, and the moderate income denials decreased by 19.4 percent. Similarly, between 2009 and 2017 application denials decreased across all income groups and the upper income category had the greatest decrease in denials, at 55.4 percent.
- Low income applicants have the highest denial rate at 27.1 percent, which was 2.42 times greater than upper income borrowers. In 2016, this ratio was 2.17, and in 2009, it was 1.95. The LMI group has 1.79 times the denial rate as the MUI group. In 2016, this ratio was 1.71, and in 2009, it was 1.53.

Table B.7: Share of All Loans in Philadelphia by Borrower Income (2017)

BORROWER INCOME	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	APPLICATIONS	DENIALS	DENIAL RATE
Low (<50% MSA Income)	23.5%	38.2%	10,262	2,781	27.1%
Moderate (50-80% MSA Income)	25.3%	34.8%	8,694	1,816	20.9%
Middle (80-120% MSA Income)	22.5%	17.5%	6,793	1,099	16.2%
Upper (>120% MSA Income)	28.8%	9.5%	7,736	867	11.2%
LMI (<80% MSA Income)	48.7%	73.0%	18,956	4,597	24.3%
MUI (>80% MSA Income)	51.3%	27.0%	14,529	1,966	13.5%

(See Technical Appendix C.2)

B.2.4 All Loans - by Tract Minority Level (see Table B.8)

- From 2016 to 2017, the number of loans made to homes in census tracts with less than 50 percent minority residents (non-minority tracts) decreased by 10.2 percent, while loans made to homes in census tracts with more than 50 percent minority residents (minority tracts) increased by 3.5 percent. Overall, loans decreased by 4.7 percent. From 2009 to 2017, loans to non-minority tracts decreased by 44.2 percent, while loans to minority tracts increased by 5.9 percent. Overall, loans decreased by 29.6 percent during that period.
- The number of prime loans made in non-minority tracts decreased by 10.7 percent from 2016 to 2017 (after increasing 10.7 percent between 2015 and 2016) and decreased by 44.0 percent from 2009 to 2016.
- The number of subprime loans made in non-minority tracts increased by 2.4 percent from 2016 to 2017, and decreased by 47.5 percent from 2009 to 2017
- Since 2016, subprime loans to borrowers in minority tracts increased by 20.2 percent, and increased by 15.9 percent since 2009.
- From 2016 to 2017 applications decreased by 14.2 percent in non-minority tracts and by 2.7 percent in minority tracts. From 2009 to 2017, applications decreased by 48.0 percent and 6.7 percent for applicants in non-minority and minority tracts, respectively.
- From 2016 to 2017, denial rates decreased by 22.1 percent in non-minority tracts and decreased by 18.2 percent in minority tracts. From 2009 to 2017, these rates decreased by 28.3 percent and by 25.9 percent in non-minority and minority tracts, respectively.
- Applicants in minority tracts were denied 1.74 times as often as applicants in non-minority tracts in 2017, which is an increase in the frequency from 2016 (1.66) and higher than the 2009 rate of 1.69.

Table B.8: Share of All Loans in Philadelphia by Tract Minority Level (2017)

MINORITY LEVEL	LOAN APPLICATIONS	DENIAL RATE	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
0-49% minority	16,718	14.3%	58.4%	30.5%	1.43	0.75
50-100% minority	16,767	24.9%	41.6%	69.5%	0.70	1.18

(See Technical Appendix C.3)

B.2.5 All Loans - by Tract Income Level (see Table B.9)

- Continuing the trend from 2009, more loans were made in MUI tracts (68.9 percent) than in LMI tracts (31.1 percent) in 2017. The LMI/MUI split was 26.6 percent to 73.4 percent in 2016, although it was much closer to parity at 49.0 percent and 51.0 percent in 2009.
- LMI tracts received 29.5 percent of prime loans and 51.0 percent of subprime loans. In 2016, LMI tracts received 25.7 percent of all prime loans and 40.1 percent of all subprime loans.
- Upper income tracts received the most loans of the four sub-divided groups (7,150 or 38.8 percent). Consequently, they also received the most prime loans (6,930, or 40.8 percent). In 2017, moderate income tract borrowers received the greatest number of subprime loans (590, or 41.8 percent). In 2016, moderate income tract borrowers received 393 subprime loans, the second highest number of all tract income borrower groups, behind the middle income group which saw 541 subprime loans that year.
- All income tract borrower groups decreased their number of prime loans between 2016 and 2017, with the exception of the moderate income group, which saw an increase of 16.0 percent. The low income tract borrower group saw the largest decrease at 24.2 percent.
- Applications decreased for all income tract groups between 2016 and 2017, with the exception of the moderate income group, which saw an increase of 13.1 percent. From 2009 to 2017, all income tract groups (excluding the upper income group) decreased in total number of applications. The low income tract group showed the greatest decrease in applications between 2009 and 2017 at 70.1 percent, while the upper income tract group applications increased by 193.6 percent during the same period.
- The denial rate decreased for all income tract groups from 2016 to 2017, with upper income tracts showing the greatest decrease (24.5 percent), while the low income group saw a decrease of 9.6 percent. From 2009 to 2017, denial rates for all income tract groups decreased except for in the middle income tract group, with their denial rate increasing by 2.6 percent. Low income tract applicants had a decrease in denial rates during that period, at 20.5 percent.
- Low-income tracts were denied 2.18 times as often as upper-income tracts in 2017, an increase from the 1.82 ratio of 2016. This is a slight decrease from the 2.19 ratio of 2009.

Table B.9: Share of All Loans in Philadelphia by Tract Income Level (2017)

TRACT INCOME	LOAN APPLICATIONS	DENIAL RATE	INCOME TO UPPER INCOME DENIAL RATIO	PERCENT OF ALL LOANS	PRIME SHARE TO OOHU ¹ SHARE RATIO	SUBPRIME SHARE TO 00HU SHARE RATIO
LMI (79.99% MSA Income)	11,856	25.4%	1.55	31.1%	0.42	0.72
MUI (>80% MSA Income)	21,629	16.4%	1.00	68.9%	2.43	1.69

(See Technical Appendix C.4)

¹ Owner-Occupied Housing Units (OOHU)

B.2.6 All Loans - by Borrower Gender (see Table B.10)

- The male/female/joint split of prime loans was 36.8/35.5/27.7 percent in 2017, 37.1/34.0/28.9 percent in 2016, and 33.7/32.9/33.4 percent in 2009.
- The number of subprime loans to men increased by 15.8 percent from 2016 to 2017. From 2009 to 2017, the number of subprime loans to men borrowers decreased by 7.2 percent.
- Total loans to women decreased by 0.1 percent from 2016 to 2017, and decreased by 24.3 percent from 2009 to 2017. Total loans to men decreased by 24.0 percent from 2009 to 2017, and decreased by 5.0 percent between 2016 and 2017. Total loans to joint gender households decreased (by 8.7 percent) between 2016 and 2017; joint gender households had the largest decrease in total loans of all gender categories between 2009 and 2017 (43.1 percent decrease).
- Joint applications received the highest proportion of prime loans, with 95.3 percent of their total loans categorized as prime. Of total loans issued to men, 92.3 percent were prime, as were 89.7 percent of loans made to women. In 2016, the proportions of prime loans awarded to male, female and joint households were 93.6, 91.0, and 96.2 percent, respectively. In 2009, the proportions of prime loans awarded to male, female, and joint households were 93.7, 91.7, and 95.5 percent, respectively.
- Total loan applications from men decreased by 9.6 percent in 2017, likewise denials decreased by 20.1 percent. From 2009 to 2017, loan applications from men decreased by 27.8 percent, while denials decreased by 23.5 percent.
- Total loans applications from joint households decreased by 12.5 percent from 2016 to 2017, and applications from female households decreased by 6.6 percent.
- Women were denied loans 21.1 percent of the time (a 5.0 percent decrease from 2016), while joint households were denied loans 14.2 percent (a 3.6 percentage point decrease from 2016). Both joint and female households saw decreases in denial rates from 2009 to 2017 (27.6 percentage points and 19.9 percentage point decreases, respectively).
- Female households were denied at approximately the same rate as male households (1.04 in 2017), while joint households were denied at a lower rate (0.70). These ratios were similar to 2016 (at 1.03 for female households and remaining the same for joint households).

Table B.10: Share of All Loans in Philadelphia by Borrower Gender (2017)

BORROWER GENDER	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PERCENT OF ALL HOUSEHOLDS	DENIAL RATE
Male	36.8%	36.2%	26.5%	20.2%
Female	35.5%	47.7%	46.0%	21.1%
Joint (Male/Female)	27.7%	16.1%	27.6%	14.2%

(See Technical Appendix C.5)

B.3 Home Purchase Loans

B.3.1 Home Purchase Loans - Overall Observations (see Table B.11)

In 2017, there were 16,224 applications for home purchase loans, a 6.7 percent increase from the 15,209 applications in 2016. From 2009 to 2017, there was a 12.1 percent increase in applications for home purchase loans. Of the 2017 applications, 11,514 loans were made, a 5.4 percent increase from 2016. From 2009 to 2017, the total number of home purchase loans has increased by 15.4 percent. In 2017, the denial rate was 10.4 percent, which was lower than both the 11.6 percent rate of 2016, and the 14.3 percent rate of 2009. Of the 11,514 loans that were made in 2017, 90.7 percent were prime loans and 9.3 percent were subprime loans. In 2009, 93.8 percent of home purchase loans were prime loans and 6.2 percent were subprime loans.

Table B.11: Home Purchase Loan Applications and Originations in Philadelphia

	APPLICATIONS	DENIED	DENIAL RATE	LOANS	PRIME LOANS	SUBPRIME LOANS
2009	14,479	2,077	14.3%	9,976	9,356	620
2010	12,562	1,921	15.3%	8,598	8,403	195
2011	10,203	1,526	15.0%	7,012	6,493	519
2012	10,882	1,872	17.2%	7,307	7,148	159
2013	11,242	1,578	14.0%	7,912	7,366	546
2014	11,534	1,479	12.8%	8,115	6,725	1,390
2015	13,320	1,593	12.0%	9,424	8,661	763
2016	15,209	1,770	11.6%	10,925	10,069	856
2017	16,224	1,688	10.4%	11,514	10,447	1,067
2009-2017	12.1%	-18.7%	-27.2%	15.4%	11.7%	72.1%
2016-2017	6.7%	-4.6%	-10.6%	5.4%	3.8%	24.7%

B.3.2 Home Purchase Loans - by Borrower Race (see Table B.12)

- From 2016 to 2017, prime home purchase loans increased across all racial categories, except for Hispanics, as Hispanic borrowers saw a decrease in prime loans, by 7.8 percent. From 2009 to 2017, prime home purchase loans increased overall and across all racial categories except for African American borrowers who saw a decrease of 5.2 percent. Asian borrowers saw the greatest increase of 31.8 percent.
- The overall number of subprime loans increased by 24.7 percent from 2016 to 2017, with Hispanic borrowers seeing the greatest increase at 42.2 percent. From 2009 to 2017, subprime loans to African American borrowers increased the most (126.8 percent) while Asian borrowers were the only group to see a decreased in subprime loans (56.6 percent).
- White borrowers received 61.8 percent of all prime loans, while African Americans received 18.0 percent of all prime loans. Whites comprise 45.5 percent of Philadelphia households, while African Americans comprise 42.0 percent.

- Asian borrowers, who comprise 5.6 percent of all Philadelphia households, received 9.8 percent of all loans.
- From 2016 to 2017, all borrowers, except Hispanic borrowers, saw an increase in total loans. Hispanic borrowers saw a decrease of 1.1 percent in total loans.
- The overall number of applications increased between 2016 and 2017, and for all racial and ethnic groups, except Hispanics. Hispanic borrowers saw a decrease in home purchase loan applications by 3.6 percent.
- From 2016 to 2017, the number of denials decreased for all racial and ethnic groups, except African American borrowers, who saw denials increase by 11.4 percent. Denials to White, Asian, and Hispanic applicants decreased by 3.4, 4.4, and 24.9 percent, respectively. From 2009 to 2017, denials decreased across White and Asian applicants. African Americans and Hispanics applicants witnessed an increase in denials at 2.4 and 12.0 percent; Asian applicants have the greatest decrease in denials at 33.3 percent, followed by White applicants at 23.8.
- In 2017, the denial rate of African American applicants was 2.56 times greater than Whites, an increase from the ratio of 2.50 in 2016 and 1.89 since 2009. This ratio in 2017 was the highest since the commencement of the study in 2009.

Table B.12: Share of Home Purchase Loans in Philadelphia by Borrower Race (2017)

BORROWER RACE	LOAN APPLICATIONS	DENIAL RATE	RACE TO WHITE DENIAL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS
White	7,638	6.7%	1.00	61.8%	23.7%
African American	3,440	17.1%	2.56	18.0%	52.4%
Asian	1,326	10.0%	1.49	10.6%	2.4%
Hispanic	1,508	12.4%	1.86	9.6%	21.5%

(See Technical Appendix C.6)

B.3.3 Home Purchase Loans - by Borrower Income (see Table B.13)

- All income groups, except the low income group, saw an increase in their total number of prime home purchase loans between 2016 and 2017. The upper income group increased their prime loans by 10.1 percent, while the low income group decreased their total number of prime home purchase loans by 0.3 percent. From 2009 to 2017, prime home purchase loans decreased across low and moderate income groups, and increased in the middle and upper income groups. The moderate income group having the largest decrease at 14.8 percent and the upper income group having the highest increase at 91.2 percent.
- Subprime home purchase loans increased across all income groups, with the middle income group experiencing the largest increase of 37.3 percent. From 2009 to 2017, all subprime home purchase loans increased across all income groups, with the upper income group seeing the highest increase at 111.6 percent.
- The LMI group receives slightly less than half of all loans, at 49.3 percent. This is 1.6 percent decrease from 2016.

- The LMI group receives nearly three-quarters of the subprime loans at 74.2 percent, and this group receives only 46.8 percent of the prime loans. However, this group represents 66.6 percent of all Philadelphia households, indicating that LMI borrowers are disproportionately receiving more than their share of subprime and less of their share of prime home purchase loans.
- The proportion of prime loans within total loans increases as income increases: 84.2 percent of all home purchase loans to low income borrowers are prime loans (compared to 86.7 percent in 2016), while 97.3 percent of all upper income borrower home purchase loans are prime (this percent remained the same compared to 2016).
- The denial rate decreased as income rose, with applicants in the low income group 2.63 times more likely to be denied as an applicant in the upper income group. In 2016, this ratio was 2.81.

Table B.13: Share of Home Purchase Loans in Philadelphia by Borrower Income (2017)

BORROWER INCOME	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PERCENT OF ALL HOUSEHOLDS
LMI (<79.99% MSA Income)	46.8%	74.2%	66.6%
MUI (>80% MSA Income	53.2%	25.8%	33.4%

(See Technical Appendix C.7)

B.3.4 Home Purchase Loans - by Tract Minority Level (see Table B.14)

- The number of home purchase loans for minority census tracts increased by 11.2 percent from 2016 to 2017 and increased by 58.0 percent from 2009 to 2017.
- Prime home purchase loans for non-minority census tracts increased by 1.0 percent from 2016 to 2017 and decreased by 5.0 percent from 2009 to 2017.
- Borrowers in minority census tracts received 43.6 percent of all home purchase loans, 40.9 percent of all prime loans, and 69.5 percent of all subprime loans. They represent 59.1 percent of all Philadelphia households, indicating they are disproportionately receiving less than their share of prime and total home purchase loans.
- Of all home purchase loans made to borrowers in minority census tracts, 85.2 percent were prime and 14.8 percent were subprime. In 2016, 87.7 percent of all home purchase loans in minority tracts were prime, while 12.3 percent were subprime.
- In 2017 the number of home purchase loan applications increased for applicants in non-minority tracts (by 1.9 percent), and increased for applicants in minority tracts (by 12.6 percent) from 2016.
- The number of denials for home purchase loan applicants in minority census tracts decreased by 3.5 percent between 2016 and 2017, and increased by 7.0 percent between 2009 and 2017. For home purchase loan applicants in non-minority tracts, the number of denials decreased by 6.3 percent since 2016 and decreased by 9.0 percent since 2009.
- Applicants in minority census tracts were denied 1.73 times as often as those in non-minority tracts, a
 decrease from 1.86 and an increase from 1.61 in 2016 and 2009, respectively.

Table B.14: Share of Home Purchase Loans in Philadelphia by Tract Minority Level (2017)

MINORITY LEVEL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PERCENT OF ALL OOHU
0-49% minority	59.1%	30.5%	40.9%
50-100% minority	40.9%	69.5%	59.1%

(See Technical Appendix C.8)

B.3.5 Home Purchase Loans - by Tract Income Level (see Table B.15)

- From 2016 to 2017, the number of home purchase loans increased for LMI census tracts by 17.8 percent and by 0.3 percent in MUI census tracts. The greatest increase among any tracts was 26.0 percent in moderate income tracts, while the greatest decrease was 13.4 percent in the middle income tracts. From 2009 to 2017, home purchase borrowers from low income tracts saw the greatest decrease in loans at 59.8 percent; upper income tract home purchase loans increased during this period by 593.8 percent.
- The total number of home purchase applications increased for moderate and upper income tracts (28.4 and 14.1 percent respectively) and decreased for low and middle income tracts (8.0 and 13.3 percent respectively). From 2009 to 2017, applicants in low income tracts had the greatest decrease in total applications, at 57.8 percent, while applicants in upper income tracts had the greatest increase in total applications, at 536.1 percent.
- Between 2016 and 2017, prime home purchase loans increased for moderate and upper income tract categories. Prime home purchase loans to borrowers in low income tracts decreased by 21.5 percent. Since 2009, prime home purchase loans to borrowers in low income tracts decreased by 62.5 percent, while increasing for upper income tract borrowers by 578.7 percent.
- The number of subprime home purchase loans increased for all borrowers except middle income tract borrowers between 2016 and 2017. Borrowers in moderate income tracts have had the greatest increase in subprime loans since 2016 (at 67.4 percent) and while upper income borrowers have had the highest increase since 2009 (at 1800.0 percent). There were only 8 subprime loans issued in upper income tracts in 2009, and 152 in 2017.
- Between 2016 and 2017, the number of subprime home purchase loans issued to MUI tracts remained constant, while the number of subprime home purchase loans to LMI tracts increased by 63.4 percent.
- Of all the home purchase loans made in MUI tracts, 93.3 percent were prime, a 0.1 percent increase since 2016.
- The number of home purchase application denials increased for moderate and upper income groups by 14.4 and 2.3 percent respectively. The number of home purchase application denials for middle income tract applicants decreased the most (25.2 percent).
- In 2017, home purchase applicants in LMI tracts were denied a home purchase loan 1.59 times as often as applicants in MUI tracts. In 2016, this ratio was 1.52, and in 2009, it was 1.49.

Table B.15: Share of Home Purchase Loans in Philadelphia by Tract Income Level (2017)

TRACT INCOME	LOAN APPLICATIONS	DENIAL RATE	INCOME TO UPPER INCOME DENIAL RATE	PERCENT OF ALL LOANS	PERCENT OF ALL HOUSEHOLD	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
LMI (<79.99% MSA Income)	5,683	13.7%	1.59	32.6%	71.0%	0.43	0.72
MUI (>80% MSA Income)	10,541	8.6%	1.00	67.4%	29.0%	2.39	1.69

(See Technical Appendix C.9)

B.3.6 Home Purchase Loans - by Borrower Gender (see Table B.16)

- The number of home purchase applications increased for female, male, and joint applicants between 2016 and 2017, with the greatest increase for joint applicants at 9.6 percent. From 2009 to 2017, home purchase applications increased across all categories, and the greatest increase was for joint applicants (13.6 percent).
- Prime loans and total loans increased across all households. Home purchase prime loans to female borrowers increased by 3.0 percent between 2016 and 2017 and total home purchase loans to female borrowers increased by 5.7 percent. Home purchase prime loans to joint households increased by 6.5 percent and total home purchase loans to joint households increased by 7.5 percent.
- Subprime home purchase loans to all households increased between 2016 and 2017, with female borrowers showing the largest increase at 28.6 percent. Between 2009 and 2017, subprime home purchase loans increased across all households, with female borrowers showing the largest increase of 84.3 percent.
- Prime home purchase loans to male borrowers increased by 3.2 percent between 2016 and 2017, while increasing by 12.7 percent between 2009 and 2017. Subprime home purchase loans to male borrowers increased by 27.7 percent between 2016 and 2017, while total home purchase loans to male borrowers increased by 5.1 percent.
- Male borrowers received the greatest number of prime home purchase loans at 3,661 in 2017, followed by female borrowers at 3,277, and joint borrowers at 2,623.
- Of all the prime home purchase loans that were made, 38.3 percent went to male borrowers and 34.3 percent went to female borrowers. This was a slight decrease in proportion from 2016 by 0.3 percent for male borrowers and a similar decrease of 0.3 percent for female borrowers.
- For all the home purchase loans made to female households, 87.2 percent were prime loans. This was a decrease of 2.3 percent from 2016, and a 5.2 percent decrease from 2009.
- Home purchase applications by females were the most likely to be denied, at a rate of 11.4 percent, yet the denial rate for joint household home purchase loan applicants was only 7.1 percent in 2017.
- In 2017, female applicants were 0.96 times more likely to be denied a home purchase loan relative to male applicants.

Table B.16: Share of Home Purchase Loans in Philadelphia by Borrower Gender (2017)

BORROWER GENDER	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	38.3%	37.1%	1.00	1.00
Female	34.3%	47.8%	0.96	1.38
Joint (Male/Female)	27.4%	15.1%	1.04	0.59

(See Technical Appendix C.10)

B.4 Home Refinance Loans

B.4.1 Home Refinance Loans - Overall Observations (see Table B.17)

In 2017, there were 15,541 applications for home refinance loans, a decrease of 21.5 percent from 2016. Out of that pool, 4,281 applications were denied, yielding a denial rate of 27.5 percent. Of the 6,153 home refinance loans that lenders made, 5,856 were prime loans (or 95.2 percent) and 297 were subprime (or 4.8 percent). The numbers of home refinance prime loans decreased by 20.7 percent from 2016 to 2017, and also decreased by 59.8 percent from 2009 to 2017. The number of subprime loans decreased by 6.9 percent from 2016 to 2017, and also decreased by 64.0 percent from 2009 to 2017.

Table B.17: Home Refinance Loan Applications and Originations in Philadelphia

	APPLICATIONS	DENIALS	DENIAL RATE	LOANS	PRIME LOANS	SUBPRIME LOANS
2009	33,030	9,008	27.3%	15,395	14,569	826
2010	26,175	6,618	25.3%	12,222	11,686	536
2011	23,900	6,321	26.4%	10,757	10,045	712
2012	29,112	7,259	24.9%	14,239	13,610	629
2013	25,283	6,899	27.3%	11,962	11,521	441
2014	14,131	4,853	34.3%	5,607	5,301	306
2015	16,982	5,278	31.1%	7,018	6,703	315
2016	19,804	6,378	32.2%	7,706	7,387	319
2017	15,541	4,281	27.5%	6,153	5,856	297
2009-2017	-53.0%	-52.4%	0.9%	-60.0%	-59.8%	-64.0%
2016-2017	-21.5%	-32.8%	-14.5%	-20.2%	-20.7%	-6.9%

(See Technical Appendix C.11)

B.4.2 Home Refinance Loans - by Borrower Race (see Table B.18)

- From 2016 to 2017, prime home refinance loans to different racial and ethnic groups have decreased. White borrowers saw prime home refinance loans decreased by 29.1 percent. Prime home loans to Asian borrowers decreased by 38.7 percent continuing a downward trend since 2016. Prime loans to African American borrowers and Hispanic borrowers decreased by 0.3 percent and 7.9 percent, respectively. Since 2009, prime home refinance loans decreased by 67.1 percent for White borrowers and by 18.3 percent for Hispanic borrowers.
- Since 2016, subprime home refinance loans increased for Asian borrowers by 100.0 percent (increasing from 4 to 8 loans). Between 2016 and 2017, White, African American, and Hispanic borrowers saw a decrease in subprime refinance loans by 8.0, 9.7, and 3.2 percent respectively. Between 2009 and 2017, subprime home refinance loans to all borrowers decreased, with White borrowers seeing a decrease of 77.5 percent, followed by Asian borrowers at 57.9 percent.
- Since 2009, total home refinance loans to Asian borrowers decreased by 66.9 percent, and decreased by 37.0 percent since 2016.
- The share of prime home refinance loans to White borrowers decreased between 2016 and 2017, from 66.1 percent to 59.9 percent. The share of prime home refinance loans to African American borrowers slightly increased during this period, from 22.7 percent in 2016 to 28.9 percent in 2017.
- In 2016, African American borrowers received 52.1 percent of all subprime home refinance loans, and received 50.4 percent of all subprime home refinance loans in 2017. The share of subprime loans to White borrowers decreased from 34.2 percent of all home refinance subprime loans in 2016 to 33.8 percent of all home refinance subprime loans in 2017.
- In 2016, African American borrowers received subprime home refinance loans 4.14 times as often as White borrowers; in 2017, this ratio was 2.93.
- From 2016 to 2017, the number of home refinance loan applications decreased across all racial and ethnic categories, with Asian applicants experiencing the largest decrease at 30.2 percent. Likewise, between 2009 and 2017, home refinance loan applications decreased across all racial and ethnic groups, with White applicants experiencing the greatest decrease of 62.4 percent.
- Between 2016 and 2017, the number of home refinance applications that were denied decreased across all racial and ethnic groups. The largest decrease was the number of White home refinance application denials (43.3 percent), while the smallest decrease was the number of African American home refinance applications denied (26.7 percent).
- The frequency of denials to Hispanic home refinance applications is decreasing compared to the number of denials issued to White home refinance applicants since 2016. In 2016, Hispanic home refinance applications were denied 1.59 times as often as White home refinance applications; in 2017, Hispanics were denied 1.56 times as often.

Table B.18: Share of Home Refinance Loans in Philadelphia by Borrower Race (2017)

BORROWER RACE	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	PERCENT OF ALL HOUSEHOLDS	DENIAL RATE
White	59.9%	33.8%	45.5%	19.5%
African American	28.9%	50.4%	42.0%	34.3%
Asian	4.0%	3.3%	5.6%	28.3%
Hispanic	7.1%	12.5%	10.8%	30.4%

(See Technical Appendix C.11)

B.4.3 Home Refinance Loans - by Borrower Income (see Table B.19)

- From 2016 to 2017, prime home refinance loans decreased for all income groups, with prime home refinance loans decreasing the most for upper income borrowers (at 28.5 percent). Prime home refinance loans decreased the least (by 5.1 percent) for moderate income borrowers.
- Between 2016 and 2017, subprime home refinance loans decreased for all income groups except the upper income group, which saw subprime home refinance loans increase by 16.7 percent. The income group that saw the largest decrease in subprime home refinance loans was the middle income group (16.4 percent), followed by the low income group (7.5 percent), and the moderate income group (6.8 percent).
- In 2017, LMI borrowers received 52.5 percent of all home refinance loans, including 69.4 percent of all subprime home refinance loans. In 2016, LMI borrowers received 50.4 percent of all home refinance loans, and 69.6 percent of all subprime home refinance loans.
- Between 2016 and 2017, home refinances applications decreased by 21.5 percent; in particular, home refinances applications from upper income applicants decreased by 29.6 percent. Since 2009, home refinance applications from low income applicants decrease the least, by 8.4 percent.
- From 2016 to 2017, the number of home refinance applications by LMI applicants that were denied decreased by 31.6 percent; LMI applicants still had a higher denial rate (31.2 percent) than MUI applicants (21.6 percent).
- Applicants in the LMI group were denied 1.45 times for every MUI denial; this decreased from the 1.46 denials for every MUI denial in 2016, and decreased from the 1.60 denials for every MUI denial in 2009.

Table B.19: Share of Home Refinance Loans in Philadelphia by Borrower Income (2017)

BORROWER INCOME	LOAN APPLICATIONS	DENIAL RATE	INCOME TO UPPER INCOME DENIAL RATE	PERCENT OF ALL LOANS	PERCENT OF ALL HOUSEHOLDS
LMI (<79.99% MSA Income)	9,590	31.2%	1.45	52.5%	66.6%
MUI (>80% MSA Income	5,951	21.6%	1.00	47.5%	33.4%

(See Technical Appendix C.12)

B.4.4 Home Refinance Loans - by Tract Minority Level (see Table B.20)

- From 2016 to 2017, the number of prime home refinance loans to borrowers in non-minority tracts decreased by 27.3 percent. Since 2009, the number of prime home refinance loans to borrowers in non-minority tracts decreased by 68.8 percent.
- Since 2016, the number of prime home refinance loans to borrowers in minority tracts decreased by 9.5 percent.
- Since 2016, subprime home refinance loans decreased to borrowers in both non-minority and minority tracts by 8.9 percent and 6.0 percent respectively.
- About 95.2 percent of all home refinance loans are prime, down from 95.9 percent in 2016. Of the total prime home refinance loans, 57.9 percent were issued to borrowers in non-minority tracts in 2017.
- Between 2016 and 2017, applications for home refinance loans to applicants in minority tracts decreased by 14.0 percent, and decreased by 28.4 percent for applicants in non-minority tracts. Since 2009, home refinance applications from non-minority tracts decreased by 65.8 percent, while home refinance applications from minority tracts decreased by 28.5 percent.
- The number of home refinance loan applications that were denied increased for applicants in minority and non-minority tracts by 26.9 percent and 41.1 percent, respectively. Applicants in minority tracts are denied 1.56 times as often as applicants in non-minority tracts for home refinance loans. In 2016, this ratio was 1.51.

Table B.20: Share of Home Refinance Loans in Philadelphia by Tract Minority Level (2016)

MINORITY LEVEL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PERCENT OF ALL 00HU	DENIAL RATE	
0-49% minority	57.9%	31.0%	40.9%	21.3%	
50-100% minority	42.1%	69.0%	59.1%	33.2%	

(See Technical Appendix C.13)

B.4.5 Home Refinance Loans - by Tract Income Level (see Table B.21)

- All income tract groups experienced a decrease in the number of prime home refinance loans received between 2016 and 2017, except for borrowers in the moderate income tracts. Moderate tract borrowers experienced a 2.4 percent increase, while borrowers in low and middle income tracts experienced the largest decrease, both at about 28.9 percent. The number of prime home refinance loans for borrowers in upper income tracts decreased by 22.6 percent.
- Between 2016 and 2017, subprime home refinance loans decreased to borrowers in the middle income tracts, by 32.0 percent. The number of subprime home refinance loans to borrowers in the low and moderate income tracts increased by 9.4 and 16.0, respectively. The upper income tract maintained the same number of subprime loans compared to 2016. Since 2009, subprime home refinance loans to upper income tract borrowers have increased by 268.8 percent.
- The moderate and middle income tracts received the majority of subprime home refinance loans (at 39.1 and 29.3 percent, respectively), while the middle and upper income tracts received the majority of prime home refinance loans (at 33.4 and 39.9 percent, respectively). In 2016, the majority of prime

- loans went to the middle and upper income tracts (at 37.2 and 40.9 percent, respectively), and the majority of subprime home refinance loans went to the moderate and middle income tracts (at 31.3 and 40.1 percent, respectively).
- Of all home refinance loans in low income tracts, 85.9 percent were prime in 2017, compared to 90.4 percent that were prime in 2016. In 2017, 97.5 percent of all homes refinance loans to borrowers in upper income tracts were prime, compared to 98.1 percent in 2016.
- Applications for home refinance loans decreased in all income tract groups, with applicants in the
 middle income tracts experiencing the greatest decrease of 32.5 percent between 2016 and 2017. Since
 2009, applications for home refinance loans decreased across all income tract groups except for those
 in the upper income tracts, which increased by 73.2 percent.
- The number of denials decreased for home refinance loan applications for all applicants across income tracts. Between 2016 and 2017 applications in the low income tract group decreased by 15.7 percent between 2016 and 2017, and the number of denials for the low income tract group also decreased by 25.3 percent during that period.

Table B.21: Share of Home Refinance Loans in Philadelphia by Tract Income Level (2017)

TRACT INCOME	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PERCENT OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO 00HU SHARE RATIO	DENIAL RATE	INCOME TO UPPER- INCOME DENIAL
LMI (<79.99% MSA Income)	26.7%	50.8%	71.0%	0.38	0.72	34.9%	1.47
MUI (>80% MSA Income)	73.3%	49.2%	29.0%	2.53	1.70	23.7%	1.00

(See Technical Appendix C.14)

B.4.6 Home Refinance Loans - by Borrower Gender (see Table B.22)

- Since 2016, prime home refinance loans decreased across male, female, and joint household, by 21.5 percent, 12.4 percent, and 28.7 percent, respectively. Since 2009, male prime home refinance loans decreased by 56.2 percent while prime home refinance loans to joint households decreased by 71.0 percent.
- The number of subprime loans for female home refinance borrowers decreased by 17.7 percent since 2016; subprime loans for joint households decreased by 6.9 percent. The number of subprime loans for male home refinance borrowers also decreased by 8.9 between 2016 and 2017.
- Breaking the trend from 2016, female borrowers received the most home refinance loans at 2,058 in 2017, 122 more loans compared to males.
- In 2016, females received more than double the number of subprime loans as joint borrowers (147 to 58, respectively). Similarly, in 2017, females received 121 subprime loans, while joint borrowers received 54 subprime loans.
- All three groups of borrowers receive more prime loans than subprime loans. In 2016, male, female, and joint borrowers had 4.1 percent, 6.2 percent, and 2.7 percent of their total home refinance loans at subprime rates. In 2017, these percentages were 4.8 percent, 5.9 percent, and 3.5 percent, respectively.

- The number of home refinance loan applications decreased across all applicant groups, with joint home refinance applicants having the largest decrease of 29.3 percent.
- Female applicants had the highest denial rate of 29.0 percent, compared to an overall denial rate of 27.5 percent. In 2016, the denial rate for female home refinance loan applicants was 35.0 percent, relative to an overall denial rate of 32.2 percent.

Table B.22: Share of Home Refinance Loans in Philadelphia by Borrower Gender (2017)

BORROWER GENDER	LOAN APPLICATIONS	DENIAL RATE	GENDER TO MALE DENIAL RATIO	PCT. OF PRIME LOANS	PCT. OF SUBPRIME LOANS
Male	5,413	28.2%	1.00	35.0%	34.5%
Female	5,249	29.0%	1.03	36.8%	45.3%
Joint (Male/Female)	3,152	21.7%	0.77	28.2%	20.2%

(See Technical Appendix C.15)

B.5 Home Improvement Loans

B.5.1 Home Improvement Loans - Overall Observations (see Table B.23)

In 2017, there were 2,849 applications for home improvement loans, a 3.5 percent increase from 2016. Of these applications, 1,073, or 37.7 percent, were denied, a decrease of 4.0 percent. From 2009 to 2017, applications decreased by 49.4 percent, and denials also decreased by 64.9 percent. From 2016 to 2017, subprime loans decreased by 29.0 percent, while prime loans increased by 13.6 percent.

Table B.23: Home Improvement Loan Applications and Originations in Philadelphia

	APPLICATIONS	DENIALS	DENIAL RATE	LOANS	PRIME LOANS	SUBPRIME LOANS
2009	5,635	3,060	54.3%	1,728	1,435	293
2010	4,594	2,306	50.2%	1,676	1,498	178
2011	3,915	1,927	49.2%	1,488	1,271	217
2012	3,534	1,727	48.9%	1,379	1,211	168
2013	3,419	1,742	51.0%	1,207	1,107	100
2014	3,516	1,833	52.1%	1,120	979	141
2015	3,143	1,702	54.2%	1,012	911	101
2016	2,753	1,118	40.6%	1,139	1,008	131
2017	2,849	1,073	37.7%	1,238	1,145	93
2009-2017	-49.4%	-64.9%	-30.6%	-28.4%	-20.2%	-68.3%
2016-2017	3.5%	-4.0%	-7.3%	8.7%	13.6%	-29.0%

(See Technical Appendix C.16)

B.5.2 Home Improvement Loans - by Borrower Race (see Table B.24)

- White borrowers received 59.0 percent of all prime home improvement loans in 2017, compared to 60.0 percent of all prime home improvement loans in 2016. African American borrowers received 29.8 percent of all prime home improvement loans in 2017, compared to 30.0 percent in 2016.
- African Americans received 40.6 percent of all subprime home improvement loans in 2017, compared to 45.5 percent in 2016. White borrowers received around 51.6 percent of all subprime home improvement loans in 2017, compared to 45.5 percent in 2016.
- White borrowers were the only group to receive more than their proportionate share of loans relative to their households in the City. In 2017 White borrowers received 58.5 percent of all home improvement loans, even though they comprised only 45.5 percent of all households. African American borrowers received 30.5 percent of all home improvement loans, even as they comprised 42.0 percent of all households.
- There was a decrease in the proportion of subprime loans to prime loans for all racial and ethnic groups, except Asian borrowers, which virtually did not change compared to 2016. Of all home improvement loans 11.5 percent were subprime in 2016, and 7.5 percent of all home improvement loans are issued at subprime rates in 2017. In 2016, 7.5 percent of all home improvement loans to white borrowers were subprime, yet in 2017, 5.6 percent of all home improvement loans to White borrowers were subprime.
- Between 2016 and 2017, the number of home improvement loan applications from Whites, Asians, and Hispanics increased, with African Americans experiencing the only decrease, of 2.2 percent.
 Between 2016 and 2017, home improvement applications from Hispanics increased the most (21.0 percent).
- The number of denials decreased for White and African American borrowers between 2016 and 2017. Asian applicants experienced the largest increase in the home improvement loan denial rates during this period, at 27.0 percent, while White applicants experienced the largest rate decrease at 16.9 percent.

Table B.24: Share of Home Improvement Loans in Philadelphia by Borrower Race (2017)

BORROWER RACE	LOAN APPLICATIONS	DENIAL RATE	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	1,020	23.1%	59.0%	51.6%	1.30	1.13
African American	853	48.1%	29.8%	40.6%	0.71	0.97
Asian	130	46.9%	4.8%	1.6%	0.86	0.28
Hispanic	219	52.5%	6.4%	6.3%	0.59	0.58

(See Technical Appendix C.16)

B.5.3 Home Improvement Loans - by Borrower Income (see Table B.25)

- Although MUI households are only 33.4 percent of the total households in the City, they received 52.9 percent of all prime home improvement loans.
- Over 50 percent of all Philadelphia households are low income, but this group receives only 19.7 percent of all prime home improvement loans, and 20.0 percent of all total home improvement.
- Subprime home improvement loans decreased for all borrower groups between 2016 and 2017. While subprime home improvement loans decreased by only 3.9 percent for upper income borrowers, they decreased by 44.2 percent for middle income borrowers and 31.3 percent for low income borrowers.
- All borrowers received more prime loans than subprime home improvement loans. The proportion of subprime loans are also decreasing for all income groups. In 2016, 7.8 percent of all home improvement loans in the upper income group were at subprime, but by 2017, the rate decreased to 7.4 percent.
- Low income borrowers received 1.21 subprime home improvement loans for every 1 subprime home improvement loan issued to an upper income borrower in 2017. In 2016, low income borrowers received 1.94 subprime home improvement loans for every 1 issued to an upper income borrower.
- Since 2016, the number of home improvement loan applications increased for all income groups except for middle income applicants who experienced a decrease of 4.8 percent. Since 2009, loan applications have decreased for all groups, with low income applicants having the greatest decrease in home improvement loan applications, at 56.9 percent.
- Since 2016, the denial rates decreased for all applicant income groups, ranging from 0.8 percent for the moderate income applicants to 15.0 percent for upper income applicants.
- Low income home improvement applicants continue to have the highest denial rate at 52.2 percent, compared to an upper income denial rate of 20.3 percent. The overall denial rate in 2017 was 37.7 percent.

Table B.25: Share of Home Improvement Loans in Philadelphia by Borrower Income (2017)

BORROWER INCOME	PCT. OF ALL LOANS	PERCENT OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO	DENIAL RATE
LMI (<79.99% MSA Income)	47.1%	66.6%	0.71	0.71	46.7%
MUI (>80% MSA Income)	52.9%	33.4%	1.58	1.58	25.5%

(See Technical C.17)

B.5.4 Home Improvement Loans - by Tract Minority Level (see Table B.26)

- Although non-minority tract households represent only 40.9 percent of all City households, these borrowers receive 56.3 percent of all prime home improvement loans and 44.1 percent of all subprime home improvement loans.
- Of all subprime home improvement loans issued in the City (93), 55.9 percent were issued to borrowers in minority tracts.
- The number of prime home improvement loans to borrowers in non-minority tracts increased by 8.0 percent between 2016 and 2017, while the number of subprime home improvement loans decreased by 34.9 percent to non-minority tract borrowers.
- The proportion of subprime home improvement loans continues to decrease for non-minority tracts. In 2016, 9.5 percent of all home improvement loans were subprime for borrowers in non-minority tracts compared to 14.2 percent for borrowers in minority tracts. In 2017, 6.0 percent of all home improvement loans to non-minority tract borrowers were issued at subprime rates, compared to the 9.4 percent issued to borrowers in minority tracts.
- Home improvement applications from residents in non-minority tracts increased by 1.3 percent, while denials to these applications decreased by 11.8 percent since 2016. During that same period, applications from residents in minority tracts increased by 5.3 percent while the number of denials decreased by 0.5 percent.
- In 2017, minority tract applications for home improvement loans were denied 1.94 times as frequently as applications from non-minority tracts; in 2016, this ratio was 1.79.

Table B.26: Share of Home Improvement Loans in Philadelphia by Tract Minority Level (2017)

MINORITY LEVEL	LOAN APPLICATIONS	DENIAL RATE	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PERCENT OF ALL 00HU
0-49% minority	1,246	24.6%	56.3%	44.1%	40.9%
50-100% minority	1,603	47.8%	43.7%	55.9%	59.1%

(See Technical Appendix C.18)

B.5.5 Home Improvement Loans - by Tract Income Level (see Table B.27)

- The increase of home improvement prime loans from 2016 to 2017 was experienced most significantly in the moderate income tracts, which saw an 65.9 percent increase. During this same period, prime home improvement loans to upper income tract borrowers increased by 20.3 percent, while the low and middle income groups decreased by 18.2 and 11.8 percent respectively.
- Since 2009, the number of prime home improvement loans decreased for all borrower groups except for those in the upper income tracts, which experienced a 623.4 percent increase in prime home improvement loans during that time.
- Nearly 71.0 percent of all Philadelphia households are in LMI tracts, but these borrowers received
 only 30.2 percent of all prime home improvement loans and 38.7 percent of all subprime home
 improvement loans. At just under 30 percent of all Philadelphia households, MUI tract borrowers
 received 69.8 percent of all prime loans and 61.3 percent of all subprime home improvement loans.
- The proportion of subprime home improvement loans are decreasing for borrowers in all census tracts. In 2017, 9.4 percent of all home improvement loans in LMI tracts were subprime, down from 15.4 percent in 2016. Similarly, 6.7 percent of all home improvement loans in MUI tracts were subprime, down from 10.2 percent in 2016.
- Between 2016 and 2017, home improvement loan applications and denials decreased for the low and
 middle income tract groups. Applications from low income tract residents decreased by 14.6 percent
 while applications from middle income tract residents decreased 17.2 percent since 2016. Since 2016,
 home improvement applications from upper income tract residents increased by 16.7 percent, while
 the number of denials increased by 1.6 percent.
- As in prior years, the denial rate for applicants decreased as tract income increased in 2017. Home improvement applications for borrowers in low income tracts were denied 55.6 percent of the time, compared to the 22.5 percent denial rate for applications from upper income tracts. The denial rate for moderate and middle income tract home improvement loan applications was 48.3 percent and 36.2 percent, respectively.

Table B.27: Share of Home Improvement Loans in Philadelphia by Tract Income Level (2017)

TRACT INCOME	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO	DENIAL RATE
LMI (<79.99% MSA Income)	30.2%	38.7%	0.43	0.54	49.7%
MUI (>80% MSA Income)	69.8%	61.3%	2.41	2.12	29.0%

(See Technical Appendix C.19)

B.5.6 Home Improvement Loans - by Borrower Gender (see Table B.28)

- From 2016 to 2017, the number of prime home improvement loans increased for male and female households, with joint households experiencing a 1.5 percent decrease. During that same period, prime home improvement loans to female and male borrowers increased by 9.1 and 38.9 percent respectively.
- In spite of different distribution of subprime home improvement loans (29.6 percent for men, 45.7 percent for women, and 24.7 percent for joint households) in 2017, all borrowers saw a decrease in subprime loans by 29.0 percent overall since 2016.
- In 2017, only 7.7 percent of all male home improvement loans were subprime. In 2016, 12.6 percent of all home improvement loans to male borrowers were issued at subprime rates.
- Home improvement loan applications from females increased by 11.5 percent since 2016, and the number of denials to these applications decreased by 0.2 percent. Since 2016, male home improvement loan applications increased by 4.5 percent, while the number of denials also decreased by 2.2 percent. Home improvement applications from joint households have decreased by 6.5 percent, and the denials to these applications decreased by 4.2 percent since 2016.
- Male applicants had the highest denial rate of 41.9 percent, but were followed closely by female applicants at 41.1 percent in 2017. The denial rate for joint home improvement loan applications was 26.4 percent.

Table B.28: Share of Home Improvement Loans in Philadelphia by Borrower Gender (2017)

BORROWER GENDER	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO	DENIAL RATE	GENDER TO MALE DENIAL RATE
Male	27.5%	29.6%	1.04	1.12	41.9%	1.00
Female	40.6%	45.7%	0.88	0.99	41.1%	0.98
Joint (Male/Female)	31.9%	24.7%	1.16	0.90	26.4%	0.63

(See Technical Appendix C.20)



TECHNICAL APPENDIX C TABULAR DETAIL OF HOME LENDING IN PHILADELPHIA

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Table C.1: All Single-Family, Owner Occupant Lending in Philadelphia by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	8,772	323	9,095	61.0%	25.9%	58.2%	265,269	45.5%	1.34	0.57
African- American	3,186	648	3,834	22.2%	52.0%	24.5%	244,844	42.0%	0.53	1.24
Asian	1,175	32	1,207	8.2%	2.6%	7.7%	32,408	5.6%	1.47	0.46
Hispanic	1,247	242	1,489	8.7%	19.4%	9.5%	62,819	10.8%	0.80	1.80
Total	16,995	1,413	8,408				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	8,772	323	9,095	96.4%	3.6%	1.00	1.00
African- American	3,186	648	3,834	83.1%	16.9%	0.86	4.76
Asian	1,175	32	1,207	97.3%	2.7%	1.01	0.75
Hispanic	1,247	242	1,489	83.7%	16.3%	0.87	4.58
Total	16,995	1,413	18,408	92.3%	7.7%	0.96	2.16

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	14,298	1,797	12.6%	1.00
African- American	8,623	2,422	28.1%	2.23
Asian	1,991	339	17.0%	1.35
Hispanic	2,704	578	21.4%	1.70
Total	33,485	6,563	19.6%	1.56

Table C.2: All Single-Family, Owner Occupant Lending in Philadelphia by Borrower Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low	3,986	540	4,526	23.5%	38.2%	24.6%	292,421	50.2%	0.47	0.76
Moderate	4,294	492	4,786	25.3%	34.8%	26.0%	95,436	16.4%	1.54	2.13
Middle	3,826	247	4,073	22.5%	17.5%	22.1%	103,273	17.7%	1.27	0.99
Upper	4,889	134	5,023	28.8%	9.5%	27.3%	91,464	15.7%	1.83	0.60
LMI	8,280	1,032	9,312	48.7%	73.0%	50.6%	387,857	66.6%	0.73	1.10
MUI	8,715	381	9,096	51.3%	27.0%	49.4%	194,737	33.4%	1.53	0.81
Total	16,995	1,413	8,408				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low	3,986	540	4,526	88.1%	11.9%	0.90	4.47
Moderate	4,294	492	4,786	89.7%	10.3%	0.92	3.85
Middle	3,826	247	4,073	93.9%	6.1%	0.97	2.27
Upper	4,889	134	5,023	97.3%	2.7%	1.00	1.00
LMI	8,280	1,032	9,312	88.9%	11.1%	0.93	2.65
MUI	8,715	381	9,096	95.8%	4.2%	1.00	1.00
Total	16,995	1,413	18,408	92.3%	7.7%	0.95	2.88

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low	10,262	2,781	27.1%	2.42
Moderate	8,694	1,816	20.9%	1.86
Middle	6,793	1,099	16.2%	1.44
Upper	7,736	867	11.2%	1.00
LMI	18,956	4,597	24.3%	1.79
MUI	14,529	1,966	13.5%	1.00
Total	33,485	6,563	19.6%	1.75

Table C.3: All Single-Family, Owner Occupant Lending in Philadelphia by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	9,922	431	10,353	58.4%	30.5%	56.2%	237,968	40.9%	1.43	0.75
50-100% minority	7,073	982	8,055	41.6%	69.5%	43.8%	343,352	59.1%	0.70	1.18
Total	16,995	1,413	18,408				581,320			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	9,922	431	10,353	95.8%	4.2%	1.00	1.00
50-100% minority	7,073	982	8,055	87.8%	12.2%	0.92	2.93
Total	16,995	1,413	18,408	92.3%	7.7%	0.96	1.84

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	16,718	2,388	14.3%	1.00
50-100% minority	16,767	4,175	24.9%	1.74
Total	33,485	6,563	19.6%	1.37

Table C.4: All Single-Family, Owner Occupant Lending in Philadelphia by Tract Income Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	707	130	837	4.2%	9.2%	4.5%	240,280	41.4%	0.10	0.22
Moderate (50-79.99% MSA)	4,306	590	4,896	25.3%	41.8%	26.6%	172,475	29.7%	0.85	1.41
Middle (80-119.99% MSA)	5,052	473	5,525	29.7%	33.5%	30.0%	103,365	17.8%	1.67	1.88
Upper (120% or More MSA)	6,930	220	7,150	40.8%	15.6%	38.8%	64,930	11.2%	3.65	1.39
LMI (<79.99% MSA Income)	5,013	720	5,733	29.5%	51.0%	31.1%	412,755	71.0%	0.42	0.72
MUI (> 80% MSA Income)	11,982	693	12,675	70.5%	49.0%	68.9%	168,295	29.0%	2.43	1.69
Total	16,995	1,413	18,408				581,050			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO:
						KATIO.T KIME	SUBPRIME
Low (<50% MSA)	707	130	837	84.5%	15.5%	0.87	5.05
Moderate (50-79.99% MSA)	4,306	590	4,896	87.9%	12.1%	0.91	3.92
Middle (80-119.99% MSA)	5,052	473	5,525	91.4%	8.6%	0.94	2.78
Upper (120% or More MSA)	6,930	220	7,150	96.9%	3.1%	1.00	1.00
LMI (<79.99% MSA Income)	5,013	720	5,733	87.4%	12.6%	0.92	2.30
MUI (> 80% MSA Income)	11,982	693	12,675	94.5%	5.5%	1.00	1.00
Total	16,995	1,413	18,408	92.3%	7.7%	0.95	2.49

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	1,988	592	29.8%	2.18
Moderate (50-79.99% MSA)	9,868	2,424	24.6%	1.80
Middle (80-119.99% MSA)	10,134	1,978	19.5%	1.43
Upper (120% or More MSA)	11,495	1,569	13.6%	1.00
LMI (<79.99% MSA Income)	11,856	3,016	25.4%	1.55
MUI (> 80% MSA Income)	21,629	3,547	16.4%	1.00
Total	33,485	6,563	19.6%	1.44

Table C.5: All Single-Family, Owner Occupant Lending in Philadelphia by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	5,687	477	6,164	36.8%	36.2%	36.8%	154,160	26.5%	1.39	1.37
Female	5,485	629	6,114	35.5%	47.7%	36.5%	267,734	46.0%	0.77	1.04
Joint (Male/Female)	4,279	212	4,491	27.7%	16.1%	26.8%	160,700	27.6%	1.00	0.58
Total	16,995	1,413	18,408				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	5,687	477	6,164	92.3%	7.7%	1.00	1.00
Female	5,485	629	6,114	89.7%	10.3%	0.97	1.33
Joint (Male/Female)	4,279	212	4,491	95.3%	4.7%	1.03	0.61
Total	16,995	1,413	18,408	92.3%	7.7%	1.00	0.99

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	11,603	2,349	20.2%	1.00
Female	11,287	2,379	21.1%	1.04
Joint (Male/Female)	7,179	1,019	14.2%	0.70
Total	33,485	6,563	19.6%	0.97

Table C.6: Home Purchase Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	5,573	230	5,803	61.8%	23.7%	58.1%	265,269	45.5%	1.36	0.52
African American	1,622	508	2,130	18.0%	52.4%	21.3%	244,844	42.0%	0.43	1.25
Asian	953	23	976	10.6%	2.4%	9.8%	32,408	5.6%	1.90	0.43
Hispanic	870	209	1,079	9.6%	21.5%	10.8%	62,819	10.8%	0.89	2.00
Total	10,447	1,067	11,514				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	5,573	230	5,803	96.0%	4.0%	1.00	1.00
African American	1,622	508	2,130	76.2%	23.8%	0.79	6.02
Asian	953	23	976	97.6%	2.4%	1.02	0.59
Hispanic	870	209	1,079	80.6%	19.4%	0.84	4.89
Total	10,447	1,067	11,514	90.7%	9.3%	0.94	2.34

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	7,638	509	6.7%	1.00
African American	3,440	588	17.1%	2.56
Asian	1,326	132	10.0%	1.49
Hispanic	1,508	187	12.4%	1.86
Total	16,224	1,688	10.4%	1.56

Table C.7: Home Purchase Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	2,109	395	2,504	20.2%	37.0%	21.7%	292,421	50.2%	0.40	0.74
Moderate (50-79.99% MSA)	2,779	397	3,176	26.6%	37.2%	27.6%	95,436	16.4%	1.62	2.27
Middle (80-119.99% MSA)	2,285	184	2,469	21.9%	17.2%	21.4%	103,273	17.7%	1.23	0.97
Upper (120% or More MSA)	3,274	91	3,365	31.3%	8.5%	29.2%	91,464	15.7%	2.00	0.54
LMI (<79.99% MSA Income)	4,888	792	5,680	46.8%	74.2%	49.3%	387,857	66.6%	0.70	1.11
MUI (> 80% MSA Income)	5,559	275	5,834	53.2%	25.8%	50.7%	194,737	33.4%	1.59	0.77
Total	10,447	1,067	11,514				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	2,109	395	2,504	84.2%	15.8%	0.87	5.83
Moderate (50-79.99% MSA)	2,779	397	3,176	87.5%	12.5%	0.90	4.62
Middle (80-119.99% MSA)	2,285	184	2,469	92.5%	7.5%	0.95	2.76
Upper (120% or More MSA)	3,274	91	3,365	97.3%	2.7%	1.00	1.00
LMI (<79.99% MSA Income)	4,888	792	5,680	86.1%	13.9%	0.90	2.96
MUI (> 80% MSA Income)	5,559	275	5,834	95.3%	4.7%	1.00	1.00
Total	10,447	1,067	11,514	90.7%	9.3%	0.93	3.43

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	3,866	669	17.3%	2.63
Moderate (50-79.99% MSA)	4,408	462	10.5%	1.59
Middle (80-119.99% MSA)	3,342	254	7.6%	1.16
Upper (120% or More MSA)	4,608	303	6.6%	1.00
LMI (<79.99% MSA Income)	8,274	1,131	13.7%	1.95
MUI (> 80% MSA Income)	7,950	557	7.0%	1.00
Total	16,224	1,688	10.4%	1.58

Table C.8: Home Purchase Single-Family, Owner-Occupant Lending in Philadelphia by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL 00HU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	6,171	325	6,496	59.1%	30.5%	56.4%	237,968	40.9%	1.44	0.74
50-100% minority	4,276	742	5,018	40.9%	69.5%	43.6%	343,352	59.1%	0.69	1.18
Total	10,447	1,067	11,514				581,320			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	6,171	325	6,496	95.0%	5.0%	1.00	1.00
50-100% minority	4,276	742	5,018	85.2%	14.8%	0.90	2.96
Total	10,447	1,067	11,514	90.7%	9.3%	0.96	1.85

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	8,611	667	7.7%	1.00
50-100% minority	7,613	1,021	13.4%	1.73
Total	16,224	1,688	10.4%	1.34

Table C.9: Home Purchase Single-Family, Owner-Occupant Lending in Philadelphia by Tract Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	454	92	546	4.3%	8.6%	4.7%	240,280	41.4%	10.5%	0.21
Moderate (50-79.99% MSA)	2,754	452	3,206	26.4%	42.4%	27.8%	172,475	29.7%	88.8%	1.43
Middle (80-119.99% MSA)	2,902	371	3,273	27.8%	34.8%	28.4%	103,365	17.8%	156.2%	1.95
Upper (120% or More MSA)	4,337	152	4,489	41.5%	14.2%	39.0%	64,930	11.2%	371.5%	1.27
LMI (<79.99% MSA Income)	3,208	544	3,752	30.7%	51.0%	32.6%	412,755	71.0%	43.2%	0.72
MUI (> 80% MSA Income)	7,239	523	7,762	69.3%	49.0%	67.4%	168,295	29.0%	239.2%	1.69
Total	10,447	1,067	11,514				581,050			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	454	92	546	83.2%	16.8%	0.86	4.98
Moderate (50-79.99% MSA)	2,754	452	3,206	85.9%	14.1%	0.89	4.16
Middle (80-119.99% MSA)	2,902	371	3,273	88.7%	11.3%	0.92	3.35
Upper (120% or More MSA)	4,337	152	4,489	96.6%	3.4%	1.00	1.00
LMI (<79.99% MSA Income)	3,208	544	3,752	85.5%	14.5%	0.92	2.15
MUI (> 80% MSA Income)	7,239	523	7,762	93.3%	6.7%	1.00	1.00
Total	10,447	1,067	11,514	90.7%	9.3%	0.94	2.74

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	911	158	17.3%	2.29
Moderate (50-79.99% MSA)	4,772	620	13.0%	1.72
Middle (80-119.99% MSA)	4,562	458	10.0%	1.33
Upper (120% or More MSA)	5,979	452	7.6%	1.00
LMI (<79.99% MSA Income)	5,683	778	13.7%	1.59
MUI (> 80% MSA Income)	10,541	910	8.6%	1.00
Total	16,224	1,688	10.4%	1.38

Table C.10: Home Purchase Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	3,661	373	4,034	38.3%	37.1%	38.2%	154,160	26.5%	1.45	1.40
Female	3,277	481	3,758	34.3%	47.8%	35.6%	267,734	46.0%	0.75	1.04
Joint (Male/Female)	2,623	152	2,775	27.4%	15.1%	26.3%	160,700	27.6%	0.99	0.55
Total	10,447	1,067	11,514				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	3,661	373	4,034	90.8%	9.2%	1.00	1.00
Female	3,277	481	3,758	87.2%	12.8%	0.96	1.38
Joint (Male/Female)	2,623	152	2,775	94.5%	5.5%	1.04	0.59
Total	10,447	1,067	11,514	90.7%	9.3%	1.00	1.00

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	5,652	617	10.9%	1.00
Female	5,363	609	11.4%	1.04
Joint (Male/Female)	3,707	263	7.1%	0.65
Total	16,224	1,688	10.4%	0.95

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Table C.11: Refinance Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	2,863	81	2,944	59.9%	33.8%	58.7%	265,269	45.5%	1.32	0.74
African American	1,382	121	1,503	28.9%	50.4%	30.0%	244,844	42.0%	0.69	1.20
Asian	193	8	201	4.0%	3.3%	4.0%	32,408	5.6%	0.73	0.60
Hispanic	340	30	370	7.1%	12.5%	7.4%	62,819	10.8%	0.66	1.16
Total	5,856	297	6,153				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	2,863	81	2,944	97.2%	2.8%	1.00	1.00
African American	1,382	121	1,503	91.9%	8.1%	0.95	2.93
Asian	193	8	201	96.0%	4.0%	0.99	1.45
Hispanic	340	30	370	91.9%	8.1%	0.94	2.95
Total	5,856	297	6,153	95.2%	4.8%	0.98	1.75

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	6,051	1,178	19.5%	1.00
African American	4,630	1,586	34.3%	1.76
Asian	576	163	28.3%	1.45
Hispanic	1,071	325	30.3%	1.56
Total	15,541	4,281	27.5%	1.41

Table C.12: Refinance Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Income

TOTAL	PRIME	SUBPRIME	NUMLOANS	PCT. OF ALL PRIME	PCT. OF ALL SUBPRIME	PCTLOANS	HOUSEHOLDS	РСТНН	PRIMESHRHH	SUBSHRHH
Low (<50% MSA)	1,694	124	1,818	28.9%	41.8%	29.5%	292,421	50.2%	0.58	0.83
Moderate (50-79.99% MSA)	1,328	82	1,410	22.7%	27.6%	22.9%	95,436	16.4%	1.38	1.69
Middle (80-119.99% MSA)	1,373	56	1,429	23.4%	18.9%	23.2%	103,273	17.7%	1.32	1.06
Upper (120% or More MSA)	1,461	35	1,496	24.9%	11.8%	24.3%	91,464	15.7%	1.59	0.75
LMI (<79.99% MSA Income)	3,022	206	3,228	51.6%	69.4%	52.5%	387,857	66.6%	0.78	1.04
MUI (> 80% MSA Income)	2,834	91	2,925	48.4%	30.6%	47.5%	194,737	33.4%	1.45	0.92
Total	5,856	297	6,153				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	1,694	124	1,818	93.2%	6.8%	0.95	2.92
Moderate (50-79.99% MSA)	1,328	82	1,410	94.2%	5.8%	0.96	2.49
Middle (80-119.99% MSA)	1,373	56	1,429	96.1%	3.9%	0.98	1.68
Upper (120% or More MSA)	1,461	35	1,496	97.7%	2.3%	1.00	1.00
LMI (<79.99% MSA Income)	3,022	206	3,228	93.6%	6.4%	0.97	2.05
MUI (> 80% MSA Income)	2,834	91	2,925	96.9%	3.1%	1.00	1.00
Total	5,856	297	6,153	95.2%	4.8%	0.97	2.06

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	5,764	1,813	31.5%	1.73
Moderate (50-79.99% MSA)	3,826	1,183	30.9%	1.70
Middle (80-119.99% MSA)	3,115	769	24.7%	1.36
Upper (120% or More MSA)	2,836	516	18.2%	1.00
LMI (<79.99% MSA Income)	9,590	2,996	31.2%	1.45
MUI (> 80% MSA Income)	5,951	1,285	21.6%	1.00
Total	15,541	4,281	27.5%	1.51

Table C.13: Refinance Single-Family, Owner-Occupant Lending in Philadelphia by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	3,389	92	3,481	57.9%	31.0%	56.6%	237,968	40.9%	1.41	0.76
50-100% minority	2,467	205	2,672	42.1%	69.0%	43.4%	343,352	59.1%	0.71	1.17
Total	5,856	297	6,153				581,320			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	3,389	92	3,481	97.4%	2.6%	1.00	1.00
50-100% minority	2,467	205	2,672	92.3%	7.7%	0.95	2.90
Total	5,856	297	6,153	95.2%	4.8%	0.98	1.83

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	7,414	1,582	21.3%	1.00
50-100% minority	8,127	2,699	33.2%	1.56
Total	15,541	4,281	27.5%	1.29

Table C.14: Refinance Single-Family, Owner-Occupant Lending in Philadelphia by Tract Income Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	214	35	249	3.7%	11.8%	4.0%	240,280	41.4%	0.09	0.28
Moderate (50-79.99% MSA)	1,351	116	1,467	23.1%	39.1%	23.8%	172,475	29.7%	0.78	1.32
Middle (80-119.99% MSA)	1,953	87	2,040	33.4%	29.3%	33.2%	103,365	17.8%	1.87	1.65
Upper (120% or More MSA)	2,338	59	2,397	39.9%	19.9%	39.0%	64,930	11.2%	3.57	1.78
LMI (<79.99% MSA Income)	1,565	151	1,716	26.7%	50.8%	27.9%	412,755	71.0%	0.38	0.72
MUI (> 80% MSA Income)	4,291	146	4,437	73.3%	49.2%	72.1%	168,295	29.0%	2.53	1.70
Total	5,856	297	6,153				581,050			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	214	35	249	85.9%	14.1%	0.88	5.71
Moderate (50-79.99% MSA)	1,351	116	1,467	92.1%	7.9%	0.94	3.21
Middle (80-119.99% MSA)	1,953	87	2,040	95.7%	4.3%	0.98	1.73
Upper (120% or More MSA)	2,338	59	2,397	97.5%	2.5%	1.00	1.00
LMI (<79.99% MSA Income)	1,565	151	1,716	91.2%	8.8%	0.94	2.67
MUI (> 80% MSA Income)	4,291	146	4,437	96.7%	3.3%	1.00	1.00
Total	5,856	297	6,153	95.2%	4.8%	0.98	1.96

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	904	345	38.2%	1.87
Moderate (50-79.99% MSA)	4,493	1,536	34.2%	1.68
Middle (80-119.99% MSA)	5,107	1,374	26.9%	1.32
Upper (120% or More MSA)	5,037	1,026	20.4%	1.00
LMI (<79.99% MSA Income)	5,397	1,881	34.9%	1.47
MUI (> 80% MSA Income)	10,144	2,400	23.7%	1.00
Total	15,541	4,281	27.5%	1.35

Table C.15: Refinance Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	1,844	92	1,936	35.0%	34.5%	35.0%	154,160	26.5%	1.32	1.30
Female	1,937	121	2,058	36.8%	45.3%	37.2%	267,734	46.0%	0.80	0.99
Joint (Male/Female)	1,481	54	1,535	28.1%	20.2%	27.8%	160,700	27.6%	1.02	0.73
Total	5,856	297	6,153				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	1,844	92	1,936	95.2%	4.8%	1.00	1.00
Female	1,937	121	2,058	94.1%	5.9%	0.99	1.24
Joint (Male/Female)	1,481	54	1,535	96.5%	3.5%	1.01	0.74
Total	5,856	297	6,153	95.2%	4.8%	1.00	1.02

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	5,413	1,524	28.2%	1.00
Female	5,249	1,520	29.0%	1.03
Joint (Male/Female)	3,152	683	21.7%	0.77
Total	15,541	4,281	27.5%	0.98

Table C.16: Home Improvement Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	553	33	586	59.02%	51.56%	58.54%	265,269	45.53%	1.30	1.13
African American	279	26	305	29.78%	40.63%	30.47%	244,844	42.03%	0.71	0.97
Asian	45	1	46	4.80%	1.56%	4.60%	32,408	5.56%	0.86	0.28
Hispanic	60	4	64	6.40%	6.25%	6.39%	62,819	10.78%	0.59	0.58
Total	1,145	93	1,238				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	553	33	586	94.37%	5.63%	1.00	1.00
African American	279	26	305	91.48%	8.52%	0.97	1.51
Asian	45	1	46	97.83%	2.17%	1.04	0.39
Hispanic	60	4	64	93.75%	6.25%	0.99	1.11
Total	1,145	93	1,238	92.49%	7.51%	0.98	1.33

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	1,020	236	23.14%	1.00
African American	853	410	48.07%	2.08
Asian	130	61	46.92%	2.03
Hispanic	219	115	52.51%	2.27
Total	2,849	1,073	37.66%	1.63

Table C.17: Home Improvement Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	226	22	248	20.0%	24.0%	20.0%	292,421	50.0%	0.39	0.47
Moderate (50-79.99% MSA)	313	22	335	27.0%	24.0%	27.0%	95,436	16.0%	1.67	1.44
Middle (80-119.99% MSA)	291	24	315	25.0%	26.0%	25.0%	103,273	18.0%	1.43	1.46
Upper (120% or More MSA)	315	25	340	28.0%	27.0%	27.0%	91,464	16.0%	1.75	1.71
LMI (<79.99% MSA Income)	539	44	583	47.0%	47.0%	47.0%	387,857	67.0%	0.71	0.71
MUI (> 80% MSA Income)	606	49	655	53.0%	53.0%	53.0%	194,737	33.0%	1.58	1.58
Total	1,145	93	1,238				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	226	22	248	91.0%	9.0%	0.98	1.21
Moderate (50-79.99% MSA)	313	22	335	93.0%	7.0%	1.01	0.89
Middle (80-119.99% MSA)	291	24	315	92.0%	8.0%	1.00	1.04
Upper (120% or More MSA)	315	25	340	93.0%	7.0%	1.00	1.00
LMI (<79.99% MSA Income)	539	44	583	92.0%	8.0%	1.00	1.01
MUI (> 80% MSA Income)	606	49	655	93.0%	7.0%	1.00	1.00
Total	1,145	93	1,238	92.0%	8.0%	1.00	1.02

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	857	447	52.0%	2.57
Moderate (50-79.99% MSA)	780	317	41.0%	2.00
Middle (80-119.99% MSA)	621	189	30.0%	1.50
Upper (120% or More MSA)	591	120	20.0%	1.00
LMI (<79.99% MSA Income)	1,637	764	47.0%	1.83
MUI (> 80% MSA Income)	1,212	309	25.0%	1.00
Total	2,849	1,073	38.0%	1.85

Table C.18: Home Improvement Single-Family, Owner-Occupant Lending in Philadelphia by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	645	41	686	56.3%	44.1%	55.4%	237,968	40.9%	1.38	1.08
50-100% minority	500	52	552	43.7%	55.9%	44.6%	343,352	59.1%	0.74	0.95
Total	1,145	93	1,238				581,320			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	645	41	686	94.0%	6.0%	1.00	1.00
50-100% minority	500	52	552	90.6%	9.4%	0.96	1.58
Total	1,145	93	1,238	92.5%	7.5%	0.98	1.26

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	1,246	307	24.6%	1.00
50-100% minority	1,603	766	47.8%	1.94
Total	2,849	1,073	37.7%	1.53

Table C.19: Home Improvement Single-Family, Owner-Occupant Lending in Philadelphia by Tract Income Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	54	3	57	4.7%	3.2%	4.6%	240,280	41.4%	0.11	0.08
Moderate (50-79.99% MSA)	292	33	325	25.5%	35.5%	26.3%	172,475	29.7%	0.86	1.20
Middle (80-119.99% MSA)	336	26	362	29.3%	28.0%	29.2%	103,365	17.8%	1.65	1.57
Upper (120% or More MSA)	463	31	494	40.4%	33.3%	39.9%	64,930	11.2%	3.62	2.98
LMI (<79.99% MSA Income)	346	36	382	30.2%	38.7%	30.9%	412,755	71.0%	0.43	0.54
MUI (> 80% MSA Income)	799	57	856	69.8%	61.3%	69.1%	168,295	29.0%	2.41	2.12
Total	1,145	93	1,238				581,050			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	54	3	57	94.7%	5.3%	1.01	0.84
Moderate (50-79.99% MSA)	292	33	325	89.8%	10.2%	0.96	1.62
Middle (80-119.99% MSA)	336	26	362	92.8%	7.2%	0.99	1.14
Upper (120% or More MSA)	463	31	494	93.7%	6.3%	1.00	1.00
LMI (<79.99% MSA Income)	346	36	382	90.6%	9.4%	0.97	1.42
MUI (> 80% MSA Income)	799	57	856	93.3%	6.7%	1.00	1.00
Total	1,145	93	1,238	92.5%	7.5%	0.99	1.20

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	239	133	55.6%	2.47
Moderate (50-79.99% MSA)	947	457	48.3%	2.15
Middle (80-119.99% MSA)	796	288	36.2%	1.61
Upper (120% or More MSA)	867	195	22.5%	1.00
LMI (<79.99% MSA Income)	1,186	590	49.7%	1.71
MUI (> 80% MSA Income)	1,663	483	29.0%	1.00
Total	2,849	1,073	37.7%	1.67

Table C.20: Home Improvement Single-Family, Owner-Occupant Lending in Philadelphia by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	288	24	312	27.5%	29.6%	27.7%	154,160	26.5%	1.04	1.12
Female	425	37	462	40.6%	45.7%	41.0%	267,734	46.0%	0.88	0.99
Joint (Male/Female)	334	20	354	31.9%	24.7%	31.4%	160,700	27.6%	1.16	0.90
Total	1,145	93	1,238				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	288	24	312	92.3%	7.7%	1.00	1.00
Female	425	37	462	92.0%	8.0%	1.00	1.04
Joint (Male/Female)	334	20	354	94.4%	5.6%	1.02	0.73
Total	1,145	93	1,238	92.5%	7.5%	1.00	0.98

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	866	363	41.9%	1.00
Female	1,079	443	41.1%	0.98
Joint (Male/Female)	607	160	26.4%	0.63
Total	2,849	1,073	37.7%	0.90



TECHNICAL APPENDIX D - HOME LENDING IN PHILADELPHIA VS. OTHER AREAS

Technical Appendix D Summary

- Lending to Philadelphia residents was compared to lending to residents of the City's four suburban counties (see Table D.1):
- Overall, home lending in the suburbs was much more robust than in the City. Between 2016 and 2017, the total number of loans in the suburbs decreased by 17.4 percent (from 58,429 to 48,266). Despite this decrease, the number of loans issued to suburbs was more than 2.50 times the number of loans issued in the City (18,408). There were over 582,000 households in the City, relative to over 933,700 households in the suburbs.
- The number of prime and subprime loans increased for all racial groups. White borrowers received 84.9 percent of all prime loans and 65.3 percent of all subprime loans issued in the suburbs. The denial rate also increased across all racial groups, with African American applicants experiencing the highest denial rate (21.8 percent). For every one White denial, there were 1.95 denials to African American applicants.
- Applications decreased for all income groups in the suburbs and the City between 2016 and 2017, with the low income group experiencing the largest decrease in applications. All income groups also experienced a decrease in application denials since 2016. However, the trend for low income borrowers since 2009 in the suburbs shows an increase in loan applications by 12.2 percent.
- Of all the prime loans issued in the suburbs, 96.7 percent went to non-minority tract borrowers and 3.3 percent went to minority tract borrowers. In the City, 58.4 percent of all prime loans went to non-minority tract borrowers and 41.6 percent went to minority tract borrowers.
- In 2017, 15.8 percent of all suburban home loans went to borrowers in LMI tracts (up from 13.8 percent in 2016). In the City, 31.1 percent of all City home loans went to borrowers in LMI tracts (up from 26.6 percent in 2016).

In the suburbs, male borrowers received more than their proportionate share of prime and subprime loans, at 1.77 and 2.08 loan respectively, per every loan given to a female borrower. Female borrowers received less than or equal to their proportionate share of prime and subprime loans at 0.72 for prime loans and 1.14 for subprime loans. City prime to household shares for men were 1.39 and 0.77 for women. City subprime to household shares for men were 1.37 and 1.04 for women.

Table D.1: 2017 Home Lending Activity - Philadelphia Suburbs

BORROWER RACE	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	PERCENT OF ALL HOUSEHOLDS	DENIAL RATE
White	84.9%	65.3%	84.2%	11.2%
African-American	5.4%	26.0%	6.1%	21.8%
Asian	6.8%	3.0%	6.7%	11.0%
Hispanic	2.9%	5.8%	3.0%	15.1%

BORROWER INCOME	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	PERCENT OF ALL HOUSEHOLDS	DENIAL RATE
LMI (<79.99% MSA Income)	26.2%	46.7%	72.7%	18.6%
MUI (> 80% MSA Income)	73.8%	53.3%	58.9%	10.3%

TRACT MINORITY LEVEL	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	PERCENT OF ALL OWNER OCCUPIED HOUSEHOLDS	DENIAL RATE
0-49% minority	97.0%	85.0%	91.9%	12.2%
50-100% minority	3.3%	15.1%	8.1%	24.5%

TRACT INCOME LEVEL	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	PERCENT OF ALL OWNER OCCUPIED HOUSEHOLDS	DENIAL RATE
LMI (<79.99% MSA Income)	15.3%	29.9%	13.8%	16.2%
MUI (> 80% MSA Income)	84.7%	70.2%	86.2%	12.2%

BORROWER GENDER	PERCENT OF ALL PRIME LOANS	PERCENT OF ALL SUBPRIME LOANS	PERCENT OF ALL HOUSEHOLDS	DENIAL RATE
Male	30.3%	35.5%	17.1%	13.7%
Female	20.4%	32.0%	28.0%	14.6%
Joint (Male/ Female)	49.5%	32.4%	54.9%	10.1%

D.1 Philadelphia vs. Comparison Cities

Between 2009 and 2017, prime and total lending decreased in all four cities, except Detroit; Philadelphia had the greatest decrease of 30.6 percent during that time period. Subprime loans decreased in all cities between 2009 and 2017, with subprime loans decreasing in Detroit by 2.6 percent, and decreasing in Pittsburgh by 53.0 percent.

Between 2016 and 2017, total loans increased for all cities. Prime lending decreased in all four cities, except Detroit (which experienced an increase of 26.5 percent). Detroit experienced the only increase in total loans (27.4 percent), while Baltimore saw the greatest decrease in total lending (down 12.7 during the period).

- In 2017, African American borrowers were issued subprime home loans 16.9 percent of the time in Philadelphia, compared to 12.7 percent of the time in Pittsburgh, 22.5 percent of the time in Detroit, and 18.2 percent of the time in Baltimore..
- Baltimore had the greatest disparity in subprime lending, with LMI borrowers 3.17 times as likely to receive a subprime loan compared to an MUI borrower. Baltimore was followed by Philadelphia, where LMI borrowers were 2.65 times more likely to receive a subprime loan compared to MUI borrowers. This disparity is slightly lower than the disparity in 2016, when LMI borrowers in Philadelphia were 2.68 more likely to receive a subprime loan compared to MUI borrowers.
- Minority tract borrowers in Baltimore were 4.59 times as likely to receive subprime loans relative to borrowers in non-minority tracts. In Philadelphia, minority tract borrowers were 2.93 times as likely to receive subprime loans, followed by Pittsburgh and Detroit at 2.16 and 0.30 respectively.
- Continuing a trend since 2007, the city with the highest denial rate for applicants in LMI tracts in 2017 was Detroit, where 36.4 percent received denials. Philadelphia followed with 25.4 percent, followed by Baltimore with 22.5 percent, then Pittsburgh with 21.4 percent.
- In all cities, joint borrowers were most likely to receive prime loans. This was the same as the past five years of the study.
- The ratio of female denial rates compared to their male counterparts was small in all cities. Baltimore showed a disparity of 1.08 female denials for every male denial, followed by Philadelphia, Detroit, and Pittsburgh (1.04, 1.04, and 1.02 respectively)..

Table D.2: Home Lending Activity - Philadelphia vs. Comparison Cities

2017	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	16,995	1,413	18,408
Baltimore	6,286	573	6,859
Detroit	1,485	266	1,751
Pittsburgh	3,887	189	4,076
2016-2017 DIFFERENCE	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	-6.0%	14.1%	-4.7%
Baltimore	-14.8%	20.4%	-12.7%
Detroit	26.5%	33.0%	27.4%
Pittsburgh	-1.2%	26.9%	-0.2%
2009-2017 DIFFERENCE	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	-30.6%	-15.3%	-29.6%
Baltimore	-30.0%	-3.2%	-28.4%
Detroit	43.1%	-2.6%	33.6%
Pittsburgh	-9.0%	-53.0%	-12.7%

D.2 Philadelphia Compared to Other Areas

Lending to the City of Philadelphia's residents was compared to lending to residents of the City's four suburban counties – Bucks, Chester, Delaware, and Montgomery - as well as to lending in Baltimore, Detroit, and Pittsburgh, three cities identified as a useful comparison group to the City. Specifically, aggregate single-family home purchase, home improvement, and home refinance lending were analyzed (see Technical Appendix Tables E.1 to E35).

D.3 Home Lending in Philadelphia vs. Suburbs

D.3.1 Home Lending in Philadelphia vs. Suburbs - by Borrower Race (see Table D.3)

- Overall, home lending in the suburbs was much more robust than in the City. Between 2016 and 2017, the total number of loans in the suburbs decreased by 17.4 percent (from 58,429 to 48,266), and this was triple the number of loans issued in the City (18,408). There were over 582,000 households in the City, relative to over 933,700 households in the suburbs.
- African American borrowers received 5.4 percent of all prime home loans issued in the suburbs, compared to 22.2 percent in the City. The prime share to African Americans in the suburbs was 0.60, compared to the 0.53 in the City. Since 2016, prime loans to African Americans have decreased by 7.5 percent in the suburbs (from 2,393 to 2,214), versus a 4.3 percent increase in the City (from 3,054 to 3,186). However, the number of subprime loans to African American borrowers increased by 38.6 percent in the suburbs (the largest increase in subprime loans for all racial groups in the suburbs).

- Asians had a larger share of prime loans relative to their share of households in both the City and the suburbs; in the City, this ratio was 1.47, and in the suburbs it was 1.51. However, the number of prime loans to Asians has decreased by 15.9 percent since 2016 in the suburbs (from 3,336 to 2,805) and by only 0.17 percent in the City (from 1,177 to 1,175).
- by 6.1 percent (from 1,278 to 1,200). Although there were nearly twice as many Hispanic households in the City as there are in the suburbs (62,819 compared to 32,260), there were 1,200 prime loans issued to Hispanic borrowers in the suburbs compared to 1,247 in the City.
- Prime loans to White borrowers in the suburbs decreased the most of all racial groups, by 19.7 percent between 2016 and 2017. Since 2009, White borrowers in the suburbs have experienced the largest decrease in prime loans, at 50.5 percent.
- Of all loans to Whites in the suburbs, only 2.6 percent were subprime (versus 3.6 percent in the City), slightly up from 2.0 percent in 2016 (3.3 percent in the City).
- African American applicants in the suburbs and the City continue to be denied at significantly higher rates than White applicants. In the suburbs, there were 1.95 denials for African American applicants for every 1 denial to a white applicant. The ratio in the City was 2.23.

Table D.3: Share of All Loans by Borrower Race in Philadelphia Suburbs (2017)

TOTAL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL HOUSEHOLDS	DENIAL RATE
White	84.9%	65.3%	84.5%	11.2%
African American	5.4%	26.0%	9.0%	21.8%
Asian	6.8%	3.0%	4.5%	11.0%
Hispanic	2.9%	5.8%	3.5%	15.1%

(See Technical Appendix C.1 and E.1)

D.3.2 Home Lending in Philadelphia vs. Suburbs – by Borrower Income (see Table D.4)

- Upper income borrowers received almost half (49.9 percent) of all prime loans issued in the suburbs. The total number of prime loans decreased for all suburban income groups. Low income households in the suburbs experienced the largest decrease of 35.1 percent in prime loans since 2016 (from 6,380 to 4,143). Moderate income households in the suburbs experienced the smallest decrease (4.2 percent) in prime loans since 2016.
- City LMI borrowers received 73.0 percent of all subprime loans and suburban LMI borrowers received 46.7 percent of all subprime loans in 2017.
- In the suburbs and the City, the percent of subprime loans across all income groups increased, except for the low income group in the suburbs. Low income groups in the City experienced a 13.2 percent increase, while low income groups in the suburbs decreased 6.9 percent between 2016 and 2017.
- Applications decreased for all income groups between 2016 and 2017 in the suburbs and the City, with the low income group experiencing the largest decrease in applications. All income groups also experienced a decrease in application denials since 2016.

- For every one denial to an upper income suburban home loan application, there were 2.42 denials for a low income suburban home loan applicant. In the City, this ratio was also 2.42.
- In the City, denial rates decreased as borrower income increased (e.g., low income applicants were denied 27.1 percent of the time as upper income applicants were denied 11.2 percent of the time). In the suburbs, denial rates also decreased as income increased, with a 22.5 percent denial rate for low income applicants and a 9.3 percent denial rate for upper income applicants.

Table D.4: 2017 Share of Subprime Loans by Borrower Income in Philadelphia Suburbs

TOTAL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL HOUSEHOLDS	DENIAL RATE
Low (<50% MSA Income)	8.9%	14.7%	52.6%	22.5%
Moderate (50-79.99% MSA Income)	17.3%	32.0%	20.1%	16.0%
Middle (80-119.99% MSA Income)	23.9%	28.6%	26.1%	12.2%
Upper (120% or More MSA Income)	49.9%	24.7%	32.8%	9.3%
LMI (<79.99% MSA Income)	26.2%	46.7%	72.7%	18.6%
MUI (> 80% MSA Income)	73.8%	53.3%	58.9%	10.3%

(See Technical Appendix C.2 and E.2)

D.3.3 Home Lending in Philadelphia vs. Suburbs – by Tract Minority Level (see Table D.5)

- Although they represent only 8.1 percent of all suburban households, borrowers in minority tracts received 15.1 percent of all subprime loans and 3.3 percent of all prime loans. In the City, minority tract households represent 59.1 percent of all households, receiving 69.5 percent of all subprime loans and 41.6 percent of all prime loans.
- Since 2016, prime loans to suburban minority tract borrowers increased by 8.7 percent, while prime loans to non-minority tracts decreased 18.9 percent. Since 2009, prime loans to suburban borrowers in minority tracts have increased by 143.0 percent but decreased for non-minority tracts, by 48.5 percent.
- Since 2016, subprime loans have increased in both minority and non-minority tracts in the suburbs, by 41.3 and 10.9 percent respectively. Since 2009, subprime loans to suburban borrowers in non-minority tracts decreased by 42.0 percent, yet they increased by 206.5 percent to suburban borrowers in minority tracts.
- Of all the prime loans issued in the suburbs, 96.7 percent went to non-minority tract borrowers and
 3.3 percent went to minority tract borrowers. In the City, 58.4 percent of all prime loans went to non-minority tract borrowers and 41.6 percent went to minority tract borrowers.
- Borrowers in minority tracts were 4.58 times more likely to get a subprime loan compared to borrowers in non-minority tracts in the suburbs. In the City, borrowers in minority tracts were only 2.93 times more likely to get a subprime loan compared to borrowers in non-minority tracts in the City.
- Applicants in minority tracts in the suburbs were more likely to get denied a home loan application compared to applicants in non-minority tracts, at a rate of 2.00 denials. In the City, applicants in minority tracts were denied 1.74 times as often as applicants in non-minority tracts.

Table D.5: 2017 Share of Prime Loans by Tract Minority Level in Philadelphia.

TOTAL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL 00HU	DENIAL RATE
0-49% minority	96.7%	84.9%	91.9%	12.2%
50-100% minority	3.3%	15.1%	8.1%	24.5%

(See Technical Appendix C.3 and E.3)

D.3.4 Home Lending in Philadelphia vs. Suburbs – by Tract Income Level (see Table D.6)

- Since 2016, prime loans in the suburbs decreased across most income tract groups, with the exception of low income group which experienced an increase of 110.9 percent. Prime loans to borrowers in the upper income tracts decreased by 20.6 percent between 2016 and 2017. In the City, most borrowers saw a decrease in prime loans, with the exception of the moderate income group which experienced an increase of 16.0 percent.
- In 2017, 15.8 percent of all suburban home loans went to borrowers in LMI tracts (up from 13.8 percent in 2016). In the City, 31.1 percent of all City home loans went to borrowers in LMI tracts (up from 26.6 percent in 2016).
- Of all loans to borrowers in City LMI tracts, 12.6 percent were subprime. In the suburbs, 6.2 percent of all LMI tract loans were subprime. Suburban LMI tract borrowers receive subprime loans at 2.28 times the frequency of suburban MUI tract borrowers (down from 2.30 in 2016). In the City, this ratio was 2.30 (up from 1.84 in 2016).
- City applicants in LMI tracts were denied 25.4 percent of the time in 2017, and denied 16.2 percent of the time in the suburbs.
- Home loan applications decreased for most income tract groups in the suburbs, except the low income tract group which experienced a 101.2 percent increase in home loan applications since 2016. Denials decreased for all income tract groups, except the low income tract group, with that group experiencing a 56.0 increase in denied applications since 2016.

Table D.6: 2017 Share of All Loans by Tract Income Level in Philadelphia Suburbs

TOTAL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL OOHU	DENIAL RATE
Low (<50% MSA Income)	1.2%	3.3%	3.8%	21.7%
Moderate (50-79.99% MSA Income)	14.1%	26.5%	10.0%	15.6%
Middle (80-119.99% MSA Income)	43.0%	41.6%	38.1%	12.4%
Upper (120% or More MSA Income)	41.8%	28.6%	48.2%	11.9%
LMI (<79.99% MSA Income)	15.3%	29.8%	13.8%	16.2%
MUI (> 80% MSA Income)	84.7%	70.2%	86.2%	12.2%

(See Technical Appendix C.4 and E.4)

D.3.5 Home Lending in Philadelphia vs. Suburbs - by Borrower Gender (see Table D.7)

- Prime loans for all borrower groups in the suburbs decreased: a 14.4 percent decrease for suburban male prime loans, a 13.9 percent decrease for female prime loans, and a 21.3 percent decrease for joint prime loans. In the City, prime loans decreased by 6.4 percent for male borrowers, 1.6 percent for female borrowers, and 9.6 percent for joint borrowers.
- In the suburbs, male borrowers received more than their proportionate share of prime and subprime loans, at 1.77 and 2.08 loan respectively, per every loan given to a female borrower. Female borrowers received less than or equal to their proportionate share of prime and subprime loans at 0.72 for prime loans and 1.14 for subprime loans. City prime to household shares for men were 1.39 and 0.77 for women. City subprime to household shares for men were 1.37 and 1.04 for women.
- Subprime loans increased for all borrowers in the City and the suburbs. The share of subprime loans as a percentage of total loans increased from 2.3 percent in 2016 to 3.2 percent in 2017. During this same period in the City, the share of subprime loans as a percentage of total loans increased also (from 6.4 percent in 2016 to 7.7 percent in 2017). In the suburbs, the share of subprime loans as a percentage of total loans increased the most for female borrowers, from 3.4 percent in 2016 to 5.1 percent in 2017. In the City, the share of subprime loans increased the most for male borrowers, from 6.4 percent in 2016 to 7.7 percent in 2017.
- Female borrowers in the suburbs received subprime loans at 1.33 times the rate of male borrowers in the suburbs (up from 1.18 in 2016); in the City, female borrowers received subprime loans at 1.33 times the rate of male borrowers (down from 1.41 in 2016).
- Female applicants in the suburbs were denied for loans at a slightly higher rate than male applicants, at 14.6 percent compared to 13.7 percent. In 2016, these denial rates were higher, at 18.8 percent for female applicants and 19.2 percent for male applicants. In the City, female applicants were denied 21.1 percent of the time (down from 26.1 percent in 2016), and male applicants were denied 20.2 percent of the time (down from 25.3 percent in 2016).
- Joint applications were denied 14.2 percent of the time in the City and 10.1 percent of the time in the suburbs.

Table D.7: 2017 Share of Prime Loans by Borrower Gender, Philadelphia vs. Suburbs

TOTAL	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL HOUSEHOLDS	DENIAL RATE
Male	30.3%	35.5%	17.1%	13.7%
Female	20.3%	32.0%	28.0%	14.6%
Joint (Male/Female)	49.5%	32.4%	54.9%	10.1%

(See Technical Appendix C.5 and E.5)

D.4 Home Lending in Philadelphia vs. Comparison Cities (see Table D.8)

Philadelphia, Baltimore, Detroit, and Pittsburgh have many similarities. All of these cities saw population declines between 1950 and 2000, in large part due to job losses in the manufacturing sector and population shifts to the West, Southwest, and South. With the exception of Pittsburgh, the majority of households in these cities are headed by minorities, and the cities all have aging housing stock and infrastructure. Female homeowners are prevalent, and occupy between 42.1 (Pittsburgh) and 50.8 (Detroit) percent of the households in all four cities.

Between 2009 and 2017, prime and total lending decreased in all four cities, except Detroit. Philadelphia had the greatest decrease of 30.6 percent during that time period. Subprime loans decreased in all cities between 2009 and 2017, with subprime loans decreasing in Detroit by 2.6 percent, and decreasing in Pittsburgh by 53.0 percent.

Between 2016 and 2017, home lending decreased in all cities except Detroit, which experienced an increase of 26.5 percent. During this period, Baltimore saw the greatest decrease in total lending (down 12.7 during the period). Subprime lending increased across the board and prime lending decreased in all four cities, except Detroit, which experienced an increase of 26.5 percent.

Table D.8: All Loans, Philadelphia vs. Comparison Cities

2017	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	16,995	1,413	18,408
Baltimore	6,286	573	6,859
Detroit	1,485	266	1,751
Pittsburgh	3,887	189	4,076
2016	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	18,074	1,238	19,312
Baltimore	7,377	476	7,853
Detroit	1,174	200	1,374
Pittsburgh	3,936	149	4,085
2015	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	15,920	1,109	17,029
Baltimore	6,397	382	6,779
Detroit	1,005	170	1,175
Pittsburgh	3,816	160	3,976
2014	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	12,537	1,743	14,280
Baltimore	5,079	539	5,618
Detroit	881	126	1,007
Pittsburgh	3,222	206	3,428
2013	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	19,522	1,023	20,545
Baltimore	7,581	311	7,892
Detroit	1,356	118	1,474
Pittsburgh	4,394	152	4,546
2012	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	21,396	886	22,282
Baltimore	7,197	179	7,376
Detroit	1,139	94	1,233
	4,655	82	4,737
Pittsburgh 2011	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	17,150	1,381	18,531
Baltimore	5,494	285	5,779
Detroit	560	40	600
Pittsburgh	4,034	104	4,138
2010	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	20,780	852	21,632
Baltimore	6,858	460	7,318
Detroit	593	106	699
Pittsburgh	4,299	80	4,379
2009	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	24,490	1,669	26,159
Baltimore	8,985	592	9,577
Detroit	1,038	273	1,311
Pittsburgh	4,265	402	4,667
2016-2017 DIFFERENCE	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	-6.0%	14.1%	-4.7%
Baltimore	-14.8%	20.4%	-12.7%
Detroit	26.5%	33.0%	27.4%
Pittsburgh	-1.2%	26.8%	-0.2%
2009-2017 DIFFERENCE	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS
Philadelphia	-30.6%	-15.3%	-29.6%
Baltimore	-30.0%	-3.2%	-28.4%
Detroit	43.1%	-2.6%	33.6%
		-2.070	00,070

(See Technical Appendix C.1, E.21, E.26, and E.31)

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D.4.1 Home Lending in Philadelphia vs. Comparison Cities – by Borrower Race (see Table D.9, Table D.10, Table D.11, and Table D.12)

(See Technical Appendix C.1, E.21, E.26, and E.31)

- African American borrowers were issued prime loans at shares that continue to be less than their share of the residential population. Pittsburgh continues to have the greatest disparity between African American prime loan share and household share (0.33), while Detroit had the smallest disparity (0.65) in 2017.
- In 2017, African American borrowers were issued subprime home loans 16.9 percent of the time in Philadelphia, compared to 12.7 percent of the time in Pittsburgh, 22.5 percent of the time in Detroit, and 18.2 percent of the time in Baltimore.
- In 2017, African American borrowers were over six times more likely to receive a subprime loan relative to White borrowers in Baltimore (5.96), compared to 4.76 times more likely in Philadelphia, 3.19 times as likely in Pittsburgh, and 2.84 times more likely in Detroit.
- In 2017, the denial ratio between African American and White applicants was highest in Baltimore, with a score of 2.50. Pittsburgh had the second highest ratio, with a score of 2.42, up from the 2.20 ratio of 2016. African American applicants in Philadelphia were denied 2.23 times as often as White applicants, while African American applicants in Detroit were denied 2.03 times as often as White applicants.
- Applications from African Americans increased between 2016 and 2017 in Pittsburgh by 22.8 percent, and increased in Detroit by 14.0 percent. Philadelphia experienced a small decrease in African American applications (2.45 percent), while Baltimore experienced a 14.0 percent decrease in the same time period.

Table D.9: 2017 African American Proportions of Prime Loans and Households, Philadelphia vs. Comparison Cities

CITY	AFRICAN AMERICAN PERCENT OF ALL LOANS	AFRICAN AMERICAN PERCENT OF ALL HOUSEHOLDS
Philadelphia	24.5%	42.0%
Baltimore	36.0%	60.4%
Detroit	56.4%	81.0%
Pittsburgh	8.4%	23.2%

Table D.10: 2017 African American to White Denial Ratio, Philadelphia vs. Comparison Cities

CITY	AFRICAN AMERICAN TO WHITE DENIAL RATIO
Philadelphia	2.23
Baltimore	2.50
Detroit	2.03
Pittsburgh	2.42

- Across three of the four cities, Hispanic borrowers increased in subprime loans between 2016 and 2017. Detroit saw a 40.0 percent increase in subprime Hispanic lending, followed by Pittsburgh with a 33.3 percent increase), and Philadelphia with a 31.5 percent increase. Baltimore experienced a 36.7 percent decrease in subprime Hispanic borrowers since 2016.
- In 2017, the greatest disparity between Hispanic and White applicant denial rates was in Detroit, where Hispanic applicants were 1.85 times more likely to be denied than White applicants. This was an increase from the disparity denial ratio of 1.72 in 2016.
- In Philadelphia, Hispanic borrowers were 4.58 times as likely as a White borrower to receive a subprime loan in 2017. In Baltimore, Hispanic borrowers were 3.27 times as likely as Whites to receive a subprime loan; in Detroit, Hispanic borrowers were 1.92 times as likely as White borrowers to receive a subprime loan. In Pittsburgh, the ratio was 1.80.
- In Baltimore, Hispanic borrowers received 0.95 prime loans for every Hispanic household in the City, suggesting they were receiving nearly exactly their share of all prime loans relative to their total households. However, in Detroit, Pittsburgh, and Philadelphia, Hispanic borrowers received less than their proportionate share of prime loans, with a prime to household share ratio of 0.61, 0.69, and 0.80, respectively.

Table D.11: White and Hispanic Market Share of Subprime Loans, Philadelphia vs. Comparison Cities (2017)

CITY	PERCENT OF WHITES RECEIVING SUBPRIME LOANS	PERCENT OF HISPANICS RECEIVING SUBPRIME LOANS
Philadelphia	3.6%	16.3%
Baltimore	3.1%	10.0%
Detroit	7.9%	15.2%
Pittsburgh	4.0%	7.1%

- In all four cities, Asian applicants were denied home loans with the least frequency of all non-White groups: in Philadelphia, there were 1.35 Asian home loan applications denied for every 1 white application denied; in Baltimore the number was 1.30; in Detroit, 1.21, and in Pittsburgh, it was 0.90.
- In Philadelphia, Asian borrowers received 1.47 prime loans for every one household in the city; in Baltimore, this ratio was 1.46; and in Detroit, it was 2.24. In Pittsburgh, there were 0.85 prime loans issued for every one Asian residence in the city. At 5.6 percent of all households, Philadelphia has the highest Asian population of all four cities studied.
- In all four cities, Asian borrowers received the smallest proportion of subprime loans to total home loans compared to the other racial and ethnic borrower groups. In Philadelphia, 2.7 percent of all Asian home loans were subprime, compared to 1.3 percent in Pittsburgh, and 3.2 percent in Detroit. In Baltimore, 1.5 percent of all loans to Asians were subprime.

Table D.12: Percentage of Prime Loans to Household Share for Asians, Philadelphia vs. Comparison Cities (2017)

CITY	ASIAN PRIME SHARE TO HOUSEHOLD SHARE RATIO
Philadelphia	1.47
Baltimore	1.46
Detroit	2.24
Pittsburgh	0.85

D.4.2 Home Lending in Philadelphia vs. Comparison Cities – by Borrower Income (see Table D.13)

- In Philadelphia and Baltimore, LMI borrowers were issued prime loans at a lower frequency than the number of LMI households in the city, but issued subprime loans at higher frequencies than the number of LMI households in the city. In Detroit and Pittsburgh, LMI borrowers received both prime and subprime loans at frequencies less than their number of households.
- In all four cities, low income applicants were denied at nearly twice (and occasionally three times) the rate as applications from upper income applicants in 2017. The greatest disparity was in Pittsburgh, where for every 1.00 home loan denied to an upper-income applicant, 2.94 home loans were denied to low income applicants.
- In all of the four cities, borrowers in all income categories were more likely to receive prime loans than subprime loans.
- Baltimore had the greatest disparity in subprime lending, with LMI borrowers 3.17 times as likely to receive a subprime loan compared to an MUI borrower. Baltimore was followed by Philadelphia, where LMI borrowers were 2.65 times more likely to receive a subprime loan compared to MUI borrowers. This disparity is slightly lower than the disparity in 2016, when LMI borrowers in Philadelphia were 2.68 more likely to receive a subprime loan compared to MUI borrowers.
- LMI borrowers in Detroit were also more likely than MUI borrowers to receive subprime loans, with LMI borrowers 1.97 times as likely to receive subprime loans relative to MUI borrowers in 2017. This is down from the 2.77 in 2016.
- Pittsburgh had the lowest denial rate for LMI applicants, at 21.4 percent. Detroit had the highest denial rate for LMI applicants, at 39.7 percent. This is the seventh year in a row Detroit has had the highest denial rate.
- Although Pittsburgh had the lowest denial rate for LMI applicants at 21.4 percent, the city had the highest disparity in denial rates between LMI and MUI applicants for 2017. LMI applicants were 1.88 times more likely to be denied a home loan in Pittsburgh compared to MUI applicants. Detroit had the lowest disparity (in spite of having the highest denial rate for LMI applicants at 39.7 percent), with LMI applicants receiving 1.53 denials for every 1.00 denial to an MUI applicant.

(See Technical Appendix C.2, E.22, E.27, and E.32)

Table D.13: LMI, MUI Denial Rate, Philadelphia vs. Comparison Cities (2017)

CITY	LMI DENIAL RATE	MUI DENIAL RATE
Philadelphia	24.3%	13.5%
Baltimore	22.4%	12.8%
Detroit	39.7%	25.9%
Pittsburgh	21.4%	11.4%

D.4.3 Home Lending in Philadelphia vs. Comparison Cities – by Tract Minority Level (see Table D.14)

- As in all years in the study, in Philadelphia, Baltimore, and Pittsburgh, borrowers in minority tracts received prime loans at a smaller proportion than their share of households. However, borrowers in minority tracts in Detroit received prime loans slightly greater than the proportion (1.01) of their share of households in 2017.
- Continuing a four year trend, Pittsburgh had the greatest disparity of prime loans to household proportion for minority tracts, with 10.6 percent of prime loans compared to 21.6 percent of households (giving a ratio of 0.49). Philadelphia followed with the next highest disparity with 41.6 percent of prime loans compared to 59.1 percent of households (a ratio of 0.70). Disparities for Baltimore, Detroit, Philadelphia, and Pittsburgh increased from 2016 to 2017.
- In all of the four cities, both minority tracts and non-minority tracts were more likely to receive prime loans than subprime loans.
- Minority tract borrowers in Baltimore were 4.59 times as likely to receive subprime loans relative to borrowers in non-minority tracts. In Philadelphia, minority tract borrowers were 2.93 times as likely to receive subprime loans, followed by Pittsburgh and Detroit at 2.16 and 0.30 respectively.
- Lenders issued subprime loans to Detroit borrowers in minority tracts 15.2 percent of the time and 50.0 percent of the time for borrowers in non-minority tracts. However, this is a small sample as only 1.2 percent of all owner-occupied housing units were in non-minority census tracts in the city and there were only 2 loans issued in 2017.
- In 2017, lenders denied applicants in minority areas of Baltimore about 2.21 times more often than applicants in non-minority areas, which was the highest ratio of all four cities.
- The lowest disparity was Detroit, where applicants in minority tracts received 0.54 denials for every 1.00 denial to applicants in non-minority tracts. The next lowest disparity was Philadelphia, where applicants in minority tracts received 1.74 denials for every 1.00 denial to applicants in non-minority tracts.

(See Technical Appendix C.3, E.23, E.28, and E.33)

Table D.14: Percent of Prime Loans, Households in Minority Tracts, Philadelphia vs. Comparison Cities (2017)

CITY	MINORITY TRACT PERCENT OF PRIME LOANS	MINORITY TRACT PERCENT OF ALL HOUSEHOLDS
Philadelphia	41.6%	59.1%
Baltimore	51.1%	69.9%
Detroit	99.9%	98.8%
Pittsburgh	10.6%	21.6%

D.4.4 Home Lending in Philadelphia vs. Comparison Cities – by Tract Income Level (see Table D.15)

- In Baltimore and Detroit, borrowers in moderate-income tracts received the most prime loans of any income tract group. In Pittsburgh, borrowers in the middle-income tract received the greatest proportion of prime loans of any income tract group; and in Philadelphia borrowers in the upper income tract received the greatest proportion of prime loans of any income tract group.
- Following the trend from previous years, borrowers in LMI tracts for all four cities received a share of
 prime loans that was disproportionately lower than their share of households in the city. The lowest of
 these shares was in Philadelphia; although 71.0 percent of all owner-occupied households were in LMI
 tracts, these tracts received only 29.5 percent of all prime loans issued.
- In Baltimore, borrowers in LMI tracts were 2.92 times more likely to receive a subprime loan as borrowers in MUI tracts. This was the city with the greatest disparity between these two groups. The city with the least disparity was Detroit, where borrowers in LMI tracts were 1.18 times more likely to receive subprime loans as those in MUI tracts. Again, this is more a function of the proportion of households in upper-income tracts in the city (2.0 percent), than an indication of equitable lending practices in Detroit.
- Continuing a trend since 2017 the city with the highest denial rate for applicants in LMI tracts in 2017 was Detroit, where 36.4 percent received denials. Philadelphia followed with 25.4 percent, followed by Baltimore with 22.5 percent, then Pittsburgh with 21.4 percent.
- The difference in denial rates between applicants in LMI and MUI tracts was greatest in Baltimore, where the ratio was 1.86 (LMI denial rate/upper income denial rate), followed by Pittsburgh with a ratio of 1.69, and Philadelphia with a ratio of 1.55. The city with the lowest disparity was Detroit, with a ratio of 1.38.

(See Technical Appendix C.4, E.24, E.29, and E.34)

Table D.15: LMI, MUI Tracts Percent Receiving Subprime Loans, Philadelphia vs. Comparison Cities (2017)

СІТҮ	LMI TRACT PERCENT RECEIVING SUBPRIME LOANS	MUI TRACTS PERCENT RECEIVING SUBPRIME LOANS
Philadelphia	12.6%	5.5%
Baltimore	12.5%	4.3%
Detroit	16.4%	13.9%
Pittsburgh	7.8%	3.1%

D.4.5 Home Lending in Philadelphia vs. Comparison Cities – by Borrower Gender (see Table D.16)

- As in previous years of the study, in all cities, female borrowers received a share of prime loans that was lower than their share of households. All four cities had a similar ratio of around 0.70 with the highest ratios being in Philadelphia and Baltimore (0.77) followed by Detroit (0.79) and Pittsburgh (0.68).
- Baltimore's ratio of female borrowers who received a share of subprime loans compared to female homeowners is close to parity, with a ratio of 1.03. This was followed by Philadelphia with 1.04, Detroit with 0.92, and Pittsburgh with 0.56.
- In all cities, joint borrowers were most likely to receive prime loans. This was the same as the past five years of the study.
- Between 2016 and 2017, Philadelphia and Baltimore experienced a decrease in applications across all categories, while Detroit saw an increase of 21.0 percent. Meanwhile, Pittsburgh saw a slight decrease in female and joint applicants, an increase in male applicants, and a slight increase in total applications.
- The ratio of female denial rates compared to their male counterparts was small in all cities. Baltimore showed a disparity of 1.08 female denials for every male denial, followed by Philadelphia, Detroit, and Pittsburgh (1.04, 1.04, and 1.02 respectively).

(See Technical Appendix C.5, E.25, E.30, and E.35)

Table D.16: Female Denial Rates and Female to Male Denial Ratios, Philadelphia vs. Comparison Cities (2017)

CITY	FEMALE DENIAL RATE	FEMALE TO MALE DENIAL RATIO
Philadelphia	21.1%	1.04
Baltimore	19.3%	1.08
Detroit	32.3%	1.04
Pittsburgh	16.9%	1.02



TECHNICAL APPENDIX E TABULAR DETAIL OF HOME LENDING IN PHILADELPHIA VS. OTHER AREAS

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Table E.1: All Single-Family, Owner-Occupant Lending in Suburbs by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	34,877	929	35,806	84.9%	65.3%	84.2%	789,224	84.5%	1.00	0.77
African American	2,214	370	2,584	5.4%	26.0%	6.1%	84,126	9.0%	0.60	2.89
Asian	2,805	42	2,847	6.8%	3.0%	6.7%	42,198	4.5%	1.51	0.65
Hispanic	1,200	82	1,282	2.9%	5.8%	3.0%	32,260	3.5%	0.85	1.67
Total	46,698	1,568	48,266				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	34,877	929	35,806	97.4%	2.6%	1.00	1.00
African American	2,214	370	2,584	85.7%	14.3%	0.88	5.52
Asian	2,805	42	2,847	98.5%	1.5%	1.01	0.57
Hispanic	1,200	82	1,282	93.6%	6.4%	0.96	2.47
Total	46,698	1,568	48,266	96.8%	3.2%	0.99	1.25

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	55,101	6,154	11.2%	1.00
African American	5,047	1,100	21.8%	1.95
Asian	4,357	478	11.0%	0.98
Hispanic	2,149	325	15.1%	1.35
Total	77,102	9,899	12.8%	1.15

Table E.2: All Single-Family, Owner-Occupant Lending in Suburbs by Borrower Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	4,143	230	4,373	8.9%	14.7%	9.1%	491,102	52.6%	0.17	0.28
Moderate (50-79.99% MSA)	8,072	502	8,574	17.3%	32.0%	17.8%	187,875	20.1%	0.86	1.59
Middle (80-119.99% MSA)	11,181	448	11,629	23.9%	28.6%	24.1%	243,718	26.1%	0.92	1.09
Upper (120% or More MSA)	23,302	388	23,690	49.9%	24.7%	49.1%	306,195	32.8%	1.52	0.75
LMI (<79.99% MSA Income)	12,215	732	12,947	26.2%	46.7%	26.8%	678,977	72.7%	0.36	0.64
MUI (> 80% MSA Income)	34,483	836	35,319	73.8%	53.3%	73.2%	549,913	58.9%	1.25	0.91
Total	46,698	1,568	48,266				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	4,143	230	4,373	94.7%	5.3%	0.96	3.21
Moderate (50-79.99% MSA)	8,072	502	8,574	94.1%	5.9%	0.96	3.57
Middle (80-119.99% MSA)	11,181	448	11,629	96.1%	3.9%	0.98	2.35
Upper (120% or More MSA)	23,302	388	23,690	98.4%	1.6%	1.00	1.00
LMI (<79.99% MSA Income)	12,215	732	12,947	94.3%	5.7%	0.97	2.39
MUI (> 80% MSA Income)	34,483	836	35,319	97.6%	2.4%	1.00	1.00
Total	46,698	1,568	48,266	96.8%	3.2%	0.98	1.98

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	9,456	2,126	22.5%	2.42
Moderate (50-79.99% MSA)	14,252	2,284	16.0%	1.73
Middle (80-119.99% MSA)	18,019	2,206	12.2%	1.32
Upper (120% or More MSA)	35,375	3,283	9.3%	1.00
LMI (<79.99% MSA Income)	23,708	4,410	18.6%	1.81
MUI (> 80% MSA Income)	53,394	5,489	10.3%	1.00
Total	77,102	9,899	12.8%	1.38

Table E.3: All Single-Family, Owner-Occupant Lending in Suburbs by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	45,138	1,332	46,470	96.7%	84.9%	96.3%	856,035	91.9%	1.05	0.92
50-100% minority	1,560	236	1,796	3.3%	15.1%	3.7%	75,531	8.1%	0.41	1.86
Total	46,698	1,568	48,266				931,566			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	45,138	1,332	46,470	97.1%	2.9%	1.00	1.00
50-100% minority	1,560	236	1,796	86.9%	13.1%	0.89	4.58
Total	46,698	1,568	48,266	96.8%	3.2%	1.00	1.13

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	73,244	8,954	12.2%	1.00
50-100% minority	3,858	945	24.5%	2.00
Total	77,102	9,899	12.8%	1.05

Table E.4: All Single-Family, Owner-Occupant Lending in Suburbs by Tract Income Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	561	52	613	1.2%	3.3%	1.3%	35,274	3.8%	0.32	0.88
Moderate (50-79.99% MSA)	6,575	416	6,991	14.1%	26.5%	14.5%	93,217	10.0%	1.41	2.65
Middle (80-119.99% MSA)	20,057	652	20,709	43.0%	41.6%	42.9%	354,499	38.1%	1.13	1.09
Upper (120% or More MSA)	19,505	448	19,953	41.8%	28.6%	41.3%	448,576	48.2%	0.87	0.59
LMI (<79.99% MSA Income)	7,136	468	7,604	15.3%	29.8%	15.8%	128,491	13.8%	1.11	2.16
MUI (> 80% MSA Income)	39,562	1,100	40,662	84.7%	70.2%	84.2%	803,075	86.2%	0.98	0.81
Total	46,698	1,568	48,266				931,566			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	561	52	613	91.5%	8.5%	0.94	3.78
Moderate (50-79.99% MSA)	6,575	416	6,991	94.0%	6.0%	0.96	2.65
Middle (80-119.99% MSA)	20,057	652	20,709	96.9%	3.1%	0.99	1.40
Upper (120% or More MSA)	19,505	448	19,953	97.8%	2.2%	1.00	1.00
LMI (<79.99% MSA Income)	7,136	468	7,604	93.8%	6.2%	0.96	2.28
MUI (> 80% MSA Income)	39,562	1,100	40,662	97.3%	2.7%	1.00	1.00
Total	46,698	1,568	48,266	96.8%	3.2%	0.99	1.45

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	1,207	262	21.7%	1.83
Moderate (50-79.99% MSA)	11,720	1,834	15.6%	1.32
Middle (80-119.99% MSA)	32,710	4,063	12.4%	1.05
Upper (120% or More MSA)	31,465	3,740	11.9%	1.00
LMI (<79.99% MSA Income)	12,927	2,096	16.2%	1.33
MUI (> 80% MSA Income)	64,175	7,803	12.2%	1.00
Total	77,102	9,899	12.8%	1.08

Table E.5: All Single-Family, Owner-Occupant Lending in Suburbs by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	13,024	518	13,542	30.3%	35.5%	30.5%	159,504	17.1%	1.77	2.08
Female	8,714	467	9,181	20.3%	32.0%	20.6%	261,397	28.0%	0.72	1.14
Joint (Male/Female)	21,267	473	21,740	49.5%	32.4%	48.9%	512,831	54.9%	0.90	0.59
Total	46,698	1,568	48,266				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	13,024	518	13,542	96.2%	3.8%	1.00	1.00
Female	8,714	467	9,181	94.9%	5.1%	0.99	1.33
Joint (Male/Female)	21,267	473	21,740	97.8%	2.2%	1.02	0.57
Total	46,698	1,568	48,266	96.8%	3.2%	1.01	0.85

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	22,772	3,112	13.7%	1.00
Female	15,244	2,229	14.6%	1.07
Joint (Male/Female)	32,186	3,255	10.1%	0.74
Total	77,102	9,899	12.8%	0.94

Table E.6: Home Purchase Single-Family, Owner-Occupant Lending in Suburbs by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	20,652	690	21,342	82.1%	61.3%	81.2%	789,224	84.5%	0.97	0.72
African American	1,410	326	1,736	5.6%	29.0%	6.6%	84,126	9.0%	0.62	3.21
Asian	2,264	37	2,301	9.0%	3.3%	8.8%	42,198	4.5%	1.99	0.73
Hispanic	844	73	917	3.4%	6.5%	3.5%	32,260	3.5%	0.97	1.88
Total	28,113	1,235	29,348				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	20,652	690	21,342	96.8%	3.2%	1.00	1.00
African American	1,410	326	1,736	81.2%	18.8%	0.84	5.81
Asian	2,264	37	2,301	98.4%	1.6%	1.02	0.50
Hispanic	844	73	917	92.0%	8.0%	0.95	2.46
Total	28,113	1,235	29,348	95.8%	4.2%	0.99	1.30

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	27,552	1,583	5.7%	1.00
African American	2,599	360	13.9%	2.41
Asian	3,184	268	8.4%	1.46
Hispanic	1,311	145	11.1%	1.93
Total	39,024	2,808	7.2%	1.25

Table E.7: Home Purchase Single-Family, Owner-Occupant Lending in Suburbs by Borrower Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	1,625	166	1,791	5.8%	13.4%	6.1%	491,102	52.6%	0.11	0.26
Moderate (50-79.99% MSA)	5,323	431	5,754	18.9%	34.9%	19.6%	187,875	20.1%	0.94	1.73
Middle (80-119.99% MSA)	6,937	357	7,294	24.7%	28.9%	24.9%	243,718	26.1%	0.95	1.11
Upper (120% or More MSA)	14,228	281	14,509	50.6%	22.8%	49.4%	306,195	32.8%	1.54	0.69
LMI (<79.99% MSA Income)	6,948	597	7,545	24.7%	48.3%	25.7%	678,977	72.7%	0.34	0.66
MUI (> 80% MSA Income)	21,165	638	21,803	75.3%	51.7%	74.3%	549,913	58.9%	1.28	0.88
Total	28,113	1,235	29,348				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	1,625	166	1,791	90.7%	9.3%	0.93	4.79
Moderate (50-79.99% MSA)	5,323	431	5,754	92.5%	7.5%	0.94	3.87
Middle (80-119.99% MSA)	6,937	357	7,294	95.1%	4.9%	0.97	2.53
Upper (120% or More MSA)	14,228	281	14,509	98.1%	1.9%	1.00	1.00
LMI (<79.99% MSA Income)	6,948	597	7,545	92.1%	7.9%	0.95	2.70
MUI (> 80% MSA Income)	21,165	638	21,803	97.1%	2.9%	1.00	1.00
Total	28,113	1,235	29,348	95.8%	4.2%	0.98	2.17

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	2,723	477	17.5%	3.28
Moderate (50-79.99% MSA)	7,561	642	8.5%	1.59
Middle (80-119.99% MSA)	9,497	660	6.9%	1.30
Upper (120% or More MSA)	19,243	1,029	5.3%	1.00
LMI (<79.99% MSA Income)	10,284	1,119	10.9%	1.85
MUI (> 80% MSA Income)	28,740	1,689	5.9%	1.00
Total	39,024	2,808	7.2%	1.35

Table E.8: Home Purchase Single-Family, Owner-Occupant Lending in Suburbs by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	27,193	1,042	28,235	96.7%	84.4%	96.2%	856,035	91.9%	1.05	0.92
50-100% minority	920	193	1,113	3.3%	15.6%	3.8%	75,531	8.1%	0.40	1.93
Total	28,113	1,235	29,348				931,566			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	27,193	1,042	28,235	96.3%	3.7%	1.00	1.00
50-100% minority	920	193	1,113	82.7%	17.3%	0.86	4.70
Total	28,113	1,235	29,348	95.8%	4.2%	0.99	1.14

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	37,310	2,542	6.8%	1.00
50-100% minority	1,714	266	15.5%	2.28
Total	39,024	2,808	7.2%	1.06

Table E.9: Home Purchase Single-Family, Owner-Occupant Lending in Suburbs by Tract Income Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	168	24	192	0.6%	2.4%	0.7%	21,276	2.3%	0.27	1.06
Moderate (50-79.99% MSA)	3,913	252	4,165	14.5%	25.6%	14.9%	86,742	9.4%	1.55	2.73
Middle (80-119.99% MSA)	11,606	419	12,025	43.1%	42.6%	43.1%	330,479	35.8%	1.20	1.19
Upper (120% or More MSA)	11,243	288	11,531	41.7%	29.3%	41.3%	485,124	52.5%	0.80	0.56
LMI (<79.99% MSA Income)	4,081	276	4,357	15.2%	28.1%	15.6%	108,018	11.7%	1.30	2.40
MUI (> 80% MSA Income)	22,849	707	23,556	84.8%	71.9%	84.4%	815,873	88.3%	0.96	0.81
Total	26,930	983	27,913				923,891			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	358	43	401	89.3%	10.7%	0.92	3.62
Moderate (50-79.99% MSA)	4,121	338	4,459	92.4%	7.6%	0.95	2.56
Middle (80-119.99% MSA)	11,863	495	12,358	96.0%	4.0%	0.99	1.35
Upper (120% or More MSA)	11,771	359	12,130	97.0%	3.0%	1.00	1.00
LMI (<79.99% MSA Income)	4,479	381	4,860	92.2%	7.8%	0.95	2.25
MUI (> 80% MSA Income)	23,634	854	24,488	96.5%	3.5%	1.00	1.00
Total	28,113	1,235	29,348	95.8%	4.2%	0.99	1.42

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	603	81	13.4%	2.00
Moderate (50-79.99% MSA)	5,972	530	8.9%	1.32
Middle (80-119.99% MSA)	16,192	1,105	6.8%	1.02
Upper (120% or More MSA)	16,257	1,092	6.7%	1.00
LMI (<79.99% MSA Income)	6,575	611	9.3%	1.37
MUI (> 80% MSA Income)	32,449	2,197	6.8%	1.00
Total	39,024	2,808	7.2%	1.07

Table E.10: Home Purchase Single-Family, Owner-Occupant Lending in Suburbs by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	8,224	424	8,648	31.4%	36.9%	31.6%	159,504	17.1%	1.84	2.16
Female	5,389	377	5,766	20.6%	32.8%	21.1%	261,397	28.0%	0.73	1.17
Joint (Male/Female)	12,592	349	12,941	48.1%	30.3%	47.3%	512,831	54.9%	0.87	0.55
Total	28,113	1,235	29,348				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	8,224	424	8,648	95.1%	4.9%	1.00	1.00
Female	5,389	377	5,766	93.5%	6.5%	0.98	1.33
Joint (Male/Female)	12,592	349	12,941	97.3%	2.7%	1.02	0.55
Total	28,113	1,235	29,348	95.8%	4.2%	1.01	0.86

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	11,725	962	8.2%	1.00
Female	7,753	619	8.0%	0.97
Joint (Male/Female)	16,630	892	5.4%	0.65
Total	39,024	2,808	7.2%	0.88

Table E.11: Refinance Single-Family, Owner-Occupant Lending in Suburbs by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	12,716	212	12,928	89.0%	80.6%	88.9%	789,224	84.5%	1.05	0.95
African American	746	39	785	5.2%	14.8%	5.4%	84,126	9.0%	0.58	1.65
Asian	506	4	510	3.5%	1.5%	3.5%	42,198	4.5%	0.78	0.34
Hispanic	318	8	326	2.2%	3.0%	2.2%	32,260	3.5%	0.64	0.88
Total	16,761	296	17,057				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	12,716	212	12,928	98.4%	1.6%	1.00	1.00
African American	746	39	785	95.0%	5.0%	0.97	3.03
Asian	506	4	510	99.2%	0.8%	1.01	0.48
Hispanic	318	8	326	97.5%	2.5%	0.99	1.50
Total	16,761	296	17,057	98.3%	1.7%	1.00	1.06

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	25,089	4,186	16.7%	1.00
African American	2,275	668	29.4%	1.76
Asian	1,095	187	17.1%	1.02
Hispanic	781	172	22.0%	1.32
Total	34,889	6,492	18.6%	1.12

Table E.12: Refinance Single-Family, Owner-Occupant Lending in Suburbs by Borrower Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	2,339	52	2,391	14.0%	17.6%	14.0%	491,102	52.6%	0.27	0.33
Moderate (50-79.99% MSA)	2,452	62	2,514	14.6%	20.9%	14.7%	187,875	20.1%	0.73	1.04
Middle (80-119.99% MSA)	3,842	83	3,925	22.9%	28.0%	23.0%	243,718	26.1%	0.88	1.07
Upper (120% or More MSA)	8,128	99	8,227	48.5%	33.4%	48.2%	306,195	32.8%	1.48	1.02
LMI (<79.99% MSA Income)	4,791	114	4,905	28.6%	38.5%	28.8%	678,977	72.7%	0.39	0.53
MUI (> 80% MSA Income)	11,970	182	12,152	71.4%	61.5%	71.2%	549,913	58.9%	1.21	1.04
Total	16,761	296	17,057				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	2,339	52	2,391	97.8%	2.2%	0.99	1.81
Moderate (50-79.99% MSA)	2,452	62	2,514	97.5%	2.5%	0.99	2.05
Middle (80-119.99% MSA)	3,842	83	3,925	97.9%	2.1%	0.99	1.76
Upper (120% or More MSA)	8,128	99	8,227	98.8%	1.2%	1.00	1.00
LMI (<79.99% MSA Income)	4,791	114	4,905	97.7%	2.3%	0.99	1.55
MUI (> 80% MSA Income)	11,970	182	12,152	98.5%	1.5%	1.00	1.00
Total	16,761	296	17,057	98.3%	1.7%	0.99	1.44

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	6,316	1,496	23.7%	1.68
Moderate (50-79.99% MSA)	6,116	1,506	24.6%	1.75
Middle (80-119.99% MSA)	7,804	1,430	18.3%	1.30
Upper (120% or More MSA)	14,653	2,060	14.1%	1.00
LMI (<79.99% MSA Income)	12,432	3,002	24.1%	1.55
MUI (> 80% MSA Income)	22,457	3,490	15.5%	1.00
Total	34,889	6,492	18.6%	1.32

Table E.13: Refinance Single-Family, Owner-Occupant Lending in Suburbs by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	16,184	259	16,443	96.6%	87.5%	96.4%	856,035	91.9%	1.05	0.95
50-100% minority	577	37	614	3.4%	12.5%	3.6%	75,531	8.1%	0.42	1.54
Total	16,761	296	17,057				931,566			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	16,184	259	16,443	98.4%	1.6%	1.00	1.00
50-100% minority	577	37	614	94.0%	6.0%	0.95	3.83
Total	16,761	296	17,057	98.3%	1.7%	1.00	1.10

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	32,934	5,902	17.9%	1.00
50-100% minority	1,955	590	30.2%	1.68
Total	34,889	6,492	18.6%	1.04

Table E.14: Refinance Single-Family, Owner-Occupant Lending in Suburbs by Tract Income Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	185	9	194	1.1%	3.0%	1.1%	35,274	3.8%	0.29	0.80
Moderate (50-79.99% MSA)	2,219	68	2,287	13.2%	23.0%	13.4%	93,217	10.0%	1.32	2.30
Middle (80-119.99% MSA)	7,398	136	7,534	44.1%	45.9%	44.2%	354,499	38.1%	1.16	1.21
Upper (120% or More MSA)	6,959	83	7,042	41.5%	28.0%	41.3%	448,576	48.2%	0.86	0.58
LMI (<79.99% MSA Income)	2,404	77	2,481	14.3%	26.0%	14.5%	128,491	13.8%	1.04	1.89
MUI (> 80% MSA Income)	14,357	219	14,576	85.7%	74.0%	85.5%	803,075	86.2%	0.99	0.86
Total	16,761	296	17,057				931,566			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	185	9	194	95.4%	4.6%	0.96	3.94
Moderate (50-79.99% MSA)	2,219	68	2,287	97.0%	3.0%	0.98	2.52
Middle (80-119.99% MSA)	7,398	136	7,534	98.2%	1.8%	0.99	1.53
Upper (120% or More MSA)	6,959	83	7,042	98.8%	1.2%	1.00	1.00
LMI (<79.99% MSA Income)	2,404	77	2,481	96.9%	3.1%	0.98	2.07
MUI (> 80% MSA Income)	14,357	219	14,576	98.5%	1.5%	1.00	1.00
Total	16,761	296	17,057	98.3%	1.7%	0.99	1.47

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	555	159	28.6%	1.63
Moderate (50-79.99% MSA)	5,271	1,169	22.2%	1.27
Middle (80-119.99% MSA)	15,181	2,731	18.0%	1.03
Upper (120% or More MSA)	13,882	2,433	17.5%	1.00
LMI (<79.99% MSA Income)	5,826	1,328	22.8%	1.28
MUI (> 80% MSA Income)	29,063	5,164	17.8%	1.00
Total	34,889	6,492	18.6%	1.06

Table E.15: Refinance Single-Family, Owner-Occupant Lending in Suburbs by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	4,400	84	4,484	29.2%	30.5%	29.2%	159,504	17.1%	1.71	1.79
Female	2,979	80	3,059	19.7%	29.1%	19.9%	261,397	28.0%	0.71	1.04
Joint (Male/Female)	7,710	111	7,821	51.1%	40.4%	50.9%	512,831	54.9%	0.93	0.73
Total	16,761	296	17,057				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	4,400	84	4,484	98.1%	1.9%	1.00	1.00
Female	2,979	80	3,059	97.4%	2.6%	0.99	1.40
Joint (Male/Female)	7,710	111	7,821	98.6%	1.4%	1.00	0.76
Total	16,761	296	17,057	98.3%	1.7%	1.00	0.93

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	10,232	1,962	19.2%	1.00
Female	6,844	1,471	21.5%	1.12
Joint (Male/Female)	14,128	2,174	15.4%	0.80
Total	34,889	6,492	18.6%	0.97

Table E.16: Home Improvement Single-Family, Owner-Occupant Lending in Suburbs by Borrower Race

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	2,925	70	2,995	91.7%	78.7%	91.3%	789,224	84.5%	1.08	0.93
African American	109	15	124	3.4%	16.9%	3.8%	84,126	9.0%	0.38	1.87
Asian	87	1	88	2.7%	1.1%	2.7%	42,198	4.5%	0.60	0.25
Hispanic	70	3	73	2.2%	3.4%	2.2%	32,260	3.5%	0.63	0.98
Total	3,603	110	3,713				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	2,925	70	2,995	97.7%	2.3%	1.00	1.00
African American	109	15	124	87.9%	12.1%	0.90	5.18
Asian	87	1	88	98.9%	1.1%	1.01	0.49
Hispanic	70	3	73	95.9%	4.1%	0.98	1.76
Total	3,603	110	3,713	97.0%	3.0%	0.99	1.27

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	4,683	827	17.7%	1.00
African American	292	119	40.8%	2.31
Asian	171	41	24.0%	1.36
Hispanic	116	24	20.7%	1.17
Total	6,158	1,250	20.3%	1.15

Table E.17: Home Improvement Single-Family, Owner-Occupant Lending in Suburbs by Borrower Income

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	230	14	244	6.4%	12.7%	6.6%	491,102	52.6%	0.12	0.24
Moderate (50-79.99% MSA)	481	20	501	13.3%	18.2%	13.5%	187,875	20.1%	0.66	0.90
Middle (80-119.99% MSA)	766	23	789	21.3%	20.9%	21.2%	243,718	26.1%	0.81	0.80
Upper (120% or More MSA)	2,126	53	2,179	59.0%	48.2%	58.7%	306,195	32.8%	1.80	1.47
LMI (<79.99% MSA Income)	711	34	745	19.7%	30.9%	20.1%	678,977	72.7%	0.27	0.43
MUI (> 80% MSA Income)	2,892	76	2,968	80.3%	69.1%	79.9%	549,913	58.9%	1.36	1.17
Total	3,603	110	3,713				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	230	14	244	94.3%	5.7%	0.97	2.36
Moderate (50-79.99% MSA)	481	20	501	96.0%	4.0%	0.98	1.64
Middle (80-119.99% MSA)	766	23	789	97.1%	2.9%	1.00	1.20
Upper (120% or More MSA)	2,126	53	2,179	97.6%	2.4%	1.00	1.00
LMI (<79.99% MSA Income)	711	34	745	95.4%	4.6%	0.98	1.78
MUI (> 80% MSA Income)	2,892	76	2,968	97.4%	2.6%	1.00	1.00
Total	3,603	110	3,713	97.0%	3.0%	0.99	1.22

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	555	224	40.4%	2.86
Moderate (50-79.99% MSA)	971	277	28.5%	2.02
Middle (80-119.99% MSA)	1,379	290	21.0%	1.49
Upper (120% or More MSA)	3,253	459	14.1%	1.00
LMI (<79.99% MSA Income)	1,526	501	32.8%	2.03
MUI (> 80% MSA Income)	4,632	749	16.2%	1.00
Total	6,158	1,250	20.3%	1.44

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Table E.18: Home Improvement Single-Family, Owner-Occupant Lending in Suburbs by Tract Minority Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL 00HU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	3,515	96	3,611	97.6%	87.3%	97.3%	856,035	91.9%	1.06	0.95
50-100% minority	88	14	102	2.4%	12.7%	2.7%	75,531	8.1%	0.30	1.57
Total	3,603	110	3,713				931,566			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	3,515	96	3,611	97.3%	2.7%	1.00	1.00
50-100% minority	88	14	102	86.3%	13.7%	0.89	5.16
Total	3,603	110	3,713	97.0%	3.0%	1.00	1.11

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	5,868	1,106	18.8%	1.00
50-100% minority	290	144	49.7%	2.63
Total	6,158	1,250	20.3%	1.08

Table E.19: Home Improvement Single-Family, Owner-Occupant Lending in Suburbs by Tract Income Level

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	29	4	33	0.8%	3.6%	0.9%	35,274	3.8%	0.21	0.96
Moderate (50-79.99% MSA)	446	23	469	12.4%	20.9%	12.6%	93,217	10.0%	1.24	2.09
Middle (80-119.99% MSA)	1,673	55	1,728	46.4%	50.0%	46.5%	354,499	38.1%	1.22	1.31
Upper (120% or More MSA)	1,455	28	1,483	40.4%	25.5%	39.9%	448,576	48.2%	0.84	0.53
LMI (<79.99% MSA Income)	475	27	502	13.2%	24.5%	13.5%	128,491	13.8%	0.96	1.78
MUI (> 80% MSA Income)	3,128	83	3,211	86.8%	75.5%	86.5%	803,075	86.2%	1.01	0.88
Total	3,603	110	3,713				931,566			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	29	4	33	87.9%	12.1%	0.90	6.42
Moderate (50-79.99% MSA)	446	23	469	95.1%	4.9%	0.97	2.60
Middle (80-119.99% MSA)	1,673	55	1,728	96.8%	3.2%	0.99	1.69
Upper (120% or More MSA)	1,455	28	1,483	98.1%	1.9%	1.00	1.00
LMI (<79.99% MSA Income)	475	27	502	94.6%	5.4%	0.97	2.08
MUI (> 80% MSA Income)	3,128	83	3,211	97.4%	2.6%	1.00	1.00
Total	3,603	110	3,713	97.0%	3.0%	0.99	1.57

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	82	37	45.1%	2.43
Moderate (50-79.99% MSA)	862	244	28.3%	1.52
Middle (80-119.99% MSA)	2,739	509	18.6%	1.00
Upper (120% or More MSA)	2,475	460	18.6%	1.00
LMI (<79.99% MSA Income)	944	281	29.8%	1.60
MUI (> 80% MSA Income)	5,214	969	18.6%	1.00
Total	6,158	1,250	20.3%	1.09

Table E.20: Home Improvement Single-Family, Owner-Occupant Lending in Suburbs by Borrower Gender

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	762	25	787	22.7%	25.3%	22.8%	159,504	17.1%	1.33	1.48
Female	613	24	637	18.3%	24.2%	18.4%	261,397	28.0%	0.65	0.87
Joint (Male/Female)	1,981	50	2,031	59.0%	50.5%	58.8%	512,831	54.9%	1.07	0.92
Total	3,603	110	3,713				933,732			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	762	25	787	96.8%	3.2%	1.00	1.00
Female	613	24	637	96.2%	3.8%	0.99	1.19
Joint (Male/Female)	1,981	50	2,031	97.5%	2.5%	1.01	0.77
Total	3,603	110	3,713	97.0%	3.0%	1.00	0.93

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	1,519	389	25.6%	1.00
Female	1,130	264	23.4%	0.91
Joint (Male/Female)	2,932	442	15.1%	0.59
Total	6,158	1,250	20.3%	0.79

Table E.21: All Loans by Borrower Race in Baltimore

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	3,266	103	3,369	60.9%	20.2%	57.4%	82,315	0.34	1.79	0.59
African American	1,728	385	2,113	32.2%	75.5%	36.0%	146,415	0.60	0.53	1.25
Asian	195	3	198	3.6%	0.6%	3.4%	6,053	0.02	1.46	0.24
Hispanic	171	19	190	3.2%	3.7%	3.2%	8,163	0.03	0.95	1.11
Total	6,286	573	6,859				242,416			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	3,266	103	3,369	96.9%	3.1%	1.00	1.00
African American	1,728	385	2,113	81.8%	18.2%	0.84	5.96
Asian	195	3	198	98.5%	1.5%	1.02	0.50
Hispanic	171	19	190	90.0%	10.0%	0.93	3.27
Total	6,286	573	6,859	91.6%	8.4%	0.95	2.73

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	4,930	488	9.9%	1.00
African American	4,657	1,151	24.7%	2.50
Asian	295	38	12.9%	1.30
Hispanic	332	57	17.2%	1.73
Total	12,348	2,217	18.0%	1.81

Table E.22: All Loans by Borrower Income in Baltimore

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	912	208	1,120	15.5%	37.1%	17.3%	122,467	50.5%	0.31	0.74
Moderate (50-79.99% MSA)	1,781	210	1,991	30.2%	37.5%	30.8%	50,980	21.0%	1.44	1.78
Middle (80-119.99% MSA)	1,475	102	1,577	25.0%	18.2%	24.4%	24,441	10.1%	2.48	1.81
Upper (120% or More MSA)	1,728	40	1,768	29.3%	7.1%	27.4%	44,528	18.4%	1.60	0.39
LMI (<79.99% MSA Income)	2,693	418	3,111	45.7%	74.6%	48.2%	173,447	71.5%	0.64	1.04
MUI (> 80% MSA Income)	3,203	142	3,345	54.3%	25.4%	51.8%	68,969	28.5%	1.91	0.89
Total	6,286	573	6,859				242,416			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	912	208	1,120	81.4%	18.6%	83.3%	8.21
Moderate (50-79.99% MSA)	1,781	210	1,991	89.5%	10.5%	91.5%	4.66
Middle (80-119.99% MSA)	1,475	102	1,577	93.5%	6.5%	95.7%	2.86
Upper (120% or More MSA)	1,728	40	1,768	97.7%	2.3%	100.0%	1.00
LMI (<79.99% MSA Income)	2,693	418	3,111	86.6%	13.4%	90.4%	3.17
MUI (> 80% MSA Income)	3,203	142	3,345	95.8%	4.2%	100.0%	1.00
Total	6,286	573	6,859	91.6%	8.4%	93.8%	3.69

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	2,683	764	28.5%	2.53
Moderate (50-79.99% MSA)	3,495	620	17.7%	1.57
Middle (80-119.99% MSA)	2,544	365	14.3%	1.27
Upper (120% or More MSA)	2,652	299	11.3%	1.00
LMI (<79.99% MSA Income)	6,178	1,384	22.4%	1.75
MUI (> 80% MSA Income)	5,196	664	12.8%	1.00
Total	12,348	2,217	18.0%	1.59

Table E.23: All Loans by Tract Minority Level in Baltimore

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	3,073	90	3,163	48.9%	15.7%	46.1%	72,888	30.1%	1.62	0.52
50-100% minority	3,213	483	3,696	51.1%	84.3%	53.9%	169,380	69.9%	0.73	1.21
Total	6,286	573	6,859				242,268			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	3,073	90	3,163	97.2%	2.8%	1.00	1.00
50-100% minority	3,213	483	3,696	86.9%	13.1%	0.89	4.59
Total	6,286	573	6,859	91.6%	8.4%	0.94	2.94

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	4,657	477	10.2%	1.00
50-100% minority	7,691	1,740	22.6%	2.21
Total	12,348	2,217	18.0%	1.75

Table E.24: All Loans by Tract Income Level in Baltimore

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	902	151	1,053	14.3%	26.4%	15.4%	86,047	35.5%	0.40	0.74
Moderate (50-79.99% MSA)	2,086	275	2,361	33.2%	48.0%	34.4%	86,747	35.8%	0.93	1.34
Middle (80-119.99% MSA)	1,820	119	1,939	29.0%	20.8%	28.3%	42,505	17.5%	1.65	1.18
Upper (120% or More MSA)	1,478	28	1,506	23.5%	4.9%	22.0%	26,969	11.1%	2.11	0.44
LMI (<79.99% MSA Income)	2,988	426	3,414	47.5%	74.3%	49.8%	172,794	71.3%	0.67	1.04
MUI (> 80% MSA Income)	3,298	147	3,445	52.5%	25.7%	50.2%	69,474	28.7%	1.83	0.89
Total	6,286	573	6,859				242,268			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	902	151	1,053	85.7%	14.3%	0.87	7.71
Moderate (50-79.99% MSA)	2,086	275	2,361	88.4%	11.6%	0.90	6.26
Middle (80-119.99% MSA)	1,820	119	1,939	93.9%	6.1%	0.96	3.30
Upper (120% or More MSA)	1,478	28	1,506	98.1%	1.9%	1.00	1.00
LMI (<79.99% MSA Income)	2,988	426	3,414	87.5%	12.5%	0.91	2.92
MUI (> 80% MSA Income)	3,298	147	3,445	95.7%	4.3%	1.00	1.00
Total	6,286	573	6,859	91.6%	8.4%	0.93	4.49

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	2,315	564	24.4%	2.66
Moderate (50-79.99% MSA)	4,694	1,010	21.5%	2.35
Middle (80-119.99% MSA)	3,175	445	14.0%	1.53
Upper (120% or More MSA)	2,164	198	9.1%	1.00
LMI (<79.99% MSA Income)	7,009	1,574	22.5%	1.86
MUI (> 80% MSA Income)	5,339	643	12.0%	1.00
Total	12,348	2,217	18.0%	1.96

Table E.25: All Loans by Borrower Gender in Baltimore

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	2,078	188	2,266	37.4%	35.0%	37.2%	65,148	26.9%	1.39	1.30
Female	2,077	271	2,348	37.4%	50.5%	38.6%	118,473	48.9%	0.77	1.03
Joint (Male/Female)	1,396	78	1,474	25.1%	14.5%	24.2%	58,795	24.3%	1.04	0.60
Total	6,286	573	6,859				242,416			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	2,078	188	2,266	91.7%	8.3%	1.00	1.00
Female	2,077	271	2,348	88.5%	11.5%	0.96	1.39
Joint (Male/Female)	1,396	78	1,474	94.7%	5.3%	1.03	0.64
Total	6,286	573	6,859	91.6%	8.4%	1.00	1.01

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	4,136	742	17.9%	1.00
Female	4,347	840	19.3%	1.08
Joint (Male/Female)	2,378	310	13.0%	0.73
Total	12,348	2,217	18.0%	1.00

Table E.26: All Loans by Borrower Race in Detroit

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	524	45	569	42.2%	18.7%	38.4%	35,764	13.9%	3.03	1.34
African American	649	188	837	52.3%	78.0%	56.4%	208,170	81.0%	0.65	0.96
Asian	30	1	31	2.4%	0.4%	2.1%	2,766	1.1%	2.24	0.39
Hispanic	39	7	46	3.1%	2.9%	3.1%	13,227	5.1%	0.61	0.56
Total	1,485	266	1,751				256,985			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	524	45	569	92.1%	7.9%	1.00	1.00
African American	649	188	837	77.5%	22.5%	0.84	2.84
Asian	30	1	31	96.8%	3.2%	1.05	0.41
Hispanic	39	7	46	84.8%	15.2%	0.92	1.92
Total	1,485	266	1,751	84.8%	15.2%	0.92	1.92

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	969	171	17.6%	1.00
African American	2,226	797	35.8%	2.03
Asian	56	12	21.4%	1.21
Hispanic	110	36	32.7%	1.85
Total	4,108	1,325	32.3%	1.83

Table E.27: All Loans by Borrower Income in Detroit

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	207	56	263	14.6%	21.6%	15.7%	169,174	65.8%	0.22	0.33
Moderate (50-79.99% MSA)	328	93	421	23.1%	35.9%	25.1%	37,827	14.7%	1.57	2.44
Middle (80-119.99% MSA)	360	66	426	25.4%	25.5%	25.4%	33,445	13.0%	1.95	1.96
Upper (120% or More MSA)	525	44	569	37.0%	17.0%	33.9%	16,539	6.4%	5.74	2.64
LMI (<79.99% MSA Income)	535	149	684	37.7%	57.5%	40.7%	207,001	80.5%	0.47	0.71
MUI (> 80% MSA Income)	885	110	995	62.3%	42.5%	59.3%	49,984	19.5%	3.20	2.18
Total	1,485	266	1,751				256,985			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	207	56	263	78.7%	21.3%	0.85	2.75
Moderate (50-79.99% MSA)	328	93	421	77.9%	22.1%	0.84	2.86
Middle (80-119.99% MSA)	360	66	426	84.5%	15.5%	0.92	2.00
Upper (120% or More MSA)	525	44	569	92.3%	7.7%	1.00	1.00
LMI (<79.99% MSA Income)	535	149	684	78.2%	21.8%	0.88	1.97
MUI (> 80% MSA Income)	885	110	995	88.9%	11.1%	1.00	1.00
Total	1,485	266	1,751	84.8%	15.2%	0.92	1.96

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	843	372	44.1%	2.12
Moderate (50-79.99% MSA)	1,068	386	36.1%	1.73
Middle (80-119.99% MSA)	928	291	31.4%	1.50
Upper (120% or More MSA)	1,017	212	20.8%	1.00
LMI (<79.99% MSA Income)	1,911	758	39.7%	1.53
MUI (> 80% MSA Income)	1,945	503	25.9%	1.00
Total	4,108	1,325	32.3%	1.55

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Table E.28: All Loans by Tract Minority Level in Detroit

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	1	1	2	0.1%	0.4%	0.1%	1,774	1.2%	0.05	0.31
50-100% minority	1,484	265	1,749	99.9%	99.6%	99.9%	142,492	98.8%	1.01	1.01
Total	1,485	266	1,751				144,266			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	1	1	2	50.0%	50.0%	1.00	1.00
50-100% minority	1,484	265	1,749	84.8%	15.2%	1.70	0.30
Total	1,485	266	1,751	84.8%	15.2%	1.70	0.30

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	10	6	60.0%	1.00
50-100% minority	4,098	1,319	32.2%	0.54
Total	4,108	1,325	32.3%	0.54

Table E.29: All Loans by Tract Income Level in Detroit

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	228	33	261	15.4%	12.4%	14.9%	156,735	61.3%	0.25	0.20
Moderate (50-79.99% MSA)	514	113	627	34.6%	42.5%	35.8%	79,796	31.2%	1.11	1.36
Middle (80-119.99% MSA)	421	102	523	28.4%	38.3%	29.9%	13,951	5.5%	5.19	7.03
Upper (120% or More MSA)	322	18	340	21.7%	6.8%	19.4%	5,111	2.0%	10.84	3.38
LMI (<79.99% MSA Income)	742	146	888	50.0%	54.9%	50.7%	236,531	92.5%	0.54	0.59
MUI (> 80% MSA Income)	743	120	863	50.0%	45.1%	49.3%	19,062	7.5%	6.71	6.05
Total	1,485	266	1,751				255,593			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	228	33	261	87.4%	12.6%	0.92	2.39
Moderate (50-79.99% MSA)	514	113	627	82.0%	18.0%	0.87	3.40
Middle (80-119.99% MSA)	421	102	523	80.5%	19.5%	0.85	3.68
Upper (120% or More MSA)	322	18	340	94.7%	5.3%	1.00	1.00
LMI (<79.99% MSA Income)	742	146	888	83.6%	16.4%	0.97	1.18
MUI (> 80% MSA Income)	743	120	863	86.1%	13.9%	1.00	1.00
Total	1,485	266	1,751	84.8%	15.2%	0.90	2.87

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	739	282	38.2%	1.52
Moderate (50-79.99% MSA)	1,650	588	35.6%	1.42
Middle (80-119.99% MSA)	1,068	292	27.3%	1.09
Upper (120% or More MSA)	651	163	25.0%	1.00
LMI (<79.99% MSA Income)	2,389	870	36.4%	1.38
MUI (> 80% MSA Income)	1,719	455	26.5%	1.00
Total	4,108	1,325	32.3%	1.29

Table E.30: All Loans by Borrower Gender in Detroit

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	549	97	646	42.2%	39.6%	41.8%	74,316	28.9%	1.46	1.37
Female	523	115	638	40.2%	46.9%	41.3%	130,538	50.8%	0.79	0.92
Joint (Male/Female)	229	33	262	17.6%	13.5%	16.9%	52,131	20.3%	0.87	0.66
Total	1,485	266	1,751				256,985			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	549	97	646	85.0%	15.0%	1.00	1.00
Female	523	115	638	82.0%	18.0%	0.96	1.20
Joint (Male/Female)	229	33	262	87.4%	12.6%	1.03	0.84
Total	1,485	266	1,751	84.8%	15.2%	1.00	1.01

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	1,497	467	31.2%	1.00
Female	1,517	490	32.3%	1.04
Joint (Male/Female)	548	155	28.3%	0.91
Total	4,108	1,325	32.3%	1.03

Table E.31: All Loans by Borrower Race in Pittsburgh

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	3,020	125	3,145	86.6%	73.5%	86.0%	91,920	69.2%	1.25	1.06
African American	269	39	308	7.7%	22.9%	8.4%	30,759	23.2%	0.33	0.99
Asian	148	2	150	4.2%	1.2%	4.1%	6,645	5.0%	0.85	0.24
Hispanic	52	4	56	1.5%	2.4%	1.5%	2,876	2.2%	0.69	1.09
Total	3,887	189	4,076				132,802			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	3,020	125	3,145	96.0%	4.0%	1.00	1.00
African American	269	39	308	87.3%	12.7%	0.91	3.19
Asian	148	2	150	98.7%	1.3%	1.03	0.34
Hispanic	52	4	56	92.9%	7.1%	0.97	1.80
Total	3,887	189	4,076	95.4%	4.6%	0.99	1.17

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	4,593	575	12.5%	1.00
African American	667	202	30.3%	2.42
Asian	231	26	11.3%	0.90
Hispanic	88	10	11.4%	0.91
Total	6,398	1,010	15.8%	1.26

Table E.32: All Loans by Borrower Income in Pittsburgh

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	455	36	491	12.0%	19.4%	12.3%	63,437	47.8%	0.25	0.41
Moderate (50-79.99% MSA)	942	72	1,014	24.8%	38.7%	25.4%	20,771	15.6%	1.59	2.47
Middle (80-119.99% MSA)	851	45	896	22.4%	24.2%	22.5%	25,083	18.9%	1.19	1.28
Upper (120% or More MSA)	1,551	33	1,584	40.8%	17.7%	39.7%	23,511	17.7%	2.31	1.00
LMI (<79.99% MSA Income)	1,397	108	1,505	36.8%	58.1%	37.8%	84,208	63.4%	0.58	0.92
MUI (> 80% MSA Income)	2,402	78	2,480	63.2%	41.9%	62.2%	48,594	36.6%	1.73	1.15
Total	3,887	189	4,076				132,802			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	455	36	491	92.7%	7.3%	0.95	3.52
Moderate (50-79.99% MSA)	942	72	1,014	92.9%	7.1%	0.95	3.41
Middle (80-119.99% MSA)	851	45	896	95.0%	5.0%	0.97	2.41
Upper (120% or More MSA)	1,551	33	1,584	97.9%	2.1%	1.00	1.00
LMI (<79.99% MSA Income)	1,397	108	1,505	92.8%	7.2%	0.96	2.28
MUI (> 80% MSA Income)	2,402	78	2,480	96.9%	3.1%	1.00	1.00
Total	3,887	189	4,076	95.4%	4.6%	0.97	2.23

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	1,018	293	28.8%	2.94
Moderate (50-79.99% MSA)	1,614	271	16.8%	1.72
Middle (80-119.99% MSA)	1,339	188	14.0%	1.43
Upper (120% or More MSA)	2,217	217	9.8%	1.00
LMI (<79.99% MSA Income)	2,632	564	21.4%	1.88
MUI (> 80% MSA Income)	3,556	405	11.4%	1.00
Total	6,398	1,010	15.8%	1.61

Table E.33: All Loans by Tract Minority Level in Pittsburgh

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	3,473	149	3,622	89.4%	78.8%	88.9%	104,997	78.4%	1.14	1.01
50-100% minority	411	40	451	10.6%	21.2%	11.1%	28,936	21.6%	0.49	0.98
Total	3,887	189	4,076				133,933			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	3,473	149	3,622	95.9%	4.1%	1.00	1.00
50-100% minority	411	40	451	91.1%	8.9%	0.95	2.16
Total	3,887	189	4,076	95.4%	4.6%	0.99	1.13

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	5,506	772	14.0%	1.00
50-100% minority	888	237	26.7%	1.90
Total	6,398	1,010	15.8%	1.13

Table E.34: All Loans by Tract Income Level in Pittsburgh

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO 00HU SHARE RATIO
Low (<50% MSA)	229	21	250	5.9%	11.1%	6.1%	22,058	16.5%	0.36	0.67
Moderate (50-79.99% MSA)	975	81	1,056	25.1%	42.9%	25.9%	42,574	31.8%	0.79	1.35
Middle (80-119.99% MSA)	1,786	76	1,862	45.9%	40.2%	45.7%	4,373	3.3%	14.07	12.32
Upper (120% or More MSA)	897	11	908	23.1%	5.8%	22.3%	25,628	19.1%	1.21	0.30
LMI (<79.99% MSA Income)	1,204	102	1,306	31.0%	54.0%	32.0%	64,632	48.3%	0.64	1.12
MUI (> 80% MSA Income)	2,683	87	2,770	69.0%	46.0%	68.0%	69,301	51.7%	1.33	0.89
Total	3,887	189	4,076				133,933			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	229	21	250	91.6%	8.4%	0.93	6.93
Moderate (50-79.99% MSA)	975	81	1,056	92.3%	7.7%	0.93	6.33
Middle (80-119.99% MSA)	1,786	76	1,862	95.9%	4.1%	0.97	3.37
Upper (120% or More MSA)	897	11	908	98.8%	1.2%	1.00	1.00
LMI (<79.99% MSA Income)	1,204	102	1,306	92.2%	7.8%	0.95	2.49
MUI (> 80% MSA Income)	2,683	87	2,770	96.9%	3.1%	1.00	1.00
Total	3,887	189	4,076	95.4%	4.6%	0.97	3.83

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	479	137	28.6%	2.55
Moderate (50-79.99% MSA)	1,779	347	19.5%	1.74
Middle (80-119.99% MSA)	2,803	376	13.4%	1.20
Upper (120% or More MSA)	1,337	150	11.2%	1.00
LMI (<79.99% MSA Income)	2,258	484	21.4%	1.69
MUI (> 80% MSA Income)	4,140	526	12.7%	1.00
Total	6,398	1,010	15.8%	1.41

Table E.35: All Loans by Borrower Gender in Pittsburgh

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	1,327	87	1,414	37.4%	50.9%	38.0%	39,364	29.6%	1.26	1.72
Female	1,016	40	1,056	28.6%	23.4%	28.4%	55,896	42.1%	0.68	0.56
Joint (Male/Female)	1,205	44	1,249	34.0%	25.7%	33.6%	37,542	28.3%	1.20	0.91
Total	3,887	189	4,076				132,802			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	1,327	87	1,414	93.8%	6.2%	1.00	1.00
Female	1,016	40	1,056	96.2%	3.8%	1.03	0.62
Joint (Male/Female)	1,205	44	1,249	96.5%	3.5%	1.03	0.57
Total	3,887	189	4,076	95.4%	4.6%	1.02	0.75

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	2,296	380	16.6%	1.00
Female	1,658	280	16.9%	1.02
Joint (Male/Female)	1,776	205	11.5%	0.70
Total	6,398	1,010	15.8%	0.95



TECHNICAL APPENDIX F ECONOMETRIC ANALYSIS OF DISPARITIES IN HOME LENDING

Technical Appendix F Summary

We examined lending transactions and residential data to determine if discriminatory practices might exist, and if the subset of Philadelphia depositories differs from the entire sample of lenders. In other words, does the data indicate practices of racial or ethnic discrimination by all lenders and/or by City depositories? We thus consider 1) denial rates by loan type, and 2) less-favorable lending terms (e.g. subprime versus prime loans).

Our regression analysis controlled for factors that were likely to influence lending decisions, but was constrained by the lack of potentially explanatory data such as borrowers' credit score, wealth, and existing debt load. Still, the existing information indicates the following statistically significant results:

- The current model revealed that African American applicants were 6.8 percent more likely to be denied a home purchase loan from a Philadelphia depository during 2017 compared to the universe of all lenders; this rate remains unchanged from 2016. Hispanic applicants were 1.1 percent more likely to be denied by a Philadelphia depository in 2017, versus 5.7 percent in 2016. Once again, it is important to note that we do not have access to credit scores or other personal information that banks use to assess risk. Yet these trends do indicate some differences between the Philadelphia depositories and the entire universe of lenders in Philadelphia based on race and ethnicity.
- The analysis from 2017 suggests that Hispanic applicants are 10.8 percent more likely to be denied refinancing from City depositories than from the universe of all lenders. Similarly, African American applicants were 11.7 percent more likely to be denied refinancing of a loan, compared to 14.2 percent more likely in 2016. Asian applicants were 7.3 percent more likely to be denied a home refinance loan at a depository compared to the universe of all lenders in Philadelphia.

F.1 Purpose

This section analyzes fair lending practices among City depositories and the entire universe of lenders within Philadelphia. We examine a combination of statistical data of banking information and residential information from the census to assess (1) if discriminatory practices exist, and if the subset of City depositories differs from the entire sample of lenders, and (2) if so, to recommend public policies to eliminate the discrimination, as required by federal, state, and local legislation.

We first examine the universe of all lenders, and then turn to analyzing the data for the depositories. Note that the specific City legislation requires an analysis of City depositories to assess whether they comply with practices of fair lending, yet other institutions besides these authorized depositories originate the majority (about 88 percent) of residential loans.

The central focus of this analysis addresses the following question: does the data indicate practices of racial or ethnic discrimination by regulated mortgage lenders (and the subset of lenders who were also City depositories) within the City of Philadelphia for home purchase, refinancing, or home improvement loans? The analysis of discrimination in the access to credit considers (1) denial rates, by type of loan application (home purchase, home improvement, and refinancing), and (2) less-favorable lending terms (e.g. subprime verses prime loans).

The City's fair lending legislation requires an assessment of discriminatory lending practices by banks. Our analysis indicates statistically significant disparities across the racial and ethnic characteristics of borrowers, yet notable differences exist between City depositories and the overall sample of lenders, which indicate more favorable conditions among the City depositories regarding home purchase loans.

While our regression analysis controlled for factors that were likely to influence lending decisions, it was unfortunately constrained by the lack of potentially explanatory data. For instance, the analysis did not contain data on the borrower's (1) credit rating score and (2) wealth and existing debt load. If these data were included in the analysis, the existing gap among different racial and ethnic groups might shrink or disappear completely. Still, the existing information indicates a statistically significant negative effect associated with race and ethnicity, which warrants concern and additional examination.

F.2 Data Sources

This study uses 2017 (calendar year) mortgage application data collected under the Home Mortgage Disclosure Act for the City of Philadelphia.³⁸ A total of 33,485 loan applications for owner occupied homes were used in this analysis. Of these, 9,224 were loan applications to one of the City depositories. In addition to loan-specific data, this analysis also utilizes data at the census tract level on median home values and vacancy rates obtained from the Census 2012-2016 American Community Survey, and various tract level data from HUD.

³⁸ This is the same data source (HMDA) used in the previous lending disparity reports, as described in Section 1.

F.3 Model Specification and Methodology

We model the lender's decisions on whether to offer or deny a loan by type of loan (home purchase, home improvement, and refinancing). Additionally, within the sample of loans granted we analyzed whether there were discriminatory practices within the terms of the loan offered through an analysis of prime or subprime loans. As both the dependent variables were binary (loan denied=0, 1 sub-prime=0, 1) we employed a binary logistic regression model to bound the interval between 0 and 1. The independent variables include both neighborhood and individual-level characteristics, as well as characteristics of the loan requested and dummy variables for the particular lender.

F.3.1 The Dependent Variables

The dependent variables for this analysis include loan denial rates and subprime vs. prime loan approvals.

- The first dependent variable in this study was a dichotomous variable, defined as whether or not an applicant was denied approval of a (1) home purchase loan, (2) home improvement loan, or (3) a refinancing loan. If the applicant was approved for a loan the dependent variable assumes a value of zero (0) and if the application was denied a loan the dependent variable assumes a value of one (1).
- The second dependent variable examines the terms of the loan, solely for home purchase loans. The variable was assigned a value of 1 if the offer was a subprime loan and a value of 0 if it was not subprime.

F.3.2 The Independent Variables

We included independent variables in the model to control for factors that were likely to influence the lending decision. Individual-level characteristics include gender, log of annual income, and race (African American, Asian, Hispanic, or Missing) with non-Hispanic Whites as the reference category. Neighborhood characteristics include: tract-level information on the median level of income (as a percentage of median income in the entire City), and the vacancy rate of unoccupied homes; one specification of the model also includes a variable for percent of minority within the census tract. Loan characteristics include: the amount of the loan (logged), and whether it was a conventional or FHA loan. An additional variable measures the loan-to-value ratio as a measure of the amount of loan requested divided by the median home value in the census tract. The following is a bulleted list of all variables:

Individual Characteristics

- Gender
- Race or Ethnicity
- Applicant income (logged)

Neighborhood Characteristics

- Median income of the census tract (as percent median income of City)
- Vacancy rates by census tract
- Percentage minority

Loan Characteristics

- Type of loan (Conventional or FHA)
- Amount of loan (logged)
- Dummy variables by lender
- Loan-to-Value Ratio (loan amount relative to median home value in the census tract)

We also include an interaction term to examine lending practices toward African American males and females separately. Several potential control variables were missing from this model due to the limitations of the HMDA data. These include an applicant's credit history, wealth, and existing assets.

Credit histories are crucial factors that banks use to assess risk. Additionally, there is a strong possibility that credit scores may be correlated with race and ethnicity. Without this information, we cannot fully assess whether the banks made discriminatory decisions. We can, however, compare the practices of the City depositories with the universe of all lenders. Additionally we can compare the 2017 data with the previous year to analyze if any changes have taken place.

Additionally, while the dataset does not contain information on the interest rate associated with loans granted, we estimate the potential for discriminatory practices in interest rates by using a proxy for whether loans were granted as prime or subprime rate.

F.4 Findings: All Lender Sample

F.4.1 All Lenders: Home Purchase Loans

The estimated coefficients and standard errors from the full sample are shown in Appendix 1 Table 1. African Americans have a 6.8 percent greater probability of being denied a home purchase loan than non-Hispanic Whites; this rate remained the same compared to 2016. Similarly to years past, individuals applying for greater loan amounts had a lower likelihood of being denied a loan.

(See Technical Appendix G.1)

F.4.2 All Lenders: Red-Lining

Red-lining relates to discriminatory practices based on geographic rather than individual characteristics, whereby lenders exhibit a pattern of avoiding loans in specific geographic areas. Our analysis of red-lining behavior incorporates a variable that captures the minority population share at the census tract level. Similar to 2014, 2015, and 2016, while the variable on percent of minority population was significant, the impact was so marginal (less than 0.1 percent) that these data do not support the hypothesis of red-lining behavior.

(See Technical Appendix G.2)

F.4.3 All Lenders: Prime and Subprime Loans

The next section of the analysis examines whether, when granted a loan, discriminatory practices exist regarding the terms of the loan. The model performs a binary logistic regression model analyzing the likelihood of being granted a prime or a subprime loan. This model tests whether, with everything else being equal, racial or ethnic groups were offered a disproportionately high number of subprime home purchase mortgages. The table reveals that, when offered a loan, Asian borrowers are slightly less likely, while Black and Hispanic borrowers are slightly more likely to receive a subprime loan compared to non-Hispanic White borrowers. Although the findings for Asian borrowers were not statistically significant, the Hispanic borrower and the Black borrower variables were significant, suggesting that Hispanic borrowers are 3.4 percent more likely to receive a subprime loan compared to non-Hispanic white borrowers and Black borrowers are 2.8 percent more likely to receive a subprime loan compared to White borrowers.

(See Technical Appendix G.3)

F.4.4 All Lenders: Refinancing

As the conditions and circumstances for home purchase, home improvement, and refinancing vary greatly, these loan types were analyzed separately. The following model considers loans for refinancing. The results show that African Americans were denied loans for refinancing 11.7 percent more frequently than Whites (compared to 14.2 percent more frequently in 2016), while Hispanics and Asians were denied loans less frequently at 10.8 percent and 7.3 percent, respectively (compared to 11.7 percent and 7.7 percent, respectively, in 2016).

(See Technical Appendix G.4)

F.4.5 All Lenders: Home Improvement Loans

We have also examined the patterns of loan approvals and denials for home improvement loans. In the case of home improvement loans, African American applicants were denied loans 17.5 percent more frequently (compared to 13.4 percent more frequently in 2016) and Hispanic applicants were denied loans 13.1 percent more frequently than non-Hispanic White applicants (compared to 16.3 percent more frequently in 2016). In 2017, Asian applicants were denied loans 20.7 percent more frequently than non-Hispanic White applicants. This rate is higher compared to 11.2 percent more frequently in 2016; this is the first time that Asian applicants were more likely to be denied compared to African American and Hispanic applicants. Home Improvement loans have typically had high denial rates for non-White racial and ethnic groups.

(See Technical Appendix G.5)

F.5 Findings: Depository Sample

F.5.1 Depository Sample: Home Purchase Loans

The next section of the report analyzes Philadelphia depositories separately. This model shows that African Americans within the sample were 0.9 percent less likely to be denied a home purchase loan at a Philadelphia depository than they were in the universe of all lenders in the sample, while Hispanics were 0.7 percent more likely to be denied.

(See Technical Appendix G.6)

F.5.2 Depository Sample: Red-Lining

We used the same sample to test whether or not these lenders engaged in systematic red-lining. The variables for race were replaced with a variable that captures the minority population share at the census tract level. Similar to the past five years of this study, the estimated coefficient for this variable was significant but the coefficient was very small (less than 0.1 percent).

(See Technical Appendix G.7)

F.5.3 Depository Sample: Prime and Subprime Loans

The next section of the analysis examines whether, when granted a loan, discriminatory practices exist regarding the terms of the loan. The model performs a binary logistic regression model analyzing the likelihood of being granted a prime or a subprime loan. This model tests whether, with everything else being equal, racial or ethnic groups were offered a disproportionately high number of subprime home purchase mortgages. The model for prime and subprime loans reveals that 8 subprime loans were offered to Hispanic borrowers and 4 subprime loans were offered to Asian borrowers in 2017. In 2016, while 17 subprime loans were offered to Hispanics and 4 subprime loans were offered to Asian borrowers from a Philadelphia depository. African American borrowers were marginally less likely than non-Hispanic white borrowers to receive a subprime loan. However, this finding was not statistically significant. (See Technical Appendix G.8)

F.5.4 Depository Sample: Refinancing Loans

The analysis on refinancing loans also suggests discriminatory practices were less common among the Philadelphia depositories than they were in the universe of all lenders. In the analysis of all other lenders, we found that African Americans were denied loans for refinancing 12.4 percent more frequently, while Hispanics were denied loans 11.1 percent more frequently. Among the Philadelphia depositories African Americans were 3.1 percent less likely to be denied a loan than they were among all lenders, while Hispanics were 1.7 percent less likely to be denied a loan relative to all lenders. However, these results for depository versus the entire universe of lenders were not significant.

(See Technical Appendix G.9)

F.5.5 Depository Sample: Home Improvement Loans

The analysis on home improvement loans suggests discriminatory practices among the Philadelphia depositories were different than the universe of all lenders in the racial categories. Among the Philadelphia depositories, African American applicants were 8.0 percent less likely to be denied a loan than they were among all lenders, while Hispanic applicants were 16.2 percent less likely to be denied a loan by a Philadelphia depository than among all lenders.

(See Technical Appendix G.10)

F.6 Comparison with Previous Year Analysis (2016)

The results from an identical analysis based on data for the universe of all lenders from 2016 reveal largely similar trends. The results for the Philadelphia depositories are not always directly comparable from year to year because the list of depositories often changes. From 2016 to 2017, the list of depositories did not change so a direct comparison can be made.

The current model revealed that African American applicants were 0.9 percent less likely to be denied a home purchase loan from a Philadelphia depository during 2017 compared with all lenders, while in 2016 African American applicants were 0.3 percent more likely to be denied by City depositories compared to the universe of all lenders. Hispanic applicants were 0.7 percent more likely to be denied by a Philadelphia depository in 2017, versus 5.7 percent in 2016. Once again, it is important to note that we do not have access to credit scores or other personal information that banks use to assess risk. Yet these trends do indicate some differences between the Philadelphia depositories and the entire universe of lenders in Philadelphia based on race and ethnicity.

The analysis from 2017 suggests that Hispanic applicants are 11.1 percent more likely to be denied refinancing from City depositories than from the universe of all lenders. In 2017, African American applicants were 3.1 percent less likely to be denied refinancing from a depository than they were from the universe of all lenders. In the universe of all lenders, African American applicants were 12.4 percent more likely to be denied refinancing of a loan, compared to 15.3 percent more likely in 2016. Hispanic applicants were 1.7 percent less likely to be denied a home refinance loan at a depository compared to the universe of all lenders in Philadelphia.

In conclusion, the data suggest that discriminatory practices existed in the sample of all lenders in all three types of loans: home purchase, refinancing and home improvement. Within the sample of Philadelphia depositories, it appears Hispanic applicants experienced less discrimination for home refinance loans, but experienced more discrimination for home purchase loans. There is also evidence to suggest that with growing populations of Hispanic and Asian applicants, these racial and ethnic groups are also beginning to experience more pronounced statistically significant discriminatory practices in the home lending market.



TECHNICAL APPENDIX G TABULAR DETAIL OF ECONOMETRIC ANALYSIS OF DISPARITIES IN HOME LENDING

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Table G.1: All Lenders - Home Purchase Loans

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFIDE	NCE INTERVAL
Race (Reference = White)						
black	0.743***	0.129	5.746	9.12e-09	0.489	0.996
Asian	0.202	0.147	1.374	0.169	-0.086	0.49
Hispanic	0.139	0.159	0.875	0.381	-0.173	0.451
missing_race	0.311**	0.141	2.209	0.0272	0.0351	0.587
Gender (Reference = Female)						
Male	0.0724	0.0971	0.745	0.456	-0.118	0.263
missing_gender	0.572***	0.180	3.181	0.00147	0.22	0.924
black_male	-0.000912	0.162	-0.00561	0.996	-0.319	0.317
vacancy_rate	0.545	0.625	0.872	0.383	-680	1.77
tract_pct_medfamilyincome	0.00171*	0.000935	1.830	0.0673	-1.22E-04	-0.00354
ln_loan_amt	-0.179*	0.0963	-1.857	0.0632	-0.367	0.00986
ln_income	-0.533***	0.0769	-6.932	0	-0.684	-0.382
conventional_loan	-0.179	0.180	-0.994	0.320	-0.531	0.174
fha_loan	-0.182	0.181	-1.002	0.316	-0.537	0.174
loan_2_value	0.00737	0.00456	1.617	0.106	-0.00157	0.0163
Constant	0.450	0.443	1.014	0.310	-0.419	1.318

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Dependent Varibale: Denial

Number of Observations =	9,224
LR chi2(14) =	260.41
Prob > chi2 =	0.0000
Log likelihood =	-2728.862
Psuedo R2 =	0.0455

test black black_male

- (1) black = 0
- (2) black_male = 0 chi2(2) = 52.96 Prob > chi2 = 0.0000

 $\begin{aligned} & \text{Marginal effects after logit} \\ & y = \text{Pr(Denial) (predict)} \\ & = 0.08243124 \end{aligned}$

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFIDENCE LEVEL		Х
Race (Reference = White)							
Black*	0.0682581	0.0141	4.84	0	0.040631	0.095886	0.195794
Asian*	0.0163918	0.01276	1.28	0.199	-0.008626	0.041409	0.0799
Hispanic*	0.0110916	0.01331	0.83	0.405	-0.014993	0.037176	0.064831
Missing Race*	0.0258521	0.01278	2.02	0.043	0.000813	0.050891	0.14343
Gender (Reference = Female)							
Male*	0.0054674	0.00732	0.75	0.455	-0.008884	0.019819	0.529055
Missing Gender*	0.0532869	0.02018	2.64	0.008	0.013742	0.092832	0.064831
Black Male*	-0.000069	0.01228	-0.01	0.996	-0.024134	0.023997	0.084454
Vacancy Rate	0.0412385	0.04727	0.87	0.383	-0.051417	0.133894	0.125689
Tract Percent of Median Income	0.0001294	0.00007	1.83	0.067	-9.10E-06	0.000268	117.039
Log (Loan Amount)	-0.0135229	0.00727	-1.86	0.063	-0.027775	0.000729	5.36653
Log (Income)	-0.0403353	0.00572	-7.06	0	-0.051539	-0.029132	4.35998
Conventional Loan*	-0.0139107	0.01439	-0.97	0.334	-0.042109	0.014287	0.684627
FHA Loan*	-0.0133088	0.01285	-1.04	0.3	-0.038492	0.011874	0.279271
Loan to Value Ratio	0.0005575	0.00034	1.62	0.106	-0.000118	0.001232	5.3071

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.2: All Lenders - Home Purchase Loans Test for Redlining

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFIDI	ENCE INTERVAL
Percent Minority Population	0.00722***	0.00150	4.822	1.42e-06	0.00428	0.0102
Male	0.0365	0.0782	0.467	0.640	-0.117	0.19
Missing Gender	0.601***	0.135	4.465	8.00e-06	0.337	0.865
Vacancy Rate	-0.186	0.634	-0.293	0.769	-1.428	1.057
Tract Percent of Median Income	0.00296***	0.000974	3.042	0.00235	0.00105	0.00487
Log (Loan Amount)	-0.230**	0.0949	-2.418	0.0156	-0.416	-0.0435
Log (Income	-0.526***	0.0759	-6.922	0	-0.674	-0.377
Conventional Loan	-0.311*	0.177	-1.761	0.0782	-0.658	0.0351
FHA Loan	-0.190	0.181	-1.053	0.293	-0.545	0.164
Loan to Value Ratio	0.00694	0.00454	1.529	0.126	-0.00196	0.0158
Constant	0.607	0.445	1.364	0.173	-0.266	1.48

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Dependent Varibale: Denial

 Number of Observations =
 9224

 LR chi2(10) =
 227.94

 Prob > chi2 =
 0.0000

 Log likelihood =
 -2745.0938

 Psuedo R2 =
 0.0399

Marginal effects after logit y = Pr(Denial) (predict) = 0.08369132

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFII	DENCE LEVEL	Х
Percent Minority Population	0.0005535	0.00011	4.85	0	0.00033	0.000777	51.2714
Male*	0.0027988	0.00599	0.47	0.64	-0.008934	0.014531	0.529055
Missing Gender*	0.057391	0.01556	3.69	0	0.026889	0.087893	0.064831
Vacancy Rate	-0.0142518	0.04861	-0.29	0.769	-0.109525	0.081022	0.125689
Tract Percent of Median Income	0.0002273	0.00007	3.05	0.002	0.000081	0.000373	117.039
Log (Loan Amount)	-0.0175999	0.00726	-2.42	0.015	-0.031834	-0.003366	5.36653
Log (Income	-0.0403056	0.00572	-7.05	0	-0.051516	-0.029095	4.35998
Conventional Loan*	-0.0250805	0.01496	-1.68	0.094	-0.054397	0.004236	0.684627
FHA Load*	-0.0141031	0.01295	-1.09	0.276	-0.039476	0.01127	0.279271
Loan to Value Ratio	0.0005325	0.00035	1.53	0.126	-0.000149	0.001214	5.3071

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.3: All Lenders - Home Purchase Loans by Prime and Subprime

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFIDE	ENCE INTERVAL
Race (Reference = White)						
Black	0.876***	0.168	5.216	1.83e-07	0.547	1.205
Asian	-0.239	0.313	-0.762	0.446	-0.852	0.375
Hispanic	0.921***	0.173	5.314	1.07e-07	0.582	1.261
Missing Race	0.384*	0.211	1.822	0.0685	-0.0292	0.798
Gender (Reference = Female)						
Male	0.106	0.142	0.745	0.456	-0.172	0.383
Missing Gender	-0.334	0.318	-1.052	0.293	-0.957	0.288
Black Male	-0.247	0.202	-1.224	0.221	-0.643	0.149
Vacancy Rate	-0.730	0.852	-0.856	0.392	-2.399	0.94
Tract Percent of Median Income	-0.00114	0.00163	-0.700	0.484	-0.00434	0.00206
Log (Loan Amount)	-0.892***	0.134	-6.650	0	-1.155	-0.629
Log (Income)	0.495***	0.112	4.441	8.97e-06	0.277	0.714
Conventional Loan	-2.047***	0.135	-15.14	0	-2.312	-1.782
Loan to Value Ratio	0.0160***	0.00581	2.752	0.00592	0.0046	0.0274
Constant	0.225	0.566	0.397	0.691	-0.885	1.335

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Dependent Varibale: Subprime

Number of Observations =	9224
LR chi2(13) =	729.95
Prob > chi2 =	0.0000
Log likelihood =	-1564.3753
Psuedo R2 =	0.1892

test black black_male

- (1) black = 0
- (2) black_male = 0 chi2(2) = 33.65 Prob > chi2 = 0.0080 . mfx

. 11111

Marginal effects after logit

y = Pr(Subprime) (predict)

= 0.02496322

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFIDENCE LEVEL		Х
Race (Reference = White)							
Black	0.0281292	0.00706	3.98	0	0.014293	0.041965	0.195794
Asian	-0.0052918	0.00629	-0.84	0.4	-0.017621	0.007038	0.0799
Hispanic	0.0335889	0.00906	3.71	0	0.015831	0.051346	0.064831
Missing Race	0.0107103	0.00668	1.6	0.109	-0.002387	0.023807	0.14343
Gender (Reference = Female)							
Male	0.0025617	0.00343	0.75	0.455	-0.004156	0.009279	0.529055
Missing Gender	-0.0071107	0.00587	-1.21	0.226	-0.018622	0.0044	0.064831
Black Male	-0.0054686	0.00406	-1.35	0.178	-0.013418	0.002481	0.084454
Vacancy Rate	-0.0177568	0.02071	-0.86	0.391	-0.058339	0.022825	0.125689
Tract Percent of Median Income	-0.0000278	0.00004	-0.7	0.483	-0.000106	0.00005	117.039
Log (Loan Amount)	-0.021714	0.00333	-6.51	0	-0.028247	-0.015181	5.36653
Log (Income)	0.0120523	0.00275	4.39	0	0.006672	0.017432	4.35998
Conventional Loan	-0.0809161	0.00699	-11.58	0	-0.094608	-0.067224	0.684627
Loan to Value Ratio	0.0003892	0.00014	2.75	0.006	0.000112	0.000667	5.3071

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.4: All Lenders - Home Refinancing Loans

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFID	ENCE INTERVAL
Race (Reference = White)						
Black	0.568***	0.0940	6.041	1.53e-09	0.384	0.752
Asian	0.348**	0.153	2.267	0.0234	0.0471	0.649
Hispanic	0.502***	0.121	4.157	3.22e-05	0.265	0.738
Missing Race	0.534***	0.0925	5.773	7.79e-09	0.353	0.715
Gender (Reference = Female)						
Male	0.00662	0.0757	0.0875	0.930	-0.142	0.155
Missing Gender	0.0659	0.117	0.562	0.574	-0.164	0.296
Black Male	-0.00469	0.118	-0.0397	0.968	-0.236	0.227
Vacancy Rate	-0.147	0.447	-0.329	0.742	-1.023	0.729
Tract Percent of Median Income	-0.00259***	0.000728	-3.557	0.000375	-0.00402	-0.00116
Log (Loan Amount)	-0.0404	0.0513	-0.786	0.432	-0.141	0.0603
Log (Income)	-0.380***	0.0469	-8.099	0	-0.472	-0.288
Conventional Loan	-0.134	0.109	-1.223	0.221	-0.347	0.0804
FHA Loan	0.0201	0.119	0.169	0.866	-0.212	0.252
Loan to Value Ratio	0.000713	0.000642	1.111	0.266	-0.000545	0.00197
Constant	0.844***	0.272	3.107	0.00189	0.312	1.376

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Logistic regression	
Number of obs =	7206
LR chi2(14) =	370.09
Prob > chi2 =	0.0000
Log likelihood =	-4093.7319
Pseudo R2 =	0.0432

. test black black_male

- (1) black = 0
- (2) black_male = 0 chi2(2) = 62.20 Prob > chi2 = 0.0000 Marginal effects after logit

y = Pr(Denial) (predict) = 0.2688747

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFI	DENCE LEVEL	Х
Race (Reference = White)							
Black*	0.1169462	0.02007	5.83	0	0.077601	0.156292	0.301277
Asian*	0.0732246	0.03426	2.14	0.033	0.006078	0.140371	0.034277
Hispanic*	0.1078892	0.02787	3.87	0	0.053266	0.162512	0.055093
Missing Race*	0.1119722	0.02041	5.48	0	0.07196	0.151984	0.204552
Gender (Reference = Female)							
Male*	0.0013021	0.01489	0.09	0.93	-0.027875	0.030479	0.500416
Missing Gender*	0.0131146	0.02361	0.56	0.579	-0.033166	0.059396	0.101582
Black Male*	-0.0009218	0.02318	-0.04	0.968	-0.046354	0.04451	0.141549
Vacancy Rate	-0.0288743	0.08782	-0.33	0.742	-0.200996	0.143247	0.115867
Tract Percent of Median Income	-0.000509	0.00014	-3.56	0	-0.000789	-0.000229	112.68
Log (Loan Amount)	-0.0079339	0.01009	-0.79	0.432	-0.027716	0.011849	4.89334
Log (Income)	-0.0747287	0.00919	-8.13	0	-0.092748	-0.05671	4.143
Conventional Loan*	-0.0266399	0.02208	-1.21	0.228	-0.069925	0.016645	0.745074
FHA Loan*	0.0039578	0.02344	0.17	0.866	-0.041987	0.049903	0.187205
Loan to Value Ratio	0.0001402	0.00013	1.11	0.266	-0.000107	0.000388	4.9108

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.5: All Lenders - Home Improvement Loans

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFID	ENCE INTERVAL
Race (Reference = White)						
Black	0.814***	0.258	3.158	0.00159	0.309	1.319
Asian	0.887**	0.387	2.291	0.0220	0.128	1.646
Hispanic	0.581*	0.328	1.772	0.0765	-0.0618	1.225
Missing Race	0.179	0.275	0.653	0.514	-0.359	0.717
Gender (Reference = Female)						
Male	0.223	0.217	1.032	0.302	-0.201	0.648
Missing Gender	0.789**	0.359	2.198	0.0280	0.0853	1.493
Black Male	-0.252	0.322	-0.780	0.435	-0.883	0.38
Vacancy Rate	-0.497	1.269	-0.392	0.695	-2.984	1.989
Tract Percent of Median Income	-0.00263	0.00206	-1.276	0.202	-0.00666	0.00141
Log (Loan Amount)	-0.129	0.101	-1.279	0.201	-0.326	0.0685
Log (Income)	-0.395***	0.120	-3.302	0.000962	-0.63	-0.161
Conventional Loan	-0.201	0.422	-0.477	0.633	-1.028	0.626
FHA Loan	-0.708	0.483	-1.468	0.142	-1.654	0.237
Loan to Value Ratio	0.0221	0.0185	1.195	0.232	-0.0141	0.0582
Constant	1.278*	0.720	1.777	0.0756	-0.132	2.689

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Logistic regression	
Number of obs =	883
LR chi2(14) =	72.23
Prob > chi2 =	0.0000
Log likelihood =	-509.16113
Pseudo R2 =	0.0662

. test black black_male

(1) black = 0

(2) black_male = 0 chi2(2) = 11.80 Prob > chi2 = 0.0027 Marginal effects after logit y = Pr(Denial) (predict) = 0.29079305

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFI	DENCE LEVEL	X
Race (Reference = White)							
Black*	0.1750913	0.05676	3.09	0.002	0.063853	0.28633	0.339751
Asian*	0.2065209	0.09587	2.15	0.031	0.018613	0.394429	0.039638
Hispanic*	0.1308724	0.07869	1.66	0.096	-0.023358	0.285103	0.062288
Missing Race*	0.0377698	0.05904	0.64	0.522	-0.077947	0.153486	0.198188
Gender (Reference = Female)							
Male*	0.0462911	0.04503	1.03	0.304	-0.041975	0.134557	0.443941
Missing Gender*	0.1808021	0.08768	2.06	0.039	0.008948	0.352656	0.078143
Black Male*	-0.0498957	0.06134	-0.81	0.416	-0.170127	0.070335	0.150623
Vacancy Rate	-0.1025818	0.26155	-0.39	0.695	-0.615207	0.410043	0.130227
Tract Percent of Median Income	-0.0005414	0.00042	-1.28	0.201	-0.001372	0.000289	105.903
Log (Loan Amount)	-0.0265187	0.02072	-1.28	0.201	-0.067134	0.014097	4.37451
Log (Income)	-0.0815498	0.02463	-3.31	0.001	-0.129829	-0.033271	4.02467
Conventional Loan*	-0.0427658	0.09204	-0.46	0.642	-0.223154	0.137623	0.8641
FHA Loan*	-0.1275708	0.07387	-1.73	0.084	-0.272352	0.017211	0.101925
Loan to Value Ratio	0.0045486	0.00381	1.2	0.232	-0.002911	0.012008	3.0281

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.6: Depositories - Home Purchase Loans

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFIDE	NCE INTERVAL
Race (Reference = White)						
Black	0.750***	0.143	5.263	1.42e-07	0.471	1.03
Asian	-0.189	0.213	-0.889	0.374	-0.607	0.228
Hispanic	0.0618	0.183	0.338	0.735	-0.297	0.421
Missing Race	0.381**	0.154	2.470	0.0135	0.0786	0.683
Depository Race (Interaction) (Refer	rence = Other Ph	niladelphia Len	ders)			
Black * Depository	-0.136	0.280	-0.484	0.629	-0.685	0.414
Asian * Depository	0.807**	0.346	2.330	0.0198	0.128	1.485
Hispanic * Depository	0.0890	0.461	0.193	0.847	-0.815	0.993
Missing Race * Depository	-0.395	0.292	-1.353	0.176	-0.969	0.178
Gender (Reference = Female)						
Male	0.109	0.104	1.048	0.295	-0.0952	0.314
Missing Gender	0.569***	0.196	2.899	0.00374	0.184	0.953
Black * Male	-0.000288	0.173	-0.00167	0.999	-0.339	0.339
Vacancy Rate	0.229	0.669	0.342	0.732	-1.083	1.541
Tract Percent of Median Income	0.00142	0.00102	1.390	0.165	-0.000581	0.00341
Log (Loan Amount)	-0.174*	0.103	-1.689	0.0913	-0.375	0.0279
Log (Income)	-0.559***	0.0839	-6.654	0	-0.723	-0.394
Bank (Reference = All Other Philade	elphia Lenders)					
Bank of America	1.078***	0.252	4.279	1.87e-05	0.584	1.572
Citizens	0.229	0.281	0.815	0.415	-0.322	0.78
PNC	1.051***	0.272	3.860	0.000114	0.517	1.585
TD Bank	2.070***	0.291	7.121	0	1.5	2.64
Wells Fargo	0.388*	0.220	1.758	0.0788	-0.0446	0.82
US Bank	0.314	0.798	0.394	0.693	-1.249	1.878
Conventional Loan	-0.122	0.0941	-1.298	0.194	-0.307	0.0624
Loan to Value Ratio	0.00772	0.00475	1.627	0.104	-0.00158	0.017
Constant	0.360	0.427	0.843	0.399	-0.477	1.197

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Logistic regression

Logistic regression	
Number of obs =	8328
LR chi2(23) =	331.44
Prob > chi2 =	0.0000
Log likelihood =	-2380.2808
Pseudo R2 =	0.0651

note: citi dropped because of collinearity

test black black_male

- (1) black = 0
- (2) black_male = 0 chi2(2) = 42.28Prob > chi2 = 0.0000

. mfx

Marginal effects after logit y = Pr(Denial) (predict) = 0.07725753

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Table G.6: Depositories - Home Purchase Loans (Continued)

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFIL	DENCE LEVEL	Х
Race (Reference = White)							
Black*	0.0652799	0.01523	4.29	0	0.035422	0.095138	0.197887
Asian*	-0.0126163	0.01323	-0.95	0.34	-0.038551	0.013318	0.075408
Hispanic*	0.0045103	0.01365	0.33	0.741	-0.022247	0.031268	0.066042
Missing Race*	0.0304803	0.01375	2.22	0.027	0.003523	0.057438	0.144212
Depository Race (Interaction) (Re	ference = Other	Philadelphia Ler	nders)				
Black * Depository*	-0.0091451	0.01785	-0.51	0.608	-0.044126	0.025836	0.01621
Asian * Depository*	0.079915	0.0453	1.76	0.078	-0.008876	0.168706	0.01549
Hispanic * Depository*	0.006587	0.03541	0.19	0.852	-0.062816	0.07599	0.005644
Missing Race * Depository*	-0.0241062	0.01506	-1.6	0.109	-0.053622	0.00541	0.026417
Gender (Reference = Female)							
Male*	0.0077854	0.00747	1.04	0.297	-0.006855	0.022426	0.525336
Missing Gender*	0.0501233	0.02101	2.39	0.017	0.008937	0.091309	0.0622
Black * Male*	-0.0000205	0.01232	0	0.999	-0.02417	0.024129	0.084894
Vacancy Rate	0.016329	0.04773	0.34	0.732	-0.077217	0.109875	0.126122
Tract Percent of Median Income	0.000101	0.00007	1.39	0.164	-0.000041	0.000243	116.278
Log (Loan Amount)	-0.0123834	0.00733	-1.69	0.091	-0.026744	0.001977	5.36226
Log (Income)	-0.0398199	0.00588	-6.77	0	-0.051347	-0.028293	4.35142
Bank (Reference = All Other Phila	delphia Lender	s)					
Bank of America	0.1180343	0.03855	3.06	0.002	0.042486	0.193582	0.023295
Citizens	0.0179081	0.02397	0.75	0.455	-0.029075	0.064892	0.026657
PNC	0.1146321	0.04149	2.76	0.006	0.033309	0.195955	0.01561
TD Bank	0.3186318	0.06844	4.66	0	0.184483	0.452781	0.008766
Wells Fargo	0.0320911	0.02095	1.53	0.126	-0.008972	0.073154	0.045029
US Bank	0.0255987	0.07352	0.35	0.728	-0.118505	0.169702	0.002281
Concentional Loan	-0.0088789	0.00697	-1.27	0.203	-0.02255	0.004792	0.684198
Loan to Value Ratio	0.0005506	0.00034	1.63	0.103	-0.000112	0.001213	5.34969

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.7: Depositories - Home Purchase Loans Test for Redlining

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFID	ENCE INTERVAL
Percent Minority Population	0.00677***	0.00160	4.226	2.38e-05	0.00363	0.00992
Gender (Reference = Female)						
Male	0.0533	0.0835	0.638	0.523	-0.11	0.217
Missing Gender	0.546***	0.150	3.640	0.000273	0.252	0.841
Vacancy Rate	-0.355	0.676	-0.525	0.600	-1.679	0.97
Tract Percent of Median Income	0.00271**	0.00106	2.548	0.0108	0.000626	0.0048
Log (Loan Amount)	-0.249**	0.101	-2.451	0.0142	-0.447	-0.0498
Log (Income)	-0.540***	0.0828	-6.523	6.87e-11	-0.702	-0.378
Bank (Reference = All Other Philad	elphia Lenders)					
Bank of America	1.098***	0.212	5.177	2.25e-07	0.682	1.513
Citizens Bank	0.189	0.241	0.785	0.432	-0.283	0.662
PNC	1.025***	0.235	4.353	1.34e-05	0.563	1.486
TD Bank	2.109***	0.259	8.130	0	1.601	2.618
Wells Fargo	0.366**	0.184	1.991	0.0465	0.00562	0.726
US Bank	0.0969	0.801	0.121	0.904	-1.473	1.667
Conventional Loan	-0.495***	0.187	-2.645	0.00818	-0.861	-0.128
FHA Loan	-0.262	0.190	-1.376	0.169	-0.635	0.111
Loan to Value Ratio	0.00839*	0.00476	1.761	0.0783	-0.000949	0.0177
Constant	0.829*	0.473	1.754	0.0794	-0.0973	1.756

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Logistic regression

Number of obs = 8328 LR chi2(16) = 291.83 Prob > chi2 = 0.0000 Log likelihood = -2400.0865 Pseudo R2 = 0.0573 mfx

Marginal effects after logit

y = Pr(Denial) (predict)

= 0.07894798

VARIABLES	DY/DX	STD. ERROR	Z	$P \to Z$	95 % CONFI	DENCE LEVEL	Х
Percent Minority Population	0.0004926	0.00012	4.25	0	0.000265	0.00072	51.6411
Gender (Reference = Female)							
Male	0.0038742	0.00606	0.64	0.523	-0.008008	0.015756	0.525336
Missing Gender	0.048672	0.01602	3.04	0.002	0.017272	0.080072	0.0622
Vacancy Rate	-0.0257944	0.04913	-0.52	0.6	-0.122097	0.070508	0.126122
Tract Percent of Median Income	0.0001971	0.00008	2.55	0.011	0.000046	0.000348	116.278
Log (Loan Amount)	-0.0180711	0.00736	-2.46	0.014	-0.032495	-0.003647	5.36226
Log (Income)	-0.0392794	0.00592	-6.64	0	-0.050876	-0.027683	4.35142
Bank (Reference = All Other Phila	delphia Lenders	s)					
Bank of America	0.1231688	0.03324	3.71	0	0.058016	0.188322	0.023295
Citizen	0.0148525	0.02034	0.73	0.465	-0.025017	0.054722	0.026657
PNC	0.1125118	0.03583	3.14	0.002	0.042289	0.182734	0.01561
TD Bank	0.3319072	0.06181	5.37	0	0.210769	0.453046	0.008766
Wells Fargo	0.0306393	0.01754	1.75	0.081	-0.003733	0.065011	0.045029
US Bank	0.0073404	0.06314	0.12	0.907	-0.116407	0.131087	0.002281
Conventional Loan	-0.0390279	0.01598	-2.44	0.015	-0.07035	-0.007706	0.684198
FHA Loan	-0.0181817	0.01261	-1.44	0.149	-0.042891	0.006527	0.2805
Loan to Value Ratio	0.0006099	0.00035	1.76	0.078	-0.000068	0.001288	5.34969

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.8: Depositories - Home Purchase Loans by Prime and Subprime

VADIABLES	CURRENTE	C.F.	TCTAT	DVAL	01 1 0144	01 111011
VARIABLES	SUBPRIME	SE	TSTAT	PVAL	CI_LOW	CI_HIGH
Race (Reference = White)						
Black	0.952***	0.183	5.211	1.88e-07	0.594	1.311
Asian	-0.340	0.403	-0.845	0.398	-1.13	0.449
Hispanic	0.980***	0.190	5.165	2.41e-07	0.608	1.353
Missing Race	0.460**	0.228	2.021	0.0432	0.014	0.906
Depository Race (Interaction) (Refe	erence = Other Phi	ladelphia Lend	ers)			
Black * Depository	0.836	0.698	1.199	0.231	-0.531	2.204
Asian * Depository	-	-	-	-	-	
Hispanic * Depository	0.722	0.920	0.785	0.433	-1.081	2.526
Missing Race * Depository	0.385	1.189	0.324	0.746	-1.945	2.715
Gender (Reference = Female)						
Male	0.105	0.155	0.678	0.498	-0.198	0.408
Missing Gender	-0.304	0.352	-0.864	0.388	-0.993	0.386
Black * Male	-0.220	0.217	-1.015	0.310	-0.645	0.205
Vacancy Rate	-0.354	0.911	-0.388	0.698	-2.14	1.433
Tract Percent of Median Income	-0.00255	0.00187	-1.366	0.172	-0.00622	0.00111
Log (Loan Amount)	-0.928***	0.148	-6.257	3.92e-10	-1.219	-0.637
Log (Income)	0.560***	0.124	4.507	6.59e-06	0.316	0.803
Bank (Reference = All Other Philad	elphia Lenders)					
Bank of America	-	-	-	-	-	-
TD Bank	-	-	-	-	-	-
Wells Fargo	-0.244	0.627	-0.388	0.698	-1.473	0.986
Concentional Loan	-1.973***	0.146	-13.47	0	-2.26	-1.686
Loan to Value Ratio	0.00628	0.00734	0.856	0.392	-0.0081	0.0207
Constant	0.212	0.621	0.341	0.733	-1.005	1.429

^{***} denotes 1% significance level; ** denotes 5% significance level; * denotes 10% significance level

Dependent Varibale: Subprime

Logistic regression	
Number of obs =	7651
LR chi2(18) =	627.05
Prob > chi2 =	0.0000
Log likelihood =	-1344.8628
Pseudo R2 =	0.1891

test black black_male

- (1) black = 0
- (2) black_male = 0 chi2(2) = 34.35Prob > chi2 = 0.0000

. mfx

Marginal effects after logit

y = Pr(Subprime) (predict)

= 0.0260573

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFID	ENCE LEVEL	X
Race (Reference = White)							
Black*	0.0324269	0.00825	3.93	0	0.01626	0.048594	0.205071
Asian*	-0.0075331	0.0077	-0.98	0.328	-0.022627	0.007561	0.06522
Hispanic*	0.0380915	0.01073	3.55	0	0.017068	0.059114	0.069141
Missing Race*	0.0137739	0.00795	1.73	0.083	-0.001811	0.029359	0.135015
Depository Race (Interaction) (Re-	ference = Other	Philadelphia Len	ders)				
Black * Depository*	0.0319253	0.03773	0.85	0.397	-0.042029	0.10588	0.007319
Asian * Depository							
Hispanic * Depository*	0.0260978	0.04525	0.58	0.564	-0.062584	0.114779	0.003398
Missing Race * Depository*	0.011741	0.04304	0.27	0.785	-0.072617	0.096099	0.006796
Gender (Reference = Female)							
Male*	0.0026562	0.00391	0.68	0.496	-0.004998	0.01031	0.527382
Missing Gender*	-0.0067989	0.00691	-0.98	0.325	-0.020346	0.006748	0.054372
Black * Male*	-0.0051326	0.00464	-1.11	0.269	-0.01423	0.003965	0.087832
Vacancy Rate	-0.0089785	0.02311	-0.39	0.698	-0.054264	0.036307	0.125643
Tract Percent of Median Income	-0.0000648	0.00005	-1.37	0.17	-0.000157	0.000028	115.349
Log (Loan Amount)	-0.0235546	0.00388	-6.07	0	-0.03116	-0.015949	5.34668
Log (Income)	0.0142061	0.0032	4.44	0	0.007936	0.020476	4.33055
Bank (Reference = All Other Phila	delphia Lenders	s)					
Bank of America							
TD Bank							
Wells Fargo	-0.0055734	0.01287	-0.43	0.665	-0.030805	0.019658	0.044308
Concentional Loan	-0.0767552	0.00734	-10.46	0	-0.091143	-0.062367	0.665011
Loan to Value Ratio	0.0001594	0.00019	0.86	0.392	-0.000205	0.000524	5.37137

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.9: Depositories - Home Refinancing Loans

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFIDE	NCE INTERVAL
Race (Reference = White)						
Black	0.604***	0.0981	6.160	7.29e-10	0.412	0.797
Asian	0.257	0.177	1.450	0.147	-0.0905	0.605
Hispanic	0.517***	0.132	3.921	8.80e-05	0.258	0.775
Missing Race	0.631***	0.0956	6.608	0	0.444	0.819
Depository Race (Interaction) (Refe	erence = Other Ph	iladelphia Lend	ers)			
Black * Depository	-0.164	0.185	-0.886	0.376	-0.526	0.199
Asian * Depository	0.300	0.365	0.822	0.411	-0.416	1.016
Hispanic * Depository	-0.0897	0.313	-0.287	0.774	-0.703	0.524
Missing Race * Depository	-0.890***	0.249	-3.573	0.000353	-1.378	-0.402
Gender (Reference = Female)						
Male	0.00194	0.0758	0.0256	0.980	-0.147	0.15
Missing Gender	0.0884	0.118	0.748	0.455	-0.143	0.32
Black * Male	-0.0126	0.118	-0.107	0.915	-0.244	0.219
Vacancy Rate	-0.128	0.449	-0.285	0.776	-1.007	0.752
Tract Percent of Median Income	-0.00260***	0.000730	-3.562	0.000368	-0.00403	-0.00117
Log (Loan Amount)	-0.0449	0.0515	-0.872	0.383	-0.146	0.056
Log (Income)	-0.376***	0.0472	-7.963	0	-0.468	-0.283
Bank (Reference = All Other Philad	lelphia Lenders)					
Bank of America	0.347	0.316	1.098	0.272	-0.272	0.966
Citizens Bank	0.0130	0.211	0.0618	0.951	-0.4	0.427
PNC	0.624***	0.193	3.240	0.00120	0.247	1.002
TD Bank	0.912***	0.307	2.971	0.00297	0.31	1.514
Wells Fargo	0.650***	0.145	4.498	6.87e-06	0.367	0.934
US Bank	0.595	0.707	0.841	0.401	-0.792	1.981
Concentional Loan	-0.192***	0.0639	-3.005	0.00265	-0.317	-0.0668
Loan to Value Ratio	0.000731	0.000645	1.133	0.257	-0.000534	0.002
Constant	0.819***	0.249	3.284	0.00102	0.33	1.307

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Logistic regression

Logistic regression	
Number of obs =	7205
LR chi2(25) =	415.23
Prob > chi2 =	0.0000
Log likelihood =	-4070.8336
Pseudo R2 =	0.0485

test black black_male

- (1) black = 0
- (2) black_male = 0 chi2(2) = 61Prob > chi2 = 0.0000

. mfx

Marginal effects after logit

y = Pr(Denial) (predict) = 0.26755783

VARIABLES -	DV/DV	CTD FDDOD	7	D \ 7	05 % 00 1 15	IDENOE LEVEL	V
VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONF	IDENCE LEVEL	Х
Race (Reference = White)							
Black*	0.1244257	0.02097	5.93	0	0.083317	0.165535	0.301319
Asian*	0.0531246	0.0384	1.38	0.167	-0.02214	0.128389	0.034282
Hispanic*	0.1111095	0.03048	3.65	0	0.051365	0.170854	0.055101
Missing Race*	0.1333943	0.02135	6.25	0	0.091544	0.175245	0.20458
Depository Race (Interaction) (Ref	ference = Other	Philadelphia Lend	ders)				
Black * Depository*	-0.0309331	0.03359	-0.92	0.357	-0.096762	0.034896	0.034976
Asian * Depository*	0.0626534	0.08065	0.78	0.437	-0.095413	0.22072	0.006801
Hispanic * Depository*	-0.0172145	0.05877	-0.29	0.77	-0.132405	0.097975	0.008744
Missing Race * Depository*	-0.1384267	0.02895	-4.78	0	-0.195175	-0.081679	0.018459
Gender (Reference = Female)							
Male*	0.0003793	0.01485	0.03	0.98	-0.028717	0.029476	0.500347
Missing Gender*	0.0176022	0.02391	0.74	0.462	-0.029259	0.064463	0.101596
Black * Male*	-0.0024634	0.02306	-0.11	0.915	-0.047662	0.042735	0.141568
Vacancy Rate	-0.0250262	0.08796	-0.28	0.776	-0.197415	0.147363	0.115864
Tract Percent of Median Income	-0.0005097	0.00014	-3.57	0	-0.00079	-0.00023	112.668
Log (Loan Amount)	-0.0087997	0.01009	-0.87	0.383	-0.028581	0.010982	4.89316
Log (Income)	-0.0736311	0.00922	-7.99	0	-0.091694	-0.055569	4.14269
Bank (Reference = All Other Phila	delphia Lenders)					
bk_of_~a*	0.0730011	0.07077	1.03	0.302	-0.065708	0.21171	0.008605
citizen*	0.0025636	0.04158	0.06	0.951	-0.078931	0.084059	0.025399
pnc*	0.1370926	0.04601	2.98	0.003	0.046923	0.227262	0.026371
tdbank*	0.2083729	0.07637	2.73	0.006	0.0587	0.358046	0.007217
wells*	0.1425974	0.03438	4.15	0	0.07522	0.209975	0.053158
usbank*	0.130729	0.16942	0.77	0.44	-0.201321	0.462779	0.001388
Concentional Loan	-0.0384223	0.01304	-2.95	0.003	-0.063978	-0.012866	0.745038
Loan to Value Ratio	0.0001433	0.00013	1.13	0.257	-0.000105	0.000391	4.91139

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$

Table G.10: Depositories - Home Improvement Loans

VARIABLES	COEFF	SE	T-STAT	PVAL	95% CONFIG	ENCE INTERVAL
Race (Reference = White)						
Black	1.100***	0.383	2.869	0.00412	0.349	1.852
Asian	1.440**	0.709	2.032	0.0422	0.0509	2.83
Hispanic	0.818	0.564	1.450	0.147	-0.288	1.923
Missing Race	0.631	0.394	1.600	0.110	-0.142	1.404
Depository Race (Interaction) (Refe	rence = Other I	hiladelphia Le	enders)			
Black * Depository	-0.408	0.505	-0.809	0.418	-1.397	0.581
Asian * Depository	-0.367	1.022	-0.359	0.719	-2.37	1.636
Hispanic * Depository	-0.956	0.785	-1.218	0.223	-2.495	0.583
Missing Race * Depository	-1.320*	0.701	-1.883	0.0597	-2.693	0.0537
Gender (Reference = Female)						
Male	0.154	0.290	0.531	0.595	-0.414	0.721
Missing Gender	1.007**	0.452	2.228	0.0259	0.121	1.892
Black * Male	-0.265	0.411	-0.645	0.519	-1.07	0.54
Vacancy Rate	1.347	1.640	0.821	0.411	-1.868	4.562
Tract Percent of Median Income	-0.00245	0.00276	-0.887	0.375	-0.00786	0.00296
Log (Loan Amount)	-0.0585	0.132	-0.443	0.658	-0.318	0.2
Log (Income)	-0.515***	0.156	-3.303	0.000956	-0.821	-0.21
Bank (Reference = All Other Philad	elphia Lenders)					
PNC	0.753*	0.447	1.684	0.0921	-0.123	1.628
TD Bank	2.047***	0.528	3.874	0.000107	1.012	3.083
Wells Fargo	0.874*	0.471	1.857	0.0633	-0.0483	1.796
Conventional Loan	0.540	0.483	1.119	0.263	-0.406	1.486
Loan to Value Ratio	0.0173	0.0239	0.725	0.469	-0.0295	0.0641
Constant	0.0575	0.898	0.0640	0.949	-1.702	1.817

^{***}denotes 1% significance level; **denotes 5% significance level; * denotes 10% significance level

Number of obs =	569
LR chi2(20) =	85.30
Prob > chi2 =	0.0000
Log likelihood =	-317.64822
Pseudo R2 =	0.1184

test black black_male

- (1) black = 0
- (2) black_male = 0 chi2(2) = 9.00 Prob > chi2 = 0.0111

. mfx

Marginal effects after logit

y = Pr(Denial) (predict)

= 0.3015569

VARIABLES	DY/DX	STD. ERROR	Z	$P \rightarrow Z$	95 % CONFII	DENCE LEVEL	X
Race (Reference = White)							
Black*	0.2396398	0.08341	2.87	0.004	0.076161	0.403118	0.376098
Asian*	0.3431241	0.16362	2.1	0.036	0.022426	0.663822	0.035149
Hispanic*	0.1905084	0.13862	1.37	0.169	-0.081178	0.462195	0.070299
Missing Race*	0.1411838	0.09182	1.54	0.124	-0.038786	0.321154	0.205624
Depository Race (Interaction) (Ref	ference = Other	Philadelphia Len	ders)				
Black * Depository*	-0.0800826	0.09096	-0.88	0.379	-0.258358	0.098192	0.100176
Asian * Depository*	-0.0715213	0.18215	-0.39	0.695	-0.428531	0.285488	0.017575
Hispanic * Depository*	-0.1623527	0.1005	-1.62	0.106	-0.359334	0.034629	0.036907
Missing Race * Depository*	-0.2046774	0.07106	-2.88	0.004	-0.343956	-0.065398	0.042179
Gender (Reference = Female)							
Male*	0.032519	0.0615	0.53	0.597	-0.088012	0.15305	0.427065
Missing Gender*	0.2371009	0.1111	2.13	0.033	0.01934	0.454862	0.070299
Black * Male*	-0.0537087	0.08004	-0.67	0.502	-0.210582	0.103164	0.165202
Vacancy Rate	0.283746	0.34549	0.82	0.411	-0.393394	0.960886	0.13072
Tract Percent of Median Income	-0.0005154	0.00058	-0.89	0.375	-0.001653	0.000622	100.883
Log (Loan Amount)	-0.0123281	0.02783	-0.44	0.658	-0.066873	0.042217	4.11062
Log (Income)	-0.1085461	0.03287	-3.3	0.001	-0.172966	-0.044126	3.94956
Bank (Reference = All Other Phila	delphia Lenders)					
PNC	0.1727977	0.10788	1.6	0.109	-0.038645	0.384241	0.121265
TD Bank	0.4709149	0.0999	4.71	0	0.275111	0.666719	0.056239
Wells Fargo	0.2034225	0.11498	1.77	0.077	-0.021938	0.428783	0.094903
Conventional Loan	0.1023973	0.08068	1.27	0.204	-0.05574	0.260535	0.931459
Loan to Value Ratio	0.0036424	0.00503	0.72	0.469	-0.006207	0.013491	2.94641

^(*) dy/dx is for discrete change of a dummy variable from 0 to 1 $\,$



TECHNICAL APPENDIX H - LENDING FOR NON-OWNER-OCCUPIED PROPERTIES

Technical Appendix H Summary

In 2017, 4,336 loans were issued to non-owner-occupied borrowers, a 12.2 percent increase from the 2016 total of 3,863. The number of subprime loans decreased by 1.2 percent and prime loans increased by 12.7 for non-owner-occupied borrowers between 2016 and 2017. In owner-occupied lending, prime lending decreased (6.0 percent), and subprime lending increased (14.1 percent). Since 2009, total loans to non-owner-occupied borrowers have increased by over 95.7 percent, with a 106.3 percent increase in prime lending and a 34.7 percent decrease in subprime lending.

- Between 2016 and 2017, the total number of non-occupant prime loans increased for Asian and African American borrowers (58.0 percent and 17.0 percent respectively). The number of non-occupant Hispanic borrowers decreased by 9.6 percent, and the number of White borrowers remained relatively flat, increasing by 0.4 percent. In spite of gains to prime loan share for low income households, the ratio of prime loans to households in the city was below 1.00 LMI households (0.65) in 2017. MUI non-occupants were over-issued prime loans relative to their household shares at 1.41.
- Over 59 percent of all households are in minority tracts in the City, but borrowers in these minority tracts received only 49.7 percent of all prime non-occupant loans and 66.1 percent of all subprime non-occupant loans in 2017. Fewer than 41 percent of households in the City are in non-minority tracts, yet these borrowers received 50.3 percent of all prime non-occupant loans and 33.9 percent of all non-occupant subprime loans, suggesting borrowers in non-minority tracts are disproportionately receiving more loans in the City.
- Between 2016 and 2017, subprime non-occupant loans to low and middle income tract borrowers decreased by 15.4 percent and 9.1 percent, respectively. During that same period, subprime non-occupant loans remained constant for moderate income tract borrows and increased for upper income tract borrowers by 18.8 percent.
- Since 2009, prime non-occupant loans increased the most for female borrowers (at 159.6 percent); conversely, subprime non-occupant loans have decreased the least for male borrowers (by 7.9 percent). Subprime non-occupant loans for joint gender households decreased by 43.2 percent since 2009; prime non-occupant loans increased by 66.8 percent for this same group.

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H.1 Home Lending to Non-Owner-Occupied Borrowers

In 2017, 4,336 loans were issued to non-owner-occupied borrowers, a 12.2 percent increase from the 2016 total of 3,863. The number of subprime loans decreased by 1.2 percent and prime loans increased by 12.7 for non-owner-occupied borrowers between 2016 and 2017. In owner-occupied lending, prime lending decreased (6.0 percent), and subprime lending increased (14.1 percent). Since 2009, total loans to non-owner-occupied borrowers have increased by over 95.7 percent, with a 106.3 percent increase in prime lending and a 34.7 percent decrease in subprime lending.

H.2 Home Lending to Non-Owner-Occupied Borrowers – by Borrower Race

- Similar to previous years, Asian borrowers received over five times the share of non-occupant prime loans of their percentage of City households in 2017 (5.93 times as many non-occupant prime loans relative to the number of Asian households); an increase from 2016 when Asian borrowers received 4.39 times as many non-occupant prime loans as there were Asian households in the City.
- Most non-occupant loans went to White borrowers (49.0 percent), this proportion of loans to White borrowers has decreased compared to 2016 (56.9 percent).
- Between 2016 and 2017, the total number of non-occupant prime loans increased for Asian and African American borrowers (58.0 percent and 17.0 percent respectively). The number of non-occupant Hispanic borrowers decreased by 9.6 percent, and the number of White borrowers remained relatively flat, increasing by 0.4 percent.
- All racial categories received more prime loans than subprime in 2017, keeping the same pattern since 2009.
- Non-occupant-owner subprime loans increased for African American at 6.3 percent. While Hispanic, Asian, and White borrowers saw a decrease (36.4 percent, 14.3 percent, and 2.4 percent respectively) in non-occupant subprime loans between 2016 and 2017.
- African American borrowers were much more likely to receive a prime non-occupant loan relative to an owner-occupied prime loan in the City in 2017. While 90.7 percent of all African American non-occupant loans were prime in 2017, only 83.1 percent of owner-occupied loans to African Americans were prime.
- The number of denials to all non-owner-occupied borrowers decreased by 16.5 percent between 2016 and 2017.
- While non-owner-occupied loan applications increased by 7.9 percent between 2016 and 2017, these loan applicants increased by 55.9 percent between 2009 and 2016. Applications by Asian non-occupants increased the most between 2016 and 2017 (by 45.7 percent), and decreased the most for White non-occupant borrowers between 2016 and 2017 (by 2.7 percent).
- All racial and ethnic groups saw a decrease in application denials between 2016 and 2017, except for
 Asian borrowers, who had an increase of 4.8 percent. While non-owner-occupied applicants had the
 greatest decrease in applications between 2016 and 2017 at 23.7 percent. Total denials between 2009
 and 2017 decreased by 12.7 percent.

(See Technical Appendix C.1 and I.1)

H.3 Home Lending to Non-Owner-Occupied Borrowers – by Borrower Income

- 39.0 percent of prime non-owner-occupied loans went to borrowers in the upper income group in 2017, similar to 40.4 percent in 2016.
- In 2016, 37.5 percent of all prime loans went to non-occupant borrowers in the low income group, while only 9.3 percent went to the moderate income group, and 12.9 percent went to the middle income group. This trend continues in 2017 as 38.6 percent of all prime loans went to non-occupant borrowers the low income group, while only 9.2 percent went to the moderate income group, and 13.2 percent to the middle income group.
- The proportion of prime loans to the LMI group increased from 46.7 percent in 2016 to 47.9 percent in 2017.
- In spite of gains to prime loan share for low income households, the ratio of prime loans to households in the city was below 1.00 for LMI households (0.65) in 2017. MUI non-owner occupied borrowers were over-issued prime loans relative to their household shares at 1.41, respectively.
- Low income borrowers were more likely to receive a prime non-occupant loan than a prime owner-occupied loan in 2017. 88.1 percent of all owner-occupied loans to low income borrowers were prime, compared to the 99.0 percent of all non-occupant loans to low income borrowers that were prime.
- The proportion of non-occupant prime loans going to LMI borrowers increased by 15.3 percent between 2016 and 2017. From 2009 to 2017, this proportion has increased by 397.1 percent.
- All subprime loans for all income groups increased for owner occupied loans while all subprime loans for non-occupant loans decreased for all income groups except for the middle income group which saw a 112.5 percent increase between 2016 and 2017. Between 2009 and 2017, subprime lending decreased for all income borrowers, except for low income borrowers, which increased by 70.0 percent between 2009 and 2017.
- Total applications for non-occupant loans increased overall (by 7.9 percent) between 2016 and 2017. Between 2009 and 2017, total applications increased by 55.9 percent, which included a 425.0 percent increase in applications from low income non-occupant borrowers.
- The number of denials decreased overall by 9.9 percent. However moderate income borrowers experienced an increase in the number of denials (at 9.7 percent). Between 2016 and 2017, denials to low income non-occupant applicants decreased by 14.2 percent, and the number of denials to middle income groups decreased by 9.7 percent. Since 2009, overall denials decreased by 12.7 percent, however denials to low-income non-occupant applicants have increased by 51.5 percent.

(See Technical Appendix C.2 and I.2)

H.4 Home Lending to Non-Owner-Occupied Borrowers – by Tract Minority Level

- In 2016, 49.8 percent of all non-occupant loans went to borrowers in non-minority tracts; similarly, in 2017, 49.9 percent of all non-occupant loans were issued to borrowers in non-minority tracts.
- The total number of non-occupant prime loans to borrowers in minority tracts increased by 12.7 percent between 2016 and 2017 (from 1,866 2,102 prime loans).
- Over 59 percent of all households are in minority tracts in the City, but borrowers in these minority tracts received only 49.7 percent of all prime non-occupant loans and 66.1 percent of all subprime non-occupant loans in 2017. Fewer than 41 percent of households in the City are in non-minority tracts, yet these borrowers received 50.3 percent of all prime non-occupant loans and 33.9 percent of all non-occupant subprime loans, suggesting borrowers in non-minority tracts are disproportionately receiving more loans in the City.
- Since 2009, non-occupant prime and total lending increased by 106.3 and 95.7 percent, respectively, with lending to minority tracts seeing the greatest gains, at 125.5 percent increases in prime lending and 110.1 percent increases in total lending. Since 2009, subprime lending to non-owner-occupied borrowers in minority tracts decreased by 30.1 percent and decreased by 42.2 percent (in non-minority tracts).
- Since 2016, applications for non-occupant loans increased by 6.0 percent for applicants in non-minority tracts and by 9.5 percent for applicants in minority tracts. From 2009 to 2017, applications for non-occupant loans increased by 47.3 percent for applicants in non-minority tracts and increased by 63.8 percent for applicants in minority tracts.
- Between 2016 and 2017, the number of denials to non-owner-occupied applicants in minority tracts decreased by 3.2 percent; for applicants in non-minority tracts, denials decreased by 21.5 percent.
- For every denial in a non-minority tract, there were 1.77 denials in a minority tract. This was an increase from the 2016 ratio of 1.49, and a significant increase from the 2009 ratio of 1.21.

(See Technical Appendix 1.3)

H.5 Home Lending to Non-Owner-Occupied Borrowers – by Tract Income Level

- Non-occupant borrowers in the low income tracts received the smallest proportion of total loans (9.0 percent), a decrease from 2016 (12.9 percent). In 2009, non-occupant borrowers in the low income tract received 26 percent of all non-occupant loans.
- In 2016, borrowers in the LMI tracts received 55.9 percent of all subprime non-occupant loans; in 2017, borrowers in these tracts received 55.0 percent of all subprime non-occupant loans.
- Between 2016 and 2017, subprime non-occupant loans to low and middle income tract borrowers
 decreased by 15.4 percent and 9.1 percent, respectively. During that same period, subprime nonoccupant loans remained constant for borrowers in moderate income tract borrows, yet increased for
 upper income tract borrowers by 18.8 percent.
- Between 2009 and 2017, subprime non-occupant loans for borrowers in low and moderate income tracts decreased by 82.5 percent and 37.2 percent respectively. Subprime non-occupant lending to borrowers in middle and upper income tracts increased, by 36.4 percent and 375.0 percent, respectively. The total number of subprime non-occupant loans decreased between 2009 and 2017 by 34.7 percent.

- Non-occupant prime loans have increase in LMI tracts by 20.1 percent and 7.3 percent in MUI tracts between 2009 and 2017.
- The number of non-occupant loan applications increased for borrowers in moderate and upper income tracts, while the low and middle income tracts saw a decrease in applications between 2016 and 2017 by 17.6 percent and 2.3 percent, respectively.
- The number of denials for non-occupant loan applications decreased for all applicants, except those residing in moderate income tracts between 2016 and 2017. Denials for middle income tract non-occupant applications decreased the most (by 22.6 percent), while denials for non-occupant applicants in moderate income tracts increased by 10.0 percent.
- In 2016, applicants for non-occupant loans in low income tracts were denied 1.51 times as often as applicants for non-occupant loans in upper income tracts. In 2017, this ratio increased to 1.80.

(See Technical Appendix 1.4)

H.6 Home Lending to Non-Owner-Occupied Borrowers – by Borrower Gender

- Continuing a trend from prior years, male non-occupant borrowers continue to receive a
 disproportionate share of total, prime, and subprime loans relative to their household share in the
 City. In 2017, male non-occupant borrowers received 1.52 times as many prime non-occupant loans
 relative to their share of households and 1.94 times as many subprime non-occupant loans relative to
 their share of households.
- Female non-occupant borrowers received 23.2 percent of all prime non-occupant loans (compared to 21.0 percent in 2016) and 22.5 percent of all subprime non-occupant loans (compared to 27.7 percent in 2016).
- The number of prime non-occupant loans increased the most for female non-occupant borrowers (by 29.1 percent), while the number of subprime non-occupant loans decreased the most for borrowers in female households (by 17.9 percent) between 2016 and 2017.
- Since 2009, prime non-occupant loans increased the most for female investors (at 159.6 percent); conversely, subprime non-occupant loans have decreased the least for male borrowers (by 7.9 percent). Subprime non-occupant loans for joint gender households decreased by 43.2 percent since 2009; prime non-occupant loans increased by 66.8 percent for this same group.
- Ninety-eight percent of all non-occupant loans to joint households were prime in 2017; this has remained unchanged since 2016.
- Non-occupant loan applications increased for all groups between 2009 and 2017. Since 2009, non-occupant loan applications for female investors increased the most, by 76.0 percent. Since 2016, non-occupant loans applications from female investors increased the most, by 13.0 percent.
- The number of denials to non-occupant loan applications decreased the most for male and joint households, at 16.3 percent, between 2016 and 2017. Since 2009, joint applications denials for non-occupant loans have decreased by 34.6 percent, while female households have experienced an increase of 12.1 percent in application denials.

(See Technical Appendix 1.5)



TECHNICAL APPENDIX I TABULAR DETAIL FOR LENDING FOR NON-OWNER-OCCUPIED PROPERTIES

Technical Appendix I Tables

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Table I.1: All Loans by Borrower Race in Philadelphia (Non-Owner-Occupied)

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
White	1,487	40	1,527	49.2%	43.0%	49.0%	265,269	50.3%	0.98	0.85
African American	330	34	364	10.9%	36.6%	11.7%	244,844	46.5%	0.23	0.79
Asian	1,103	12	1,115	36.5%	12.9%	35.8%	32,408	6.2%	5.93	2.10
Hispanic	104	7	111	3.4%	7.5%	3.6%	62,819	11.9%	0.29	0.63
Total	4,227	109	4,336				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	RACE SHARE TO WHITE SHARE RATIO: PRIME	RACE SHARE TO WHITE SHARE RATIO: SUBPRIME
White	1,487	40	1,527	97.4%	2.6%	1.00	1.00
African American	330	34	364	90.7%	9.3%	0.93	3.57
Asian	1,103	12	1,115	98.9%	1.1%	1.02	0.41
Hispanic	104	7	111	93.7%	6.3%	0.96	2.41
Total	4,227	109	4,336	97.5%	2.5%	1.00	0.96

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	RACE TO WHITE DENIAL RATIO
White	2,485	348	14.0%	1.00
African American	954	317	33.2%	2.37
Asian	1,499	154	10.3%	0.73
Hispanic	265	76	28.7%	2.05
Total	7,235	1,290	17.8%	1.27

Table I.2: All Loans by Borrower Income in Philadelphia (Non-Owner-Occupied)

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Low (<50% MSA)	1,633	17	1,650	38.6%	15.6%	38.1%	292,421	55.5%	0.70	0.28
Moderate (50-79.99% MSA)	390	17	407	9.2%	15.6%	9.4%	95,436	18.1%	0.51	0.86
Middle (80-119.99% MSA)	556	34	590	13.2%	31.2%	13.6%	103,273	19.6%	0.67	1.59
Upper (120% or More MSA)	1,648	41	1,689	39.0%	37.6%	39.0%	91,464	17.4%	2.25	2.17
LMI (<79.99% MSA Income)	2,023	34	2,057	47.9%	31.2%	47.4%	387,857	73.6%	0.65	0.42
MUI (> 80% MSA Income)	2,204	75	2,279	52.1%	68.8%	52.6%	194,737	37.0%	1.41	1.86
Total	4,227	109	4,336				526,910			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER- INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	1,633	17	1,650	99.0%	1.0%	1.01	0.42
Moderate (50-79.99% MSA)	390	17	407	95.8%	4.2%	0.98	1.72
Middle (80-119.99% MSA)	556	34	590	94.2%	5.8%	0.97	2.37
Upper (120% or More MSA)	1,648	41	1,689	97.6%	2.4%	1.00	1.00
LMI (<79.99% MSA Income)	2,023	34	2,057	98.3%	1.7%	1.02	0.50
MUI (> 80% MSA Income)	2,204	75	2,279	96.7%	3.3%	1.00	1.00
Total	4,227	109	4,336	97.5%	2.5%	1.00	1.04

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	2,436	356	14.6%	0.94
Moderate (50-79.99% MSA)	857	250	29.2%	1.87
Middle (80-119.99% MSA)	1,110	242	21.8%	1.40
Upper (120% or More MSA)	2,832	442	15.6%	1.00
LMI (<79.99% MSA Income)	3,293	606	18.4%	1.06
MUI (> 80% MSA Income)	3,942	684	17.4%	1.00
Total	7,235	1,290	17.8%	1.14

Table I.3: All Loans by Tract Minority Level in Philadelphia (Non-Owner-Occupied)

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL 00HU	PRIME SHARE TO OOHU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
0-49% minority	2,125	37	2,162	50.3%	33.9%	49.9%	237,968	40.9%	1.23	0.83
50-100% minority	2,102	72	2,174	49.7%	66.1%	50.1%	343,352	59.1%	0.84	1.12
Total	4,227	109	4,336				581,320			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: PRIME	MINORITY LEVEL SHARE TO WHITE SHARE RATIO: SUBPRIME
0-49% minority	2,125	37	2,162	98.3%	1.7%	1	1
50-100% minority	2,102	72	2,174	96.7%	3.3%	0.98	1.94
Total	4,227	109	4,336	97.5%	2.5%	0.99	1.47

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	MINORITY LEVEL TO WHITE DENIAL RATIO
0-49% minority	3,286	412	12.5%	1.00
50-100% minority	3,949	878	22.2%	1.77
Total	7,235	1,290	17.8%	1.42

Table I.4: All Loans by Tract Income Level in Philadelphia (Non-Owner-Occupied)

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	оони	PCT. OF ALL OOHU	PRIME SHARE TO 00HU SHARE RATIO	SUBPRIME SHARE TO OOHU SHARE RATIO
Low (<50% MSA)	379	11	390	9.0%	10.1%	9.0%	240,280	41.4%	0.22	0.24
Moderate (50-79.99% MSA)	1,505	49	1,554	35.6%	45.0%	35.8%	172,475	29.7%	1.20	1.51
Middle (80-119.99% MSA)	1,156	30	1,186	27.3%	27.5%	27.4%	103,365	17.8%	1.54	1.55
Upper (120% or More MSA)	1,187	19	1,206	28.1%	17.4%	27.8%	64,930	11.2%	2.51	1.56
LMI (<79.99% MSA Income)	1,884	60	1,944	44.6%	55.0%	44.8%	412,755	71.0%	0.63	0.77
MUI (> 80% MSA Income)	2,343	49	2,392	55.4%	45.0%	55.2%	168,295	29.0%	1.91	1.55
Total	4,227	109	4,336				581,050			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	INCOME SHARE TO UPPER- INCOME SHARE RATIO: PRIME	INCOME SHARE TO UPPER-INCOME SHARE RATIO: SUBPRIME
Low (<50% MSA)	379	11	390	97.2%	2.8%	0.99	1.79
Moderate (50-79.99% MSA)	1,505	49	1,554	96.8%	3.2%	0.98	2.00
Middle (80-119.99% MSA)	1,156	30	1,186	97.5%	2.5%	0.99	1.61
Upper (120% or More MSA)	1,187	19	1,206	98.4%	1.6%	1.00	1.00
LMI (<79.99% MSA Income)	1,884	60	1,944	96.9%	3.1%	0.99	1.51
MUI (> 80% MSA Income)	2,343	49	2,392	98.0%	2.0%	1.00	1.00
Total	4,227	109	4,336	97.5%	2.5%	0.99	1.60

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	INCOME TO UPPER-INCOME DENIAL RATIO
Low (<50% MSA)	732	188	25.7%	1.80
Moderate (50-79.99% MSA)	2,718	549	20.2%	1.41
Middle (80-119.99% MSA)	1,827	273	14.9%	1.04
Upper (120% or More MSA)	1,958	280	14.3%	1.00
LMI (<79.99% MSA Income)	3,450	737	21.4%	1.46
MUI (> 80% MSA Income)	3,785	553	14.6%	1.00
Total	7,235	1,290	17.8%	1.25

Table I.5: All Loans by Borrower Gender in Philadelphia (Non-Owner-Occupied)

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. OF ALL PRIME LOANS	PCT. OF ALL SUBPRIME LOANS	PCT. OF ALL LOANS	HOUSEHOLDS	PCT. OF ALL HOUSEHOLDS	PRIME SHARE TO HOUSEHOLD SHARE RATIO	SUBPRIME SHARE TO HOUSEHOLD SHARE RATIO
Male	1,380	58	1,438	44.5%	56.9%	44.9%	154,160	29.3%	1.52	1.94
Female	719	23	742	23.2%	22.5%	23.2%	267,734	50.8%	0.46	0.44
Joint (Male/Female)	1,001	21	1,022	32.3%	20.6%	31.9%	160,700	30.5%	1.06	0.68
Total	4,227	109	4,336				582,594			

TOTAL	PRIME LOANS	SUBPRIME LOANS	TOTAL LOANS	PCT. PRIME LOANS	PCT. SUBPRIME LOANS	GENDER SHARE TO MALE SHARE RATIO: PRIME	GENDER SHARE TO MALE SHARE RATIO: SUBPRIME
Male	1,380	58	1,438	96.0%	4.0%	1.00	1.00
Female	719	23	742	96.9%	3.1%	1.01	0.77
Joint (Male/Female)	1,001	21	1,022	97.9%	2.1%	1.02	0.51
Total	4,227	109	4,336	97.5%	2.5%	1.02	0.62

TOTAL	LOAN APPLICATIONS	APPLICATION DENIALS	DENIAL RATE	GENDER TO MALE DENIAL RATIO
Male	2,577	497	19.3%	1.00
Female	1,366	324	23.7%	1.23
Joint (Male/Female)	1,535	195	12.7%	0.66
Total	7,235	1,290	17.8%	0.92



TECHNICAL APPENDIX J - OVERVIEW OF AUTHORIZED DEPOSITORIES

J.1 Depository Descriptions

City depositories make up a relatively small fraction of home purchase, refinance, and home improvement lending activity within the City. There are several other entities to consider when evaluating Philadelphia's fair lending practices including non-City depository banks as well as non-bank mortgage lenders. However, City depositories represent important and well-recognized financial institutions within the City and to the extent that they competitively seek the City's banking business, the City holds some negotiating leverage over them. Thus, they represent an important subset of lending and financial services activity that the City can and does evaluate over time in terms of their equitable lending and branch location practices.

The following section provides a brief overview of each of the eight authorized depositories in the City of Philadelphia. The overview includes information regarding the size, organizational structure, geographic footprint, and related features of each depository. The primary source materials used to complete the following descriptions were Community Reinvestment Act (CRA) reports available from the Federal Deposit Insurance Corporation (FDIC) and the interagency information available from the Federal Financial Institutions Examination Council (FFIEC). Alternative sources that were used to supplement this information include the Authorized Depository Compliance Annual Request for Information Calendar Year 2017 along with annual company reports from 2017.

Definitions of certain descriptive terms are provided below:

- Total Assets: Cash, securities, loans outstanding, etc. held by the lending institutions at year-end.
- Branches in Philadelphia: A physical location situated within the City of Philadelphia where retail banking transactions occur.
- Offices in Philadelphia: A physical location within the City of Philadelphia where administrative duties are performed.
- Community Reinvestment Act Rating: Based upon the individual institution's chartering authority, the CRA rating is examined by one of four federal bank supervisory agencies:

- 1. The office of the Comptroller of the Currency
- 2. Board of Governors of the Federal Reserve System
- 3. Office of Thrift Supervision
- 4. Federal Deposit Insurance Corporation

A financial institution's performance in helping to meet the credit needs of its community is evaluated in the context of information about the institution (capacity, constraints, and business strategies), its community (demographic and economic data, lending, investment, and service opportunities), and its competitors and peers.³⁹

Following the examination, the bank's performance is rated as:

- 1. Outstanding
- 2. Satisfactory
- 3. Needs to Improve
- 4. Substantial Non-compliance

Bank of America J.1.1

Total Assets: \$2,281,234,000,000 (as of 2017)40

Employees: 547⁴¹ within Philadelphia Branches in Philadelphia: 1842 Offices in Philadelphia: 143

Community Reinvestment Act Rating: Satisfactory (as of 12/31/2011)⁴⁴

Structure: Subsidiary of the Bank of America Corporation

Bank of America, N.A., a publicly traded company headquartered in Charlotte, North Carolina, is a subsidiary of Bank of America Corporation. BOA is a full-service, interstate bank that operates throughout the United States and in forty foreign countries. In Philadelphia, it operates 18 branches and 28 directly owned ATMs and 30⁴⁵ network access ATMs.

BOA acknowledges receipt of, and general agreement in principle with the MacBride Principles noting that its certification is based on an interpretation on holdings to include only direct proprietary ownership as opposed to holdings on behalf of a third-party (e.g., a client).

BOA certifies that it does not engage in discriminatory practices on the basis of race, color, creed, religion, or sexual orientation. It also certifies that it does not engage in predatory lending practices as described by the Comptroller of the United States and is not known to have benefited from slavery or slaveholder insurance policies.

³⁹ FFIEC. Community reinvestment Act, Last Modified August 22, 2013. https://www.ffiec.gov/craratings/ratings_faq.htm#5

⁴⁰ Bank of America 2017 Annual Report

⁴¹ City of Philadelphia, Office of the City Treasurer, Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200, CITY FUNDS--DEPOSITS, INVESTMENTS, DISBURSEMENTS R.EL. Questionnaire Annual Request for Information Calendar Year 2017 for Bank of America, pg. 3

⁴² Ibid. pg. 3

⁴³ Ibid, pg. 1

⁴⁴ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 11, 2017. http://www.ffiec.gov/craratings/default.aspx

⁴⁵ Source MasterCard Competitors ATMs Database

During its most recent CRA exam in September 2014, covering 2009-2011, the CRA rating for Pennsylvania and the Philadelphia multi-state MSA was Satisfactory.

BOA achieved its CRA goals through a variety of community development initiatives including providing accessible small business, mortgage and consumer loan products; investing in Low Income Housing, Historic and New Markets Tax Credits; Community Development Financial Institutions (CDFIs); making charitable contributions to nonprofits; extending qualified Real Estate and Commercial Community Development Loans; and participating in a variety of community development services including volunteer efforts in the community through delivery of financial literacy education and participation on nonprofit boards and committees.

The following chart outlines BOA's CRA results. The chart provides the number of small business loans, home mortgages, home improvement loans, and community development investments that BOA made within low and moderate-income neighborhoods within the City of Philadelphia during 2017.

ТҮРЕ	2017 GOALS	2017 RESULTS
Small Business Loans	N/A	1,263
Home Mortgages	N/A	517
Home Improvement Loans	N/A	5
Community Development Investments	N/A	25

Lines of business no longer report goals based on geography in these areas.

Bank of America provided grants to non-profits in Philadelphia totaling approximately \$1,800,000 in 2017. This value includes foundation grants to nonprofits based in Philadelphia as well as matching gifts (\$550,000). Each employee of Bank of America is given the opportunity to match up to \$5,000 in contributions. Since 2004, through more than \$150 million invested in communities, BOA recognized nearly 700 nonprofits and 1,600 students. Prominent among these are the following:

- Neighborhood Builders* is a program that advances the nonprofit sector through flexible funding and leadership training. In Philadelphia, BOA invested \$200,000 in 21 local nonprofit organizations.
- Students Leaders* is a program that supports community-minded high school students through a paid summer internship at a local nonprofit and leadership training. Five students participate from Philadelphia high schools and intern at the Philadelphia Youth Network.

In addition, the majority of the BOA Foundation's giving was provided through their RFP Process in three key areas: Community Development; Education and Workforce Development; and Critical Needs.

Community Development-2017 (\$902,000)

 BOA funded programs focused on foreclosure counseling and mitigation, real estate owned disposition and affordable housing. In addition, BOA supported programs that advanced overall community revitalization. BOA awarded grants to 22 local nonprofit and community development organizations.

Economic Mobility for Individuals and Families (Workforce Development and Basic Needs 2017 (\$925,500)

- In 2017, in addition to BOA's internal Student Leader Program, through the Bank of America Summer Youth Employment Initiative, BOA provided \$162,200 to Philadelphia Youth Network in support of WorkReady Philadelphia, an increase of \$9,700 from 2016. The initiative provided 66 teens with job opportunities through at local nonprofits and small businesses in the Philadelphia area and will support a learning and skill-development series for participating teens.
- Again in 2017, BOA supported five interns from Philadelphia High Schools in their banking centers
 over the summer.
- 32 local organizations, including Boys and Girls Clubs of Philadelphia, Congreso De Latinos Unidos, and Urban League of Philadelphia, received grants from BOA to support Workforce Development and Education.
- In 2015, Urban League of Philadelphia awarded BOA with its Vision Award for its focus on Workforce Development and Education initiatives.
- BOA issued grants to support the efforts of 14 local organizations to provide individuals and families in need of assistance with basic human needs.

Bank of America's commitment to arts and culture is based in the belief that a strong, thriving cultural community not only enriches civic life, but also plays an important economic role in helping to spur urban renewal, attract new businesses, draw tourism, and spark innovation.

- BOA continued its official sponsorship of the PHS Philadelphia Flower Show. A study found that the Flower Show provides an economic benefit to the Greater Philadelphia region of \$61 million, including the equivalent of 637 full-time jobs, \$8 million in city, state, and federal tax revenue and 25,000 hotel room nights.
- In 2013, BOA provided a significant grant to the Philadelphia Museum of Art for the restoration of the iconic Diana sculpture on the top of the museum's Great Stair Hall. This project was one of only four chosen throughout the United States.
- BOA committed a \$500,000 anchor institution grant to the Museum of the American Revolution that will complete the visitor's experience in the Historic District of Philadelphia. The Museum will add jobs and overall economic development to the area.
- The Museums on Us* program provides Bank of America and Merrill Lynch cardholders with monthly free access to more than 150 of the country's greatest museums, zoos, science centers, and botanical gardens.
- BOA continued its Art in Philadelphia Communities® program where works from its collection are shared with museums across the globe. Since 2008, more than 50 exhibitions have been loaned. In 2015, BOA bought an exhibit to the African American Museum in Philadelphia. This year BOA is supporting conservation efforts by the Historical Society of Pennsylvania in Philadelphia.
- BOA sponsored the Franklin Institute Awards, an annual awards celebration in Philadelphia to
 honoring the greatest men and women of science, engineering, and technology. These awards are
 among the oldest and most prestigious comprehensive science awards in the world.
- Additional annual support includes funding for the Barnes Foundation, Philadelphia Museum of Art, Pennsylvania Ballet, Opera Company, Please Touch Museum, and Philadelphia Zoo.

Bank of American Charitable Foundation National Support: Two national partners based in Philadelphia are The Reinvestment Fund and Opportunity Finance Network. BOA supports both of these organizations with significant grants and loan capital annually.

Bank of American Community Volunteers: Bank of America Community Volunteers program closely aligns with the company's major philanthropic priorities by pairing employee volunteer efforts with corporate philanthropic investments, including community development, education and youth development, arts, environment and health and human services. The company also offers many associates the opportunity to take two hours per week off to volunteer for various causes. In Philadelphia, there are a few organizations with which ongoing projects occur throughout the year, specifically Habitat for Humanity, Philabundance, MANNA, and Cradle to Crayons.

Community Development Services: Bank of America employees have roles on the boards of 16 nonprofit organizations serving Philadelphia.

Financial empowerment for individuals and families: With polls showing that a large majority of Americans regard themselves as ill-equipped to handle their finances, BOA partnered with Sal Khan and the Khan Academy to launch BetterMoneyHabits.com, an online tool that takes an innovative approach to understanding financial concepts through simple and approachable content. Another step taken to improve people's financial wellbeing was the development of SafeBalance Banking, which helps customers avoid costly overdrafts by limiting their ability to spend funds that they lack.

Financial Education:

- Through a partnership with the City of Philadelphia's Financial Empowerment Centers, Clarifi, and the Points of Light Foundation, Bank of America employees have been matched one-on-one for a 6-month financial coaching program.
- Working with youth through the City, BOA partners with Junior Achievement Delaware Valley through Junior Achievement we have a strong partnership with the McCloskey Elementary School and provide approximately 15-20 volunteers for a JA Day each year and through the Hispanic Chamber of Commerce where volunteers presented during the Youth Summit at Edison High School.
- Adults: Basic banking and credit monthly sessions with Back on My Feet and its members in the Next Steps program, many living in Philadelphia homeless shelters. Specifically, BOA's mortgage officers work with its Community Development Corporation (CDC) partners to provide assistance with first time homebuyer and homeownership workshops.

Lending Outreach Programs

BOA is engaged in the following lending outreach programs:

<u>Mortgage Outreach Assistance and Home Retention Efforts:</u>

• Through the Connect to Own® program, BOA provides pre-purchase homeownership training for low- to moderate-income (LMI) and first-time homebuyers, as well as foreclosure prevention counseling services and resources to help keep borrowers in their homes. Through this network, Bank of America's Neighborhood Lending team collaborates with more than 550 pre-purchase education and counseling agencies in 39 states and Washington, D.C. All Connect to Own agencies are HUD

approved and the home buyer education provided by these agencies is conducted in person and in many instances provided at no-cost to the consumer. Bank of America pays a fee for service to these non-profit organizations for pre-purchase homebuyer education when the loan closes.

- Since 2009, BOA has participated in more than 1,020 events in 45 states and Washington, D.C. assisting more than 150,000 homeowners to retain their homes. That includes 12 events in Pennsylvania where BOA met with more than 2,000 customers. BOA provided 2 mortgage on-site events in Philadelphia in July 2011 and October 2012.
- In 2013 BOA donated 2 homes in Philadelphia to the Korean Community Development Services.
- Strong relationship with Clarifi. BOA provided a \$200,000 operating grant in 2015.
- Bank of America's Neighborhood Lending group sponsored a Realtor outreach event with the Greater Philadelphia Board of Realtors (NAREB) and FreddieMac on Oct 12, 2016 at the African American Museum in Philadelphia. Specialists introduced the Affordable Loan Solution mortgage and the Down Payment Resource center link: Down Payment Resource Center. Both programs are geared to assist LMI families with options to achieve home ownership. Approximately 55 minority Real Estate Agents attended along with a HUD approved counseling agency.
- Annual supporter of Habitat for Humanity with at least 2 volunteer build days throughout the year.

<u>Customer Assistance Centers (CACs)</u>: BOA operates two local Customer Assistance Centers (CACs) – one in North Wales and the other in Pennsauken, NJ - serving Philadelphia mortgage customers. They assist homeowners avoid foreclosure.

Financial empowerment for communities—Bank of America's small business lending and industry-leading \$1.2 billion investment in Community Development Financial Institutions enables BOA a significant role in the stabilization of low- and moderate-income communities. In addition, through a partnership with The Tory Burch Foundation (see CDFI support) BOA is helping fund the ideas and innovations of women entrepreneurs across the country.

Small Business Development

Bank of America closely supports and engages with a large number of umbrella organizations whose initiatives promote the growth of small businesses in the Philadelphia region. These organizations include the Greater Philadelphia Chamber of Commerce, the Greater Philadelphia Hispanic Chamber of Commerce, the Center City Proprietors Association, the Entrepreneurs' Forum of Greater Philadelphia, and WBENC.

In addition to having small business bankers on staff, BOA provides small business sessions for advice and guidance upon request.

Furthermore, BOA works closely with regional diversity councils that are members of the National Minority Supplier Development Council (NMDC) and the Women's Business Enterprise National Council (WBENC), providing affiliated businesses with technical support.

Finally, BOA collaborated with the Initiative for a Competitive Inner City (ICIC), a nonprofit research and strategy organization and the leading authority on U.S. inner city economies and businesses, to implement the Inner City Capital Connections (ICCC) program within the City of Philadelphia. Launched in 2005 in partnership with Bank of America, ICCC helps small businesses in economically distressed areas access capital, achieve sustainable growth, and provides a forum where companies can connect with capital providers. Unlike other capital raising events, ICCC is unique in its focus on inner city entrepreneurs.

Community Development Loans and Investments

BOA has a long and dedicated history of community development investment in the Philadelphia area, including the Diamond Street Initiative II project in 2016. With a \$7 million loan, BOA financed a partnership led by Pennrose Properties to provide for the substantial renovation of 23 historically significant brownstone townhouses, totaling 46 units, in the Strawberry Mansion Neighborhood of Philadelphia. Additionally, Diamond Street Initiative II will redevelop the remaining seventeen (17) buildings and six (6) blighted publicly owned properties along the same historic corridor.

J.1.2 Bank of New York Mellon, N.A

Total Assets: \$371,758,000,000 (as of 12/31/17)46

Employees: 213 within Philadelphia⁴⁷

Branches in Philadelphia: 0⁴⁸ Offices in Philadelphia: 1⁴⁹

Community Reinvestment Act rating: Outstanding (as of 8/26/2013)⁵⁰

Structure: Subsidiary of the Bank of New York Mellon

Prior to 2006, Mellon Bank, N.A. was a wholly owned subsidiary of Mellon Financial Corporation (MFC), headquartered in Pittsburgh, PA. In 2006, MFC announced its planned merger with Bank of New York, and in July of 2007 the completed merger created the bank now known as The Bank of New York Mellon Financial Corporation. Its headquarters reside in New York, New York. BNY Mellon provides investment services, investment management, and wealth management services that help institutions and individuals success in markets all over the world. With a dedicated business presence on six continents, 35 countries, and over 100 markets, BNY Mellon delivers global scale quality at the local level.

According to the BNY Mellon Corporate Social Responsibility (CSR) 2017 Report, globally, BNY Mellon donated almost \$42 million to charitable organizations and logged 143,000 hours of employee volunteer time. Previously, in 2013, BNY Mellon donated \$5.4 million in grants and charitable sponsorships, contributed \$3.1 million in employee donations and company match, and logged 23,300 hours of employee volunteer time within the Commonwealth of Pennsylvania.

Bank of New York Mellon does not promulgate city-specific Community Reinvestment Goals for the City of Philadelphia CRA assessment area and as a result, there is not a chart of CRA Goals and Results.

⁴⁶ BNY Mellon 2017 Annual Report

⁴⁷City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS – DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I, Questionnaire Annual Request for Information, Calendar Year 2017 for BNY Mellon, pg. 2

⁴⁸ Ibid pg. 5

⁴⁹ Ibid pg. 4

^{50 &}quot;Community Reinvestment Act Performance Evaluation: BNY Mellon, National Association". Office of the Comptroller of the Currency. August 26, 2013. https://www.bnymellon.com/_global-assets/pdf/csr/community-reinvestment-act-performance-evaluation-bny-mellon-bank-na-2013.pdf.

⁵¹ BNY Mellon Corporate Social Responsibility 2017 Report

J.1.3 Citibank, N.A

Total Assets: \$1,834,000,000,000 (as of 12/31/17)⁵²

Employees: 43 within Philadelphia⁵³

Branches in Philadelphia: 0⁵⁴ Offices in Philadelphia: 1⁵⁵

Community Reinvestment Act Rating: Satisfactory (12/31/2011)⁵⁶

Structure: Subsidiary of CitiGroup Incorporated

Citibank, N.A., one of the largest banks in the United States, is headquartered in New York, New York. It is an arm of the larger parent company, Citigroup a global, diversified financial services holding company. Citigroup conducts business in 160 countries and jurisdictions. In Philadelphia, Citibank has 406 ATMs with network access across the city. Citibank provides several financial products and services to its customers including banking, insurance, credit card, and investment assistance services.

Citibank certifies that it makes all lawful efforts to implement the fair employment practices embodied in the MacBride Principles and does not originate Home Ownership and Equity Protection Act (HOEPA) loans, negative amortization loans, non-traditional mortgage products such as interest only and payment option Adjustable-Rate Mortgage (ARM) in the non-prime channel, or equity lending. It is the policy of Citibank that all loans must meet an ability to pay test. Citibank rejects any policy or activity that promotes predatory lending practices and does not participate in subprime lending. Citibank also certifies that it did not find any records that it or any of its Predecessor Business Entities had any participation or investments in, or derived profits from, slavery or slaveholder insurance policies during the slavery era.

In early 2011, Citigroup publicly announced a new mission statement and four key operating principles, including a commitment to responsible finance. Citigroup is committed to advancing financial inclusion by improving the supply of financial products for low-income households and by improving consumer financial capabilities. Its purpose is to make sure Citigroup's actions are in its clients' interests, creates economic value, and are systemically responsible. The board is responsible for senior management's effective implementation and execution of the principle of responsible finance across Citi's businesses.

The following chart details Citibank's 2017 CRA goals and results. It provides the number of small business loans, home mortgages, home improvement loans, and community development investments that Citibank made within Philadelphia's low and moderate-income neighborhoods for 2017.

TYPE	2017 GOALS	2017 RESULTS
Small Business Loans	N/A	587
Home Mortgages	N/A	15
Home Improvement Loans	N/A	2
Community Development Investments	N/A	1

Calendar Year 2017

⁵² Citigroup 2017 Annual Report

Sign City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS – DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I, Questionnaire Annual Request for Information, Calendar Year 2015 for Citibank, pg. 2

⁵⁴ Ibid pg. 2

⁵⁵ Ibid pg. 1

⁵⁶ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 2, 2017. http://www.ffiec.gov/craratings/default.aspx

Citibank makes significant capital investments in Philadelphia's communities through Citibank Community Capital (CCC). CCC is a department in the Municipal Securities Division that provides a comprehensive selection of innovative financial tools for community development in cities throughout the country, including Philadelphia.

Furthermore, Citibank provided \$200,000 in grants for community development in 2017. These activities were geared primarily towards capacity building and planning programs. For example, Citibank provided grants to Aeris Insight in support of the Standardizing CDFI (Certified Community Development Financial Institution) Impact Data Program. This will strengthen Aeris' ability to collect more robust data on CDFI's impact in low- and moderate-income (LMI) communities which will ultimately help drive capital.

Lending Outreach Programs

Citibank has offered several flexible and innovative mortgage products to increase access to affordable housing in the Philadelphia market in 2017. These products and programs include:

- Federal Housing Association (FHA) and Veterans Affairs (VA) Programs- FHA loans have mortgage insurance provided by HUD, enabling Citibank to offer additional loan options to borrowers who may not qualify for a conventional mortgage. VA loans are guaranteed by The U.S. Department of Veterans Affairs, providing protection against losses arising from a borrower default.
- Neighborhood Assistance Corporation of America Program a unique national mortgage program specifically designed for borrowers who have been given homebuyer education and counseling by NACA, a nonprofit organization aimed at helping families achieve homeownership

J.1.4 Citizens Bank of Pennsylvania

Employees: 403 within Philadelphia⁵⁷ Branches in Philadelphia: 52⁵⁸ Offices in Philadelphia: 1⁵⁹

Community Reinvestment Act Rating: Outstanding (as of 9/1/2017)60

Structure: Subsidiary of Citizens Financial Group, Inc.

Citizens Bank of Pennsylvania (CBPA) is a full-service financial institution serving Pennsylvania and New Jersey. The bank's primary market focus is providing credit, deposit account, and services to individuals and small businesses. CBPA is a subsidiary of the Citizens Financial Group, Inc. (CFG), a holding company based in Providence, Rhode Island. CFG is one of the largest retail bank holding companies in the United States. CFG operates through its subsidiaries Citizens Bank, N.A. and Citizens Bank of Pennsylvania as Citizens Bank, Citizens Commercial Banking and Citizens One. CBPA operates 52 branch offices and 95 directly owned ATMs throughout the Philadelphia area. CBPA certifies that it conducts no business with Northern Ireland, is in federal compliance with laws regarding predatory lending, and is not known to have benefited from slavery or slaveholder insurance policies.

Citizens Bank uses a comprehensive approach to developing its annual CRA goals. Goals are reviewed against performance on a monthly basis and quarterly meetings held with a CRA State Market Leadership Team.

Tity of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS--DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I., Questionnaire Annual Request for Information, Calendar Year 2017 for Citizens Bank, pg. 6

be Ibid pg. 5

⁵⁹ Ibid pg. 4

[∞] FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 2, 2017. http://www.ffiec.gov/craratings/default.aspx

The following chart details CBPA's attainment of its 2017 CRA goals. It provides the number of small business loans, home mortgages, home improvement loans, and community development investments that CBPA made within low and moderate-income neighborhoods within the City of Philadelphia for 2017.

TYPE	2017 GOALS	2017 RESULTS
Small Business Loans	144	205
Home Mortgages	126	104
Home Improvement Loans	N/A	N/A
Community Development Investments	65	68

Overall Citizens Bank met their 2017 goals for Small Business Loans, Home Mortgages, Home Improvement Loans, and Community Development Investments.

Home Mortgage Loans (HMDA): During 2017 Citizens Bank illustrated an outstanding responsiveness to meet the credit needs of the LMI communities in which it served. Given below are specific examples of the Bank's lending results:

Lending to Low and Moderate Income Geographies – In 2017, Citizens Bank maintained 1.5 percent of the overall HMDA lending market-share in Philadelphia. During the same year, the Bank's HMDA lending percentages in the low (2.0 percent) and moderate (1.8 percent) income geographies exceeded the overall market share, respectively.

In 2017, the Bank's lending rate to moderate (21.4 percent) income geographies exceeded the percentage of moderate (18.6 percent) owner occupied units in the geography.

Market share data further supports the Bank's excellent performance. In 2017, the Bank ranked 9th out of 283 lenders in lending to low income geographies with a 1.9 percent market share. Also, the Bank ranked 8th of out 484 lenders in lending to moderate income geographies with a market share of 1.8 percent.

Lending to Low and Moderate Income Borrowers – In 2017, Citizens Bank maintained 1.81% of the total HMDA lending marketshare in Philadelphia. During the same year, the Bank's HMDA lending percentage to low (2.3 percent) income borrowers exceeded the overall market share. Also in 2017, the Bank's lending rate to moderate (17.9 percent) income borrowers exceeded the percentage of moderate (17.2 percent) income families in the geography.

Market share data further supports the Bank's excellent performance. In 2017, the Bank ranked 8th out of 373 lenders in lending to low income borrowers with a 2.3 percent market share. Also, the bank ranked 15th of out 467 lenders in lending to moderate income borrowers with a market share of 1.6 percent.

From 2016 to 2017, Citizens Bank generated an increased number of HMDA reportable loans. The Bank also invested additional resources in product training and increased recruiting efforts; specifically, for CRA loan officers. These programs were designed to specifically address the needs of persons in low and moderate geographies by offering low interest rates, flexible loan amounts, and low monthly payments.

In 2017, Citizens Bank contributed \$14 million to support community activities and events across its footprint. Citizens Bank colleagues contributed more than 114,000 volunteer hours and executives provided leadership by serving on community boards and championing efforts to raise awareness and funds for key causes.

Funding priorities for 2017 consist of program support in four specific areas that fortify the economic vitality of Philadelphia's neighborhoods: fighting hunger, teaching money management, strengthening communities, and volunteerism. Signature initiatives include:

Champions in Action – Since 2004, Citizens Bank has awarded approximately \$1.2 million to 43 organizations in the Greater Philadelphia area through Champions in Action, a unique initiative designed to provide financial, volunteer, and promotional support for nonprofit organizations that are addressing the needs and social challenges of Philadelphia's diverse neighborhoods. In Philadelphia, Citizens Bank has partnered with NBC10/Telemundo62 and Philadelphia Media Network on the program. In 2017, two \$35,000 awards were made to Interim House and Lutheran Settlement House.

Citizens Helping Citizens Manage Money – In 2017, Citizens Bank awarded \$225,000 to 11 nonprofits in Pennsylvania, New Jersey and Delaware as part of the Citizens Helping Citizens Manage Money initiative. Citizens Bank's multi-faceted financial education program leverages the financial planning expertise of its bankers and its partnerships with local nonprofits focused on financial education. These organizations received a contribution in recognition of and to further support their commitments to teaching youth and adults about financial literacy and the importance of managing money effectively.

Phans Feeding Families – Citizens Bank has partnered with The Philadelphia Phillies in the Phans Feeding Families program since 2010. This initiative raises money and collects food to feed the nearly one million people in the Delaware Valley that are at risk of hunger. In 2017, Citizens Bank donated \$40,000 to the cause, with proceeds benefiting Philabundance, the region's largest hunger relief organization. Additionally, through a colleague funded giving campaign, Citizens Bank colleagues donated an additional \$30,000 of funds to Philabundance in 2017, for a total contribution of \$70,000.

Other contributions were made to the Free Library of Philadelphia Foundation Neighborhood Job Fairs, the Urban Affairs Coalition FAN Clubs, Philadelphia Youth Network Work Ready Program, University City District's West Philadelphia Skills Initiative, the Project Home's Adult Learning and Workforce Development program, and Philadelphia OIC's Bankworks program. Citizens Bank also provides funding to The African American Museum in Philadelphia to support subsidized admission throughout the Martin Luther King, Jr. Day weekend.

In June 2003, Citizens Bank and the Phillies announced a 25-year partnership that included naming rights to the team's new, world-class ballpark and a broad-based, innovative media package. Since Citizens Bank Park opened in 2004, Citizens Bank has worked with the Phillies to expand and enhance community outreach, including:

Citizens Bank developed the Helping Hand Glove donation program for children who play in the Phillies Jr. RBI League. Each year more than 6,000 inner city children under the age of 12 participate in a program that teaches them about baseball, sportsmanship, and teamwork. Since developing the program, Citizens Bank has purchased, collected, and donated more than 10,000 baseball gloves to children who play in the Phillies Jr. RBI League.

Since 2004, Citizens Bank has donated 1,500 game tickets each year to community groups throughout Greater Philadelphia. Citizens Bank understands that a good bank is at the heart of a community, and that investing in Philadelphia's communities enriches us all. Organizations that Citizens Bank works with participate in a variety of community building activities including: helping individuals find affordable housing, workforce development, financial education, neighborhood revitalization, and small business technical assistance.

For well over 10 years Citizens Bank has had a robust financial literacy program in Philadelphia where colleagues have conducted financial education workshops throughout the City. Citizens Bank colleagues support and participate in a variety of Financial Education initiatives in Philadelphia, including but not limited to: Philadelphia Works, School District of Philadelphia, and First Time Home Buyer Workshops with various organizations. Activities that have occurred in FY 2017 include the following:

Affordable Housing Centers of Pennsylvania - A homebuyer workshop was conducted for first time homebuyers.

J.1.5 PNC Bank

Total Assets: \$381,000,000,000 (as of 12/31/17)⁶¹

Employees: 2,240 within Philadelphia⁶²

Branches in Philadelphia: 38⁶³ Offices in Philadelphia: 164

Community Reinvestment Act Rating: Outstanding (as of 7/8/2012)65

Structure: Subsidiary of PNC Financial Services Group

PNC Bank is the flagship subsidiary of the PNC Financial Services Group, Inc. (PNC Financial) headquartered in Pittsburgh, Pennsylvania. PNC announced several strategic acquisitions during 2011, including the acquisition of RBC Bank (USA), the U.S. retail banking operation of the Royal Bank of Canada. In the City of Philadelphia, PNC Bank operates 38 branch offices and directly owns 261 ATMs and has 9 ATM's with Network Access.

PNC Bank utilizes the Northern Ireland Service provided by RiskMetrics Group as part of its compliance program established in connection with the MacBride Principles. The Commonwealth of Pennsylvania has indicated that this service is an effective means by which to help ensure compliance with its Act 44. PNC Bank periodically reviews that it has not invested any monies or assets on deposits in stock, securities, or other obligations of institutions or companies doing business in or with Northern Ireland. In addition, periodic reviews are done of PNC Bank and its subsidiaries that exercise investment discretion with respect to any state or city funds to ensure that the entities eligible for investments appear to have undertaken good-faith efforts to implement the fair employment standards embodied in the MacBride Principles.

In regards to past activity that may have derived profit directly or indirectly from slavery, the PNC Financial Services Group, Inc. extensively reviewed the historical records of acquired institutions and discovered two instances in the records of the National Bank of Kentucky, a predecessor of National City, which PNC acquired in 2008. In 1836, the National Bank of Kentucky loaned \$200,000 to the City of Louisville. Records indicate the City then invested in the Lexington & Ohio Railroad Company. In 1852, the National Bank of Kentucky loaned

⁶¹ PNC Bank 2017 Annual Report

City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS - DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I. Questionnaire Annual Request for Information, Calendar Year 2017 for PNC Bank, pg. 7

⁶³ Ibid pg. 7 64 Ibid pg. 6

⁶⁵ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 2, 2017. http://www.ffiec.gov/craratings/default.aspx

\$135,000 to the Louisville & Nashville Railroad Company. Research indicates that both railroads employed forced labor. There is no evidence that the National Bank of Kentucky accepted individuals as collateral for either loan, or otherwise directly profited from slavery.

PNC Bank does not offer loan products that can be described as predatory or high cost. PNC Bank certifies that it provides applicants with information necessary to protect themselves against predatory lending practices, including all legally-required loan disclosures. PNC Bank also makes available a wide variety of financial education and related tools for consumers to better understand their options when it comes to financial products. Examples include:

- Financial Education Courses: PNC Bank offers classes to consumers, small businesses, and nonprofit organizations through its community outreach and educational activities. Patterning with FDIC, PNC has an agreement to co-brand and deliver its Money Smart financial literacy series on a variety of topics for adult and youth education, taught by bank employees, with many of these series also available in Spanish.
- PNC Homebuyers' Club: PNC Bank partners with local non-profit housing counseling agencies
 to provide low and moderate income first-time home buyers with instruction and assistance in
 overcoming financial challenges.
- Bank On: Under this program, PNC provides "second chance" account opportunities to unbanked and underbanked Philadelphians with its low fee Foundation Checking and PNC Smart Access Visa Prepaid Card.

The following chart details PNC's attainment of its 2017 CRA goals. It provides the number of small business loans, home mortgages, home improvement loans, and community development investments that PNC made within Philadelphia's low and moderate-income neighborhoods during 2017.

ТҮРЕ	2017 GOALS	2017 RESULTS
Small Business Loans	350	624
Home Mortgages (Home Purchase/Refinancing)	125	121
Home Improvement Loans	70	107
Community Development Investments	\$10 Million	\$44.2 Million

PNC significantly exceeded its 2017 goals for Small Business Loans, Home Mortgages, Community Development Investments, and Community Development Investments.

PNC Bank, N.A. was slightly lower than targeted in the number of home mortgages originated (121 vs. goal of 125). There is not a specific reason or justification for not reaching goal other than volume was lower than expected.

PNC has proudly partnered with hundreds of art, history, education, and cultural institutions throughout the city. Through the PNC Foundation, community reinvestment activity, EITC/OSTC, and charitable sponsorships – PNC provides millions of dollars in support throughout Philadelphia every year.

PNC has long been a leading corporate supporter of arts and culture in Philadelphia. PNC Arts Alive is ten year, \$10 million dollar initiative, introduced in 2009 through the PNC Foundation, and designed to support visual and performing arts organizations

PNC was one of the first businesses to commit funding towards the Dilworth Park Renovation, and will provide additional sponsorship support for the Live @ Lunch concert series through Fall of 2020.

Commitment to Citizens Through Education

PNC believes that help for training should begin with Philadelphia's most youthful subjects. In 2017, PNC commended its twelfth commemoration of Grow Up Great, a \$350 million, multi-year interest in school preparation to help get ready youngsters from birth to age five – with an emphasis on underserved kids - for accomplishment in school and life.

The program incorporates PNC Foundation grants to early youth associations, employee volunteerism, promotion endeavors, and instructive materials for kids, parents, and teachers.

PNC's "Grow Up Great" Program likewise propelled a \$2 million Vocabulary Building Pilot Project in North Philadelphia intended to enable families set up their children with vocabulary advancement and early proficiency expertise assets at a variety of events.

Full-time PNC workers are given 40 hours of paid time off every year to volunteer for "Grow Up Great." Through this volunteerism, PNC has directed pre-school collection drives, constructed new pre-school libraries at nine partner Head Start focuses and filled those bookshelves with an assortment of new preschool books.

In 2017, PNC supported the Mayor's Office of Education to help give proficient tools and training to Head Start and Pre-School Directors, to help enhance the quality and operational productivity of their projects.

In over 16 years, PNC has contributed more than \$15.1 million non-profit scholarship and educational improvement organizations.

PNC's responsibility additionally stretches out to advanced education. PNC's \$1 million grant made the first-ever PNC Professorship in Early Childhood Education at Temple University's College of Education.

Commitment to Local Businesses:

PNC annually supports the Independence Business Alliance's Business Leaders Luncheon and offers a \$10,000 grant to an LGBT-owned business that demonstrates a well-defined plan for growth, including innovation, sustainability, and ongoing contribution to the community.

PNC has upheld organizations in the Philadelphia people group through branch facilitated occasions intended to teach and bolster their development. Occasions included board exchanges on promotion and marketing, human resource management, and attaining credit.

PNC salutes the small companies in the Philadelphia area during the month of May which has been known as Small Business Month. Throughout this month, business clients are welcomed and the Philadelphia community to take an interest in online courses which include seminars on "How to Grow your Business" and "How to take a Small Business and Grow to an Industrial Player."

PNC is additionally facilitating their yearly Women in Business Blitz. For an entire week, women are partnered with female leaders, influencers and professionals in business. Discussions are focused on business operations, and capitalizing in business opportunities.

Lending Outreach Programs

PROJECT H.O.M.E:

Since its beginning in 1988, Project H.O.M.E. has been a leader in providing comprehensive and effective services to persons who experience chronic homelessness. Since its inception, under the leadership of Sister Mary Scullion, the organization has been a leader in Philadelphia in responding to the root causes of homelessness by helping to rebuild low-income neighborhoods and by engaging in political advocacy to bring about positive public policies for low-income and homeless persons.

PNC Bank has had a longstanding history with Project HOME and the communities in which it provides services. In 2004, PNC Bank established a \$2.5 million major alliance with Project H.O.M.E under the Commonwealth of Pennsylvania Neighborhood Assistance Project (NAP) tax credit program and in 2014 the commitment was extended for an additional 1.25 million. Under the alliance, PNC Bank is providing support to the organization's comprehensive neighborhood revitalization efforts and the additional \$1.5 million is payable over a six-year period.

J.1.6 Republic Bank

Total Assets: \$2,320,000,000 (as of 12/31/17)66

Employees: 245 within Philadelphia⁶⁷⁷

Branches in Philadelphia: 6⁶⁸ Offices in Philadelphia: 1⁶⁹

Community Reinvestment Act rating: Satisfactory (as of 3/22/2017)⁷⁰

Structure: Subsidiary of the Republic First Bank Corporation

Republic First Bancorp, Inc. was incorporated under the laws of the Commonwealth of Pennsylvania in 1987 and is the holding company for Republic First Bank, which does business under the name Republic Bank. With its corporate headquarters in Philadelphia, this full-service bank serves the needs of individuals, businesses, and families primarily in the Greater Philadelphia and Southern New Jersey areas through their offices and branches in Philadelphia, Montgomery, and Delaware Counties in Pennsylvania and Camden County in New Jersey. The bank's primary mission is to serve small and medium sized businesses that are underserved as a result of mergers and acquisitions. In the City of Philadelphia, the bank operates 6 branch offices and 6 directly owned ATMs.

Republic Bank certifies that it is in compliance with the MacBride Principles relating to Northern Ireland. The bank also certifies that it adheres to all of the regulatory consumer regulations and disclosure requirements regarding providing protection from predatory lending practices. The bank certifies that it has found no evidence of profits from slavery and/or slavery insurance policies during the slavery era.

⁶⁶ Republic First 2017 Annual Report.

⁶⁷ City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS – DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I, Questionnaire Annual Request for Information Calendar Year 2017 for Republic First Bank pg. 5

⁶⁸ Ibid pg. 5

⁶⁹ Ibid pg. 4

⁷⁰ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 9, 2017. http://www.ffiec.gov/craratings/default.aspx

The following chart indicates the number of small business loans, home mortgages, home improvement loans, and community development investments that Republic First Bank made in 2017 within low and moderate-income neighborhoods located in the City of Philadelphia.

TYPE	2017 GOALS	2017 RESULTS
Small Business Loans	N/A	19
Home Mortgages	N/A	67
Home Improvement Loans	N/A	N/A
Community Development Investment	N/A	12

Republic Bank reported that it does not set separate reinvestment goals for the City of Philadelphia. Rather, they are included in the bank's goals for the overall assessment area.

Republic Bank management and staff participate in a variety of community development organizations that promote financial service education within the community. Republic bank also participates in the PA Earned Income Tax Credit program supporting local non-profit businesses.

Lending Outreach Programs

The bank is engaged in the following lending outreach programs:

- <u>Community Lenders Community Development Corporation (CLCDC)</u>: The CLCDC promotes revitalization through financing of, and investment in, housing and community development activities, and addresses the needs of low and moderate income persons in areas throughout Bucks, Chester, Delaware, and Montgomery Counties, with specific emphasis on communities where member banks are located.
- Cooperative Business Assistance Corporation (CBAC): The CBAC is a non-profit, public-private partnership created in 1987. This organization was established to encourage the growth and stability of the small business sector. CBAC facilitates opportunities for banks to make business loans in the city of Camden, NJ and Philadelphia, PA, along with other counties located in Southern NJ. CBAC is a certified CDFI, a certified development entity, a SBA Microloan Intermediary and a US Small business Administration Associate Development Corp.
- Women's Opportunity Resource Center (WORC): The WORC promotes social and economic self-sufficiency primarily for economically disadvantaged women and their families. Services include training, individual business assistance, job replacement, and access to business and financial resources. The bank opens accounts to support savings activities and serves on the advisory committee of WORC's Economic Opportunities Fund (EOF).
- The Enterprise Center (TEC): Republic Bank has partnered with the Enterprise Center to provide funding for the Republic Bank Commercial Corridor Improvement Program where all Commercial Loans will support the Philadelphia Department of Commerce Revitalizing Corridors Store Front Improvement Program.

J.1.7 TD Bank

Total Assets: \$288,000,000,000 (as of 10/31/17)⁷¹

Employees: 1,106 within Philadelphia⁷²

Branches in Philadelphia: 21^{73} Offices in Philadelphia: 2^{74}

Community Reinvestment Act Rating: Satisfactory (as of 12/31/2013)⁷⁵

Structure: Subsidiary of TD Bank Financial Group

TD Bank is a subsidiary of TD Bank Financial Group whose corporate headquarters are located in Cherry Hill, NJ. TD Bank is one of the largest commercial banks in the United States and offers a broad range of financial products and services.

In an attempt to further expand throughout the United States, TD Bank Financial Group of Toronto, Canada acquired Commerce Bank on March 31, 2008. Together, they are now called TD Bank, America's Most Convenient Bank (TD Bank). In Philadelphia, TD bank operates 21 offices and 75 directly owned ATM's.

TD Bank, N.A. does not provide a policy on MacBride Principles, as it does not have any offices, branches, depositories, or subsidiaries in Northern Ireland. TD Bank certifies that it complies with governing disclosure practices necessary for City residents to protect themselves against predatory lending practices.

The following chart details the bank's attainment of its 2017 CRA goals. It provides the number of small business loans, home mortgages, home improvement loans, and community development investments that TD Bank made within Philadelphia's low and moderate-income neighborhoods in 2017.

TYPE	2017 GOALS	2017 RESULTS
Small Business Loans	140	229
Home Mortgages	90	156
Home Improvement Loans	25	28
Community Development Investments*	\$4,000	\$15,125

TD Bank exceeded its goals for Home Mortgages, Home Improvement Loans and Community Development Investments. It did not reach its goals for Small Business Loans.

⁷¹ City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS – DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I, Questionnaire Annual Request for Information, Calendar Year 2017 for TD Bank, pg. 3

⁷² Ibid pg. 4

⁷³ Ibid pg. 4

⁷⁴ Ibid pg. 3

⁷⁵ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 2, 2017. http://www.ffiec.gov/craratings/default.aspx.

Community investment during 2017 included the following:

- Sixty-nine donations totaling over \$1.268 million through the TD Charitable Foundation to nonprofits and social services agencies in support of affordable housing, economic development, community services, and other community programs, initiatives and activities including \$200,0000 under its Housing for Everyone grant competition. The competition's theme in 2017 was Affordable Housing for Seniors with a focus on programs that provide access to safe, clean, physically accessible affordable housing units for older persons (aged 55 +).
- \$100,000 awards for two community-based organizations in Philadelphia.
- \$31.5 million in funding for previous commitments for low-income housing tax credit investments for the development of affordable housing.
- \$50,000 in funding for one state tax credit investment supporting the Children's Scholarship Fund of Philadelphia.

Lending Outreach Programs

The bank engaged in the following lending outreach initiatives:

- For 2017, the Housing for Everyone Grant Competition focused on initiatives that will provide
 Affordable Housing for All through the creation of new sustainable units that provide safe affordable
 housing.
- Preservation/Rehabilitation/Expansion of viable existing affordable housing properties: This may include the redesign, reconfiguration, and or re-use of existing space in affordable housing properties to create increased quality and quantity of affordable housing units that will meet the specific needs of the population which they are intended to serve. Upgrades to systems, structures, and the efficiency of properties to preserve and prolong their use will be considered.
- Focus on needs of the constituency: Housing programs and services that address the unique needs of their targeted constituency in urban, suburban, and rural communities will be viewed favorably. This may include but is not limited to proximity to educational opportunities, access to healthcare, medical, or rehabilitative services, employment opportunities, shopping, community, and transportation services, recreational facilities as well as on site services (daycare, before and/or afterschool programs, community rooms, occupational, and or physical therapy etc.) that would be attractive and supportive to the needs of those individuals and their families.
- Utilization of abandoned properties to create new units of affordable housing: In urban, suburban, and rural areas, the utilization of underused or abandoned properties to provide permanent or interim housing for low- and moderate- income families provides a tremendous opportunity to reverse neighborhood and community decline.
- TD Bank establishes affordable mortgage, small business and community development lending goals for the City of Philadelphia each year. Goals are established based upon their deposits, their performance in each area during the prior year, and on their assessment of current economic environment and trends.
- TD Bank regularly evaluates their affordable home lending products to ensure they have appropriate options for low to moderate income customers. In October 2016, they launched the FNMA Home Ready mortgage product. This successful product launch was accompanied by a TD Bank closing cost credit for their Home Ready borrowers.

- In January 2017, small business launched enhancements to credit policy that allows TD Bank to approve more small ticket loans and better meet the needs of their customers with borrowing needs up to \$100,000.
- Employees are encouraged to cultivate relationships with community organizations in an effort to remain updated on the lending and banking needs of all people in the City, documenting what they learn and sharing it throughout the bank. In this way, TD Bank is able to ensure the broadest possible reach to all people and organizations in the City.
- TD Bank tracks lending performance, reporting as required to federal, state and local regulators.
 Pipeline and referral reports are reviewed to ensure that they are on target to meet or exceed their goals.

J.1.8 United Bank of Philadelphia

Total Assets: \$59,009,000 (as of 12/31/2017)⁷⁶

Employees: 16 within Philadelphia⁷⁷

Branches in Philadelphia: 3⁷⁸ Offices in Philadelphia: 1⁷⁹

Community Reinvestment Act Rating: Outstanding (as of 9/1/2011)⁸⁰

Structure: Subsidiary of United Bancshares, Inc.

United Bank of Philadelphia (United Bank), headquartered in Philadelphia, Pennsylvania, is a state-chartered full-service commercial bank operating since 1992. United Bank is owned by United Bancshares, Inc., a bank holding company headquartered in Philadelphia. It offers a variety of consumer and commercial banking services, with an emphasis on community development and on servicing underserved neighborhoods and small businesses. Although the locations and primary service area is Philadelphia County, United Bank also serves portions of Montgomery, Bucks, Chester, and Delaware Counties in Pennsylvania; New Castle County in Delaware; and Camden, Burlington, and Gloucester Counties in New Jersey. In Philadelphia, the bank operates 3 branches located in West Philadelphia, Mount Airy, and North Philadelphia as well as 15 directly owned ATMs.

The U.S. Treasury Department has certified United Bank as a Community Development Financial Institution (CDFI), a financial institution whose primary mission consists of promoting community development by providing credit and financial services to underserved markets and populations. With a goal to foster community development by providing quality personalized comprehensive banking services to business and individuals in the Greater Philadelphia Region, with a special sensitivity to African Americans, Hispanics, Asians, and women, United Bank's stated mission is to deliver excellent customer service that will make United Bank of Philadelphia the "hometown" bank of choice.

⁷⁸ City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS--DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I. Questionnaire Annual Request for Information Calendar Year 2017 for United Bank, pg. 4

⁷⁷ Ibid, pg. 5

⁷⁸ Ibid, pg. 5

⁷⁹ Ibid, pg. 4

⁸⁰ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 2, 2017. http://www.ffiec.gov/craratings/default.aspx

United Bank certifies that it does not have any funds invested in companies doing business in or with Northern Ireland. United Bank also certifies that it provides all loan customers with the consumer disclosures required by Federal Regulation (i.e. good faith estimate, truth in lending, fair lending notice). Finally, United Bank certifies that while during its twenty-five-year history it has acquired assets from other financial institutions, those assets have been limited to deposits and were well after the slavery era.

The chart below indicates the bank's attainment of its 2017 CRA goals. It provides the number of small business loans, home mortgages, home improvement loans, and community development investments that United Bank made within Philadelphia's low and moderate-income neighborhoods for 2017.

TYPE	2017 GOALS	2017 RESULTS
Small Business Loans	20	10
Home Mortgages	0	0
Home Improvement Loans	0	0
Community Development Investments	0	0

United Bank did not establish home mortgage, home improvement loan, or community development investment goals for 2017. Though the bank's loan volume decreased, the bank was nevertheless able to book larger dollar loans to small business due to the SBA 7(a) loan program.

The bank has developed longstanding partnerships with nonprofit organizations such as the Greater Philadelphia Chamber of Commerce, the African American Chamber of Commerce and Score among others, to fulfill their missions of technical assistance support and advocacy to small businesses and financial education for youth.

Lending Outreach Programs

According to its Strategic Plan, United Bank made a decision approximately three years ago to become a business bank in order to maximize the inherent expertise garnered from operating in the Greater Philadelphia Region for the past twenty plus years. The bank has developed an intentional focus for its lending strategy with the Small Business Administration's (SBA) 7a loan program to minimize the Bank's risk while creating sound relationships with small businesses. The bank's goal is to penetrate as many communities as possible to reach small business owners seeking to expand and/or sustain their business. The bank's strategy for reaching small businesses is through utilizing Centers of Influence (CIO's), such as Community Development Corporations and selected universities, in the bank's focus areas. The bank is committed to ensuring small businesses have access to affordable capital to grow their businesses as they retain and create jobs.

J.1.9 U.S. Bank National Association

Total Assets: \$462,000,000,000 (as of 12/31/17)⁸¹ Employees: 107 Employees within Philadelphia⁸²

Branches in Philadelphia: 0⁸³ Offices in Philadelphia: 1⁸⁴

Community Reinvestment Act Rating: Satisfactory (as of 3/31/2012)85

Structure: Subsidiary of U.S. Bancorp

U.S. Bank N.A. is one of the nation's largest commercial banks. It is a subsidiary of U.S. Bancorp, a diversified financial services corporation whose corporate headquarters are located in Minneapolis, Minnesota.

As part of U.S. Bank's assurance to community investment, the bank sets Community Reinvestment Act goals in assessment areas where they have a retail branch, depository presence per the direction of the Community Reinvestment Act. U.S. Bank does not have a retail presence in Philadelphia and therefore does not have goals for the Philadelphia MSA. It does provide its customers Network Access to 1,020 ATM's throughout Philadelphia.

The chart below indicates the bank's 2017 CRA lending results. It provides the number of small business loans, home mortgages, home improvement loans, and community development investments that U.S Bank made in 2017.

ТҮРЕ	2017 GOALS	2017 RESULTS
Small Business Loans*	N/A	150
Home Mortgages	N/A	54
Home Improvement Loans	N/A	2
Community Development Investments**	N/A	15

^{*} Small business lending is provided for Philadelphia County

U.S. Bancorp works in partnership with organizations across its 25-state banking region to help develop affordable housing, foster economic revitalization, and provide training and education to small businesses, consumers, and first-time homebuyers.

Small Business Development

In the past year, US Bank kicked off an extensive multicultural marketing campaign and increased their spending with diverse suppliers by 20 percent to \$490 million. US Banks supplier diversity commitment promotes business opportunities for certified minority- and women- owned business enterprises, as well as veteran- and LGBT-owned firms. Last year, they also built strong community partnerships and signed the CEO Pledge with other Fortune 500 companies to promote diversity and inclusion across industries.

^{** 2017} results represent community development investments for Philadelphia County.

⁸¹ U.S. Bank 2017 Annual Report

City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS--DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I. Questionnaire Annual Request for Information Calendar Year 2017 for U.S. Bank, pg. 6

⁸³ Ibid pg. 5

⁸⁴ Ibid pg. 4

⁸⁵ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 2, 2017. http://www.ffiec.gov/craratings/default.aspx

Additionally, US Bank's internal Business Resource Groups are working to bring together employees with similar backgrounds, experiences or interests and their allies. BRGs play a critical role in engaging and educating employees and driving business growth.

Lending Outreach Overview

U.S. Bank invests in programs designed to serve local community needs. It adds strength and vitality to its communities through its products, services, and philanthropic activities that demonstrate its commitment to fair and responsible banking.

- Grants & Contributions: There have been \$54.2 million in U.S. Bank Foundation and Community Sponsorship contributions.
- Employee Volunteerism & Leadership: 219,000 volunteer hours have been donated by their employees, which is estimated at \$5.2 million using the valuation tool provided by Independent Sector.
- Financial Education: Roughly 38,000 students have received financial education training from U.S. Bank volunteers, and 2,850 financial education seminars have been held in the community.

U.S. Bank investments help to produce a social and economic foundation for achieving affordable housing, productive small businesses, and culturally vibrant and environmentally sustainable communities.

- Community Development Lending: U.S. Bank issued \$934,000 in community development loans, created 9,730 units of affordable housing, and created 3,500 new jobs.
- Community Development Investments: U.S. Bank reported community investments totaling \$934,000 in Philadelphia County during 2017.
- Environmental Stewardship: U.S. Bank provided \$2.6 billion in total loans and investments in environmentally beneficial business opportunities.
- Small Business: U.S. Bank provided \$2 billion in small business loans in 2017.
- Home Ownership: U.S. Bank provided \$145.7 million American Dream Loans to help low- and moderate-income families purchase a home.

J.1.10 Wells Fargo Bank

Total Assets: \$1,933,005,000,000 (as of 12/31/17)86

Employees: 2,716 within Philadelphia⁸⁷

Branches in Philadelphia: 47⁸⁸ Offices in Philadelphia: 1⁸⁹

Community Reinvestment Act rating: Needs to improve (as of 9/30/2012)90

Structure: Subsidiary of Wells Fargo Bank, N.A

Headquartered in San Francisco, California, Wells Fargo & Company is a diversified financial services company providing banking, insurance, investment, mortgage, and consumer and commercial finance services in all fifty states, the District of Columbia, as well as internationally. In the City of Philadelphia, the bank operates 47 branches, and its clients have Network Access to a total of 137 ATMs.

Wells Fargo Bank, N.A. certifies that it is in compliance with the MacBride Principles and that it has provided all applicable disclosures required by federal, state, and local laws and regulations. Wells Fargo Bank, N.A. and its relevant divisions and affiliates certify that it has comprehensive compliance and fair lending programs that include extensive controls and monitoring systems. It also certifies that the bank is not known to have benefited from slavery or slaveholder insurance policies.

The chart below details the bank's attainment of its 2017 CRA goals. It provides the number of small business loans, home mortgages, home improvement loans, and community development investments that Wells Fargo Bank made within Philadelphia's low and moderate-income neighborhoods in 2017.

TYPE	2017 GOALS	2017 RESULTS
Small Business Loans	N/A	457
Home Mortgages	N/A	1098
Home Improvement Loans	N/A	131
Community Development Investments	N/A	7

Wells Fargo 2017 Goals are not applicable in this study. However, Wells Fargo continues to be the largest lender in the City. Over 32 percent of loans made to businesses with less than \$1 million in revenue were made to businesses located in low and moderate income areas.

Approximately, 50 percent of Community Development Investments were located in low and moderate-income neighborhoods.

⁸⁶ Wells Fargo 2017 Annual Report

⁶⁷ City of Philadelphia Office of the City Treasurer Authorized Depository COMPLIANCE: Philadelphia City Code CHAPTER 19-200. CITY FUNDS--DEPOSITS, INVESTMENTS, DISBURSEMENTS R.F.I. Questionnaire Annual Request for Information Calendar Year 2017 for Wells Fargo Bank, pg. 6

⁸⁸ Ibid, pg. 5

⁸⁹ Ibid, pg. 4

⁹⁰ FFIEC. "FFIEC interagency CRA Rating Search." Last modified November 2, 2017. http://www.ffiec.gov/craratings/default.aspx

Community Development

Additional community investments during 2017 included the following:

In 2017 the Wells Fargo Regional Foundation awarded Neighborhood Implementation grants in the amounts of \$750,000 and \$1,000,000 to HACE and Mt. Airy USA (in collaboration with East and West Mt. Airy Neighbors), respectively. Funding will be used to support the implementation of HACE's The Good Lands 2025 Neighborhood Development Plan and Mt. Airy USA's 2025 Neighborhood Development Plan.

In addition to the Wells Fargo Regional Foundation grants, Wells Fargo played a major role in bringing BankWork\$ to the city of Philadelphia. BankWork\$ is a workforce development program for individuals looking to pursue a career in the banking industry. Two classes have already graduated and the program boasts an 80+ percent job-placement rate.

Lending Outreach Programs

In February, 2017 Wells Fargo announced its 10-year diversity initiative to provide \$60 billion in home loans, supporting at least 250,000 African American homeowners by 2027. This announcement was preceded by a September, 2015 Hispanic Commitment were Wells Fargo announced its support of the goals of the National Association of Hispanic Real Estate Professionals' Hispanic Wealth Project, which seeks to triple Hispanic household wealth over the next decade. Wells Fargo's goals over the next 10 years include a projected \$125 billion in mortgage originations and a goal of \$10 million to support a variety of initiatives that promote financial education and counseling for Hispanic homebuyers. In continued recognition of the importance of hiring and retaining a diverse workforce, Wells Fargo also plans to increase the number of Hispanic home mortgage consultants on its sales team.

Wells Fargo Bank, N.A., remains dedicated to steadily improving the ways they serve all City residents. They bring strength and capacity to their communities through a broad array of financial initiatives, products and services. Their employees spend time, effort and resources on helping to increase the supply of affordable housing through responsible lending, providing credit for homeownership to qualified buyers, teaching financial literacy, providing credit and technical support to small business owners and mobilizing employee volunteers. Every day, Wells Fargo employees seek to improve the communities in which they live, work, and play by supporting a number of key focus areas.

Financial Education

• In the area of Financial Education, their Hands on Banking® (HOB) online program address all of the basics of smart money management. The curriculum aligns with national and state principles and standards for mathematics, reading, and economics. In 2017, Wells Fargo conducted and supported over 90 financial literacy seminars and reached more than 3,000 participants in Philadelphia. They host financial education sessions in local bank branches to advance financial literacy in the community.

Affordable Housing

• In the area of **Affordable Housing**, for 2017 Wells Fargo Bank, N.A. originated 1,229 residential mortgages and home improvement loans in low and moderate income areas of Philadelphia. They continue to support a network of nonprofit community housing counselors through foundation grants and employee resources. In collaboration with local nonprofit organizations, their employees help conduct first time homebuyers' seminars. Wells Fargo also support and sponsor homeownership fairs to help increase the number of homeowners in the city. Wells Fargo also provides construction financing products for affordable rental and homeownership units.

Small Business Development

In the area of Small Business, Wells Fargo Bank, N.A. provides small business loans, credit cards, vehicle, and equipment leasing to help entrepreneurs and small businesses grow. They have Small Business Financial Specialists throughout their extensive branch network in Philadelphia, telephone contact centers and the Internet. Wells Fargo maintains an active participation with the Small Business Administration and works with local small business development centers and associations to help educate entrepreneurs on personal and business finance topics.

- Greater Hispanic Chamber of Commerce Funding will provide resources to help individuals start new businesses and adopt best practices. In addition, funding will facilitate access for chamber members to local, regional, national and international opportunities to grow their businesses.
- Cooperative Business Assistance Corporation (CBAC) CBAC will provide loans and technical assistance to small businesses located in low and moderate-income census tracts and minority census tracts in Philadelphia neighborhoods. The intent is to increase the impact in distressed neighborhoods, create new employment opportunities and increase access to capital and technical assistance. Wells Fargo will work with CBAC to provide small and micro lending seminars focusing on business finance and technical assistance.
- African-American Chamber of Commerce Wells Fargo works with the Chamber and provides
 education, support, and marketing for individuals in low-moderate income communities seeking to
 build and grow profitable businesses.
- **Urban League of Philadelphia** The Entrepreneurship Center provides technical assistance, strategic planning and linkages to resources to help small businesses grow their financial and human capital. The goal is to empower entrepreneurs to increase revenue and create employment opportunities in the region.
- Urban Affairs Coalition (UAC) Wells Fargo continues to play an active role on the organization's
 Small Business Lending Capacity building Committee and the Board of Directors. Currently,
 the Small Business Lending Committee is creating a multi-bank, multi-year support system for
 Community Development Finance Institutions (CDFI's) to increase their lending capacity.
- University of Pennsylvania (Wharton Small Business Development Center) The Wharton School received a multi-year commitment of \$500,000 to support the Wharton SBDC, enabling the Wharton SBDC to enhance their core programs that help over 700 small businesses annually to start, grow, and prosper.

- Philadelphia Chinatown Development Corporation PCDC has received funding to support
 community outreach, housing counseling, community service programs, and the development of a
 Business Improvement District. This funding enabled PCDC to leverage additional resources that
 facilitated economic development projects and the hiring of a Main Street Manager to organize local
 business owners.
- Finanta Wells Fargo provided a grant to support Finanta, a subcommittee of the Urban Affairs Coalition focused on Community Development Financial Institution (CDFI) Capacity Building with small business lenders in the City of Philadelphia. Finanta is committed to supporting entrepreneurs and first-time homeowners with financial education and lending services that match the everchanging needs of their families and businesses.
- Wells Fargo will work with Finanta as a partner with the Wells Fargo Small Business Solutions Expo and other small business technical assistance and access to capital events.
- Wells Fargo provided grant dollars to Finanta to support Rosca, a "peer lending" micro-lending program supporting North Philadelphia neighborhoods.

The Enterprise Center – Wells Fargo expects to replicate a Small Business Solution Expo in West Philadelphia (in partnership with the Enterprise Center) to provide a venue for micro and small businesses to meet with representatives from Wells Fargo, Community Development Finance Institutions, Small Business Development Centers and the City of Philadelphia Commerce Department.



TECHNICAL APPENDIX K - HOME LENDING BY AUTHORIZED DEPOSITORY

Technical Appendix K Summary

In 2017, the total amount of lending at all institutions in the City was \$3.9 billion, stable from the previous year. City depositories in aggregate received more than 4,100 loan applications and originated over 2,100 prime loans and 62 subprime loans totaling just over \$577 million in 2017. Compared to the previous year, the authorized depositories represent a slightly smaller proportion of lending activity in the City (17.0 percent of all activity in 2017 versus 17.5 percent in 2016). In addition, the number of applications, as well as prime loans and subprime loans, at authorized depositories have decreased from 2016 to 2017. During that same period, all lending institutions have seen decreases in applications and prime loans, while subprime loans increased throughout the City.

Table K.1: Loan Applications and Originations for the City Depositories

	APPLICATIONS	PRIME LOANS	SUBPRIME LOANS	TOTAL LOAN AMOUNT
2017 – Depositories	4,115	2,111	62	\$577.5M
2017 - All Banks	33,485	16,995	1,413	\$3.9B
2016 - Depositories	5,149	2,664	83	\$684.4M
2016 - All Banks	36,716	18,074	1,238	\$3.9B
2017 Proportion of Depositories to All Banks	12.3%	12.4%	4.4%	17.0%
2016 Proportion of Depositories to All Banks	14.0%	14.7%	6.7%	17.5%

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In aggregate, City depositories issued 13.6 percent of their home purchase loans to African Americans, 6.5 percent to Hispanics, 11.3 percent to Asians, and 40.3 percent to borrowers in minority tracts. City depositories issued 20.0 percent of the home refinance loans they made to African-American borrowers (up from the 2016 rate of 15.0 percent), 6.0 percent to Hispanics (up from 4.8 percent in 2016), and 4.7 percent to Asians (down from 5.7 percent in 2016). City depositories issued 23.3 percent of their home improvement loans to African-American borrowers (up from 21.4 percent in 2016), 9.0 percent to Hispanic borrowers (up from 6.3 percent in 2016), and 7.5 percent to Asian borrowers (down from 10.7 percent in 2016). (see Table K.2).

Table K.2: Selected 2017 Results for City Depositories

HOME PURCHASE LOANS	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS
All Depositories	13.6%	6.5%	40.3%	32.9%	29.1%
All Lenders	18.8%	9.5%	43.6%	48.4%	32.6%

HOME REFINANCE LOANS	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS
All Depositories	20.0%	6.1%	37.7%	42.0%	23.3%
All Lenders	24.8%	6.1%	43.4%	40.6%	27.9%

HOME IMPROVEMENT LOANS	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS
All Depositories	23.3%	9.0%	50.4%	56.4%	37.6%
All Lenders	27.4%	5.4%	49.3%	53.7%	35.8%

Thirteen factors were combined to create a composite score for home purchase lending performance for each depository. For each factor, a depository received a score according to how different it was from the average lender in Philadelphia. If the depository was better than average, the score is positive; if it was below average, the score is negative. Only the six lenders in Philadelphia that originated 25 home loans or more in 2017 were included in the calculations.

Between 2016 and 2017, the authorized depository rankings changed significantly from 2016, with some composite scores increasing while others decreased. PNC had the largest shift in composite score – from 4.89 in 2016 to 0.72 in 2017 – causing PNC to fall two places in its ranking. Wells Fargo also had a significant shift in its score – from 14.28 in 2016 to 11.62 in 2017 – but still retained its first place rank. Citibank, on the other hand, saw its score increase from 0.25 in 2016 to 2.19 in 2017, causing it to move from 6th place to 4th place, suggesting it has made strides to engage in relatively more equitable lending behavior in Philadelphia (see Table K.3).

Table K.3: 2017 Ranking of City Depositories - Composite Scores

2017 RANKING	CITY DEPOSITORY	2017 COMPOSITE SCORE	2016 RANKING	2016 COMPOSITE SCORE
1	Wells Fargo	11.62	1	14.28
2	Citizens Bank	5.91	2	5.96
3	Bank of America	2.77	4	2.39
4	Citibank	2.19	6	0.25
5	PNC	0.72	3	4.89
6	TD Bank	0.34	5	0.72
-	Bank of New York Mellon	-	-	_
-	Republic First Bank	-	-	-
-	US Bank	-	-	-
-	United Bank	-	-	-

K.1 City Depositories in Aggregate

In 2017, 10 banks were designated as City of Philadelphia depositories: Bank of America, Bank of New York Mellon, Citibank, Citizens Bank, PNC Bank, Republic First, TD Bank, United Bank of Philadelphia, US Bank, and Wells Fargo. Of these ten, only six originated more than 25 secured home loans, a pre-established threshold for inclusion in the ranking section of the report. Based on this criterion, Bank of New York Mellon, Republic First Bank, US Bank, and United Bank were excluded from depository rankings in the next section.

The total amount of lending at all institutions in the City was \$3.9 billion, stable from the previous year. City depositories in aggregate received more than 4,100 loan applications and originated over 2,100 prime loans and 62 subprime loans totaling just over \$577 million in 2017. Compared to the previous year, the authorized depositories represent a slightly smaller proportion of lending activity in the City (17.0 percent of all activity in 2017 versus 17.5 percent in 2016). In addition, the number of applications, as well as prime loans and subprime loans, at authorized depositories have decreased from 2016 to 2017. During that same period, all lending institutions have seen decreases in applications and prime loans, while subprime loans increased throughout the City.

Table K.4: Loan Applications and Originations for City Depositories

	APPLICATIONS	PRIME LOANS	SUBPRIME LOANS	TOTAL LOAN AMOUNT
2017 – Depositories	4,115	2,111	62	\$577.5M
2017 - All Banks	33,485	16,995	1,413	\$3.9B
2016 – Depositories	5,149	2,664	83	\$684.4M
2016 - All Banks	36,716	18,074	1,238	\$3.9B
2017 - Proportion of Depositories to All Banks	12.3%	12.4%	4.4%	17.0%
2016 - Proportion of Depositories to All Banks	14.0%	14.7%	6.7%	17.5%

K.2 Ranking of Depositories – Home Purchase Lending

Thirteen factors were combined to create a composite score for home purchase lending performance for each depository: the percentage of loans originated, raw number of loans and denial ratios for African Americans, Hispanics, and low and moderate income (LMI) borrowers were each weighted one-tenth of the composite score. Four additional neighborhood-related factors were collectively weighted as one-tenth of the composite score: the percentage of loans originated in LMI census tracts, the percentage of loans originated in minority tracts, and the denial ratios for those two types of tracts. This weighting has the effect of equalizing the playing field between higher-volume and lower-volume depositories (see Table K.5).

Table K.5: Factors upon Which City Depositories Were Ranked in Home Lending

FACTOR	WEIGHT
% Loans Originated to African-American Borrowers	10%
Raw Number of Loans to African-American Borrowers	10%
Denial Ratio, African-American Applicants vs. White Applicants	10%
% Loans Originated to Hispanic Borrowers	10%
Raw Number of Loans to Hispanic Borrowers	10%
Denial Ratio, Hispanic Applicants vs. White Applicants	10%
% Loans Originated to Low and Moderate Income Borrowers	10%
Raw Number of Loans to Low and Moderate Income Borrowers	10%
Denial Ratio, Low and Moderate Income Applicants vs. Middle and Upper Income Applicants	10%
% Loans Originated in Low to Moderate Income Census Tracts	2.5%
% Loans Originated in Minority Tracts	2.5%
Denial Ratio, Low to Moderate Income Tracts vs. Middle and Upper Income Tracts	2.5%
Denial Ratio, Minority Tracts vs. Non-Minority Tracts	2.5%
Total for 13 Factors	100%

For each factor, a depository received a score according to how different it was from the average lender in Philadelphia. If the depository was better than average, the score is positive; if it was below average, the score is negative. These 13 scores were added together to form the depository's overall rating score. A rating score that is close to zero means that the lender was an average lender in Philadelphia. A positive rating score means that the depository was above average; and the higher the score, the higher above average the depository was.

Again, only lenders in Philadelphia that originated 25 home purchase loans or more in 2017 were included in the calculations. As a result, Bank of New York Mellon, Republic First Bank, US Bank, and United Bank were excluded from the depository ranking. Including such small lenders in the ratings would produce unreliable and unusable results.⁹¹

⁹¹ See Technical Appendix L.6 for more performance information on depositories that were not ranked

Between 2016 and 2017, the authorized depository rankings changed significantly from 2016, with some composite scores increasing while others decreased. PNC had the largest shift in composite score – from 4.89 in 2016 to 0.72 in 2017 – causing PNC to fall two places in its ranking. Wells Fargo also had a significant shift in its score – from 14.28 in 2016 to 11.62 in 2017 – but still retained its first place rank. Citibank, on the other hand, saw its score increase from 0.25 in 2016 to 2.19 in 2017, causing it to move from 6th place to 4th place, suggesting it has made strides to engage in relatively more equitable lending behavior in Philadelphia.

Table K.6: 2017 Ranking of City Depositories - Composite Scores for Home Purchase Lending

CITY DEPOSITORY	2017 RANKING	2017 COMPOSITE SCORE	2016 RANKING	2016 COMPOSITE SCORE
Wells Fargo	1	11.62	1	14.28
Citizens Bank	2	5.91	2	5.96
Bank of America	3	2.77	4	2.39
Citibank	4	2.19	6	0.25
PNC	5	0.72	3	4.89
TD Bank	6	0.34	5	0.72
Bank of New York Mellon	-	-	-	-
Republic First Bank	-	-	-	-
US Bank	_	-	_	-
United Bank	-	-	-	-

(See Technical Appendix L.1)

K.3 Aggregate Analysis of Depositories

K.3.1 Home Purchase Loans

- At City depositories, the number of home purchase applications decreased by 18.1 percent from 2016 to 2017, while the number of denials decreased by 28.2 percent from 2016 to 2017.
- City depositories issued 13.6 percent of their home purchase loans to African Americans, 6.5 percent to Hispanics, 11.3 percent to Asians, and 40.3 percent to borrowers in minority tracts.
- City depositories issued 32.9 percent of their loans to LMI borrowers (down from 37.6 percent in 2016) and 29.1 percent to borrowers in LMI census tracts (up from 27.4 percent in 2016). All lenders in Philadelphia issued 48.4 percent of their loans to LMI borrowers and 32.6 percent of their loans to borrowers in LMI tracts.
- African-American applicants were denied by City depositories at a rate of 2.11 times for every denial issued to a white applicant. In 2016, the denial ratio was 2.40, and in 2015, the denial ratio was 2.47.
- Hispanic applicants were denied by City depositories at a rate of 2.07 Hispanic denials for every white denial in 2017. This is a decrease from their 2016 denial ratio of 2.50, and the 2015 ratio of 2.13.
- Asian applicants were denied at a rate of 2.23 Asian denials for every white denial in 2017. In 2016,
 Asian applicants were denied at a rate of 1.70 Asian denials for every White denial. In 2015, Asian applicants for home purchase loans were denied at a rate of 2.13 denials in authorized depositories.

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Table K.7: Selected 2017 Results for City Depositories - Home Purchase Loans

DEPOSITORY	PERCENT OF LOANS TO AFRICAN AMERICANS		PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	OF LOANS IN LMI	AFRICAN- AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	
All Depositories	13.6%	6.5%	40.3%	32.9%	29.1%	2.11	2.07	2.23
All Lenders	18.8%	9.5%	43.6%	48.4%	32.6%	2.56	1.86	1.49

(See Technical Appendix L.3)

K.3.2 Home Refinance Loans

- The number of applications for home refinance loans from City depositories decreased by 25.9 percent, the number of denials decreased by 21.2 percent, and the number of loans decreased by 28.3 percent between 2016 and 2017.
- City depositories issued 20.0 percent of the home refinance loans they made to African-American borrowers (up from the 2016 rate of 15.0 percent), 6.0 percent to Hispanics (up from 4.8 percent in 2016), and 4.7 percent to Asians (down from 5.7 percent in 2016).
- City depositories tended to issue loans to marginalized groups in lower percentages than all lenders. Depositories issued 20.0 percent of their loans to African-American borrowers, compared to a citywide rate of 24.8 percent.
- City depositories issued 42.0 percent of their loans to LMI borrowers (up from 36.8 percent in 2016) and 23.3 percent of their loans to borrowers in LMI tracts (up from 20.9 percent in 2016).
- Similar to the previous year, Hispanic applicants were denied home refinance loans at the highest rate of all racial/ethnic groups for authorized depositories in 2017 at a rate of 1.89 denials for every one denial to a White applicant for home refinance loans at the depositories. Followed by African American and Asian applicants who were both denied about 1.78 times for every one denial to a White applicant.

Table K.8: Selected 2017 Results for City Depositories - Home Refinance Loans

DEPOSITORY	PERCENT OF LOANS TO AFRICAN AMERICANS		PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	IN LMI	AFRICAN- AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	
All Depositories	20.0%	6.0%	37.7%	42.0%	23.3%	1.78	1.89	1.78
All Lenders	24.8%	6.1%	43.4%	40.5%	27.9%	1.75	1.56	1.47

(See Technical Appendix L.4)

K.3.3 Home Improvement Loans

- The number of applications to City depositories for home improvement loans increased by 7.3 percent and the number of denials increased by 4.6 percent between 2016 and 2017. Authorized depositories issued 18.8 percent more home improvement loans between 2016 and 2017.
- City depositories issued 23.3 percent of their home improvement loans to African-American borrowers (up from 21.4 percent in 2016), 9.0 percent to Hispanic borrowers (up from 6.3 percent in 2016), and 7.5 percent to Asian borrowers (down from 10.7 percent in 2016).
- Approximately 50.4 percent of loans made by City depositories went to borrowers in minority census tracts (down from 54.5 percent in 2016).
- About 56.4 percent of home improvement loans were issued to LMI borrowers (up from 54.5 percent in 2016) by City depositories, only 37.6 percent were issued to borrowers in LMI census tracts (up from 29.5 in 2016).
- In 2017, female borrowers received 44.4 percent of the loans made available by City depositories, an increase from the 34.8 percent of loans issued by City depositories in 2016.
- For the fifth year in a row, City depositories denied Asians at the lowest rate for home improvement loans. In 2017, Asian applicants were denied by depositories at a rate of 1.98 times for every white denial. Hispanic applicants were denied the most, 2.29 times for every white denial, a decrease from the 2.37 ratio of 2016. African-American applicants were denied 2.04 times for each time a white applicant was denied, an decrease from the 2.11 rate in 2016.
- Applicants in minority census tracts received 2.07 denials for every denial sent to applicants in nonminority tracts in 2017, up from 1.67 in 2016.

Table K.9: Selected 2016 Results for City Depositories - Home Improvement Loans

DEPOSITORY	PERCENT OF LOANS TO AFRICAN AMERICANS				OF LOANS IN LMI	AFRICAN- AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	
All Depositories	23.3%	9.0%	50.4%	56.4%	37.6%	2.04	2.29	1.98
All Lenders	27.4%	5.4%	49.3%	53.7%	35.8%	2.49	2.95	2.77

(See Technical Appendix L.5)

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K.4 Disaggregated Depository Analysis

Table K.10: Selected 2017 Results for City Depositories - All Loans

DEPOSITORY	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	AFRICAN- AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO
Bank of America	16.4%	5.5%	31.4%	23.4%	19.7%	1.58	1.00	1.74
Citibank	29.9%	0.0%	38.8%	35.8%	16.4%	2.56	3.67	9.17
Citizens	13.8%	3.6%	41.9%	41.9%	28.3%	2.41	1.47	1.45
PNC	17.6%	8.2%	50.8%	47.6%	35.8%	2.39	2.45	2.01
TD Bank	12.6%	7.9%	36.2%	39.4%	31.5%	1.99	1.89	1.60
US Bank	19.2%	3.8%	30.8%	34.6%	15.4%	0.58	0.00	1.17
Wells Fargo	17.2%	8.0%	38.0%	36.0%	26.6%	2.00	2.22	1.84
Bank of New York Mellon	_	-	-	-	_	-	-	-
Republic First Bank	_	_	-	-	_	-	_	_
United Bank	_	-	-	-	-	-	-	-
All Depositories	16.6%	6.5%	39.9%	37.7%	27.5%	2.11	2.24	1.88
All Lenders	21.1%	8.2%	43.8%	46.0%	31.1%	2.22	1.71	1.36

(See Technical Appendix L.2)

Table K.11: Selected 2017 Results for City Depositories - Home Purchase Loans

DEPOSITORY	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	AFRICAN- AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO
Bank of America	16.9%	3.4%	30.4%	21.7%	17.4%	1.60	1.89	1.78
CitiBank	33.3%	0.0%	40.0%	23.3%	16.7%			
Citizens Bank	11.9%	4.1%	44.4%	39.6%	32.6%	1.57	0.00	0.92
PNC	9.9%	5.6%	46.3%	43.2%	35.8%	4.66	4.46	4.03
TD Bank	13.0%	8.7%	40.6%	21.7%	34.8%	2.00	1.67	2.08
Wells Fargo	13.1%	9.9%	41.0%	33.2%	30.9%	2.14	2.19	2.06
Bank of New York Mellon	_	_	_	-	_	_	_	_
Republic First Bank	-	-	-	-	-	-	-	_
US Bank	_	_	_	-	_	-	_	_
United Bank	-	-	-	-	-	-	-	-
All Depositories	13.6%	6.5%	40.3%	32.9%	29.1%	2.11	2.07	2.23
All Lenders	18.8%	9.5%	43.6%	48.4%	32.6%	2.56	1.86	1.49

(See Technical Appendix L.3)

Table K.12: Selected 2017 Results for City Depositories - Home Refinance Loans

DEPOSITORY	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	AFRICAN- AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO
Bank of America	14.1%	12.5%	34.4%	28.1%	28.1%	1.64	0.35	2.10
CitiBank	33.3%	0.0%	40.7%	37.0%	14.8%	1.33	2.33	9.33
Citizens Bank	17.2%	2.9%	38.5%	46.6%	21.8%	2.54	1.91	2.05
PNC	25.0%	9.4%	53.8%	43.8%	33.8%	1.77	1.56	1.87
TD Bank	10.4%	8.3%	25.0%	58.3%	25.0%	2.29	2.00	1.07
Wells Fargo	20.6%	4.9%	31.6%	39.3%	18.4%	1.62	2.22	1.90
Bank of New York Mellon	_	_	_	_	_	_	_	_
Republic First Bank	-	-	-	-	-	-	-	_
US Bank	_	_	_	_	_	-	_	_
United Bank	-	-	-	-	-	-	-	-
All Depositories	20.0%	6.0%	37.7%	42.0%	23.3%	1.78	1.89	1.78
All Lenders	24.8%	6.1%	43.4%	40.5%	27.9%	1.75	1.56	1.47

(See Technical Appendix L.4)

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Table K.13: Selected 2017 Results for City Depositories - Home Improvement Loans

DEPOSITORY	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS IN MINORITY TRACTS	PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	AFRICAN- AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO
Bank of America	-	-	_	-	_	-	_	_
CitiBank	-	-	-	-	-	-	-	-
Citizens Bank	-	-	_	-	_	-	_	_
PNC	19.0%	12.1%	55.2%	70.7%	41.4%	2.27	2.44	1.43
TD Bank	_	-	_	-	_	_	_	_
Wells Fargo	34.8%	10.9%	52.2%	41.3%	41.3%	1.60	1.78	2.24
Bank of New York Mellon	_	_	_	_	_	_	_	_
Republic First Bank	-	-	-	-	_	-	-	_
US Bank	_	_	_	_	_	_	_	_
United Bank	-	-	-	-	-	-	-	-
All Depositories	23.3%	9.0%	50.4%	56.4%	37.6%	2.04	2.29	1.98
All Lenders	27.4%	5.4%	49.3%	53.7%	35.8%	2.49	2.95	2.77

(See Technical Appendix L.5)

K.4.1 Bank of America

K.4.1.1 All Loans

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- Issued 274 loans, a decrease of 15.7 percent from 2016.
- Received 435 applications for home loans, a decrease of 24.7 percent from 2016.
- Exceeded City average for percent of loans issued to Asian borrowers but fell below the City average for Hispanic and African American borrowers in 2017. The percentage of loans issued to females exceeded the Citywide average.
- Did not meet overall City average in percentage of loans to LMI borrowers or those in minority or LMI tracts in 2017.
- The percentage of loans issued to Asians was 9.1 percent, an increase from the 8.3 percent issued in 2016.
- Ranked 5th in 2016, now ranked 4th in 2017 in its denial ratio to Asian borrowers.

K.4.1.2 Home Purchase Loans

- Issued 207 home purchase loans, an increase of 4.6 percent between 2016 and 2017.
- The number of applications decreased by 7.2 percent and the number of denials decreased by 16.7 percent.
- Ranked 1nd in percent of home purchase loans issued to female borrowers, improving its ranking from last three years. In 2017, Bank of America issued 44.9 percent of its loans to female borrowers, up from 38.4 percent in 2016.
- Met the City average for denial ratios of Hispanics for the first time in over five years.
- Bank of America increased its number of denials to Asian applicants for home purchase loans relative to its number of denials to White applicants for home purchase loans, with a ratio of 1.78. This ratio was 1.26 in 2016.
- Ranked 3rd in the denial ratio for applicants in minority tracts compared to the number of home purchase loan denials for applicants in non-minority tracts, with a ratio of 1.43, compared to a citywide denial ratio of 1.73. In 2016, this ratio was 2.03 for Bank of America (4th place).

K.4.1.3 Home Refinance Loans

- Issued 64 home refinance loans, a decrease of 49.2 percent from 2016.
- Applications decreased by 51.0 percent since 2016, and denials decreased by 59.7 percent.
- Ranked 1st in percentage of loans to Hispanic borrowers. Approximately 12.5 percent of Bank of America's home refinance loans went to Hispanic borrowers and about 35.9 percent went to female borrowers.
- Bank of America did not meet the City's denial rate average for African-American applicants.
- Retained its 5th place ranking for the percent of loans issued to African-American borrowers in 2017.
 In 2017, the bank issued 14.1 percent of its home refinance loans to African-American borrowers.

K.4.2 Citibank

K.4.2.1 All Loans

- Issued 67 loans, a decrease of 2.9 percent from 2016.
- Applications decreased by 15.4 percent and the denial rate decreased from 11.8 percent to 10.5 percent between 2016 and 2017.
- Met or exceeded City average in percentage of loans to African American borrowers but fell short of the Citywide average for loans to Hispanic, Asian, and female borrowers.
- After ranking 1st for percent of loans issued to Asian borrowers in 2016, Citibank issued the 6th most (4.5 percent) of all ranked depositories in 2017.
- Hispanic, African-American, and Asian applicants were denied more frequently at Citibank than across the City, borrowers in minority tracts were denied at a higher rate than the Citywide average.

K.4.2.2 Home Purchase Loans

- Issued 30 home purchase loans, an increase of 20.0 percent from 2016 to 2017.
- The number of home purchase applications increased slightly from 2016 to 2017 (from 39 to 45), while the number of denials decreased by 66.7 percent (from 3 to 1).
- Met or exceeded City average in percentage of home purchase loans issued to Asians, while underperforming as compared to City averages for percentage of loans to Hispanic borrowers.
- Citibank, after two years of being ranked lowest in percentage of loans to female borrowers, improved its rank to 2nd place.

K.4.2.3 Home Refinance Loans

- Issued 27 loans for home refinancing, a 34.1 percent decrease from 2016 to 2017.
- Applications decreased by 38.5 percent and denials decreased by 35.7 percent between 2016 and 2017.
- Exceeded City average for the percent of loans to African Americans after failing to do so for three
 years in a row.
- After issuing 17.1 percent of loans to African-American borrowers in 2016, Citibank issued 33.3 percent of all home refinance loans to this group in 2017, while citywide lenders issued 24.8 percent.

K.4.3 Citizens Bank (Citizens Financial Group, Inc./UK Financial Investments Ltd.)

K.4.3.1 All Loans

- Issued 449 loans, a 2.8 decrease from 2016.
- In 2017, applications increased by 4.9 percent and the denial rate increased from 14.1 percent to 16.2 percent from 2016 to 2017.
- Ranked second to last (6th) in the percentage of loans issued to Hispanic borrowers. In 2017, Citizens' issued only 3.6 percent of all loans to Hispanic borrowers, while all lenders issued 8.2 percent of loans to Hispanic borrowers.
- Ranked 2nd for percentage of loans to Asian borrowers (also ranked 2nd in 2016).
- Citizens ranked 2nd for its denial ratio of Asian applicants to White applicants. It ranked 3rd in denial ratios for both Hispanic and minority tract applicants.

K.4.3.2 Home Purchase Loans

- Issued 270 home purchase loans, a decrease of 10.9 percent from 2016 to 2017.
- There was a 4.1 percent decrease in applications and a 16.0 percent decrease in denials between 2016 and 2017.
- Outperformed City average for the percent of loans issued to borrowers in minority tracts (44.4 percent compared to 43.6 percent). Also outperformed the City average for percent of loans issued to Asian borrowers (13.3 percent compared to 8.7 percent).
- Ranked 1st in the denial ratio of African-American applicants to White applicants for home purchase loan denials, with 1.57 denials to African-American applications for every one denial to a White application. The Citywide average in 2017 was 2.56.
- Citizens had the lowest denial ratio across all categories. The denial ratio was 0.92 for Asian applicants while the City average was 1.49.

K.4.3.3 Home Refinance Loans

- Issued 174 home refinance loans, a 12.3 percent increase from 2016.
- In 2017, the number of applications increased by 15.6 percent and the number of denials increased by 38.2 percent.
- Ranked last (6th) in percent of loans to female borrowers for the ninth year in a row. Citizens issued only 33.3 percent of all home refinance loans to female borrowers in 2017.
- Ranked 2nd in percent of loans to LMI borrowers.
- Ranked 4th for percent of loans to African-American borrowers (17.2 percent) and 5th for percent of loans to Hispanic borrowers (2.9 percent) in 2017.
- Ranked last for the number of home refinance loan denials to African-American applicants compared to White applicants (at 2.54), and ranked 3rd for the number of denials to Hispanic applicants compared to White applicants (at 1.91).

K.4.4 PNC

K.4.4.1 All Loans

- Issued 380 loans, a decrease of 12.8 percent since 2016.
- Applications decreased by 2.9 percent and the denial rate increased slightly from 33.2 percent to 34.4 percent between 2016 and 2017.
- Exceeded City average for denial ratios to Hispanic applicants (2.45 compared to 1.71 citywide).
- Met or exceeded City averages in percent of loans to minority tract, LMI tract, and LMI borrowers for the seventh year in a row. PNC ranked 1st in percentage of loans to minority tracts and LMI.
- Ranked 1st for percentage of loans to Hispanic borrowers (8.2 percent).

K.4.4.2 Home Purchase Loans

- Issued 162 home purchase loans, a decrease of 26.7 percent from 2016.
- Applications decreased by 19.7 percent and denials decreased by 11.0 percent between 2016 and 2017.
- Exceeded City average in percent of loans to minority tract applicants.
- Ranked 5th in the number of home purchase loan denials to Hispanic applicants relative to White applicants, with 4.46 denials to Hispanic applications for every one denial to a White home purchase loan application. The citywide average was 1.86.
- Ranked 5th in the number of home purchase loan denials to African-American applicants relative to White applicants, with 4.66 denials to African-American applications for every 1 denial to a White home purchase loan application. The citywide average was 2.56. In 2016, PNC had a ratio of 2.22.

K.4.4.3 Home Refinance Loans

- Issued 160 home refinance loans, a decrease of 3.0 percent since 2016.
- Applications increased by 9.1 percent and denials increased by 3.5 percent between 2016 and 2017.
- Exceeded the City average for the percent of loans to Asian borrowers, ranking 4th at 3.8 percent.
- Ranked 2nd on the disparity between Hispanic and White home refinance application denials for 2017, with a ratio of 1.56 same as City average).
- Ranked 1st in the percentage of home refinance loans issued to borrowers in minority tracts; PNC issued 33.8 percent of all home refinance loans to minority tract borrowers, compared to a citywide average of 27.9 percent.

K.4.4.4 Home Improvement Loans

- Issued 58 loans for home improvement, a 16.0 percent increase since 2016.
- Ranked 1st in the percentage of loans to Hispanic, and Asian borrowers, in addition to female borrowers and borrowers in LMI and minority tracts.
- While the citywide average for the disparity between African-American applicant denials compared to White applicant denials for home improvement loans was 2.49, PNC had a ratio of just 2.27. However, PNC's ratio between denials for applicants in minority tracts versus denials to applications in non-minority tracts was 2.50, compared to a citywide average of 2.21.

K.4.5 TD Bank

K.4.5.1 All Loans

- Issued 127 loans, an increase of 1.6 percent from 2016.
- Applications decreased by 14.0 percent and denials decreased by 21.4 percent between 2016 and 2017.
- TD bank ranked 7th in percentage of loans to African-Americans but ranked 1st in percentage of loans to Asian borrowers.
- Exceeded City average for percentage of loans to Asian borrowers (ranked 1st) for the eighth year in a row. About 12.6 percent of all of TD Bank's loans were issued to Asian borrowers.
- TD Bank ranked 3rd in denial ratio to Asians, with 1.60 ratio, compared to a citywide ratio of 1.36.
- TD Bank's denial ratio to minority tract borrowers in 2017 was 1.65 compared to the citywide ratio of 1.74.

K.4.5.2 Home Purchase Loans

- Issued 69 home purchase loans, a 9.5 percent increase from 2016.
- Applications decreased by 14.3 percent and denials decreased by 27.7 percent between 2016 and 2017.
- Ranked 4th in percent of loans to African-American borrower. In 2016, TD Bank issued 6.4 percent of loans to this group; in 2017, it issued 13.0 percent of its home purchase loans to African-American borrowers.
- Failed to meet City averages for percentage of loans to African-American, Hispanic, LMI, and female borrowers, for the seventh year in a row.
- Ranked 2nd in the number of loans issued to borrowers in LMI tracts, issuing 34.8 percent of all home purchase loans to this group, compared to a citywide average of 32.6 percent.
- Failed to meet or exceed the citywide average for the ratio of home purchase loan denials to Asian applicants compared to White applicants for TD Bank was 2.08, compared to a citywide average of 1.49 (4th place ranking). In 2016, the ratio for TD Bank was 1.99, compared to the citywide 1.61 (ranking 6th).

K.4.5.3 Home Refinance Loans

- Issued 48 home refinance loans, an increase of 2.1 percent from 2016.
- Applications decreased by 12.2 percent and denials decreased by 19.7 percent between 2016 and 2017.
- TD Bank failed to meet City average in proportion of loans to African Americans. However, TD Bank exceeded citywide averages for proportion of loans to Hispanic, Asian, and LMI borrowers.
- After ranking 4th in percentage of loans to borrowers in minority tracts in 2016, TD Bank ranked 6th in 2017 with 25.0 percent of loans made to those in minority tracts. TD Bank lost first rank in the percentage of home refinance loans Hispanic borrowers (now 3rd), issuing 8.3 percent of its home refinance loans to Hispanic borrowers, compared to the 6.1 percent issued citywide.
- Had higher ratios than the citywide averages for African-American and Hispanic applicants when compared to White applicants.
- Ranked 1st in loans to Asian borrowers (14.6 percent) and 1st in loans to LMI borrowers (58.3 percent).

K.4.6 Wells Fargo

K.4.6.1 All Loans

- Issued 845 loans in 2017, a decrease of 30.9 percent between 2016 and 2017. Wells Fargo out-lended other depositories.
- The number of applications decreased by 34.3 percent and denials decreased by 30.5 percent since 2015.
- Failed to meet or exceed any City averages for loans issued to any group.
- Wells Fargo's denial ratio for African American to White applicants was 2.00 while the City average was 2.22 and the denial ratio for minority to non-minority was 1.65 while the City average was 1.74.

K.4.6.2 Home Purchase Loans

- Issued 473 home purchase loans in 2017, a decrease of 44.5 percent from 2016.
- Applications decreased by 29.9 percent and denials decreased by 21.0 percent between 2016 and 2017.
- Did not meet City average for percentage of home purchase loans to African Amercan borrowers. Exceeded the citywide average for Hispanic borrowers, with 9.9 percent of loans issued to Hispanic borrowers, compared to the citywide average of 9.5 percent.
- Wells Fargo's denial ratio for African American to White applicants was 2.14, compared to the City's ratio of 2.56.

K.4.6.3 Home Refinance Loans

- Issued 326 home refinance loans, a 44.4 percent decrease from 2016.
- Ranked 2nd in denial ratio to African-Americans for the sixth year in a row.
- Fell short of City average for denial ratios to Hispanic applicants compared to White applicants (ranked 5th, with a ratio of 2.22, compared to the citywide ratio of 1.56).

K.4.6.4 Home Improvement Loans

- Issued 46 home improvement loans, eight more than issued in 2016.
- Exceeded City averages for percentage of loans to African American, Hispanic, Asian, and LMI borrowers, and borrowers in LMI tracts for the first time in five years.
- Wells Fargo issued 45.7 percent of its home improvement loans to female borrowers, compared to a citywide average of 49.9 percent.
- Asian applications were denied 2.24 times for every one White application denial. The citywide rate was 2.77 in 2017.

Table K.14: Selected 2017 Results for City Depositories - Home Purchase Loans

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	RANK PERCENT OF LOANS TO AFRICAN AMERICANS	RANK PERCENT OF LOANS TO HISPANICS	RANK PERCENT OF LOANS TO ASIANS	RANK PERCENT OF LOANS TO LMI BORROWERS	RANK PERCENT OF LOANS IN LMI TRACTS	RANK AFRICAN- AMERICAN TO WHITE DENIAL RATIO	RANK HISPANIC TO WHITE DENIAL RATIO	RANK ASIAN TO WHITE DENIAL RATIO
Bank of America	309	207	2	5	5	6	5	2	3	2
Citibank	45	30	1	6	6	4	6	6	6	6
Citizens Bank	376	270	5	4	2	2	3	1	1	1
PNC	269	162	6	3	1	1	1	5	5	5
TD Bank	126	69	4	2	3	5	2	3	2	4
Wells Fargo	707	473	3	1	4	3	4	4	4	3
Bank of New York Mellon	_	_	-	-	-	-	-	-	-	-
Republic First Bank	-	-	-	-	-	-	-	-	-	-
US Bank	_	_	_	-	-	-	-	-	_	-
United Bank	-	-	-	-	-	-	-	-	-	-
All Depositories	1,861	1,230								
All Lenders	16,224	11,514								

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Table K.15: Selected 2017 Results for City Depositories - Home Refinance Loans

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	RANK PERCENT OF LOANS TO AFRICAN AMERICANS	RANK PERCENT OF LOANS TO HISPANICS	RANK PERCENT OF LOANS TO ASIANS	RANK PERCENT OF LOANS TO LMI BORROWERS	RANK PERCENT OF LOANS IN LMI TRACTS	RANK AFRICAN- AMERICAN TO WHITE DENIAL RATIO	RANK HISPANIC TO WHITE DENIAL RATIO	RANK ASIAN TO WHITE DENIAL RATIO
Bank of America	118	64	5	1	3	6	2	3	1	5
Citibank	72	27	1	6	6	5	6	1	6	6
Citizens Bank	356	174	4	5	2	2	4	6	3	4
PNC	408	160	2	2	4	3	1	4	2	2
TD Bank	115	48	6	3	1	1	3	5	4	1
Wells Fargo	767	326	3	4	5	4	5	2	5	3
Bank of New York Mellon	_	_	_	_	_	-	-	_	-	_
Republic First Bank	-	-	-	-	-	-	-	-	-	-
US Bank	_	_	_	_	_	_	_	_	_	_
United Bank	-	-	-	-	-	-	-	-	-	-
All Depositories	1,859	810								
All Lenders	15,541	6,153								

Table K.16: Selected 2017 Results for City Depositories - Home Improvement Loans

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	RANK PERCENT OF LOANS TO AFRICAN AMERICANS	RANK PERCENT OF LOANS TO HISPANICS	RANK PERCENT OF LOANS TO ASIANS	RANK PERCENT OF LOANS TO LMI BORROWERS	RANK PERCENT OF LOANS IN LMI TRACTS	RANK AFRICAN- AMERICAN TO WHITE DENIAL RATIO	RANK HISPANIC TO WHITE DENIAL RATIO	RANK ASIAN TO WHITE DENIAL RATIO
Bank of America	_	_	_	_	_	-	_	_	_	_
Citibank	-	-	-	-	_	-	-	-	-	_
Citizens Bank	_	_	_	-	-	-	-	-	-	-
PNC	163	58	2	1	1	1	1	2	2	1
TD Bank	_	_	_	_	_	-	_	_	-	_
Wells Fargo	125	46	1	2	2	2	2	1	1	2
Bank of New York Mellon	_	_	_	-	-	-	-	-	-	-
Republic First Bank	_	_	-	-	-	-	-	-	-	-
US Bank	_	-	_	_	_	-	-	_	-	-
United Bank	-	-	-	-	-	-	-	-	-	-
All Depositories	395	133								
All Lenders	1,720	741								



TECHNICAL APPENDIX L TABULAR DETAIL FOR HOME LENDING BY AUTHORIZED DEPOSITORY

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Table L.1: Ranking of All Depositories

	COMPOSITE	PRIME LENDING T	TO AFRICAN AMERICANS	AFRICAN AMERICA-TO-WHITE DENIAL RATIO
		ALL BANKS SI	UMMARY	
Mean		0.18	5.71	2.23
Max		1.00	176.00	13.30
Min		0.00	0.00	0.00
N		340	378	106
St. Dev.		0.27	14.77	2.55
Weight		0.10	0.10	0.10

	INDIVIDUAL BANK SCORES											
BANK NAME		LOAN SHARE	Z SCORE	LOAN COUNT	Z SCORE	DENIAL RATIO	Z SCORE					
Bank of America	2.77	0.17	-0.05	35	1.98	1.60	0.25					
CitiBank	2.19	0.33	0.55	10	0.29	0.00	0.87					
Citizens Bank	5.91	0.12	-0.23	32	1.78	1.57	0.26					
PNC	0.72	0.10	-0.30	16	0.70	4.66	-0.95					
TD Bank	0.34	0.13	-0.19	9	0.22	2.00	0.09					
Wells Fargo	11.62	0.13	-0.19	62	3.81	2.14	0.04					

	PRIME LENDIN	IG TO HISPANICS	HISPANIC TO WHITE DENIAL RATIO					
ALL BANKS SUMMARY								
Mean	0.07	2.90	2.04					
Max	1.00	147.00	21.00					
Min	0.00	0.00	0.00					
N	340	378	95					
St. Dev.	0.17	11.69	3.30					
Weight	0.10	0.10	0.10					

INDIVIDUAL BANK SCORES											
BANK NAME	LOAN SHARE	Z SCORE	LOAN COUNT	Z SCORE	DENIAL RATIO	Z SCORE					
Bank of America	0.03	-0.20	7	0.35	1.89	0.05					
CitiBank	0.00	-0.40	0	-0.25	0.00	0.62					
Citizens Bank	0.04	-0.16	11	0.69	0.00	0.62					
PNC	0.06	-0.07	9	0.52	4.46	-0.73					
TD Bank	0.09	0.11	6	0.27	1.67	0.11					
Wells Fargo	0.10	0.19	47	3.77	2.19	-0.05					

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Table L.1: Ranking of All Depositories (Continued)

	PRIME LENDING T	O LMI BORROWERS	LMI-TO-MUI DENIAL
	ALL BANKS SUM	MARY	
Mean	0.40	14.74	1.67
Max	1.00	390.00	12.70
Min	0.00	0.00	0.00
N	340	378	113
St. Dev.	0.34	37.55	1.65
Weight	0.10	0.10	0.10

	INDIVIDUAL BANK SCORES										
BANK NAME LOAN Z LOAN Z DENIAL RATIO Z SCO											
Bank of America	0.22	-0.55	45	0.81	1.43	0.14					
CitiBank	0.23	-0.50	7	-0.21	0.00	1.01					
Citizens Bank	0.40	-0.02	107	2.46	1.18	0.30					
PNC	0.43	0.08	70	1.47	1.88	-0.13					
TD Bank	0.22	-0.55	15	0.01	1.53	0.08					
Wells Fargo	0.33	-0.21	157	3.79	1.21	0.28					

	PRIME LENDING IN LMI TRACTS	LMI-TO-MUI TRACT DENIAL	PRIME LENDING IN MINORITY TRACTS	MINORITY-TO-NON- MINORITY TRACT DENIAL
		ALL BANKS SUMMARY		
Mean	0.28	1.74	0.41	1.64
Max	1.00	18.60	1.00	18.00
Min	0.00	0.00	0.00	0.00
N	340	143	340	132
St. Dev.	0.29	2.68	0.35	2.14
Weight	0.025	0.025	0.025	0.025

	INDIVIDUAL BANK SCORES										
BANK NAME	SHARE	Z SCORE	RATI0	Z SCORE	SHARE	Z SCORE	RATIO	Z SCORE			
Bank of America	0.17	-0.09	0.39	0.13	0.30	-0.08	1.43	0.02			
CitiBank	0.17	-0.10	0.45	0.12	0.40	-0.01	0.00	0.19			
Citizens Bank	0.33	0.04	0.68	0.10	0.44	0.02	1.18	0.05			
PNC	0.36	0.07	0.98	0.07	0.46	0.04	1.88	-0.03			
TD Bank	0.35	0.06	0.56	0.11	0.41	0.00	1.53	0.01			
Wells Fargo	0.31	0.03	0.58	0.11	0.41	0.00	1.21	0.05			

Table L.2: Depository Ranking-All Single-Family Loans in Philadelphia

Race

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	PERCENT OF LOANS TO AFRICAN AMERICANS	RANK PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	RANK PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS TO ASIANS	RANK PERCENT OF LOANS TO ASIANS	PERCENT OF LOANS IN MINORITY TRACTS	RANK PERCENT OF LOANS IN MINORITY TRACTS
Bank of America	435	274	16.4%	5	5.5%	4	9.1%	4	31.4%	6
Citibank	143	67	29.9%	1	0.0%	7	4.5%	6	38.8%	3
Citizens	743	449	13.8%	6	3.6%	6	11.4%	2	41.9%	2
PNC	840	380	17.6%	3	8.2%	1	9.2%	3	50.8%	1
TD Bank	300	127	12.6%	7	7.9%	3	12.6%	1	36.2%	5
US Bank	50	26	19.2%	2	3.8%	5	3.8%	7	30.8%	7
Wells Fargo	1,599	845	17.2%	4	8.0%	2	6.6%	5	38.0%	4
Z_Deposit	4,115	2,173	16.6%		6.5%		8.6%		39.9%	
Z_Total	33,485	18,408	21.1%		8.2%		6.8%		43.8%	

Income/Gender

DEPOSITORY	PERCENT OF LOANS TO LMI BORROWERS	RANK PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	RANK PERCENT OF LOANS IN LMI TRACTS	PERCENT OF LOANS TO FEMALES	RANK PERCENT OF LOANS TO FEMALES
Bank of America	23.4%	7	19.7%	5	42.7%	1
Citibank	35.8%	5	16.4%	6	38.8%	3
Citizens	41.9%	2	28.3%	3	32.3%	7
PNC	47.6%	1	35.8%	1	39.2%	2
TD Bank	39.4%	3	31.5%	2	36.2%	5
US Bank	34.6%	6	15.4%	7	34.6%	6
Wells Fargo	36.0%	4	26.6%	4	36.4%	4
Z_Deposit	37.7%		27.5%		36.9%	
Z_Total	46.0%		31.1%		41.5%	

Table L.2: Depository Ranking-All Single-Family Loans in Philadelphia (Continued)

Denials

APPLICATIONS	DENIALS	AFRICAN AMERICAN TO WHITE DENIAL RATIO	RANK AFRICAN AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	RANK HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO	RANK ASIAN TO WHITE DENIAL RATIO	MINORITY TO NON- MINORITY TRACT DENIAL RATIO	RANK MINORITY TO NON-MINORITY TRACT DENIAL RATIO
435	76	1.58	2.00	1.00	2.00	1.74	4.00	1.61	2.00
143	15	2.56	7.00	3.67	7.00	9.17	7.00	2.33	7.00
743	121	2.41	6.00	1.47	3.00	1.45	2.00	1.63	3.00
840	289	2.39	5.00	2.45	6.00	2.01	6.00	1.84	6.00
300	143	1.99	3.00	1.89	4.00	1.60	3.00	1.65	5.00
50	10	0.58	1.00	0.00	1.00	1.17	1.00	1.09	1.00
1,599	433	2.00	4.00	2.22	5.00	1.84	5.00	1.65	4.00
4,115	1,087	2.11		2.24		1.88		1.77	
33,481	6,563	2.22		1.71		1.36		1.74	
	435 143 743 840 300 50 1,599 4,115	435 76 143 15 743 121 840 289 300 143 50 10 1,599 433 4,115 1,087	APPLICATIONS DENIALS AMERICAN TO WHITE DENIAL RATIO 435 76 1.58 143 15 2.56 743 121 2.41 840 289 2.39 300 143 1.99 50 10 0.58 1,599 433 2.00 4,115 1,087 2.11	APPLICATIONS DENIALS AFRICAN AMERICAN TO WHITE DENIAL RATIO AFRICAN AMERICAN TO WHITE DENIAL RATIO 435 76 1.58 2.00 143 15 2.56 7.00 743 121 2.41 6.00 840 289 2.39 5.00 300 143 1.99 3.00 50 10 0.58 1.00 1,599 433 2.00 4.00 4,115 1,087 2.11	APPLICATIONS DENIALS AFRICAN RATIO AFRICAN AMERICAN TO WHITE DENIAL RATIO WHITE DENIAL RATIO TO WHITE DENIAL RATIO	APPLICATIONS DENIALS AFRICAN WHITE DENIAL RATIO AFRICAN CONTINUE DENIAL RATIO AFRICAN CONTINUE DENIAL RATIO CONTIN	APPLICATIONS DENIALS AFRICAN TO WHITE DENIAL RATIO MARRICAN TO WHITE DENIAL TO WHITE DENIAL RATIO DEN	APPLICATIONS DENIALS AFRICAN AFRICAN	APPLICATIONS DENIALS AFRICAN AMERICAN TO WHITE DENIAL RATIO WHITE DENIAL RATI

Market Share Ratio

DEPOSITORY	AFRICAN AMERICAN TO WHITE RATIO	RANK AFRICAN AMERICAN TO WHITE RATIO	MINORITY TRACT TO NON-MINORITY TRACT RATIO	RANK MINORITY TRACT TO NON-MINORITY TRACT RATIO	LMI TO MUI BORROWER RATIO	RANK LMI TO MUI BORROWER RATIO RANK RATIO	LMI TRACTS TO MUI TRACTS RATIO	RANK LMI TRACTS TO MUI TRACTS RAIO
Bank of America	0.91	4.00	0.63	6.00	0.56	5.00	0.38	7.00
Citibank	1.70	1.00	0.89	3.00	0.47	6.00	0.71	4.00
Citizens	0.79	5.00	0.99	2.00	0.94	3.00	0.91	2.00
PNC	1.09	2.00	1.43	1.00	1.32	1.00	1.15	1.00
TD Bank	0.56	7.00	0.76	4.00	1.04	2.00	0.79	3.00
US Bank	0.97	3.00	0.62	7.00	0.43	7.00	0.67	5.00
Wells Fargo	0.67	6.00	0.76	5.00	0.76	4.00	0.66	6.00

Table L.3: Depository Ranking-Home Purchase Single-Family Loans in Philadelphia

Race

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	PERCENT OF LOANS TO AFRICAN AMERICANS	RANK PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	RANK PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS TO ASIANS	RANK PERCENT OF LOANS TO ASIANS	PERCENT OF LOANS IN MINORITY TRACTS	RANK PERCENT OF LOANS IN MINORITY TRACTS
Bank of America	309	207	16.9%	2	3.4%	5	10.1%	5	30.4%	6
Citibank	45	30	33.3%	1	0.0%	6	10.0%	6	40.0%	5
Citizens	376	270	11.9%	5	4.1%	4	13.3%	2	44.4%	2
PNC	269	162	9.9%	6	5.6%	3	13.6%	1	46.3%	1
TD Bank	126	69	13.0%	4	8.7%	2	11.6%	3	40.6%	4
Wells Fargo	707	473	13.1%	3	9.9%	1	10.1%	4	41.0%	3
Z_Deposit	1,861	1,230	13.6%		6.5%		11.3%		40.3%	
Z_Total	16,224	11,514	18.8%		9.5%		8.7%		43.6%	
	0	0								

Income/Gender

DEPOSITORY	PERCENT OF LOANS TO LMI BORROWERS	RANK PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	RANK PERCENT OF LOANS IN LMI TRACTS	PERCENT OF LOANS TO FEMALES	RANK PERCENT OF LOANS TO FEMALES
Bank of America	21.7%	6	17.4%	5	44.9%	1
Citibank	23.3%	4	16.7%	6	40.0%	2
Citizens	39.6%	2	32.6%	3	31.5%	6
PNC	43.2%	1	35.8%	1	34.0%	4
TD Bank	21.7%	5	34.8%	2	36.2%	3
Wells Fargo	33.2%	3	30.9%	4	33.4%	5
Z_Deposit	32.9%		29.1%		35.0%	
Z_Total	48.4%		32.6%		41.6%	

Table L.3: Depository Ranking-Home Purchase Single-Family Loans in Philadelphia (Continued)

Denials

DEPOSITORY	APPLICATIONS	DENIALS	AFRICAN AMERICAN TO WHITE DENIAL RATIO	RANK AFRICAN AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	RANK HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO	RANK ASIAN TO WHITE DENIAL RATIO	MINORITY TO NON- MINORITY TRACT DENIAL RATIO	RANK MINORITY TO NON-MINORITY TRACT DENIAL RATIO
Bank of America	309	50	1.60	2	1.89	3	1.78	2	1.43	3
Citibank	45	1		6		6		6		6
Citizens	376	42	1.57	1	0.00	1	0.92	1	1.18	1
PNC	269	65	4.66	5	4.46	5	4.03	5	1.88	5
TD Bank	126	47	2.00	3	1.67	2	2.08	4	1.53	4
Wells Fargo	707	96	2.14	4	2.19	4	2.06	3	1.21	2
Z_Deposit	1,861	306	2.11		2.07		2.23		1.44	
Z_Total	16,221	1,688	2.56		1.86		1.49		1.73	

Market Share Ratio

DEPOSITORY	AFRICAN AMERICAN TO WHITE RATIO	RANK AFRICAN AMERICAN TO WHITE RATIO	MINORITY TRACT TO NON-MINORITY TRACT RATIO	RANK MINORITY TRACT TO NON-MINORITY TRACT RATIO	LMI TO MUI BORROWER RATIO	RANK LMI TO MUI BORROWER RATIO RANK RATIO	LMI TRACTS TO MUI TRACTS RATIO	RANK LMI TRACTS TO MUI TRACTS RATIO
Bank of America	0.84	2	0.57	6	0.53	5	0.39	6
Citibank	3.04	1	0.83	5	0.40	6	0.45	5
Citizens	0.74	4	0.87	3	0.87	3	0.68	2
PNC	0.75	3	1.17	1	1.30	1	0.98	1
TD Bank	0.71	5	1.00	2	1.18	2	0.56	4
Wells Fargo	0.62	6	0.86	4	0.87	4	0.58	3

Table L.4: Depository Ranking-Refinance Single-Family Loans in Philadelphia

Race

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	PERCENT OF LOANS TO AFRICAN AMERICANS	RANK PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	RANK PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS TO ASIANS	RANK PERCENT OF LOANS TO ASIANS	PERCENT OF LOANS IN MINORITY TRACTS	RANK PERCENT OF LOANS IN MINORITY TRACTS
Bank of America	118	64	14.1%	5	12.5%	1	6.3%	3	34.4%	4
Citibank	72	27	33.3%	1	0.0%	6	0.0%	6	40.7%	2
Citizens	356	174	17.2%	4	2.9%	5	8.6%	2	38.5%	3
PNC	408	160	25.0%	2	9.4%	2	3.8%	4	53.8%	1
TD Bank	115	48	10.4%	6	8.3%	3	14.6%	1	25.0%	6
Wells Fargo	767	326	20.6%	3	4.9%	4	1.8%	5	31.6%	5
Z_Deposit	1,859	810	20.0%		6.0%		4.7%		37.7%	
Z_Total	15,541	6,153	24.8%		6.1%		3.4%		43.4%	

Income/Gender

DEPOSITORY	PERCENT OF LOANS TO LMI BORROWERS	RANK PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	RANK PERCENT OF LOANS IN LMI TRACTS	PERCENT OF LOANS TO FEMALES	RANK PERCENT OF LOANS TO FEMALES
Bank of America	28.1%	6	28.1%	2	35.9%	5
Citibank	37.0%	5	14.8%	6	40.7%	1
Citizens	46.6%	2	21.8%	4	33.3%	6
PNC	43.8%	3	33.8%	1	40.0%	2
TD Bank	58.3%	1	25.0%	3	39.6%	3
Wells Fargo	39.3%	4	18.4%	5	39.6%	4
Z_Deposit	42.0%		23.3%		38.4%	
Z_Total	40.5%		27.9%		40.4%	

Table L.4: Depository Ranking-Refinance Single-Family Loans in Philadelphia (Continued)

Denials

DEPOSITORY	APPLICATIONS	DENIALS	AFRICAN AMERICAN TO WHITE DENIAL RATIO	RANK AFRICAN AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	RANK HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO	RANK ASIAN TO WHITE DENIAL RATIO	MINORITY TO NON- MINORITY TRACT DENIAL RATIO	RANK MINORITY TO NON-MINORITY TRACT DENIAL RATIO
Bank of America	118	25	1.64	3	0.35	1	2.10	5	1.79	4
Citibank	72	9	1.33	1	2.33	6	9.33	6	0.80	1
Citizens	356	76	2.54	6	1.91	3	2.05	4	1.85	5
PNC	408	149	1.77	4	1.56	2	1.87	2	1.49	2
TD Bank	115	53	2.29	5	2.00	4	1.07	1	2.00	6
Wells Fargo	767	284	1.62	2	2.22	5	1.90	3	1.70	3
Z_Deposit	1,859	600	1.78		1.89		1.78		1.68	
Z_Total	15,540	4,281	1.75		1.56		1.47		1.56	

Market Share Ratio

DEPOSITORY	AFRICAN AMERICAN TO WHITE RATIO	RANK AFIRCAN AMERICAN TO WHITE RATIO	MINORITY TRACT TO NON-MINORITY TRACT RATIO	RANK MINORITY TRACT TO NON-MINORITY TRACT RATIO	LMI TO MUI BORROWER RATIO	RANK LMI TO MUI BORROWER RATIO RANK RATIO	LMI TRACTS TO MUI TRACTS RATIO	RANK LMI TRACTS TO MUI TRACTS RAIO
Bank of America	0.54	5	0.69	4	1.01	2	0.56	6
Citibank	1.42	1	0.94	2	0.48	6	0.89	5
Citizens	0.69	3	0.83	3	0.78	4	1.32	2
PNC	1.18	2	1.56	1	1.38	1	1.17	3
TD Bank	0.35	6	0.46	6	0.91	3	2.12	1
Wells Fargo	0.61	4	0.59	5	0.57	5	0.95	4

Table L.5: Depository Ranking-Home Improvement Single-Family Loans in Philadelphia

Race

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	PERCENT OF LOANS TO AFRICAN AMERICANS	RANK PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	RANK PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS TO ASIANS	RANK PERCENT OF LOANS TO ASIANS	PERCENT OF LOANS IN MINORITY TRACTS	RANK PERCENT OF LOANS IN MINORITY TRACTS
PNC	163	58	19.0%	2	12.1%	1	12.1%	1	55.2%	1
Wells Fargo	125	46	34.8%	1	10.9%	2	4.3%	2	52.2%	2
Z_Deposit	395	133	23.3%		9.0%		7.5%		50.4%	
Z_Total	1,720	741	27.4%		5.4%		4.0%		49.3%	

Income/Gender

DEPOSITORY	PERCENT OF LOANS TO LMI BORROWERS	RANK PERCENT OF LOANS TO LMI BORROWERS	PERCENT OF LOANS IN LMI TRACTS	RANK PERCENT OF LOANS IN LMI TRACTS	PERCENT OF LOANS TO FEMALES	RANK PERCENT OF LOANS TO FEMALES
PNC	70.7%	1	41.4%	1	51.7%	1
Wells Fargo	41.3%	2	41.3%	2	45.7%	2
Z_Deposit	56.4%		37.6%		44.4%	
Z_Total	53.7%		35.8%		49.9%	

Denials

DEPOSITORY	APPLICATIONS	DENIALS	AFRICAN AMERICAN TO WHITE DENIAL RATIO	RANK AFRICAN AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	RANK HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO	RANK ASIAN TO WHITE DENIAL RATIO	MINORITY TO NON- MINORITY TRACT DENIAL RATIO	RANK MINORITY TO NON-MINORITY TRACT DENIAL RATIO
PNC	163	75	2.27	2	2.44	2	1.43	1	2.50	2
Wells Fargo	125	53	1.60	1	1.78	1	2.24	2	1.80	1
Z_Deposit	395	181	2.04		2.29		1.98		2.07	
Z_Total	1,720	594	2.49		2.95		2.77		2.21	

Market Share Ratio

DEPOSITORY	AFRICAN AMERICAN TO WHITE RATIO	RANK AFIRCAN AMERICAN TO WHITE RATIO	MINORITY TRACT TO NON-MINORITY TRACT RATIO	RANK MINORITY TRACT TO NON-MINORITY TRACT RATIO	LMI TO MUI BORROWER RATIO	RANK LMI TO MUI BORROWER RATIO RANK RATIO	LMI TRACTS TO MUI TRACTS RATIO	RANK LMI TRACTS TO MUI TRACTS RAIO
PNC	0.84	2	1.35	1	1.33	1	2.17	1
Wells Fargo	1.61	1	1.10	2	1.28	2	0.61	2

Table L.6: Unranked Depositories-All Single-Family Loans in Philadelphia

Race

DEPOSITORY	APPLICATIONS	LOANS ORIGINATED	PERCENT OF LOANS TO AFRICAN AMERICANS	PERCENT OF LOANS TO HISPANICS	PERCENT OF LOANS TO ASIANS	PERCENT OF LOANS IN MINORITY TRACTS	LOANS TO AFRICAN AMERICANS	LOANS TO HISPANICS	LOANS TO ASIANS	LOANS IN MINORITY TRACTS
Bank of NY Mellon	5	5	0.0%	0.0%	0.0%	0.0%	0	0	0	0
Republic First Bank	0	0	0.0%	0.0%	0.0%	0.0%				
US Bank	0	0	0.0%	0.0%	0.0%	0.0%				
United Bank	0	0	0.0%	0.0%	0.0%	0.0%				

Income/Gender

DEPOSITORY	PERCENT OF LOANS TO LMI BORROWER	PERCENT OF LOANS IN LMI TRACTS	PERCENT OF LOANS TO FEMALES	LOANS TO LMI BORROWERS
Bank of NY Mellon	0.0%	0.0%	20.0%	0
Republic First Bank	0.0%	0.0%	0.0%	0
US Bank	0.0%	0.0%	0.0%	0
United Bank	0.0%	0.0%	0.0%	0

Denials

DEPOSITORY	APPLICATIONS	DENIALS	AFRICAN AMERICAN TO WHITE DENIAL RATIO	HISPANIC TO WHITE DENIAL RATIO	ASIAN TO WHITE DENIAL RATIO	MINORITY TO NON MINORITY TRACT DENIAL RATIO
Bank of NY Mellon	5	0				
Republic First Bank	0	0	0.00	0.00	0.00	0.00
US Bank	0	0	0.00	0.00	0.00	0.00
United Bank	0	0	0.00	0.00	0.00	0.00

Table L.7: List of Depository Affiliates Included in Analysis

COUNT OF OFFSPRING	MOST COMMON OFFSPRING NAME
2,564	MERRILL LYNCH SECURITIES LIMITED (3904211)
1,344	BNY PARTNERSHIP FUNDING, LLC (3159093)
2,156	CITIGROUP VENTURE CAPITAL INTERNATIONAL GROWTH PARTNERSHIP (EMPLOYEE) II, L.P.
238	CITIZENS FINANCIAL GROUP, INC. (1132449)
1,087	BANKERSRE INSURANCE GROUP CELL P10 (PMI)
19	REPUBLIC FIRST BANK DBA REPUBLIC BANK (1216321)
153	TORONTO DOMINION HOLDINGS (U.S.A.), INC. (1378957)
4	UNITED BANK OF MICHIGAN (150044)
112	USB TRADE SERVICES LIMITED (2534666)
2,641	WELLS FARGO BANK INTERNATIONAL UNLIMITED COMPANY (3606177)



TECHNICAL APPENDIX M BUSINESS LENDING IN PHILADELPHIA

Technical Appendix M Summary

According to Community Reinvestment Act (CRA) data, 20,863 loans with an aggregate value of \$783.0 million were made to small business in Philadelphia during 2017. Over 10,851 of those loans were made to small businesses with annual revenues of less than \$1 million.

- Since 2016, total dollars and number of loans have increased by 5.0 percent and 5.7 percent, respectively. Since 2016, the number of loans to businesses with under \$1 million in annual revenues has increased by 7.0 percent; since 2009, that figured has increased by over 180 percent (see Table M.1).
- In 2017, 31.3 percent of loans made to small businesses in Philadelphia were made to those located in low- and moderate-income areas, a slight increase from 30.0 percent in 2016. However, 35.0 percent of all small businesses in Philadelphia were located in low- and moderate-income census tracts in 2017.
- In 2017, 31.4 percent of loans made to businesses with less than \$1 million in revenue were made to those businesses located in low- and moderate-income areas, compared to 30.8 percent in 2016.
- In 2017, 37.5 percent of all small business loans in the City were in minority areas (a decrease from 2016). For small businesses with revenues less than \$1 million, the percentage was 39.0 percent (down from 40.2 percent in 2016). Given that the City has a higher proportion of small businesses in minority areas, compared to the suburban counties, it is not surprising that a higher proportion of small business lending is expected to occur in minority areas.

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Table M.1: Small Business Lending Activity in Philadelphia

	TOTAL DOLLARS LOANED TO SMALL BUSINESSES IN PHILADELPHIA (IN \$M)	TOTAL LOANS TO SMALL BUSINESSES IN PHILADELPHIA	TOTAL LOANS TO SMALL BUSINESSES IN PHILADELPHIA WITH ANNUAL REVENUES OF LESS THAN \$1 MILLION
2016	\$746	19,741	10,148
2017	\$783	20,863	10,851
% Difference 2016-2017	5.0%	5.7%	6.9%
% Difference 2009-2017	34.8%	68.7%	180.4%

M.1 Small Business Lending Overall - Philadelphia

According to Community Reinvestment Act (CRA) data, 20,863 loans with an aggregate value of \$783 million were made to small business in Philadelphia during 2017.

Over 10,851 of those loans were made to small businesses with annual revenues of less than \$1 million. Since 2016, total dollars and number of loans have increased by 5.0 percent and 5.7 percent, respectively. Since 2016, the number of loans to businesses with under \$1 million in annual revenues has increased by 7.0 percent; since 2009, that figured has increased by over 180.4 percent.

Table M.2: Small Business Lending Activity in Philadelphia

	TOTAL DOLLARS LOANED TO SMALL BUSINESSES IN PHILADELPHIA (\$M)	TOTAL SMALL BUSINESS LOANS IN PHILADELPHIA	TOTAL LOANS TO SMALL BUSINESSES IN PHILADELPHIA WITH ANNUAL REVENUES OF LESS THAN \$1 MILLION
2009	\$581	12,365	3,870
2010	\$445	11,322	3,472
2011	\$559	13,683	6,155
2012	\$590	14,104	6,131
2013	\$624	13,834	6,850
2014	\$690	15,946	7,781
2015	\$698	17,654	9,744
2016	\$746	19,741	10,148
2017	\$783	20,863	10,851
% Difference 2016-2017	5.0%	5.7%	7.0%
% Difference 2009-2017	34.8%	68.7%	180.4%

(See Technical Appendix O.1 - O.9)

M.2 Small Business Lending by Tract Income Level - Philadelphia

In 2017, 31.3 percent of loans made to small businesses in Philadelphia were made to those located in low- and moderate-income areas, a slight increase from 30.0 percent in 2016. However, 35.0 percent of all small businesses in Philadelphia were located in low- and moderate-income census tracts in 2017.

Table M.3: Distribution of Loans to Small Businesses in Philadelphia by Tract Income Level

TRACT INCOME LEVEL	NUMBER OF LOANS IN PHILADELPHIA	PERCENTAGE OF LOANS IN PHILADELPHIA	NUMBER OF SMALL BUSINESSES	PERCENTAGE OF SMALL BUSINESSES IN PHILADELPHIA
Low Income	1,733	8.3%	7,924	8.8%
Moderate Income	4,805	23.0%	23,566	26.2%
Middle Income	4,342	20.8%	19,238	21.4%
Upper Income	9,470	45.4%	37,090	41.3%
Tract or Income not Known	513	2.5%	2,002	2.2%
Total	20,863	100.0%	89,820	100.0%

(See Technical Appendix O.10)

In 2017, 31.4 percent of loans made to businesses with less than \$1 million in revenue were made to those businesses located in low- and moderate-income areas, compared to 30.8 percent in 2016. This compares to 36.3 percent of businesses with less than \$1 million in revenue that are located in low- and moderate-income tracts (see Table M.4).

Table M.4: Distribution of Loans to Small Businesses with Revenues less than \$1 Million in Philadelphia by Tract Income Level

TRACT INCOME LEVEL	NUMBER OF LOANS IN PHILADELPHIA	PERCENTAGE OF LOANS IN PHILADELPHIA	NUMBER OF SMALL BUSINESSES	PERCENTAGE OF SMALL BUSINESSES IN PHILADELPHIA
Low Income	822	7.6%	6,892	8.9%
Moderate Income	2,581	23.8%	21,255	27.4%
Middle Income	2,385	22.0%	17,362	22.4%
Upper Income	4,905	45.2%	30,838	39.8%
Tract or Income not Known	158	1.5%	1,208	1.6%
Total	10,851	100.0%	77,555	100.0%

(See Technical Appendix O.10)

M.3 Small Business Lending by Tract Minority Level - Philadelphia

Over 61.2 percent of all small business loans were issued to businesses located in non-minority census tracts of Philadelphia. Between 2012 and 2016, in both categories of small businesses, the ratio of loans for non-minority areas to minority areas was almost 2:1. In 2017, these ratios improved for all small business loans and loans to small businesses with revenues less than \$1 million to 1.63 and 1.54, respectively, in non-minority areas for every loan given to a small business in a minority area (see Figure M.1).

70.0% 61.2% 60.2% 60.0% 50.0% ■ Loans Made to Small Businesses 39.0% 40.0% 37.5% ■ Loans Made to Small Businesses with \$1 Million in Revenue 30.0% 20.0% 10.0% 0.0% Loans Made in Minority Loans Made in Non-Areas **Minority Areas**

Figure M.1: Percentage of Loans to Small Business in Philadelphia by Minority Status

(See Technical Appendix O.11)

M.4 Small Business Lending by Tract Income Level - Philadelphia vs. Suburban Counties

Loans to small businesses in low- and moderate-income areas represented 21.5 percent of loans made in Bucks County (slightly lower than the percentage issued in 2016). Loans to businesses in low- and moderate-income areas of Chester County represented 14.5 percent of the total loans to small businesses (up from the 13.6 percent issued to low- and moderate-income areas in 2016). Loans to businesses in low- and moderate-income areas of Delaware County represented 8.2 percent (higher than 6.9 percent in 2016) of the total loans to small businesses. In Montgomery County, the number of loans made to small businesses in low- and moderate-income areas represented 13.9 percent of loans (lower than 17.5 percent issued in 2016) (see Figure M.2).

■ All Small Business Loans
■ Loans to Small Businesses <\$1M in Annual Revenue</p> 35.0% 31.3% 31.4% 30.0% 25.0% 21.5% 18.9% 20.0% 14.5% 14.8% 13.9% 13.6% 15.0% 10.0% 8.2% 7.3% 5.0% 0.0% **Bucks** Chester Delaware Montgomery Philadelphia

Figure M.2: Percentage of Loans in Low- and Moderate-Income areas for Philadelphia and the Suburban Counties

(See Technical Appendix O.12)

The percentage of loans to small businesses in low- and moderate-income areas is far greater for Philadelphia than for its surroundings counties. Comparing lending in Philadelphia with lending in the suburban counties by income levels and by minority status for all small businesses, Philadelphia has a higher performance ratio. In fact, lending to small businesses in low income areas is greater in Philadelphia (1,733) than in all of the suburban counties (1,069) combined (see Figure M.3).

City of Philadelphia ■ Suburban Counties 50% 45.4% 45% 41.4% 42.1% 40% 35% 30% 25% 23.0% 20.8% 20% 13.4% 15% 8.3% 10% 5% 1.8% 0% Low Income Moderate Income Middle Income Upper Income

Figure M.3: Percentage of Loans to Small Businesses by Tract Income Level for Philadelphia and the Suburbs

(See Technical Appendix 2: O.10 and O.11)

M.5 Small Business Lending by Tract Minority Level - Philadelphia vs. Suburban Counties

Of the approximately 77,555 small businesses with annual revenues of less than \$1 million in Philadelphia, 39.0 percent are located in minority areas (down from 40.2 percent in 2016).

In 2017, 37.5 percent of all small business loans in the City were in minority areas (a decrease from 2016). In comparison, only 5.0 percent of all small business loans and 4.4 percent of small businesses with annual revenues less than \$1 million were in minority area in the suburban counties. Given that the City has a higher proportion of small businesses in minority areas, compared to the suburban counties, it is not surprising that a higher proportion of small business lending is expected to occur in minority areas.

Although the City outperformed the suburbs in lending to small businesses in low- and moderate-income areas, the percentage of loans in areas of Philadelphia with large minority populations continues to be disproportionately smaller than for non-minority areas. (See Technical Appendix O.10 and O.11)



TECHNICAL APPENDIX N BUSINESS LENDING BY AUTHORIZED DEPOSITORY

Technical Appendix N Summary

Small business lending in all categories among the City depositories represented 38 percent of the total small business lending reported in Philadelphia. There were five factors, equally weighted, considered in the ranking of the banks; these five factors were selected because they show performance in relation to the entire city and among the depositories on key lending practices affecting low- and moderate-income and minority businesses.

- Market share of loans to small businesses
- Market share of loans to the smallest of small businesses
- Lending to small businesses located in low and moderate income areas
- Ranking among depositories for small business lending to the smallest businesses
- Ranking among depositories for small business lending in low and moderate income areas

Citibank maintained its first place ranking from 2016. PNC came back to second place again after falling from second to third place in 2016. Wells Fargo's ranking fell further to third place, falling behind PNC. TD Bank jumped to fourth place from seventh; this is TD Bank's highest ranking since 2009. Citizens and US Bank both fell in their rankings compared to the previous year, while Bank of America and Republic First maintained their rankings (sixth and eighth place, respectively). (see Table N.1).

Table N.1: Ranking of City Depositories in Small Business Lending

INSTITUTION	2017 RANKING	2016 RANKING	2015 RANKING	2014 RANKING	2013 RANKING	2012 RANKING	2011 RANKING	2010 RANKING	2009 RANKING
Citibank	1	1	3	2	2	T1	T1	2	2
PNC Bank	2	3	2	4	4	3	3	1	1
Wells Fargo	3	2	1	1	1	T1	T1	3	3
TD Bank	4	7	7	5	5	6	6	6	7
Citizens Bank	5	4	5	3	3	4	4	4	5
Bank of America	6	6	4	7	8	5	5	5	4
US Bank	7	5	6	6	-	-	-	-	-
Republic First	8	8	8	8	6	7	7	-	9
Bank of New York Mellon		-	-	-	7	-	-	-	-
United Bank		-	-	-	-	-	-	-	-

N.1 Small Business Lending - Methodology

Small business lending in all categories among the City depositories represented 38 percent of the total small business lending reported in Philadelphia. To rank the City depositories on small business lending, we reviewed the 2017 Institution Disclosure Statements for eight depositories. Data were not available for United Bank or Bank of New York Mellon.

There were five factors, equally weighted, considered in the ranking of the eight banks. Each bank was given a rating (1 to 8, where 8 is the highest rating) on each of the factors relating to performance in Philadelphia County. Ratings were assigned based on where each institution placed in relation to fellow institutions (see Table N.2).

Table N.2: Factors upon Which City Depositories Were Ranked in Small Business Lending

FACTOR	DESCRIPTION
Market share of loans to small businesses in Philadelphia (MS to SB)	This shows the ranking of the individual bank based on its performance in relation to all institutions serving the city in terms of percentage of loans made to small businesses.
Market share of loans to the smallest of small businesses (MS to SSB)	This shows the ranking of the individual bank based on its performance in relation to all institutions serving the city in terms of percentage of loans to small businesses with revenues of less than one million dollars.
Lending to small businesses located in low and moderate income areas (LMI/MS)	This shows the ranking of the individual bank based on its performance in relation to all institutions serving the city in terms of percentage of loans to small businesses in low- and moderate-income areas.
Ranking among depositories for small business lending to the smallest businesses (SSB/Other Depositories)	This shows the individual bank's performance in relation to the other five depositories for lending to smallest businesses and is indicated by the percentage of its own total lending to small businesses that goes to small businesses with revenues of less than one million dollars.
Ranking among depositories for small business lending in low and moderate income areas (LMI/Other Depositories)	This shows the individual bank's performance in relation to the other eight depositories for lending to small businesses in low and moderate income areas as indicated by the percentage of its own small business lending that goes to low- and moderate- income areas.

These five factors were selected because they show performance in relation to the entire city and among the depositories on key lending practices affecting low- and moderate-income and minority businesses. These factors also take into consideration service to the smallest businesses (those with revenues less than \$1 million).

N.2 Small Business Lending - Results

Ratings were totaled for each bank, resulting in an overall score by institution (see Table N.3).

Table N.3: Factor-by-Factor Rankings of City Depositories in Small Business Lending (1 to 8, Where 8 is the Highest Rating), 2017

INSTITUTION	MS TO SB	MS TO SSB	LMI/MS	SSB / OTHER DEPOSITORIES	LMI / OTHER DEPOSITORIES	TOTAL SCORE
Citibank	7	7	7	7	8	36
PNC	8	8	8	3	2	29
Wells Fargo	6	6	6	4	6	28
TD Bank	4	4	4	8	4	24
Citizens Bank	3	3	3	5	7	21
Bank of America	5	5	5	2	3	20
US Bank	2	2	2	6	5	17
Republic First Bank	1	1	1	1	1	5

N.3 Small Business Lending - Rankings

Based on the total scores shown above, the eight depositories were ranked as follows (see Table N.4):

Table N.4: Ranking of City Depositories in Small Business Lending, 2009-2017

INSTITUTION	2017 RANKING	2016 RANKING	2015 RANKING	2014 RANKING	2013 RANKING	2012 RANKING	2011 RANKING	2010 RANKING	2009 RANKING
Citibank	1	1	3	2	2	T1	T1	2	2
PNC Bank	2	3	2	4	4	3	3	1	1
Wells Fargo	3	2	1	1	1	T1	T1	3	3
TD Bank	4	7	7	5	5	6	6	6	7
Citizens Bank	5	4	5	3	3	4	4	4	5
Bank of America	6	6	4	7	8	5	5	5	4
US Bank	7	5	6	6	-	-	-	-	-
Republic First Bank	8	8	8	8	6	7	7	-	9
Bank of New York Mellon	-	-	-	-	7	-	-	-	-
United Bank	-	-	-	-	-	-	-	-	-

Citibank maintained its first place ranking from 2016. PNC came back to second place again after falling from second to third place in 2016. Wells Fargo's ranking fell further to third place, falling behind PNC. TD Bank jumped to fourth place from seventh; this is TD Bank's highest ranking since 2009. Citizens and US Bank both fell in their rankings compared to the previous year, while Bank of America and Republic First maintained their rankings (sixth and eighth place, respectively).



TECHNICAL APPENDIX O TABULAR DETAIL FOR BUSINESS LENDING IN PHILADELPHIA

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Table 0.1: CRA Small Business Lending by Income

INSTITUTION	BANK OF AMERICA	CITIGROUP	CITIZENS	PNC	REPUBLIC FIRST	TD BANK	US BANK	WELLS FARGO	TOTAL FOR NON- DEPOSITORIES	TOTAL FOR ALL DEPOSITORIES	TOTAL	% OF TOTAL
# of Small Business Loans	1,283	1,415	601	2,134	100	715	445	1,325	12,845	8,018	20,863	
# loans to low income census tracts	85	197	51	171	8	60	33	122	1,006	727	1,733	8.3%
# of loans to moderate income census tracts	319	412	166	453	11	167	117	332	2,828	1,977	4,805	23.0%
# of loans to middle income census tracts	281	315	141	435	20	180	96	254	2,620	1,722	4,342	20.8%
# of loans to upper income census tracts	577	468	232	1,023	59	298	192	570	6,051	3,419	9,470	45.4%
# of loans to all known income groups	1,262	1,392	590	2,082	98	705	438	1,278	12,505	7,845	20,350	97.5%
# to bus< \$1 mil	714	1,151	467	1,301	51	594	352	884	5,337	5,514	10,851	52.0%
Total Small Business Loans in Philadelphia	20,863	i										
Total Dollars Loaned to Small Business in Philadelphia	\$782,9	34										

Table 0.2: CRA Small Business Lending-Bank of America NA

INSTITUTION	BANK OF AMERICA	TOTAL FOR ALL DEPOSITORIES	% TOTAL FOR ALL DEPOSITORIES	% TOTAL FOR PHILADELPHIA
# of Small Business Loans	1,283	8,018	16.0%	6.1%
# loans to low income census tracts	85	727	11.7%	4.9%
# of loans to moderate income census tracts	319	1,977	16.1%	6.6%
# of loans to middle income census tracts	281	1,722	16.3%	6.5%
# of loans to upper income census tracts	577	3,419	16.9%	6.1%
# of loans to all known income groups	1,262	7,845	16.1%	6.2%
# to bus< \$1 mil	714	5,514	12.9%	6.6%

Table 0.3: CRA Small Business Lending-Citibank

INSTITUTION	CITIGROUP	TOTAL FOR ALL DEPOSITIORIES	% TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR PHILADELPHIA
# of Small Business Loans	1,415	8,018	17.6%	6.8%
# loans to low income census tracts	197	727	27.1%	11.4%
# of loans to moderate income census tracts	412	1,977	20.8%	8.6%
# of loans to middle income census tracts	315	1,722	18.3%	7.3%
# of loans to upper income census tracts	468	3,419	13.7%	4.9%
# of loans to all known income groups	1,392	7,845	17.7%	6.8%
# to bus< \$1 mil	1,151	5,514	20.9%	10.6%

Table 0.4: CRA Small Business Lending-Citizens Bank

INSTITUTION	CITIZENS BANK	TOTAL FOR ALL DEPOSITORIES	% TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR PHILADELPHIA
# of Small Business Loans	601	8,018	7.5%	2.9%
# loans to low income census tracts	51	727	7.0%	2.9%
# of loans to moderate income census tracts	166	1,977	8.4%	3.5%
# of loans to middle income census tracts	141	1,722	8.2%	3.2%
# of loans to upper income census tracts	232	3,419	6.8%	2.4%
# of loans to all known income groups	590	7,845	7.5%	2.9%
# to bus< \$1 mil	467	5,514	8.5%	4.3%

Table 0.5: CRA Small Business Lending-PNC Bank

INSTITUTION	PNC BANK	TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR PHILADELPHIA
# of Small Business Loans	2,134	8,018	26.6%	10.2%
# loans to low income census tracts	171	727	23.5%	9.9%
# of loans to moderate income census tracts	453	1,977	22.9%	9.4%
# of loans to middle income census tracts	435	1,722	25.3%	10.0%
# of loans to upper income census tracts	1,023	3,419	29.9%	10.8%
# of loans to all known income groups	2,082	7,845	26.5%	10.2%
# to bus< \$1 mil	1,301	5,514	23.6%	12.0%

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Table 0.6: CRA Small Business Lending-Republic First Bank

INSTITUTION	REPUBLIC BANK	TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR PHILADELPHIA
# of Small Business Loans	100	8,018	1.2%	0.5%
# loans to low income census tracts	8	727	1.1%	0.5%
# of loans to moderate income census tracts	11	1,977	0.6%	0.2%
# of loans to middle income census tracts	20	1,722	1.2%	0.5%
# of loans to upper income census tracts	59	3,419	1.7%	0.6%
# of loans to all known income groups	98	7,845	1.2%	0.5%
# to bus< \$1 mil	51	5,514	0.9%	0.5%

Table 0.7: CRA Small Business Lending-TD Bank

INSTITUTION	TD BANK	TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR PHILADELPHIA
# of Small Business Loans	715	8,018	8.9%	3.4%
# loans to low income census tracts	60	727	8.3%	3.5%
# of loans to moderate income census tracts	167	1,977	8.4%	3.5%
# of loans to middle income census tracts	180	1,722	10.5%	4.1%
# of loans to upper income census tracts	298	3,419	8.7%	3.1%
# of loans to all known income groups	705	7,845	9.0%	3.5%
# to bus< \$1 mil	594	5,514	10.8%	5.5%

Table 0.8: CRA Small Business Lending-US Bank

INSTITUTION	US BANK	TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR PHILADELPHIA
# of Small Business Loans	445	8,018	5.6%	2.1%
# loans to low income census tracts	33	727	4.5%	1.9%
# of loans to moderate income census tracts	117	1,977	5.9%	2.4%
# of loans to middle income census tracts	96	1,722	5.6%	2.2%
# of loans to upper income census tracts	192	3,419	5.6%	2.0%
# of loans to all known income groups	438	7,845	5.6%	2.2%
# to bus< \$1 mil	352	5,514	6.4%	3.2%

Table 0.9: CRA Small Business Lending-Wells Fargo Bank

INSTITUTION	WELLS FARG0	TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR ALL DEPOSITORIES	% OF TOTAL FOR PHILADELPHIA
# of Small Business Loans	1,325	8,018	16.5%	6.4%
# loans to low income census tracts	122	727	16.8%	7.0%
# of loans to moderate income census tracts	332	1,977	16.8%	6.9%
# of loans to middle income census tracts	254	1,722	14.8%	5.8%
# of loans to upper income census tracts	570	3,419	16.7%	6.0%
# of loans to all known income groups	1,278	7,845	16.3%	6.3%
# to bus< \$1 mil	884	5,514	16.0%	8.1%

Table 0.10: Small Business Lending-by Tract Income Level

CITY OF PHILADELPHIA	ALL SMALL BU	ALL SMALL BUSINESS LOANS		BUSINESSES WITH NIN REVENUE
INCOME LEVEL	NUMBER OF LOANS	PERCENT OF LOANS	NUMBER OF LOANS	PERCENT OF LOANS
Low Income	1,733	8.3%	822	7.6%
Moderate Income	4,805	23.0%	2,581	23.8%
Middle Income	4,342	20.8%	2,385	22.0%
Upper Income	9,470	45.4%	4,905	45.2%
Tract or Income not Known	513	2.5%	158	1.5%
Total	20,863	100.0%	10,851	100.0%

SUBURBAN COUNTIES	ALL SMALL E	ALL SMALL BUSINESS LOANS		SES WITH ←\$1 MILLION EVENUE
INCOME LEVEL	NUMBER OF LOANS	PERCENT OF LOANS	NUMBER OF LOANS	PERCENT OF LOANS
Low Income	1,069	1.8%	502	1.6%
Moderate Income	8,125	13.4%	3,966	12.7%
Middle Income	25,178	41.4%	12,617	40.2%
Upper Income	25,566	42.1%	13,952	44.5%
Tract or Income not Known	814	1.3%	314	1.0%
Total	60,752	100.0%	31,351	100.0%

Table 0.11: Small Business Lending-by Tract Minority Level

CITY OF PHILADELPHIA	ALL SMALL BU	ISINESS LOANS	LOANS TO SMALL BUSINESSES WITH ←\$1 MILLION IN REVENUE		
MINORITY STATUS	NUMBER OF LOANS PERCENT OF LOANS		NUMBER OF LOANS	PERCENT OF LOANS	
Minority Areas	7,822	37.5%	4,230	39.0%	
Non-Minority Areas	12,760	61.2%	6,533	60.2%	
Tract Unknown or No Population	281	1.3%	88	0.8%	
Total	20,863	100.0%	10,851	100.0%	

SUBURBAN COUNTIES	ALL SMALL B	USINESS LOANS	LOANS TO SMALL BUSINESSES WITH \leftarrow \$1 MILLION IN REVENUE		
MINORITY STATUS	NUMBER OF LOANS	NUMBER OF LOANS PERCENT OF LOANS		PERCENT OF LOANS	
Minority Areas	3,059	5.0%	1,394	4.4%	
Non-Minority Areas	56,880	93.6%	29,644	94.6%	
Unknown or No Population	813	1.3%	313	1.0%	
Total	60,752	100.0%	31,351	100.0%	

Table 0.12: Small Business Lending-Philadelphia and Suburbs

REVENUE SIZE	NUMBER OF LOANS	PERCENT OF LOANS	NUMBER OF LOANS	PERCENT OF LOANS
Small Businesses	20,863	100.0%	60,752	100.0%
Businesses with Revenues <\$1 Million	10,851	52.0%	31,351	51.6%
Total				

Table 0.13: City Depositories - by Income and Minority Level

Income Level

BANKS	BRANCHES	LMI	MUI	LMI TRACT	MUI TRACT	% OF BRANCHES IN LMI TRACTS / % OF ALL BRANCHES IN LMI TRACTS RATIO	% OF BRANCHES IN LMI TRACTS / % OF LMI TRACTS RATIO
Bank of America	18	4	14	22.2%	77.8%	0.93	0.48
Bank of New York Mellon	0	0	0	0.0%	0.0%	0.00	0.00
Citibank	1	0	1	0.0%	100.0%	0.00	0.00
Citizens	54	17	37	31.5%	68.5%	1.32	0.68
PNC	38	10	28	26.3%	73.7%	1.11	0.57
Republic First Bank	7	1	6	14.3%	85.7%	0.60	0.31
TD Bank	23	6	17	26.1%	73.9%	1.10	0.56
United Bank	4	1	3	25.0%	75.0%	1.05	0.54
US Bank	0	0	0	0.0%	0.0%	0.00	0.00
Wells Fargo	40	13	27	32.5%	67.5%	1.37	0.70
All Banks	185	52	133	28.1%	71.9%	1.18	0.61
All Census Tracts	294	70	224	23.8%	76.2%	1.00	0.51

Minority Level

BANKS	BRANCHES	COUNT: 50% OR MORE MINORITY TRACT	COUNT: LESS THAN 50% MINORITY TRACT	50% OR MORE MINORITY TRACT	LESS THAN 50% MINORITY TRACT	% OF BRANCHES IN MINORITY TRACTS / % OF ALL BRANCHES IN MINORITY TRACTS RATIO	% OF BRANCHES IN MINORITY TRACTS / % OF MINORITY TRACTS RATIO
Bank of America	18	7	11	38.9%	73.7%	1.19	0.68
Bank of New York Mellon	0	0	0	0.0%	0.0%	0.00	0.00
Citibank	1	0	1	0.0%	100.0%	0.00	0.00
Citizens	54	23	31	42.6%	62.5%	1.30	0.74
PNC	38	17	21	44.7%	61.5%	1.37	0.78
Republic First Bank	7	1	6	14.3%	85.7%	0.44	0.25
TD Bank	23	6	17	26.1%	86.4%	0.80	0.45
United Bank	4	2	2	50.0%	50.0%	1.53	0.87
US Bank	0	0	0	0.0%	0.0%	0.00	0.00
Wells Fargo	40	16	24	40.0%	57.5%	1.23	0.69
All Banks	185	72	113	38.9%	66.0%	1.19	0.68
All Census Tracts	294	96	198	32.7%	68.9%	1.00	0.57

^[1] Not all percentages will total to 100 because income and minority information are not available for every tract

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^[2] Branches according to FDIC Summary of Deposits data as of June, 30 2017



TECHNICAL APPENDIX P - BRANCH LOCATION ANALYSIS

Technical Appendix P Summary

There were 294 bank branches in Philadelphia in 2017, according to the FDIC's Institution Directory and Summary of Deposits, down one branch from 295 in 2016. For the purpose of this analysis, branches were defined as offices with consumer banking services (see Table P.1).

• 185 of those branches, or 62.9 percent of all branches in the City, were owned by City depositories, the same amount that existed last year in 2016. The number of non-depository bank branches slightly decreased from 110 in 2016 to 109 in 2017. The proportion of non-depository bank branches as a percent of all bank branches in the City is 37.1 percent, a slight decrease since 2016.

Table P.1: Number of Branches in Philadelphia

BANKS	2017 BRANCHES	% OF ALL 2017 CITY BRANCHES	2016 BRANCHES	% OF ALL 2016 CITY BRANCHES	
All Depositories	185	62.9%	185	62.7%	
Non-Depository	109	37.1%	110	37.3%	

P.1 Overall

There were 294 bank branches in Philadelphia in 2017, according to the FDIC's Institution Directory and Summary of Deposits, down one branch from 295 in 2016. For the purpose of this analysis, branches were defined as offices with consumer banking services (see Table P.2).⁹²

Table P.1: Number of Branches in Philadelphia by Depository

BANKS	2017 BRANCHES	% OF ALL 2017 CITY BRANCHES	2016 BRANCHES	% OF ALL 2016 CITY BRANCHES
Bank of America	18	6.1%	18	6.1%
Bank of New York Mellon	0	0.0%	0	0.0%
Citibank	1	0.3%	1	0.3%
Citizens	54	18.4%	55	18.6%
PNC	38	12.9%	39	13.2%
Republic First Bank	7	2.4%	7	2.4%
TD Bank	23	7.8%	22	7.5%
United Bank	4	1.4%	4	1.4%
US Bank	0	0.00%	0	0.0%
Wells Fargo	40	13.6%	39	13.2%
All Depositories	185	62.9%	185	62.7%
Non-Depository	109	37.1%	110	37.3%
All Banks	294	100.0%	295	100.0%

- 185 of those branches, or 62.9 percent of all branches in the City, were owned by City depositories, the same amount that existed last year in 2016.
- Bank of NY Mellon and US Bank do not have any branches in the City of Philadelphia.
- The number of non-depository bank branches slightly decreased from 110 in 2016 to 109 in 2017. The proportion of non-depository bank branches as a percent of all bank branches in the City is 37.1 percent, a slight decrease since 2016.
- Due to the fact that most depositories have a relatively small number of branches, the percentage of branches in minority or low-to-moderate-income (LMI) areas can quickly change with the opening or closing of just one or two offices.

(See Technical Appendix O.13)

⁹² FDIC Summary of Deposit data available as of June, 30 2017 was used for this report.

P.2 Branch Locations in Minority Areas

- 32.7 percent of all branches were in minority areas, up from 31.2 percent in 2016.
- In 2017, 38.9 percent of all authorized depository bank branches were in minority areas, an increase from the 34.6 percent located in minority areas in 2016.
- Only half of depositories surpassed the citywide ratio of 0.57 of branches in minority tracts. These same four depositories (Citizens, PNC, United Bank, Wells Fargo) have surpassed the citywide average for the last four years. This is the first year Bank of America surpassed the citywide ratio.

(See Technical Appendix O.13)

P.3 Branch Locations in LMI Areas

- In 2017, 23.8 percent of all branches were in Low-to-Moderate-Income (LMI) areas, which have a median income of less than 80 percent of the area median. This is down from 24.4 percent in 2016. Of City depositories, 28.1 percent had branches in LMI areas in 2017. In 2016, 27.0 percent of City depositories had branches in LMI areas.
- Five of the ten City depositories surpass the 2017 citywide average of 23.8 percent (Citizens, PNC, TD Bank, United Bank, and Wells Fargo). Wells Fargo had the highest percentage, with 32.5 percent of all Philadelphia bank branches in LMI areas.
- Bank of New York Mellon, Citibank, and US Bank had no branches in LMI areas in Philadelphia.

(See Technical Appendix O.13)

P.4 Conclusion

• The number of branch locations located in tracts that have a 50 percent or more minority population saw an overall increase in 2017. Citizens, PNC, United, and Wells Fargo continue to surpass the citywide average.



TECHNICAL APPENDIX Q - NEIGHBORHOOD-LEVEL ANALYSIS

Technical Appendix Q Summary

We examined home and business lending practices in nine neighborhoods that contain census tracts classified as minority and low to moderate income and that are located in areas where community development corporations and empowerment zones have been established (see Table Q.1).

Table Q.1: 2017 Home and Small Business Lending Activity - Selected Philadelphia Neighborhoods

ORGANIZATION	LOCATION	MAJOR ETHNIC GROUP	2017 MEDIAN INCOME AS A % OF REGIONAL MEDIAN INCOME	# LOANS	% LOANS THAT WERE SUBPRIME	NUMBER OF SMALL BUSINESS	NUMBER OF SMALL BUSINESSES WITH ANNUAL REVENUE ←\$1 MILLION
APM	N Phila	Hisp	26.7%	22	0%	795	685
HACE	N 5th St	Hisp	24.2%	39	28.2%	973	839
AWF	N Phila	Afr Am	41.5%	41	9.8%	96	81
OARC	W Oak Ln	Afr Am	62.1%	546	19.8%	755	671
Project HOME	Spr Grdn	Afr Am	33.5%	30	16.7%	715	619
PEC	W Phila	Afr Am	32.6%	47	4.26%	1,394	1,333
American St EZ	Kensington	Hisp	35.5%	231	3.9%	741	615
North Central EZ	N Phila	Afr Am	39.7%	89	4.5%	417	372
West Phila EZ	W Phila	Afr Am	38.0%	34	26.5%	444	369

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Q.1 Neighborhoods Analyzed

The home and business lending practices in nine City neighborhoods were examined. These neighborhoods contain census tracts classified as minority and low-to-moderate-income (LMI). All nine neighborhoods are located in areas where community development corporations and empowerment zones have been established. These areas and their corresponding entities and census tracts are listed below:

- Association of Puerto Ricans on the March (APM) 156
- Hispanic Association of Contractors & Enterprises (HACE) 175, 176.01, 176.02, 195.01, 195.02
- Allegheny West Foundation (AWF) 170, 171, 172.01, 172.02, 173
- Ogontz Avenue Revitalization Committee (OARC) 262, 263.01, 263.02, 264, 265, 266, 267
- Project Home 151.01, 151.02, 152, 168, 169.01
- People's Emergency Center (PEC) 90, 91, 108, 109
- American Street Empowerment Zone 144, 157, 162, 163
- North Central Empowerment Zone 140, 141, 147, 148, 165
- West Philadelphia Empowerment Zone 105, 111

(See Technical Appendix R.1)

Q.2 Demographics and Lending Practices by Neighborhood (see Table Q.2)

Q.2.1 Asociación Puertorriqueños en Marcha

Asociación Puertorriqueños en Marcha, or Association of Puerto Ricans on the March, (APM) is located in the northern section of Philadelphia; 67.4 percent of this area's population is Hispanic, with the next largest group being non-Hispanic White (26.9 percent of the population). The median family income in 2017 was approximately 26.7 percent of the regional median family income. There were 256 owner-occupied housing units (OOHUs) in the APM neighborhood, which is less than 0.1 percent of all OOHUs in the City.

In 2017, a total of 22 loans were made in the APM neighborhood, up from 15 in 2016. As in previous years, APM received the fewest loans of any neighborhood examined. All 22 of these loans were prime loans, the same as loans in 2016. Loans in this area represent 0.1 percent of all loans in the City, and prime loans in this area represent 0.1 percent of all prime loans in the City.

Q.2.2 Hispanic Association of Contractors & Enterprises

The Hispanic Association of Contractors & Enterprises (HACE) is located within the neighborhood surrounding the North Fifth Street cluster of key Latino neighborhood businesses and cultural institutions. 80.1 percent of the population is Hispanic, and 40.1 percent of the population is non-Hispanic White. In 2017, the neighborhood contained 3,570 OOHUs, approximately 1.2 percent of all City OOHUs. The median family income in this neighborhood was only 24.2 percent of the regional median family income, making HACE the neighborhood with the lowest income among the neighborhoods studied.

A total of 39 loans were made within the HACE community in 2017, three more than the 36 loans issued in 2016. These loans represented 0.2 percent of all loans made in the City, a smaller share than the portion of OOHUs contained in this neighborhood (1.2 percent). There were 28 prime loans, the same as prime loans issued in 2016. The number of subprime loans increased from eight to 11 from 2016 to 2017. The share of subprime loans in the HACE service area was less than its share of owner-occupied housing units (0.8 percent compared to 1.2 percent, respectively). HACE had the lowest percentage of loans that were prime at 71.8 percent.

Q.2.3 Allegheny West Foundation

The Allegheny West Foundation (AWF) is located in North Philadelphia, a predominately African American neighborhood. Nearly 90 percent of the population is African American and three percent is Hispanic. In 2017, AWF had a median family income that was 41.5 percent of the regional median family income. The neighborhood is comprised of five census tracts and contained 3,862 OOHUs in 2017, which was 1.3 percent of the City's total OOHUs.

Borrowers from the AWF neighborhood received a total of 41 loans in 2017, one lower than since 2016. The proportion of prime loans increased between 2016 and 2017 from 76.2 percent of total loans to 90.2 percent of total loans. AWF borrowers received 0.2 percent of all loans originated in Philadelphia, but the neighborhood contains 1.3 percent of City-wide OOHUs. Lenders gave borrowers from this section of the City a 0.2 percent share of City prime loans and a 0.3 percent share of City subprime loans, shares that the former remained constant and the latter decreased from 2016 to 2017. This neighborhood continues to receive a disproportionately low amount of prime loans compared to its share of OOHUs.

Q.2.4 Ogontz Avenue Revitalization Corporation

The Ogontz Avenue Revitalization Corporation (OARC) is located in the West Oak Lane section of the City. Over 95 percent of the population is African American, while 1.1 percent of the neighborhood's population is non-Hispanic White. This neighborhood has the highest percentage of African American residents of the nine neighborhoods studied. The median family income in 2017 was 62.1 percent of the regional median family income, which is the highest among the nine neighborhoods studied. OARC is also the largest of the nine neighborhoods discussed in this section and typically receives the most loans (from each depositor and overall). It contains seven census tracts and in 2017, represented 3.6 percent of all City OOHUs.

The OARC community received 546 loans in 2017, the largest amount of the nine neighborhoods, an increase from the 516 received in 2016. These loans made up 3.0 percent of all loans issued in the City, increased slightly from 2.7 percent in 2016. OARC received a disproportionate share of all subprime loans in Philadelphia, 7.6 percent, compared to its share of OOHUs which measured 3.6 percent.

Q.2.5 Project HOME

The Project HOME neighborhood is located near the Spring Garden section of the City. Nearly 94 percent of its population is African American, making it one of the neighborhoods with the highest percentage of African Americans in this study. Just 3.7 percent of the population is Hispanic. The median family income in 2017 was 33.5 percent of regional median family income and the 2,695 housing units located in this area comprised approximately 0.9 percent of the City's total owner-occupied units.

Lenders provided 30 loans to the Project HOME neighborhood in 2017 (increase from 27 in 2016), 83.3 percent of which were prime loans (a decrease from 96.3 percent prime loans in 2016). Project HOME loans accounted for 0.2 percent of all loans made in Philadelphia. With respect to their share of the City's OOHUs, the borrowers in the Project HOME neighborhood received a lower share of both prime and subprime loans.

Q.2.6 Peoples' Emergency Center

The Peoples' Emergency Center (PEC) neighborhood is located in the City's West Philadelphia section. This neighborhood contains four census tracts and 1,198 OOHUs, which was approximately 0.4 percent of all City units. 45 percent of the population is African American and approximately 37 percent is non-Hispanic White. PEC also has the highest percentage of the population that is Asian, 12.7 percent, of any of the nine neighborhoods studied. The 2017 median family income for PEC was 32.6 percent of the regional median family income.

In 2017, 47 loans were made to borrowers in the PEC neighborhood, an increase from the 39 loans issued in 2016. Almost 95.7 percent of these loans issued were prime loans, an increase from 94.9 percent in 2016. They received 0.3 percent of all loans in the City. This compares to the 0.4 percent of OOHUs in Philadelphia that are in PEC.

Q.2.7 American Street Empowerment Zone

The American Street Empowerment Zone is located in the Olney section of the City. Approximately 57.2 percent of the population is Hispanic, making this ethnicity the predominant group in the area. 47.8 percent of the population is non-Hispanic White. The zone is comprised of five census tracts and contained 2,012 owner-occupied housing units in 2017, or 0.7 percent of the total owner-occupied housing units in the City of Philadelphia. The median family income was 35.5 percent of the regional median family income.

Borrowers in the American Street Empowerment Zone received 231 loans in 2017, an increase from the 219 loans issued in 2016. Of these loans, 96.1 percent were prime (down from 97.3 percent in 2016). Similar to the previous year, borrowers in the American Street Empowerment Zone neighborhood received 1.3 percent of all loans made in the City.

Q.2.8 North Central Empowerment Zone

The North Central Empowerment Zone is located in North Philadelphia and is comprised of five census tracts and 1,052 OOHUs in 2017, or 0.3 percent of City units. North Central is 60.6 percent African American. 22.2 percent of the population is non-Hispanic White. The median family income for North Central in 2017 was 39.7 percent of the regional median family income.

In 2017, 89 loans were made within the North Central neighborhood, an increase from the 71 loans originated in 2016. These loans comprised 0.5 percent of all City lending, while the NC EZ contains 0.3 percent of all owner-occupied housing units in the City; 95.5 percent of originated loans were prime, a slight increase from the 94.4 percent prime loan share in 2016.

Q.2.9 West Philadelphia Empowerment Zone

The West Philadelphia Empowerment Zone is located in the West Philadelphia section of the City. About 91.5 percent of the population is African American and 5.8 percent is non-Hispanic White. The neighborhood contains two census tracts and contained 967 OOHUs in 2017 (0.3 percent of the City). The median family income for this area was 38.0 percent of the regional median family income.

In 2017, lenders provided 34 loans to the West Philadelphia Empowerment Zone, an increase from the 21 loans provided in 2016. Of these loans, 73.5 percent were prime, down from 76.2 percent in 2016. About 0.2 percent of all loans made in Philadelphia went to the West Philadelphia Empowerment Zone, a slight increase from 2016. Along with HACE, the West Philadelphia Empowerment Zone had the lowest percentage of loans that were prime at 73.5 percent.

Table Q.2: Demographics and Lending Practices by Neighborhood

ORGANIZATION	LOCATION	MAJOR ETHNIC GROUP	2017 MEDIAN INCOME AS A % OF REGIONAL MEDIAN INCOME	# LOANS	% LOANS THAT WERE SUBPRIME
APM	N Phila	Hisp	26.5%	22	0.0%
HACE	N 5th St	Hisp	24.2%	39	28.2%
AWF	N Phila	Afr Am	41.5%	41	9.8%
OARC	W Oak Ln	Afr Am	62.1%	546	19.8%
Project HOME	Spr Grdn	Afr Am	33.5%	30	16.7%
PEC	W Phila	Afr Am	32.6%	47	4.3%
American St EZ	Kensington	Hisp	35.5%	231	3.9%
North Central EZ	N Phila	Afr Am	39.7%	89	4.5%
West Phila EZ	W Phila	Afr Am	38.0%	34	26.5%

(See Technical Appendix R.1)

Q.3 Depository Lending Practices by Neighborhood

Q.3.1 Bank of America

Bank of America provided 13 loans to borrowers in two of the nine neighborhoods examined as part of this analysis, compared to 2016 where 13 loans were provided to six neighborhoods. The highest number issued to any single neighborhood was seven, in American Street Empowerment Zone community; Bank of America's market share, however, was 3.0 percent in this neighborhood. Its market share of all City lending was 1.5 percent, compared with 1.2 percent in the nine neighborhoods.

Q.3.2 The Bank of New York Mellon

In 2017, The Bank of New York Mellon did not provide any loans to borrowers in the neighborhoods examined as part of this analysis, but did provide five loans in the city of Philadelphia.

Q.3.3 Citibank

Citibank provided three loans to borrowers in one of the nine neighborhoods examined as part of this analysis, OARC. Lending by Citibank to these neighborhoods represented 4.5 percent of all loans the bank originated in the City, compared to 2.9 percent in 2016. Its market share of all City lending was 0.4 percent, compared with 0.3 in the nine neighborhoods.

Q.3.4 Citizens Bank

Citizens Bank made a total of 25 loans in eight neighborhoods of the nine neighborhoods examined as part of this analysis. Citizens Bank also provided the second highest amount of loans in Philadelphia (449), 5.6 percent of them to the nine neighborhoods examined; the OARC and American Street Empower Zone neighborhoods each received the most loans from Citizens Bank (seven loans each).

Q.3.5 PNC Bank

PNC originated 24 loans in seven of the nine neighborhoods, while providing 380 loans throughout Philadelphia. This makes PNC the third largest lender to these neighborhoods in terms of total loan number. PNC originated 6.4 percent (3) of the loans in the PEC neighborhood, but PNC wrote only 0.8 percent of all loans in that neighborhood. PNC issued 2.1 percent of all loans in the City as well as 2.2 percent of all the loans for the nine neighborhoods.

Q.3.6 Republic First Bank

In 2017, Republic First Bank didn't provide loans to borrowers in the neighborhoods examined as part of this analysis.

Q.3.7 TD Bank

TD Bank made eight total loans to borrowers in seven of the nine CDC neighborhoods. It originated 0.2 percent of all loans in the nine neighborhoods, compared to 0.1 percent of all loans in the City. TD Bank issued 7.7 percent of its Philadelphia loans in the nine neighborhoods.

Q.3.8 United Bank

In 2017, United Bank did not make any loans to the nine neighborhoods for the fifth year in a row.

Q.3.9 US Bank

In 2017, US Bank issued two loans in one of the nine neighborhoods of study. US Bank originated 0.7 percent of the loans in the OARC neighborhood as well as 0.7 percent of all the loans for the city.

Q.3.10 Wells Fargo

Wells Fargo made the most number of total loans to the area of study with 43 loans in seven of the nine neighborhoods, which was eleven less than it offered to the area in 2016. Wells Fargo made 5.1 percent of all its City loans in those nine areas. Its market share in the neighborhoods was 4.0 percent, down from 5.6 percent in 2016. Its market share in all of Philadelphia was 4.6 percent (down from 6.7 percent in 2016). The largest number of loans by Wells Fargo was made in the AmerStEZ neighborhood (17 loans), where Wells Fargo had a market share of 7.4 percent.

(See Technical Appendix R.2)

Q.4 Small Business Lending in the Neighborhoods

Small business lending was examined in the nine neighborhoods, since information was not available at the census tract level for individual institutions. The table below shows the number of small business loans reported in the 2017 CRA data for each of the targeted neighborhoods. It also displays the number of small businesses with revenues less than \$1 million located in the neighborhoods (see Table Q.3).

For the sixth year in a row, OARC had the largest number of small businesses, with 1,394, of which 1,333 have annual revenues less than \$1 million. In OARC, 66.2 percent of all small business loans neighborhood were issued to these small businesses with less than \$1 million in revenue. The number of the next largest neighborhood was American Street EZ with 973 small businesses, of which 839 have annual revenues less than \$1 million; 42.9 percent of all small business loans in American Street EZ were issued to these small businesses with less than \$1 million in revenue. Overall, American Street EZ had the most number of small business loans (354), continuing a trend from previous years.

All nine neighborhoods examined had over 40 percent of their total small business loans going to businesses with revenues under \$1 million annually.

The third column of the table below shows the percentages of small business loans that went to businesses with revenues less than one million dollars. In all cases, the range of this percentage of loans going to businesses with revenues of less than \$1 million was between about 41.7 percent and 66.2 percent. In 2016, the range of percentage of loans going to businesses with annual revenues below \$1 million was 44.0 percent to 65.5 percent.

Table Q.3: 2017 Small Business Loan Activity in Selected Philadelphia Neighborhoods

NEIGHBORHOOD	NUMBER OF SMALL BUSINESS LOANS	NUMBER OF LOANS TO SMALL BUSINESS ←\$1 MILLION IN ANNUAL REVENUE	PERCENTAGE OF LOANS TO SMALL BUSINESSES WITH ANNUAL REVENUES \$\insert \text{\$1} \text{ MILLION}	NUMBER OF SMALL BUSINESS	NUMBER OF SMALL BUSINESSES WITH ANNUAL REVENUE ←\$1 MILLION
Allegheny West Foundation	138	68	49.3%	795	685
American Street Empowerment Zone	354	152	42.9%	973	839
Association of Puerto Ricans on the March	22	12	54.5%	96	81
Hispanic Association of Contractors & Enterprises	107	62	57.9%	755	671
North Central Empowerment Zone	138	64	46.4%	715	619
Ogontz Avenue Revitalization Committee	157	104	66.2%	1,394	1,333
People's Emergency Center	124	71	57.3%	741	615
Project Home	54	26	48.1%	417	372
West Philadelphia Empowerment Zone	84	35	41.7%	444	369

(See Technical Appendix R.3)



TECHNICAL APPENDIX R TABULAR DETAIL FOR NEIGHBORHOOD-LEVEL ANALYSIS

Technical Appendix R Tables

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3	Neighborhood Small Business Lending Analysis	264

Table R.1: Neighborhood Single-Family Lending Analysis

	PORTFOLIO SHARE OF THE CITY						MARKET SHARE OF LOANS				LOANS AS A PERCENT OF OOHUS				
NEIGHBORHOOD	LOCATION	MAJOR ETHNIC GROUP	PERCENT OF REGIONAL MEDIAN FAMILY INCOME	OWNER- OCCUPIED HOUSING UNITS (OOHU)	PERCENT OF CITY OOHUS	PERCENT OF CITY LOANS	% OF PRIME CITY LOANS	% OF SUBPRIME CITY LOANS	TOTAL LOANS	PRIME LOANS	PRIME AS A % OF ALL LOANS	SUBPRIME LOANS	SUBPRIME AS A % OF ALL LOANS	PRIME LOANS / 00HUS	SUBPRIME LOANS / 00HUS
APM	N. Phila	Hisp	26.7%	256	0.1%	0.1%	0.1%	0.0%	22	22	100.0%	0	0.0%	8.6%	0.0%
HACE	N. 5th Street	Hisp	24.2%	3,570	1.2%	0.2%	0.2%	0.8%	39	28	71.8%	11	28.2%	0.8%	0.3%
AWF	N. Phila	Afr-Am	41.5%	3,862	1.3%	0.2%	0.2%	0.3%	41	37	90.2%	4	9.8%	1.0%	0.1%
OARC	W. Oak Lane	Afr-Am	62.1%	10,873	3.6%	3.0%	2.6%	7.6%	546	438	80.2%	108	19.8%	4.0%	1.0%
Project Home	Spr Grdn	Afr-Am	33.5%	2,695	0.9%	0.2%	0.1%	0.4%	30	25	83.3%	5	16.7%	0.9%	0.2%
PEC	W. Phila	Afr-Am	32.6%	1,095	0.4%	0.3%	0.3%	0.1%	47	45	95.7%	2	4.3%	4.1%	0.2%
American St. EZ	Kensington	Hisp	35.5%	2,012	0.7%	1.3%	1.3%	0.6%	231	222	96.1%	9	3.9%	11.0%	0.4%
North Central EZ	N. Phila	Afr-Am	39.7%	1,052	0.3%	0.5%	0.5%	0.3%	89	85	95.5%	4	4.5%	8.1%	0.4%
West Phila. EZ	W. Phila	Afr-Am	38.0%	967	0.3%	0.2%	0.1%	0.6%	34	25	73.5%	9	26.5%	2.6%	0.9%
City of Philadelphia				305,884	100.0%	100.00%	100.00%	100.0%	18408	16995	92.3%	1,413	7.7%	5.6%	0.5%

Table R.2: Neighborhood Single-Family Lending Analysis by Depository

Lending by Lender

NEIGHBORHOOD	BANK OF AMERICA	BANK OF NEW YORK MELLON	CITIGROUP INC	CITIZENS	PNC BANK	US BANK	TD BANK	WELLS FARGO BANK	ALL LENDERS
APM	-	-	-	-	-	-	1	-	22
HACE	-	-	-	1	1	-	1	5	39
AWF	-	-	-	2	2	-	1	1	41
OARC	6	-	3	7	11	2	1	9	546
PrHome	-	-	-	3	-	-	-	-	30
PEC	-	-	-	3	3	-	1	3	47
AmerStEZ	7	-	-	7	3	-	2	17	231
NCEZ	-	-	-	1	3	-	1	4	89
WPEZ	-	-	-	1	1	-	-	4	34
All 9 CDC Neighborhoods	13	-	3	25	24	2	8	43	1,079
Philadelphia	274	5	67	449	380	26	127	845	18,408

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Table R.2: Neighborhood Single-Family Lending Analysis by Depository (Continued)

Market Share

Number of lender's single family loans to a neighborhood divided by all single family loans to the neighborhood

NEIGHBORHOOD	BANK OF AMERICA	BANK OF NEW YORK MELLON	CITIGROUP INC	CITIZENS	PNC BANK	US BANK	TD BANK	WELLS FARGO BANK	ALL LENDERS
APM	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	100.0%
HACE	0.0%	0.0%	0.0%	2.6%	2.6%	2.6%	0.0%	12.8%	100.0%
AWF	0.0%	0.0%	0.0%	4.9%	4.9%	2.4%	0.0%	2.4%	100.0%
OARC	1.1%	0.0%	0.5%	1.3%	2.0%	0.2%	0.4%	1.6%	100.0%
PrHome	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	100.0%
PEC	0.0%	0.0%	0.0%	6.4%	6.4%	2.1%	0.0%	6.4%	100.0%
AmerStEZ	3.0%	0.0%	0.0%	3.0%	1.3%	0.9%	0.0%	7.4%	100.0%
NCEZ	0.0%	0.0%	0.0%	1.1%	3.4%	1.1%	0.0%	4.5%	100.0%
WPEZ	0.0%	0.0%	0.0%	2.9%	2.9%	0.0%	0.0%	11.8%	100.0%
All 9 CDC Neighborhoods	1.2%	0.0%	0.3%	2.3%	2.2%	0.7%	0.2%	4.0%	100.0%
Philadelphia	1.5%	0.0%	0.4%	2.4%	2.1%	0.7%	0.1%	4.6%	100.0%

Lender Portfolio Share

Number of lender's single family loans in a neighborhood divided by all of a lender's single family loans in the city

NEIGHBORHOOD	BANK OF AMERICA	BANK OF NEW YORK MELLON	CITIGROUP INC	CITIZENS	PNC BANK	US BANK	TD BANK	WELLS FARGO BANK	ALL LENDERS
APM	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.1%
HACE	0.0%	0.0%	0.0%	0.2%	0.3%	0.8%	0.0%	0.6%	0.2%
AWF	0.0%	0.0%	0.0%	0.4%	0.5%	0.8%	0.0%	0.1%	0.2%
OARC	2.2%	0.0%	4.5%	1.6%	2.9%	0.8%	7.7%	1.1%	3.0%
PrHome	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.2%
PEC	0.0%	0.0%	0.0%	0.7%	0.8%	0.8%	0.0%	0.4%	0.3%
AmerStEZ	2.6%	0.0%	0.0%	1.6%	0.8%	1.6%	0.0%	2.0%	1.3%
NCEZ	0.0%	0.0%	0.0%	0.2%	0.8%	0.8%	0.0%	0.5%	0.5%
WPEZ	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	0.0%	0.5%	0.2%
All 9 CDC Neighborhoods	4.7%	0.0%	4.5%	5.6%	6.3%	6.3%	7.7%	5.1%	5.9%
Philadelphia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table R.3: Neighborhood Small Business Lending Analysis

TOTAL LOANS	NUMBER OF LOANS TO SMALL BUSINESS ←\$1 MILLION IN ANNUAL REVENUE	PERCENTAGE OF LOANS TO SMALL BUSINESSES WITH ANNUAL REVENUES \$\instyle\square\	NUMBER OF SMALL BUSINESS	NUMBER OF SMALL BUSINESSES WITH ANNUAL REVENUE ←\$1 MILLION
138	68	49.3%	795	685
354	152	42.9%	973	839
22	12	54.5%	96	81
107	62	57.9%	755	671
138	64	46.4%	715	619
157	104	66.2%	1,394	1,333
124	71	57.3%	741	615
54	26	48.1%	417	372
84	35	41.7%	444	369
	138 354 22 107 138 157 124 54	TOTAL LOANS TO SMALL BUSINESS ←\$1 MILLION IN ANNUAL REVENUE 138 68 354 152 22 12 107 62 138 64 157 104 124 71 54 26	TOTAL LOANS TO SMALL BUSINESS ←\$1 MILLION IN ANNUAL REVENUE TO SMALL BUSINESSES WITH ANNUAL REVENUES €\$1 MILLION 138 68 49.3% 354 152 42.9% 22 12 54.5% 107 62 57.9% 138 64 46.4% 157 104 66.2% 124 71 57.3% 54 26 48.1%	TOTAL LOANS TO SMALL BUSINESS ←\$1 MILLION IN ANNUAL REVENUE TO SMALL BUSINESS WITH ANNUAL REVENUES NUMBER OF SMALL BUSINESS 138 68 49.3% 795 354 152 42.9% 973 22 12 54.5% 96 107 62 57.9% 755 138 64 46.4% 715 157 104 66.2% 1,394 124 71 57.3% 741 54 26 48.1% 417



TECHNICAL APPENDIX S - ANALYSIS METHODOLOGY

Data Sources

An analysis of this scope and complexity required a myriad of data sources:

- Home lending was analyzed using 2017 Home Mortgage Disclosure Act data obtained from the Federal Financial Institutions Examination Council (FFIEC), which collects data annually from lenders.
- The FFIEC's National Information Center database of 2017 HMDA reporting institutions was used to generate a list of affiliates for each City Depository.
- Community Reinvestment Act aggregated public data on small business lending by census tract and by financial institution was downloaded from the FFIEC website.
- The number of small businesses and business with less than \$1 million in revenue was derived from 2017 data purchased from Wolters Kluwer.
- Individual depository data for the small business lending analysis was obtained from the 2017 Institutional Disclosure Statements on the FFIEC website.
- Bank holding company data was obtained from the FDIC and FFIEC web sites to assign affiliated banks to City depositories. This use of a second source allowed for a more thorough assignment of affiliated banks to City depositories checked with banks; previous years' data was then re-run accordingly, to enable a fairer comparison across years.
- Other census-tract-level supplementary data, such as number of households by race, are from the American Community Survey 2012-2016 Five Year Estimates datasets.

Depository Analysis

Using the FFIEC's National Information Center database of 2017 HMDA reporters, a list of City Depositories and their affiliates was generated. From this list, the lending performance of these institutions was examined.

Geographic Scopes

Census tract, county, and state coding within the HMDA dataset were used to identify specific geographic areas. The lending universe for Philadelphia was isolated using its county code. The suburban analysis combined lending in Bucks, Chester, Delaware, and Montgomery Counties.

Home Lending

All loan types (conventional, Federal Housing Administration, Veterans Administration, Farm Service Agency/Rural Housing Service) were included in the analysis. Properties with more than four units and manufactured housing were excluded. The remaining properties were considered to be single-family dwellings.

Lenders record the intended purpose of each loan – home purchase, refinance or home improvement. Any analysis combining all three was identified as "All Loans." In some analyses the loan purposes were disaggregated.

To allow for comparison, this analysis was done using the methodology established in previous report. Any variations were noted.

Home purchase and home refinance loans secured by a first lien and applied for during 2016 were included. Home improvement loans secured by a first or second lien and applied for during 2016 were also included. Unless otherwise noted, the analysis included only applications by buyers intending to live in the property (owner-occupied) with one exception, the Section 5.0 analysis of investor (non-occupant owner) lending.

36,614 of the loan applications recorded in Philadelphia met these initial criteria and were included in the overall owner-occupied analysis, and there were 7,483 in the overall non-occupant owner analysis. However, smaller subsets were used for analyses by loan purpose and loan rate.

Since 2004, lenders have been required to report loan rates that are three points greater than the rate on Treasury securities of comparable maturity. Loans with rate information were identified as subprime loans. Loans with "NA" in the rate field were considered to be prime loans. It is important to note that not all subprime loans are three percentage points or more above the Treasury APR. Some loans may be identified as subprime because of fees or yield spread premiums.

Calculating Denial Rates

Denial rate is calculated by dividing total loans originated by total applications received. Besides the loan being originated, there are seven other outcomes recorded by banks, all of which banks have some control over in terms of fairly treating different applicants (see Table S.1).

Table S.1 - Actions Taken by Banks, 2017 Results

ACTION TYPE	DESCRIPTION	2017 FREQUENCY	2017 PROPORTION
1	Loan originated	19,935	54.5%
2	Application approved but not accepted	1,117	3.1%
3	Application denied by financial institution	7,785	21.3%
4	Application withdrawn by applicant	5,758	15.7%
5	File closed for incompleteness	2,018	5.5%
6	Loan purchased by the institution	0	0.0%
7	Preapproval request denied by financial institution	1	0.0%
8	Preapproval request approved but not accepted	0	0.0%

Borrower Race

Borrowers were placed in racial categories based on information reported by the lender. Lenders could report up to five races each for the applicant and co-applicant. In all but a few records, no more than two races were reported for the first applicant and one for the co-applicant. For this reason, the applicant race was determined based on what was reported in the first applicant field. Three races were included in this analysis – white, African American and Asian.

In addition to race, the ethnicity of each applicant could also be reported. From this information, a fourth racial category was created – Hispanic. To be placed in the Hispanic category, the first applicant was identified as Hispanic. Because Hispanic applicants can be of any race, those applicants were excluded from the three racial groups.

If the racial category was undefined ("NA" or blank) and ethnicity indicated "Hispanic," then the observation was coded "Hispanic." In previous studies, these observations were dropped. To then fairly compare across years, previous years' results were re-run using this change in methodology.

The result is four racial groupings: non-Hispanic white, non-Hispanic African American, non-Hispanic Asian, and Hispanic. "Other," which represents a small percentage, was not included in this analysis.

The denominator included only records where racial information was provided by the lender. Thus, the race denominator was less than the total number of loans. Of the 18,408 approved loans meeting owner-occupied analysis criteria, 14,347 included race information.

The number of non-Hispanic white, non-Hispanic African American, non-Hispanic Asian, and any-race Hispanic households in Philadelphia was downloaded from the U.S. Census Bureau American Community Survey 2012-2016 5-Year Estimates, Files B11001B (Black Alone), B11001A (Whites Alone), B11001D (Asians Alone), and B11001L (Hispanics Alone).

Borrower Income

Borrowers were divided into six groups based on their reported income relative to the median family income for the Metropolitan Statistical Area (MSA). The median was determined by the Department of Housing and Urban Development (HUD). According to the FFIEC, HUD's 2017 median family income for the Philadelphia area was \$80,200.

Income Groups as a Percent of MSA Median Family Income:

- low-income less than 50 percent of median income
- moderate-income between 50 and 80 percent of median income
- middle-income Between 80 and 120 percent of median income
- upper-income 120 percent or more of median income
- low- and moderate-income (LMI) less than 80 percent of median income
- middle- and upper-income (MUI) 80 percent or more of median income

Borrower income was reported in thousands. The breaks to determine the groupings were rounded to the nearest whole number.

All loans for which the borrower's income was "not available" were excluded from this analysis. When calculating the percent of loans in each income category, the denominator represented the total of only those loans containing income information for the borrower. Of the 18,408 approved loans meeting initial owner-occupied analysis criteria, 17,560 included applicant income.

The number of households in each income category in Philadelphia was downloaded from the U.S. Census Bureau American Community Survey 2012-2016 5-Year Estimates, File B19001 (Household Income in the Past 12 Months). In cases where census income categories were not in alignment with the income classifications described above we assumed that households were evenly distributed amongst incomes in each category and allocated the number of households accordingly.

Tract Minority Level

Each tract was placed into one of two groups based on the percentage of its population that was minority. The minority category includes all races except non-Hispanic whites. Population and race data were from the FFIEC dataset from HMDA, which uses 2010 Census data.

Minority Level Groups:

- minority half or more of the population was minority
- non-minority less than half was minority

Tract Income Level

Tracts were placed into six groups based on the tract's median family income relative to the MSA median family income. These percentages were provided in the HMDA data set. The income groupings were the same as borrower incomes: low, moderate, middle, upper, LMI and MUI.

Applications for which census tract income percentage was not available were excluded from the denominator. Of the 18,408 approved loans meeting initial owner-occupied analysis criteria, 18,400 included census tract income.

Borrower Gender

Each applicant's gender was reported by the lender. Applications were separated into three groups: male, female and joint. Applications with either a single applicant or two applicants of the same gender were categorized as either male or female. Applications with a male and female borrower were classified as joint.

Applications without gender information were not included in the denominator. Of the 18,408 approved loans meeting initial owner-occupied analysis criteria 17,298 included applicant gender.

The number of households per gender category was downloaded from the U.S. Census Bureau American Community Survey 2012-2016 5-Year Estimates Files B11003, B11009 and B11010. The number of male households consists of the number of non-family households with only a male householder (B11010) and the number of family households with only a male households (B11003). Likewise, the number of female households is the sum of non-family female households and family households with only a female householder. Joint households consist of the total married couple households (B11009 and B11003).

Composite Score

A statistical analysis was done to measure the relative performance and assign a composite score to each depository, taking into account several factors. Thirteen fair lending performance measures were identified to evaluate depositories:

- 1. African American share of home purchase loans originated
- 2. Number of home purchase loans originated for African Americans
- 3. Denial ratio of African Americans to whites for home purchase loans
- 4. Hispanic share of home purchase loans originated
- 5. Number of home purchase loans originated for Hispanics
- 6. Denial ratio of Hispanics to whites for home purchase loans
- 7. Low- and moderate-income borrower share of home purchase loans originated
- 8. Number of home purchase loans originated for low- and moderate-income borrowers
- 9. Denial ratio of low- and moderate-income applicants to middle- and upper-income applicants for home purchase loans

- 10. Share of home purchase loans originated in low and moderate-income tracts
- 11. Denial ratio of low- and moderate-income tracts to middle- and upper-income tracts for home purchase loans
- 12. Share of home purchase loans originated in minority tracts
- 13. Denial ratio of minority tracts to non-minority tracts for home purchase loans

The depositories were evaluated on their performance in each of these 13 factors using standardized scores, also known as z-scores. For each factor, the mean value and standard deviation from the mean were calculated for all Philadelphia lenders that originated at least 25 home purchase loans in 2017. The z-score for each depository was calculated by subtracting the mean factor value for all lenders from the factor value for the depository, and dividing by the standard deviation for all lenders:

$$Z = \frac{F_{Depository} \, \square \, \mathsf{m}}{\mathsf{s}}$$

Where:

 $F_{{\scriptscriptstyle Depository}}$ is the value of the factor (e.g., the denial ratio of Hispanics to whites)

m is the mean for all lenders in Philadelphia in 2017 for the factor, and

S is the standard deviation of the factor for all lenders in Philadelphia in 2017.

The Z-score for each factor reflects the number of standard deviations a depository sat away from the mean value for all lenders. A score of one indicates the depository was one standard deviation above the mean, a negative one means the depository was one standard deviation below the mean, and a score of zero indicates the depository had the average (mean) value for all lenders in Philadelphia.

These scores were combined to create a composite score reflecting the overall fair lending performance of each depository. The first nine factors were each weighted as 10 percent of the score for a total of 90 percent. The final four factors were weighted at 2.5 percent each, totaling the remaining 10 percent.

The composite score reflects the magnitude of deviation of each depository from the average fair lending performance of lenders in the City. A positive score means that a depository had above-average fair lending practices. A score closer to zero indicates the depository had average fair lending practices. A negative score means the depository had below-average fair lending practices. An overall ranking was given to each depository based on their combined score. The depository with the highest score was ranked first.

Performance Rankings

Separate from the composite score, the depositories were ranked compared to one another based on performance in 15 categories, which were established in prior years of this report. These rankings were calculated for all loans and for each home loan purpose (purchase, refinance, and improvement) individually. Only single-family, owner-occupied loans were included. The collective performance of the City Depositories, as well as all City lenders, was also listed.

Performance categories studied:

- 1. Percent of Loans to African Americans Percentage of loans originated by the depository to African American borrowers.
- 2. Percent of Loans to Hispanic Percentage of loans originated by the depository to Hispanic borrowers.
- 3. Percent of Loans to Asians Percentage of loans originated by the depository to Asian borrowers.
- 4. Percent of Loans in Minority Tracts Percentage of loans originated by the depository in tracts where at least half of population was minority.
- 5. Percent of Loans to LMI Borrowers Percentage of loans originated by the depository to borrowers with an income of less than 80 percent of the MSA median family income.
- 6. Percent of Loans in LMI Tracts Percentage of loans originated by the depository in tracts where the median family income was less than 80 percent of the MSA median family income.
- 7. Percent of Loans to Females Percentage of loans originated by the depository to female borrowers.
- 8. African American-to-White Denial Ratio The percentage of African American loan applicants denied divided by the percentage of white applicants denied. A ratio greater than one indicates that African Americans were denied more frequently than whites.
- 9. Hispanic-to-White Denial Ratio The percentage of Hispanic applicants denied divided by the percentage of white applicants denied. A ratio greater than one indicates that Hispanics were denied more frequently than whites.
- 10. Asian-to-White Denial Ratio The percentage of Asian applicants denied divided by the percentage of white applicants denied. A ratio greater than one indicates that Asians were denied more frequently than whites. Conversely, a ratio of less than one means whites were denied more often.
- 11. Minority Tract-to-Non-minority Tract Denial Ratio The percentage of applications in minority tracts (population at least half minority) denied divided by the percentage of applications in non-minority tracts denied. A ratio greater than one indicates that applications in minority tracts were denied more frequently than those that were not.
- 12. African American-to-White Market Share Ratio The depository's share of all loans in the City to African Americans divided by its share of all loans in the City to whites. A ratio of greater than one means that the depository has a greater share of the City's African American loan market than of the white one, which can indicate the depository was making a greater effort to lend to African Americans.
- 13. Minority Tract-to-Non-Minority Tract Market Share Ratio The depository's share of all loans in the City in minority tracts divided by its share of all loans in the City in non-minority ones. A ratio of greater than one means that the depository has a greater share of the City's minority tract loan market than of the non-minority one, which can indicate the depository was making a greater effort to lend in minority tracts.

- 14. LMI Borrower-to-MUI Borrower Market Share Ratio The depository's share of all loans in the City to LMI borrowers divided by its share of all loans in the City to MUI borrowers. A ratio of greater than one means that the depository has a greater share of the City's LMI borrower loan market than of the MUI borrower one, which can indicate the depository was making a greater effort to lend to LMI borrowers.
- 15. LMI Tract-to-MUI Tract Market Share Ratio The depository's share of all loans in the City in LMI tracts divided by its share of all loans in the City in MUI ones. A ratio of greater than one means that the depository has a greater share of the City's LMI tract loan market than of the MUI one, which can indicate the depository was making a greater effort to lend in LMI tracts.

Small Business Lending

Using data from the FFIEC website, a file was created showing the number of loans to small businesses and loans to businesses with revenues of less than \$1 million by census tract, and the income status of each tract, defined as follows:

Income Groups as a Percent of MSA Median Family Income:

- low-income less than 50 percent of median income
- moderate-income between 50 percent and 80 percent of median income
- middle-income between 80 percent and 120 percent of median income
- upper-income 120 percent or more of median income

The definition of a small business was not provided on the FFIEC website. However, it was clear that the businesses with revenues of less than \$1 million composed a subset of all small businesses.

The census tracts in this file were then matched with tracts from aggregated data files from the Census Bureau to add a minority status variable. Minority status was defined as follows:

- minority half or more of the population was minority
- non-minority less than half of the population was minority

The number of small businesses and small businesses with less than \$1 million in revenue in each tract was joined with the aggregate small business lending data using census tract codes.

Descriptive statistics (including frequency distributions, cross tabulations, and sums) were run in STATA to report the findings for Philadelphia in relation to its suburban counties and small business lending in the targeted neighborhoods.

The methodology for ranking the institutions using CRA data is specified in that section of the report.



Examining the Lending Practices of Authorized Depositories for the City of

PHILADELPHIA

CALENDAR YEAR 2017

City Treasurer's Office 1401 JFK Boulevard, Room 640 Philadelphia, PA 19102