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Consumer Finances in Rural Appalachia

Data Point

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Consumer Financial Protection Bureau

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Executive Summary

Twenty-six million people live in the Appalachian region,[1] which includes parts of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia, and all of West Virginia. Thirty-three percent of Appalachians live in rural counties, more than double the national proportion of 14 percent.[2] Over 2 million people live in Appalachian Persistent Poverty Counties (PPCs).[3]

Many rural Appalachians face persistent challenges in the consumer financial marketplace. On average, rural Appalachians earn less than other rural people across the country and significantly less than non-rural consumers. Rural Appalachians are more likely to have a subprime or deep subprime credit score compared to all consumers nationally and consumers in the rest of rural America, which typically leads to a higher cost of credit. Rural Appalachians are also more likely than consumers in other parts of the country to have medical debt collections on their credit record.

This report is intended to provide a starting point in better understand the needs and challenges of consumers in rural Appalachia.[4]

[1] This definition of the Appalachian region, which spans across 423 counties and 13 states, is used throughout this report and comes from the Appalachian Regional Commission.

[2] From the U.S. Department of Agriculture (USDA), metropolitan status is defined as residing in a county classified with a 2013 rural-urban continuum codes (RUCC) of less than 4, available at: https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx. RUCC codes classify metropolitan counties by the population size of their metro area and nonmetropolitan counties by degree of urbanization and adjacency to a metro area. We use the terms non-metro and rural in this report interchangeably.

[3] The classification of PPCs is based on the county list from the Economic Development Administration (EDA), available at: https://eda.gov/files/about/investment-priorities/FY2021_PPCs.xlsx.

[4] The Consumer Financial Protection Bureau (CFPB) is renewing its focus on the specific financial challenges of rural communities. As part of this initiative we are engaging in sustained outreach to rural stakeholders, researching open questions, and using the CFPB's authorities and resources to address the problems facing rural consumers. The CFPB recently released a report that analyzed consumer finance issues across all of rural America. See Consumer Financial Protection Bureau, "Data Spotlight: Challenges in Rural Banking Access," April 2022 (available at https://files.consumerfinance.gov/f/documents/cfpb_data-spotlight_challenges-in-rural-banking_2022-04.pdf). Following that national rural overview, this report is the first in a series of geographic Data Points focused on gaining a more specific understanding of the consumer finance landscape of a particular region, with an emphasis on regions with high concentrations of persistent poverty counties (PPCs).

Key findings

In rural Appalachia, the annual median household income is $48,964, more than $21,000 less than the national median of $70,622. The significantly lower household income may lead to more acute debt burdens.[5] For example:

- The median ratio of auto loan balances to tract-level household income is 31 percent for rural Appalachians, compared to 21 percent nationally. In rural Appalachian PPCs, this ratio is 38 percent of households' annual income.
- The median ratio of student loan balances to tract-level household annual income is 41 percent for rural Appalachians compared to 32 percent for consumers nationally.

Rural Appalachians also face significant challenges in the housing markets, ranging from increased cost of credit, higher rates of denial for mortgage applications, and greater reliance on potentially higher-cost loans for manufactured housing. More specifically:

- Interest rates are generally higher, especially for consumers in rural persistent poverty counties. The interest rate for a home purchase in rural Appalachian PPCs was 3.857 percent in 2021 and only 3.127 percent nationally. The difference between the median and mean interest rates indicates that there are some consumers paying much higher interest rates than that of the national median consumer with a home loan.
- In 2021, denial rates for mortgage applications for a home purchase were 11 percent nationally and almost twice that number, 21 percent, in rural Appalachia. Denial rates were generally higher in all rural areas across the country (18 percent) and particularly high (35 percent) in rural Appalachian PPCs.
- Rural Appalachians, particularly those living in rural PPCs, disproportionately have manufactured housing loans – 11 percent in rural Appalachia and 20 percent in rural Appalachian PPCs, as compared to a national average of only three percent. Manufactured housing loans have higher interest rates on average compared to site-built homes, especially for home-only (chattel) loans. Borrowers of home-only loans may also face additional risks with respect to changes in lot rents or associated fees.

Consumers who have trouble paying for a bill or expense often have multiple financial difficulties. This is particularly true in rural Appalachia, where, in addition to higher debt-burden and cost of credit, there are also disproportionately high levels of medical debt.

[5] How burdensome a debt may be for a household depends not only on income, but also on assets and the price of other living expenses. It is important to note that the data used in this report do not take into account any regional differences in assets or living expenses.

- Rural Appalachians are more likely to have reported medical debt collections than the rest of the country; 24 percent of rural Appalachians have a reported medical debt collection compared to just 17 percent of people nationally. Those with a medical debt collection have a dramatically higher prevalence of other types of delinquencies on their credit reports.

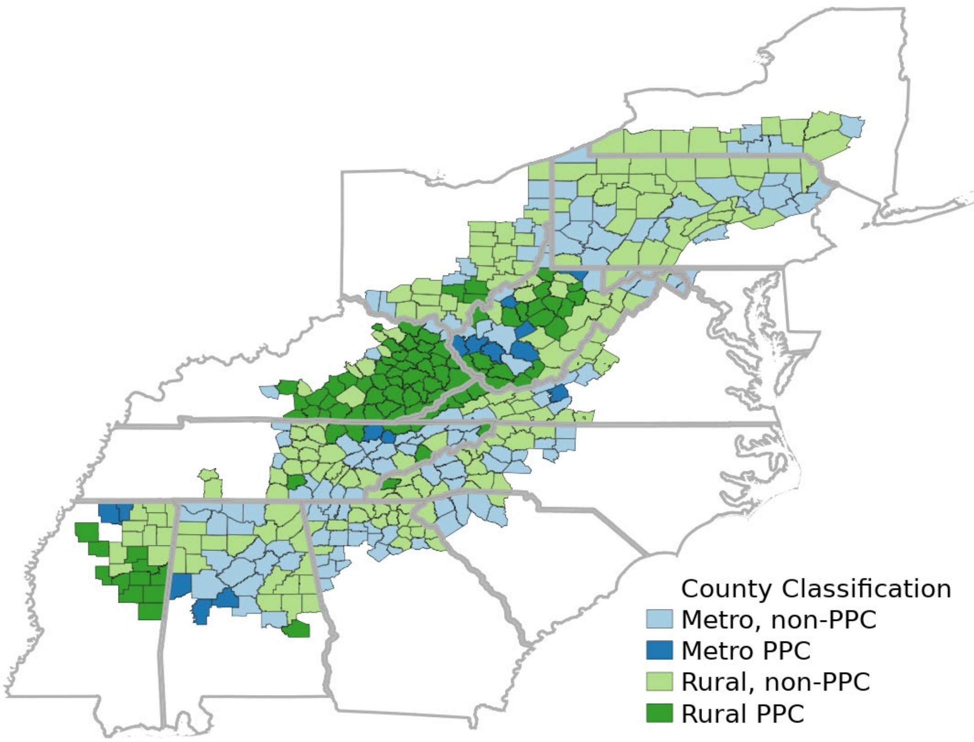
- Rural Appalachians with medical debt have more than double the rates of delinquency for other credit products, including mortgages, auto loans, credit cards, and student loans, compared to those without medical debt collections in each category. For example, while 12 percent of people with auto loans had at least one auto loan delinquency between March 2020 and March 2022, 29 percent of those with medical debt had an auto loan delinquency. Similarly, while 18 percent of consumers with student loans had at least one delinquency, 37 percent of those with medical debt had a student loan delinquency.

All of these factors combined have led to disproportionately high levels of distress in rural Appalachians' consumer financial lives. The CFPB will continue to monitor credit conditions in rural Appalachia closely and use its enforcement and regulatory tools as necessary to ensure that the consumer finance market is fair, transparent, and competitive for rural Appalachians.

Demographic and Economic Profile of Appalachia

The Appalachian region spans 13 states and covers approximately 206,000 square miles. Appalachia's roughly 26 million people live in parts of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia and all of West Virginia. The region is disproportionately rural, with 33 percent living in a rural county compared to 14 percent of people nationwide. Over 2 million people live in Appalachian Persistent Poverty Counties (PPCs). Persistent Poverty Counties (shown in Figure 1) are defined as counties that have had poverty rates of 20 percent or more for the past 30 years.[6] Following the national pattern, the overwhelming majority of Appalachian PPCs are also rural, 88 out of the 103, or roughly 1.7 million people.[7]

FIGURE 1: MAP OF APPALACHIAN COUNTIES



Data Source: Appalachian counties are defined according to the Appalachian Regional Commission. Rural and urban status definitions are from the U.S. Department of Agriculture (USDA) Rural-Urban Commuting Area Codes. PPC stands for persistent poverty county. PPC definitions stem from the Economic Development Administration (EDA).

Table 1 below details selected characteristics for Appalachian rural PPCs and rural Appalachia and compares these to other rural areas outside of Appalachia and to the national average. Table

[6] Nearly one-fourth of the counties in the Appalachian region are persistent poverty counties (103 out of the 423 in the Appalachian region). The classification of PPCs is based on the county list from the Economic Development Administration (EDA), available at: https://eda.gov/files/about/investment-priorities/FY2021_PPCs.xlsx.

[7] According to the EDA, there are 595 PPCs in the United States and 427 are rural (72 percent).

1 shows that unemployment rates in rural Appalachia are roughly the same as the national average. Household incomes are much lower in Appalachia than nationally, and this is particularly true in rural Appalachia, where the annual median household income is $48,964, more than $21,000 below the national median of $70,622. This gap has increased in the last two decades. While the median rural Appalachian household income was 89 percent of the national median in 1999, it was only 69 percent of the national median in 2020. The high school graduation rate in rural Appalachia is four percentage points greater than the national average. Yet, the share of rural Appalachians attending at least some college lies far below the national average—53 percent compared to 67 percent nationally. Rural Appalachia has a significantly higher proportion of white residents (88 percent) than the country as a whole (60 percent).[8]

Among households with at least one 50-59 year-old, checking account participation is fairly high, both nationally and in rural Appalachia, with 93 percent coverage nationwide and 92 percent coverage in rural Appalachia. Only 76 percent of households in rural Appalachia have access to broadband, compared to 85 percent of households nationally. Eighteen counties—overwhelmingly in rural areas—lag with rates below 60 percent.[9] The lack of broadband access has a wide range of implications that include being less able to access online banking services.[10] Beyond checking accounts, the CFPB is assessing the availability of other financial services, from both online and brick-and-mortar access points, and hopes to examine this question in greater depth in future reports.

[8] Though not shown, the differences in the shares of white residents are even greater for Appalachian PPCs (86 percent) than for PPCs nationwide (36 percent).

[9] Broadband subscriptions include cable, fiber optic, digital subscriber line (DSL), cellular, and satellite. See Pollard and Jacobsen, "The Appalachian Region: A Data Overview from the 2015-2019 American Community Survey," (June 2021) available at: www.arc.gov/wp-content/uploads/2021/06/PRB_ARC_Chartbook_ACS_2015-2019_FINAL_2021-06_R1.pdf.

[10] According to the 2019 Federal Deposit Insurance Corporation (FDIC) report, "How America Banks: Household Use of Banking and Financial Services,": 14.8 percent of rural banked households had neither smartphone access nor home internet access, compared with 7.2 percent of urban banked households and 5.8 percent of suburban banked households, available at: https://www.fdic.gov/analysis/household-survey/2019execsum.pdf.

TABLE 1: REGIONAL CHARACTERISTICS

	Appalachian Rural PPCs	Appalachian Rural	Non-Appalachian Rural	Nationwide
Percent unemployed	9	8	7	8
Median household income	$40,288	$48,964	$54,995	$70,622
High school graduation rate (percent)	91	90	87	86
Percent with some college	50	53	57	67
Percent Black	9	6	9	13
Percent Hispanic	2	4	10	19
Percent White	87	88	75	60
Percent Asian	1	1	1	6
Percent American Indian and Alaskan Native	0.4	1	3	1
Percent of households with a 50-59 year-old who has a checking account	91	92	93	93
Percent of households with broadband access	72	76	78	85
Percent 65 and older	20	21	20	17
Number of counties	88	269	1,706	3,140

Note: Statistics are population-weighted and based on county-level data from County Health Rankings & Roadmaps project at the University of Wisconsin Population Health Institute (https://www.countyhealthrankings.org/) from various sources, as noted. Data on educational completion rates and broadband access are from the 5-year American Community Survey (ACS) data. Race and ethnicity statistics are from 2020 Census Population Estimates. Unemployment is based on Bureau of Labor Statistics (BLS) 2020 data. Household income is the median of county-level mean incomes from the 2020 Small Area Income and Poverty Estimates. Checking account coverage is defined as having a bank account linked to a tax return or tax payment from 2006-2019 in Internal Revenue Service data. This estimate is preliminary and subject to revision. For more information about this data, see Yogo, Whitten and Cox, "Financial Inclusion Across the United States," (April 2022) available at SSRN: https://ssrn.com/abstract=3934498. PPC stands for persistent poverty county. As a result of missing county-level data from the County Health Rankings & Roadmaps dataset, we omit two counties from the Non-Appalachian rural column and four counties from the national average.

Table 2 displays the most significant industries in rural Appalachia and nationally, according to each industry's share of total employment. The largest percentage of people in rural Appalachia are employed in manufacturing (13 percent), retail trade (11 percent), local and state government (9 percent), healthcare and social services (7 percent), and accommodation and food services (6 percent). The shares are often comparable across geographic areas. While mining, quarrying, and oil and gas extraction employ only 1.1 percent of the population overall (compared to 0.7 percent nationally), in some counties it supplies jobs for over 25 percent of workers. The share of rural Appalachian employment in mining, quarrying, and oil and gas extraction has decreased by over 54 percent in the last 20 years: this share was 2.4 percent in 1999.

TABLE 2: TOP FIVE INDUSTRIES BY TOTAL EMPLOYMENT

Rank	Appalachian Rural PPCs	Appalachian Rural	Non-Appalachian Rural	Nationwide
1	Retail Trade (11%)	Manufacturing (13%)	Retail Trade (10%)	Healthcare / Social Assistance (11%)
2	Local Government (11%)	Retail Trade (11%)	Manufacturing (10%)	Retail Trade (10%)
3	Manufacturing (7%)	Local Government (9%)	Local Government (10%)	Accommodation / Food Services (7%)
4	Farm (6%)	Healthcare / Social Assistance (7%)	Healthcare / Social Assistance (7%)	Local Government (7%)
5	Other Non-Government Services (6%)	Accommodation / Food Services (6%)	Accommodation / Food Services (6%)	Manufacturing (7%)

Note: PPC stands for persistent poverty county. Source: Bureau of Economic Analysis (BEA) CAEMP25N Employment Estimates 2019.

Consumer Finance Profiles

In this section, we compare credit and debt portfolios of rural Appalachians with 1) the national average and 2) other rural consumers nationally. Specifically, we make these comparisons for credit cards, auto loans, mortgages, and student loans. These juxtapositions help to illuminate how the financial challenges of rural Appalachians compare to the rest of the country and the rest of rural America. Moreover, we show these measures for PPCs within rural Appalachia to highlight consumer finance profiles of consumers in counties with persistently lower incomes. We draw on the CFPB's Consumer Credit Panel (CCP), a comprehensive, national, 1-in-48 sample of de-identified credit records maintained by one of the three nationwide consumer reporting companies (NCRCs). In doing so, we consider all open credit tradelines of consumers who appear in the CCP sample at least once between the first quarter of 2020 and the first quarter of 2022.[11]

Table 3 shows the share of consumers in each region with an average credit score (over the 2020–2022 period) in each credit score category. Compared with all consumers nationally, a larger share of rural Appalachians has a deep subprime or subprime credit score (30 compared to 24 percent), and a smaller share has a prime or super-prime score (57 compared to 64 percent). These differences are more pronounced in the PPCs of rural Appalachia, where 37 percent of consumers have a deep subprime or subprime credit score and only 49 percent have prime or super-prime credit scores. Low credit scores may hinder access to low-interest credit products and increase the likelihood that a consumer uses higher-interest alternative financial services such as payday, pawn, or auto title loans.[12]

TABLE 3: PERCENT OF CONSUMERS IN EACH CREDIT SCORE GROUP, IN RURAL APPALACHIA AND NATIONWIDE

Credit Score Group	Appalachian Rural PPCs	Appalachian Rural	Non-Appalachian Rural	National Average
Deep subprime (300-499)	4	3	3	2
Subprime (500-600)	33	27	24	22
Near prime (601-660)	15	13	13	12
Prime (661-780)	31	33	34	38
Super-Prime (781-850)	18	24	26	26

Note: PPC stands for persistent poverty county. Source: CFPB CCP 2020-2022.

[11] For the purposes of this analysis, consumers in the panel without a census tract and consumers who reside in U.S. territories (American Samoa, Puerto Rico, U.S. Virgin Islands, and Guam) were excluded from the sample.

[12] See for example Fulford and Shupe, "Consumer use of payday, auto title, and pawn loans: Insights from the Making Ends Meet Survey" (May 2021) available at: https://www.consumerfinance.gov/data-research/research-reports/consumer-use-of-payday-auto-title-and-pawn-loans-insights-making-ends-meet-survey/. Data regarding use of payday, auto title and pawn loan usage stem from the Making Ends Meet survey. The CCP does not contain this information.

Credit Cards

Rural Appalachians are less likely than consumers nationally to have a general-purpose credit card. Only 71 percent of rural Appalachians and 63 percent of rural Appalachians living in PPCs have an open credit card compared to 80 percent of consumers nationally. Median balances on credit cards are only slightly lower in rural Appalachia compared to the national average despite substantially lower household incomes (for all consumers, regardless of card ownership), as shown in Table 1.

Similarly, credit card holders in rural Appalachia and in particular those in rural PPCs have higher utilization rates than card holders nationally. Credit card utilization rates, defined as the balance amount on the card divided by the credit limit, are one measure of potential financial distress and utilization rates above 30 percent may adversely impact credit scores.[13] The average credit card utilization rate nationwide is about 31 percent, but utilization rates are higher in rural Appalachian areas (35 percent), even reaching 40 percent for the average consumer in rural Appalachian PPCs. Analysis of data on credit card accounts (not shown) reveals that credit card accounts of rural Appalachians are much more likely to be revolving compared to accounts outside of Appalachia and thus subject to average interest rates upwards of 20 percent every month.[14] These data points suggest that, although rural Appalachians are less likely to have a credit card compared to consumers nationally, the burden of credit card debt is higher among rural Appalachians with one.

[13] See, e.g., Credit Karma, "Credit Card Utilization and Your Credit Scores," available at https://www.creditkarma.com/credit-cards/i/credit-card-utilization-and-your-credit-score. Accessed August 30, 2022.

[14] We calculated the share of general purpose credit card accounts in the Federal Reserve Board's Y-14 dataset that are revolving divided by the total number of revolving and transacting accounts in November 2021. This dataset contains monthly bank holding companies with total consolidated assets exceeding $50 billion. Among these accounts of Appalachian consumers, 80 percent are revolving (82 percent in rural Appalachia), while the national average outside of Appalachia is 76 percent. Average credit card interest rates are above 20 percent for consumers with a prime credit score (See https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2021.pdf), such as the average rural Appalachian, and higher for those with lower credit scores.

TABLE 4: CREDIT CARD USAGE IN RURAL APPALACHIA AND NATIONWIDE

	Appalachian Rural PPCs	Appalachian Rural	Non-Appalachian Rural	Nationwide
Percent with credit card	63	71	74	80
Median balance on credit card	$915	$1,011	$1,115	$1,207
Credit card utilization rate	40	35	33	31
Percent with at least one credit card delinquency	19	15	14	14

Note: PPC stands for persistent poverty county. Source: CFPB CCP 2020-2022. Median balances exclude closed accounts and those with a $0 balance. Credit card utilization rate is conditional on having a credit card.

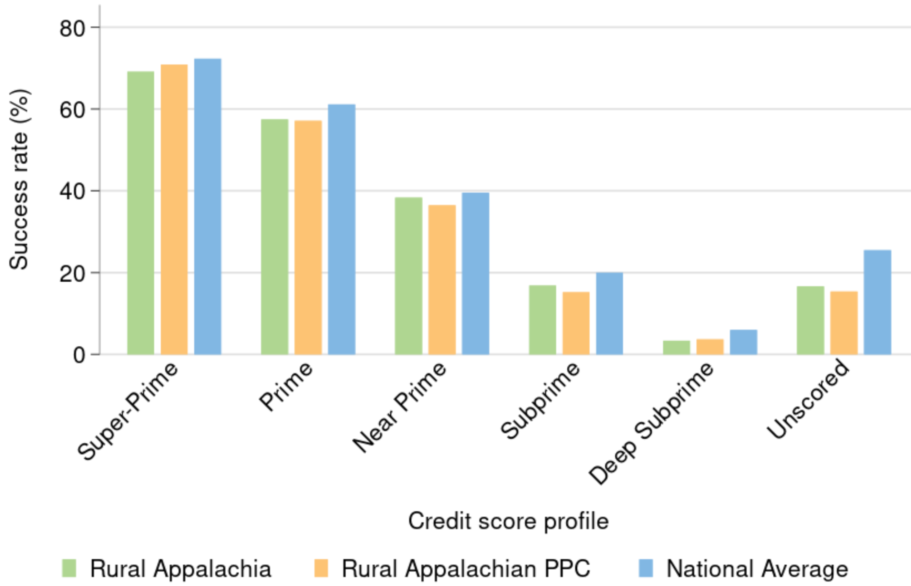
Both perceived creditworthiness and the general tightness of the lending market affect consumers' ability to access a credit card when they wish to borrow. The CCP allows us to measure the likelihood that a consumer in Appalachia receives a credit card when they apply, as a measure of access to this type of credit. We observe applications for credit in the CCP during our sample period and calculate the likelihood that an application is successful.[15]

Figure 2 displays the percent of applications that are originated for credit cards for people living in rural Appalachia compared to the national average. We condition these origination rates on credit score categories to make them comparable within the same range of perceived consumer creditworthiness. Loan origination rates for credit cards increase with credit scores. Conditional on credit score category, origination rates are similar, though often slightly lower, among consumers in rural Appalachia compared to the national average. However, as consumers in rural Appalachia are more likely to have lower credit scores (Table 3), their applications are less likely to yield an origination and they will have lower access to credit, which may be one explanation for the lower percentage of consumers in this region with a credit card.[16]

[15] For most forms of credit, when a consumer submits an application, the lender will seek information about the consumer from a nationwide credit reporting company. This is referred to as a "hard inquiry." Hard inquiries are visible to creditors who view the consumers' credit report, and are one input into most credit scoring models. Although most hard inquiries result from applications for a new account, hard inquiries can also be generated by applications for a credit limit increase on an existing credit card account. We define success as an inquiry that results in the opening of a new, corresponding account or a limit increase of at least 5 percent within 14 days of the inquiry date. A consumer may have several inquiries within this time period, with some successful. We take the average success rate for each consumer within this timeframe and then average over all consumers in Appalachia (or nationally).

[16] To the extent that the distribution of consumers' credit scores differs in Appalachia relative to the country as a whole, the success rates shown, aggregated across credit score bins, would differ for Appalachia compared with the nation overall.

FIGURE 2: PERCENT OF CREDIT CARD APPLICATIONS ORIGINATED IN RURAL APPALACHIA AND NATIONWIDE



Note: Credit score categories are defined as: deep subprime (credit scores below 500), subprime (credit scores of 500-600), near prime (credit scores of 601-660), prime (credit scores of 661-780) and super-prime (credit scores of 781 or above). People without a credit score were categorized as unscored. PPC stands for persistent poverty county. Source: CFPB CCP March 2020-March 2022.

Auto Loans

Rural Appalachians hold auto loans at similar rates to other rural areas across the country and are equally likely to have had a delinquency on an auto loan compared to other rural consumers as well as all consumers nationally.[17] Among consumers with an auto loan, median balances are also similar to the national average. However, because median incomes in rural Appalachia are much lower than the national average, the burden of these balances is substantially higher than for the median household nationally. The median ratio of auto loan balances to tract-level household income is 31 percent for rural Appalachians, compared to 21 percent nationally. In rural Appalachian PPCs, this median ratio is 38 percent of the household's annual income. However, due to longer commutes between home and work compared to urban dwellers and the

[17] Most auto lenders furnish to the credit bureaus, but small finance companies and small Buy-Here-Pay-Here dealerships do not. Therefore, the estimated share of consumers with an auto loan is likely underestimated using only the information in the CCP. This observation is especially true of subprime auto loans. For more information, see Clarkberg, Gardner, and Low, "Data Point: Subprime Auto Loan Outcomes by Lender Type" (September 2021) available at https://files.consumerfinance.gov/f/documents/cfpb_subprime-auto_data-point_2021-09.pdf (hereinafter Clarkberg, Gardner and Low 2021).

lack of alternative transit infrastructure,[18] many rural Appalachians remain dependent on personal vehicles for transportation.

TABLE 5: AUTO LOANS IN RURAL APPALACHIA AND NATIONWIDE

	Rural Appalachian PPCs	Appalachian Rural	Non-Appalachian Rural	Nationwide
Percent with auto loan (AL)	43	44	44	42
Median balance on auto loan	$13,813	$13,402	$13,763	$13,249
Median tract-level household income among auto loan borrowers	$35,858	$43,866	$49,899	$62,586
Median ratio of AL debt balance to tract median income (percent)	38	31	28	21
Percent with an auto loan delinquency	7	5	5	5

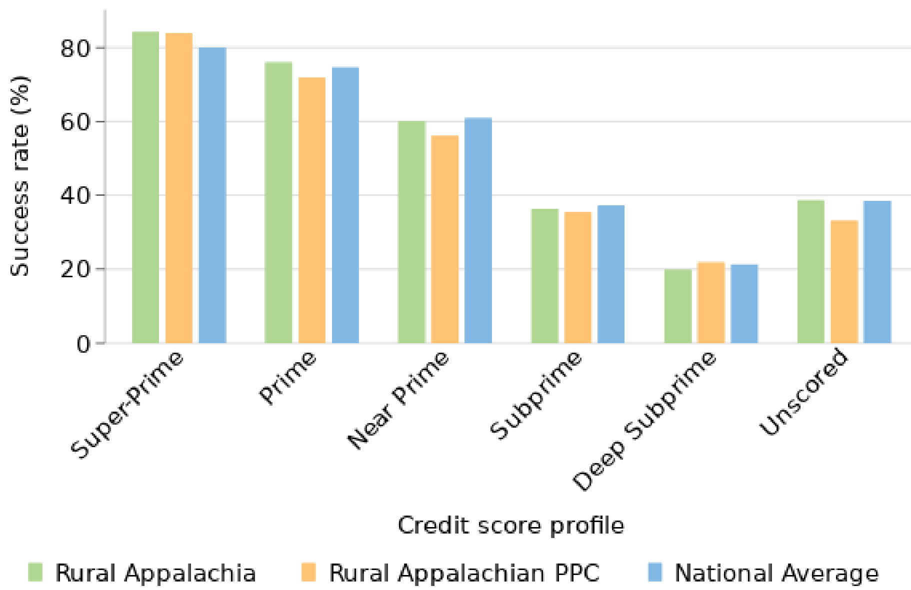
Note: PPC stands for persistent poverty county. Source: CFPB CCP 2020-2022. Note that household income numbers differ from Table 1 because they reflect the median among auto loan borrowers while Table 1 is nationally representative of all households. Auto loan debt balance as a percent of income is calculated by dividing each borrower's debt balance by their tract-level median household income and taking the median of that quotient as a percent. Tract-level median income includes households with and without auto loans. Median balances exclude closed accounts and those with a $0 balance.

Figure 3 displays the percent of auto loan applications from people living in rural Appalachia that yielded an origination compared to the national average. Conditional on their credit score and on having applied for an auto loan, origination rates in rural Appalachia are generally similar to those nationally. [19]

[18] According to the Appalachian Regional Commission's (ARC) report, "Public Transportation in Appalachia Inventory and Assessment," urban public transit revenue hours have increased while rural transit revenue hours have decreased. Furthermore, only 7 percent of rural Appalachian counties are served by evening fixed-route services, compared to 50 percent of rural non-Appalachian counties in Appalachian states, available at: https://www.arc.gov/report/public-transportation-in-appalachia/.

[19] Some important state-level differences in loan origination rates can be found in Appendix A. In rural Appalachian Alabama, for example, the likelihood that a consumer receives an auto loan, conditional on applying, is significantly lower than the national average, even conditional on credit scores. Some regional differences may be driven by regional variation in which NCRC(s) lenders use for reporting. These differences could be especially important for auto loans (see Clarkberg, Gardner and Low 2021).

FIGURE 3: PERCENT OF AUTO LOAN APPLICATIONS ORIGINATED IN RURAL APPALACHIA AND NATIONWIDE



Note: Credit score categories are defined as: deep subprime (credit scores below 500), subprime (credit scores of 500-600), near prime (credit scores of 601-660), prime (credit scores of 661-780) and super-prime (credit scores of 781 or above). People without a credit score were categorized as unscored. PPC stands for persistent poverty county. Source: CFPB CCP March 2020-2022.

Home Loans

Rural Appalachians are less likely to have a first lien mortgage compared to consumers nationally. Only 20 percent of consumers in rural Appalachian PPCs and 24 percent of rural Appalachians have a first-lien mortgage, compared to 29 percent of consumers nationally and 27 percent in other rural areas across the country. Conditional on having a first-lien mortgage, the median mortgage balance for consumers in Appalachian rural areas is notably lower ($87,052) than for consumers in other rural regions across the country ($105,421) and much lower than the national average ($165,975), which includes urban areas with higher housing prices. This difference in median mortgage amounts is even greater for consumers in rural Appalachian PPCs, where median mortgage amounts are only $69,418—significantly lower than metro Appalachian PPCs, where the median loan amount is $100,357 (not shown).[20]

[20] Twenty-four percent of consumers in metro Appalachian PPCs have a mortgage.

TABLE 6: FIRST-LIEN MORTGAGES IN RURAL APPALACHIA AND NATIONWIDE

	Rural Appalachian PPCs	Appalachian Rural	Non-Appalachian Rural	Nationwide
Percent with mortgage	20	24	27	29
Median balance on mortgage	$69,418	$87,052	$105,421	$165,975
Median tract-level household income among mortgage holders	$36,607	$45,075	$52,452	$69,886
Mortgage debt balance as a percent of tract-level income	191	195	202	233
Percent with a mortgage delinquency	5	3	3	2

Note: PPC stands for persistent poverty county. Source: CFPB CCP 2020-2022. Note that household income numbers differ from Table 1 because they reflect the median among mortgage borrowers while Table 1 is nationally representative of all households. Mortgage debt balance as a percent of income is calculated by dividing each borrower's debt balance by their tract-level median household income and taking the median of that quotient as a percent. Tract-level median income includes households with and without mortgages. Median balances exclude closed accounts and those with a $0 balance.

To take a deeper look at differences in home loan characteristics among rural Appalachians compared to the national average, we additionally use data from the Home Mortgage Disclosure Act (HMDA) for the most recent year available, 2021.[21] In contrast to the CCP data used for Table 6, which shows stocks of mortgages, the HMDA data focuses on flows of home loans in 2021. Table 7 shows that the median interest rate on a first-lien mortgage is the same in rural Appalachia and rural areas in the rest of the country, and is similar to the median interest rate nationally. However, mean interest rates differ substantially. The interest rate for a home purchase in rural Appalachian PPCs was 3.857 percent in 2021 and only 3.127 percent nationally. The difference between the median and mean interest rates indicates, roughly speaking, that some consumers pay much higher interest rates than that of the median mortgage holder.

[21] For more information on this dataset, see Liu, Jo, Skhirtladze and Barriere, "An Updated Review of the New and Revised Data Points in HMDA," (August 2020), available at https://www.consumerfinance.gov/data-research/research-reports/revised-data-points-hmda/ (hereinafter Liu et al. 2020).

TABLE 7: FIRST-LIEN HOME LOAN APPLICATIONS IN 2021 IN RURAL APPALACHIA AND NATIONWIDE

	Rural Appalachian PPC	Appalachian Rural	Non-Appalachian Rural	Nationwide
Total mortgage applications for home purchase	27,020	141,006	620,573	6,334,648
Total mortgage applications for home purchase per 1,000 residents	16	16	17	19
Median interest rate for home purchase	3.250	3.125	3.125	3.000
Mean interest rate for home purchase	3.857	3.407	3.302	3.127
Percent of applications originated	47	60	65	71
Percent of applications denied	35	21	18	11
Percent of originations that are manufactured homes (home and land secured, i.e. non-chattel)	10	7	5	2
Percent of originations that are manufactured homes (only home secured, i.e. chattel)	10	4	3	1

Note: All rows refer to loans for home purchases and exclude refinance applications. PPC stands for persistent poverty county. Source: HMDA 2021.

While 71 percent of first-lien mortgage applications were originated in 2021 nationally, this rate was only 60 percent in rural Appalachia and 47 percent in rural Appalachian PPCs. Even compared to mortgage applications in other rural areas of the country, applicants in rural Appalachia have a lower probability of securing a home loan.

Excluding applications that were withdrawn or closed or incompleteness, Table 7 shows the share of applications that are not originated because the application was denied by the lender. In 2021, denial rates for mortgage applications for a home purchase were 11 percent nationally and almost twice that number, 21 percent, in rural Appalachia. Denial rates were generally higher in all rural areas across the country (18 percent) and particularly high (35 percent) in rural Appalachian PPCs. In addition to lower origination and higher denial rates, applications for first-lien mortgages are submitted at slightly lower rates in rural Appalachia (16 per 1,000 residents) compared to the national average (19 per 1,000 residents).

Table 7 also shows the share of first-lien originations for manufactured home loans.[22] We distinguish between loans that are secured by the home and land (historically, referred to as "non-chattel loans") and those that are secured by the home only (historically referred to as "chattel loans"). Home-only loans typically demand higher interest rates, on average.

Manufactured homes play an important role for mortgage holders in rural Appalachia, in general, and in rural Appalachian PPCs, in particular. Nationally, the total share of first-lien originations for manufactured home mortgages is only 3 percent. It is 11 percent in Appalachia and 20 percent in rural Appalachian PPCs. Moreover, half of these manufactured home loans in rural Appalachian PPCs are not secured by the land and, as noted above, borrowers pay higher interest rates for these loans compared to other manufactured housing loans. Many of these homeowners rent the land where their home is located, making them vulnerable to both repossession by the lender and rent hikes or eviction by the owner of the land. Consumers can lose their home if they fall behind on their lot rent and lack the means to move the home to a new location.

As is the case for other credit products, perceived creditworthiness and the general tightness of the lending market influence the share of home loan applications that are originated or denied as well as the interest rate paid when originated. However, in the mortgage market, these measures are additionally affected by characteristics of the product itself, for instance the loan-to-value ratio of the property, duration of the loan, and the type of property. [23] It is important to note that the numbers displayed in Table 7 are unconditional and do not account for important differences in credit scores, loan-to-value ratios of the property, loan duration, property type, debt-to-income ratios of the mortgage holders or applicants, or other factors.[24] Additionally, HMDA does not capture certain types of alternative home financing such as seller-financing, land contracts, or lease-to-own arrangements, which are disproportionately used by low-income consumers.[25]

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[22] Manufactured homes are factory-built housing constructed after June 15, 1976 in accordance with the U.S. Department of Housing and Urban Development's Manufactured Home Construction and Safety Standards codes. Manufactured homes are distinct from RVs, park model homes, and modular home sections. See Russell, O'Reilly, Schneider, Melton, Schwartz and Leitner, "Manufactured Housing Finance: New Insights from the Home Mortgage Disclosure Act Data," (May 2021), available at https://www.consumerfinance.gov/data-research/research-reports/manufactured-housing-finance-new-insights-hmda/ and "Manufactured-housing consumer finance in the United States," available at https://files.consumerfinance.gov/f/201409_cfpb_report_manufactured-housing.pdf.

[23] See Russell, O'Reilly, Schneider, Melton, Schwartz and Leitner, "Manufactured Housing Finance: New Insights from the Home Mortgage Disclosure Act Data," (May 2021), available at https://www.consumerfinance.gov/data-research/research-reports/manufactured-housing-finance-new-insights-hmda/.

[24] While the HMDA data do contain information about many of these variables, further analysis controlling for these factors is beyond the scope of this report.

[25] Among consumers who have ever borrowed to buy a home, an estimated six percent had used a lease-purchase (rent-to-own) agreement, six percent had used a seller-financed mortgage, five percent had used a land contract, and

Student Loans

Eighteen percent of consumers nationwide have an open student loan, while the share in rural Appalachia is only 15 percent. However, the ratio of consumers with a student loan to residents with some college education in rural Appalachia is roughly similar to the same ratio nationwide.[26] In other words, student loans appear equally prevalent in rural Appalachia and across the country among consumers with some college education.

Table 8 displays characteristics of student loan borrowers in rural Appalachia and nationally. Due to payment suspensions during the pandemic, this analysis focuses on all student loan borrowers as of February 2020, prior to the enactment of the CARES Act.[27] Table 8 provides a baseline for several measures that are correlated with the ability of borrowers to repay their loans after relief measures end.[28]

Student loan borrowers in rural Appalachia face delinquency rates, monthly payments, and delinquent balance amounts similar to the national average. Because incomes are lower on average, however, these balances reflect higher debt burdens for rural Appalachians. The median ratio of student loan balances to tract-level household annual income is 41 percent compared to 32 percent for consumers nationally and 34 percent in other non-Appalachian rural areas. At the same time, rural Appalachian student loan borrowers were about as likely to be on income-driven repayment (IDR) plans before the pandemic and subsequent relief measures.[29] The combination of these two factors indicates that, among rural student loan borrowers, rural Appalachians may have a harder time meeting their payment obligations when pandemic relief policies end.

11 percent had used a home-only loan. See The Pew Charitable Trusts, "Millions of Americans Have Used Risky Financing Arrangements to Buy Homes," (April 2022), available www.pewtrusts.org/-/media/assets/2022/05/millionsofamericanshaveusedriskyfinancing_brief.pdf

[26] Combining information in Tables 1 and 8, roughly 28 percent (15 percent out of 53 percent) of the population with some college education in rural Appalachia has a student loan compared to 27 percent (18 percent out of 67 percent) nationwide.

[27] While federal student loans comprise the majority of student loans, the credit bureau data do not allow us to distinguish between federally held and privately held student loans. The latter did not necessarily benefit from the payment suspensions afforded to federal student loans. However, we do not expect the inclusion of some privately held student loans to substantially impact this analysis.

[28] For more information on student loan borrowers and the construction of these measures, see Conkling, Gibbs and Jimenez-Read, "Student Loan Borrowers Potentially At-Risk when Payment Suspension Ends," (April 2022) available at: https://files.consumerfinance.gov/f/documents/cfpb_cares-vulnerable-student-loan-borrowers_report_2022-04.pdf (hereinafter Conkling, Gibbs and Jimenez-Read 2022).

[29] Payment assistance refers to borrowers who are likely enrolled in an income-driven repayment (IDR) plan (See Conkling, Gibbs and Jimenez-Read 2022).

TABLE 8: STUDENT LOAN BORROWERS IN APPALACHIA AND NATIONWIDE (AS OF FEBRUARY 2020)

	Rural Appalachian PPCs	Appalachian Rural	Non-Appalachian Rural	Nationwide
Median scheduled monthly student loan payment	$147	$165	$167	$192
Median remaining student loan balance	$16,915	$18,039	$17,101	$20,286
Median tract-level household annual income	$36,816	$44,708	$50,577	$68,181
Student loan balance as a percent of tract-level income (median)	48	41	34	32
Percent of borrowers delinquent	10	7	7	7
Median balance if delinquent	$19,337	$24,598	$20,956	$25,089
Percent of borrowers in default	16	12	11	9
Percent receiving assistance through IDR	21	21	20	21

Note: For this table, the sample is restricted to borrowers with outstanding student loans in February 2020. Median scheduled monthly payments exclude borrowers who have defaulted or have deferred payment. Delinquencies are defined as at least 90 days past due, but not yet in default. Delinquency and default are measured for a single month, not cumulatively. Median balances exclude accounts with $0 balances. Receiving assistance excludes accounts with a remaining $0 balance. Student loan debt balance as a percent of income is calculated by dividing each borrower's debt balance by tract-level median household income and taking the median of that quotient as a percent. Tract-level median income includes households with and without a college education and is therefore downward biased for the group of student loan borrowers. IDR stands for income-drive repayment. PPC stands for persistent poverty county.

These measures of potential payment difficulties on student loans vary across consumers within rural Appalachia. For instance, Appendix A shows that consumers in rural Appalachian Alabama (Table A.2), Mississippi (Table A.9), and South Carolina (Table A.19) are more likely to be in default on their loan, but less likely to receive income-driven assistance compared to the rest of rural Appalachia and to the national average.

Medical Debt Collections

Medical debt is the most common type of third-party collection on consumers' credit reports.[30] Such collections can have detrimental effects not only on consumers' ability to access financial

[30] See Sandler and Nathe "Consumer Credit Trends: Paid and Low-Balance Medical Collections on Consumer Credit Reports," (July 2022), available at https://www.consumerfinance.gov/data-research/research-reports/paid-and-low-balance-medical-collections-on-consumer-credit-reports/ (hereinafter Sandler and Nathe 2022).

products, but also their ability to find housing or employment. Against this background and amid concerns of erroneous reporting, [31] efforts have been underway in recent years to reduce the reporting of certain kinds of medical debt on credit reports. Most recently, in March of this year, the NCRCs announced that they would no longer report medical collections until they are one year past due (compared to 180 days previously) and that they would remove paid medical collections entirely. Further, beginning in 2023, they plan to no longer include medical debt tradelines less than at least $500.[32]

A recent Bureau publication explores the impact of these changes on consumers nationally and finds that about half of consumers with medical collection tradelines will have all of them removed. Moreover, the removals will be concentrated geographically, with consumers in West Virginia having the most medical collections removed per capita.[33]

TABLE 9: MEDICAL DEBT COLLECTIONS IN RURAL APPALACHIA COMPARED TO NATIONWIDE

	Rural Appalachian PPCs	Appalachian Rural	Non-Appalachian Rural	National Average
Percent w/ medical debt collection	27	24	21	17
Any medical debt collection paid or < $500	22	19	16	12

Note: PPC stands for persistent poverty county. NCRCs are expected to remove paid medical debt as well as that with an initial balance below at least $500 from credit reports in 2023. Source: CCP 2020-2022.

An above-average share of consumers in rural Appalachia (24 percent), and in particular in rural Appalachian PPCs (27 percent), has at least one medical debt collection on their credit record. This share is only 17 percent on average for consumers nationally and 21 percent among rural consumers outside of Appalachia. The share of consumers with a medical collection tradeline varies widely among states in rural Appalachia, from 15 percent in rural Appalachian Pennsylvania (Table A.16) to 35 percent in rural Appalachian South Carolina (Table A.18), shown in Appendix A. Pennsylvania's low number of medical collection tradelines can be partially attributed to the voluntary policy of one major hospital, the University of Pittsburgh

[31] For more information on consumer complaints about medical debt collection practices received by the CFPB, see CFPB, "Complaint Bulletin: Medical billing and collection issues described in consumer complaints," (April 2022). Available at: https://www.consumerfinance.gov/data-research/research-reports/complaint-bulletin-medical-billing-and-collection-issues-described-in-consumer-complaints/.

[32] See "Equifax, Experian, and TransUnion Support U.S. Consumers With Changes to Medical Collection Debt Reporting", March 18. 2022., Press Release. Available at https://newsroom.transunion.com/equifax-experian-and-transunion-support-us-consumers-with-changes-to-medical-collection-debt-reporting/.

[33] See Sandler and Nathe 2022.

Medical Center, not to report collections to credit agencies or engage in other extraordinary collection actions.[34]

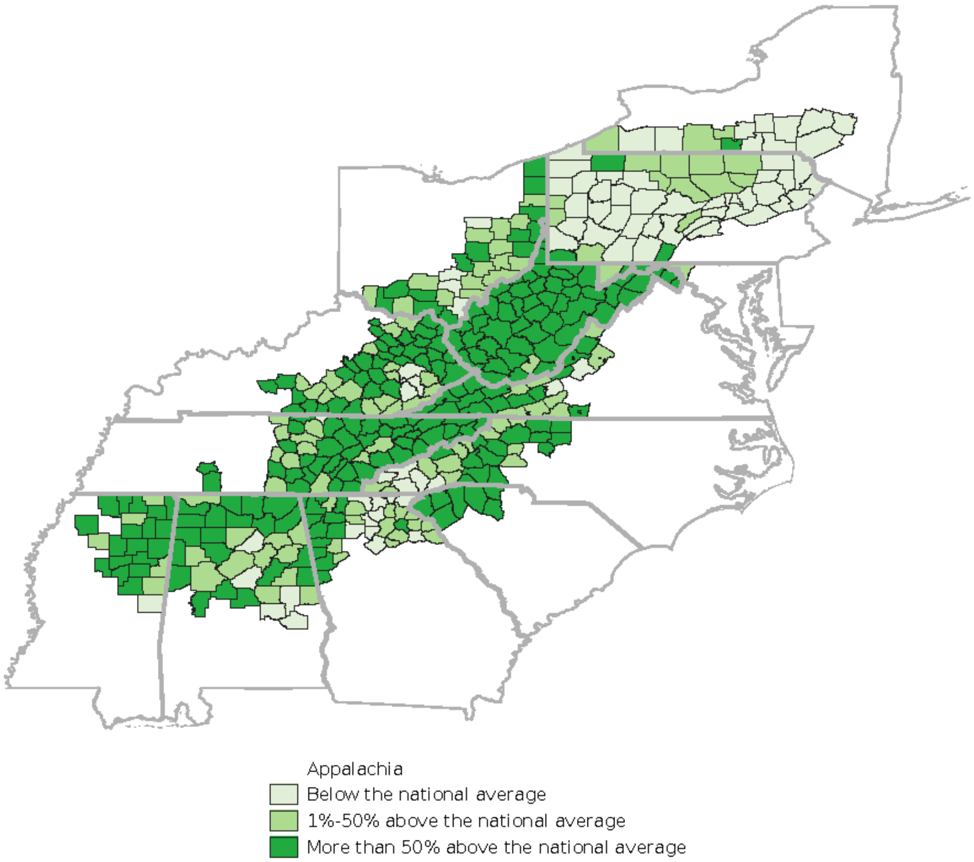
Table 9 shows that, compared to consumers nationally, a greater share of consumers in rural Appalachia would have medical debt collections removed from their credit records. Nineteen percent of consumers in rural Appalachia and 22 percent of those in rural Appalachian PPCs would likely have at least one medical collection removed from their credit report as a result of the NCRCs' announced plans to exclude paid medical debt collections and reported medical collections less than $500. This share is three percentage points higher than in other rural areas across the country and 7 percentage points higher than the national average (12 percent).

We display the relative importance of medical debt collection removals for consumers in Appalachia at the county level in Figure 4. The figure shows the share of consumers who are likely to have at least one collection removed from their credit records in each county because the medical collection had been paid or was less than $500, relative to the national average of 12 percent.[35] The map displays states containing at least one county in the Appalachian region. The share of consumers with at least one reported medical collection that would be removed is more than 150 percent of the national average in most Appalachian counties and almost all West Virginian counties. One reason for the large share of removals in West Virginia is that West Virginia has the highest share of consumers with at least one medical debt collection on their credit record.

[34] See "UPMC Policy and Procedure Manual," (June 2020) page 17, available at https://www.upmc.com/-/media/upmc/patients-visitors/paying-bill/services/documents/large-print-billing-collections-policy.pdf.

[35] Specifically, we calculate the share of consumers in each county who will have at least one collection removed divided by the national share. Removals include previous collections that are paid in full as of March 2022 and collections with an initial balance less than $500. However, removals are primarily driven by collections with an initial balance of less than $500, as most medical collections nationally and in Appalachia remain unpaid. The policies of medical providers may drive differences in the share of collections furnished to NCRCs.

FIGURE 4: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORTS

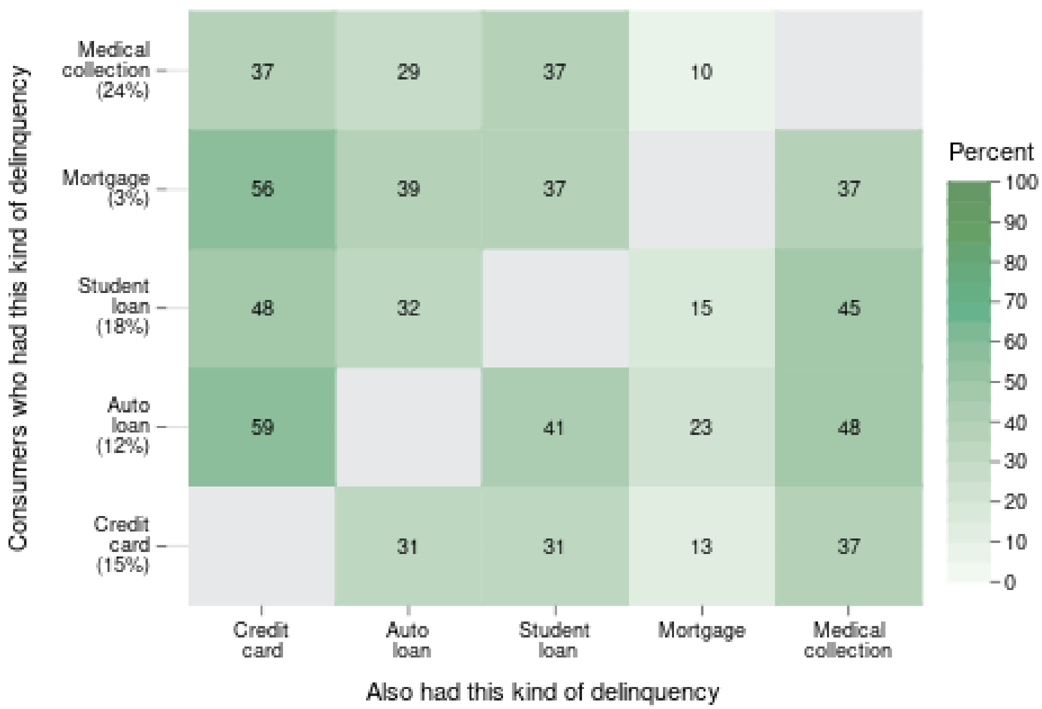


Source: CFPB CCP March 2020- March 2022.

Consumer Distress and Delinquencies

Consumers who have trouble paying for a bill or expense often have multiple financial difficulties. We investigate the likelihood that consumers in Appalachia who have one kind of delinquency also have a delinquency on another kind of debt that the consumer holds. Figure 5 shows these likelihoods for consumers in rural Appalachia, which look similar to those of consumers nationally (not shown). Among rural Appalachian consumers who have each type of tradeline (mortgage, student loan, auto loan, and credit card), the left side of the figure shows the percent who also have a delinquency in the corresponding loan type of more than 60 days.[36]

FIGURE 5: SHARE OF RURAL APPALACHIAN CONSUMERS WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT



Note: All percentages are conditional on the consumer having that type of loan except medical debt collections due to lack of data on who has medical debt. Source: CFPB CCP March 2020- March 2022.

Rural Appalachians are significantly more likely to have a medical debt collection on their credit record (24 percent) compared to consumers nationally (17 percent, Table 9). Those with a medical debt collection have a dramatically higher prevalence of other types of delinquencies on

[36] We report only delinquencies of more than 60 days in order to highlight severe delinquencies that are more substantial than an occasional missed payment of a few days. These delinquencies may include those on active accounts as well as closed accounts and those that have been charged off and remain on the consumer's credit record.

their credit accounts. For instance, Figure 5 shows that 15 percent of credit card holders in rural Appalachia have a delinquency on at least one credit card account. However, among credit card holders with a medical collection, the delinquency rate is 37 percent. [37] This observation, coupled with high credit card utilization, a high propensity to revolve, and the interest rates paid on revolving credit card debt, suggests that consumers with reported medical collections may be more likely to struggle with multiple compounding challenges to their financial well-being. We cannot distinguish whether having a reported medical collection leads to higher rates of credit card delinquency or whether consumers with medical collections are also consumers who would otherwise have relatively high credit card delinquency rates.

Similarly, the mortgage delinquency rate among mortgage holders in rural Appalachia is only 3 percent, but among those with a medical collection tradeline, the rate is three times higher, at 10 percent. This pattern is even starker for those with a reported medical collection and an auto loan or student loan. While 12 percent of people with auto loans had a delinquency, those with a medical collection tradeline have a 29 percent rate of delinquency, and while 18 percent of consumers with student loans were delinquent, those with a medical collection tradeline had a 37 percent rate of delinquency.

Delinquency rates on other kinds of loan products are even higher among consumers with an auto loan delinquency. For example, 23 percent of consumers with an auto loan delinquency also had a mortgage delinquency, nearly 8 times higher than the overall mortgage delinquency rate (3 percent). Among those with an auto delinquency and a credit card, the share with a credit card delinquency is 59 percent, almost four times the delinquency rate for all consumers in the sample. Likewise, the share of student loan borrowers with a delinquency is 18 percent, but among borrowers with a delinquent auto loan, the student loan delinquency rate is 41 percent.

Overall, rural Appalachian consumers are most likely to have a reported medical collection compared to other types of delinquencies. Among borrowers with the corresponding type of debt, the next most prevalent delinquency categories are student loans (18 percent) and credit cards (15 percent).

[37] We use delinquency rate here to refer to the percent of consumers with at least one delinquency, rather than the share of accounts or balances that are delinquent.

Conclusion

The findings above represent an initial overview to better understand the consumer finances of rural Appalachians and to start a conversation with stakeholders in the region to identify priorities for further research and policy development. Key findings include:

- The median ratio of auto loan balances to tract-level household income is 31 percent for rural Appalachians, compared to 21 percent nationally.
- The median ratio of student loan balances to tract-level household annual income is 41 percent for rural Appalachians compared to 32 percent for consumers nationally.
- In 2021, denial rates for mortgage applications for a home purchase were 11 percent nationally and almost twice that number, 21 percent, in rural Appalachia.
- The cost of financing a home purchase in rural Appalachian PPCs was 3.857 percent in 2021 and only 3.127 percent nationally.
- Rural Appalachians, particularly those living in rural PPCs, disproportionately have mortgages for manufactured housing – 11 percent in Appalachia and 20 percent in rural Appalachian PPCs, as compared to a national average of only three percent – and thus bear the risks of higher interest rates and increases in lot rents and fees associated with manufactured housing.
- Rural Appalachians are more likely to have medical debt collections than the rest of the country; 24 percent of rural Appalachians have a medical debt collection compared to just 17 percent of people nationally.
- Rural Appalachians with medical debt have more than double the rates of delinquency for other credit products, including mortgages, auto loans, credit cards, and student loans, compared to those without medical debt collections in each category.

The CFPB will continue to monitor credit conditions in rural Appalachia closely and use its enforcement and regulatory tools as necessary to ensure that the consumer finance market is fair, transparent, and competitive for rural Appalachians.

APPENDIX A: STATE-LEVEL ANALYSIS

This Appendix applies the preceding analysis to the state level for all states that contain Appalachian counties. Because Maryland and South Carolina only contain a few Appalachian counties, those states will not contain a complete set of the analyses due to an insufficient number of observations. For each state profile, the state is omitted from the national average so that the population outside of the given state serves as a comparison group.

Alabama

FIGURE A1 MAP OF APPALACHIAN COUNTIES IN ALABAMA

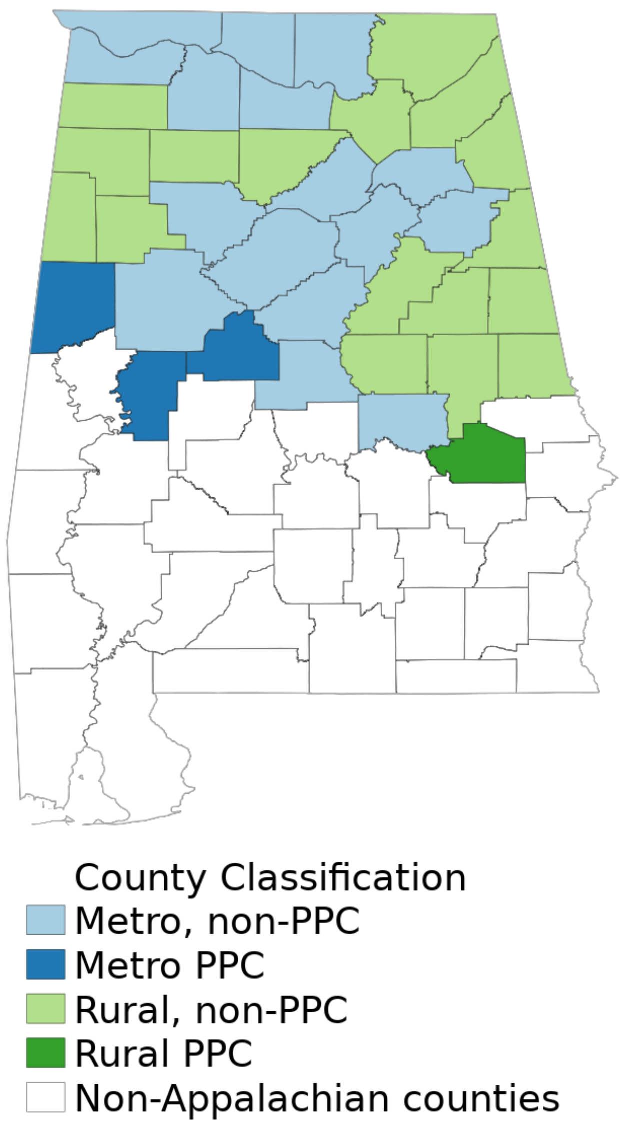


TABLE A1 CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: ALABAMA

	Nationwide	Alabama	Rural Appalachian Alabama
Percent with mortgage	29	27	22
Median balance on mortgage	$165,975	$124,220	$91,885
Percent with credit card (CC)	80	71	65
Median balance on CC	$1,207	$1,117	$991
Utilization rate (CC)	31	37	39
Percent with auto loan	42	43	41
Median balance on auto loan	$13,249	$14,415	$14,098
Percent with student loan (SL)	18	18	13
Percent w/ medical debt collection	17	22	26
Median household income	$61,833	$48,694	$40,926
Deep subprime	2	4	4
Subprime	22	30	32
Near prime	12	13	15
Prime	38	33	31
Super-Prime	26	20	18

FIGURE A2 SHARE OF RURAL APPALACHIAN CONSUMERS IN ALABAMA WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

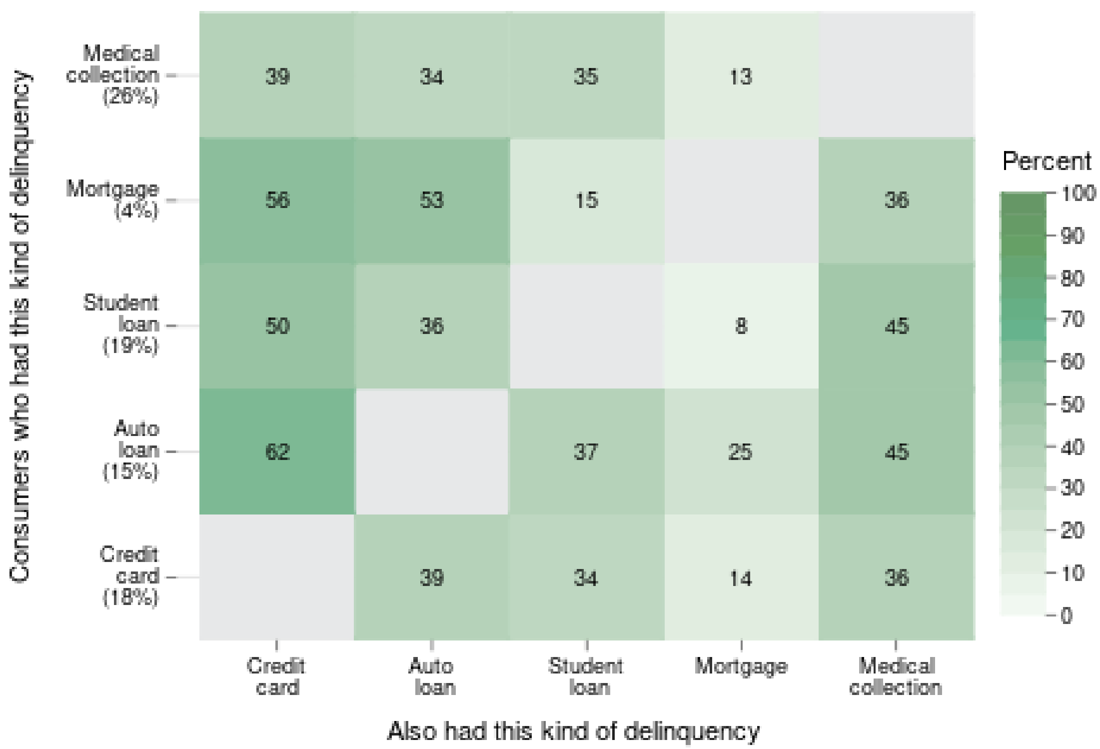


TABLE A2 STUDENT LOAN BORROWERS IN ALABAMA

	Nationwide	Alabama	Rural Appalachian Alabama
Median scheduled monthly SL payment	$192	$175	$145
Median annual household income	$68,181	$54,592	$41,365
SL debt balance as a percent of tract-level income (median)	32	40	38
Percent delinquent	7	8	8
Median balance if delinquent	$25,089	$27,336	$22,221
Percent in default	9	12	12
Percent receiving assistance through IDR	21	21	16

FIGURE A3: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

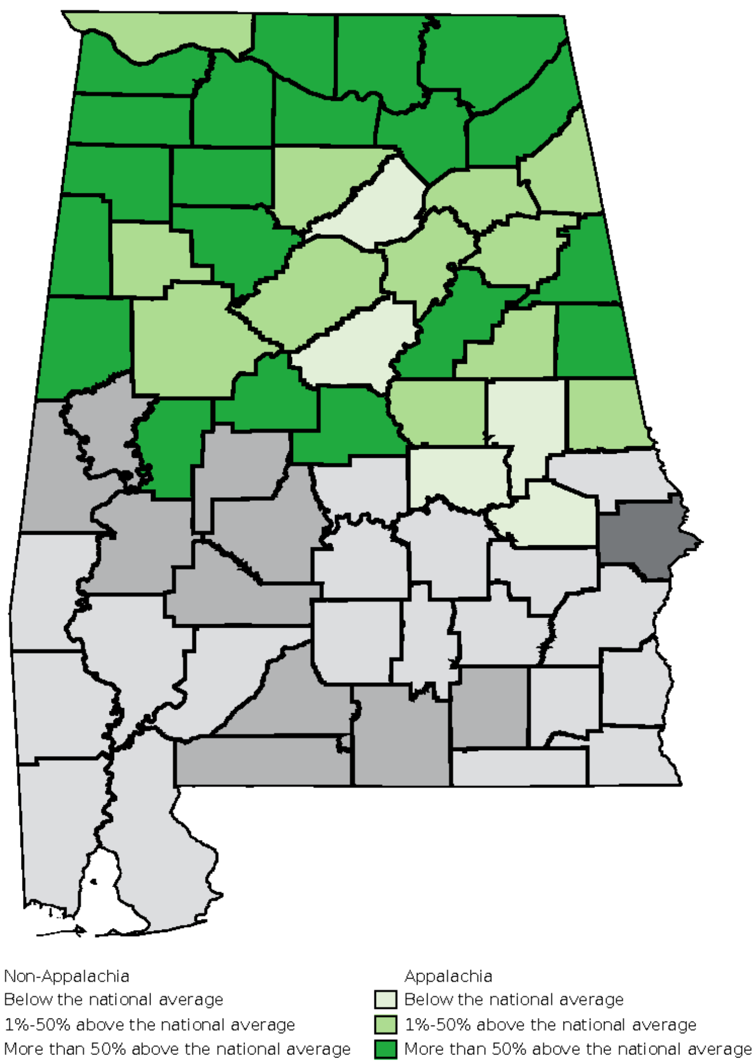
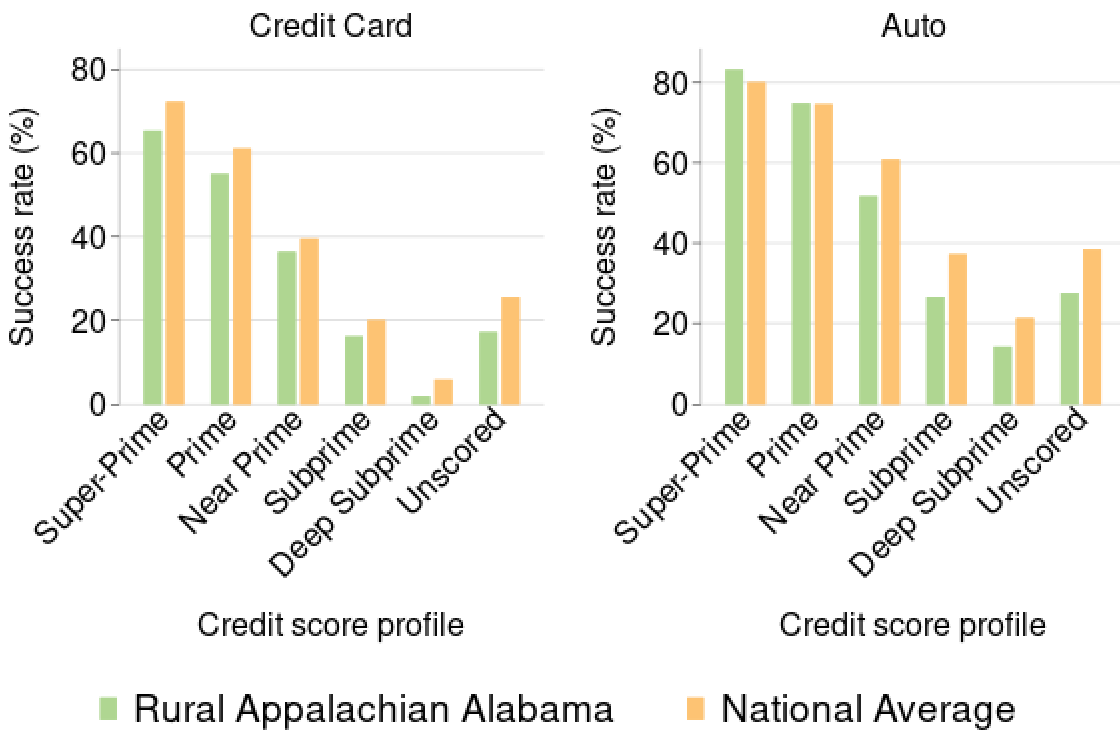


FIGURE A4: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



Georgia

FIGURE A5 MAP OF APPALACHIAN COUNTIES IN GEORGIA

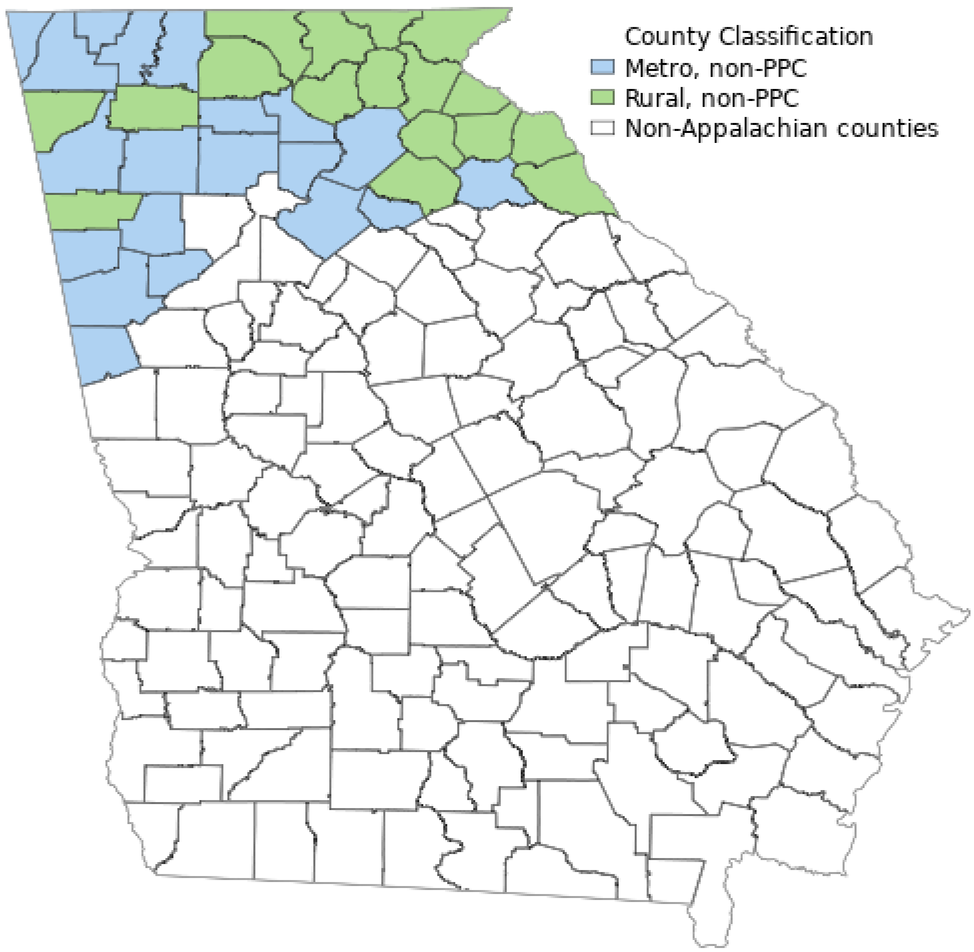


TABLE A3: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: GEORGIA

	Nationwide	Georgia	Rural Appalachian Georgia
Percent with mortgage	29	28	28
Median balance on mortgage	$165,975	$151,815	$124,436
Percent with credit card (CC)	80	77	73
Median balance on CC	$1,207	$1,192	$1,120
Utilization rate (CC)	31	37	34
Percent with auto loan	42	42	41
Median balance on auto loan	$13,249	$14,851	$14,998
Percent with student loan (SL)	18	20	13
Percent w/ medical debt collection	17	21	24
Median household income	$61,833	$57,063	$46,275
Deep subprime	2	3	3
Subprime	22	29	26
Near prime	12	14	13
Prime	38	35	34
Super-Prime	26	20	24

FIGURE A6: SHARE OF RURAL APPALACHIAN CONSUMERS IN GEORGIA WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

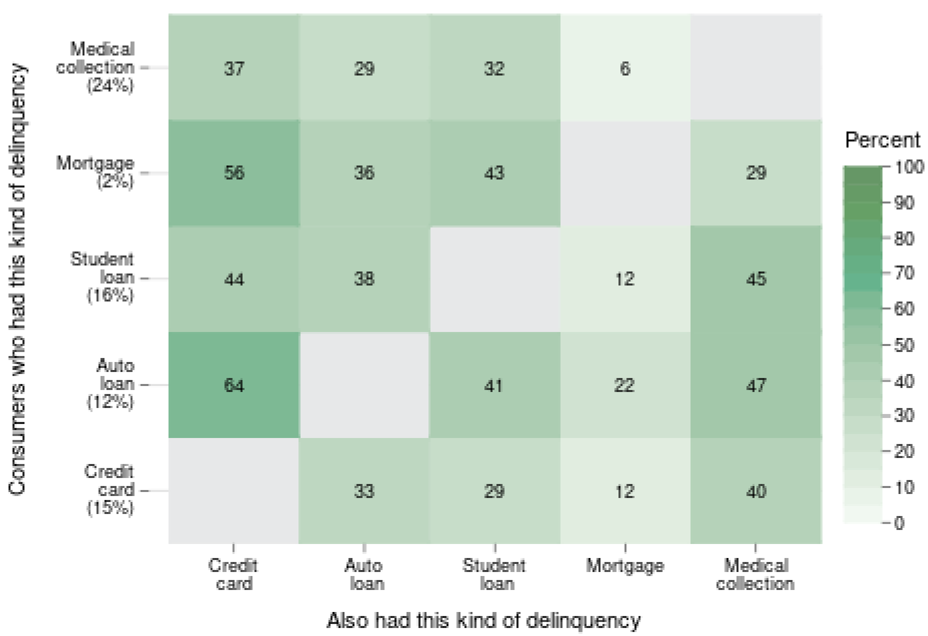


TABLE A4: STUDENT LOAN BORROWERS IN GEORGIA

	Nationwide	Georgia	Rural Appalachian Georgia
Median scheduled monthly SL payment	$192	$193	$162
Median annual household income	$68,181	$62,157	$48,585
SL debt balance as a percent of tract-level income (median)	32	40	34
Percent delinquent	7	9	6
Median balance if delinquent	$25,089	$29,777	$25,099
Percent in default	9	11	9
Percent receiving assistance through IDR	21	22	21

FIGURE A7: RELATIVE SHARE OF CONSUMERS IN GEORGIA WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

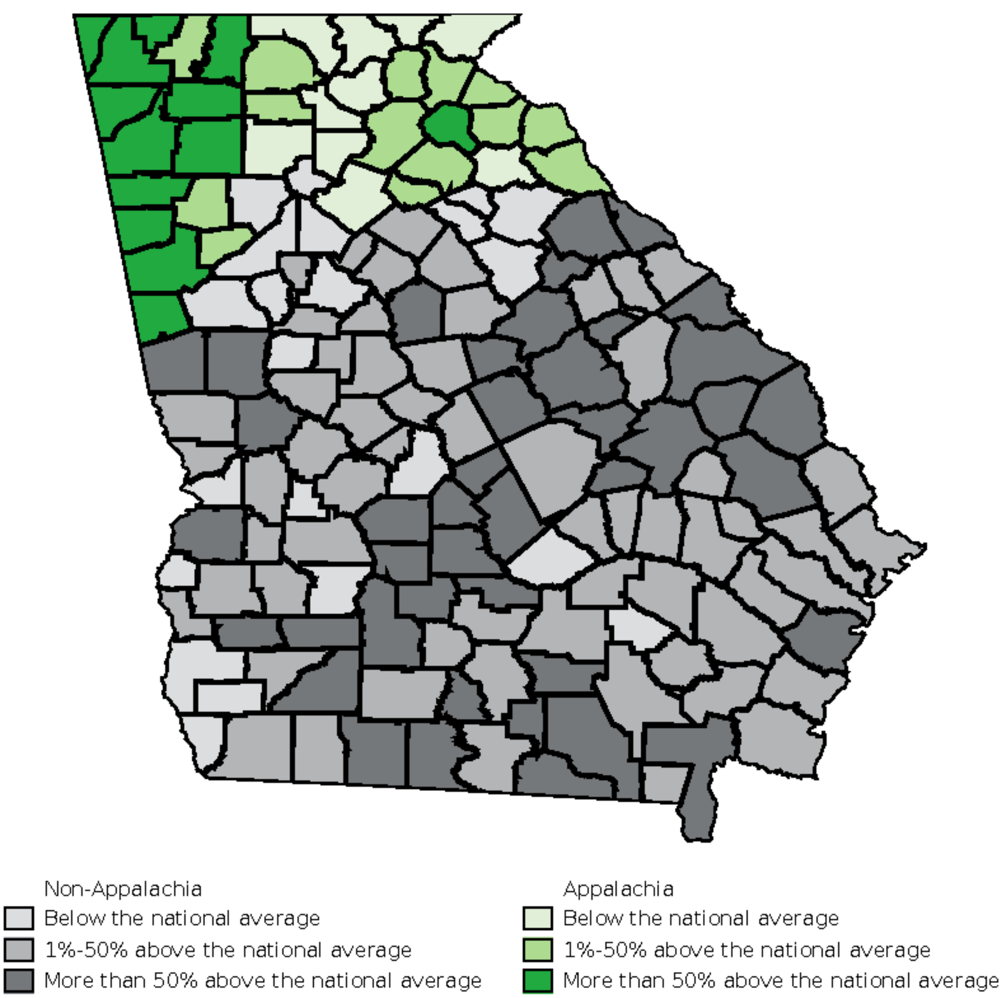
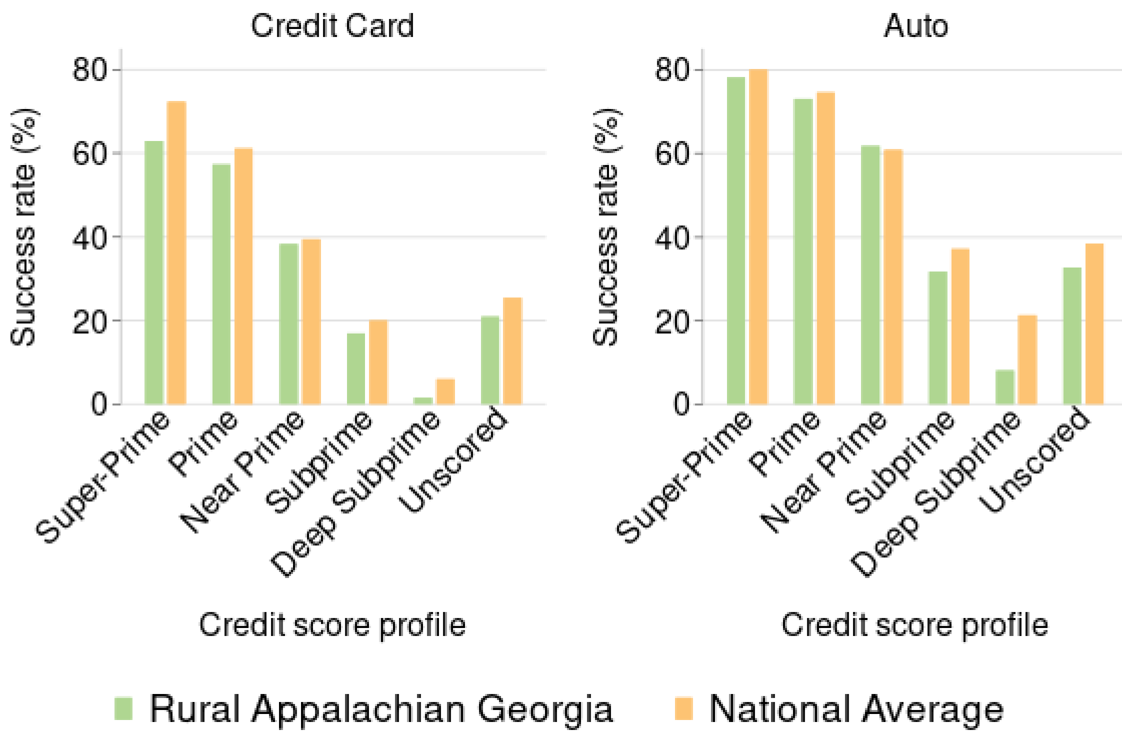


FIGURE A8: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



Kentucky

FIGURE A9: MAP OF APPALACHIAN COUNTIES IN KENTUCKY

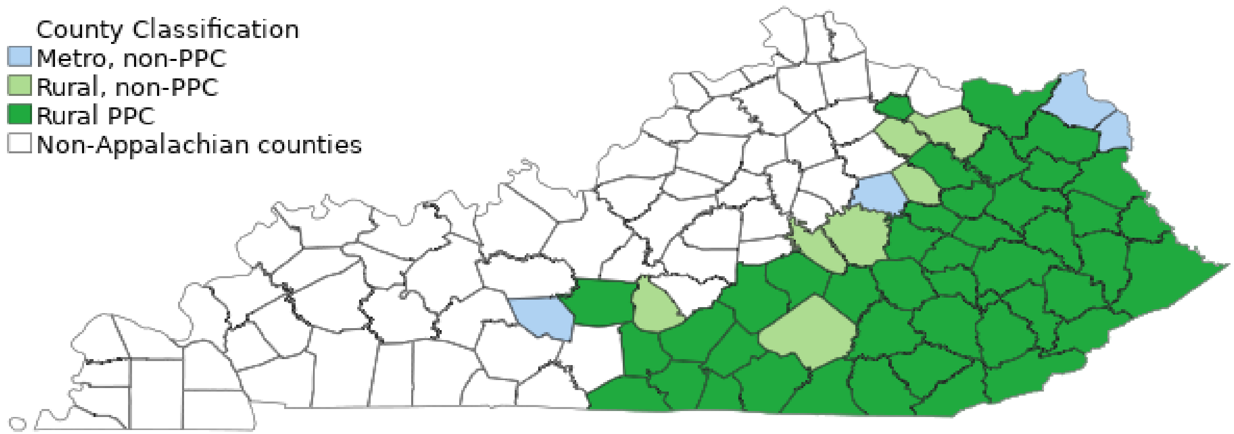


TABLE A5: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: KENTUCKY

	Nationwide	Kentucky	Rural Appalachian Kentucky
Percent with mortgage	29	28	21
Median balance on mortgage	$165,975	$109,066	$74,314
Percent with credit card (CC)	80	71	63
Median balance on CC	$1,207	$1,066	$918
Utilization rate (CC)	31	34	39
Percent with auto loan	42	40	41
Median balance on auto loan	$13,249	$12,983	$13,289
Percent with student loan (SL)	18	18	16
Percent w/ medical debt collection	17	21	25
Median household income	$61,833	$48,381	$35,194
Deep subprime	2	3	3
Subprime	22	28	33
Near prime	12	13	15
Prime	37	34	32
Super-Prime	26	23	17

FIGURE A10: SHARE OF RURAL APPALACHIAN CONSUMERS IN KENTUCKY WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

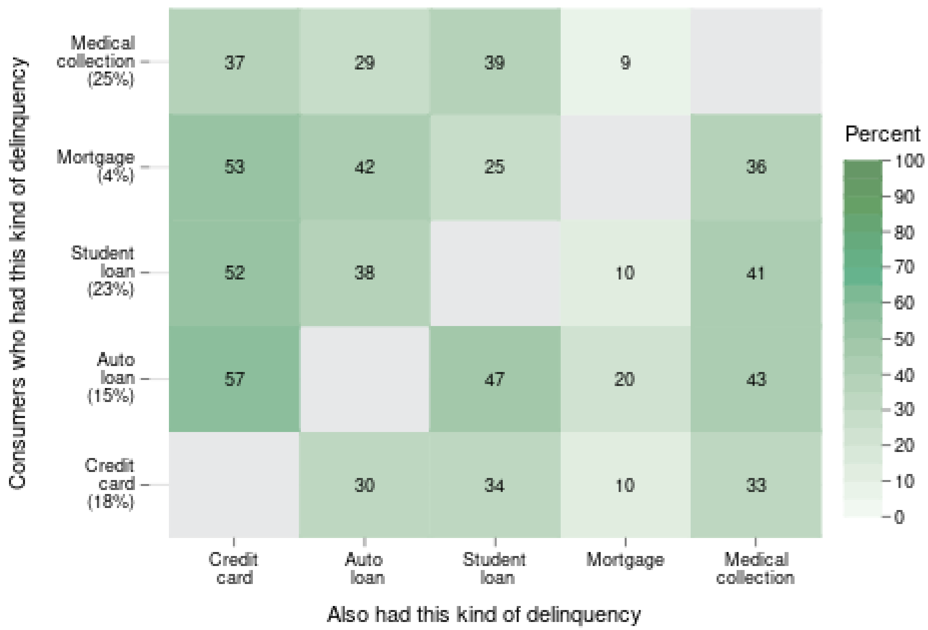


TABLE A6: STUDENT LOAN BORROWERS IN KENTUCKY

	Nationwide	Kentucky	Rural Appalachian Kentucky
Median scheduled monthly SL payment	$192	$167	$140
Median annual household income	$68,181	$54,442	$37,262
SL debt balance as a percent of tract-level income (median)	32	37	47
Percent delinquent	7	8	9
Median balance if delinquent	$25,089	$21,482	$17,816
Percent in default	9	13	17
Percent receiving assistance through IDR	21	22	23

FIGURE A11: RELATIVE SHARE OF CONSUMERS IN KENTUCKY WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

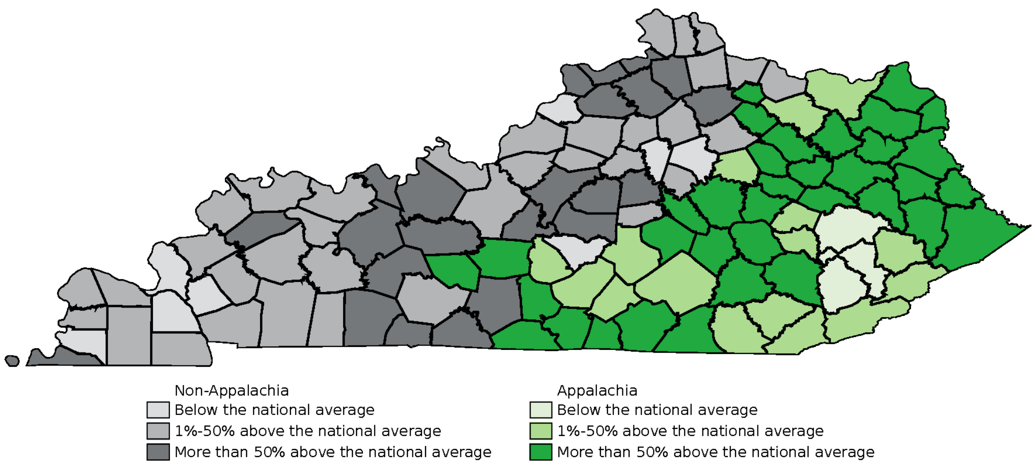
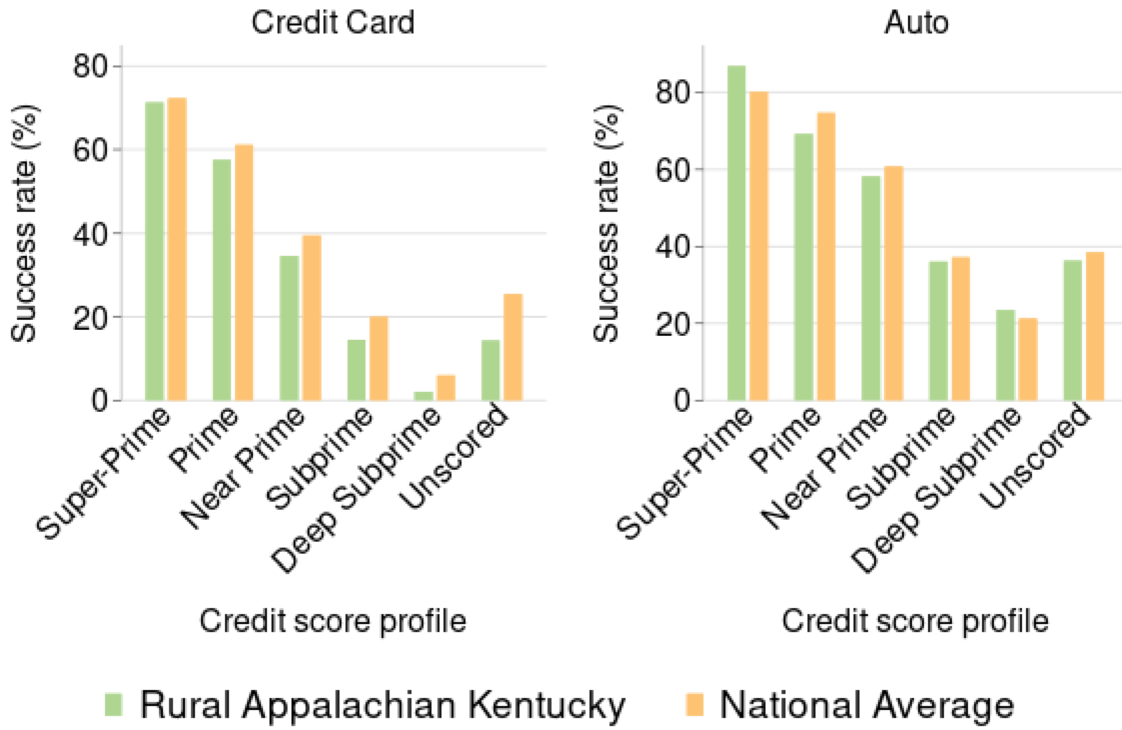


FIGURE A12: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



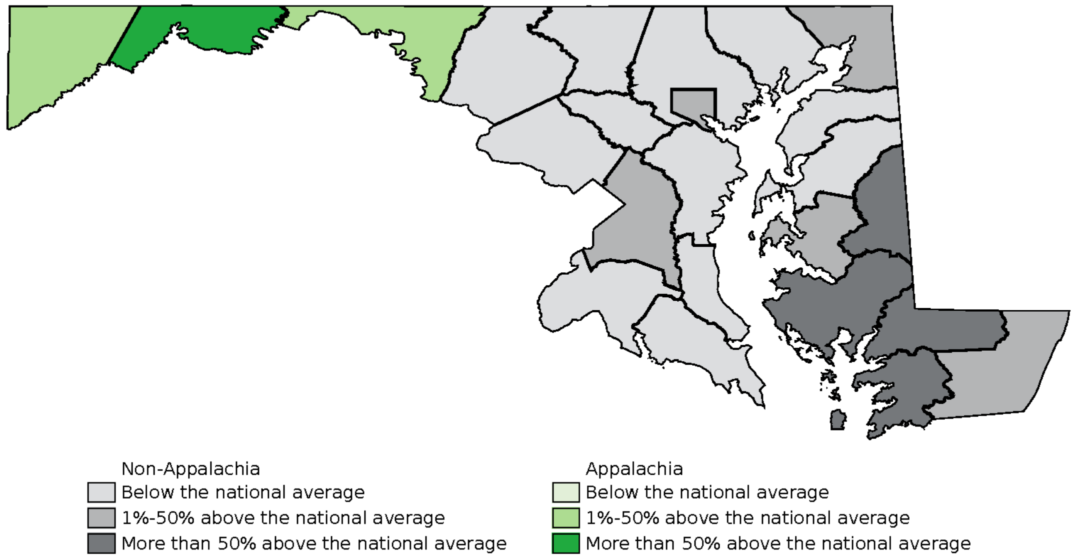
Maryland

FIGURE A13: MAP OF APPALACHIAN COUNTIES IN MARYLAND

TABLE A7: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: MARYLAND

	Nationwide	Maryland	Rural Appalachian Maryland
Percent with mortgage	29	33	30
Median balance on mortgage	$165,975	$221,950	$114,771
Percent with credit card (CC)	80	83	80
Median balance on CC	$1,207	$1,272	$1,066
Utilization rate (CC)	31	32	31
Percent with auto loan	42	43	54
Median balance on auto loan	$13,249	$14,099	$15,940
Percent with student loan (SL)	18	19	13
Percent w/ medical debt collection	17	14	19
Median household income	$61,833	$87,826	$49,327
Deep subprime	2	2	2
Subprime	22	21	20
Near prime	12	12	12
Prime	37	38	35
Super-Prime	26	26	32

FIGURE A14: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT



Mississippi

FIGURE A15: MAP OF APPALACHIAN COUNTIES IN MISSISSIPPI

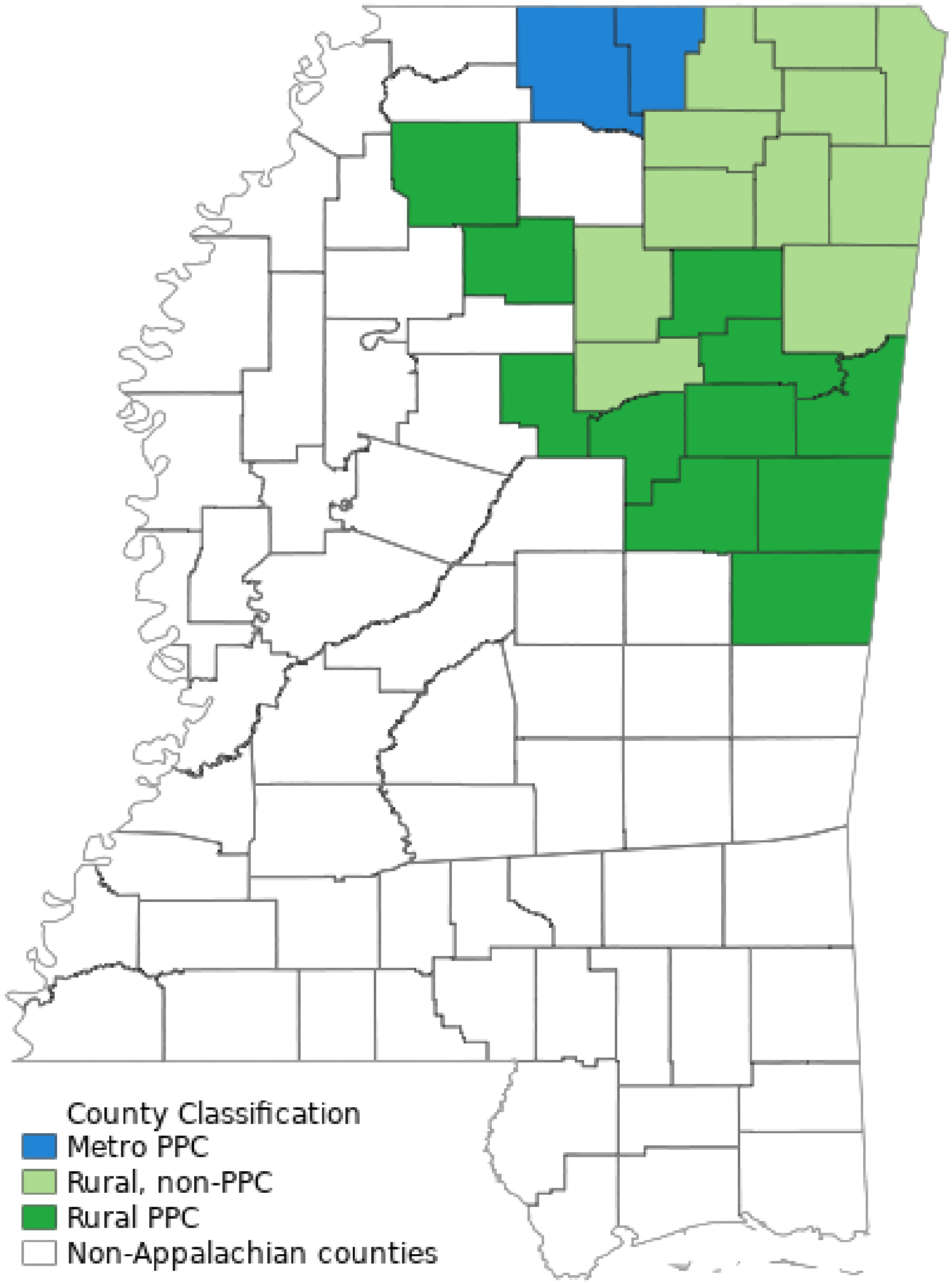


TABLE A 8: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: MISSISSIPPI

	Nationwide	Mississippi	Rural Appalachian Mississippi
Percent with mortgage	29	24	23
Median balance on mortgage	$165,975	$104,571	$82,680
Percent with credit card (CC)	80	69	65
Median balance on CC	$1,207	$981	$876
Utilization rate (CC)	31	41	40
Percent with auto loan	42	45	43
Median balance on auto loan	$13,249	$14,731	$13,657
Percent with student loan (SL)	18	20	18
Percent w/ medical debt collection	17	22	29
Median household income	$61,833	$43,717	$40,701
Deep subprime	2	4	4
Subprime	22	31	31
Near prime	12	15	15
Prime	37	32	32
Super-Prime	26	18	17

FIGURE A16: SHARE OF RURAL APPALACHIAN CONSUMERS IN MISSISSIPPI WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

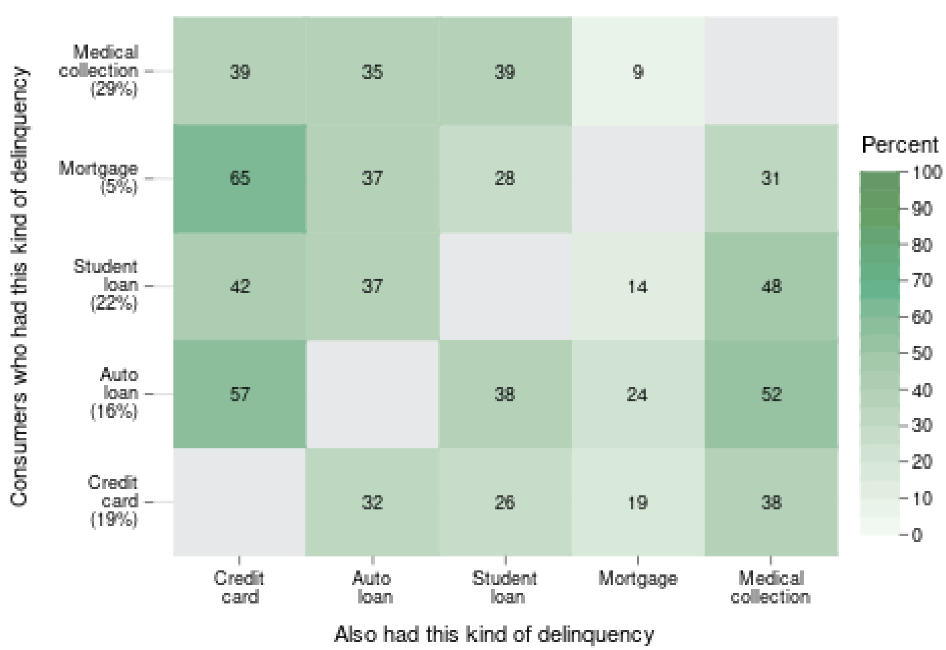


TABLE A9: STUDENT LOAN BORROWERS IN MISSISSIPPI

	Nationwide	Mississippi	Rural Appalachian Mississippi
Median scheduled monthly SL payment	$192	$156	$153
Median annual household income	$68,181	$47,630	$41,476
SL debt balance as a percent of tract-level income (median)	32	42	45
Percent delinquent	7	9	8
Median balance if delinquent	$25,089	$21,743	$20,409
Percent in default	9	15	15
Percent receiving assistance through IDR	21	21	17

FIGURE A17: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

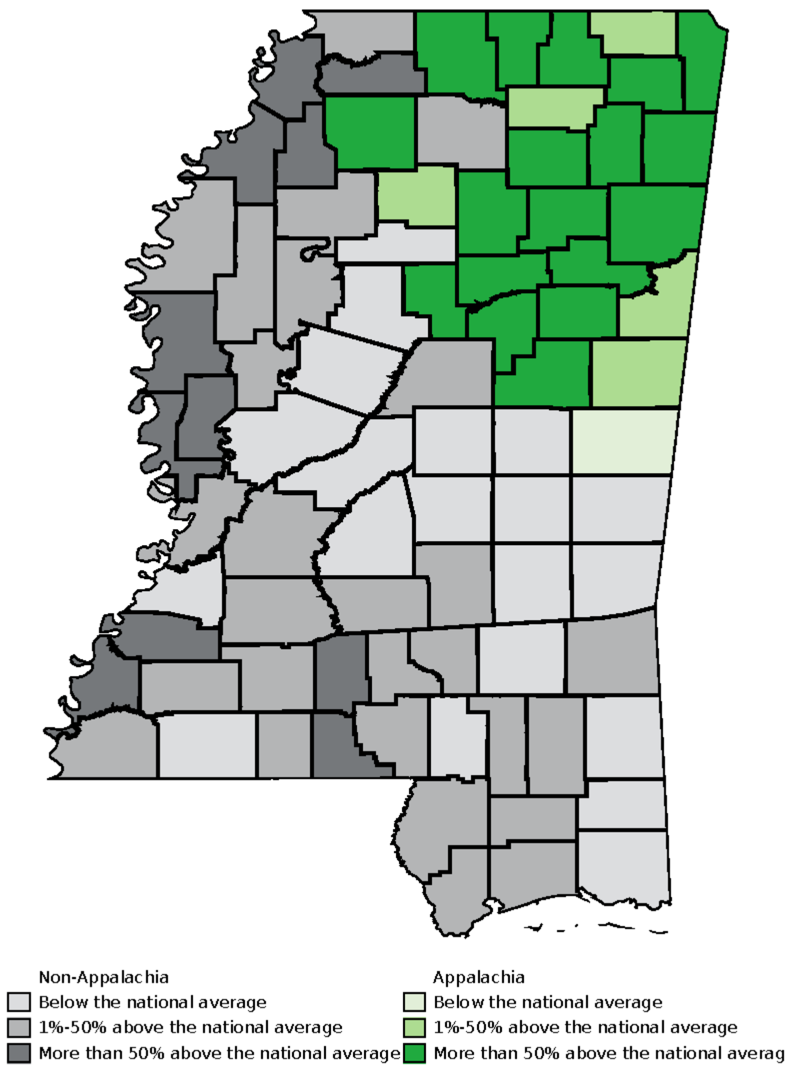
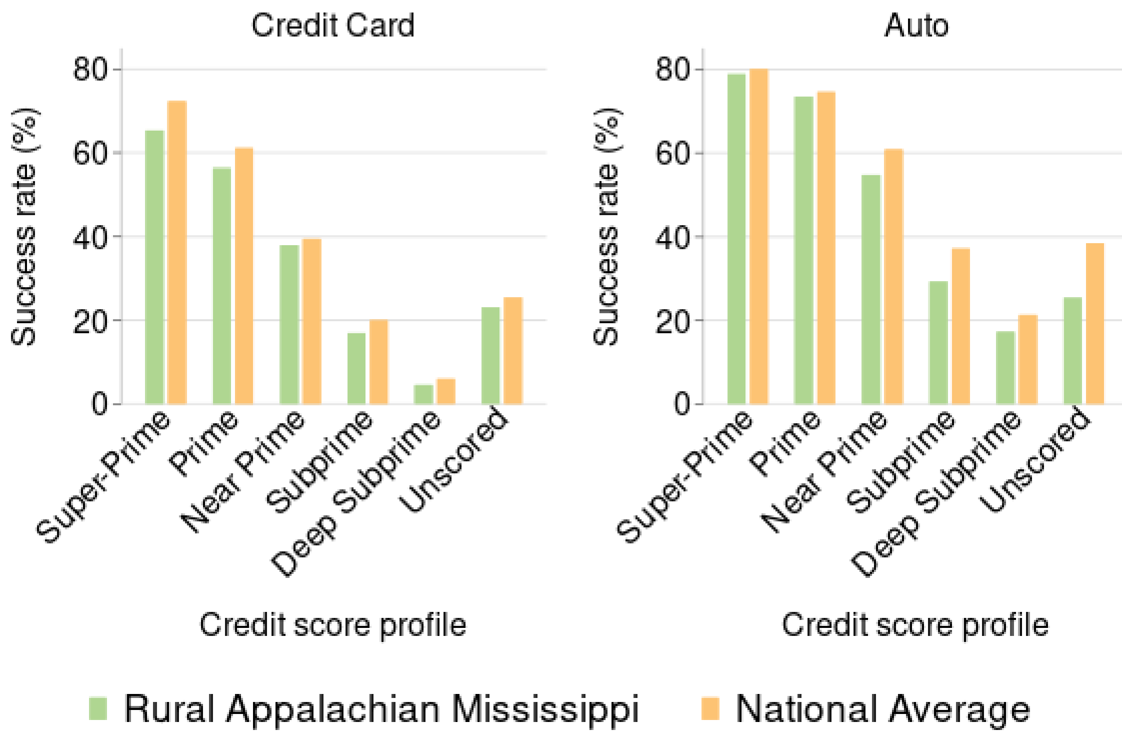


FIGURE A18: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



New York

FIGURE A19: MAP OF APPALACHIAN COUNTIES IN NEW YORK

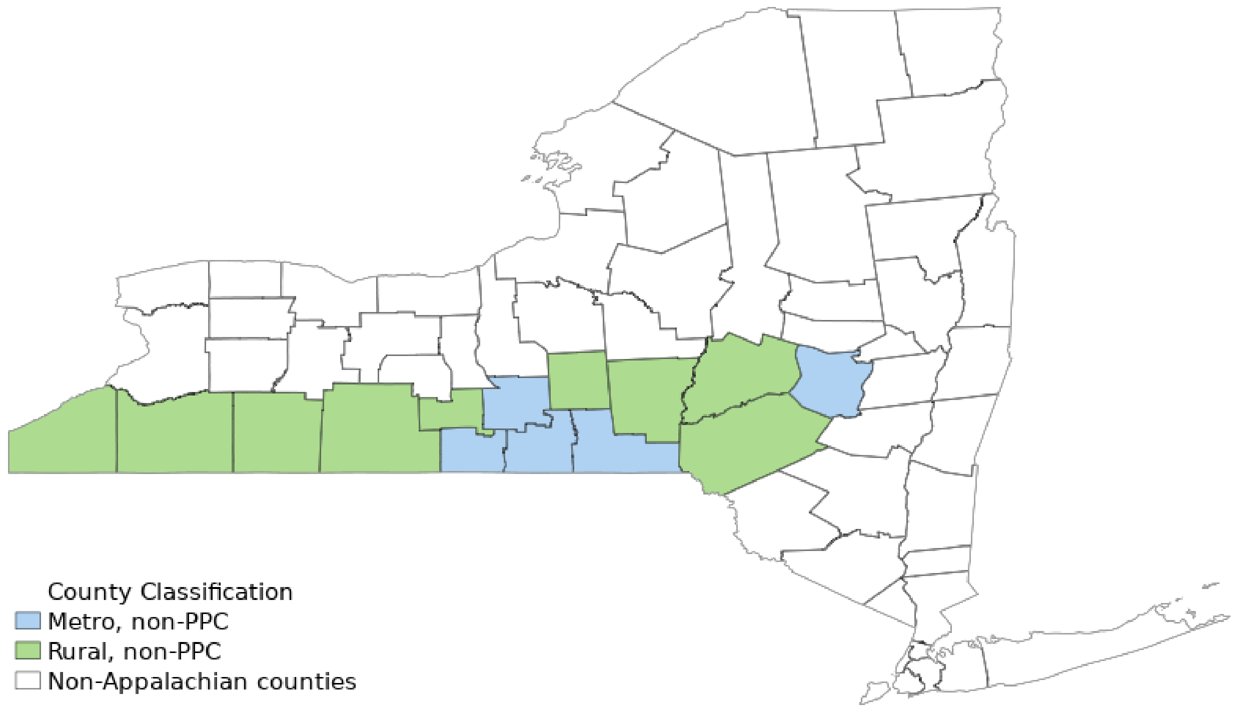


TABLE A10: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: NEW YORK

	Nationwide	New York	Rural Appalachian New York
Percent with mortgage	29	22	23
Median balance on mortgage	$165,975	$181,413	$70,434
Percent with credit card (CC)	80	86	78
Median balance on CC	$1,207	$1,173	$1,023
Utilization rate (CC)	31	29	30
Percent with auto loan	42	36	48
Median balance on auto loan	$13,249	$11,016	$11,923
Percent with student loan (SL)	18	18	19
Percent w/ medical debt collection	17	8	13
Median household income	$61,833	$68,490	$50,774
Deep subprime	2	2	2
Subprime	22	18	21
Near prime	12	11	12
Prime	37	41	37
Super-Prime	26	28	29

FIGURE A20: SHARE OF RURAL APPALACHIAN CONSUMERS IN NEW YORK WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

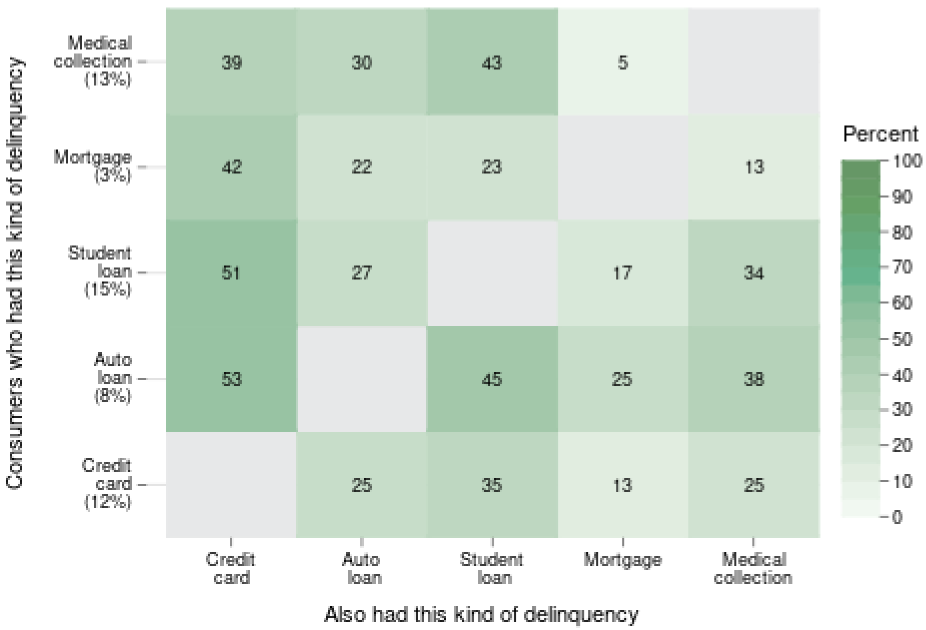


TABLE A11: STUDENT LOAN BORROWERS IN NEW YORK

	Nationwide	New York	Rural Appalachian New York
Median scheduled monthly SL payment	$192	$208	$176
Median annual household income	$68,181	$75,066	$50,052
SL debt balance as a percent of tract-level income (median)	32	30	37
Percent delinquent	7	6	5
Median balance if delinquent	$25,089	$26,295	$25,666
Percent in default	9	8	10
Percent receiving assistance through IDR	21	22	22

FIGURE A21: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

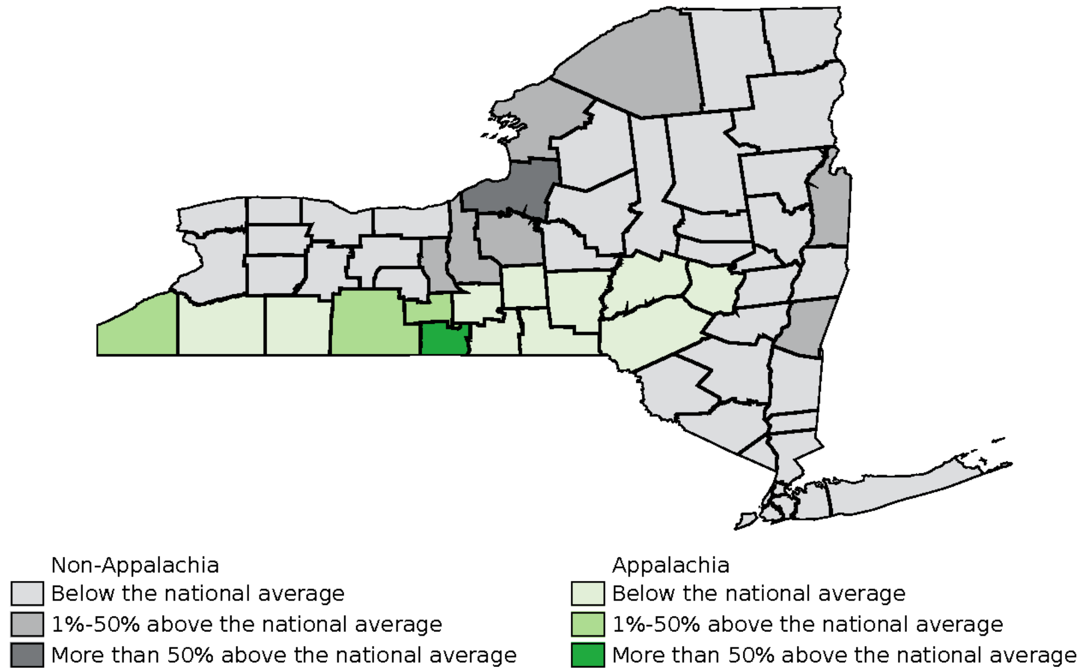
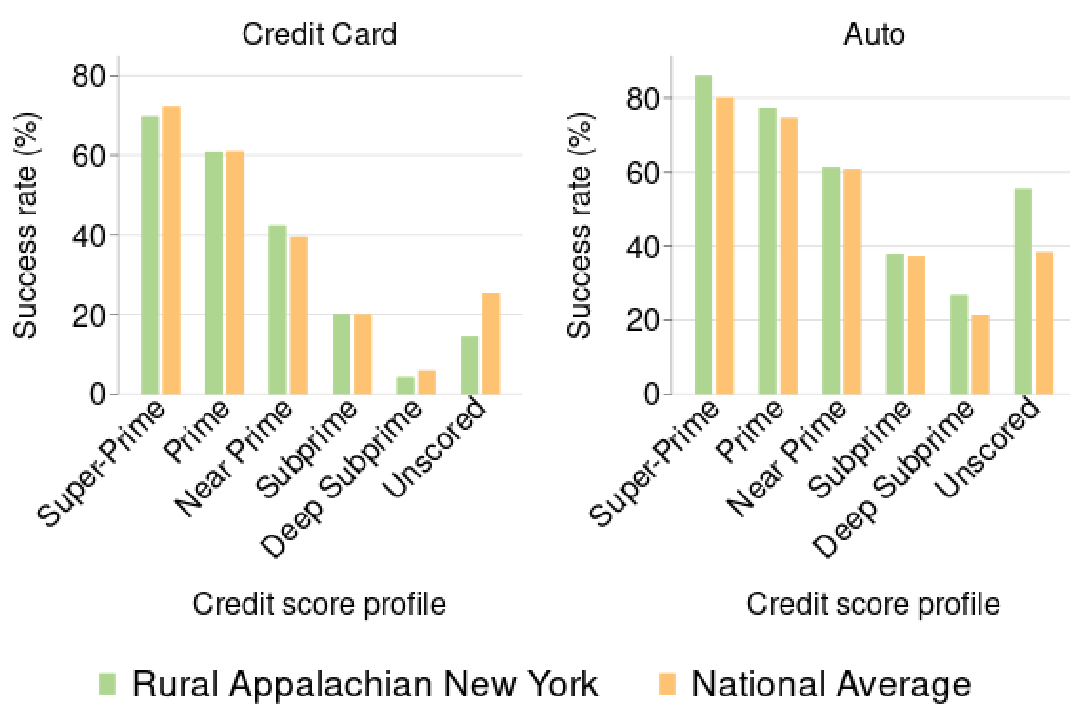


FIGURE A22: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



North Carolina

FIGURE A23: MAP OF APPALACHIAN COUNTIES IN NORTH CAROLINA

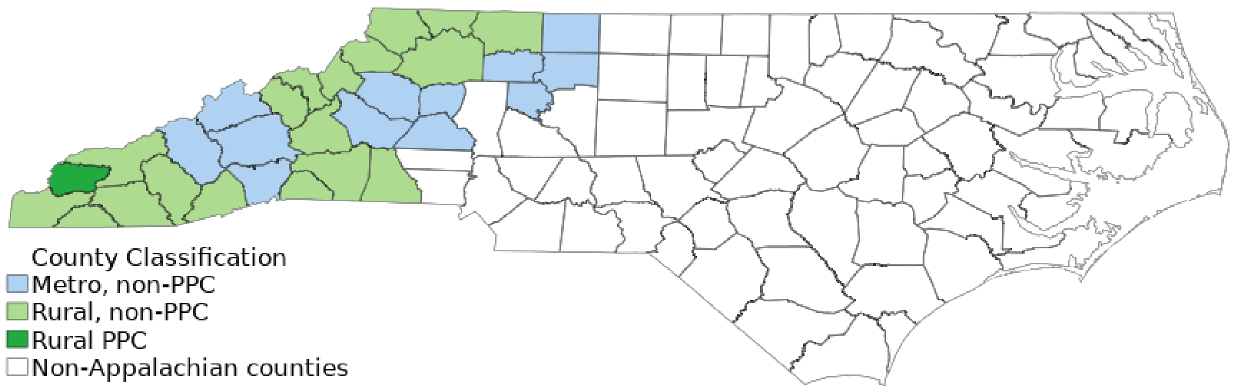


TABLE A12: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: NORTH CAROLINA

	Nationwide	North Carolina	Rural Appalachian North Carolina
Percent with mortgage	29	31	27
Median balance on mortgage	$165,975	$144,421	$108,129
Percent with credit card (CC)	80	78	74
Median balance on CC	$1,207	$1,167	$1,115
Utilization rate (CC)	31	33	33
Percent with auto loan	42	44	42
Median balance on auto loan	$13,249	$13,566	$13,864
Percent with student loan (SL)	18	17	11
Percent w/ medical debt collection	17	23	26
Median household income	$61,833	$52,586	$42,072
Deep subprime	2	3	3
Subprime	22	25	25
Near prime	12	13	13
Prime	37	35	34
Super-Prime	26	24	26

FIGURE A24: SHARE OF RURAL APPALACHIAN CONSUMERS IN NORTH CAROLINA WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

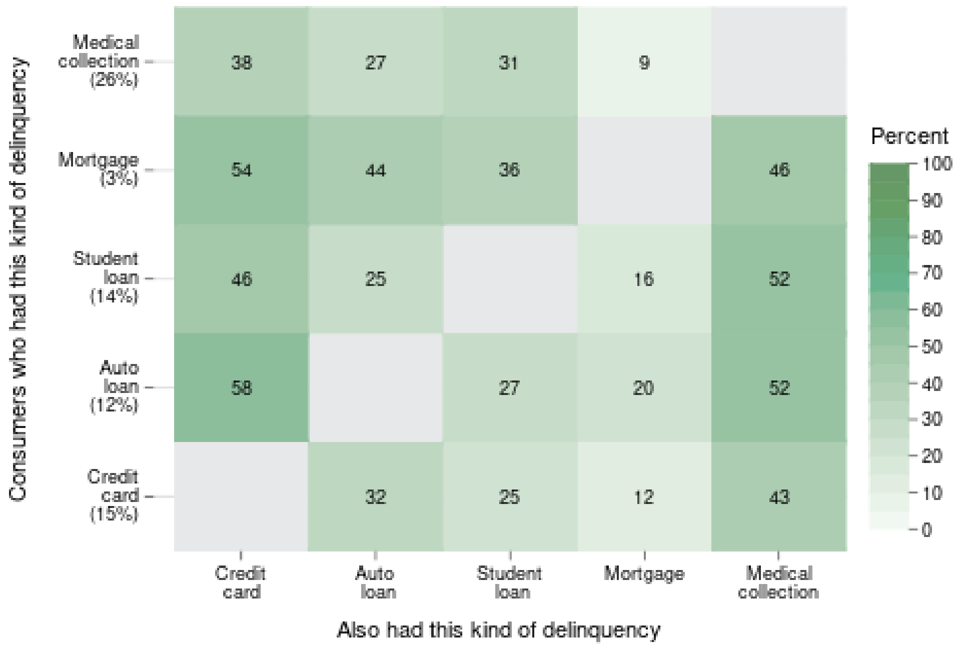


TABLE A13: STUDENT LOAN BORROWERS IN NORTH CAROLINA

	Nationwide	North Carolina	Rural Appalachian North Carolina
Median scheduled monthly SL payment	$192	$189	$172
Median annual household income	$68,181	$59,505	$42,392
SL debt balance as a percent of tract-level income (median)	32	38	40
Percent delinquent	7	7	6
Median balance if delinquent	$25,089	$25,528	$16,622
Percent in default	9	9	9
Percent receiving assistance through IDR	21	21	17

FIGURE A25: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

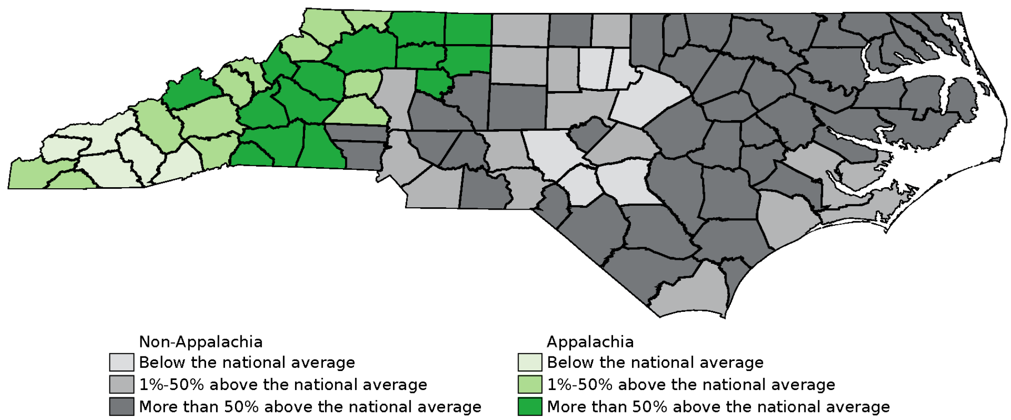
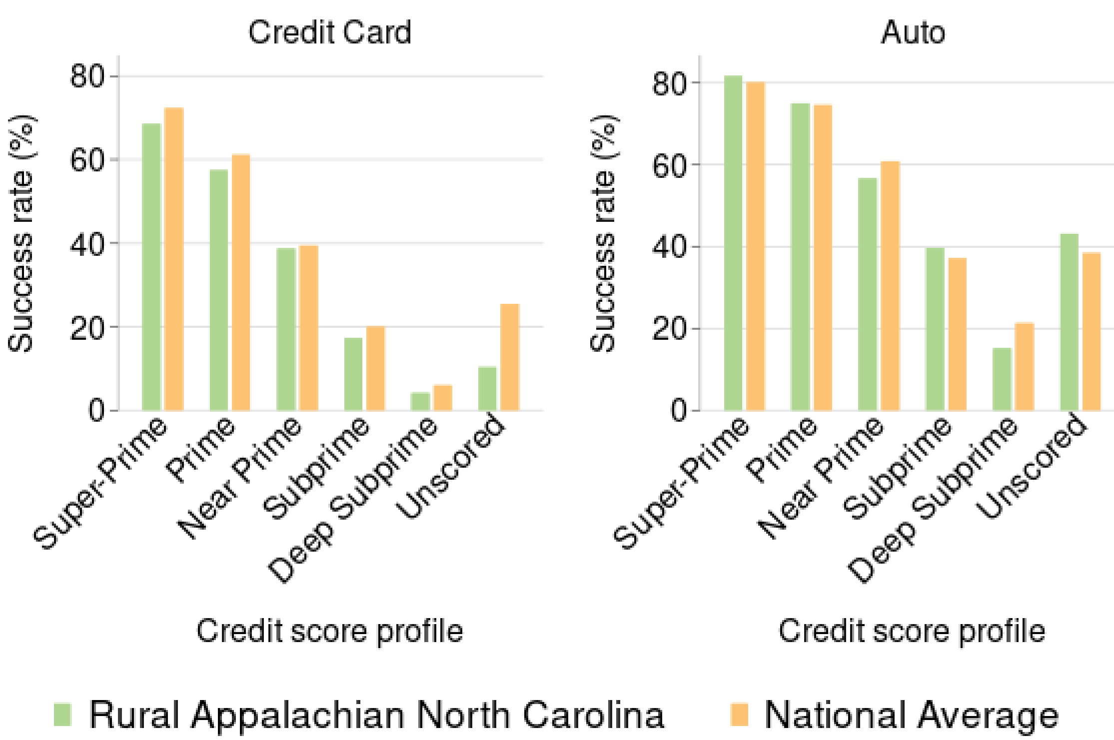


FIGURE A26: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



Ohio

FIGURE A27: MAP OF APPALACHIAN COUNTIES IN OHIO

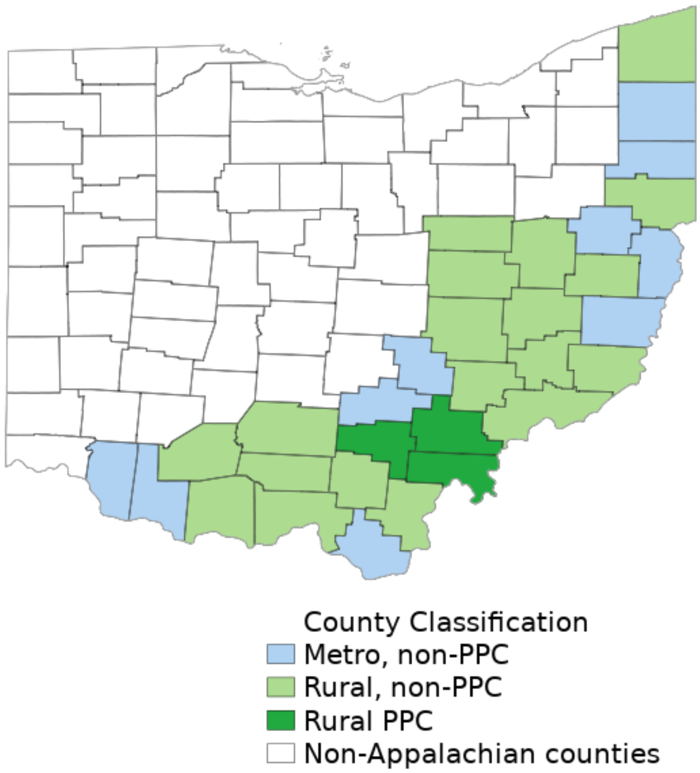


TABLE A14: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: OHIO

	Nationwide	Ohio	Rural Appalachian Ohio
Percent with mortgage	29	29	25
Median balance on mortgage	$165,975	$109,169	$82,317
Percent with credit card (CC)	80	78	73
Median balance on CC	$1,207	$1,086	$1,013
Utilization rate (CC)	31	31	35
Percent with auto loan	42	44	44
Median balance on auto loan	$13,249	$11,717	$12,437
Percent with student loan (SL)	18	21	18
Percent w/ medical debt collection	17	19	22
Median household income	$61,833	$57,287	$46,341
Deep subprime	2	3	3
Subprime	22	24	26
Near prime	12	12	13
Prime	38	33	33
Super-Prime	26	29	25

FIGURE A28: SHARE OF RURAL APPALACHIAN CONSUMERS IN OHIO WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

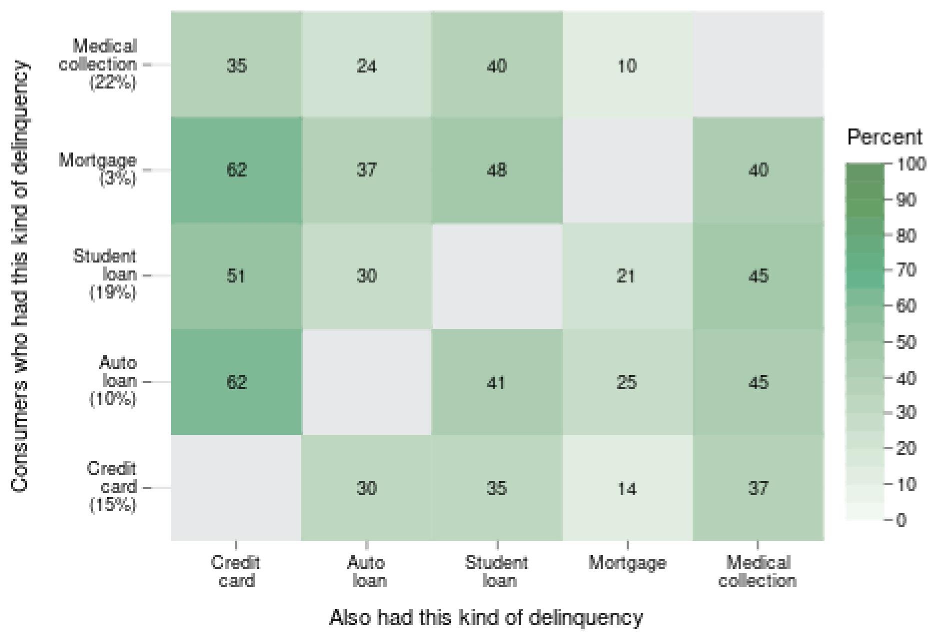


TABLE A15: STUDENT LOAN BORROWERS IN OHIO

	Nationwide	Ohio	Rural Appalachian Ohio
Median scheduled monthly SL payment	$192	$191	$163
Median annual household income	$68,181	$60,484	$45,969
SL debt balance as a percent of tract-level income (median)	32	36	42
Percent delinquent	7	7	8
Median balance if delinquent	$25,089	$27,140	$28,446
Percent in default	9	10	13
Percent receiving assistance through IDR	21	22	20

FIGURE A29: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

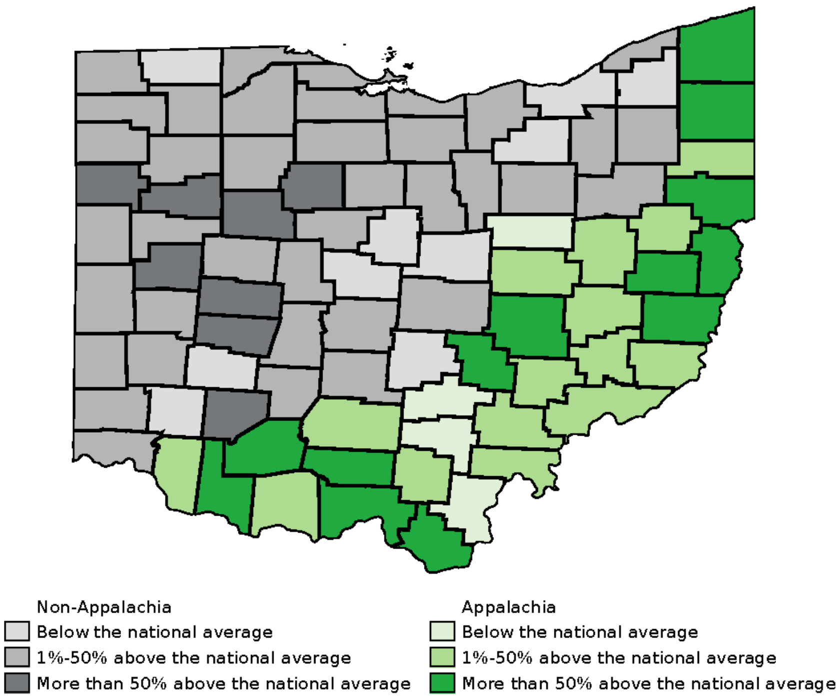
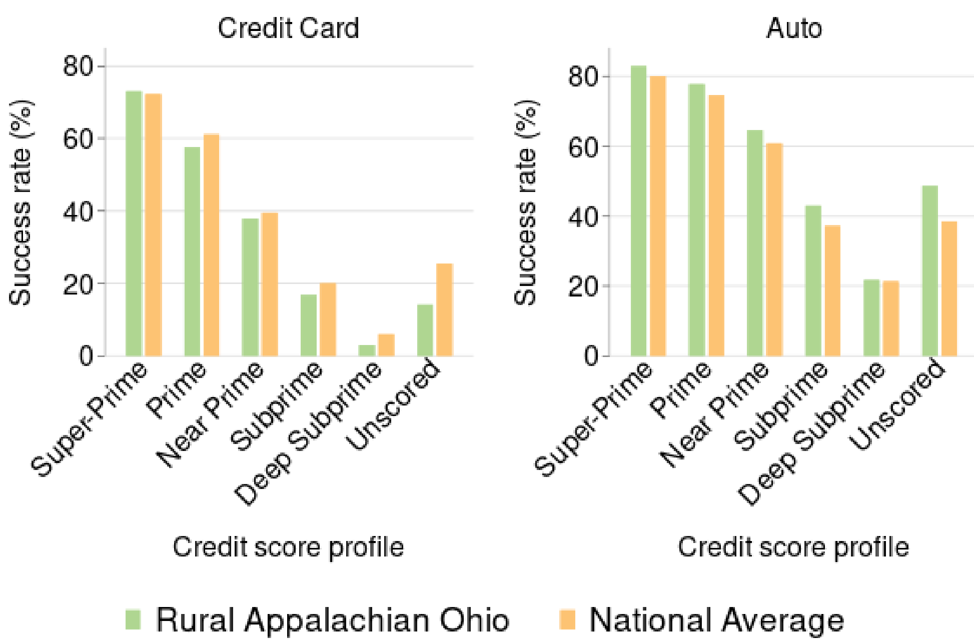


FIGURE A30: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



Pennsylvania

FIGURE A31: MAP OF APPALACHIAN COUNTIES IN PENNSYLVANIA

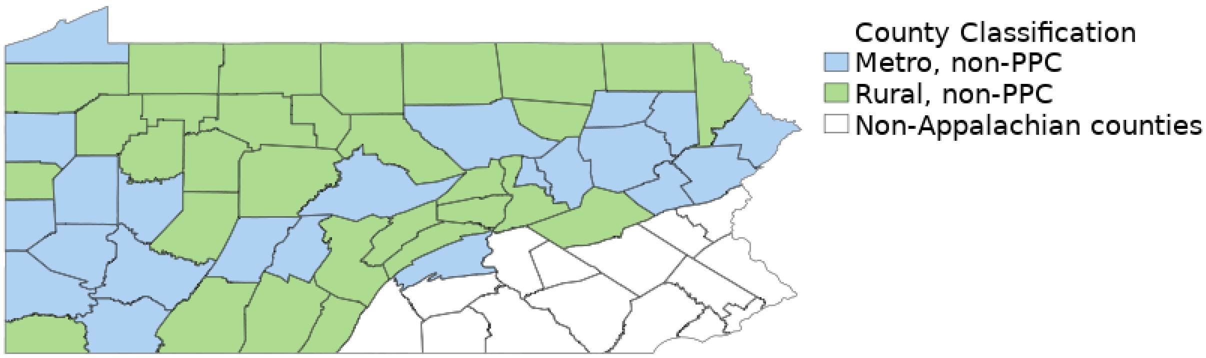


TABLE A16: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: PENNSYLVANIA

	Nationwide	Pennsylvania	Rural Appalachian Pennsylvania
Percent with mortgage	29	29	26
Median balance on mortgage	$165,975	$132,196	$77,977
Percent with credit card (CC)	80	83	79
Median balance on CC	$1,207	$1,132	$1,016
Utilization rate (CC)	31	30	31
Percent with auto loan	42	45	48
Median balance on auto loan	$13,249	$12,054	$12,290
Percent with student loan (SL)	18	22	19
Percent w/ medical debt collection	17	12	15
Median household income	$61,833	$61,458	$50,878
Deep subprime	2	2	2
Subprime	22	19	19
Near prime	12	11	12
Prime	37	36	35
Super-Prime	26	31	31

FIGURE A32: SHARE OF RURAL APPALACHIAN CONSUMERS IN PENNSYLVANIA WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

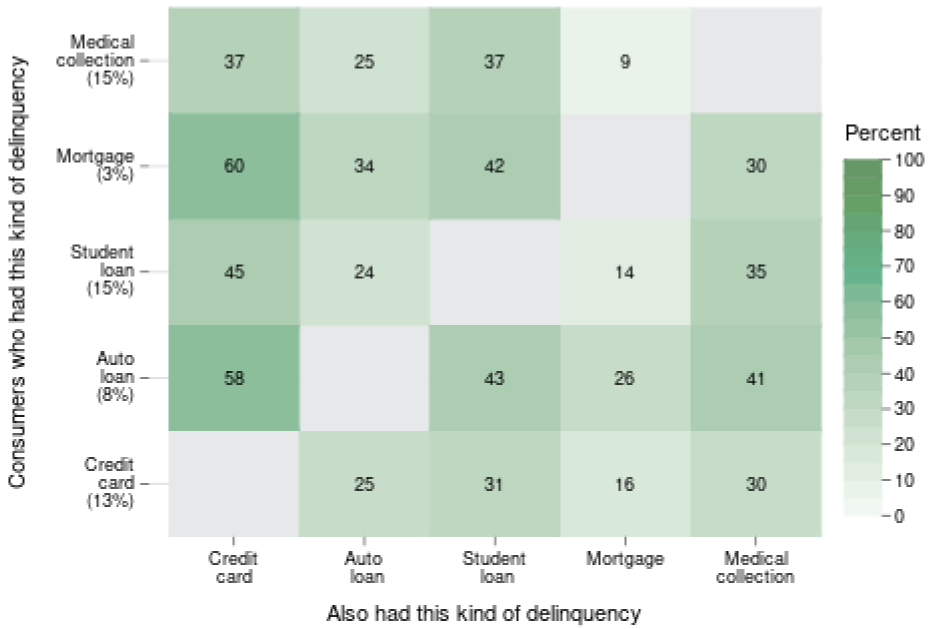


TABLE A17: STUDENT LOAN BORROWERS

	Nationwide	Pennsylvania	Rural Appalachian Pennsylvania
Median scheduled monthly SL payment	$192	$211	$193
Median annual household income	$68,181	$65,310	$50,208
SL debt balance as a percent of tract-level income (median)	32	36	42
Percent delinquent	7	6	5
Median balance if delinquent	$25,089	$27,464	$27,561
Percent in default	9	8	9
Percent receiving assistance through IDR	21	22	22

FIGURE A33: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

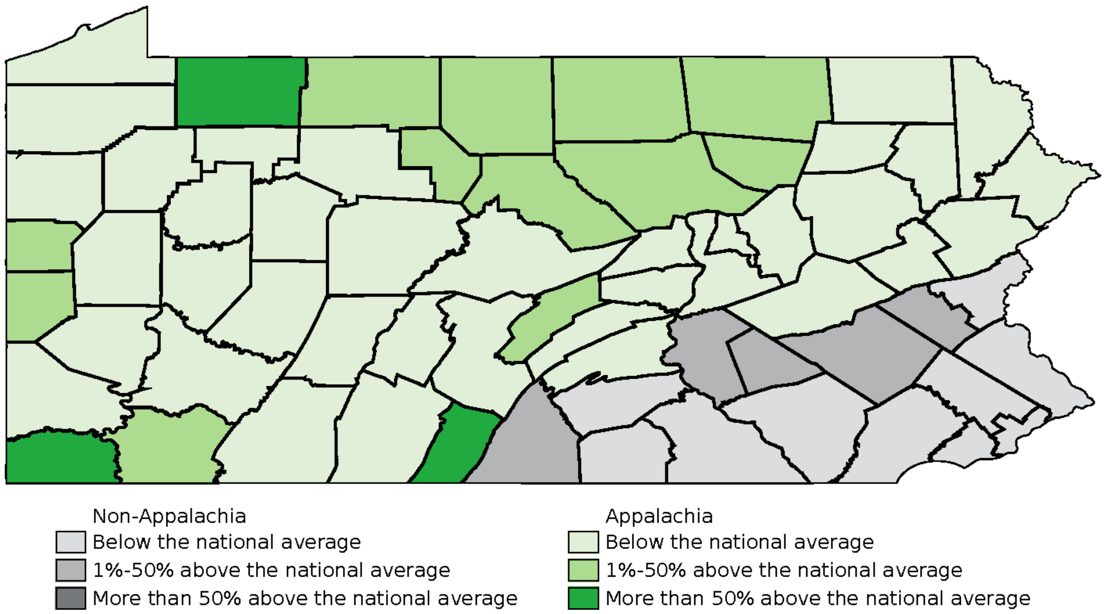
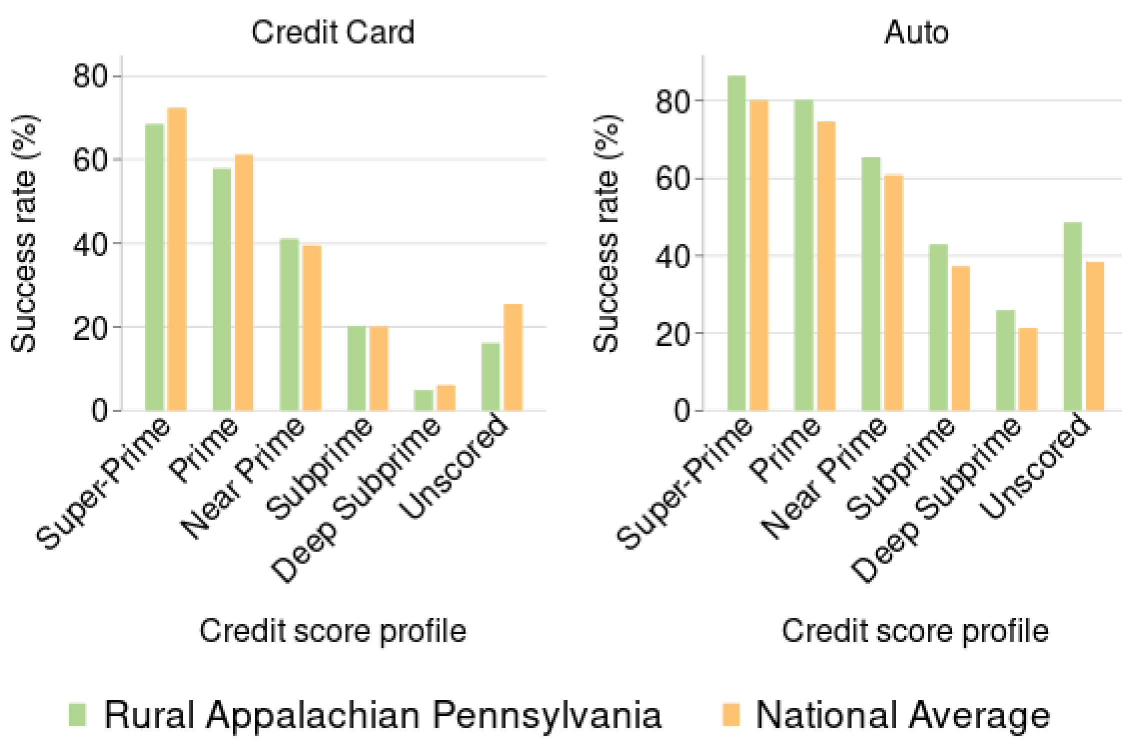


FIGURE A34: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



South Carolina

FIGURE A35: MAP OF APPALACHIAN COUNTIES IN SOUTH CAROLINA

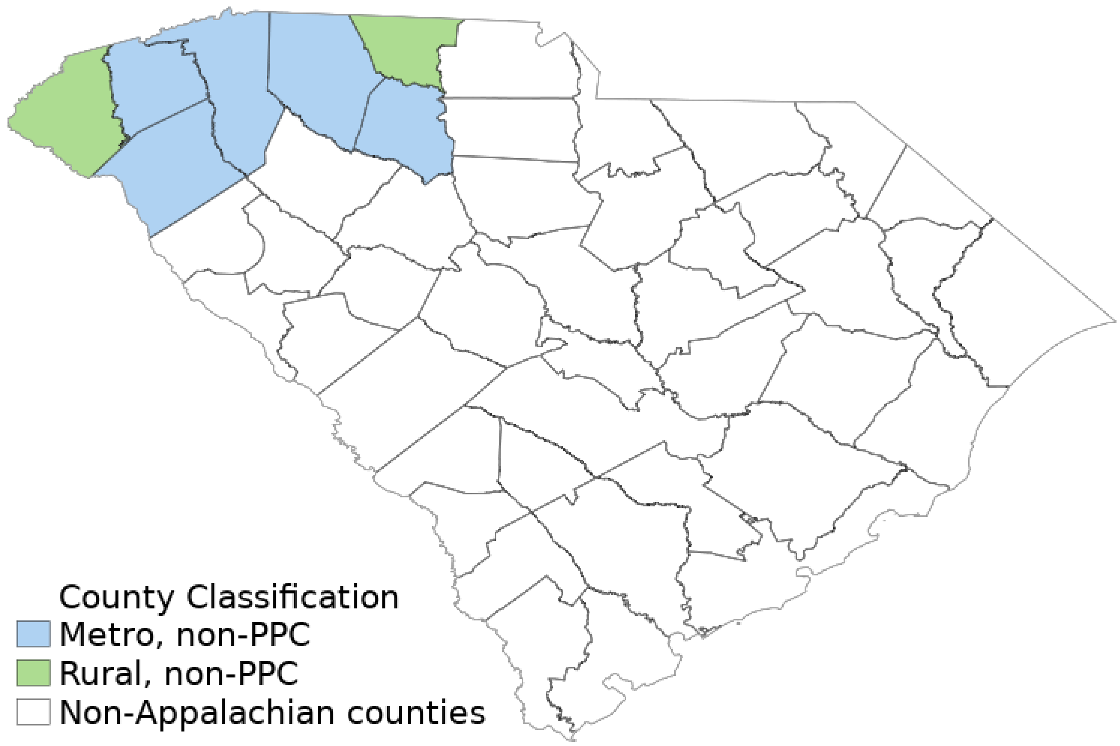


TABLE A18: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: SOUTH CAROLINA

	Nationwide	South Carolina	Rural Appalachian South Carolina
Percent with mortgage	29	29	23
Median balance on mortgage	$165,975	$141,519	$110,773
Percent with credit card (CC)	80	73	67
Median balance on CC	$1,207	$1,199	$1,169
Utilization rate (CC)	31	35	33
Percent with auto loan	42	42	37
Median balance on auto loan	$13,249	$13,599	$14,375
Percent with student loan (SL)	18	19	13
Percent w/ medical debt collection	17	27	35
Median household income	$61,833	$52,005	$42,350
Deep subprime	2	4	5
Subprime	22	29	30
Near prime	12	13	12
Prime	38	32	30
Super-Prime	26	22	23

FIGURE A36: SHARE OF RURAL APPALACHIAN CONSUMERS IN SOUTH CAROLINA WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

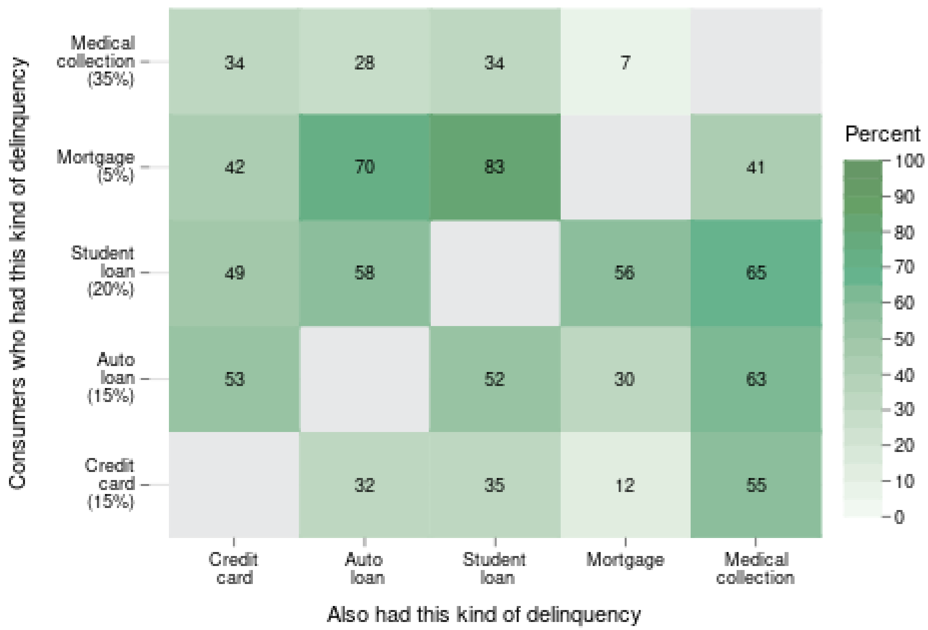
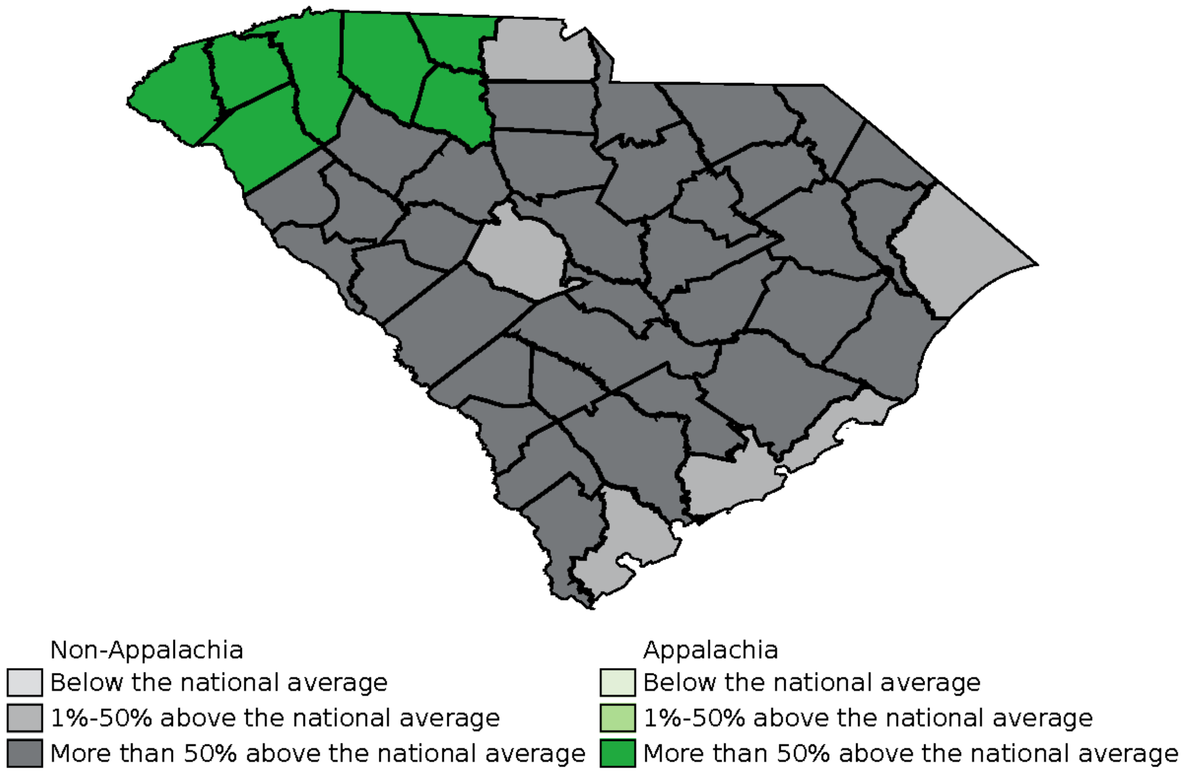


TABLE A19: STUDENT LOAN BORROWERS IN SOUTH CAROLINA

	Nationwide	South Carolina	Rural Appalachian South Carolina
Median scheduled monthly SL payment	$192	$189	$144
Median annual household income	$68,181	$56,018	$42,419
SL debt balance as a percent of tract-level income (median) in percent	32	43	43
Percent delinquent	7	8	8
Median balance if delinquent	$25,089	$29,294	$40,226
Percent in default	9	11	13
Percent receiving assistance through IDR	21	22	16

FIGURE A37: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT



Tennessee

FIGURE A38: MAP OF APPALACHIAN COUNTIES IN TENNESSEE

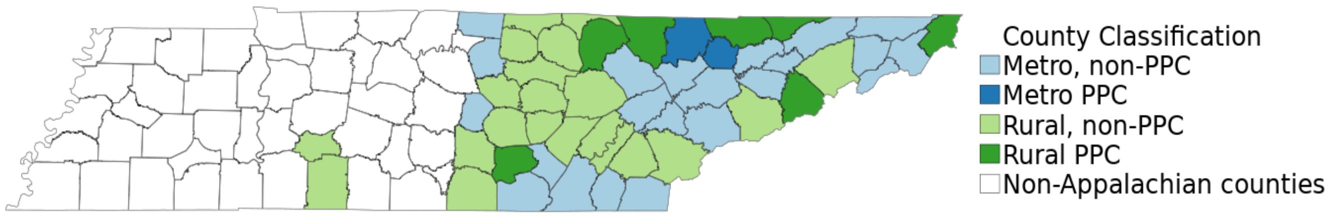


TABLE A20: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: TENNESSEE

	Nationwide	Tennessee	Rural Appalachian Tennessee
Percent with mortgage	29	29	25
Median balance on mortgage	$165,975	$138,944	$101,320
Percent with credit card (CC)	80	73	68
Median balance on CC	$1,207	$1,188	$1,064
Utilization rate (CC)	31	34	34
Percent with auto loan	42	42	41
Median balance on auto loan	$13,249	$14,206	$14,166
Percent with student loan (SL)	18	17	12
Percent w/ medical debt collection	17	23	28
Median household income	$61,833	$50,490	$41,120
Deep subprime	2	3	4
Subprime	22	26	27
Near prime	12	13	13
Prime	37	35	33
Super-Prime	26	23	22

FIGURE A39: SHARE OF RURAL APPALACHIAN CONSUMERS IN TENNESSEE WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

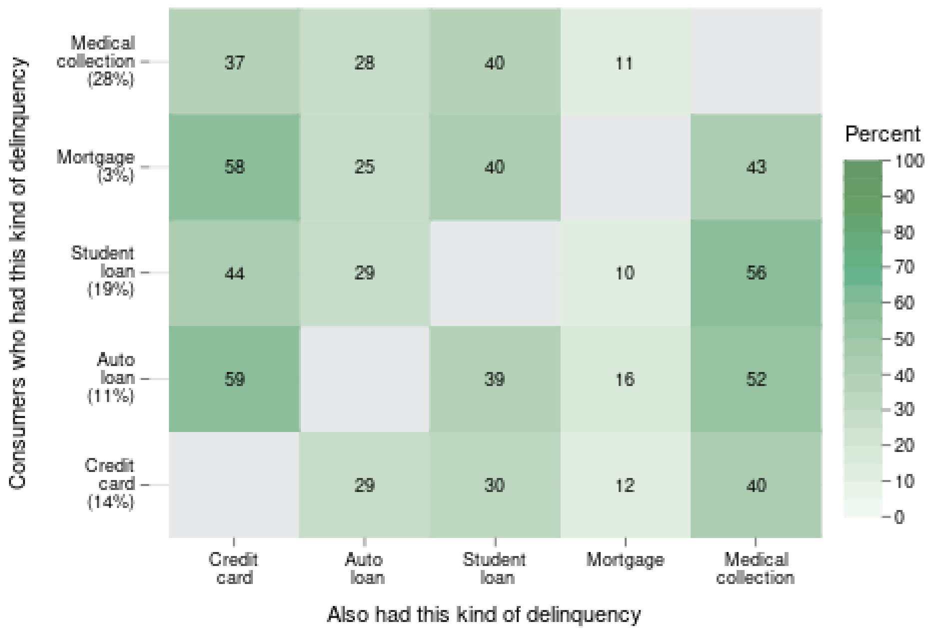


TABLE A21: STUDENT LOAN BORROWERS IN TENNESSEE

	Nationwide	Tennessee	Rural Appalachian Tennessee
Median scheduled monthly SL payment	$192	$182	$154
Median annual household income	$68,181	$57,035	$41,822
SL debt balance as a percent of tract-level income (median)	32	38	38
Percent delinquent	7	8	7
Median balance if delinquent	$25,089	$25,458	$18,130
Percent in default	9	11	13
Percent receiving assistance through IDR	21	22	22

FIGURE A40: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

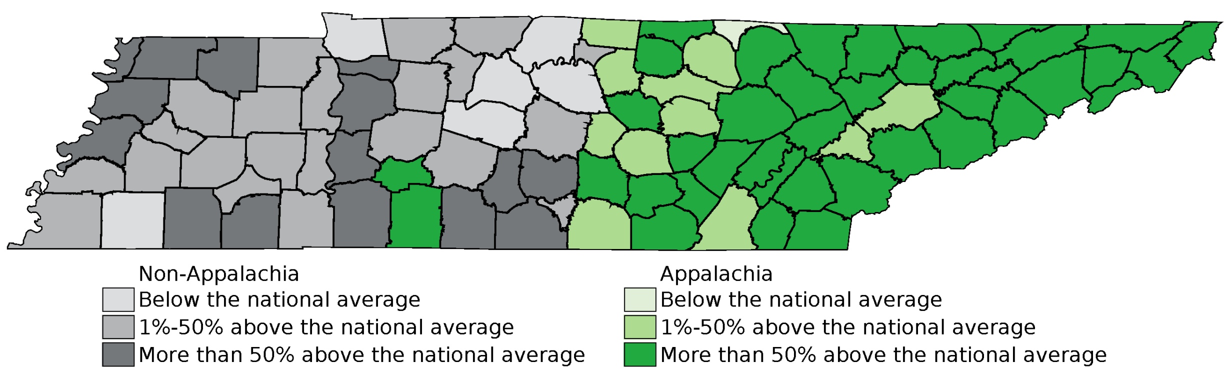
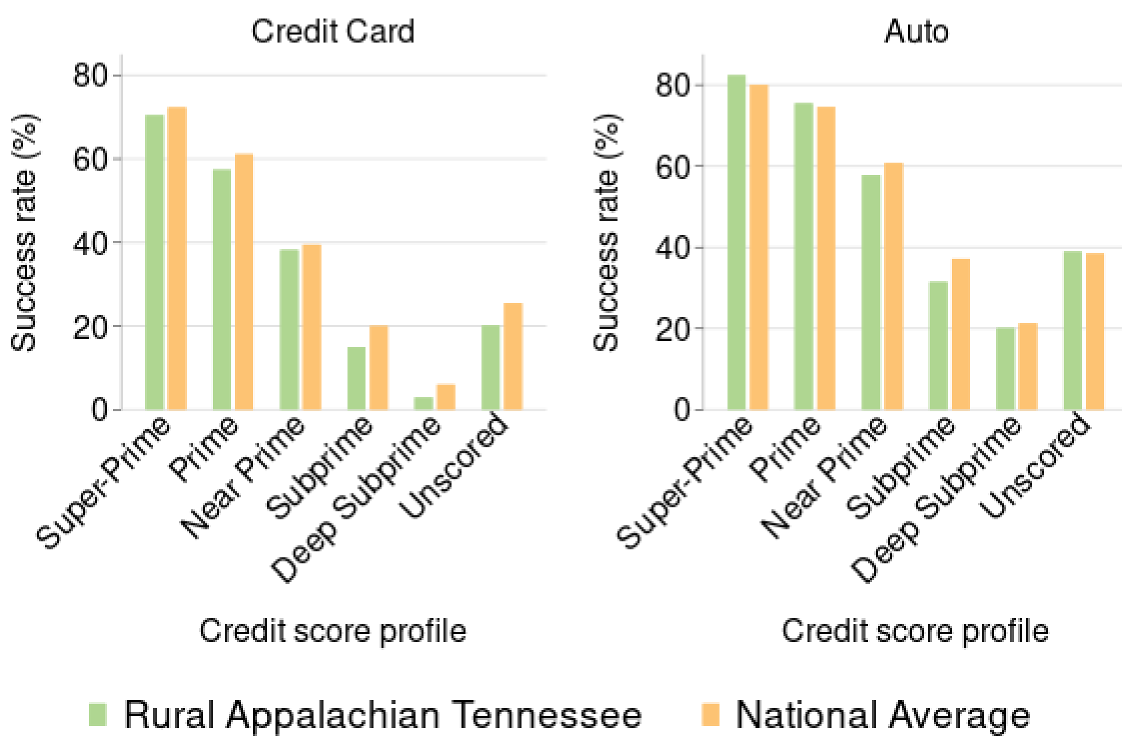


FIGURE A41: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



Virginia

FIGURE A42: MAP OF APPALACHIAN COUNTIES

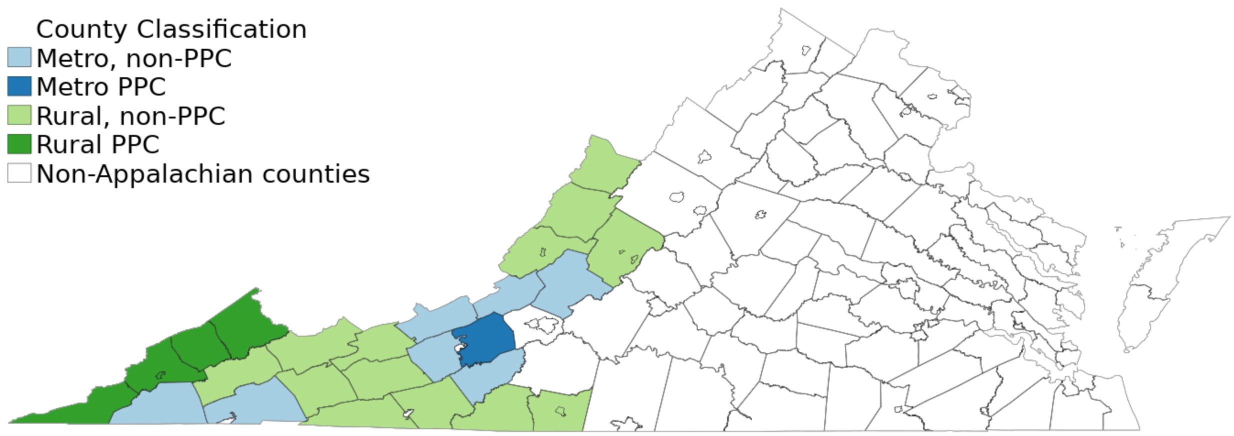


TABLE A22: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: VIRGINIA

	Nationwide	Virginia	Rural Appalachian Virginia
Percent with mortgage	29	34	21
Median balance on mortgage	$165,975	$205,890	$77,142
Percent with credit card (CC)	80	81	68
Median balance on CC	$1,207	$1,330	$952
Utilization rate (CC)	31	30	35
Percent with auto loan	42	42	45
Median balance on auto loan	$13,249	$13,647	$14,333
Percent with student loan (SL)	18	18	12
Percent w/ medical debt collection	17	19	28
Median household income	$61,833	$73,255	$39,730
Deep subprime	2	2	4
Subprime	22	21	28
Near prime	12	11	13
Prime	37	37	31
Super-Prime	26	28	24

FIGURE A43: SHARE OF RURAL APPALACHIAN CONSUMERS IN VIRGINIA WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

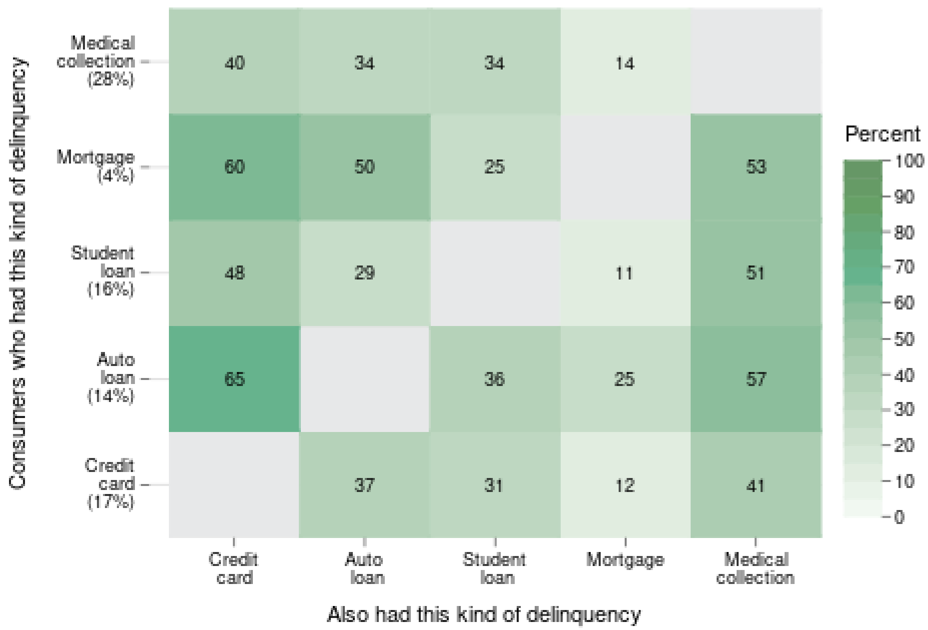


TABLE A23: STUDENT LOAN BORROWERS IN VIRGINIA

	Nationwide	Virginia	Rural Appalachian Virginia
Median scheduled monthly SL payment	$192	$214	$158
Median annual household income	$68,181	$81,979	$41,755
SL debt balance as a percent of tract-level income (median)	32	30	44
Percent delinquent	7	6	7
Median balance if delinquent	$25,089	$29,798	$30,530
Percent in default	9	8	9
Percent receiving assistance through IDR	21	22	23

FIGURE A44: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

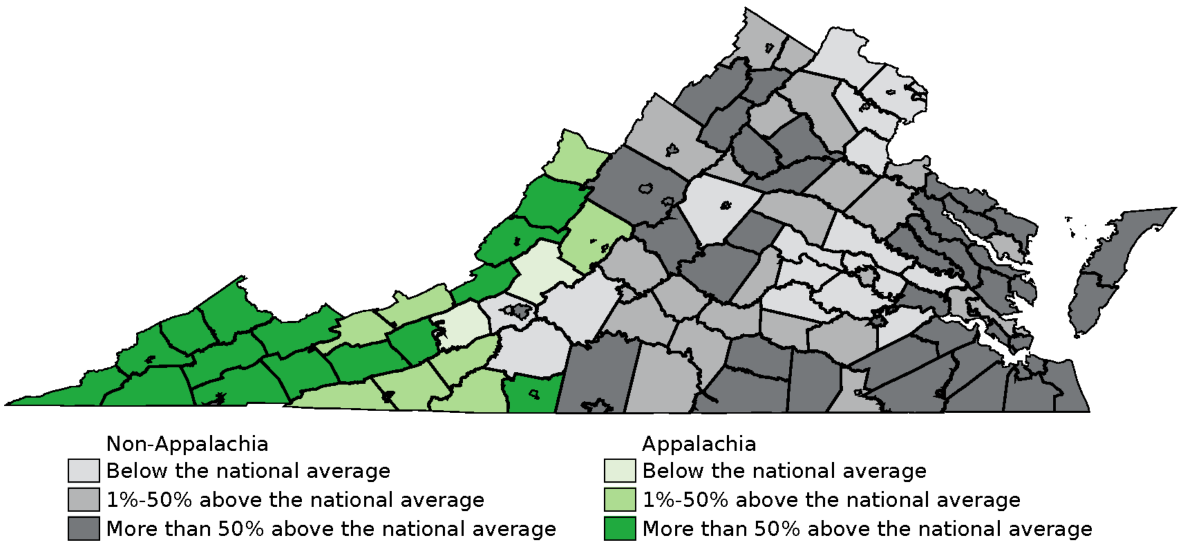
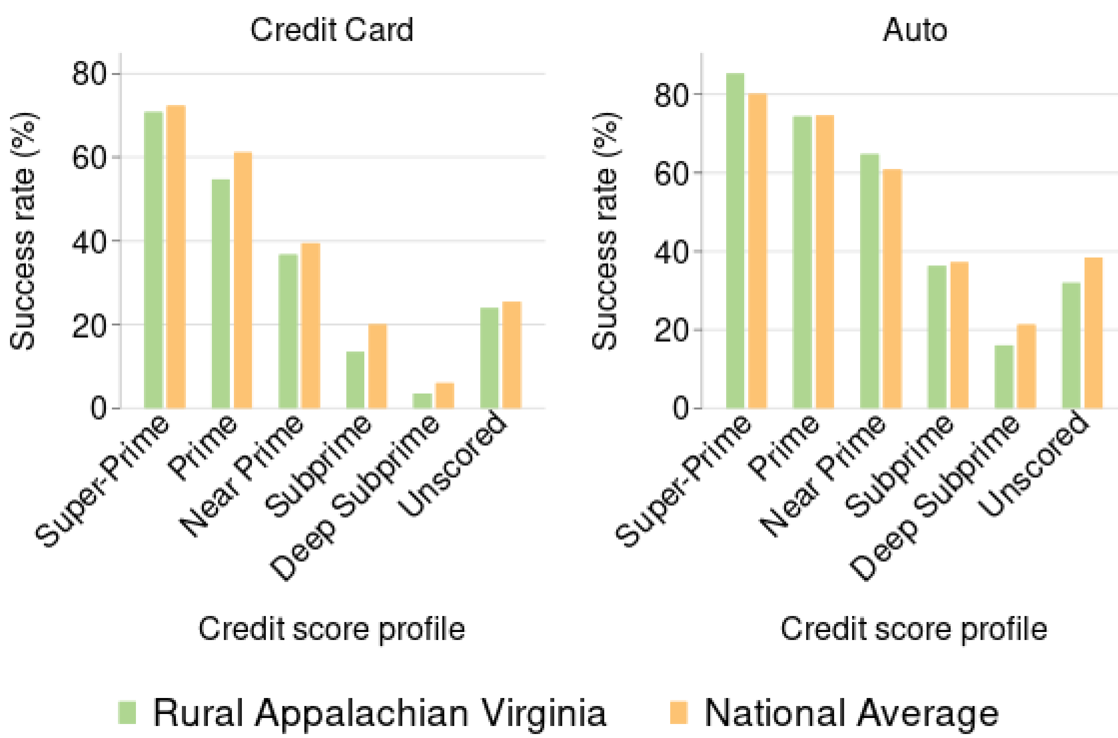


FIGURE A45: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS



West Virginia

FIGURE A46: MAP OF APPALACHIAN COUNTIES IN WEST VIRGINIA

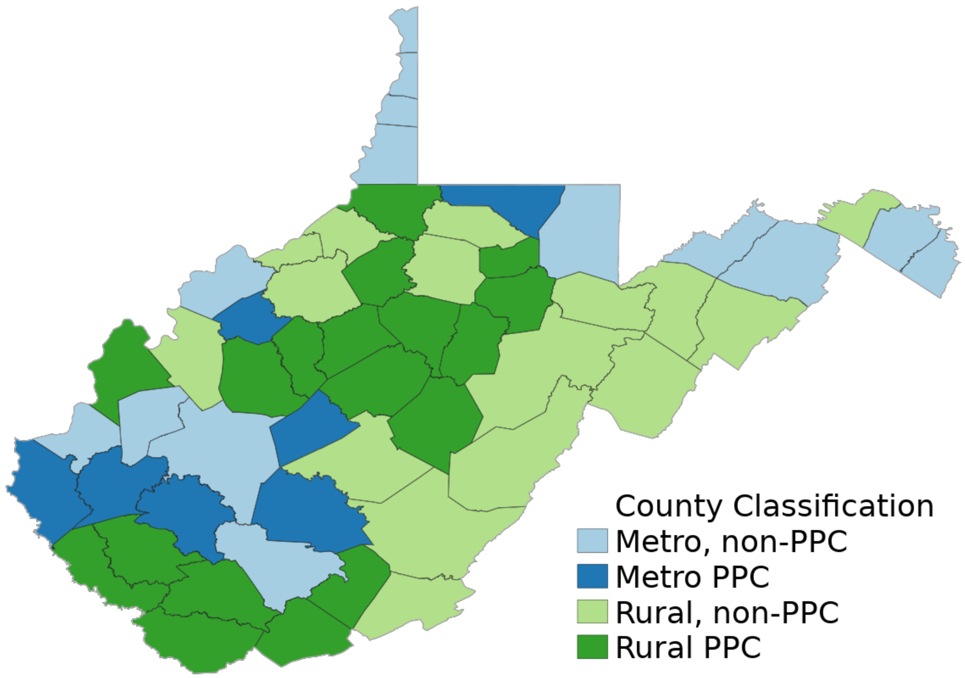


TABLE A24: CONSUMER CREDIT PROFILES IN APPALACHIA IN COMPARISON: WEST VIRGINIA

	Nationwide	West Virginia	Rural Appalachian West Virginia
Percent with mortgage	29	25	23
Median balance on mortgage	$165,975	$92,925	$76,537
Percent with credit card (CC)	80	72	69
Median balance on CC	$1,207	$1,021	$999
Utilization rate (CC)	31	36	37
Percent with auto loan	42	47	50
Median balance on auto loan	$13,249	$14,473	$14,758
Percent with student loan (SL)	18	17	15
Percent w/ medical debt collection	17	30	29
Median household income	$61,833	$45,078	$41,053
Deep subprime	2	3	3
Subprime	22	29	29
Near prime	12	13	13
Prime	37	31	32
Super-Prime	26	23	22

FIGURE A47: SHARE OF RURAL APPALACHIAN CONSUMERS IN WEST VIRGINIA WITH DELINQUENCY ON MULTIPLE TYPES OF CREDIT

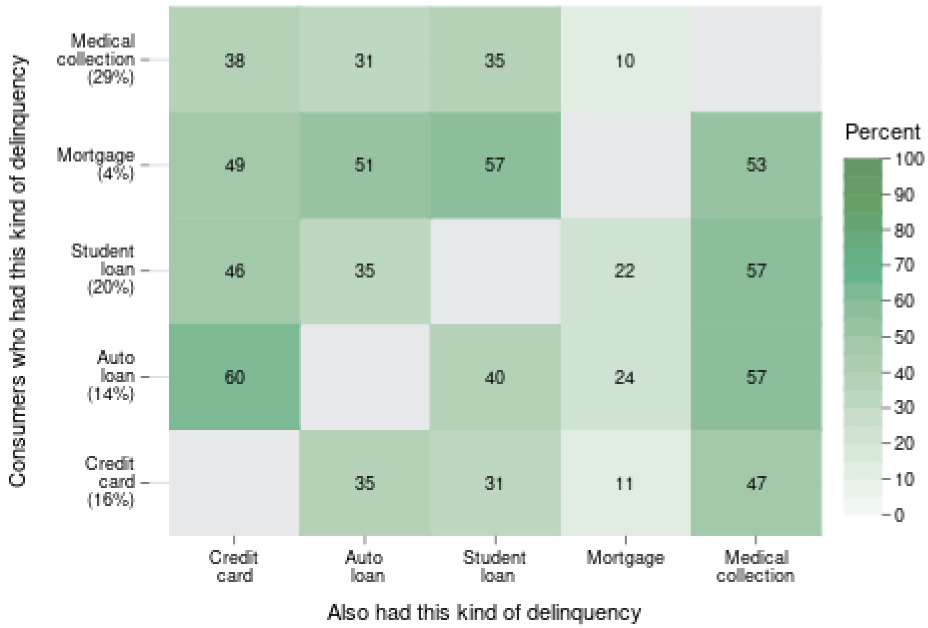


TABLE A25: STUDENT LOAN BORROWERS IN WEST VIRGINIA

	Nationwide	West Virginia	Rural Appalachian West Virginia
Median scheduled monthly SL payment	$192	$166	$156
Median annual household income	$68,181	$49,089	$43,169
SL debt balance as a percent of tract-level income (median)	32	38	39
Percent delinquent	7	8	9
Median balance if delinquent	$25,089	$23,335	$28,918
Percent in default	9	13	12
Percent receiving assistance through IDR	21	21	22

FIGURE A48: RELATIVE SHARE OF CONSUMERS WITH LIKELY MEDICAL DEBT COLLECTION REMOVALS FROM CREDIT REPORT

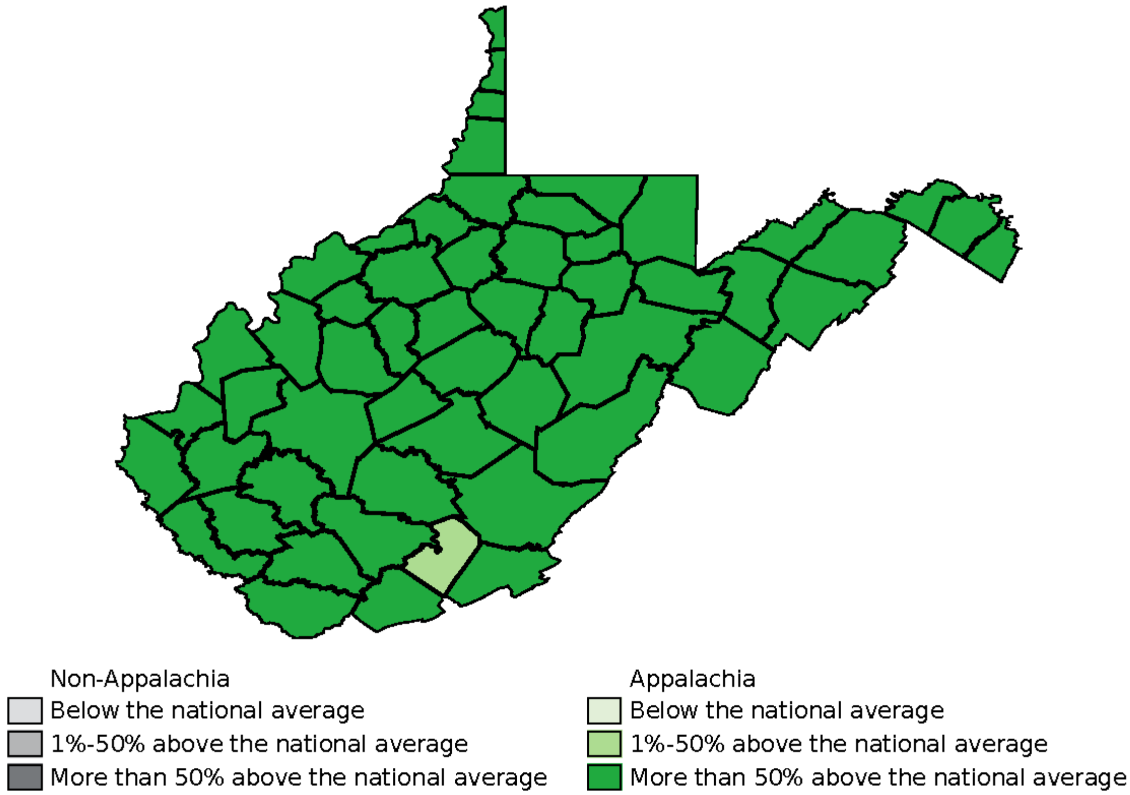


FIGURE A49: PERCENT OF APPLICATIONS ORIGINATED FOR CREDIT CARDS AND AUTO LOANS