Analysis of Consumer Credit Data by Neighborhood Income

Third Federal Reserve District, 2005Q1 – 2013Q2

FEDERAL RESERVE BANK
OF PHILADELPHIA

Third District Highlights

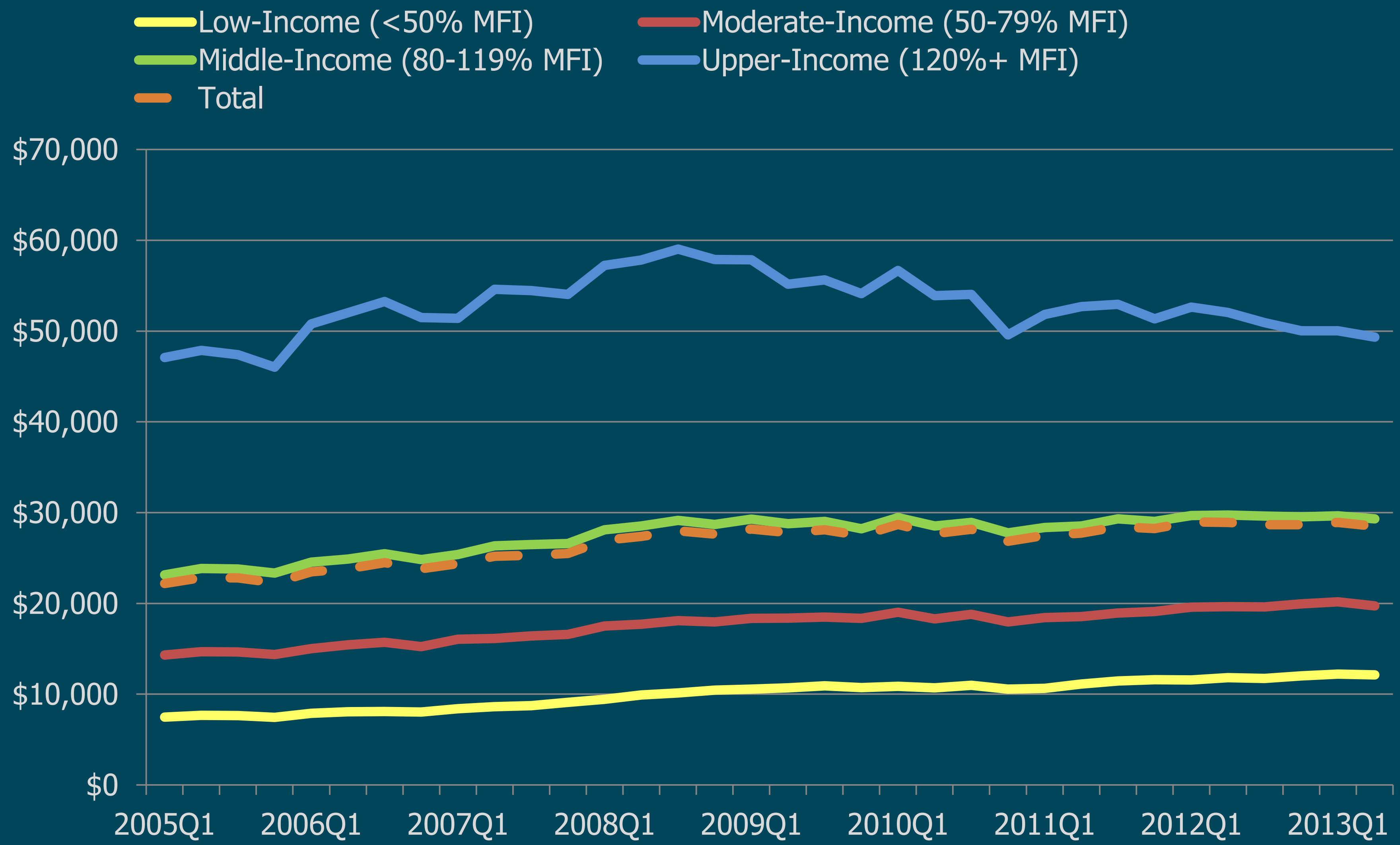
Median Total Debt & Percent of Consumers with Debt

2005Q1 – 2013Q2

- In the second quarter of 2013, the median total debt for consumers in the Third District with a credit history and with any debt was roughly $28,500 (excluding accounts in bankruptcy).
- Median total debt in upper-income neighborhoods was roughly $49,300 in the second quarter of 2013, far below the level recorded in mid-2008 ($59,000). However, median total debt for the other neighborhood income categories was at or near its peak in 2013Q2.
- Roughly 75 percent of consumers with a credit history in the Third District had at least some debt in the second quarter of 2013.
- The percentage of consumers with debt was not substantially different from the overall average in moderate-, middle-, and upper-income neighborhoods, ranging from 69 to 82 percent. However, debt was much less common in low-income neighborhoods (58 percent).

Refer to the following slides for data notes and to the data documentation included with these charts for help interpreting estimates.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Median Total Debt (Third District)*

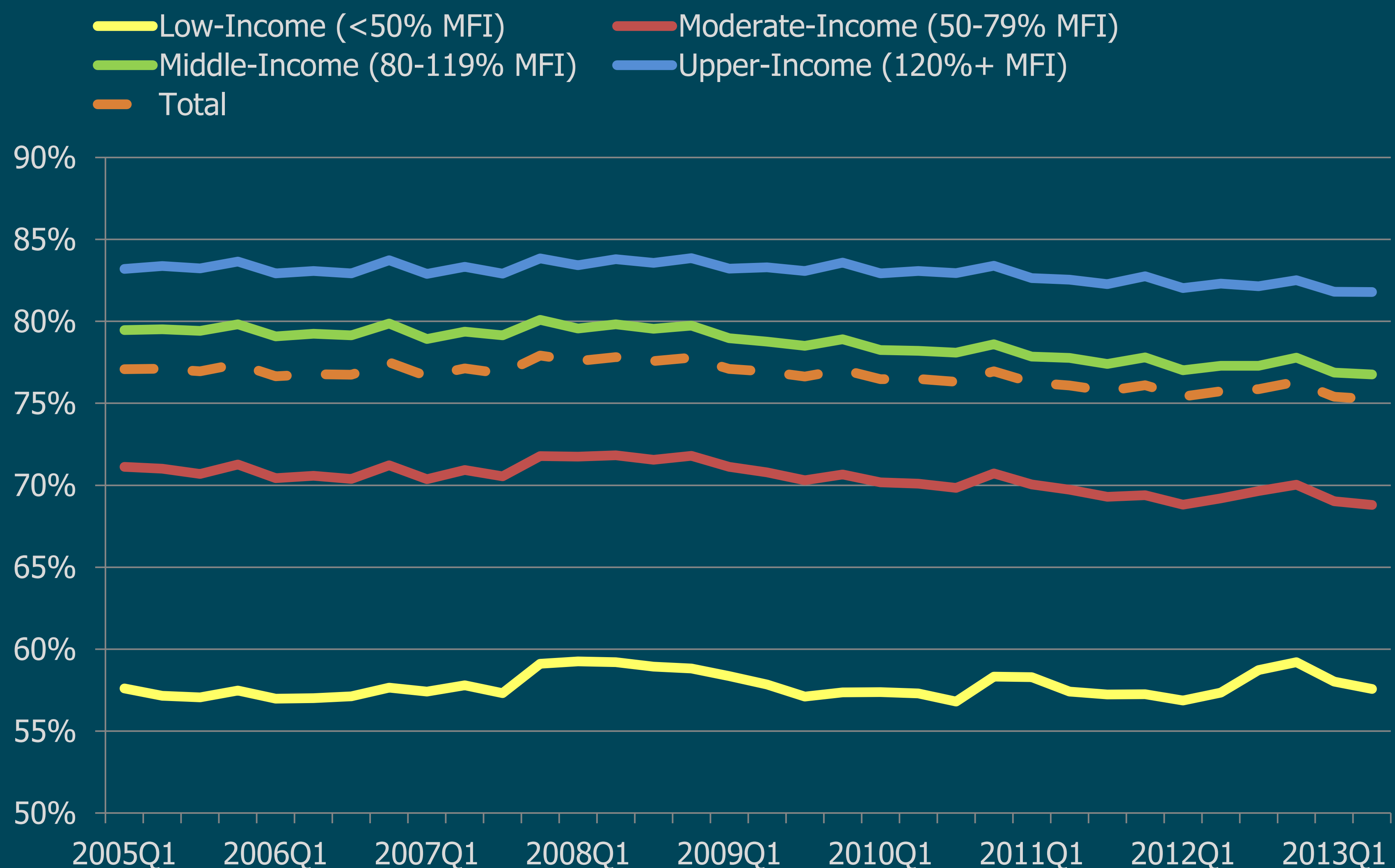


* Estimates include consumers with balances >$0. Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.

Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Last Point Plotted: 2013Q2

Percent of Consumers with Debt (Third District)*



* Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Third District Highlights

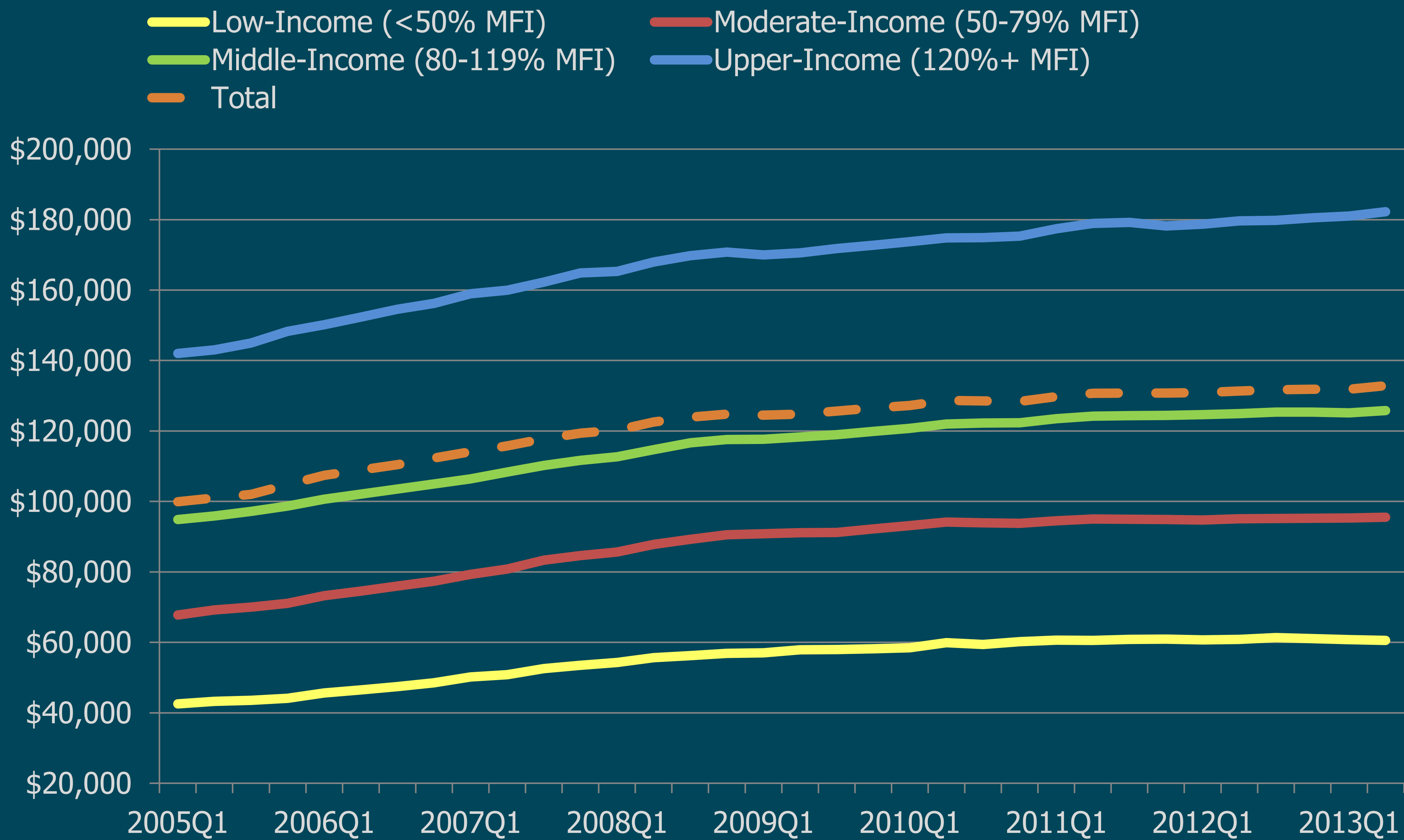
Median Debt by Type

2005Q1 – 2013Q2

- Median mortgage debt (including home equity installment loans) for consumers in the Third District was roughly $132,900 in the second quarter of 2013 and was at or near its peak overall and for the various neighborhood income categories.
- Despite exhibiting growth early in the period, median bankcard debt in the Third District ended the period at roughly $2,000, only slightly higher than in 2005Q1. In 2013Q2, median bankcard debt was at or near its lowest second-quarter level during the period overall and in low-, moderate-, and middle-income neighborhoods.
- Median auto debt continued its upward climb in the Third District, increasing by 8 percent overall since early 2010 to $12,200 in the second quarter of 2013. Median debt levels fell within a fairly narrow range for the various income categories ($11,000 - $12,800) and were 7 to 10 percent above 2010 and 2011 levels.
- In the second quarter of 2013, median student loan debt in the Third District was roughly $17,200 overall and ranged from $12,400 in low-income neighborhoods to $19,800 in upper-income neighborhoods. Since 2005Q1, median debt levels have increased by 79 percent overall and by 74 to 87 percent in the various neighborhood income categories.

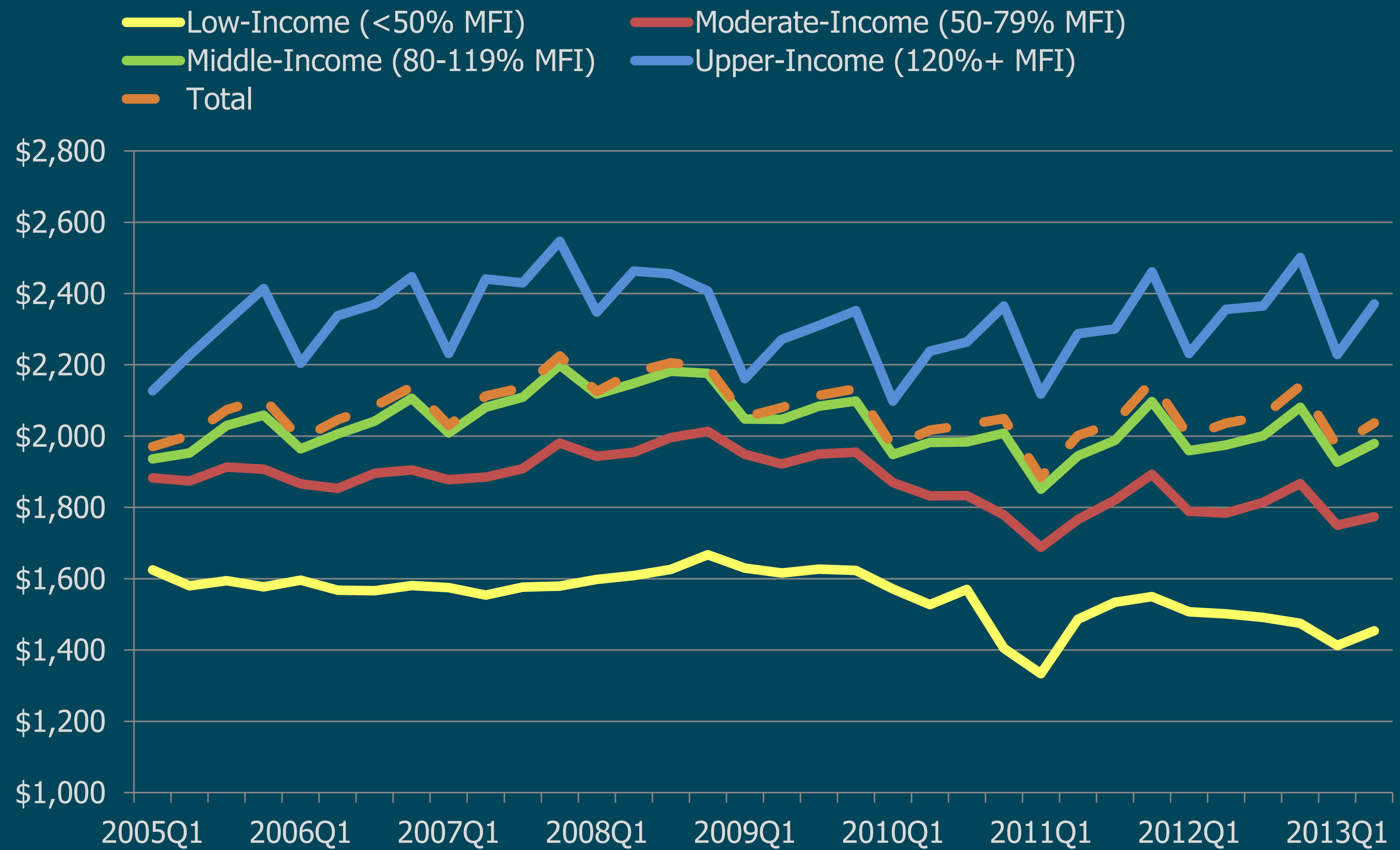
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Median Mortgage Debt (Third District)*



* Includes home equity installment loans. Estimates include consumers with balances >$0. Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Median Bankcard Debt (Third District)*

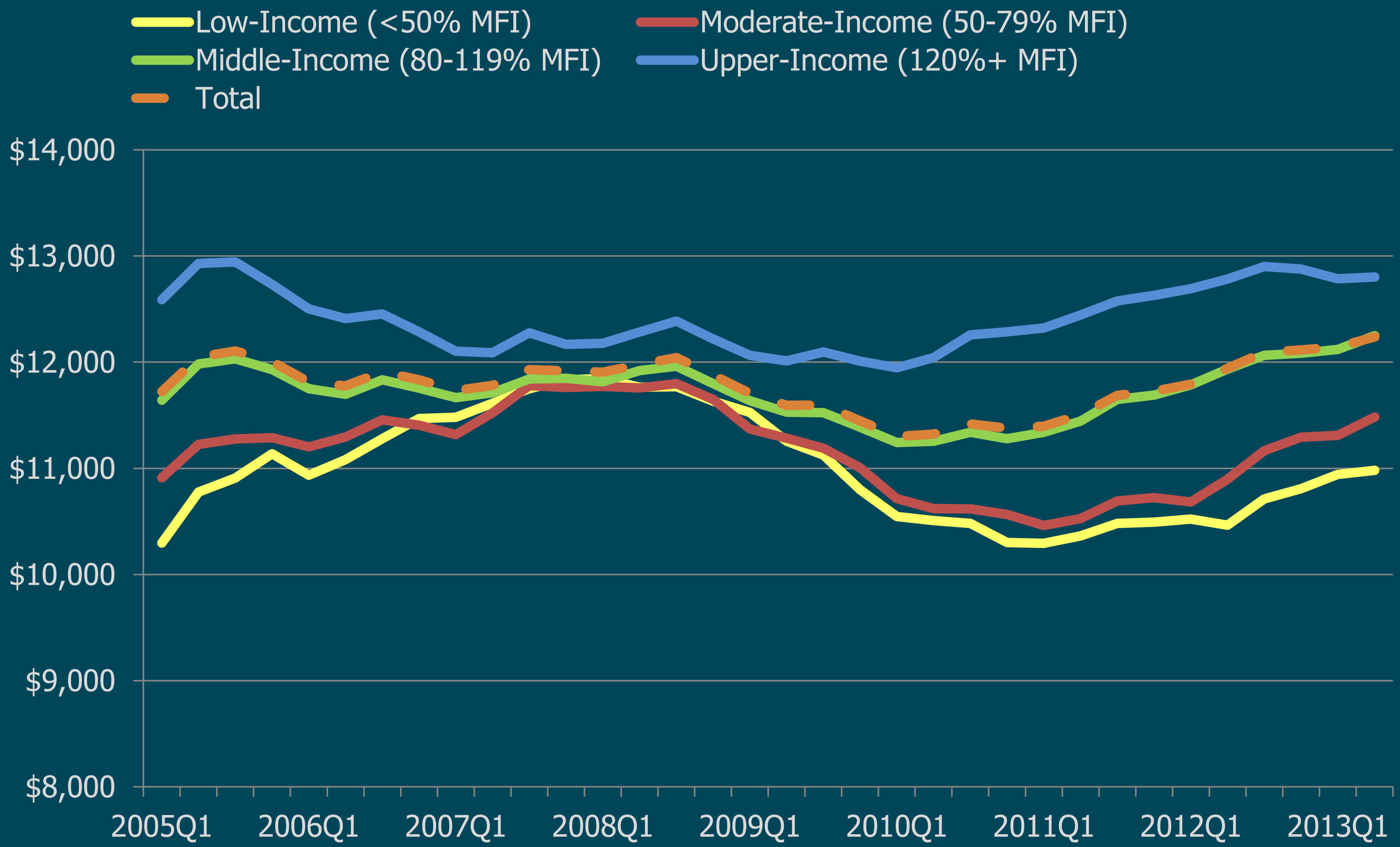


* Bankcards include general-purpose credit cards and exclude both debit cards and credit cards for use at specific retailers. Estimates include consumers with balances >$0. Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.

Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

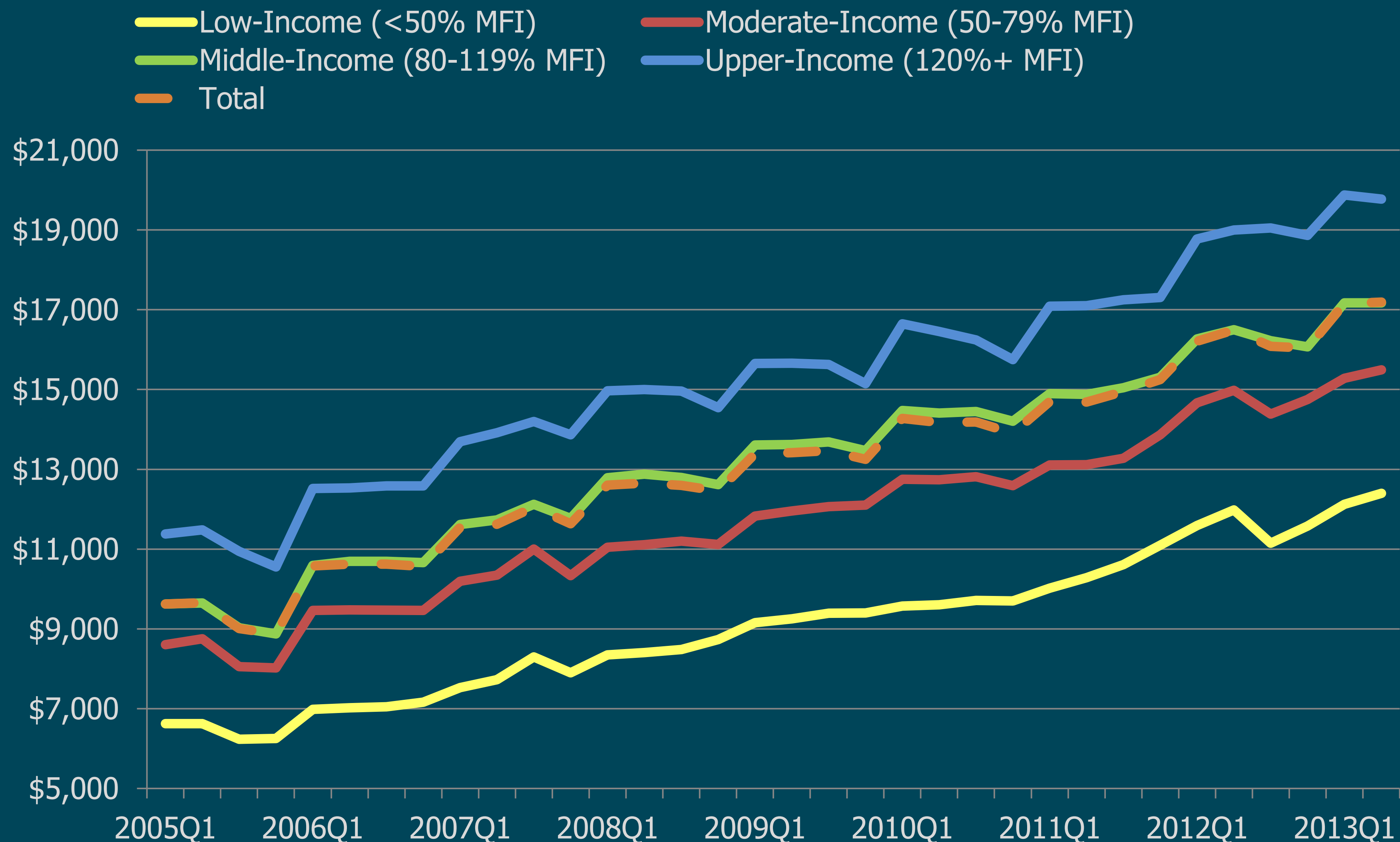
Last Point Plotted: 2013Q2

Median Auto Debt (Third District)*



* Estimates include consumers with balances >$0. Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Median Student Loan Debt (Third District)*



* Estimates include consumers with balances >$0. Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Third District Highlights

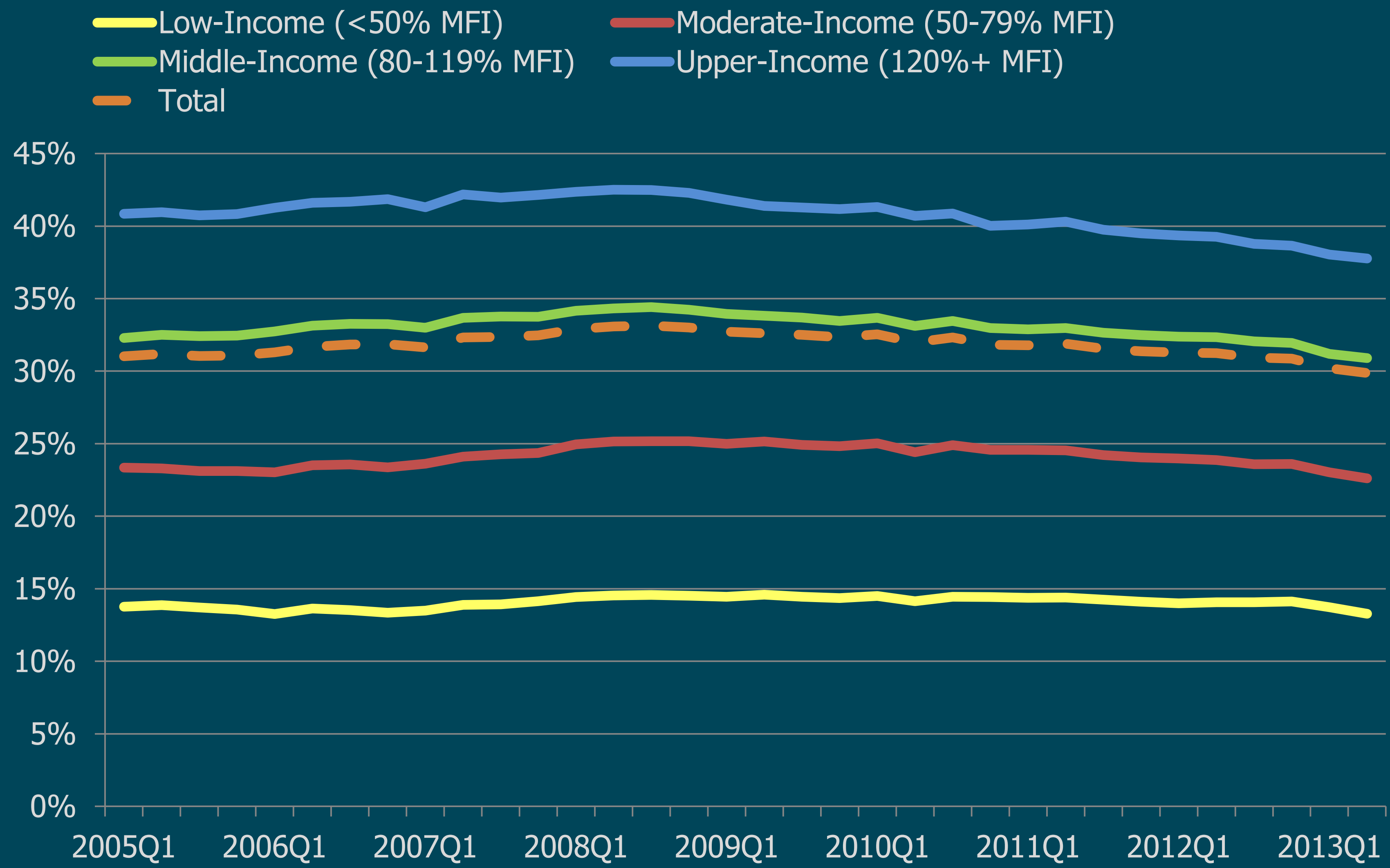
Percent of Consumers with Different Types of Tradelines

2005Q1 – 2013Q2

- Roughly 30 percent of consumers in the Third District with a credit history had a mortgage tradeline in the second quarter of 2013 (including home equity installment loans). The share was much higher in upper-income neighborhoods (38 percent) than in low-income neighborhoods (13 percent). The percent of consumers with a mortgage tradeline peaked in 2008 and 2009 and ended the period at or near its lowest level overall and for each of the neighborhood income categories.
- In total, 64 percent of consumers in the Third District had a bankcard in 2013Q2, down from a high of 71 percent in 2008Q2. The likelihood of having a bankcard was almost twice as high in upper-income neighborhoods (74 percent) as in low-income neighborhoods (38 percent).
- Approximately 28 percent of all consumers with a credit history in the Third District had an auto tradeline in 2013Q2. Consumers in low-income communities were much less likely to have an auto tradeline (16 percent) than those in middle- and upper-income neighborhoods (30 percent), where the share has grown more quickly since 2011.
- Overall and in middle- and upper-income neighborhoods, roughly 18 percent of consumers with a credit history in the Third District had a student loan tradeline in the second quarter of 2013. This percentage has grown steadily during the period and has been consistently higher in low- and moderate-income neighborhoods than in the general population since 2009.

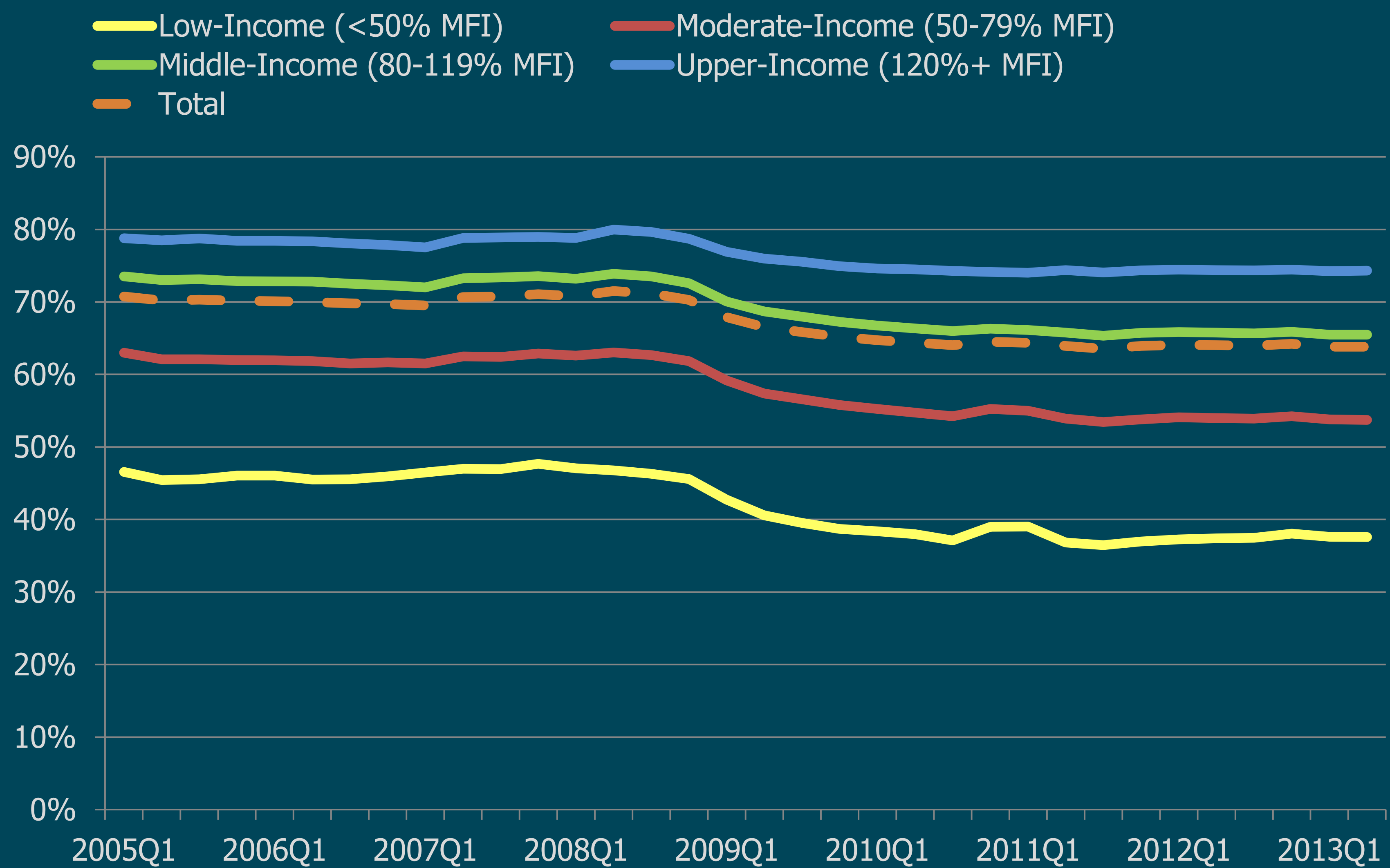
Refer to the following slides for data notes and to the data documentation included with these charts for help interpreting estimates.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Percent of Consumers with a Mortgage Tradeline (Third District)*



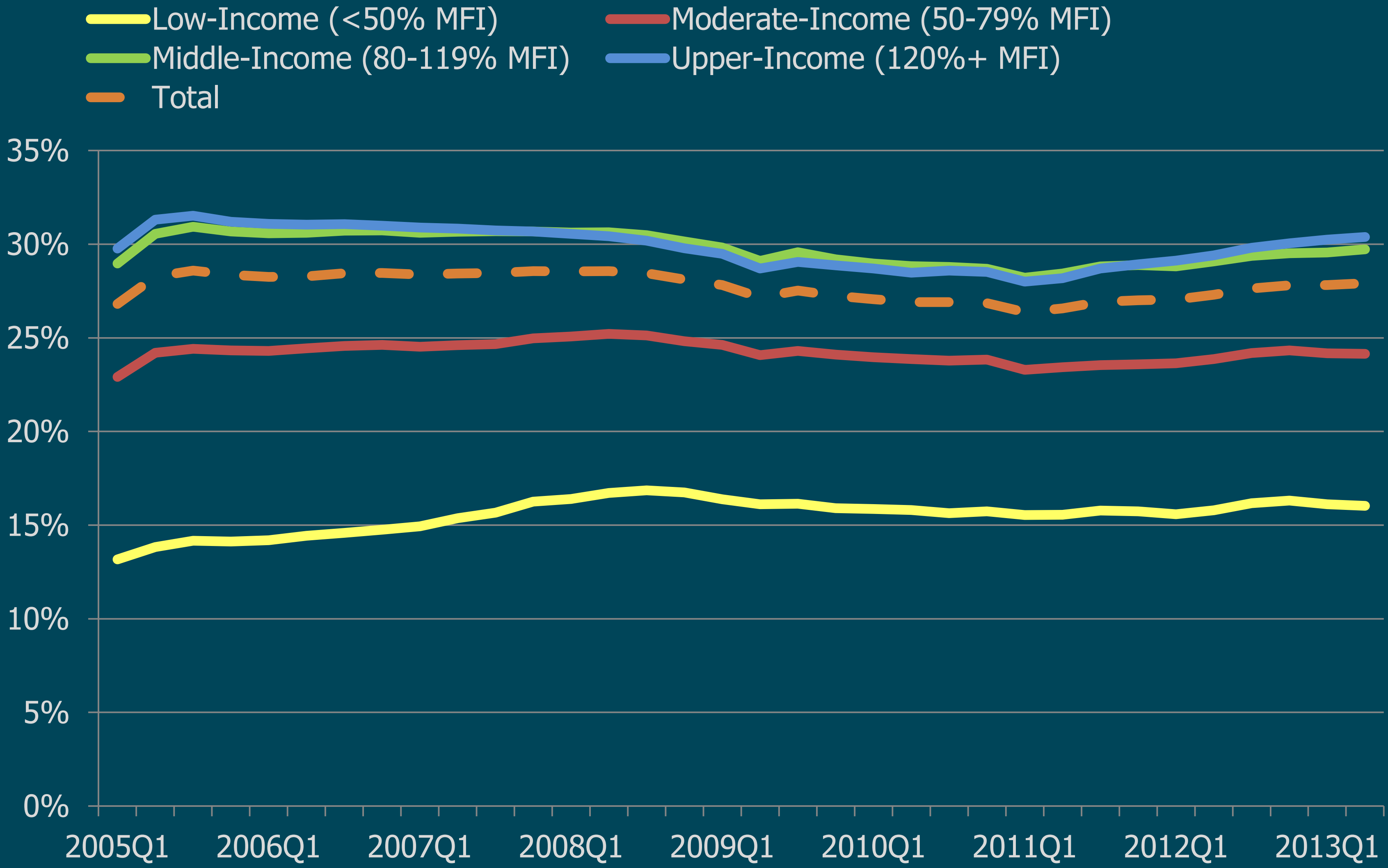
* Includes home equity installment loans. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Percent of Consumers with a Bankcard Tradeline (Third District)*



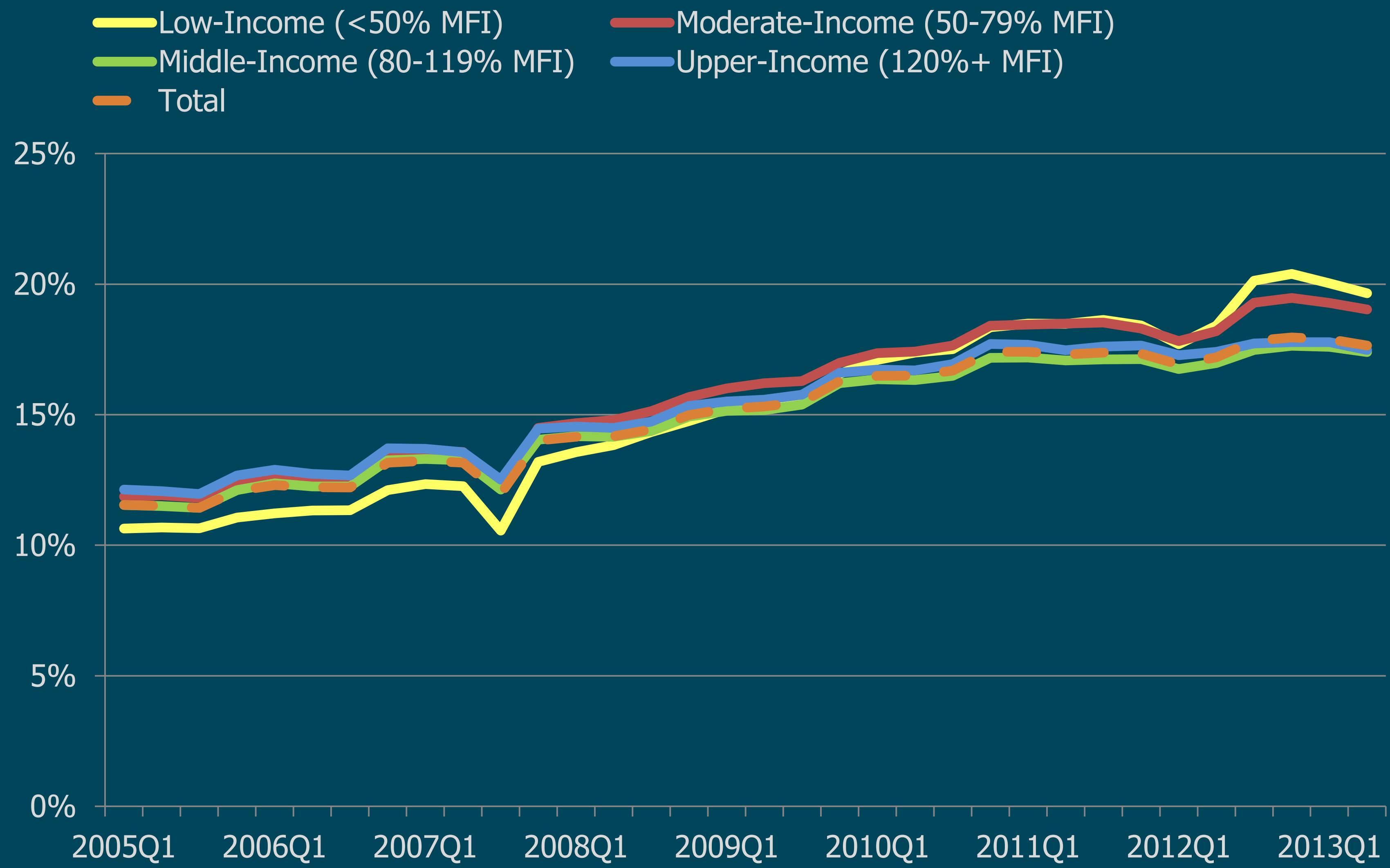
* Bankcards include general-purpose credit cards and exclude both debit cards and credit cards for use at specific retailers. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Percent of Consumers with an Auto Tradeline (Third District)*



* Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Percent of Consumers with a Student Loan Tradeline (Third District)*



* Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Third District Highlights

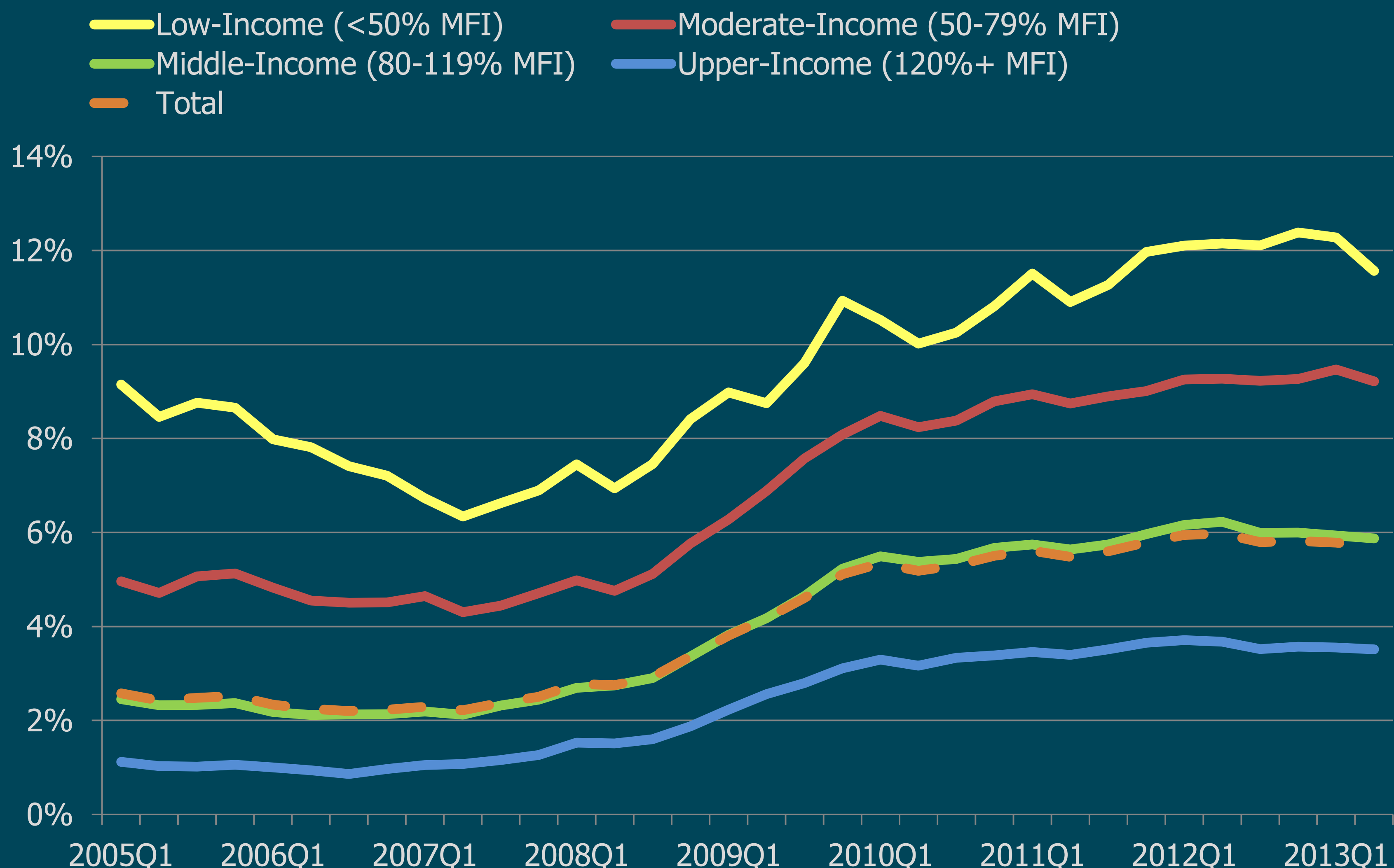
Percent of Consumers Seriously Delinquent by Type of Debt

2005Q1 – 2013Q2

- Mortgage delinquencies increased consistently in the Third District after 2007 but have leveled off and begun to decline somewhat in recent quarters. In the second quarter of 2013, roughly 6 percent of all consumers with a mortgage tradeline (including home equity installment loans) were at least 90 days delinquent, compared with nearly 12 percent in low-income communities.
- In the Third District, roughly 9 percent of all consumers with a bankcard were at least 90 days delinquent on one or more accounts in 2013Q2, representing a 4 percent improvement in the overall rate since 2005Q1. This stands in contrast to other analyses that show an increasing percentage of bankcard *debt* going delinquent over much of this period. Consumers in low-income neighborhoods were more than twice as likely to be delinquent on a bankcard, but at 21 percent, the rate was dramatically lower than at the start of the period (35 percent).
- After rising steadily in the Third District between 2005 and 2010, the percent of consumers with an auto loan at least 90 days delinquent fell from a high of 7 percent in 2010Q4 to 6 percent in 2013Q2. The delinquency rate has trended downward in all neighborhood income categories in recent quarters but remains much higher in low- and moderate-income neighborhoods (18 percent and 10 percent, respectively).
- In the Third District, roughly 15 percent of consumers with a student loan were delinquent on one or more accounts in the second quarter of 2013 – a rate that has risen steadily throughout the period and that spiked in 2012Q3. At the end of the period, roughly 34 percent of consumers with a student loan in low-income neighborhoods were delinquent on at least one account. (Note that unlike delinquency rates for other types of debt that reflect the percentage of consumers at least 90 days delinquent, due to data limitations, the student loan delinquency rate captures consumers in all stages of delinquency.)
- *For a discussion of how these delinquency rates may differ from other delinquency statistics, please refer to the data documentation included with these slides.*

Refer to the following slides for data notes and to the data documentation included with these charts for help interpreting estimates.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Percent of Consumers with a Mortgage at Least 90+ Days Past Due, in Collections, Classified as Severely Derogatory, or in Bankruptcy (Third District)*

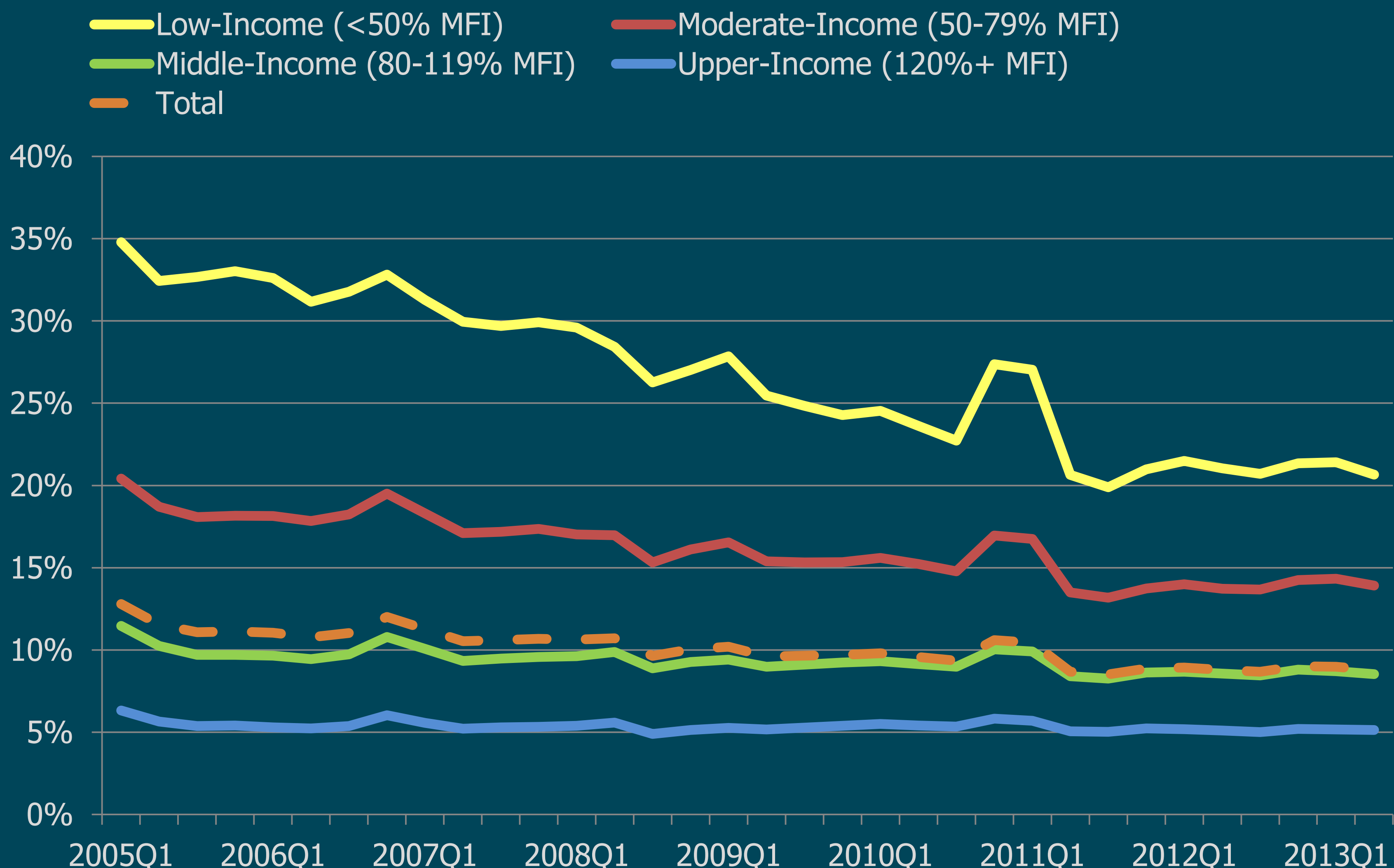


* As a percent of all consumers with an account of this type. Includes home equity installment loans. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Refer to the data documentation for a full discussion of this statistic.

Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Last Point Plotted: 2013Q2

Percent of Consumers with a Bankcard at Least 90+ Days Past Due, in Collections, Classified as Severely Derogatory, or in Bankruptcy (Third District)*

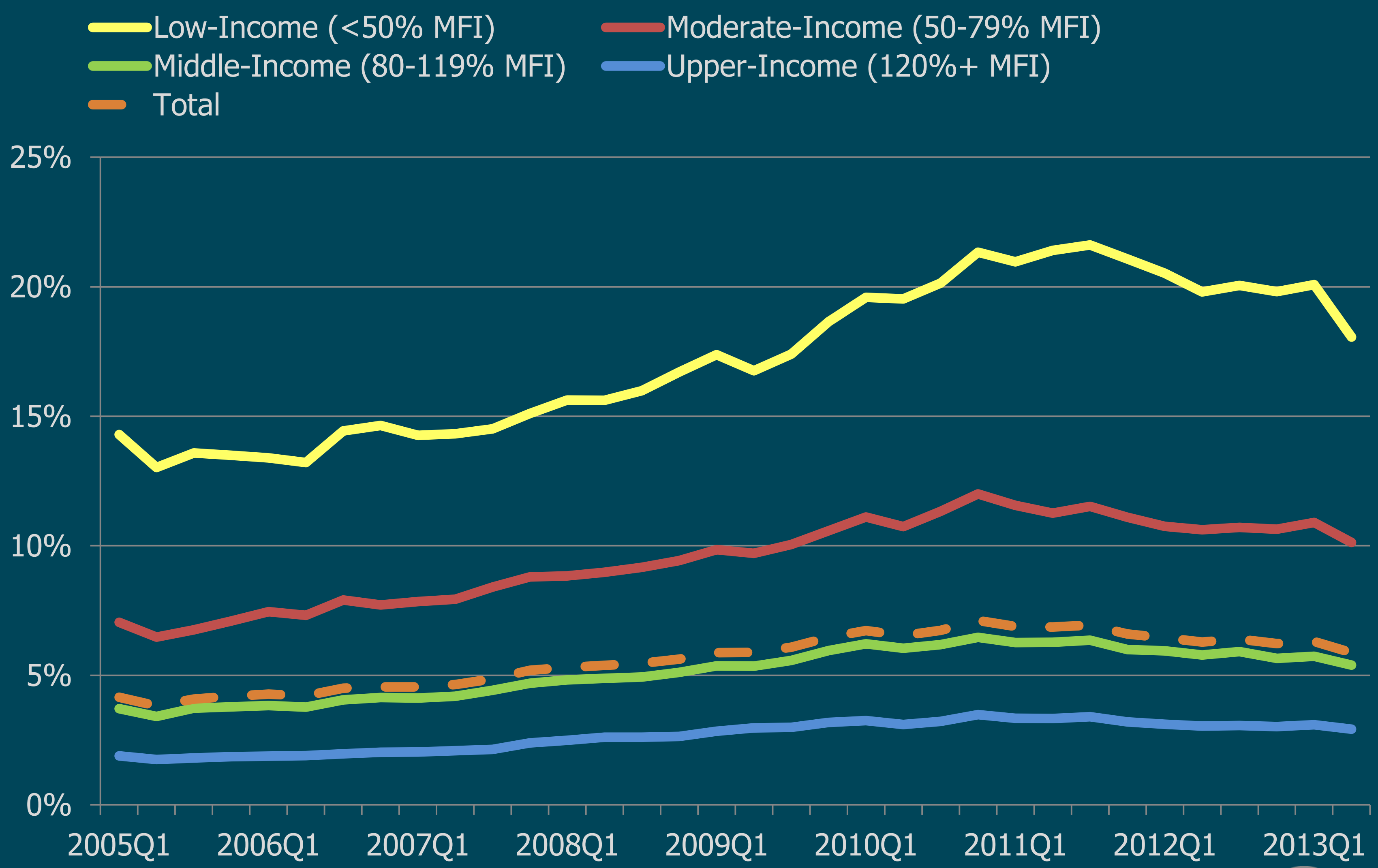


* As a percent of all consumers with an account of this type. Bankcards include general-purpose credit cards and exclude both debit cards and credit cards for use at specific retailers. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Refer to the data documentation for a full discussion of this statistic.

Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

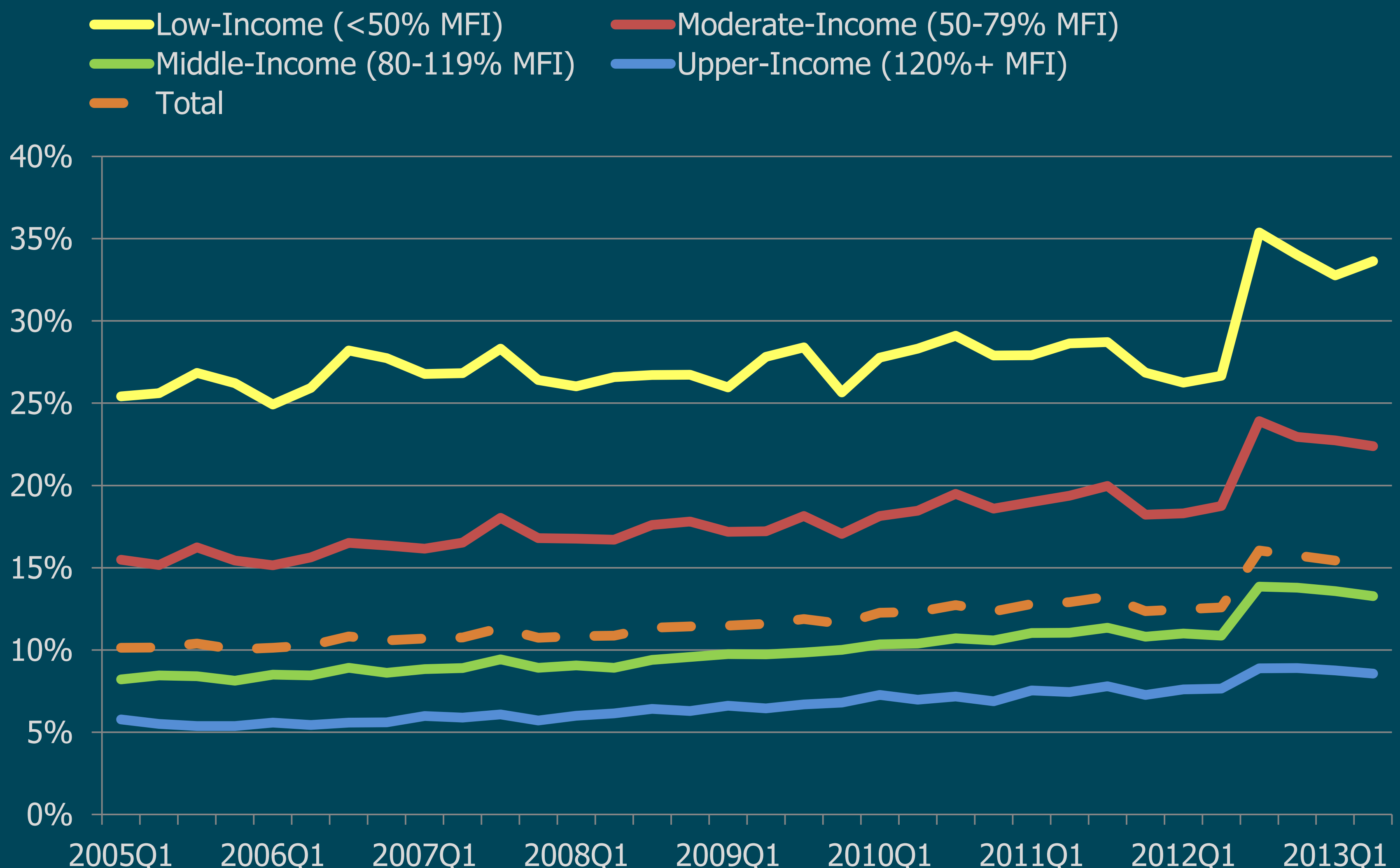
Last Point Plotted: 2013Q2

Percent of Consumers with an Auto Loan at Least 90+ Days Past Due, in Collections, Classified as Severely Derogatory, or in Bankruptcy (Third District)*



* As a percent of all consumers with an account of this type. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Refer to the data documentation for a full discussion of this statistic.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Percent of Consumers with a Student Loan at Least 30+ Days Past Due, in Collections, or Classified as Severely Derogatory (Third District)*



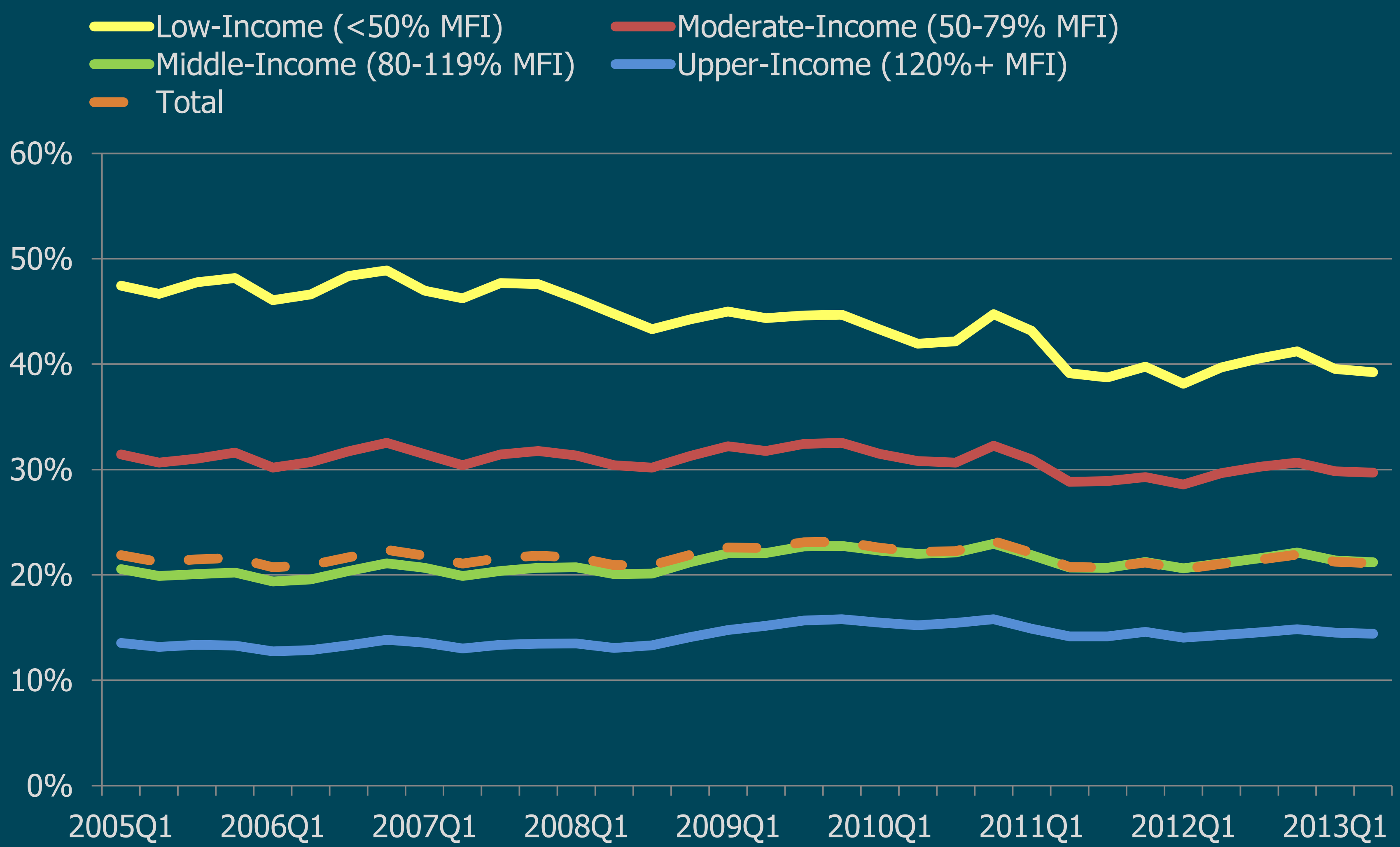
* As a percent of all consumers with an account of this type. Most student loans classified as delinquent are at least 90 days past due because lenders infrequently report student loans as delinquent before they reach that stage. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Refer to the data documentation for a full discussion of this statistic.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Third District Highlights
Credit Utilization and Quality
2005Q1 – 2013Q2

- At 21 percent in the second quarter of 2013, the share of consumers in the Third District with a total bankcard balance greater than 75 percent of their total credit limit has fallen modestly during the period. The rate among consumers in low-income neighborhoods has fallen 8 points, to 39 percent, and has risen slightly from much lower levels in middle- and upper-income neighborhoods during the period.
- In the second quarter of 2013, roughly 38 percent of Third District consumers in the sample either had a risk score below 660 (sometimes considered the cut-off between prime and subprime borrowers) or had a credit history that was too "thin" to calculate a risk score. This level has worsened slightly in moderate-, middle-, and upper-income neighborhoods and improved marginally in low-income neighborhoods, where it ended the period at 70 percent despite this improvement.

Refer to the following slides for data notes and to the data documentation included with these charts for help interpreting estimates.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Percent of Consumers with a Credit Utilization Rate for Bankcards of 75 Percent or More (Third District)*

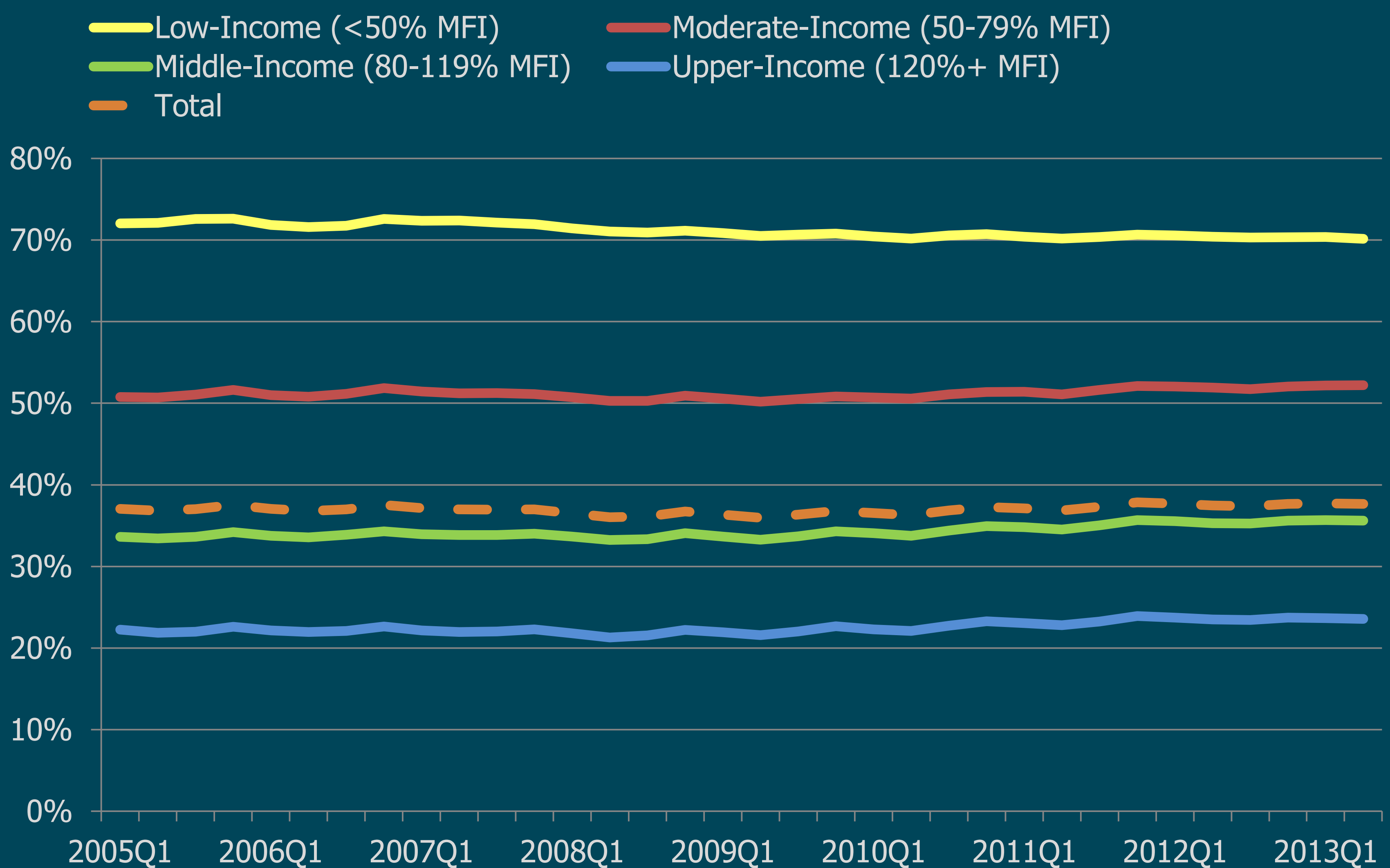


* Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Excludes consumers with aggregate balances greater than 10 times their aggregate limits. Where the credit limit is missing, the highest historical balance is used. Bankcards include general-purpose credit cards and exclude both debit cards and credit cards for use at specific retailers.

Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Last Point Plotted: 2013Q2

Percent of Consumers with a Limited Credit History or Poor/Fair Credit (Third District)*



* Includes consumers with a risk score below 660 as well as those for whom a risk score is not calculated.
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.
Last Point Plotted: 2013Q2

Documentation for *Analysis of Consumer Credit Data by Neighborhood Income*

Community Development Studies & Education Department
Federal Reserve Bank of Philadelphia October 2013

Consumer Credit Data

The consumer credit statistics presented here were calculated by the Federal Reserve Bank of Philadelphia's Community Development Studies and Education (CDS&E) Department using data from the New York Fed/Equifax Consumer Credit Panel data set (consumer credit data set). This is an anonymous, nationally representative sample (5 percent) of U.S. residents with a Social Security number and a credit report.[1] The data set is an unbalanced panel, meaning that certain randomly selected consumers enter the data set when their credit report is initially created. Others disappear after they die or because their credit bureau file no longer contains sufficient information.[2] The data are reported quarterly.

In total, the consumer credit data set includes roughly 12 million consumers. Rather than using the full data set, national statistics presented here are based on a 10 percent random sample, or roughly 1.2 million consumers. Statistics for the Third Federal Reserve District use 100 percent of the full data set, totaling roughly 500,000 consumers living in Delaware, eastern and central Pennsylvania, and southern New Jersey.

Methodology for Developing Estimates for Neighborhood Income Categories

There is no information about the income of individuals included in the consumer credit data set. However, the data set does include the census tract, county, and state where the consumer lives. In this analysis, a consumer is assigned to a neighborhood income category based on the median family income (MFI) of the census tract where they live relative to the median family income of the metropolitan area, the metropolitan division, or the median family income of the nonmetropolitan portion of the state.[3] The neighborhood income categories used in this analysis are low income (<50 percent of MFI); moderate income (50-79 percent of MFI); middle income (80-119 percent of MFI); and upper income

[1] The 5 percent sample is drawn using the last two digits of a consumer's Social Security number; consumers whose Social Security number ends in one of five two-digit combinations are selected into the sample. However, the data set used to develop these statistics does not include the Social Security number of the consumer or other identifying information (e.g., consumer name, lender name, address, etc.).

[2] In order to be included in the data set, an individual must have at least one of the following in his or her credit bureau file at Equifax: an item of public record (e.g., a judgment) within the last seven years or bankruptcy filing within the last 10 years; an open credit account that is regularly updated by the lender or servicer; or a closed account that continues to be reported, which can occur for up to seven years if the account was not in good standing. Not all adults will have a credit bureau file. According to an analysis of the Survey of Consumer Finances, slightly more than 8 percent of households do not include a member with a credit report (Brown, et al. 2011).

[3] Income data are from the five-year American Community Survey (ACS) data set covering the years 2005-09. In this analysis, a census tract is assigned to only one neighborhood income category for the duration of the study period, based on its income during the five years covered by the ACS data. For consistency, the same metropolitan area definitions are used throughout the study period. We use the definitions adopted for the release of the 2005-09 ACS data and defined in the November 2008 OMB Bulletin No. 09-01.

(>=120 percent of MFI). The analysis presents statistics based on the credit characteristics of consumers in each of these neighborhood income categories.

Our methodology for classifying census tracts into income categories is based on, but not identical to, methods used by the Federal Financial Institutions Examination Council (FFIEC) in assigning census tracts to income categories for Home Mortgage Disclosure Act (HMDA) and Community Reinvestment Act (CRA) data reporting purposes. Rather than using more current income data from the American Community Survey (covering years 2006-10) as the FFIEC does, we use the ACS data set from 2005-09. Although the income data are one year older, the 2005-09 file uses census 2000 census tract geographic definitions, which is consistent with the information reported in the consumer credit data set. The slightly newer ACS data used by the FFIEC are based on census 2010 census tract definitions, which are not entirely compatible with those used in the consumer credit data set.[4]

In this analysis, we exclude consumers with a nonresidential address (e.g., a P.O. box) from our income category estimates but include them in all total estimates. We treat similarly consumers with incomplete or inaccurate geographic data, as well as those who live in a census tract for which a median family income estimate is not available. Consumers who have exited the sample after one year or less are excluded from the analysis entirely, as are those reported to be deceased.[5]

The decisions to use a 10 percent random sample for national estimates (rather than 20 percent), to exclude consumers with nonresidential addresses from the neighborhood income categories, and to omit those in the sample for a year or less represent adjustments to the methodology that have been introduced since the first estimates were released in September 2012. These and other, less significant, methodological improvements are reflected throughout this series. Please do not hesitate to contact the department with questions about differences between these estimates and those released in 2012.

Interpreting Estimates

The following paragraphs describe the consumer credit statistics calculated by CDS&E. If any questions remain, please feel free to contact the department directly.

Median Total Debt: For consumers with debt, this estimate reflects the midpoint (excluding accounts in bankruptcy but including debt from closed accounts that the lender has charged off but continues to report to the credit bureau). Half of the consumers in the sample have more debt than the median, and half have less debt. It is important to note that consumers with zero debt are not included in this estimate.

Percent of Consumers with Debt: This estimate reflects the percent of consumers in the data set with debt greater than $0 (excluding accounts in bankruptcy but including debt from closed accounts that the lender has charged off but continues to report to the credit bureau).

Median Debt by Type: For consumers with debt of a given type, this estimate reflects the midpoint of that debt (excluding accounts in bankruptcy but including debt from closed accounts that the lender has

[4] When the consumer credit data set incorporates the 2010 census geographies, we plan to adopt the current FFIEC census tract classifications.

[5] It is impossible to know whether consumers who are first available in the five most recent quarters will remain in the sample for more than one year or whether they will exit after a year or less. We retain all consumers unless it is evident that they have exited the sample after one year or less. As a result, some recently-added consumers included in this analysis will, in all likelihood, exit the sample as new quarters of data become available. In the eight quarters of data available in 2010 and 2011, anywhere from 17 to 35 percent of sample entrants subsequently exited the sample after one year or less.

charged off but continues to report to the credit bureau). Debt categories include auto, mortgage, student loan, and bankcard.[6] Half of the consumers in the sample have more of a particular type of debt than the median, and half have less. It is important to note that consumers with zero debt of a given type are not included in the estimates for that type and that median mortgage debt includes home equity installment loans.

Percent of Consumers with a Tradeline: This estimate is calculated as the number of consumers who have a tradeline as a share of all consumers in the data set. (Because lenders are permitted – but not required – to report seriously delinquent and subsequently closed tradelines and their charged-off balances to the credit bureau for up to seven years, this statistic can include such accounts.) It is important to note that the presence of a tradeline is not synonymous with the existence of debt, particularly for revolving accounts such as bankcards, for which it is common to have a tradeline but no outstanding debt associated with it. Estimates are currently available for auto, mortgage, student loan, and bankcard debt. Mortgage estimates include both regular mortgages and home equity installment loans.

Percent of Consumers with a Delinquent Tradeline: This estimate is calculated as the number of consumers with a delinquent tradeline as a percent of all consumers with a tradeline. Consumers with no debt on an active account in good standing are considered to be current and are thus included in the denominator of this calculation.

Estimates currently available for auto, mortgage (including regular mortgages and home equity installment loans), and bankcard tradelines include accounts that are at least 90 days past due, in collections, classified as severely derogatory, or in bankruptcy. Accounts that are severely derogatory are more than 120 days past due and may be charged off by the lender as bad debt. Collection accounts reported by collection agencies or debt buyers are not included in this estimate.

In these charts, the delinquency rate plotted for student loans includes loans that are 30 or more days past due. But many lenders do not begin to report a student loan as past due until payments are 90 or more days late.

Delinquency rates provided in this analysis differ from estimates from other sources in at least two ways. First, these rates reflect the percent of individuals with a delinquent account. This methodology can produce very different trends than alternative specifications that calculate delinquency as the percent of outstanding debt (or loans) past due.

Second, the delinquency rates presented here include individuals with accounts that lenders have likely closed and charged off the balance because they no longer expect repayment. Many sources of delinquency rates on consumer loans will report a charged-off account in the period (a month, quarter, or year) in which it occurs but not thereafter.[7] In the consumer credit data used here, serious derogatory accounts (including ones charged off) can be reported for up to seven years. To the extent that lenders continue to report these accounts, they will be reflected in these charts.

It is worth noting that the percent of consumers with a delinquent bankcard tradeline increased sharply in the last quarter of 2010 and the first quarter of 2011. The percent of consumers with a bankcard

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[6] Bankcards include general-purpose credit cards (e.g., Visa, MasterCard) but exclude both debit cards and credit cards for use at specific retailers.

[7] In financial statements, a chargeoff is the removal of a loan (an asset) from the lender's balance sheet. In credit bureau data, an account that is charged off is (negative) information about a consumer's repayment history that can be legally included in a credit report for up to seven years.

tradeline also increased during this period but to a lesser degree. For many of these consumers, the first appearance of the tradeline in the data set was reported as 120 days or more past due or in collections. This seems unlikely and warrants further investigation.

Percent of Consumers with a Credit Utilization Rate for Bankcards of 75 Percent or More: This estimate is calculated as the number of consumers with a total bankcard balance greater than 75 percent of their total credit limit as a percent of all consumers with a bankcard (excluding accounts in bankruptcy but including debt from closed accounts that the lender has charged off but continues to report to the credit bureau). Consumers with balances greater than 10 times their aggregate limit are excluded from this calculation. It should be noted that in instances where the lender does not report the credit limit on an account, the credit bureau will instead use the highest historical balance as the credit limit.

Percent of Consumers with a Limited Credit History or Poor/Fair Credit: This estimate is calculated as the number of consumers with either no risk score or with a score below 660 as a percent of all consumers in the sample. The risk score provided by Equifax ranges from 280 to 850, with a lower score indicating a higher level of risk, and the threshold of 660 was chosen because this score is commonly used to distinguish prime from subprime borrowers.[8] Included in this statistic are those for whom Equifax does not calculate a risk score because their credit histories are too "thin" to provide sufficient information for gauging credit risk. A consumer who meets either of these criteria likely encounters challenges in accessing credit from mainstream financial institutions.

Additional Resources Related to Consumer Credit Data

Avery, Robert B., Paul S. Calem, and Glenn B. Canner. "Credit Report Accuracy and Access to Credit," *Federal Reserve Bulletin* (Summer 2004), pp. 297-322.

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[8] See, for example, Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of Thrift Supervision. Supervision and Regulation Letter 01-4 (GEN): Guidance on Supervision of Subprime Lending, January 31, 2001. Accessed July 17, 2012.