

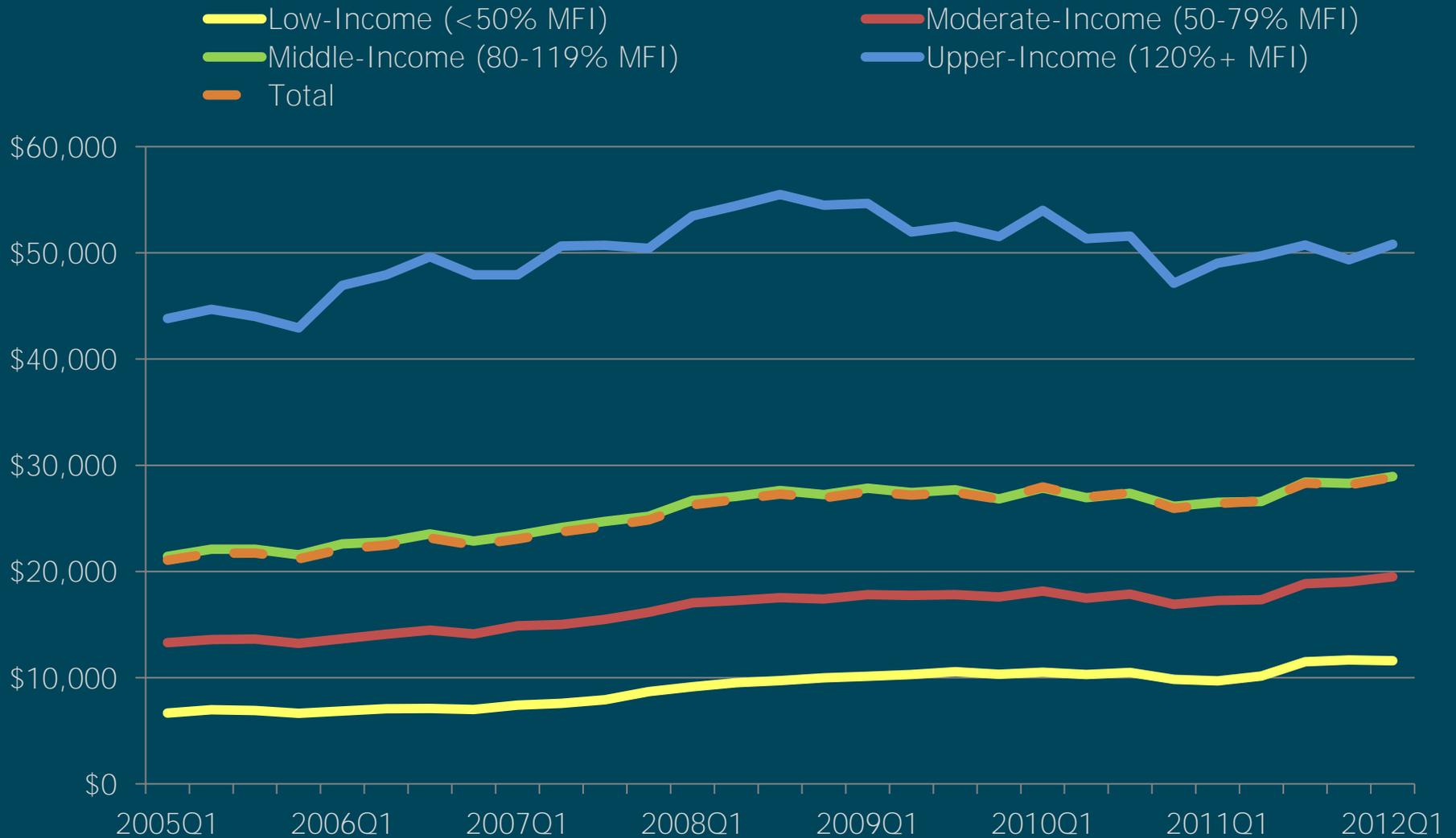
## THIRD DISTRICT HIGHLIGHTS

### **Median Total Debt & Percent of Consumers with Debt 2005Q1 through 2012Q1**

- In the first quarter of 2012, the median total debt for consumers in the Third District with a credit history and with any debt was roughly \$28,900 (excluding accounts in bankruptcy).
- Median total debt in upper-income neighborhoods was over \$50,000, while in low-income neighborhoods, it was \$11,600.
- Roughly 75 percent of consumers with a credit history in the Third District had at least some debt in the first quarter of 2012. (Refer to the data documentation included with these charts to learn more about the sharp rise in this measure in late 2007.)
- The percent of consumers with debt was not substantially different from the overall average in moderate-, middle-, and upper-income neighborhoods, falling between 69 and 81 percent. However, debt was much less common in low-income neighborhoods (57 percent).



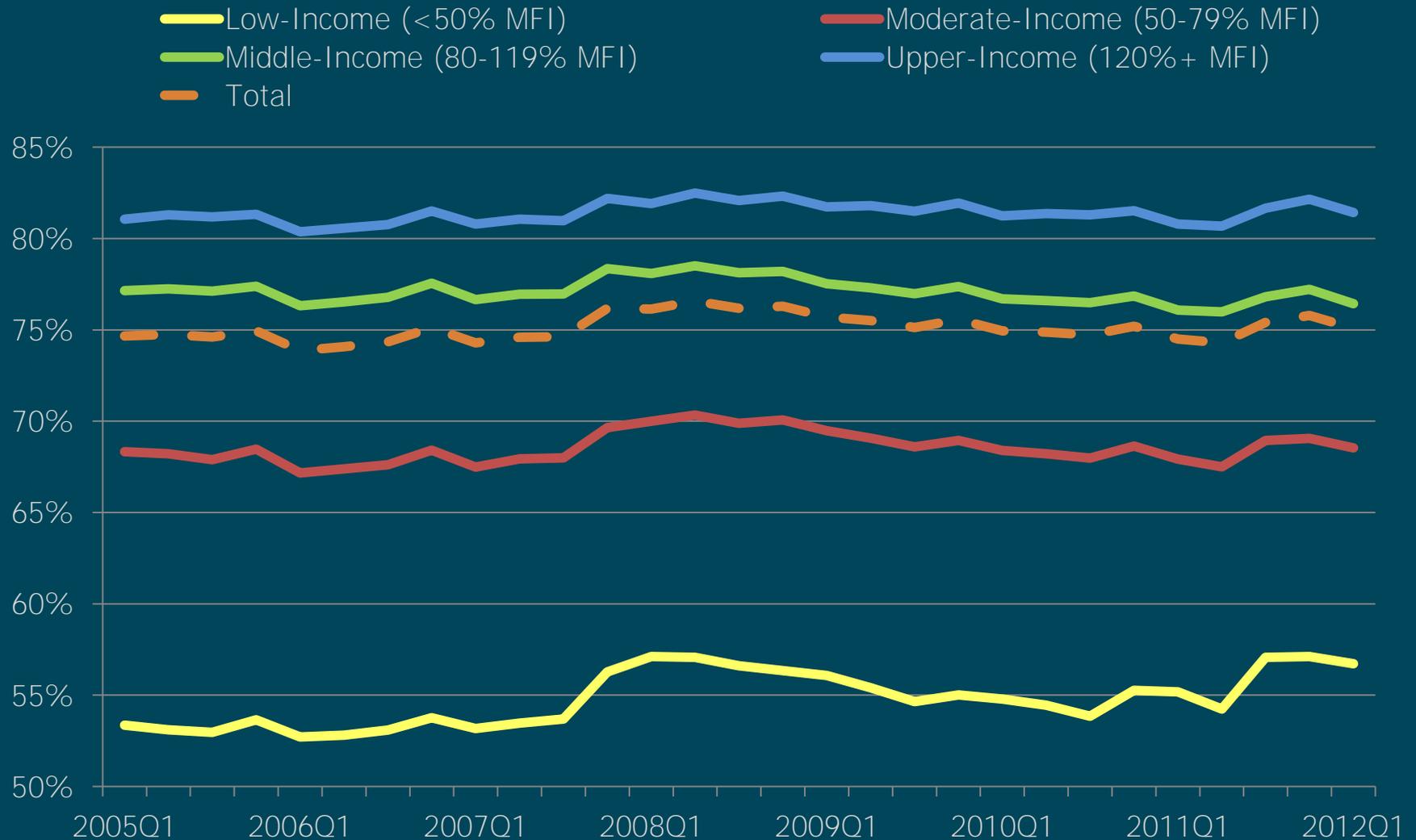
# Median Total Debt (Third District)\*



\* 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. Estimates beginning in the third quarter of 2011 are not fully comparable to prior quarters because of a change in the measurement of student loan debt introduced in that quarter. Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia. Last Point Plotted: 2012Q1



## 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. Estimates beginning in the third quarter of 2011 are not fully comparable to prior quarters because of a change in the measurement of student loan debt introduced in that quarter.

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

Last Point Plotted: 2012Q1



## THIRD DISTRICT HIGHLIGHTS

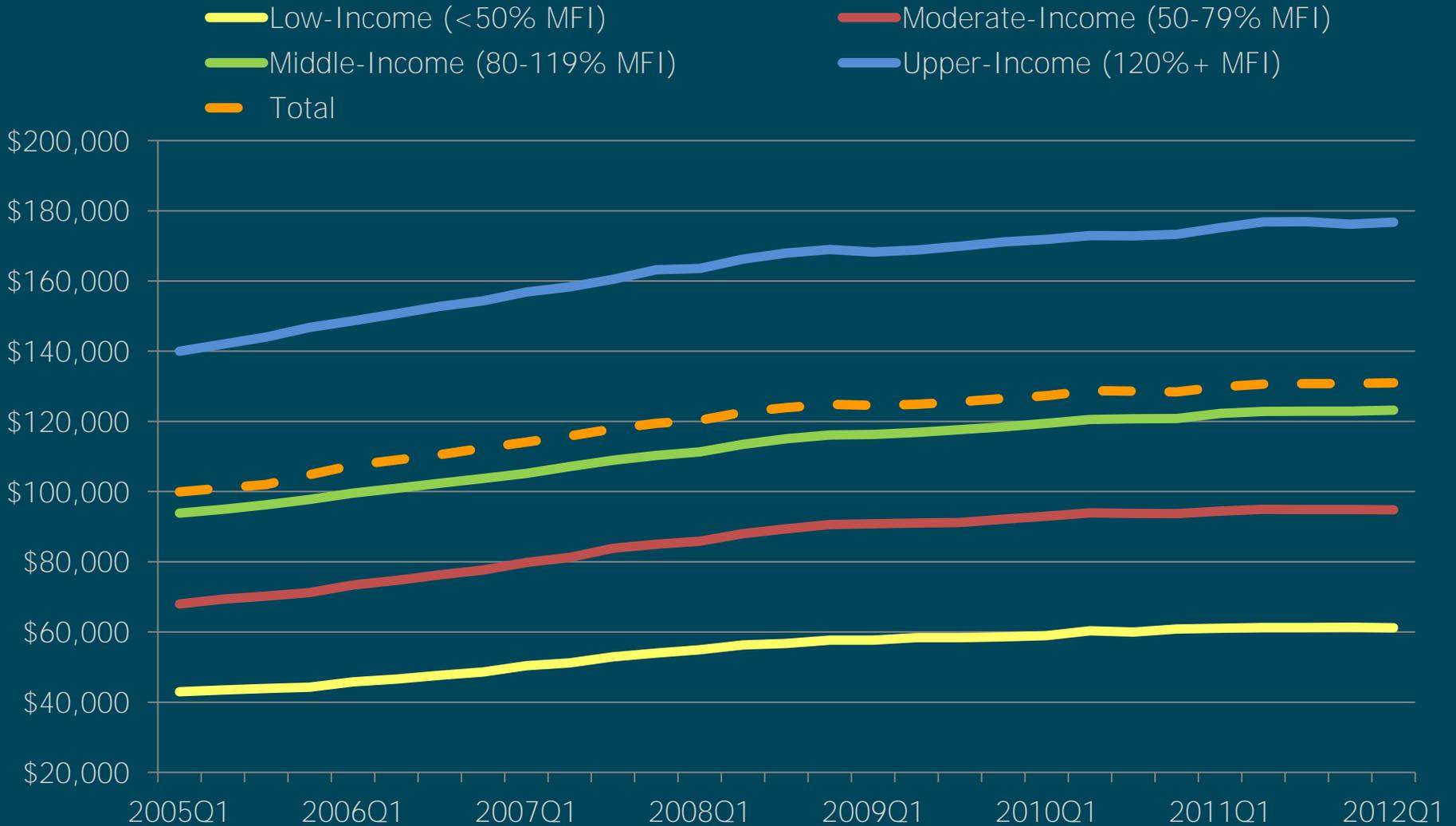
### Median Debt by Type

2005Q1 through 2012Q1

- Median mortgage debt (including home equity installment loans) for consumers in the Third District grew by 31 percent between 2005Q1 and 2012Q1, to \$131,000. Growth occurred in all neighborhood income categories but was greatest in low-income neighborhoods (42 percent).
- Overall, median bankcard debt in the Third District grew marginally between 2005 and 2008 and fell slightly at the end of the period, ending at roughly \$2,000, or 2 percent above where it began. Bankcard debt grew 5 percent in upper-income neighborhoods but fell by 5 to 7 percent in low- and moderate-income neighborhoods.
- During this period, median home equity line of credit debt for consumers in the Third District was higher (\$41,900) and grew faster (40 percent) in upper-income neighborhoods than in any other neighborhood income category.
- Median auto debt in the Third District ended this period at roughly the same level at which it began for each income category (+/- 2 percent). However, during the middle of this period, the medians for all of the neighborhood income categories converged and were no more than \$300 from the overall median in 2008Q1.



# Median Mortgage Debt (Third District)\*



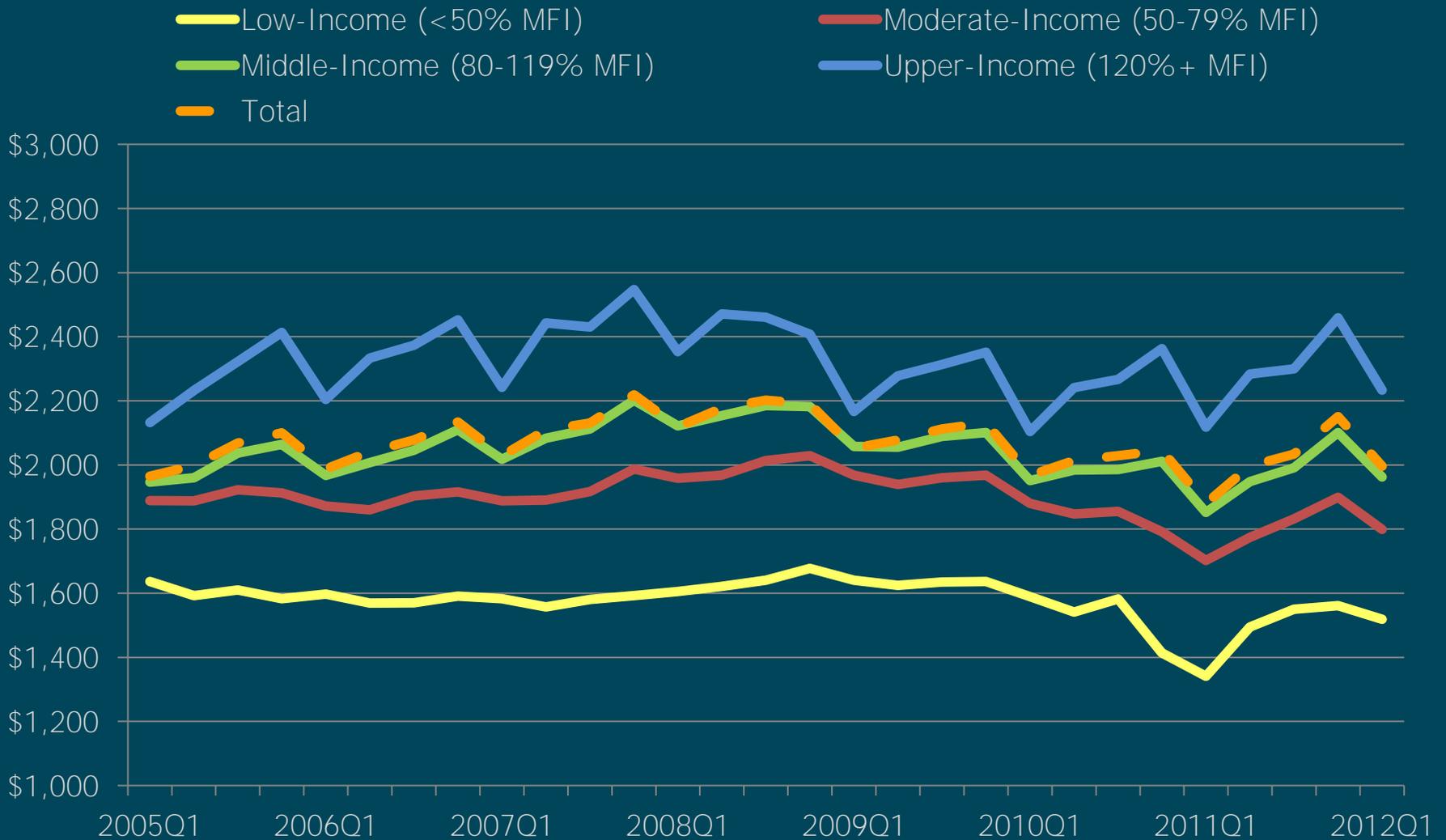
\* Includes home equity installment loans. Estimates include consumers with balances > \$0. Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.

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

Last Point Plotted: 2012Q1



## Median Bankcard Debt (Third District)\*



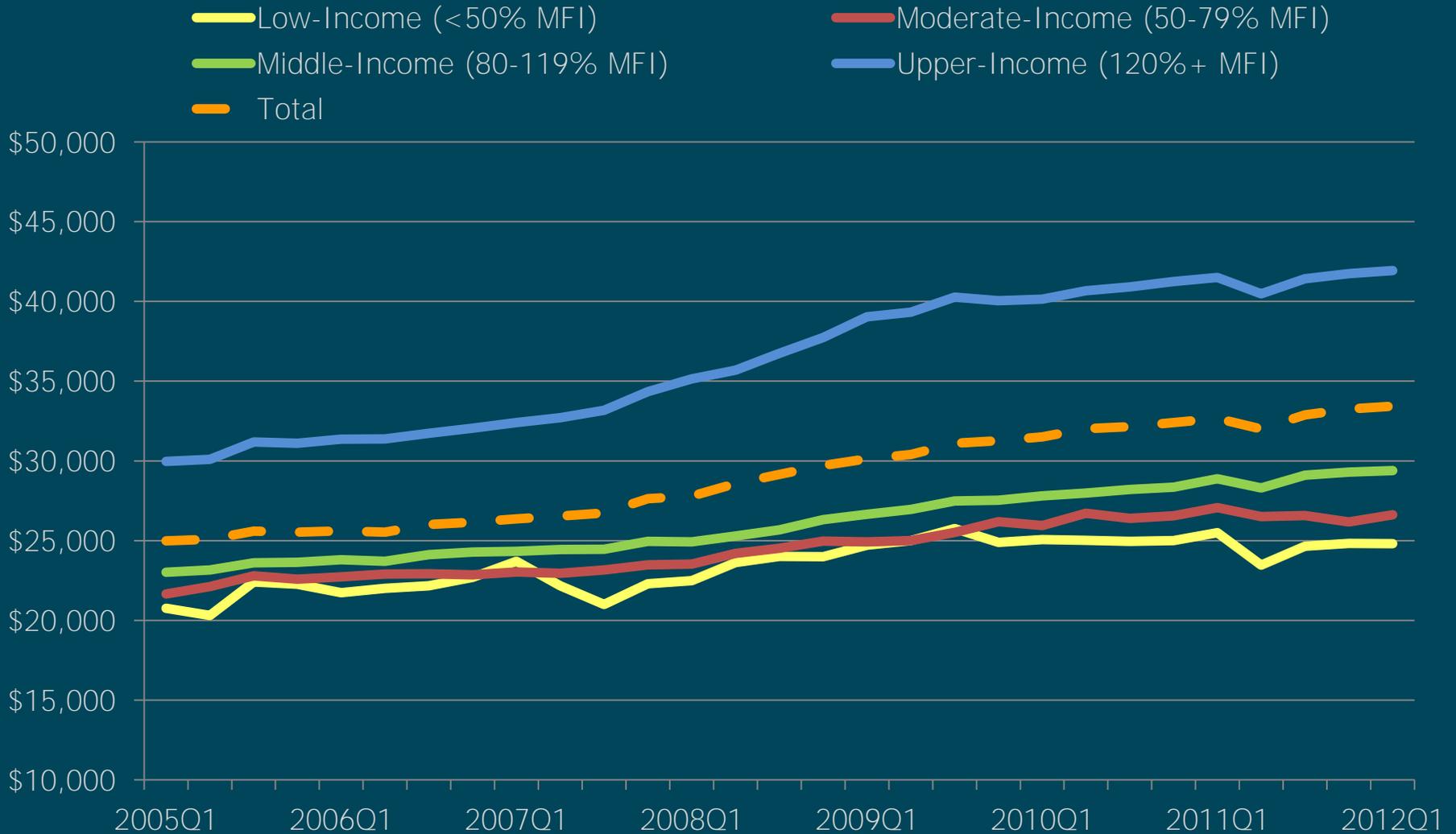
\* Bankcards include general-purpose credit cards and exclude both debit cards and credit cards for use at specific retailers. Estimates include consumers with balances > \$0. Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are 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: 2012Q1



# Median Home Equity Line of Credit 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.

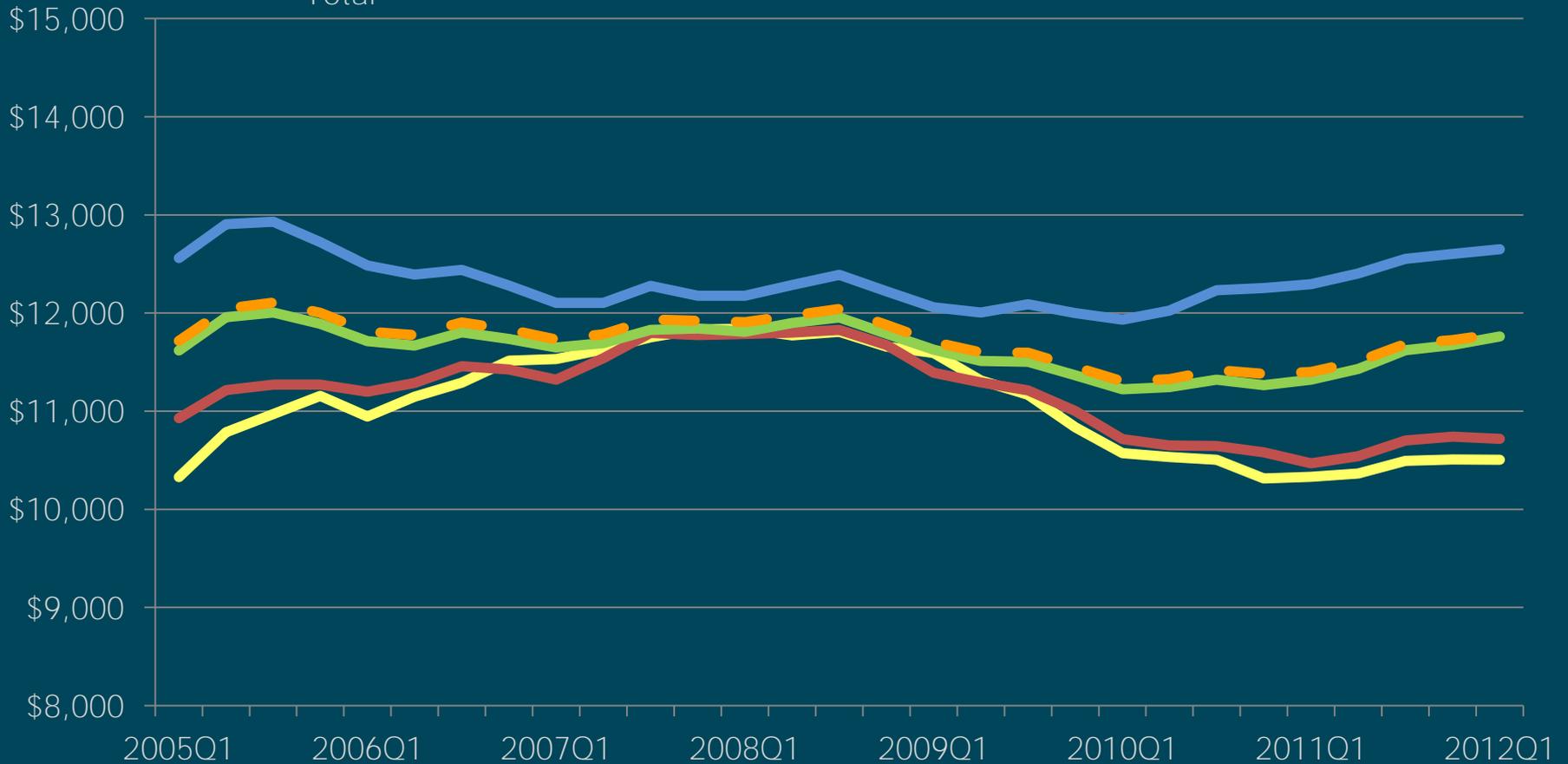
Source: New York Fed/Equifax Consumer Credit Panel. Prepared by the CDS&E Department at the Federal Reserve Bank of Philadelphia.

Last Point Plotted: 2012Q1



# Median Auto Debt (Third District)\*

- Low-Income (<50% MFI)
- Middle-Income (80-119% MFI)
- Moderate-Income (50-79% MFI)
- Upper-Income (120%+ MFI)
- Total



\* 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: 2012Q1



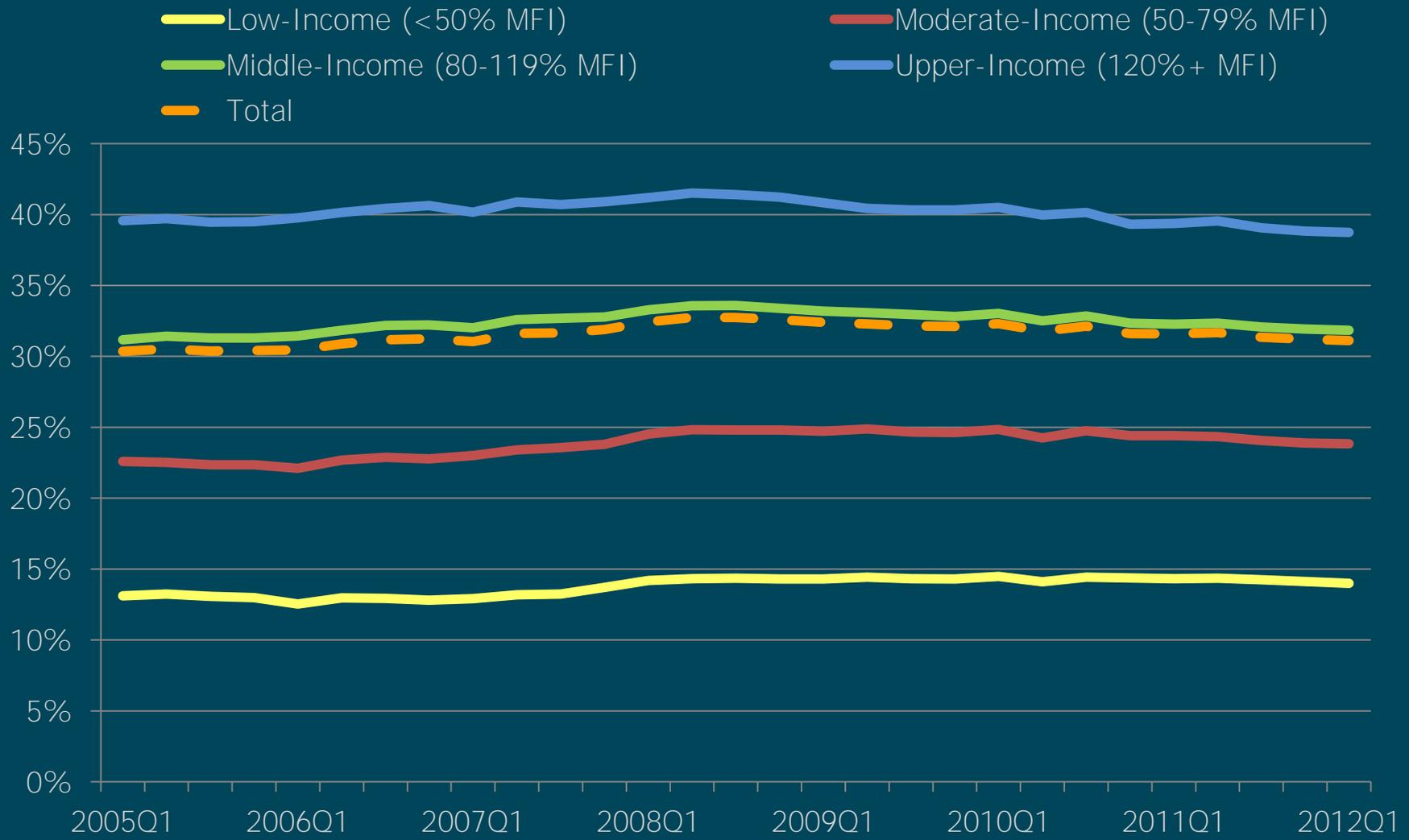
## THIRD DISTRICT HIGHLIGHTS

### **Percent of Consumers with Different Types of Tradelines 2005Q1 through 2012Q1**

- Roughly 31 percent of consumers in the Third District with a credit history had a mortgage tradeline in the first quarter of 2012 (including home equity installment loans). The rate was much higher in upper-income neighborhoods (39 percent) than in low-income neighborhoods (14 percent). During this period, the rate rose by 1 percent overall and in all neighborhood income categories except upper income, where it fell by 1 percent.
- In total, 64 percent of consumers in the Third District had a bankcard in 2012Q1, down from 69 percent in 2005Q1. The likelihood of having a bankcard was twice as high in upper-income neighborhoods (74 percent) as in low-income neighborhoods (37 percent).
- Roughly 10 percent of consumers in the Third District had a home equity line of credit in 2012Q1, and there was little change during this period. This type of tradeline was much more common among consumers in upper-income neighborhoods (15 percent) than in low-income neighborhoods (2 percent). (Refer to the data documentation included with these charts to learn more about the unexpected drop and subsequent rebound in 2011.)
- Approximately 27 percent of all consumers with a credit history in the Third District had an auto tradeline in 2012Q1, and levels in middle- and upper-income neighborhoods were roughly equivalent to the overall rate. Consumers in low-income communities were much less likely to have an auto tradeline (16 percent) despite an increase of 3 percent over this period.



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



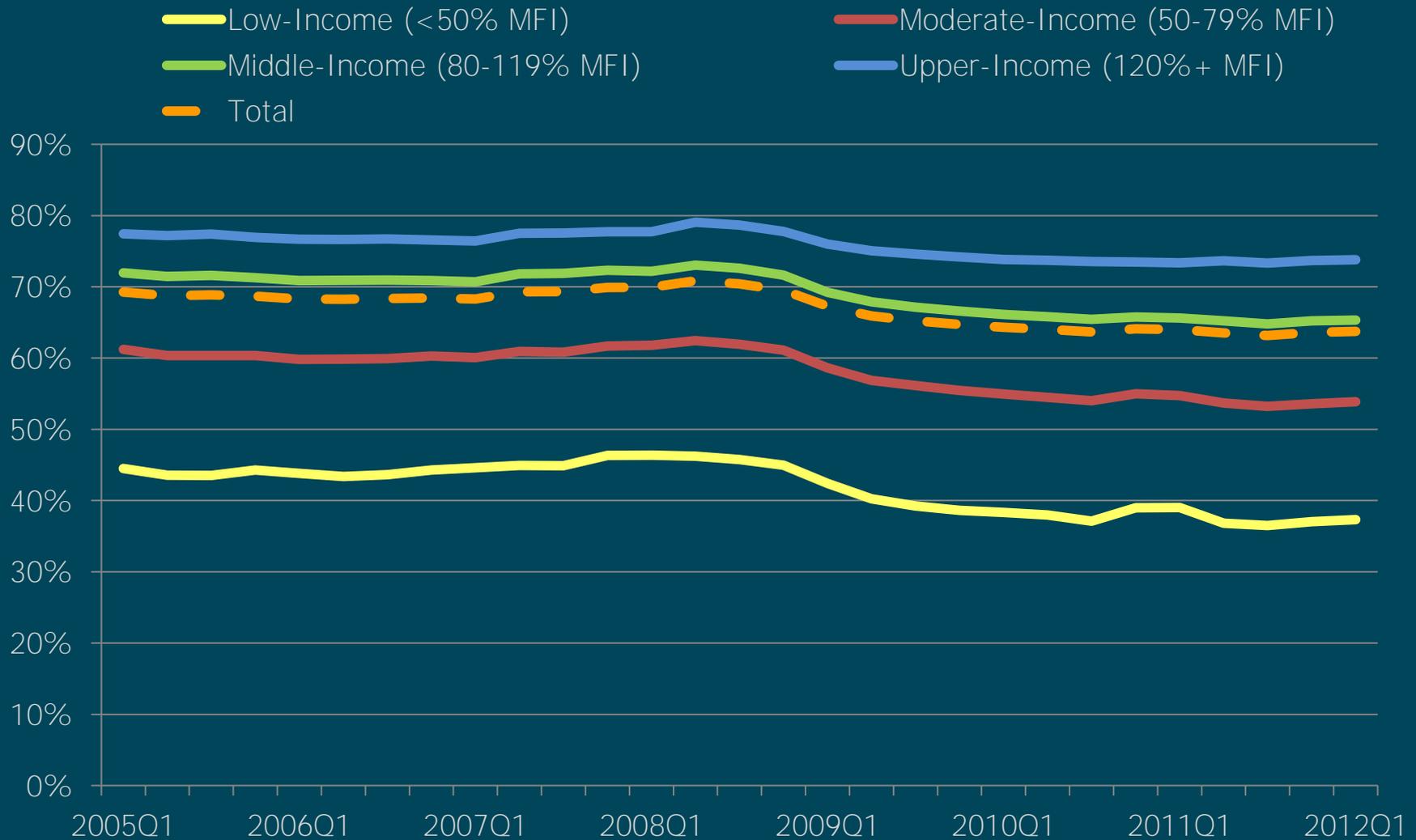
\* Includes home equity installment loans. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.

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

Last Point Plotted: 2012Q1



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



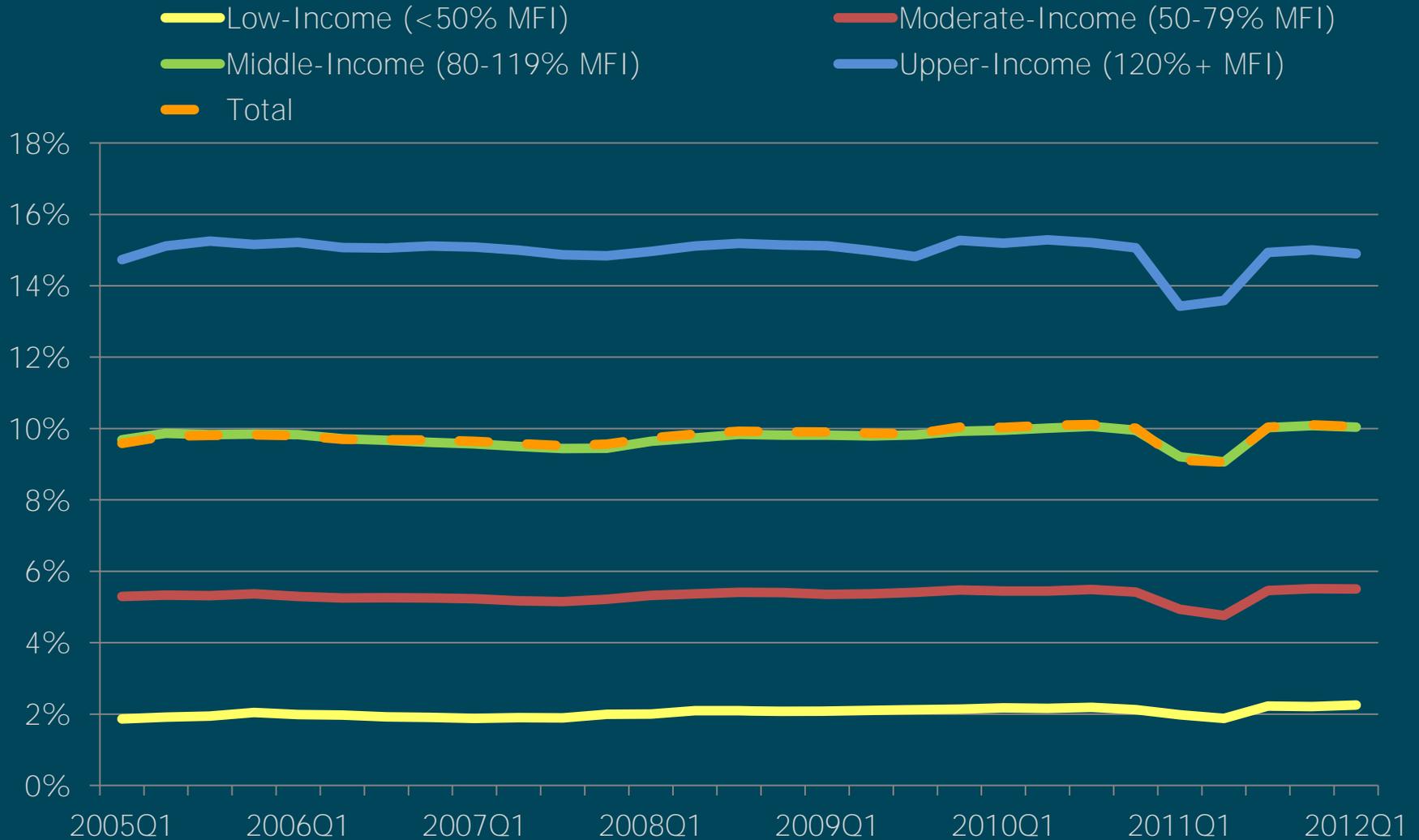
\*Bankcards include general-purpose credit cards and exclude both debit cards and credit cards for use at specific retailers. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.

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

Last Point Plotted: 2012Q1



# Percent of Consumers with a Home Equity Line of Credit Tradeline (Third District)\*



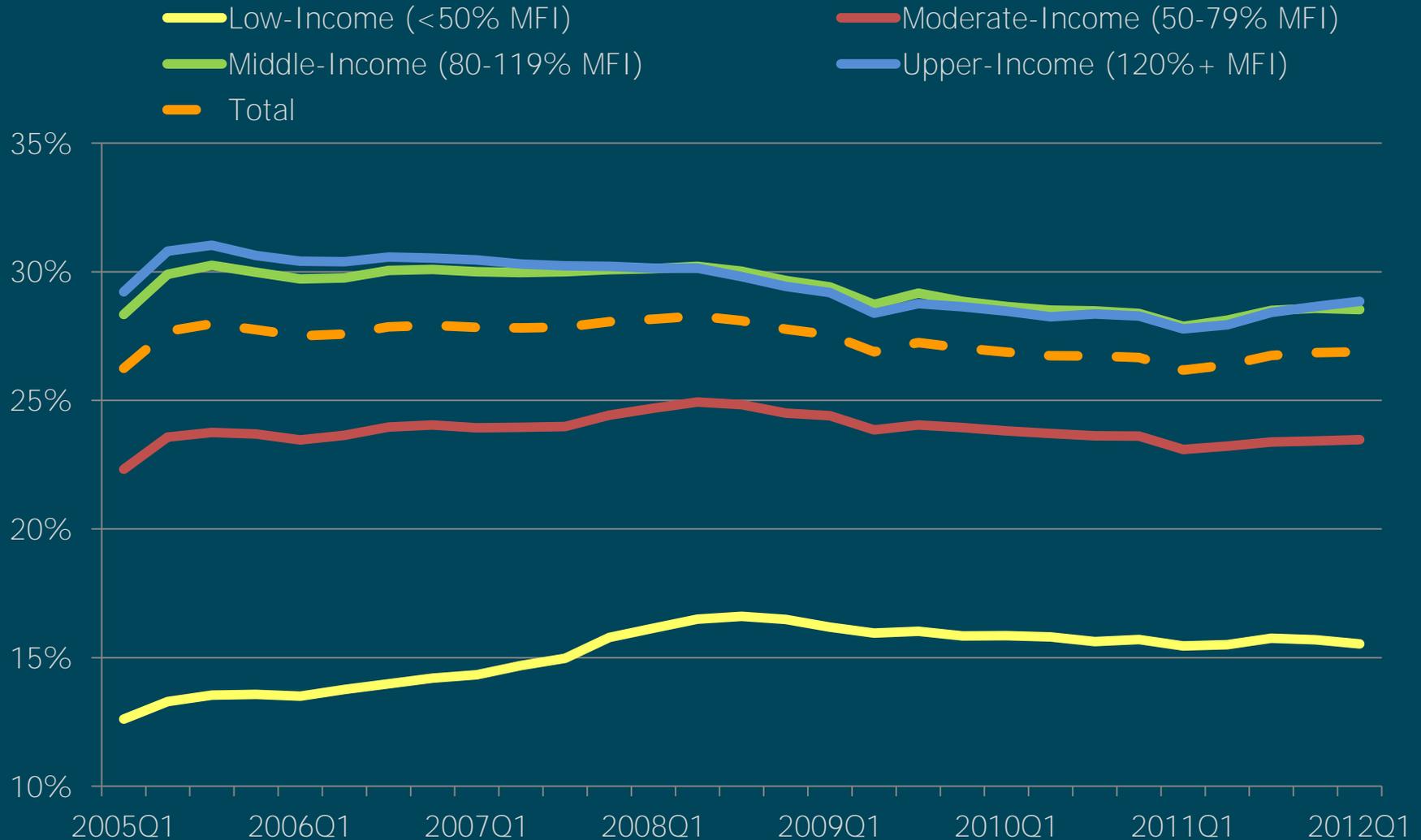
\* Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them.

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

Last Point Plotted: 2012Q1



# 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: 2012Q1



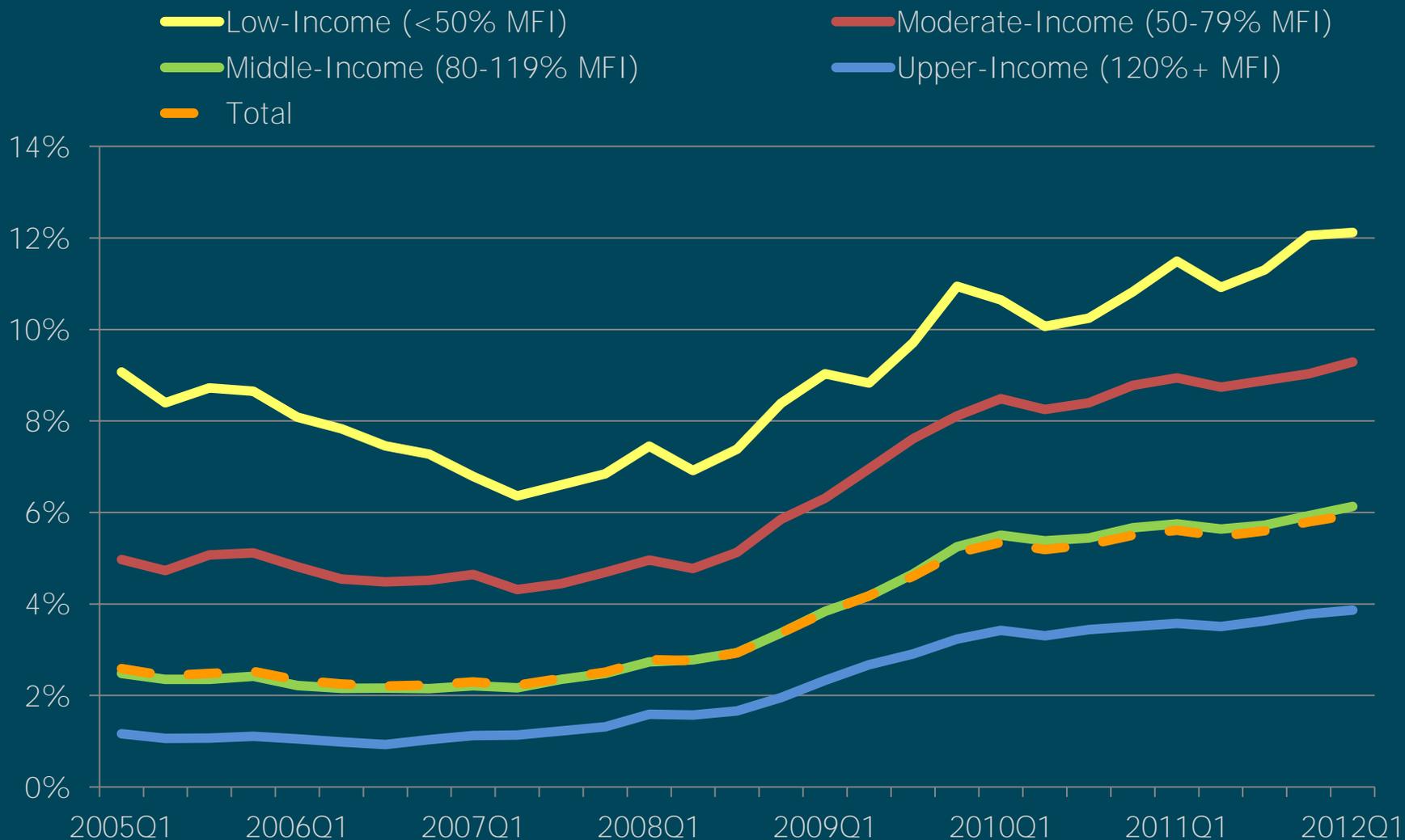
## THIRD DISTRICT HIGHLIGHTS

### Percent of Consumers Seriously Delinquent by Type of Debt 2005Q1 through 2012Q1

- Mortgage delinquencies have increased consistently in the Third District since 2007 and were 3 to 4 percent higher overall and for all neighborhood income categories in the first quarter of 2012 than at the start of the period. Roughly 6 percent of consumers with a mortgage tradeline (including home equity installment loans) were at least 90 days delinquent, compared with 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 2012Q1. This represents a 4 percent improvement in the overall rate since 2005Q1, which stands in contrast to other analyses that show an increasing percentage of bankcard *debt* going delinquent over 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). (Refer to the data documentation included with these charts to learn more about the temporary increase in delinquency rates in 2010 and 2011.)
- The percent of consumers with a home equity line of credit in the Third District at least 90 days delinquent rose steadily after 2008, to over 2 percent in 2012Q1. For consumers in low-income neighborhoods, the delinquency rate climbed 3 points, to end at just under 6 percent.
- After rising steadily in the Third District since 2005, roughly 6 percent of consumers with an auto loan were at least 90 days delinquent at the end of the period, slightly below the peak. The delinquency rate rose 6 points, to 20 percent, for consumers in low-income neighborhoods.
- *For a discussion of how these delinquency rates may differ from other delinquency statistics, please refer to the data documentation included with these slides.*



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



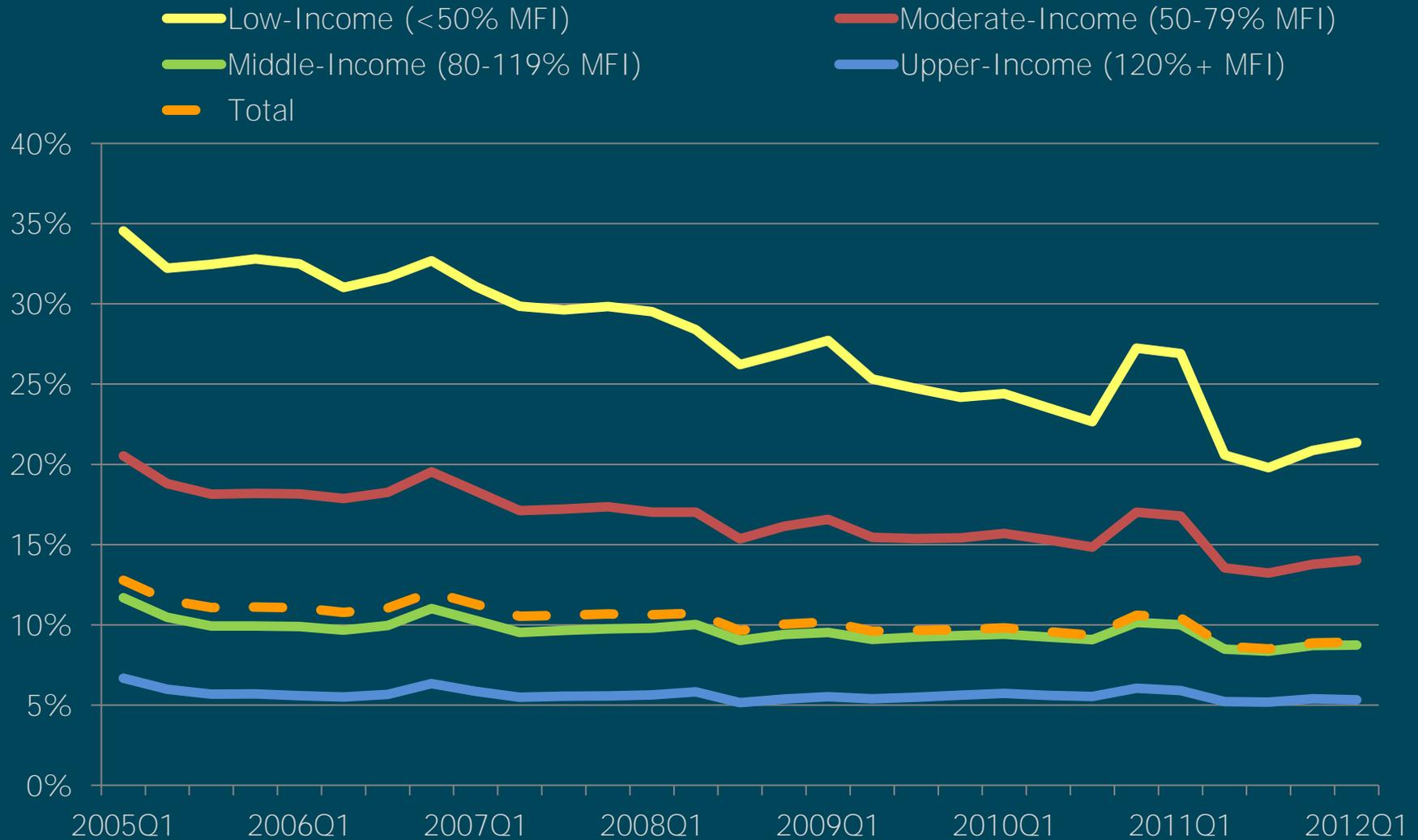
\* As a percent of all consumers with an account of this type. Includes home equity installment loans. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Refer to the data documentation for a full 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: 2012Q1



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



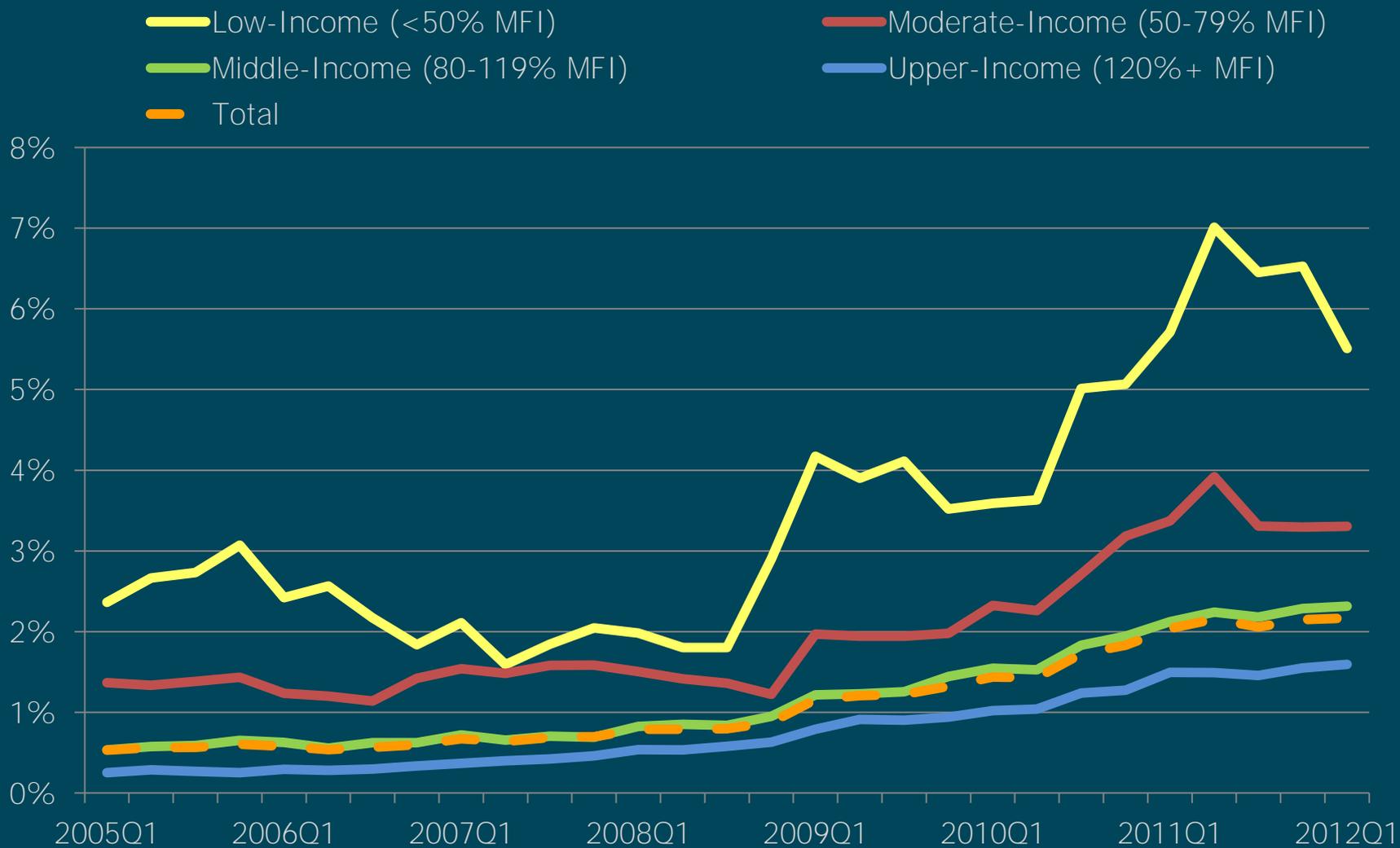
\* As a percent of all consumers with an account of this type. Bankcards include general-purpose credit cards and exclude both debit cards and credit cards for use at specific retailers. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the 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: 2012Q1



# Percent of Consumers with a Home Equity Line of Credit at Least 90+ Days Past Due, in Collections, Classified as Severely Derogatory, or in Bankruptcy (Third District)\*



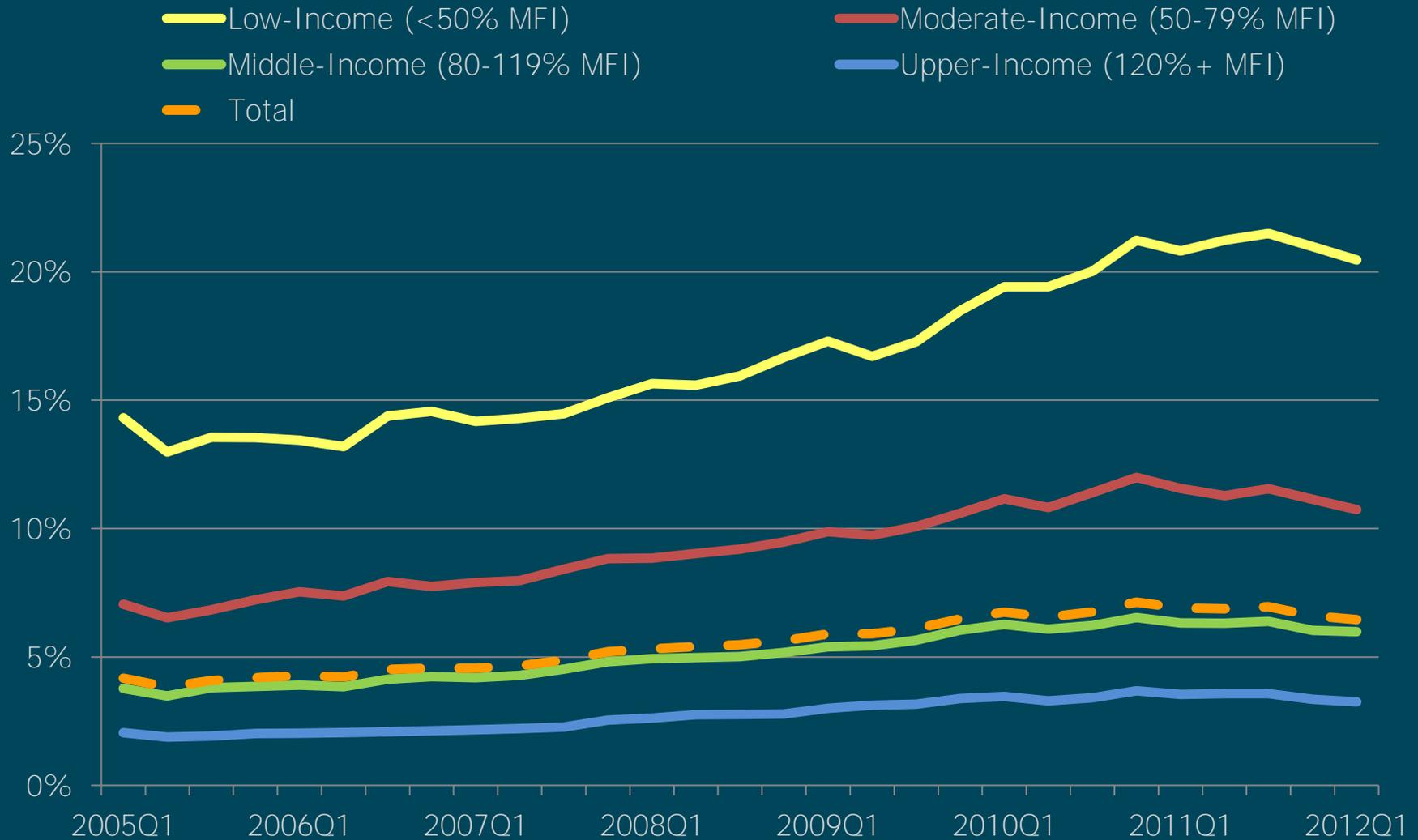
\* As a percent of all consumers with an account of this type. Tradelines with balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Refer to the data documentation for a full discussion of this statistic.

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

Last Point Plotted: 2012Q1



# 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: 2012Q1



# THIRD DISTRICT HIGHLIGHTS

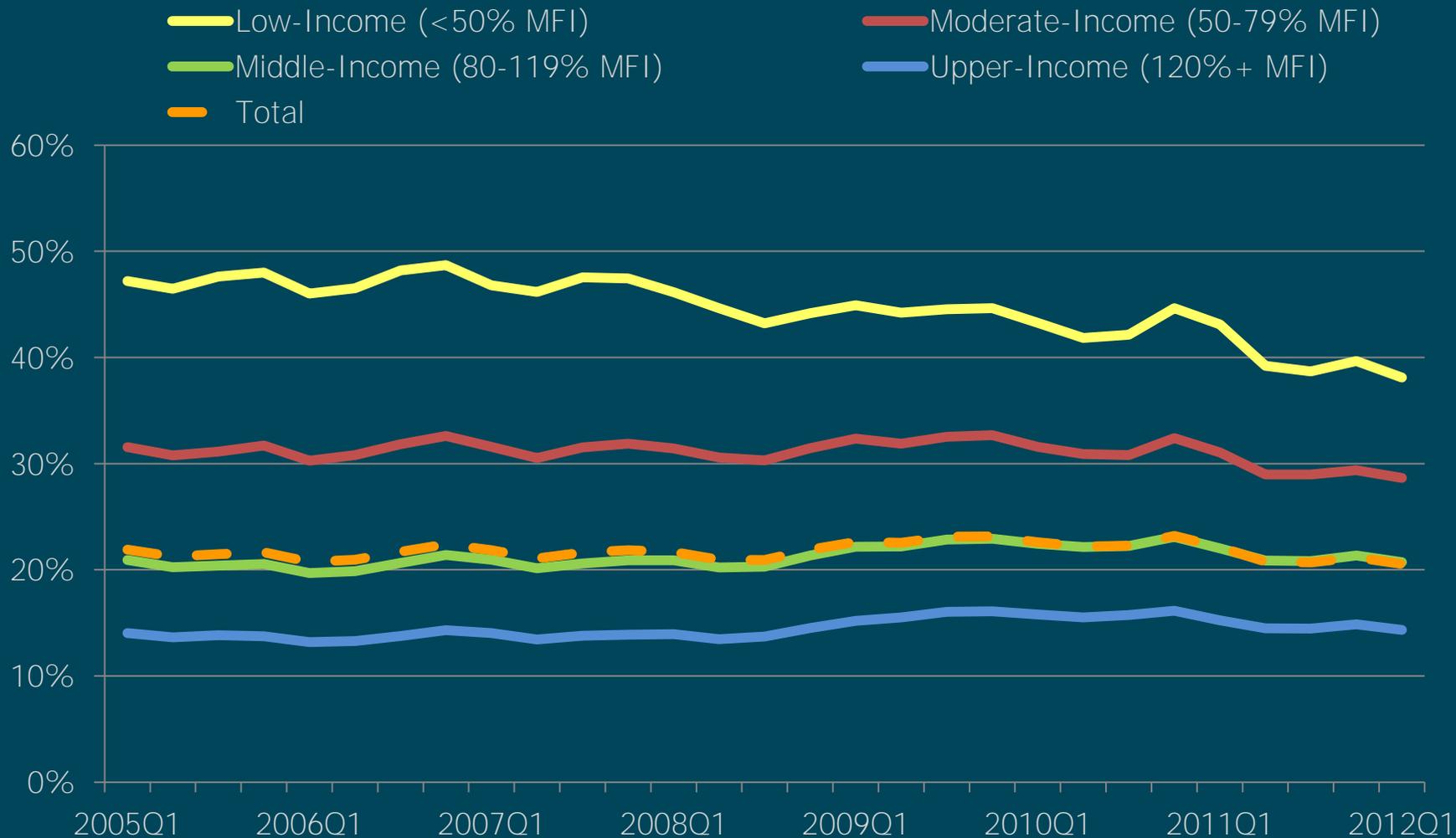
## Credit Utilization and Quality

### 2005Q1 through 2012Q1

- The percent of consumers in the Third District with a total bankcard balance greater than 75 percent of their total credit limit fell by 1 point during the period, to 21 percent. The rate among consumers in low-income neighborhoods fell 9 points, to 38 percent, while the level in upper-income communities ended the period unchanged at a much lower 14 percent.
- In the first quarter of 2012, 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 worsened slightly in middle- and upper-income communities and improved marginally in low-income neighborhoods, where it ended the period at 70 percent despite this improvement.



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



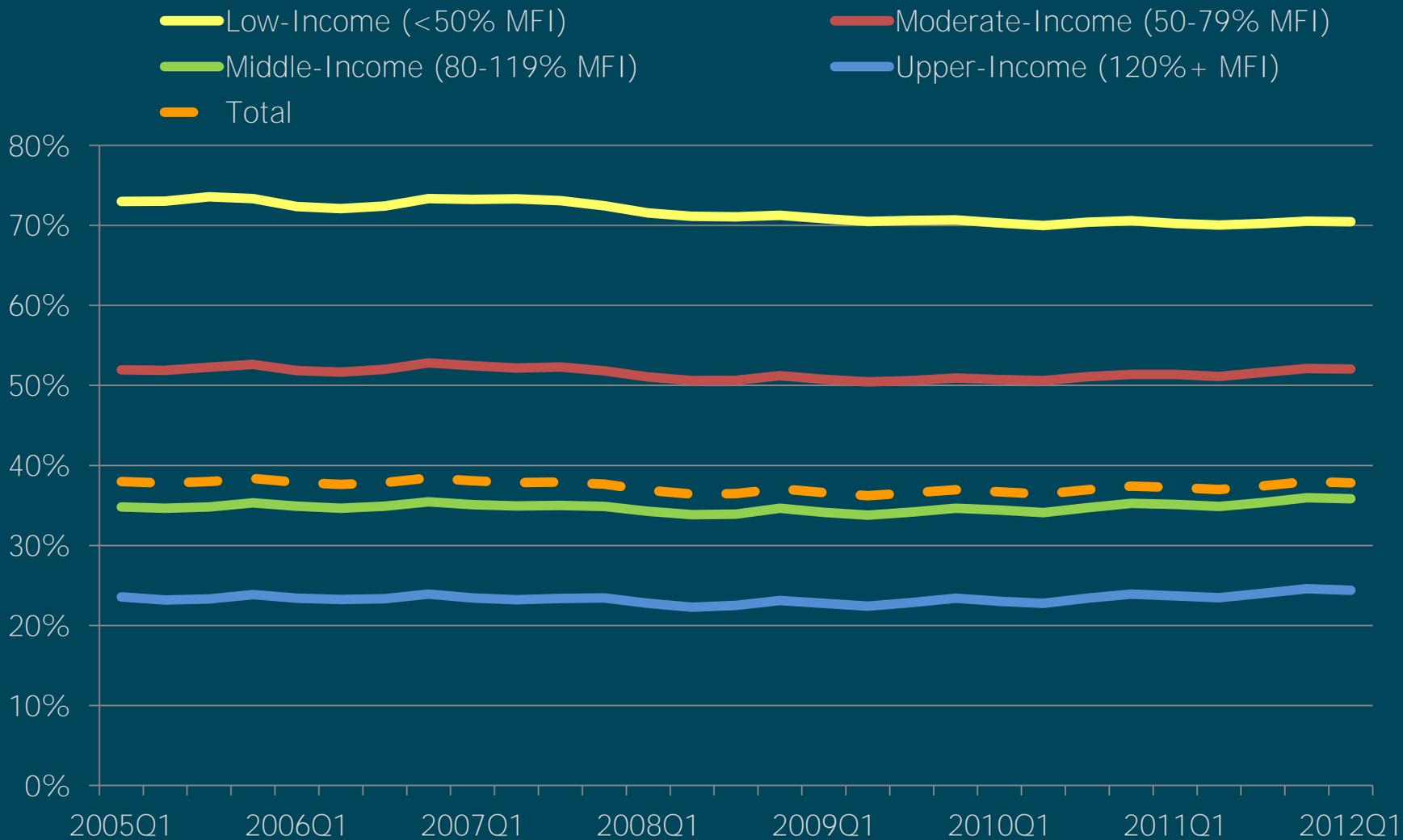
\* Balances discharged in bankruptcy are excluded, but other balances charged off due to nonpayment within the last 7 years are included in these data, to the extent that lenders continue to report them. Excludes consumers with aggregate balances greater than 10 times their aggregate limits. Where the 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: 2012Q1



# 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: 2012Q1

# Data Documentation

## 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.<sup>1</sup> 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.<sup>2</sup> 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 20 percent random sample, or roughly 2.4 million records. 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.<sup>3</sup> 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 weighted median family income of nonmetropolitan census tracts in the state.<sup>4</sup> 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

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<sup>1</sup> 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.).

<sup>2</sup> 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. Roughly 20 million adults out of the 210 million in the United States in 2005 did not have a credit history and would have been excluded from sample selection in that year (see Janice Horan, [FICO Scores and the Credit Underserved Market](#), Fair Isaac (2005)).

<sup>3</sup> For about 1 percent of consumers, the geographic information provided in the file is erroneous, and these individuals are excluded from all analyses.

<sup>4</sup> 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](#).

percent of MFI); and upper income ( $\geq 120$  percent of MFI).<sup>5</sup> The analysis presents statistics based on the credit characteristics of individuals in each of these neighborhood income categories and for specific geographic areas.

The methodology we follow 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 the most 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.<sup>6</sup>

### **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. Additionally, estimates beginning in the third quarter of 2011 are not fully comparable to prior quarters because of a change in the measurement of student loan debt introduced in that quarter.

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). Additionally, estimates beginning in the third quarter of 2011 are not fully comparable to prior quarters because of a change in the measurement of student loan debt introduced in that quarter.

Median Debt by Type:<sup>7</sup> 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 charged off but continues to report to the credit bureau). Debt categories include auto, mortgage, bankcard,<sup>8</sup> and home equity line of credit. 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.

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<sup>5</sup> A separate category includes consumers assigned to census tracts for which a median family income estimate is not available. These consumers, who constitute less than 0.1 percent of the data set, are excluded from estimates reported for the income categories but are included in all "totals."

<sup>6</sup> When the consumer credit data set incorporates the 2010 census geographies, we plan to adopt the current FFIEC census tract classifications.

<sup>7</sup> A change in the measurement of student loan debt occurred in the third quarter of 2011, which currently prevents us from incorporating comparable historical data on student loans into our analysis.

<sup>8</sup> Bankcards include general-purpose credit cards (e.g., Visa, MasterCard) but exclude both debit cards and credit cards for use at specific retailers.

Percent of Consumers with a Tradeline: This estimate is calculated as the number of consumers that 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, bankcard, and home equity line of credit. Mortgage estimates include both regular mortgages and home equity installment loans.

Percent of Consumers at Least 90+ Days Past Due, in Collections, Classified as Severely Derogatory, or in Bankruptcy: 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. Accounts that are severely derogatory are more than 120 days past due and may be charged off by the lender as bad debt. Estimates are currently available for auto, mortgage, bankcard, and home equity line of credit. Mortgage estimates include both regular mortgages and home equity installment loans.

Delinquency rates provided here 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.<sup>9</sup> 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.

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.<sup>10</sup> Included in this statistic are those for whom Equifax does

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<sup>9</sup> In financial statements, a charge-off 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.

<sup>10</sup> 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.

not calculate a risk score because their credit histories are too “thin” to provide sufficient information for gauging credit risk. A consumer that meets either of these criteria likely encounters challenges in accessing credit from mainstream financial institutions.

### **Discussion of Inconsistent Trends**

1. The percent of consumers with any debt increased sharply between the third and fourth quarters of 2007, and the increase was particularly noticeable in low-income neighborhoods. The shares of consumers with different types of tradelines – mortgage, home equity line of credit, auto, and bankcard – also exhibited increases during this quarter, and for the last two, the percent change was greater in LMI neighborhoods. We offer no explanation for these trends at this time but hope to investigate this pattern in the future.
2. The percent of consumers with a home equity line of credit fell considerably in the first and second quarters of 2011, particularly in the Third Federal Reserve District. For roughly 2.5 percent of consumers in the national data set with a tradeline before and after these quarters, the tradeline is missing during this intervening period. It is unlikely that this reflects an actual temporary decline in the existence of home equity line of credit accounts. Rather, this could be the result of inconsistent reporting by the lender/servicer, which could be explained by the bulk transfer of home equity line of credit accounts from one lender/servicer to another. Also, on rare occasions, a lender/servicer that customarily provides data to Equifax may report several days late at the end of a quarter, and its loans would not be included in our data for that quarter. Both scenarios would create a gap in the reporting of these home equity line of credit accounts to Equifax, although no definitive explanation is available at this time.
3. The percent of consumers with a bankcard tradeline – and a delinquent bankcard tradeline – increased significantly in the last quarter of 2010 and the first quarter of 2011. 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.

### **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.

Barron, John M., Gregory Elliehausen, and Michael E. Staten. "Monitoring the Household Sector with Aggregate Credit Bureau Data," *Business Economics* (January 2000), pp. 63-76.

Cheney, Julia S. “[Alternative Data and Its Use in Credit Scoring Thin- and No-File Consumers](#),” Federal Reserve Bank of Philadelphia Payment Cards Center Discussion Paper (2008).

Cheney, Julia S. “[Payments, Credit, and Savings: The Experience for LMI Households](#),” Federal Reserve Bank of Philadelphia Payment Cards Center Conference Summary (2007).

Hunt, Robert M. “[A Century of Consumer Credit Reporting in America](#),” Federal Reserve Bank of Philadelphia Working Paper 05-13 (2005).

Kish, Andrew. “[Perspectives on Recent Trends in Consumer Debt](#),” Federal Reserve Bank of Philadelphia Discussion Paper (2006).

Lee, Donghoon, and Wilbert van der Klaauw. “[An Introduction to the FRBNY Consumer Credit Panel](#),” Federal Reserve Bank of New York Staff Report 479 (2010).