An abstract network diagram consisting of numerous black circular nodes of varying sizes connected by thin grey lines. The nodes are arranged in a roughly triangular shape, with a dense cluster in the center and more sparse connections towards the edges. Several translucent teal shapes, resembling overlapping triangles or polygons, are layered over the network, creating a sense of depth and highlighting specific clusters or paths within the overall structure.

2017

Subprime Lending Trends

Insights into Consumers & the Industry

CLARITY SERVICES, INC.

2017

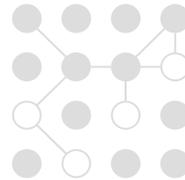
Subprime Lending Trends

Insights into Consumers & the Industry

By: **Tim Ranney**, *President and CEO of Clarity Services*
Heather Lamoureux, *Chief Data Analyst*



Executive Summary



Clarity Services, Inc. is the leading credit reporting agency that provides data reporting for underbanked, near prime, and subprime consumers to help businesses mitigate risk in subprime lending . Clarity's growing database of nearly 60 million unique consumer identities includes alternative credit data that is not available from traditional reporting agencies.

We analyzed the consumer trends and financial behavior of subprime loan users by looking at application and loan data in our database over a long period of time. This report summarizes our findings and provides industry insight about these trends.

The information in Clarity's database powers credit reports obtained by lenders, cell service providers, retailers and other users of the Clarity system. It contains hundreds of millions of inquiries and funded loans showing loan type, amount, terms, and performance.

Highlights:

Features of this report:



Upward Trends

Total loan counts, total dollar volume, and average annual credit utilization per customer showed a steady upward trend for both storefront and online markets in 2013-2016. However, all metrics dropped significantly for online installment lending in 2016.

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New vs. Returning Customers

Each year, 70 – 80 percent of borrowers are new to the online market.

Returning customers account for more than 50 percent of loans even though they make up only 30 percent of the population of borrowers.

[Learn More](#)



Single Pay* vs. Installment Approvals

Funding rates (the ratio of funded loans to applications) have increased steadily in online single pay lending, but decreased significantly in online installment lending.

Credit performance has not correlated directly with changes in approval rates. Even after factoring in truncation effect, there may be signs of improved default rates in installment lending.

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Location, Location, Location

Over 40 percent of the borrowers in the online lending market are located in just two states, California and Texas. Only one state in the top 10 changed during a four-year period.

[Learn More](#)



Consumer Stability

With few exceptions, the financial stability of borrowers in this market show some positive improvements.

[Learn More](#)

* Single pay loans are short-term, small dollar loans that are usually repaid in 30 days or less in one lump sum.

The Dataset:

A Static Pool of Lenders with Substantial Reporting History

15,843,338 LOANS

There are hundreds of lenders and tens of millions of identity histories in the Clarity database. This report uses a select subsample of this data.

We sorted all inquiry and loan data by lender. We looked for lenders who were furnishing data to Clarity in 2016 and had been doing so for at least three years.

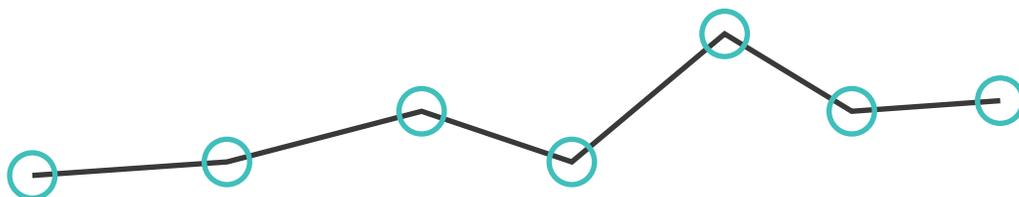
The trends in the data reflect organic growth and evolution of a fixed sample of lenders.

The counts in our subsample are as follows:



Table 1: Static Pool Dataset

	Loan Count	Inquiry Count
Online Single Pay	6,670,581	91,915,849
Online Installment	3,048,998	66,487,812
Storefront Single Pay	3,783,234	2,142,192
Storefront Installment	2,340,435	11,914,324



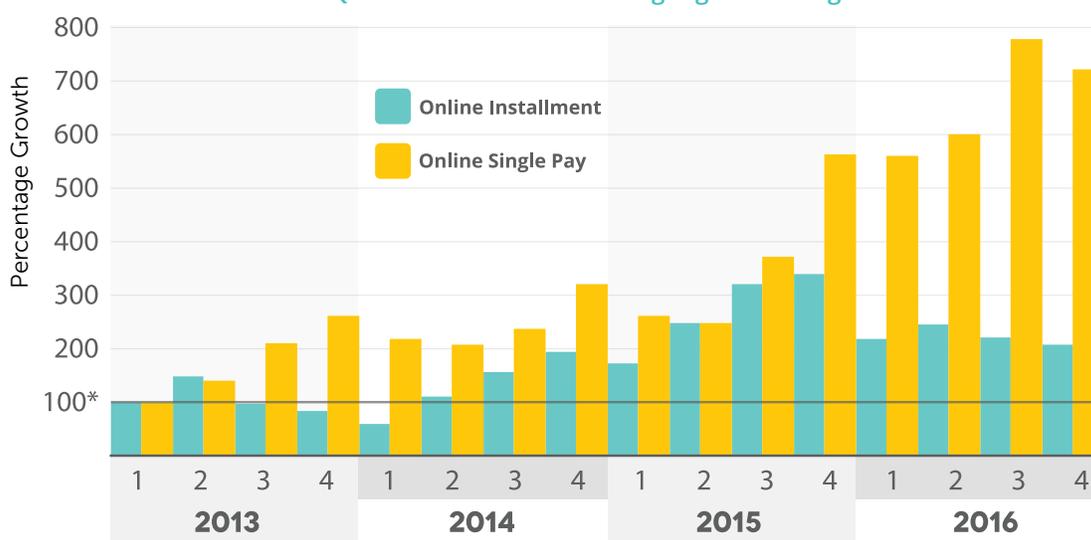
Market Trends:

Online Lending Volume and Product Mix

The growth trend of our single pay and installment lenders is generally positive, both in count and dollar volume.

Figure 1: Growth in Number of Online Loans 2013-2016

*Consider Q1 2013 as the baseline to gauge relative growth



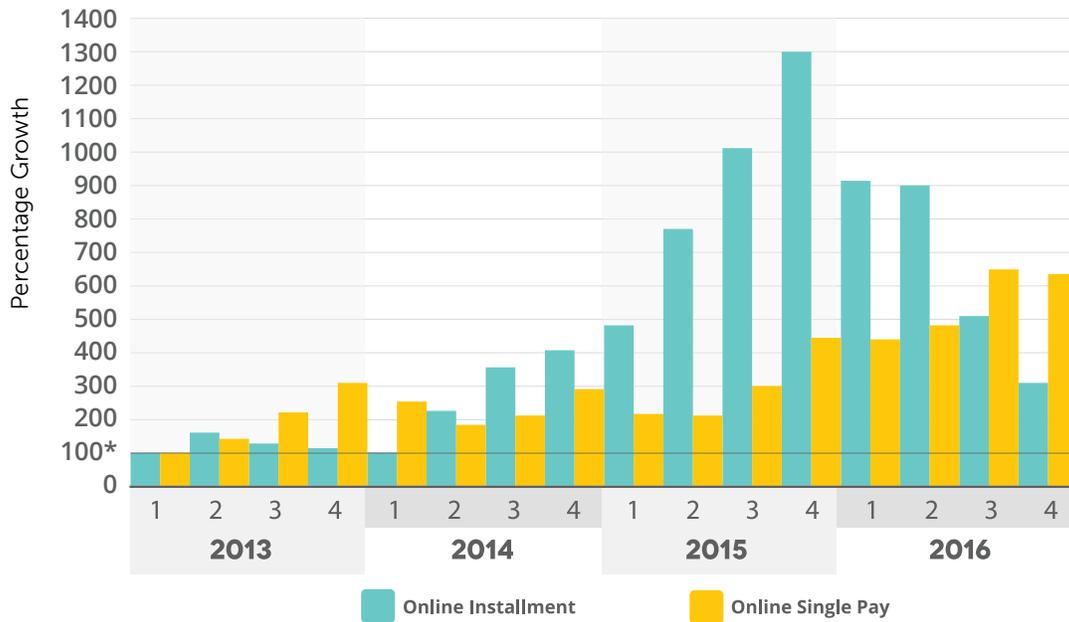
The growth in the number of single pay loans is relatively steady throughout, capping at 780 percent growth in Q3 2016.

Notable Trend: The number of single pay loans does not appear to have been reduced during the 2013-2014 introduction of Operation Chokepoint, whereas installment lending had its greatest reduction of loan volume as a result.¹

1. An interruption in ACH access would be more significant for a lender needing to make 18-26 debits for an installment loan than it would be for a single-payment lender. A single-payment lender threatened with loss of ACH access by Chokepoint could stop lending and recover capital in a month. An installment lender is at much greater risk, because its loans may extend for six months or a year, and an ACH ODFI can terminate a relationship in a month or two.

Figure 2: Growth in Dollar Amounts of Loans 2013-2016

*Consider Q1 2013 as the baseline to gauge relative growth



While the single pay loans steadily increase in number, the installment loans increase in dollar amount, capping at 1,300 percent growth in Q4 2015.

The 2014 reduction in the number of installment loans, paired with the 2016 reduction in installment dollar amount, skews the overall year-over-year online market total, as shown in **Table 2**.

Table 2: YOY Changes in Online Lending Market

	2013 - 2014	2014 - 2015	2015 - 2016
Count of Loans	32.7%	66.6%	43.0%
Dollar Value of Loans	75.2%	163.2%	-9.0%
Count of Borrowers	-15.7%	52.6%	-21.5%

Customer Turnover:

Customer Turnover + Product Use

The majority of lending customers are new to the market, but existing customers are the most active.

One important question a lender faces is how much to spend finding new customers – both new to the product and new to that lender. If loan dollar volume is declining, should a lender spend more to add new customers?

We find that obtaining new customers is a significant and important task for lenders, regardless of overall market trends. **Table 3** shows us that a significant majority of the borrowers in any given year are new to the market.

INDUSTRY INSIGHT:

Between 68 percent and 82 percent of customers in any given year are new to the market.

Between 80 and 89 percent of customers are new to a specific lender.



Table 3: Percentage of Borrowers Not Seen In Prior Calendar Year

	2014	2015	2016
New to Market	82.2%	78.1%	68.7%
New to Lender	89.4%	86.7%	80.2%

INDUSTRY INSIGHT:

When we break this data out between online and storefront lenders, we find that the online market has slightly more returning customers than the storefront market. However, when looking at returning customers for individual lenders, storefront operators come out on top.



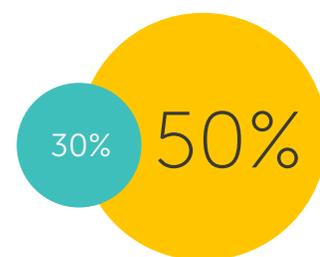
Table 4+5: Percentage of New Customers

	ALL LENDERS			INDIVIDUAL LENDERS		
	2013 - 2014	2014 - 2015	2015 - 2016	2013 - 2014	2014 - 2015	2015 - 2016
Online	75.0%	78.4%	65.3%	84.6%	89.9%	80.0%
Storefront	N/A ²	77.8%	74.4%	N/A ²	81.9%	80.4%

We also noted that returning customers are responsible for more loans. Even though 80 percent of customers may be new to the market, as few as 46 percent of loans are made to new customers in a given year. This finding suggests that even though new customers are critical, existing customers are the most productive.

Table 6: Percentage of New Customers vs. Percentage of Loans to New Customers

	2014	2015	2016
% Loans to New Customers	77.0%	57.3%	46.9%
% of New Customers	82.2%	78.1%	68.7%



Returning Customers Use More Loans

30% of customers used more than 50% of all loans (returning customers).

2. Our results for this quadrant, at over 90%, reflect a change in the lender participants from 2013 to 2014 that skews the data excessively.

Credit Utilization:

Observations + Trends

For both single pay lending and installment lending, total credit utilization is greater in the storefronts by nearly 100 percent.

Table 7: Total Annual Credit Utilization per Borrower by Market – **Single Pay**

	Storefront Single Pay				Online Single Pay			
	2013	2014	2015	2016	2013	2014	2015	2016
Mean	NA ²	\$2,267	\$2,053	\$2,325	\$729	\$891	\$949	\$1,264
Median	NA ²	\$775	\$700	\$870	\$500	\$500	\$500	\$700
75%	NA ²	\$2,850	\$2,450	\$2,975	\$800	\$1,000	\$1,100	\$1,610
25%	NA ²	\$250	\$206	\$250	\$300	\$300	\$255	\$300

Table 8: Total Annual Credit Utilization per Borrower by Market – **Installment**

	Storefront Installment				Online Installment			
	2013	2014	2015	2016	2013	2014	2015	2016
Mean	\$3,185	\$4,556	\$6,010	\$6,474	\$1,135	\$1,974	\$3,366	\$3,272
Median	\$2,057	\$3,418	\$4,710	\$5,264	\$800	\$1,026	\$1,450	\$1,500
75%	\$4,204	\$6,245	\$8,295	\$8,885	\$1,300	\$2,400	\$4,450	\$4,400
25%	\$764	\$1,265	\$2,179	\$2,714	\$500	\$600	\$600	\$700

The trends show that the average total credit used in storefront single pay is relatively flat, whereas online single pay experiences consistent growth, increasing 73 percent over four years.

Installment loans show average use for both storefront and online is growing consistently, with storefront increasing 103 percent and online increasing 188 percent.



2. Our results for this quadrant, at over 90%, reflect a change in the lender participants from 2013 to 2014 that skews the data excessively.

INDUSTRY INSIGHT:

While storefront single pay use isn't growing as quickly as online, the numbers suggest that it has loyal customers who are heavier users of the product.



In storefront single pay, we see that a minority of customers use the product much more intensely than the average customer. The same is true for online installment customers.

Individual online installment loan amounts decreased in 2016, yet the average number of loans increased. This suggests more loans per customer, for slightly smaller amounts, which could include refinancing activity.

Table 9: Average Loan Value by Market by Year

	2013	2014	2015	2016
Online Installment	\$862	\$1,546	\$2,438	\$2,188
Online Single Pay	\$382	\$336	\$286	\$293
Storefront Installment	\$2,087	\$3,395	\$3,739	\$4,355
Storefront Single Pay	\$302	\$435	\$422	\$441

Table 10: Median Loan Value by Market by Year

	2013	2014	2015	2016
Online Installment	\$700	\$800	\$1,000	\$800
Online Single Pay	\$255	\$255	\$255	\$255
Storefront Installment	\$850	\$1,909	\$2,000	\$2,699
Storefront Single Pay	\$255	\$400	\$340	\$375

Figure 3: Average Total Credit Utilization per Borrower - Online

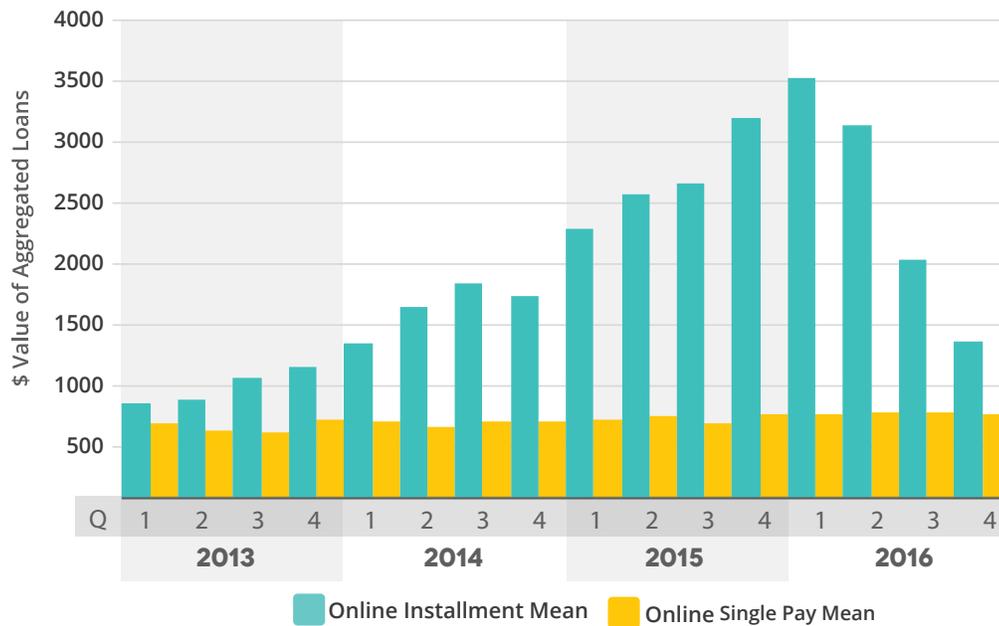


Figure 3 illustrates a notable trend for 2016. Since the study period began in 2013, the average online installment credit utilization increased nearly every quarter, then fell throughout 2016.

In fact, online installment lending as a whole saw declining numbers of loans, declining total dollar volume, smaller loans per customer, and fewer new customers entering the market. We will see a possible explanation for this drop when we look at funding rates in a later section.

Location:

Where are the Borrowers Located?

California has a larger online loan volume than the next five states combined.

To provide the greatest coverage, this portion of the study reports on the online market only. Some of the lenders in this dataset are state licensed lenders who also operate storefronts. Others are state licensed and only operate online. Many are tribal entities that have a national regulatory profile. The geolocation of borrowers is somewhat, but not entirely, influenced by state regulatory treatment of the loans in question.



Table 11 shows the percentage of loans (by count) in the top 10 states in 2014-2016.³

Table 11: Top 10 Online Loan States by Loan Count Percentage 2014 -2016

State	Percent
CA	31.9%
TX	11.8%
AL	5.7%
OH	4.9%
FL	4.6%
TN	4.4%
LA	4.3%
MS	4.0%
OK	2.3%
IL	2.3%

Table 12: Top 10 Online Loan States by Loan Count 2014 -2016

State	2014	2015	2016
CA	1	1	1
TX	2	2	2
TN	3	4	8
AL	4	3	6
MS	5	7	7
OH	6	6	3
FL	7	8	4
MO	8	9	12
OK	9	10	10
IL	10	11	9

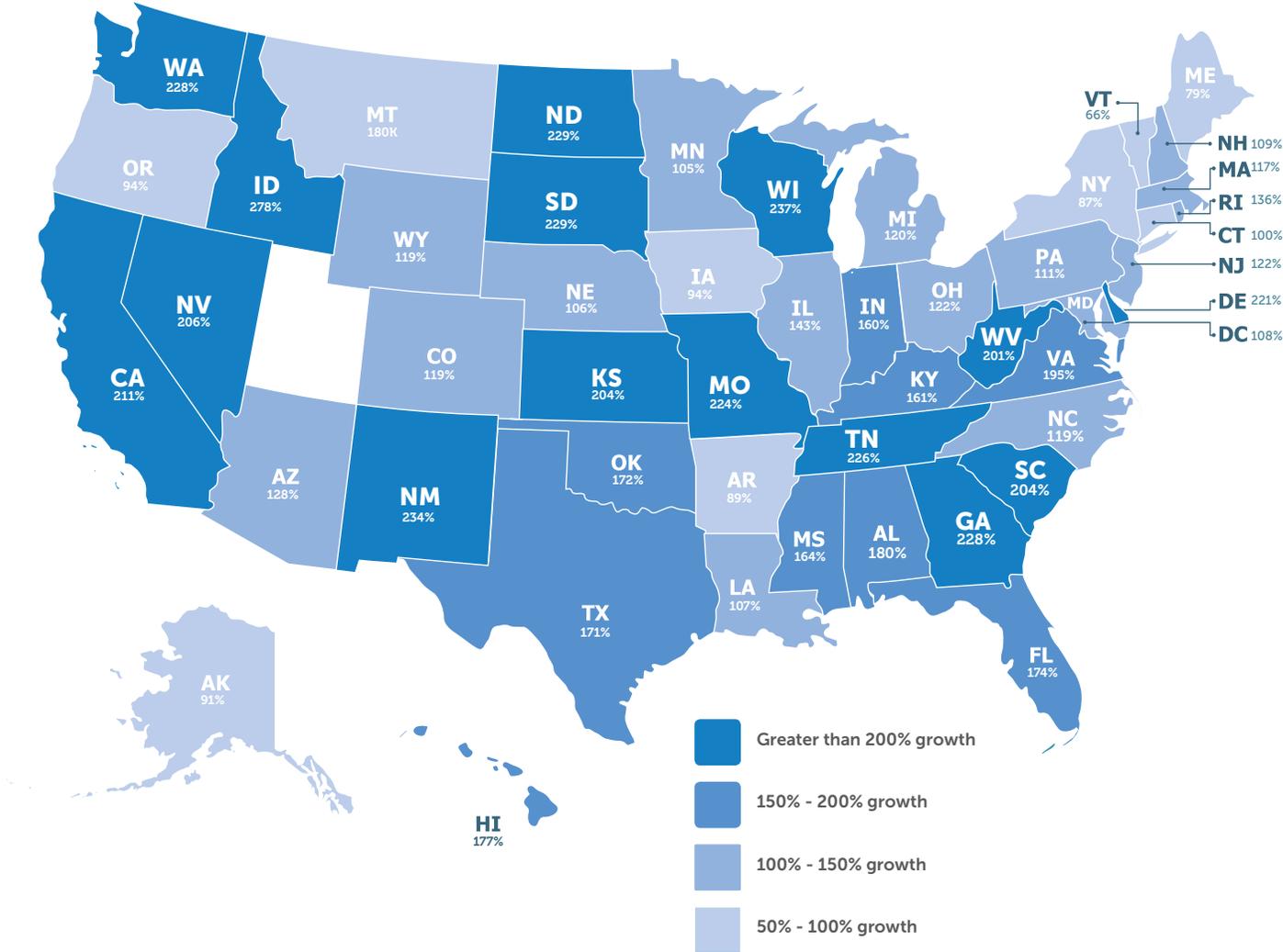


3. We elected to exclude 2013 from our computation due to the addition of a number of new lenders in 2014 that skewed the results significantly. As seen in the table, a completely fixed set of lenders 2014-2016 shows a fairly stable geolocation of demand.

As seen in **Table 12**, California and Texas have a steady position as first and second largest markets for online lending. Tennessee and Missouri rankings have declined, while demand in Florida and Ohio has increased.

Finally, we map out the relative growth of consumers in **Figure 4**, which shows the rate of growth from 2013-2016 across the U.S., as seen by Clarity.

Figure 4: Rate of Growth - Unique Consumers



Consistency:

Do the Borrowers Switch Markets?

Roughly 15 - 20 percent of borrowers who obtained a storefront single pay loan applied for an online loan in the years that followed.

To determine whether storefront borrowers tend to utilize only bricks and mortar delivery systems, we looked at storefront single pay borrowers and then detect their activity in our large dataset of online activity. As seen in **Table 13**, if we sample all unique borrowers in storefront single pay loans in 2013, we see roughly 15-20 percent of those same borrowers applying for online loans in each of the years 2014-2016. Each of them completes 8-10 online applications a year.

Table 13: Storefront Single Pay Borrowers With Subsequent Online Inquiry
Storefront Single Pay Borrowers In 2013 Average # Of Loans=8.8

Year(s)	Average # Of Online Inquiries	% Of 2013 Storefront Single Pay Borrowers Making An Online Inquiry
2013	7.8	19.2%
2014	9.2	14.0%
2015	10.9	15.2%
2016	9.4	17.5%
2014 & 15	13.3	22.1%
2014, 15 & 16	15.8	28.9%

The type of online loan the previous storefront borrowers applied for is broken out in **Table 14**.

Table 14: Online Loan Types Sought by Storefront Single Pay Borrowers

	2013	2014	2015	2016	2014 & 15	2014, 15 & 16
Online Single Pay	89.4%	81.6%	44.6%	36.0%	60.8%	51.9%
Online Installment	10.6%	18.4%	55.4%	64.0%	39.2%	48.1%

As seen in **Table 14**, previous storefront single pay borrowers predominantly applied online for single pay loans in 2013 and 2014. However, in 2015 and 2016, a majority of these “market switchers” also switched products and applied for online installment loans.

Credit Quality:

Funding Rates and Loans in Distress

The number of inquiries per loan has decreased five-fold for single pay loans while increasing nearly three times for installment loans.

Now that we have a sense of the overall trajectory of online lending counts and amounts, we turn to trends in funding rates and loans in distress.

Funding Rates

We computed funding rates by counting all “hard” credit inquiries from our static pool of lenders and computed the ratio of funded loans (tradelines) to inquiry count (for the same lenders) for the time period in question. This is a very rough measure of approval rate.

It is approximate for a number of reasons. First, in a market where lead generators may take a single application and forward it to multiple lenders, Clarity might see multiple inquiries generated by a single application. That effect would reduce the apparent approval rate.

On the other side of the spectrum, some short-term lenders may elect to make a second loan without a new credit inquiry, thereby producing a single inquiry but two or more tradelines, which would tend to increase the apparent approval rate.

Finally, both regulatory and market forces have caused lenders to move away from lead generators and toward direct marketing over the time period of our study. That migration would reduce the number of hard inquiries per funded loan in later years. That is because direct marketing produces a single hard inquiry, where lead generators produce several per loan.

All that being said, the trajectory of the trends in funding rate by product is still useful, especially as we compare the results for single pay versus installment lending.

Table 15: Funding Rates by Year and Product

	2013	2014	2015	2016
Single Pay	3.2%	4.5%	7.8%	17.1%
Installment	9.2%	9.2%	4.3%	3.2%

The two products show remarkably different trends. The number of inquiries per loan has decreased five-fold for single pay loans while increasing nearly three times for installment loans. Disregarding the factors mentioned above, if every loan application correlated with only one inquiry and every loan always correlated with a fresh inquiry, we would say that credit standards in installment lending have become much more rigorous, while loosening in the single pay market. This observation lines up with our discovery, above, that loan counts, total dollar volumes and dollars per loan are decreasing in the online installment market, while continuing to grow in the single pay market.

We also looked for seasonality of funding rates. As seen in **Table 16**, there is definitely seasonal variation in funding rates, but it is not consistent year over year. Lenders appear to change their credit standards often and in ways that do not correlate with a particular season of the year.

Table 16: Funding Rates by Quarter by Product

	2013				2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Online Single Pay	1.6	2.0	4.2	6.6	7.4	5.4	5.4	3.1	6.9	5.5	7.0	11.4	17.8	15.5	17.2	17.8
Online Installment	9.4	11.9	6.1	11.2	14.5	15.7	12.1	5.9	9.9	6.1	4.0	3.1	2.7	3.0	3.1	4.4

The quarterly data also shows us that the decreasing funding rate in online installment is not a consistent downward trend. The decreased approval (funding) rates in 2015 and 2016 that we see in annual numbers reflect, in part, a tightening of credit in late 2015 and early 2016 that eased slightly in later quarters in 2016. Still, the 4.4 percent funding rate in Q4 2016 is less than half the annual rates in 2013 and 2014.

Loan Performance

We then explored the rate at which loans demonstrate financial distress (a predictor of ultimate default) as well as the rate of overall default. Because of variations in the reporting practices regarding loan defaults, we identified a loan as being in “severe financial distress” if a lender reported any of the following conditions:

- Default
- Collections
- Charge off
- More than 60 days past due
- Collateral repossession
- Voluntary surrender

For online loans, 60 days past due is a strong indicator of impending default, since most online loans are due on each payday and include access to a bank account by ACH. Most online loans have payments due bi-weekly. Thus, an online loan 60 days past due indicates four failed attempts to obtain a payment through

ACH, all of which were returned NSF or account closed.

Clarity also computes its own overall default field, based on the factors described in the previous list and others. We also computed rates of overall default.

For installment loans, we computed severe financial distress and overall defaults on a static pool basis. That is, all loans made in a quarter are tracked through the end of their scheduled repayment period, or the end of the sample period, if earlier. If a loan made in Q1 defaults in Q3, the default counts toward Q1 percentages.

For single pay loans, we computed only overall default rates, and used simple quarterly default counts since single pay loans have such short durations. Individual loan default rates in the single pay product are low, due to rollovers and quick re-borrowings.

Table 17 shows that there is little correlation between the percentage of approved applications and loan performance for online single pay loans.

Table 17: Online Single Pay Loans - Funding and Overall Default Rate by Quarter

	2013		2014		2015		2016	
	Funding	Overall Default						
Q1	1.6%	15.9%	7.4%	6.9%	6.9%	5.1%	17.8%	4.3%
Q2	2.0%	21.0%	5.4%	5.5%	5.5%	9.8%	15.5%	6.0%
Q3	4.2%	21.2%	5.4%	6.2%	7.0%	8.5%	17.2%	5.8%
Q4	6.6%	18.6%	3.1%	6.0%	11.4%	6.0%	17.8%	3.9%

Comparing just two of the values from this table, a 7 percent funding rate in Q3 2015 produced an 8.5 percent overall default rate, while a 17.2 percent funding rate in Q3 2016 produced a 5.8 percent default rate. We believe these relative rates reflect the skewing effects discussed above, such as the tendency of some lenders to make multiple loans based on a single, original credit report.

As also observed above, average per-consumer credit utilization is increasing in this market, meaning more loans are

being made to the same borrower, and the ability to make multiple loans based on a single report likely is increasing.

Turning to installment lending, we have computed several measures of loan performance, including

- First payment delinquency
- Severe financial distress
- Overall default

We report these quarterly, with the corresponding funding rate, in **Table 18**.

Table 18: Installment Loans – Funding and Performance Rates

Year	% Loans Still Open*	Mean Loan Duration (Days)	Median Loan Duration (Days)	Funding %	First Payment Delinquency	Severe Financial Distress	Overall Default
2013-Q1	1.9%	236	180	9.4%	16.6%	28.2%	29.2%
2013-Q2	2.6%	263	195	11.9%	23.6%	36.5%	38.6%
2013-Q3	3.1%	244	195	6.1%	23.6%	29.1%	33.2%
2013-Q4	1.4%	258	195	11.2%	17.2%	27.1%	30.3%
2014-Q1	2.1%	269	195	14.5%	16.3%	26.6%	31.2%
2014-Q2	4.7%	312	240	15.7%	14.4%	24.8%	32.6%
2014-Q3	6.3%	331	240	12.1%	12.4%	25.7%	32.1%
2014-Q4	6.1%	328	240	5.9%	11.8%	26.6%	32.6%
2015-Q1	9.0%	383	150	9.9%	9.1%	22.2%	26.7%
2015-Q2	10.4%	379	165	6.1%	9.8%	26.9%	32.7%
2015-Q3	11.2%	350	150	4.0%	8.5%	26%	30.2%
2015-Q4	16.8%	393	150	3.1%	7.0%	21.5%	24%
2016-Q1	21.0%	443	180	2.7%	7.3%	20.1%	22.9%
2016-Q2	30.2%	462	180	3.0%	8.1%	18.3%	20.8%
2016-Q3	37.2%	331	150	3.1%	9.6%	14.2%	16.7%
2016-Q4	67.4%	216	120	4.4%	13.2%	7.5%	8.5%

*Includes all loans that are not "closed" in.

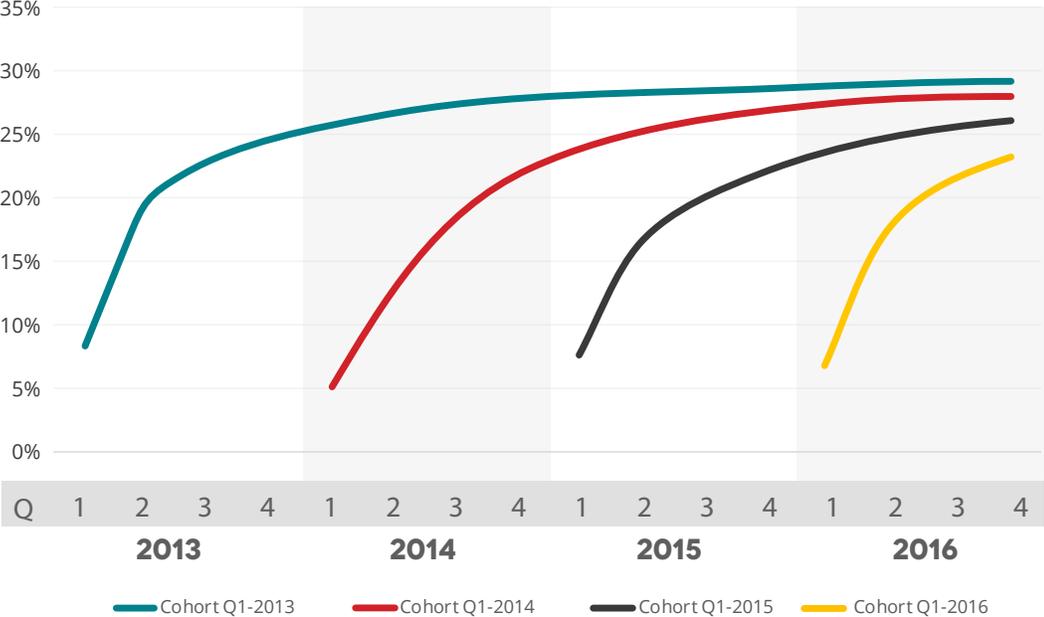
Table 18 also includes information on average and median loan duration (by quarter) and the percentage of loans still outstanding at the end of the observation period. This information is necessary in order to judge truncation effect in the rates of financial distress and overall default. We can observe that those rates begin to decline radically in the latter half of 2015 and all of 2016, but that is as much a result of the percentage of loans that have not run their full course as it is a reflection of credit quality.

Truncation effect does not apply to the percentage of first payment delinquency, and we can observe that reduced funding rates (tighter credit granting) generally

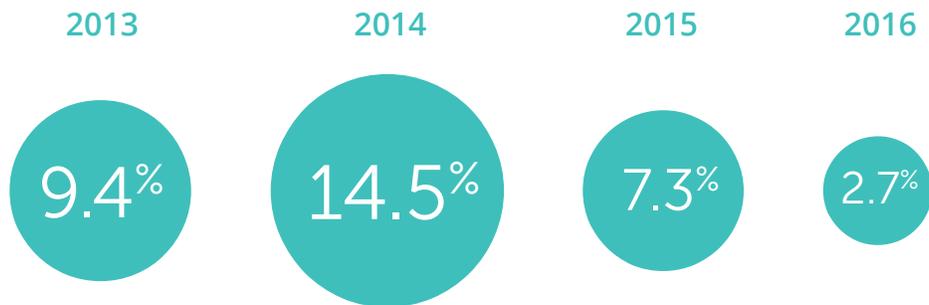
correlates with reduced first payment delinquency, except in Q4 2016. We can also observe that in the earlier years of our data, funding rate changes did not necessarily correlate with overall default rate changes, or even the direction of those changes.

Because the later quarters in our study show such an unusual decline in funding rates, we also computed default curves for the first quarter of each year, because the slope and shape of those curves often tell us more than total default rates. Those curves, with the corresponding funding rates, are shown in **Figure 5**.

Figure 5: Cumulative Default Curves Based on Date of Funding



Funding Rates (Q1)



We can see by the size and shape of the curves that the lender approval rate does not correspond with changes in either early default rates or overall cumulative default rates.

In simple terms, the credit performance of the four sample quarters does not suggest a significant change in credit criteria applied by lenders, even though the funding rates differ substantially.⁴ The best we can glean from this data is that lenders in 2016 approved substantially fewer applications than in prior years, but there is little evidence that the result was better credit performance.

4. We have ensured that only hard inquiries generated by consumer applications are included in the computation of funding rates.

Stability:

Changes in Consumer Financial Stability Over Time

Between 7 and 14.7 percent of consumers showing new bank accounts in a year had an account terminated for cause.

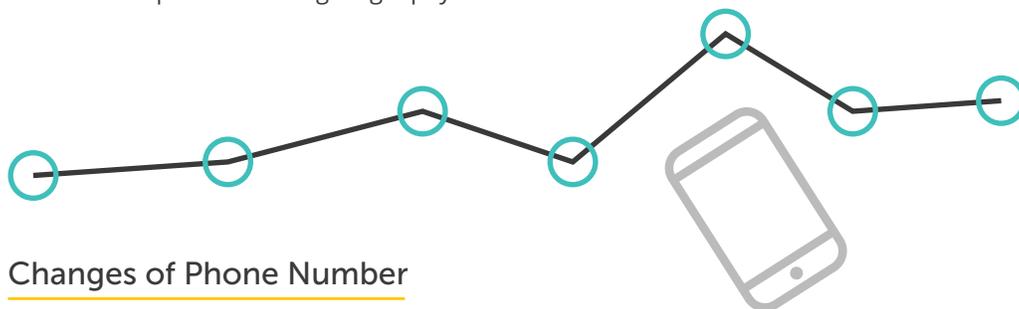
Fraud can take many forms ranging from true identity theft and synthetic identities, to real consumers with no intention of repaying their loan.

Financial instability is one of the strongest indicators of fraud. Signs of financial instability include the rate of change of address, phone number and bank account.

We decided to review the trends in the dataset of inquiries⁵ seeking single pay

and installment loans by computing the rate at which consumers submitted one or more changes in address, phone number and bank account in multiple inquiries in a calendar year.

This is a fairly basic analysis of velocity of change, but suffices for a year-over-year comparison of overall financial stability.



Changes of Phone Number

Table 19 shows the percentage of loan applicants who reported changes in phone numbers. Separate survey data indicates that 85 percent of the numbers given in these inquiries are cell phones, making the change of phone number a reasonable indication of distress in a credit relationship – failure to maintain a service relationship with a cell service provider⁶ or use of “burner” phones because of inability to obtain such a relationship.

5. This analysis is based on the entire Clarity database, not limited to the static lender pool used in Sections 1-6.

6. Cell phone numbers were portable across multiple providers throughout the measurement period, so a change would suggest a failure to maintain a relationship with one or more providers, not a simple change of provider.

Table 19: Percentage of Borrowers Reporting Change in Phone Number during Calendar Year

	2013	2014	2015	2016
0	72.8%	82.1%	84.4%	88.1%
1	19.0%	12.9%	11.5%	9.6%
1+	8.2%	5.0%	4.1%	2.4%

Bank Account Changes

Shown in **Table 20** is the percentage of inquiring consumers reporting one or more changes in bank account information during a calendar year.

Table 20: Percentage of Consumers Reporting Change in Bank Account during the Calendar Year

	2013	2014	2015	2016
0	82.4%	84.5%	83.9%	85.7%
1	13.2%	11.7%	11.8%	11.0%
1+	4.4%	3.9%	4.3%	3.3%

To measure true stability, we also computed the percentage of customers reporting a new bank account in a year who also had a bank account terminated for cause (**Table 21**). The decline suggests that subprime consumers are improving in their ability to maintain banking relationships.

Table 21: Borrowers with Bank Account Changes and Closures for Cause

	2013	2014	2015
Changed Bank Accounts	611,319	945,419	1,502,914
Had a Bank Account Closed for Cause	89,934	104,036	105,857
Borrowers who changed bank accounts AND had a bank account closed for cause	14.7%	11.0%	7.0%

Residence Change

Table 22 shows the percentage of inquiring consumers reporting one or more address changes during the calendar year.

Table 22: Percentage of Consumers Showing Multiple Residence Addresses in Calendar Year

	2013	2014	2015	2016
0	85.8%	88.0%	87.9%	89.0%
1	11.1%	9.6%	9.6%	9.0%
1+	3.0%	2.4%	2.5%	2.0%

As with phone number changes, the trend in residence changes is downward over the study period, although less significantly. As seen in **Table 23**, this population's mobility is slightly greater than the U.S. average.

Table 23: U.S. Census Population Mobility: Number of Households Moving by Year vs. Clarity Subprime Borrowers

Mobility period	Total movers*	Subprime Consumers Moving Once during Year	Subprime Consumers Moving More than Once during Year
2015-2016	11.2%	9.0%	2.0%
2014-2015	11.6%	9.6%	2.5%
2013-2014	11.5%	9.6%	2.4%

*Source: U.S. Census Bureau, Current Population

Of the subprime consumers who move in the study period, a minority have significant residence instability, as shown in **Table 24**.

Table 24: Percentage of Consumers Showing Multiple Addresses in Calendar Year

Moves per Year 2013-2016	Percentage
2*	60.3
3	22.6
4	9.3
5	4.0
6	1.9
7	0.9
8	0.5
9	0.2
10+	0.1

*If a person has moved once we see two addresses

Like changing bank accounts, changing addresses does not necessarily indicate financial instability, although changing twice or more in a calendar year probably does. Changing residence is expensive, so it does indicate financial challenge for consumers who live paycheck to paycheck.

Of course, moving to a new area of the country for better employment is financially positive, so we tested the data to see what percentage moved far enough to put them in a different postal center (the first three digits of the zip code).



Table 25: Percentage of Population Changing Addresses and Changing Postal Center

Measure	2013	2014	2015	2016
Percentage of Borrowers Changing Address	14.2%	12.0%	12.1%	10.8%
Percentage of Borrowers Changing Postal Center	6.9%	2.9%	3.0%	2.8%
Percentage of Borrowers That Moved Changing Postal Center	48.4%	23.9%	25.1%	26.0%

Direct Mail Marketing:

Pre-Screened Firm Offers of Credit

Conversion rates for this method can vary widely, so it's important for lenders to measure campaign success.

Beginning in early 2015, Clarity saw an increase in lenders using direct mail firm offers of credit to source loans. The process involved a lender providing a list of prospects from an outside source to be screened against pre-established credit criteria in the Clarity system. The information about those who pass the screen is passed to a third party who handles the extension of a firm offer of credit.

Those identified as passing have a "soft" prescreen inquiry in their credit report. We can then associate those who received

an offer with subsequent loans with the same lender to produce a conversion rate. The conversion rate may be lower than the consumer response rate, due to the practice of post-screening for confirmation that credit status has not changed. Nevertheless, a comparison of the number of offers made by a lender with the number of new loans to prescreened consumers opened within 90 days of the offer gives some good insight into the effectiveness of direct marketing through prescreens.



Table 26: Conversion Rates in Direct Mail Space (Quarterly)

Measure	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Prescreen Inquiries (firm offers)	4,015,160	8,542,801	4,265,051	10,573,518	12,418,756	8,100,209
Number of Inquiries Converted to Loans	9,057	101,725	9,683	26,852	71,528	77,476
Percentage Conversion	0.2%	1.2%	0.2%	0.3%	0.6%	1.0%

Conversion rates vary widely, while the number of offers increased significantly. One drawback to consider is the possibility of market saturation from this technique and whether multiple offers could result in multiple loans.

Consumer Demographics:

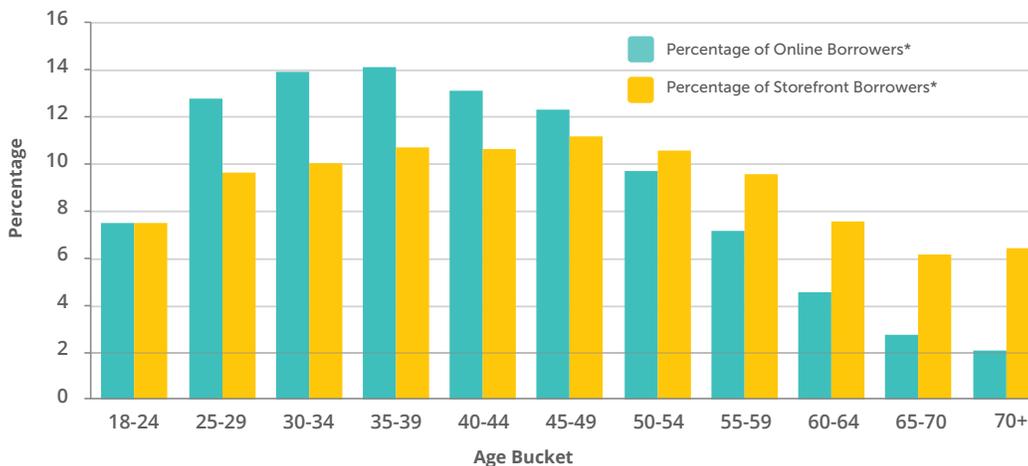
Age, Income, and Bank Usage

Basic demographics include distributions of age and income, and information about the most common depository institutions chosen by subprime borrowers to transact business with non-bank lenders.

Age

Figure 6 compares the distribution of borrower ages between storefront and online markets. The online market leans significantly younger than the storefront market.

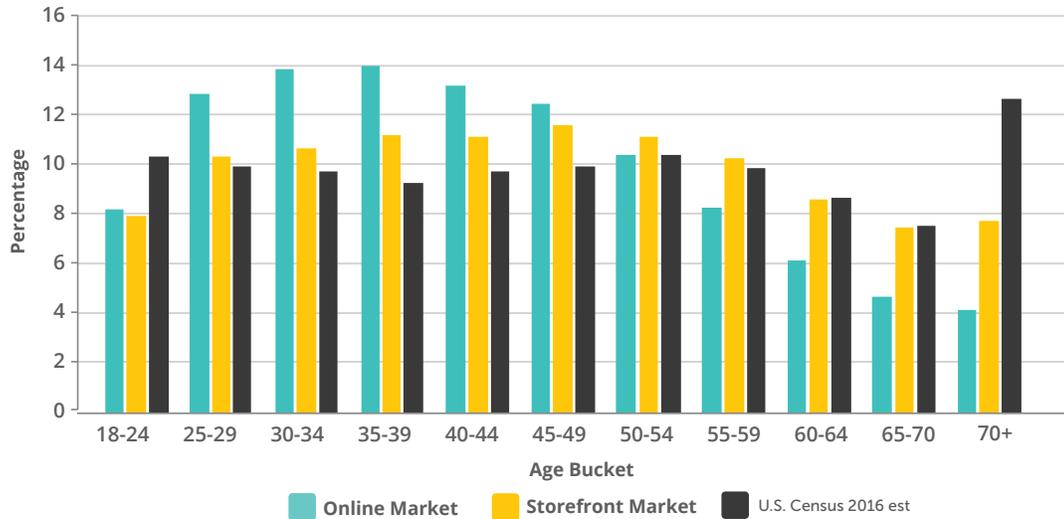
Figure 6: Unique Borrower by Age by Market



We observe the same skew toward younger online borrower ages when we compare online and storefront borrower ages against the U.S. Census distribution of ages in **Figure 7**. In contrast, storefront borrower age distribution closely matches the overall U.S. age distribution, except in the over-70 bucket.

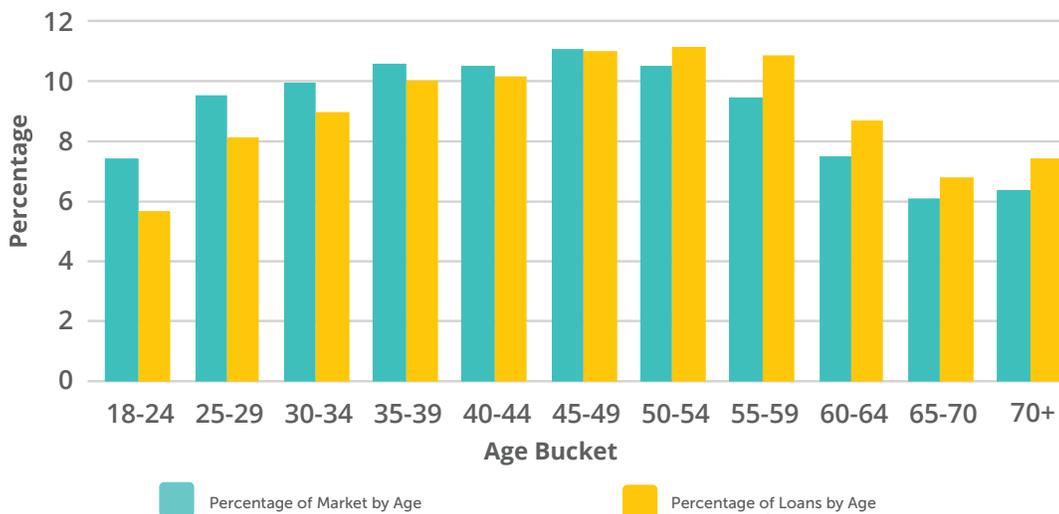
*One borrower age counted in market.

Figure 7: Subprime Market Demographics vs. U.S. Population



In the online market, age distribution and loan use distribution closely track each other. However, as seen in **Figure 8**, older customers are more intense users of storefronts than younger consumers.

Figure 8: Storefront Age Distribution



*One borrower age counted in market.

Income

Income levels more clearly distinguish both the online versus storefront markets and the single pay versus installment products in those markets. **Table 27** provides average and median yearly income for the markets and products⁷ from 2013-2016.

Table 27: Average and Median Income by Product Type

Inquiry Type	Average	Median
Online Single Pay	\$32,763	\$29,400
Online Installment	\$37,145	\$33,600
Storefront Single Pay	\$25,977	\$22,080
Storefront Installment	\$33,629	\$30,000

The online installment market stands out as the highest mean and median income market, with means higher than median, indicating there are a minority of outlier high income applicants.

Within the online market, distribution of incomes of installment borrowers are higher than single pay borrowers, as seen in **Figure 9**.

Figure 9: Online Borrower Income Distribution by Product

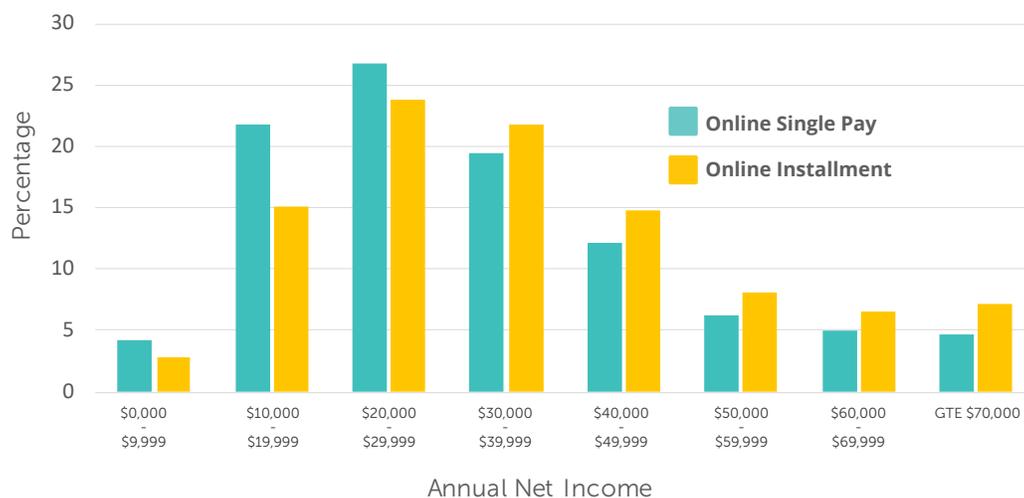
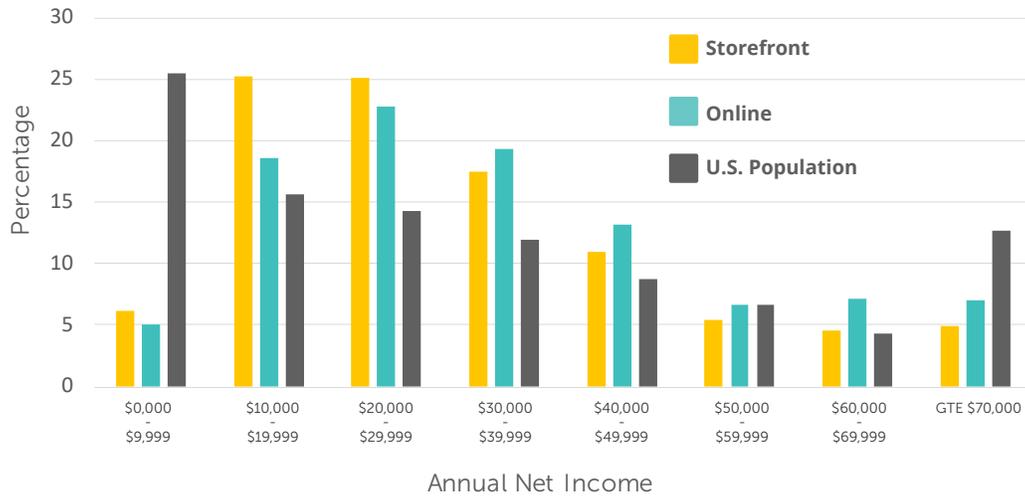


Figure 10 reports how borrower income distribution for online and storefront markets compares against the U.S. population.

Figure 10: Borrower Income Distribution by Market vs. U.S. Population



Source: Calculated from BLS CEX 2015 Income After Taxes Weighted Average Individual Earner

Depository Institution Usage

Finally, the necessity of a bank account for funding an online loan allows us to catalogue the most common depository financial institutions used by subprime borrowers. **Table 28** lists the top 20 banks presented in online loans.

Table 28: Top 20 Banks Used by Borrowers for Funds Deposit

Bank Name	Percentage
Wells Fargo	16.7%
The Huntington National Bank	11.8%
J.P. Morgan Chase	11.2%
PNC Bank	10.1%
Regions Bank	10.1%
Bank of America	10.1%
Fifth Third Bank	4.3%
U.S.Bank	4.2%
Capital One	4.1%
Sun Trust Bank	3.5%
Key Bank	2.8%
The Bancorp Bank	2.7%
Woodforest National Bank	2.4%
FirstMerit Bank	1.7%
T.D. Bank	1.4%
Branch Banking and Trust Co.	0.9%
First Financial Bank	0.4%
The Park National Bank	0.4%
Peoples Bank	0.3%
E*TRADE Bank	0.3%
Manufacturers and Traders Trust	0.3%
Citizens Bank	0.2%
South State Bank	0.1%

TOP 10

Wells Fargo

Huntington National

J.P. Morgan Chase

PNC Bank

Regions Bank

Bank of America

Fifth Third Bank

U.S.Bank



The top three retail consumer banks in the U.S. are high on the list. In order to compare the foregoing rankings with ubiquity and size of the institutions, we list the top 20 banks with their relative size in the Federal Reserve asset ranking list (**Table 29**).

Table 29: Borrower Top 20 Ranking vs. Federal Reserve Ranking by Assets

Clarity Ranking by Number of Loans	Federal Reserve Ranking by Asset Size	Bank	Charter	Consolidated Assets (in Billions \$)
1	2	Wells Fargo	National	1,741
2	31	The Huntington Bank	National	100
3	1	J.P.Morgan Chase	National	2,118
4	6	PNC Bank	National	358
5	18	Regions Bank	State Charter	124
6	3	Bank of America	National	1,660
7	16	Fifth Third Bank	State Charter	141
8	5	U.S.Bank	National	448
9	8	Capital One	National	279
10	13	Sun Trust Bank	State Charter	200
11	26	Key Bank	National	101
12	70	The Bancorp Bank	State Charter	15
13	164	Woodforest National Bank	National	5
14	52	FirstMerit Bank	National	26*
15	9	T.D. Bank	National	264
16	11	Branch Banking and Trust Company*	State Charter	217
17	656	First Financial Bank	State Charter	0.9
18	132	The Park National Bank	National	7
19	220	Peoples Bank	State Charter	3
20	N/A	E*TRADE Bank	National	N/A
21	19	Manufacturers and Traders Trust Company	State Charter	126
22	23	Citizens Bank	National	115
23	106	South State Bank	State Charter	9

*Purchased by Huntington August 2016-previously ranked #52

Source: Federal reserve Statistical Release INSURED U.S.-CHARTERED COMMERCIAL BANKS THAT HAVE CONSOLIDATED ASSETS of \$300 MILLION or MORE, RANKED by CONSOLIDATED ASSETS, As of September 30, 2016.



Closing

At Clarity, we believe that when you understand who your customers are, you can serve them more effectively.

We have the ability to track and analyze customer data to discover trends and gain insight into consumer behavior. Intensity of use, product type, and consumer demographics are all important factors that reveal how your business fits into the preferences of consumers in the marketplace.

We hope you found this information valuable and we welcome questions or discussion on this report.

Contact:

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