Public Utility Commission of Texas

Analysis of Switched Customers in the Texas Competitive Market by Zip Code, Median Income Level, and Deposits Received

Description

The customer protection provisions of the Public Utility Regulatory Act (PURA) prohibit discrimination on various grounds, including level of income and whether the customer is in an economically distressed geographic area. Specifically, PURA 39.101(c) states, "A retail electric provider, power generation company, aggregator or other entity that provides retail electric service may not refuse to provide retail electric or electric generation service to a customer because the customer is located in an economically distressed geographic area or qualifies for low income affordability or energy efficiency services." Similarly, the Commission's Substantive Rule 25.471(c) prohibits Retail Electric Providers "from unduly refusing to provide electric service or otherwise unduly discriminating in the marketing and provision of electric service to any customer because of race, creed, color, national origin, ancestry, sex, marital status, lawful source of income, level of income, disability, familial status, location of customer in an economically distressed geographic area, or qualification for low income or energy efficiency services."

The purpose of this analysis was to evaluate available information to assess whether Retail Electric Providers (REPs) were refusing to provide retail electric service to customers in economically distressed geographic areas or otherwise discriminating against customers based on income level or the area of residence.

Ideally, we would be able to evaluate each customer that switched by income level to make this determination. However, that information was not available. Information that was available included the median income level for each zip code in which retail competition is available, the number of customers that switched from the affiliated REP in each zip code, and information on customer deposits required by REPs. The customer switching information was based on REP reports for the month of December 2003, which showed the number of customers that each REP was serving at that time and is representative of the cumulative number of customers switched by each REP in 2002 and 2003. At this point, REPs reported that they were providing service to over 440,000 customers. The results were grouped together in four geographic regions–referred to as Dallas/Fort Worth, Houston, South Texas, and Elsewhere in Texas, and analyzed by five income brackets: $0-10,000, $10-20,000, $20-30,000, $30-40,000, and $40,000+ (except for the South Texas region, in which no zip code had a median income above $40,000).

Conclusions

The analysis did not find conclusive evidence that REPs were unduly discriminating against low-income customers or customers in economically disadvantaged areas, either by failing to switch

customers in those areas or by discriminatory policies with respect to deposits. In general, both statewide and in three of the four regions, the Dallas/Fort Worth, Houston, and Elsewhere regions, the distribution of switched customers by income levels mirrored the corresponding population distribution by income level for the state and for each region. In the South Texas region, a disparity did exist between the population distribution and the number of customers that had switched. However, the participation in the competitive market in South Texas, as of December, 2003, was one-tenth that of the Houston market, and one-sixteenth that of both the Dallas/Fort Worth and Elsewhere markets. Competition in the South Texas market had not developed to a degree that would support the reliance on this kind of numerical analysis in assessing whether REPs were discriminating against low-income customers or areas. Also, the competitive REPs that had a disproportionate number of customers in higher income areas in South Texas appeared in the other areas to be providing service to customers in high- and low-income zip codes roughly in proportion to the distribution of the population of the zip codes.

In analysis of the deposit information, it appears that the numbers of deposits collected by income level correspond to the distribution pattern of the overall population. In addition, the average dollar amount of the deposits does not show a significant disproportionate relationship to median zip code income, which suggests that the REPs do not use deposits to discriminate against lower income areas.

Data Compilation

In gathering data for this analysis, information on the number of customers by zip code and deposits was compiled from each Competitive REP's 2003 Annual Report filed with the Commission under **Project 25721**. Information from the month of December 2003 was used to analyze customer switching by zip code, while the deposit information was compiled for the entire calendar year of 2003. The information on customers by zip code provides a snapshot of the customers that each REP was serving in December 2003 and would represent the cumulative effect of switches from January 2002 to December 2003. Data for utilities in Non-ERCOT areas and for affiliated REPs was not used as part of the analysis.

Next, income and population data was collected for each zip code with customers who had switched to a Competitive REP. This information was found on the website www.realtor.com. Realtor.com contracts with ESRI Business Information Solutions for this information. ESRI's estimates were partially based on the 2000 Census, as well as other factors described in the methodology statement. Census information was not used directly as a primary source of the analysis. Census information is available by county, but individual zip code information necessary for this analysis was not available. Also, information for several zip codes was not available from Realtor.com. However, the quantity of missing information was small and should not affect the results of the analysis. Only 6,233 customers were excluded from the analysis because zip code information was not available (roughly 1.4% of the customers switched).

The information was grouped into four areas: Dallas/Fort Worth, Houston, South Texas, and Elsewhere in Texas. The zip codes for these areas were found using the United States Postal Service web site (www.usps.com). The Dallas/Fort Worth region consists of zip codes from Dallas and Tarrant Counties; the Houston region consists of Harris County zip codes; the South Texas region includes the towns and cities of the South Texas Plains and Rio Grande Valley regions, including Corpus Christi; and Elsewhere is a compilation of all other areas in the deregulated market in Texas.

After separating the information into respective regions, zip codes with customers were compared to a master zip code list found at http://en.wikipedia.org/wiki/List_of_ZIP_Codes_in_Texas. Zip codes in deregulated areas not previously included in the analysis were then researched for population and income information and included in the analysis.

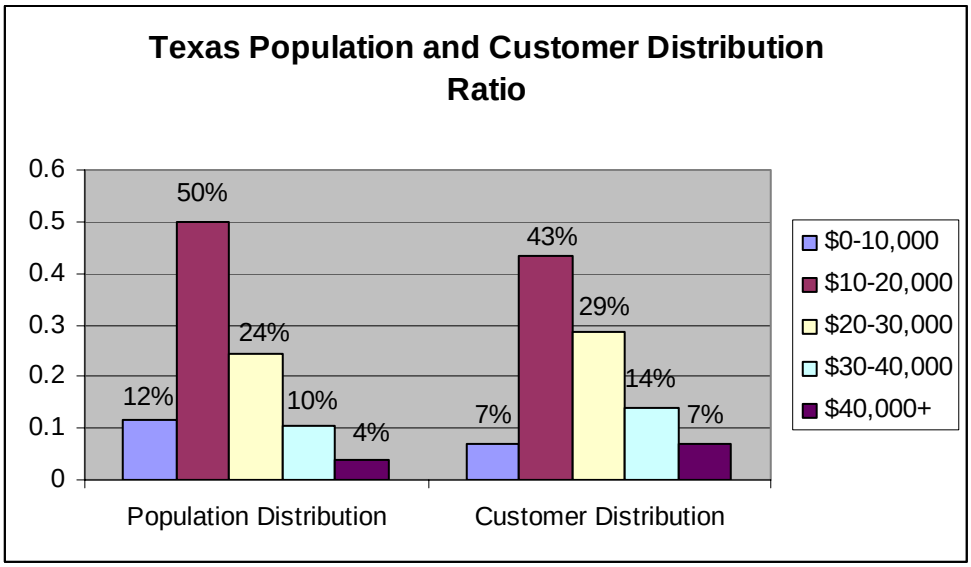
Analysis

I. Texas Population vs. Customer Distribution

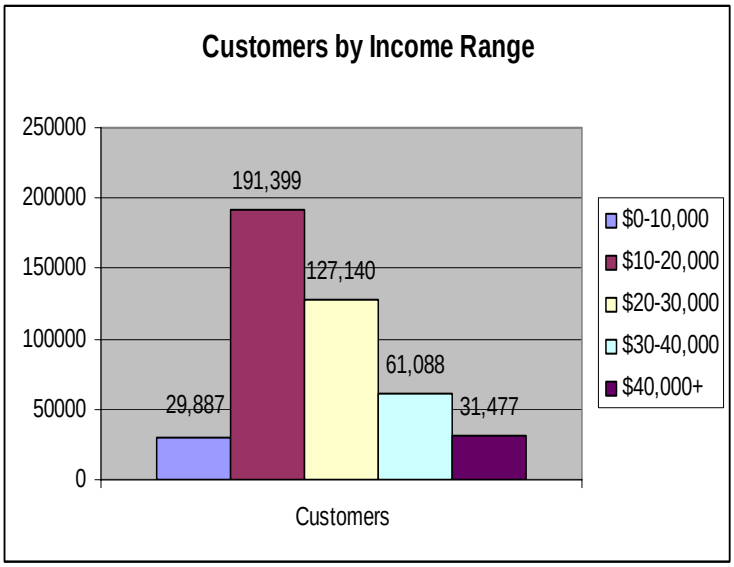
In the set of graphs below, the total population of Texas within the deregulated electric market is compared to the total number of customers that have switched to a non-affiliated REP. In graph A1, the distribution of the population was compared to the distribution of switched customers. The percentages shown in the graph are calculated by dividing the population or number of switched customers in each income range by the total population or total switched customers. In graphs B1 and C1, actual numbers are compared. The total number of customers who had switched to REPs as of December 2003 was 440,951. The disparity between switched customers and the population as a whole can be expressed as a percentage by calculating the number of customers that would be switched in each income group if they exactly matched the overall population distribution and then comparing that to the number of customers who actually switched. The percent of disparity ranges from negative 42% for the lowest income group to positive 57% for the highest income group.

Thus, customers in zip codes with low median income are switching at a rate that is below the population of those zip codes, and customers in zip codes with high median income are switching at a rate that is above the population of those zip codes. There are a number of factors that are likely to generate discrepancies between switching rates by median zip code income and population by income, including the fact that the population of zip codes will have a range of incomes, and that the number of customers who are in residences in which they do not make decisions about electricity purchases may vary by income. (Some apartments are submetered, rather than individually metered, so it is the landlord that decides what company to buy electricity from.) Also, speculatively, lower income customers would be more likely to live in smaller houses and have a lower amount of consumption, and therefore would have less of an incentive to switch to a lower cost provider. In view of these factors, the disparity between switched customers and the population, as a whole does not appear to be strongly suggestive of discrimination. This is an issue that warrants further analysis following the filing of the REPs' 2004 reports.

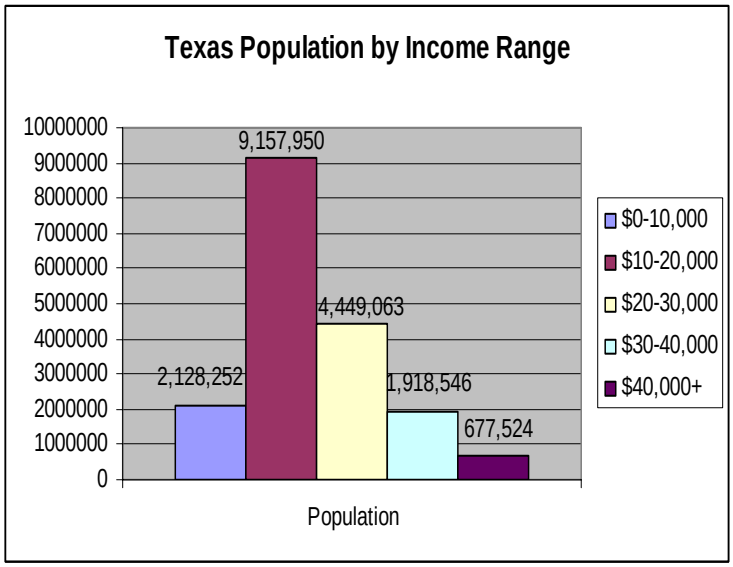
A1.



B1.



C1.



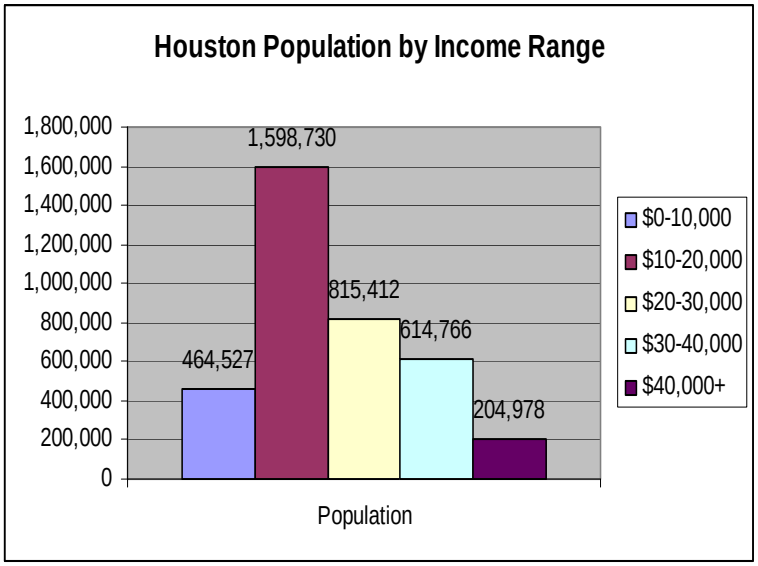
II. Population vs. Customers by Area

In graphs A2–H2, Population and Customer Distribution are compared by region. In the Houston, DFW, and Elsewhere regions, the distribution of switched residential customers by income range corresponds closely to the population income distribution. The largest disparity is in the South Texas region. As of December 2003, in the Houston region, 2.72% of the population had switched to a non-affiliated REP. In the DFW region, 4.05% had switched. In the Elsewhere region, 1.75% had switched, and in South Texas, 0.9% had switched.

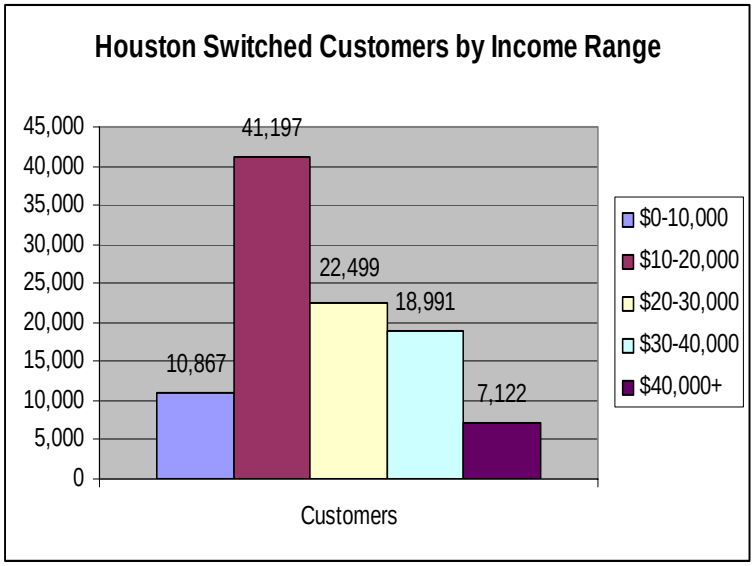
For information on switching statistics for individual REPs, refer to graphs I2 – M2. These graphs compare each REP's distribution of customers across income levels with the total population income distribution. REPs with fewer than 10 customers in the region were not included in these graphs. The disparities for individual REPs within a region would be expected to be larger than for the state or a region, because the number of customers involved is relatively

small. There do not appear to be obvious, significant disparities that would warrant further investigation now. Again, this is an area that warrants further analysis following the filing of the REPs' 2004 reports.

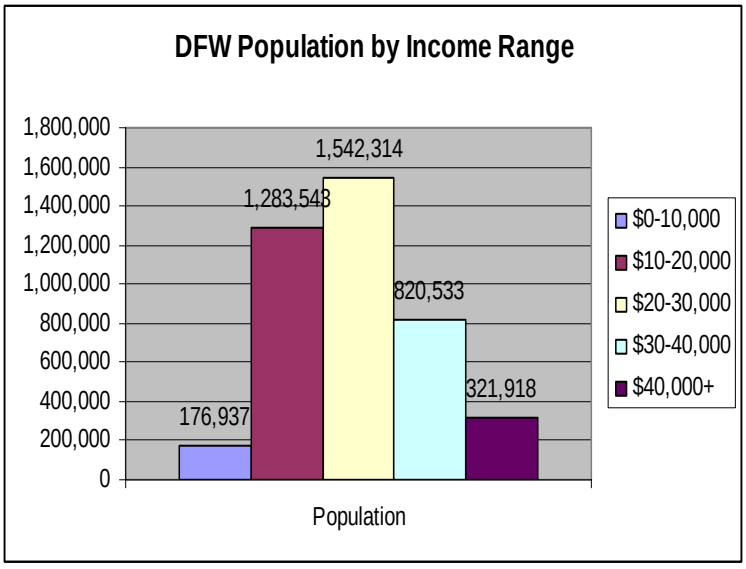
A2.



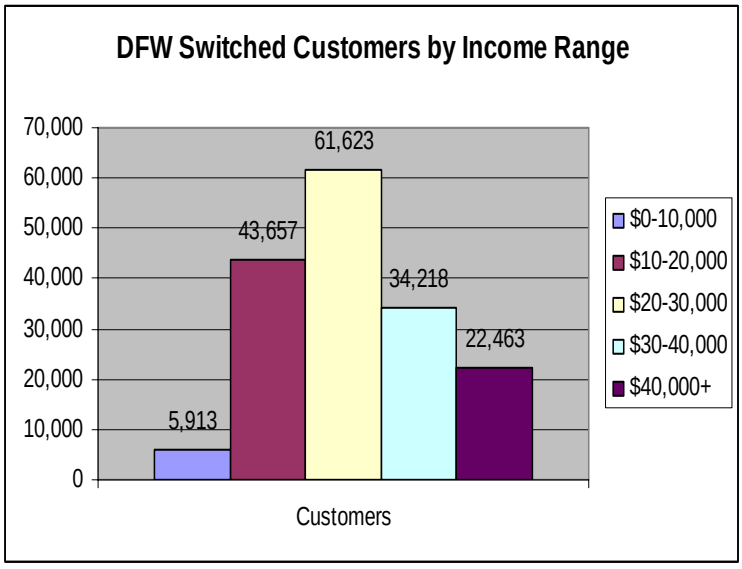
B2.



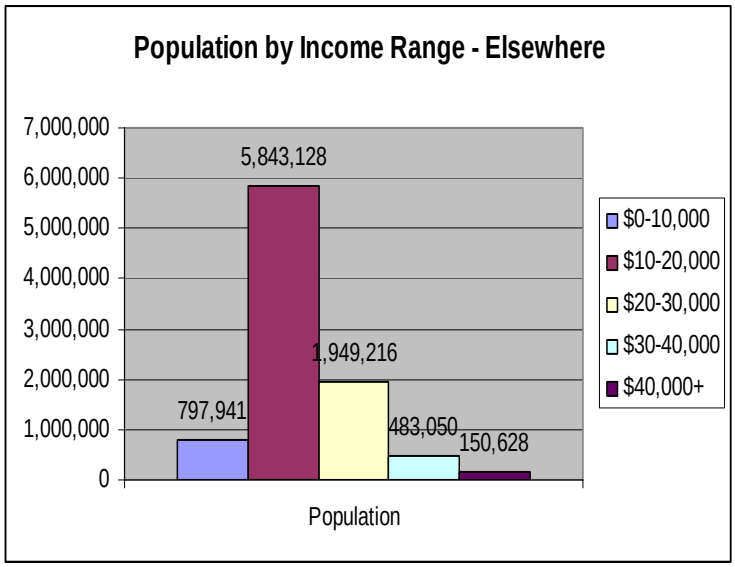
C2.



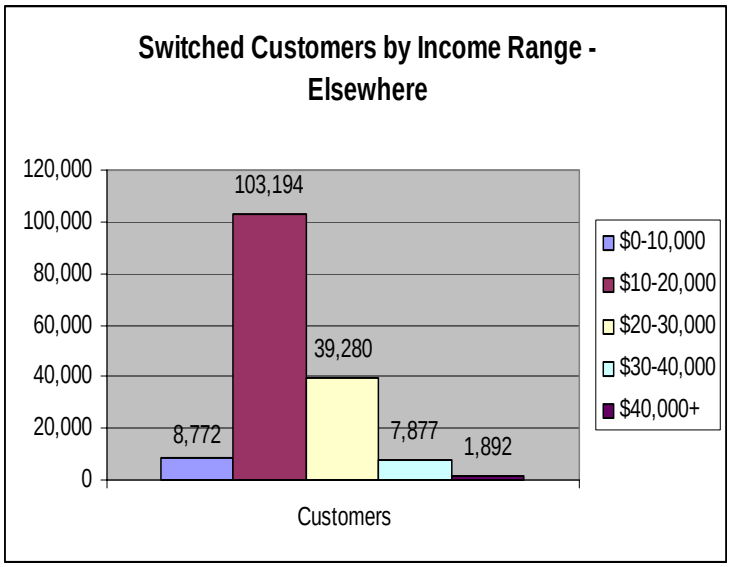
D2.



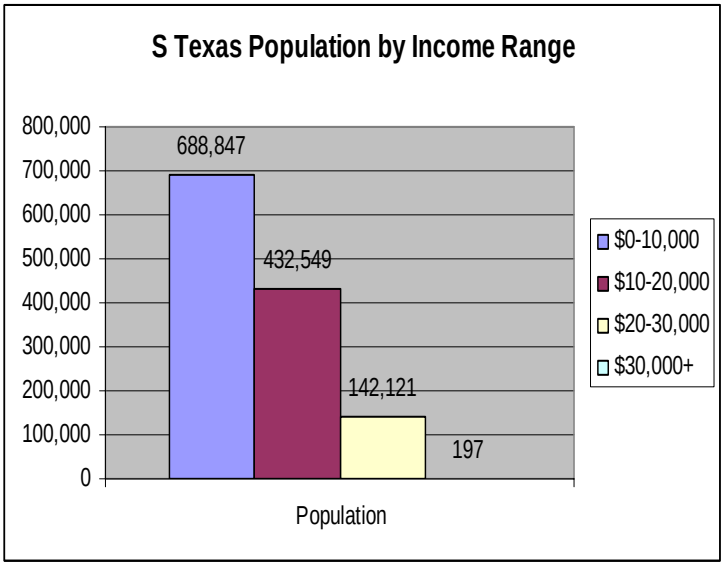
E2.


Population by Income Range - Elsewhere
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
5,843,128
1,949,216
797,941
483,050
150,628
Population
$0-10,000
$10-20,000
$20-30,000
$30-40,000
$40,000+

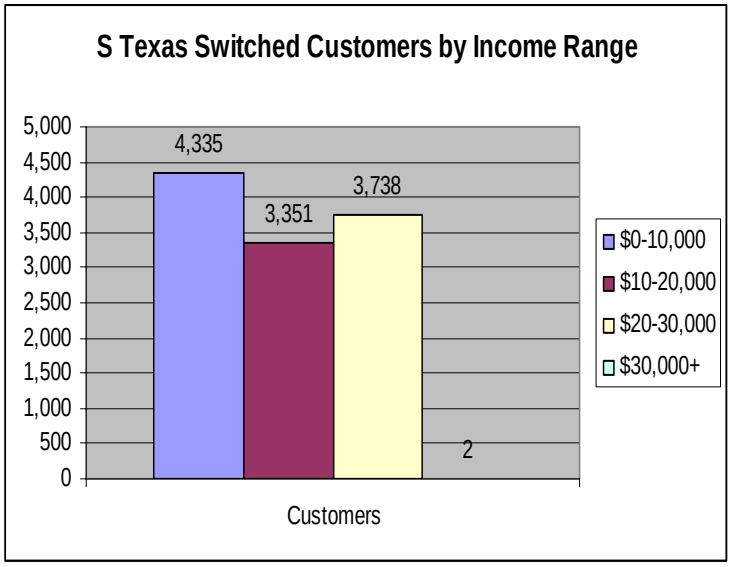
F2.


Switched Customers by Income Range - Elsewhere
120,000
100,000
80,000
60,000
40,000
20,000
0
103,194
39,280
8,772
7,877
1,892
Customers
$0-10,000
$10-20,000
$20-30,000
$30-40,000
$40,000+

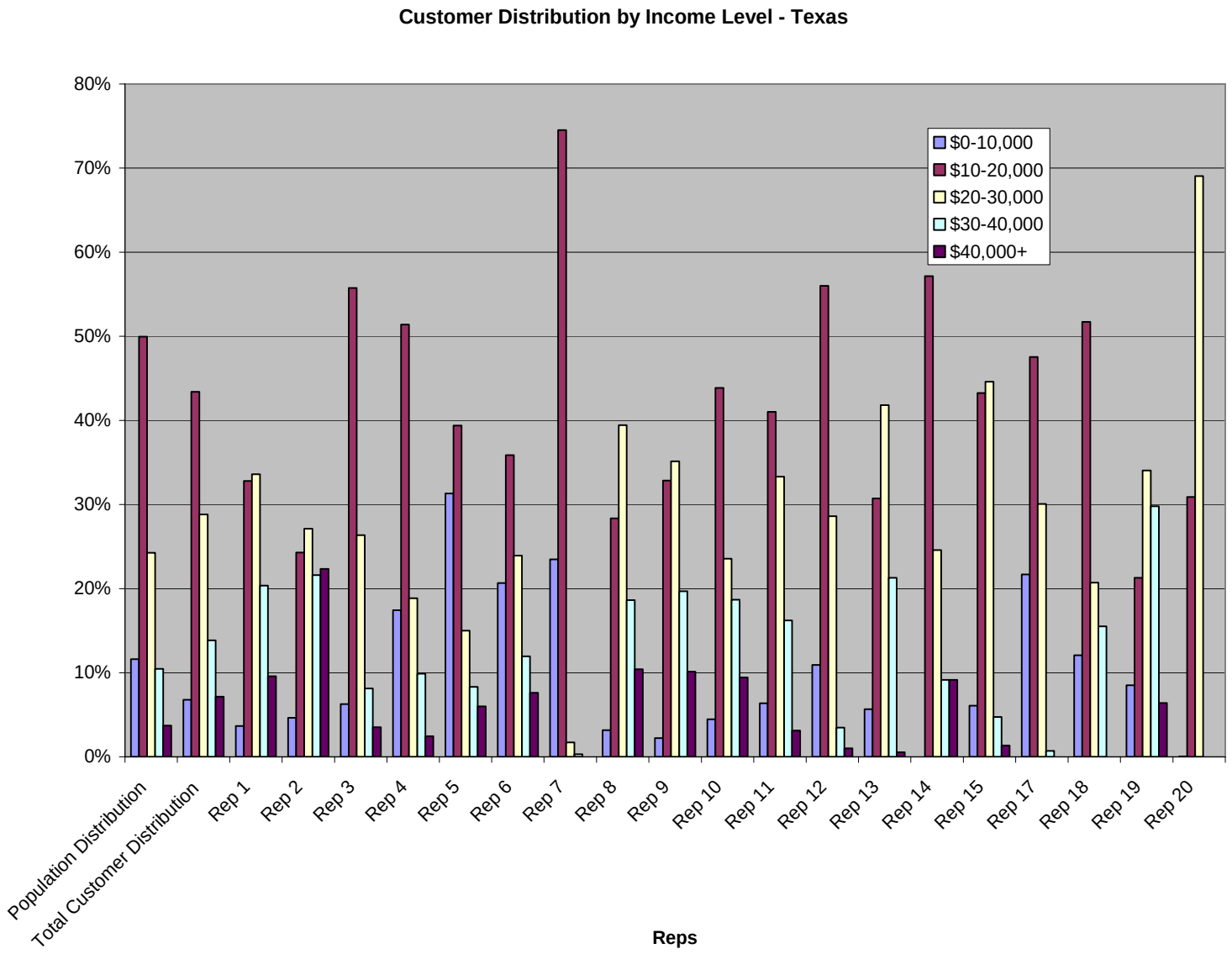
G2.


S Texas Population by Income Range
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
688,847
432,549
142,121
197
Population
$0-10,000
$10-20,000
$20-30,000
$30,000+

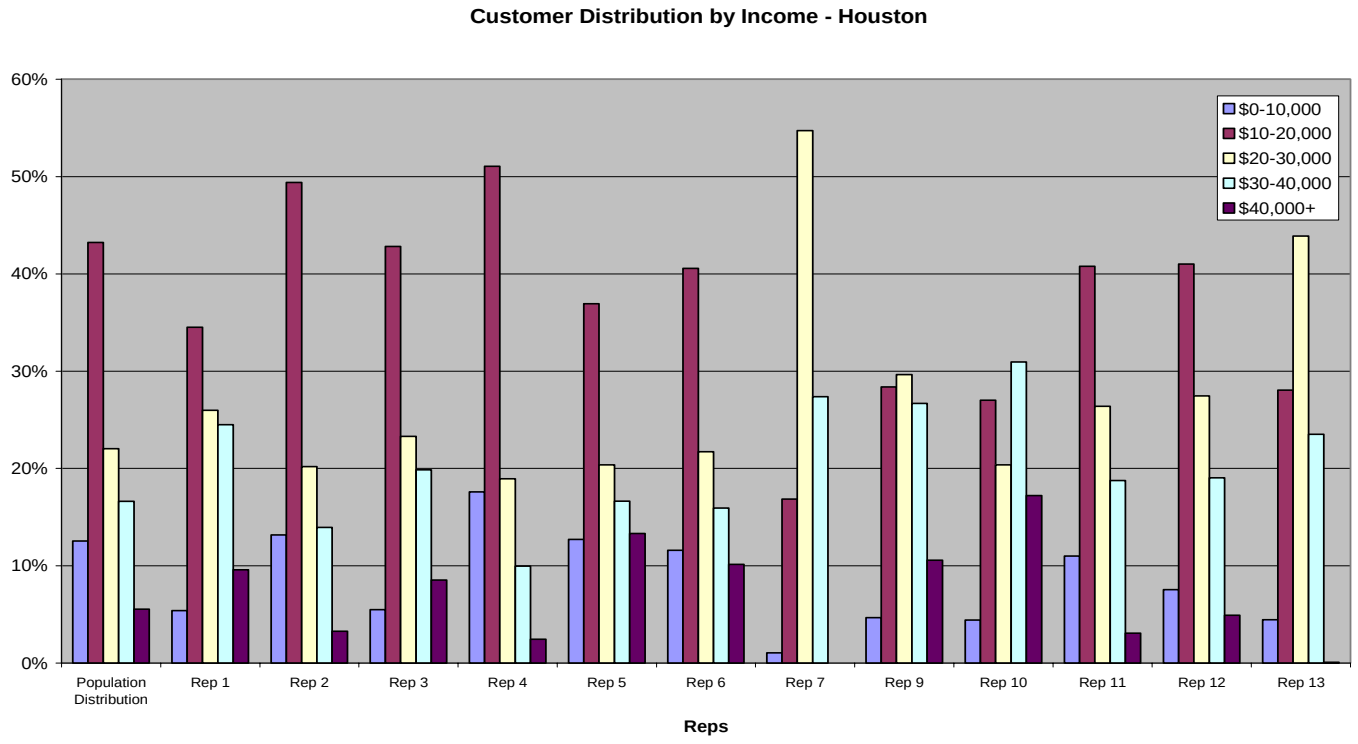
H2.


S Texas Switched Customers by Income Range
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
4,335
3,351
3,738
2
Customers
$0-10,000
$10-20,000
$20-30,000
$30,000+

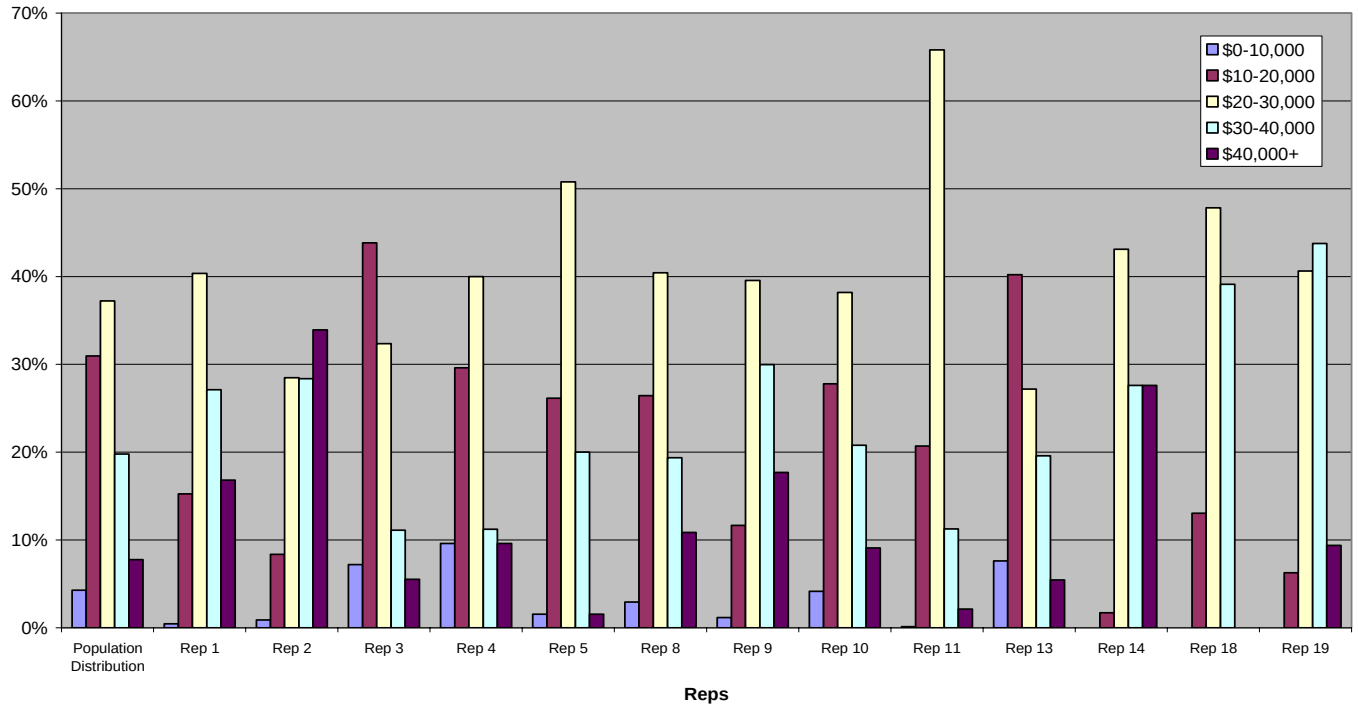
I2.


Customer Distribution by Income Level - Texas
80%
70%
60%
50%
40%
30%
20%
10%
0%
$0-10,000
$10-20,000
$20-30,000
$30-40,000
$40,000+
Population Distribution
Total Customer Distribution
Rep 1
Rep 2
Rep 3
Rep 4
Rep 5
Rep 6
Rep 7
Rep 8
Rep 9
Rep 10
Rep 11
Rep 12
Rep 13
Rep 14
Rep 15
Rep 17
Rep 18
Rep 19
Rep 20
Reps

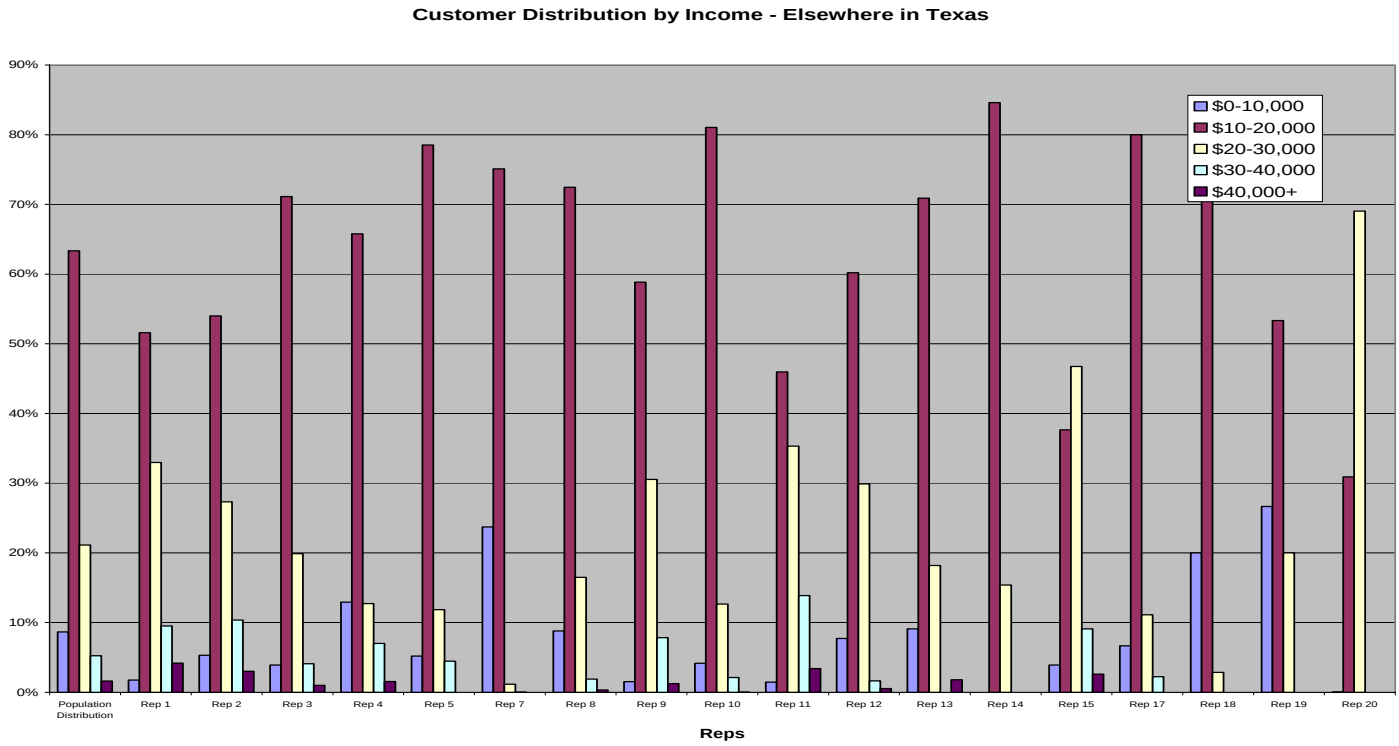
J2.


Customer Distribution by Income - Houston
60%
50%
40%
30%
20%
10%
0%
$0-10,000
$10-20,000
$20-30,000
$30-40,000
$40,000+
Population Distribution
Rep 1
Rep 2
Rep 3
Rep 4
Rep 5
Rep 6
Rep 7
Rep 9
Rep 10
Rep 11
Rep 12
Rep 13
Reps

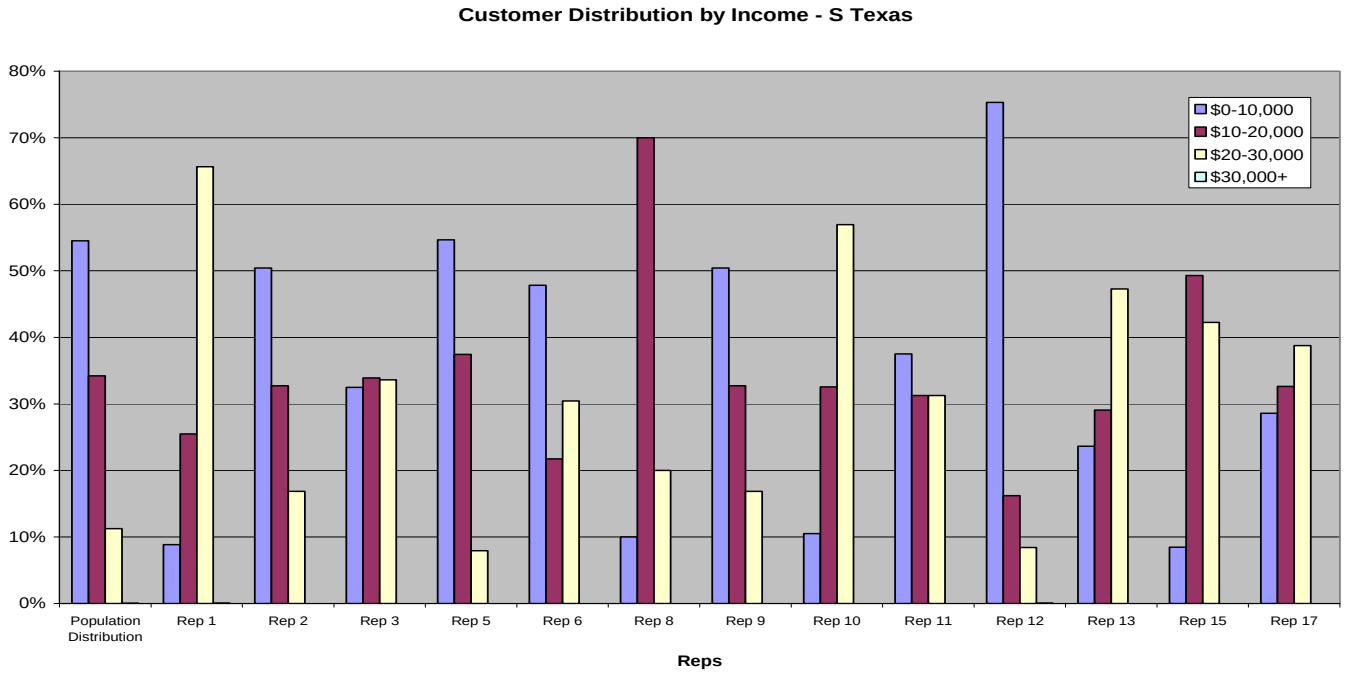
K2.


Customer Distribution by Income - DFW
70%
60%
50%
40%
30%
20%
10%
0%
$0-10,000
$10-20,000
$20-30,000
$30-40,000
$40,000+
Population Distribution
Rep 1
Rep 2
Rep 3
Rep 4
Rep 5
Rep 8
Rep 9
Rep 10
Rep 11
Rep 13
Rep 14
Rep 18
Rep 19
Reps

L2.

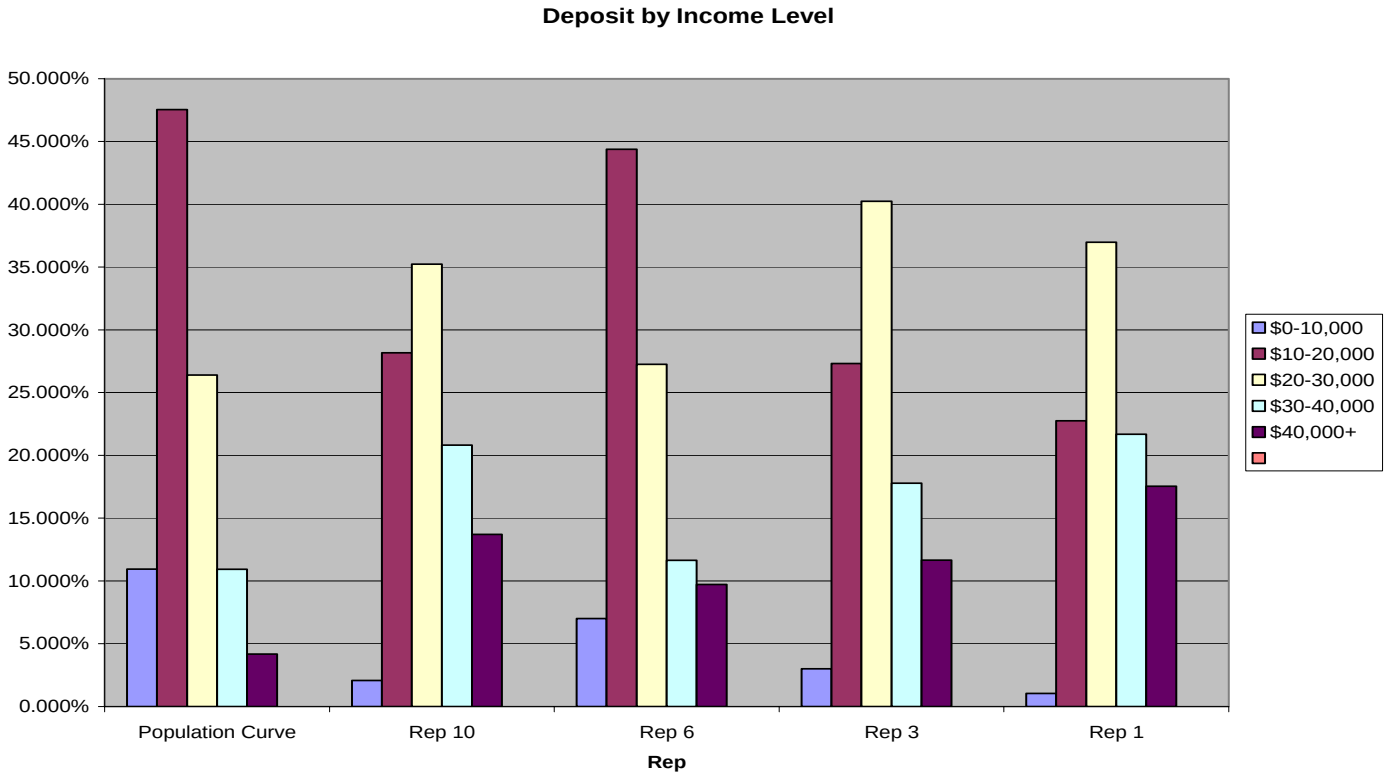

Customer Distribution by Income - Elsewhere in Texas
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
$0-10,000
$10-20,000
$20-30,000
$30-40,000
$40,000+
Population Distribution
Rep 1
Rep 2
Rep 3
Rep 4
Rep 5
Rep 7
Rep 8
Rep 9
Rep 10
Rep 11
Rep 12
Rep 13
Rep 14
Rep 15
Rep 17
Rep 18
Rep 19
Rep 20
Reps

M2.


Customer Distribution by Income - S Texas
80%
70%
60%
50%
40%
30%
20%
10%
0%
$0-10,000
$10-20,000
$20-30,000
$30,000+
Population Distribution
Rep 1
Rep 2
Rep 3
Rep 5
Rep 6
Rep 8
Rep 9
Rep 10
Rep 11
Rep 12
Rep 13
Rep 15
Rep 17
Reps

III. Deposit by Income Level and Average Deposit

In the Deposit by Income Level chart, the distribution of the number of deposits by income range for each REP is compared to the overall population curve. The Public Utility Commission did not receive deposit information from all Competitive REPs, since many did not require deposits as of December 2003. The factors evaluated in connection with deposits were the number of customer deposits that REPs collected by zip code median income and average deposit amount by zip code median income. In the higher income ranges, percentage of deposits exceeds the percentage of the population.



Average Deposit

	Rep 1	Rep 3	Rep 6	Rep 10
$0-10,000	$113	$145	$146	$152
$10-20,000	$98	$116	$138	$156
$20-30,000	$94	$271	$147	$151
$30-40,000	$96	$111	$126	$148
$40,000+	$92	$136	$133	$149

The above chart is the average deposit amounts of four competitive REPs evaluated. The narrow differences between the average deposit for the low-income areas and the high-income areas does not appear to be consistent with using large deposits to avoid serving low-income customers.