Introduction
The U.S. tax system affords individuals with financial constraints the opportunity to improve their economic condition. A strong case in point is the Earned Income Tax Credit (EITC), the largest federal cash transfer program for lower-income families. The EITC is a powerful policy tool because of its broad coverage and large outlay component. However, the complex process of filing taxes presents obstacles for low- and moderate-income families that result in some families losing a portion of the EITC benefits to which they are entitled (Holtzblatt & McCubbin, 2004).

Households without checking or savings accounts in a bank or credit union, the “unbanked,” are particularly disadvantaged in this regard. Compared to their “banked” counterparts, unbanked low- and moderate-income families are more likely to take out refund anticipation loans (RALs) and to pay high prices to cash tax refund checks at check-cashing stores (Barr & Dokko, 2006).

The federal income tax system provides an important vehicle to improve tax filing behaviors and reduce the use of Alternate Financial Services (AFS) among low- and moderate-income households for several reasons. First, the majority of low- and moderate-income households file tax returns and are eligible for the EITC refunds (Barr & Dokko, 2006). This population can be targeted with efforts to reduce the transaction costs associated with tax filing in order to optimize the income equality maximizing goals of the EITC. Second, since over 99% of all EITC recipients receive the credit refund as a large, lump sum at the time of their tax refund (Smeeding, Phillips, & O’Conner, 2000), tax filing and refund receipt provide an opportunity to provide incentives to encourage bank account ownership and saving (Barr & Dokko, 2006; Brown, 2005; Smeeding, 2002). Third, enabling low- and moderate-income families to keep more of their tax refund would facilitate income and consumption smoothing along with asset building.

Unfortunately, limited empirical research has focused exclusively on EITC recipients’ tax filing and other financial service experiences. Thus, little is known about the most effective strategies for fully exploiting the EITC’s income-maximizing potential. To fill this gap in the literature, this study examined how bank account ownership

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Younghee Lim, Michelle Livermore, and Belinda Creel Davis

Holding a bank account is crucial to the income-maximizing and asset-building of households. This study uses 2008 survey data of EITC-eligible households assisted at Volunteer Income Tax Assistance (VITA) sites to document their tax filing behavior and use of Alternate Financial Services (AFS). Specifically, the differences in tax filing and AFS use between banked and unbanked EITC-eligible households are examined. Findings reveal that unbanked status is associated with a lower likelihood of receiving a federal tax refund for tax year 2007 (TY 2007), a lower likelihood of filing a federal tax return for the previous tax year (TY 2006), a lower likelihood of receiving tax refunds via direct deposit or cashing at banks, and a higher likelihood of using check cashing stores. Findings suggest that policy changes and educational efforts should continue to focus on bringing the unbanked into the financial mainstream.

Key Words: alternative financial services, banking status, EITC, tax filing experience, unbanked
among EITC-eligible households is related to their tax filing and AFS use.

**Literature Review**

EITC-recipient families have low- and moderate-incomes. Consequently, they are less likely to invest in the development of social, human, and financial capital necessary for increasing wealth and upward economic mobility (Grawe & College, 2008; Issacs, Sawhill, & Haskin, 2008). While saving and asset-building programs have been created to help low- and moderate-income families increase their wealth and improve their financial future, the explosive growth of the fringe economy has helped perpetuate the dismal financial situation of the poor.

**EITC and Asset Building**

The EITC, which offers a refundable tax credit to low- and moderate-income families, was enacted in 1975 to help offset social security taxes and keep low-wage workers employed. It is the largest cash assistance program available and has proven effective in alleviating poverty (Berube, Kim, Forman, & Burns, 2002; Carasso, Steuerle, & Reynolds, 2007). In 2002, more than 18 million taxpayers received the EITC and almost 4.9 million people were lifted out of poverty as a result (Kopczuk & Pop-Eleche, 2007). Studies on the use of EITC lump-sum payments found that while families make bills and other debt payments, purchase or repair durable goods, invest in human capital development, and save, the majority of refunds were used to pay utility bills, rent, and to purchase non-durable goods (Beverly, 2002; Mammen & Lawrence, 2006; Smeeding, Phillips, & O’Connor, 2000). In recent years, asset building among low-income families has been encouraged through programs like the EITC and Individual Development Accounts (IDAs) and Saving’s Credit (Edin, 1998; Smeeding, Phillips, & O’Connor, 2000).

While there was no strong empirical evidence, the EITC, on its own or in conjunction with IDA and Saving’s Credit, was considered a mechanism through which families can save (Brown, 2005; Mammen, Lawrence, Berry, & Knight, 2011; Mammen, Lawrence, & Lee, 2011; Mammen & Lawrence, 2006; Schreiner, et al., 2001; Smeeding, 2002).

To further assist low-income workers with their tax returns so they may receive the full benefit of the EITC, the Internal Revenue Service, in partnership with local community nonprofit organizations, has established and certified the Volunteer Income Tax Assistance (VITA) programs nationwide to provide free tax preparation services. Volunteers sponsored by these nonprofit organizations receive training to help prepare tax returns. Increasingly, financial institutions offer services at VITA sites and provide staff as volunteer tax preparers (Rhine, Su, Osaki, & Lee, 2005). Nationally, an average of 1.5% of all EITC returns were completed by VITA programs in 2003, an increase from 0.9% in 2000 (Berube, 2006).

**Paid Tax Preparer/Refund Anticipation Loans (RALs)**

The complexity of the tax structure surrounding the determination of EITC eligibility may increase the incentive for EITC-eligible households to use tax preparation services because they worry about increased IRS audits for EITC filers, accompanied by delayed refunds (Holtzblatt & McCubbin, 2004). Nationally, more than half of taxpayers used paid preparers to submit their tax returns (Barr & Dokko, 2006). Among the EITC claimants, more than two thirds used paid tax preparation services (Internal Revenue Service [IRS], 2008).

The tax preparation industry has both positive and negative effects on EITC recipients. On the positive side, filing taxes with a paid preparer may increase the likelihood that taxpayers will hear about and take advantage of tax incentives designed to reach them (Maag, 2005). For example, tax preparers may increase the take-up rate for the EITC and other tax credits designed to redistribute income to households through advertising the availability of refunds and expertise in filing returns to maximize the client’s use of available tax credits (Kopczuk & Pop-Eleche, 2007; Maag, 2005).

By sharing information about how the EITC works (a verbal description, a graph showing the shape of the EITC as a function of earnings, and a table listing the key EITC parameters), paid tax preparers may also induce tax filers with incomes in the phase-in region to work more so that they can receive the maximum refund amount (Chetty & Saez, 2009). Finally, as is done in some programs already, tax preparers may encourage filers to save, particularly for retirement (Barr, 2004; Duflo, Gale, Liebman, Orszag, & Saez, 2006; Tufano, Schneider, & Beverly, 2005).

On the negative side, the tax preparation industry adds financial burdens to already financially pressed families and reduces the effectiveness of the EITC and other tax incentives. Tax preparation comes at significant cost to tax filers (Maag, 2005), and low-income households often face additional fees associated with filing when taking out refund anticipation loans (RALs) (Barr & Dokko, 2008). A large portion of EITC-recipient households take out costly RALs and similar products for quicker receipt of their...
tax refund (Berube, Kim, Forman, & Burns, 2002). For example, Barr and Dokko’s 2006 study confirmed national results that 66% of low- and moderate-income taxpayers used paid preparers, and 37% of these taxpayers who used paid preparers took out RALs, which translates to nearly a quarter of all tax filers. During the tax year 2002, taxpayers took out approximately 12.2 million RALs (Wu & Fox, 2005). The average cost of tax preparation for non-RAL users was $110, whereas the comparable cost for RAL users was $170 (Barr & Dokko, 2006).

Filing taxes using paid tax preparers, and particularly RALs, should be of interest to policymakers, human service administrators, and financial educators because it is costly to filers. However, this is not the only reason. RAL use was also strongly associated with AFS use including payday loans and cashing out pensions, both of which erode financial assets (Barr, 2009). If EITC-recipient households already use the AFS to file taxes, the use of other financial services provided by this sector may seem acceptable to them. The cumulative cost of using AFS substantially depletes the resources of EITC tax filers. Conversely, eliminating patterns of AFS use across all financial and tax services could increase the overall positive effects of the tax system on the economic wellbeing of financially vulnerable families.

**Alternative Financial Services (AFS)**

In the 1990s, there was explosive growth among firms outside the system of federally-insured financial institutions that provide a range of financial services typically associated with banks (Apgar & Herbert, 2008; Caskey, 2001). These types of firms, including check cashing outlets, payday lenders, pawnshops, title lenders, tax refund anticipation lenders, small loan firms, and rent-to-own stores, are generally referred to as alternative financial service providers (Apgar & Herbert, 2008).

Low credit ratings and earnings were related to higher utilization of these costly services. EITC-recipient families took out small loans in the AFS because of the pressing needs of expenditure, income shortfall, or poor budgeting habits (Caskey, 2001). While these families received needed services in the AFS, the cost may be exorbitant. For example, for the fiscal year ending June 30, 2005, the average finance charge for the average payday cash advance of $290 was $45.87 (ACE Cash Express, 2006).

Bailey (2005) and Caskey (2001) suggested that the terms of a loan dictate the interest rate, any applicable fees, and the resulting total cost of the loan, which often far exceeds the original amount. For a repeated borrower who has to renew a loan, annual percentage rates (APR) range from 350% to 1,000%, depending on the length of loan maturity and size of the finance charge (Caskey, 2001). Unreasonably high percentage rates and costly fees have allowed ACE (one of the payday lenders) company-owned stores to generate interest income and fees of $25.2 million, over 563,000 loan transactions during the first quarter of 2006 (ACE Cash Express, 2006). Sizable profits, such as that for payday lenders and similar establishments, indicate huge monetary losses for low-income borrowers.

**Banked and Unbanked Status of Low-Income Families**

Families without a bank account tended to be disproportionately low income and low wealth, less than 35, non-White, foreign born, less educated, unemployed, and recipients of government income support (Apgar & Herbert, 2008; Barr, 2009; Hogarth, Anguelov, & Lee, 2004). Although significant shares of banked individuals were also frequent users of these AFS (Barr & Dokko, 2006), the unbanked had a higher propensity for utilizing the services of check cashing operations (CCOs) and other alternative financial services providers (Apgar & Herbert, 2008). Researchers estimated nearly one in two persons in the U.S. was financially underserved (Berke, Lopez-Fernandini, & Herrmann, 2008). Roughly half of underserved were unbanked, meaning that they had no checking or savings account with a bank or credit union, and the other half are underbanked, meaning that they used the service that alternative financial sector provides even though they had an account with a bank or credit union (Berke et al., 2008).

Although financial strain was experienced by many low- and moderate-income households, there likely was a difference in the tax preparation and other financial behaviors between banked and unbanked households within this group (Barr & Dokko, 2006). For example, unbanked tax filers waited longer for their tax refunds, took out a RAL, and used AFS providers to cash their refund check. Thus, they were more likely to face higher costs and had more difficulties cashing their government refund check than their banked counterparts (Barr & Dokko, 2006).

Barr’s (2009) recent research provided insight to the present study. Using a stratified random sample of the Detroit metropolitan area, Barr (2009) investigated the importance of financial services in the lives of the low- and moderate-income households. Consistent with previous research, 29% of households were unbanked (e.g.,
Aizcorbe, Kennickell, & Moore, 2003; Seidman, Hababou, & Kramer, 2005). In his sample, the unbanked tended to be younger, less educated, predominantly African American, unemployed, and living in poverty. Unbanked households were more likely than banked households to have lower incomes, hold lower levels of assets, and have a higher propensity to use alternative financial services providers. Those with a bank account were better off than their unbanked counterparts in terms of poverty, financial hardship, and unmet needs (Barr, 2009; Lim, Livermore, & Davis, 2010).

Surprisingly, despite low income and assets holding, half of all low- and moderate-income households in Barr’s (2009) study reported that they saved some or all of their tax refund, suggesting that tax filing was an important savings opportunity for this group. In addition, banked status appeared to be a significant determinant in savings behavior (Barr, 2009). This finding was particularly encouraging because of the high positive correlation between saving and other asset-building behaviors and results (Seidman et al., 2005).

Interestingly, while banked and unbanked households were almost equally likely to use paid tax preparation services, unbanked households were about 15 percentage points more likely to file for and receive the EITC than banked households (Barr & Dokko, 2006). Moreover, unbanked households were much more likely to take out a RAL. More than 60% of unbanked households, compared to 30% of banked households, using a paid tax preparer took out a RAL (Barr & Dokko, 2006). This finding may be driven by the fact that unbanked households are somewhat more likely to want the money faster than banked households to pay for bills or debt faster, including paying the tax preparer (Barr & Dokko, 2006).

The literature review revealed that despite the redistributive goals of current income tax policies, low-income households faced a number of challenges to increasing their incomes and savings. Although the EITC has fulfilled its legislative purpose by reducing poverty, alternative financial services, paid tax preparation and RALs erode the magnitude of its poverty-alleviation potential by depleting the monetary resources of low-income households and inhibiting savings.

The unique contribution of the present study includes using a sample which consisted exclusively of EITC-eligible households to learn about their banking status and their tax filing and other financial behaviors. The present study was the first to examine how the banking status of EITC recipients is related to VITA use and to various financial practices including use of paid tax preparers, RALs, and payday loans. In addition, the present study used EITC-recipient household data in a southern state where a greater proportion of tax filers claim the EITC refund, and thus, the implications for the EITC as an anti-poverty and asset-building policy may be even more pronounced (Eissa & Hoynes, 2008).

Specifically, this study asked if unbanked households were less likely than banked households to have received a tax year 2007 federal tax refund and had less prior contact with the tax system (i.e., less likely to have filed for the previous tax year (TY 2006) and more likely to have shorter tax filing history). This study also asked if unbanked households were associated with asset-eroding financial practices (i.e., more likely to use paid tax preparers and RALs and less likely to use Volunteer Income Tax Assistance (VITA) for the previous tax year [TY 2006]). Lastly, this study asked if unbanked households were less likely to use mainstream financial services (i.e., less likely to use direct deposit or cashing at a bank and more likely to use check cashing stores and payday loans).

**Method**

**Sample and Participant Selection**

The study included a non-probability convenience sample of Louisiana tax filers assisted at Voluntary Income Tax Assistance (VITA) sites funded by Temporary Assistance for Needy Families (TANF) dollars for tax year 2007. Data for the study came from administrative records and a telephone survey. The administrative records included declaration forms collected by the Louisiana Department of Social Services (DSS) to document that VITA operations assisted needy families. DSS defined needy families as EITC filers with children. The declaration forms, which included tax filer phone numbers, were used as the sampling frame for the telephone survey (N = 582). The study also used information regarding adjusted gross income and number of eligible dependent children in the tax filing unit contained on the declaration forms.

The telephone survey, conducted from October 1, 2008 through December 17, 2008, had a 66% response rate (384 completed interviews). The sample consisted of tax filers from 31 VITA sites, representing 7 of 9 Louisiana regions as defined by DSS. Interviewers told respondents that participation in the survey was voluntary and confidential and...
that the survey was part of an evaluation of DSS TANF-funded VITA sites where they received free income tax assistance services.

Data Analysis
First, a descriptive analysis of the personal characteristics, as well as income and poverty status of banked and unbanked households receiving the EITC who were assisted at the free tax assistance site, was conducted. Second, Chi-square analysis was employed because all the variables used to examine the bivariate relationship with banked and unbanked status were dichotomous. Differences in tax filing and other financial behaviors between banked and unbanked households were assessed. These behaviors included (a) tax filing experience including history of tax filing and receipt of returns; (b) use of tax filing methods focusing on the prior use of paid tax preparers, refund anticipation loans (RALs), and VITA services; and (c) use of alternative financial services, such as payday loans.

Limitations of the Present Study
Several limitations of the present study need to be addressed before reporting the results. First, the present study lacks representativeness. Thus, the findings can only be generalized to willing participants among Louisiana EITC eligible tax-filing units assisted at VITA sites. Also, this study used the data from tax year 2007, two years after Hurricanes Katrina and Rita hit the state. Louisiana’s population, especially in St. Bernard, Orleans, Jefferson, and Plaquemines parishes, had not returned to their pre-storm levels (Brookings, 2009). Future studies should consider using national probabilistic sampling to make the findings generalizable to all EITC eligible households.

Another limitation of the present study was that it employed Chi-square analysis and did not control for other factors that might have influenced respondents’ choice of tax filing and financial behaviors, which requires a larger sample size with greater variability. While identifying bivariate associations between bank status and tax filing and other financial behaviors, this analytic method did not establish a causal relationship. Establishing a causal relationship between banking status and tax filing and other financial behaviors would require research designs that could control for the unobservable characteristics of the respondents that affect the likelihood of opening up and maintaining a bank account as well as making financial choices to keep earnings and build assets. Future studies should control for these selection and endogeneity issues to enable the formation of better policy and educational interventions for low-and moderate-income households.

Results
Descriptive Statistics
Excluding 32 respondents who refused to answer the banking status question, descriptive characteristics of 352 EITC-eligible, VITA site users for tax year 2007 in Louisiana are displayed in Table 1. The mean age was 38 and most were female (84.9%), non-Hispanic Black/African American (85%), and single (82.4%). In terms of household composition, 41.8% lived with one child, 39.9% lived with two or more children, and 50.6% lived with no other adult present.

The sample was disadvantaged in terms of education and income. About 16% had less than a high school diploma or GED. Similarly, the 2007 household adjusted gross income was $15,392, which is one third of the $43,900 average household income in the American South in 2006 (U.S. Department of Commerce, 2007). The majority (56.8%) of respondents lived in households whose income was below the 100% federal poverty threshold in 2007. When using 200% poverty thresholds criteria, 90.1% of respondents lived in poverty in the same year.

Banked households were differentiated from unbanked households by their possession of either a checking or a savings account in a bank or credit union. The sample contained a larger percentage of unbanked households (17%) than the Federal Deposit Insurance Corporation (2002) found among all U.S. households (7.7%). Some socioeconomic characteristics of banked and unbanked households differ in this sample. More unbanked households had never been married and a slightly lower percentage was non-Hispanic White. While banked and unbanked respondents were similar in age, more unbanked households were economically disadvantaged compared to their banked counterparts. While 87% of respondents from banked households earned a high school diploma or more, only 67% of respondents from unbanked households had done so. A greater percent of unbanked households contained no children (31%) and no other adults (58%) compared to banked households (12% and 48%, respectively). Unbanked households also performed lower than banked households on measures of employment and income. In 2007, nearly 16% of EITC eligibles in unbanked households did not work compared to 10% living in banked households. More banked EITC eligibles worked all year (62%) compared to unbanked EITC eligibles (43%). Similarly, the percent of full-time workers was higher among banked EITC eligibles (64%) than among the unbanked (50%). The median adjusted gross income was strikingly lower among unbanked EITC-eligible households ($9,053) compared to banked
Table 1. Personal and Household Characteristics of Survey Sample

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>All (N = 352)</th>
<th>Banked (n = 294)</th>
<th>Unbanked (n = 58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age</td>
<td>38 (16.9) *</td>
<td>38 (16.4) *</td>
<td>39 (19.5) *</td>
</tr>
<tr>
<td>Female</td>
<td>299 (84.9)</td>
<td>256 (87.1)</td>
<td>43 (74.1)</td>
</tr>
<tr>
<td>Non-Hispanic Black/African American</td>
<td>299 (85.0)</td>
<td>247 (84.0)</td>
<td>49 (84.5)</td>
</tr>
<tr>
<td>Non-Hispanic White Caucasian</td>
<td>44 (12.5)</td>
<td>38 (12.9)</td>
<td>6 (12.0)</td>
</tr>
<tr>
<td>Other (Hispanic, Asian/Pacific Islander, Native American, etc.)</td>
<td>9 (2.6)</td>
<td>9 (3.1)</td>
<td>2 (3.4)</td>
</tr>
<tr>
<td>Married or cohabitating</td>
<td>66 (17.6)</td>
<td>60 (20.4)</td>
<td>6 (10.3)</td>
</tr>
<tr>
<td>Single ever married</td>
<td>110 (32.4)</td>
<td>94 (32.0)</td>
<td>16 (27.6)</td>
</tr>
<tr>
<td>Single never married</td>
<td>176 (50.0)</td>
<td>140 (47.6)</td>
<td>36 (62.1)</td>
</tr>
<tr>
<td>No children in household</td>
<td>54 (15.3)</td>
<td>36 (12.2)</td>
<td>18 (31.0)</td>
</tr>
<tr>
<td>One child in household</td>
<td>147 (41.8)</td>
<td>125 (42.5)</td>
<td>22 (37.9)</td>
</tr>
<tr>
<td>Two or more children in household</td>
<td>151 (39.9)</td>
<td>133 (42.2)</td>
<td>18 (31.0)</td>
</tr>
<tr>
<td>No other adults in household</td>
<td>178 (50.6)</td>
<td>142 (48.3)</td>
<td>30 (51.7)</td>
</tr>
<tr>
<td>One other adult in household</td>
<td>114 (32.4)</td>
<td>102 (34.7)</td>
<td>18 (30.1)</td>
</tr>
<tr>
<td>Two or more adults in household</td>
<td>60 (17.0)</td>
<td>50 (17.0)</td>
<td>10 (17.2)</td>
</tr>
<tr>
<td>Less than high school education</td>
<td>57 (16.2)</td>
<td>38 (12.9)</td>
<td>19 (32.8)</td>
</tr>
<tr>
<td>High school/GED education</td>
<td>136 (38.6)</td>
<td>111 (37.8)</td>
<td>25 (43.1)</td>
</tr>
<tr>
<td>Greater than high school diploma</td>
<td>159 (45.2)</td>
<td>145 (49.3)</td>
<td>14 (24.1)</td>
</tr>
<tr>
<td>0 month worked</td>
<td>10 (2.8)</td>
<td>29 (9.9)</td>
<td>9 (15.5)</td>
</tr>
<tr>
<td>1 – 11 months worked</td>
<td>135 (38.4)</td>
<td>83 (28.2)</td>
<td>24 (41.4)</td>
</tr>
<tr>
<td>12 months worked</td>
<td>207 (58.8)</td>
<td>182 (61.9)</td>
<td>25 (43.1)</td>
</tr>
<tr>
<td>0 hours per week worked</td>
<td>38 (10.8)</td>
<td>29 (9.9)</td>
<td>9 (15.5)</td>
</tr>
<tr>
<td>1 – 34 hours per week worked</td>
<td>73 (22.1)</td>
<td>77 (26.2)</td>
<td>20 (34.5)</td>
</tr>
<tr>
<td>35 hours or more per week worked</td>
<td>245 (67.1)</td>
<td>188 (63.9)</td>
<td>29 (50.0)</td>
</tr>
<tr>
<td>Mean AGI</td>
<td>$15,392 (9,224)*</td>
<td>$16,081 (9,313)*</td>
<td>$11,909 (7,961)*</td>
</tr>
<tr>
<td>Median AGI</td>
<td>$14,687</td>
<td>$15,298</td>
<td>$9,053</td>
</tr>
<tr>
<td>Below the 100% poverty threshold</td>
<td>200 (56.8)</td>
<td>169 (57.4)</td>
<td>43 (74.1)</td>
</tr>
<tr>
<td>Below the 200% poverty threshold</td>
<td>317 (90.1)</td>
<td>273 (92.8)</td>
<td>56 (96.6)</td>
</tr>
</tbody>
</table>

* For age and mean AGI, standard deviations are reported in parentheses.
households ($15,298). Finally, in 2007, more unbanked households (74%) had incomes below the 100% poverty threshold than banked households (57%).

**Tax Filing Behavior and Alternate Financial Service Use Differences by Banking Status**

The difference in the tax filing experiences related to receipt of a federal tax refund for tax year 2007 between banked and unbanked households receiving the EITC was significant ($\chi^2 = 21.7, p < .001$). Unbanked households were about 22 percentage points less likely to have reported receipt of federal tax refund. A significant difference in the tax filing experiences related to filing federal tax return for the previous tax year (TY 2006) was found between banked and unbanked households receiving the EITC ($\chi^2 = 9.7, p < .01$). Unbanked households were also about 14 percentage points less likely to have reported filing for the previous tax year (TY 2006).

The difference in years of tax filing between banked and unbanked households eligible for the EITC was not significant. The difference in the previous year’s tax filing method of paid tax preparer use, RAL use, and VITA use between banked and unbanked households receiving the EITC was not significant.

The difference in receiving a federal income tax refund via direct deposit or cashing it at a bank by banking status was significant ($\chi^2 = 55.8, p < .001$). Unbanked households were about 56 percentage points less likely to have reported receipt of federal income tax refunds via direct deposit or cashing it at a bank. The difference in having their federal income tax refunds cashed at a check cashing store by banking status was significant ($\chi^2 = 61.3, p < .001$). Unbanked households were about 18 percentage points more likely to have cashed their federal income tax refunds at a check cashing store. Lastly, the difference in payday loan use between banked and unbanked households receiving the EITC was not significant. The observed and expected frequencies for those four analyses that showed significant results will be provided upon request.

**Discussion**

This study generated several important findings related to the tax filing behavior of EITC-eligible households in general and differences in tax filing and other related financial behaviors between banked and unbanked households. First, a majority of the EITC eligible households have interfaced with the tax system. Of those who filed taxes, 82% received a federal tax refund for tax year 2007 and 88.5% of respondents were tax filers for the previous tax year.
year (TY 2006). Secondly, in contrast to existing statistics on tax filing methods of low- and moderate-income households, respondents in the present study reported significantly lower use of paid tax preparers and RALs.

Results of statistical analyses further reveal that banked and unbanked status among EITC-eligible households is associated with several problematic tax filing and other related financial behaviors. Findings reveal that unbanked status is significantly associated with a lower likelihood of receiving a federal tax refund for tax year 2007, filing a federal tax return for the previous tax year (TY 2006), and receiving tax refunds via direct deposit or cashing at banks. Furthermore, unbanked status is associated with a higher likelihood of using check cashing stores. Since only one other study of tax filing behavior and use of alternative financial behaviors among low-income households compares financial practices by banked and unbanked status (Barr & Dokko, 2006), the results of the present study are compared with it.

Tax Filing Behavior
In both studies, banked households are about 22 percentage points more likely to have filed a federal tax return in the previous year than unbanked households. Banked households in the present study had a higher likelihood of receiving a refund than those in Barr and Dokko’s study (2006). This probably has to do with the fact that the present study took the sample from potentially EITC-eligible households who were assisted at VITA sites to have their taxes prepared. Perhaps this relationship is present at the household level as well. Nearly all of the households in the present study received the federal tax refund, whereas only about a third of Barr’s sample received the refund. The receipt of the refund by most low- and moderate-income households in the present study may reveal that households that are aware of their EITC eligibility are more likely to file for and receive a tax refund.

Use of Tax Filing Method
Use of paid tax preparers is much lower in the present study (12.5%) than in Barr and Dokko’s 2006 study (66%). However, neither this study nor Barr and Dokko’s study found a significant difference in use of paid tax preparers between banked and unbanked households. The current study reported much lower use of Refund Anticipation Loans (10.2%) compared to Barr and Dokko’s Detroit metropolitan area respondents (37%). While there is a huge difference in use of tax filing methods among low- and moderate-income households in the state of Louisiana and in the Detroit metropolitan area, similar patterns are observed in both places. A greater proportion of unbanked households took RALs (10.0% banked versus 11.4% unbanked in the present study and 30% banked versus 62% unbanked in Barr and Dokko’s) in both samples. The overall prior utilization rate of VITA in the present study (69.8%) was overwhelmingly higher than the 4% found in Barr and Dokko’s study. These results are likely related to the present study’s sample being drawn from households assisted at VITA sites during the tax year 2007, the majority of whom also reported utilization of VITA in the prior year (TY 2006). In contrast, unbanked households in the present study tended to pay higher fees for tax preparation compared to those in Barr and Dokko’s study. The average fee for tax preparation reported by the unbanked in the present study was between $200 and $249 compared to $181 in Barr and Dokko’s study.

The present study did not directly investigate whether increased utilization of VITA results in the decreased use of paid tax preparers or RALs. However, a remarkably higher proportion of low- and moderate-income households in Louisiana utilized VITA in the prior year compared to the Detroit study. In contrast, an overwhelmingly higher proportion of low- and moderate-income households in Detroit metropolitan area utilized paid tax preparers and the RALs. This appears to show a logical, negative association between utilization of VITA and use of paid tax preparer and use of RALs. Future studies should examine this relationship more directly. Higher tax preparation fees paid in Louisiana may explain the difference. Perhaps, those who pay extremely high fees are most likely to seek free income tax assistance in subsequent years. Or perhaps it is a result of sampling bias. It seems logical to assume that tax year 2007 VITA users would be more likely to have used VITA services in the previous year than a sample of the general population. However, if the association found in this study is repeated in future studies, it would support a widespread expansion of VITA services which now complete only 1.5% of all EITC returns nationally.

Use of Alternative Financial Services
The findings reveal a stark difference between banked and unbanked EITC-eligible households when it comes to the cashing of federal income tax refunds. A much greater percentage of unbanked EITC-eligible households relied on the use of check cashing stores than banked households, who instead relied more heavily on banks and direct deposit. Another study by Barr (2009) revealed that Detroit metropolitan respondents’ use of alternative financial
services, such as payday loans, was extremely low (4.4%) compared to 18.2% in the present study. It could be that some residents in the current study were still suffering financially from the effects of hurricanes Katrina and Rita that hit the state two years previously, making some more anxious to receive cash quickly. Or, it could be that people in the present study were generally worse off (younger, more likely to be Black, never married single, female, and have a lower median household income) than their counterparts in Detroit. Interestingly, in both studies, a smaller proportion of unbanked households utilized payday loans compared to their banked counterparts (4.9% banked versus 3.4% unbanked in Barr’s study and 19.5% banked versus 12.1% unbanked in the present study).

Conclusions and Implications

The U.S. tax system contains provisions that attempt to minimize income inequality. Provisions like the EITC are especially important during economic recessions because many states resort to sales and income tax increases, both taxes that have substantial effects on low-income households, in order to balance budgets. In fact, during the recession that began in 2001, many states increased their EITC or adopted one for the first time in order to counterbalance the effects of increased taxes in other areas (Maag, 2006). While many low- and moderate-income households are connected to the tax system, and this connection has become stronger as the EITC has been expanded during the last four decades, the income inequality reducing potential of the tax system is constrained by their financial practices. Some low- and moderate-income households use paid tax preparers and take out RALs which incur high costs. The prevalence of alternative financial services (AFS) and the associated excessive prices that low-income households pay in the financial market erodes the effects of the EITC.

Findings from the present study reveal that a large majority of the presumed EITC eligible households using VITA services have received a federal tax refund, filed taxes in the previous year, and used VITA services previously. This provides some preliminary support for the contents that the tax system already increases incomes of some low- and moderate-income households and that once households file taxes and use free tax preparation services, they continue to do so. Thus, both tax filing in general and free tax assistance in particular represent potential vehicles for improving the incomes of low- and moderate-income households and linking them to the mainstream financial service sector.

Findings also show that compared to their banked counterparts, households categorized as unbanked are less likely to file taxes, receive a federal tax refund when they do file taxes and receive tax refunds via direct deposit or cash them at banks. They are more likely to use check cashing stores to cash their tax refunds. Thus, they are less likely to have their incomes supplemented by the tax credit and for those that do, the value of the refund is eroded by the use of check cashing stores. These findings suggest that policy changes and educational efforts target behavior change among the unbanked related to tax filing and EITC knowledge, and bringing them into the financial mainstream.

Whether explicitly stated or not, the primary outcome sought by free tax assistance services is increased participant incomes and reduced income inequality in the U.S. Free tax filing assistance gives households access to their own income retained by the federal government and tax credits to which they are entitled by the tax code. The findings of this study provide direction to policy makers and educators regarding logical outcome objectives to help them achieve these goals. Behaviors that should be increased among all low- and moderate-income households include tax filing, use of free income tax assistance, and the use of direct deposit to receive tax refunds. When appropriate, bank account ownership among the unbanked should also be increased. Behaviors that should be decreased include use of check cashing stores and other AFSs.

Within the current context, financial educators, counselors and planners can design educational programs that directly address tax filing financial practices. Such programs can encourage workers who qualify for the EITC to file a federal tax return to take advantage of the EITC included in the federal refund. They can also inform them of the high cost of paid preparers and refund anticipation loans and discourage their use. Related to this, programs can provide information about VITA and the financial benefits associated with using free tax assistance. They can also demonstrate the positive financial benefit of direct deposit and provide information about how direct deposit works. Furthermore, they can make the hidden fees charged by services, such as check cashing, explicit with an emphasis on the effect on household income (Lim, Livermore, & Davis, 2009). Low-income individuals are often unaware or less aware of the severity of the financial risks often associated with fringe banking, in particular, annualized percentage rates (Caskey, 2001). Thus, they may opt to conduct business with these entities and risk losing the few assets they own. Increased financial education and access
to traditional banking services can also help the unbanked achieve financial security by enticing them to contribute more to their savings instead of paying fees. Since nonfinancial reasons, such as mistrust, cause some to avoid the mainstream financial services (Barr, 2009; Sherraden et al., 2005), educational efforts can address these as well.

The fact that banked households are more likely to use direct deposit as a way of receiving a tax refund and that unbanked households are more likely to cash a tax refund check at a cashing store presents several opportunities and challenges for policymakers, administrators, financial institutions, community partners, and financial educators. Since direct deposit of tax refunds requires a bank account, banked households face lower costs for converting their tax refund into a usable form than unbanked households because they do not need to pay to cash their refund check. Simply connecting unbanked households to mainstream banking establishments can immediately increase the amount of their tax refund. Bank account ownership also gives households access to the kinds of financial products and services that enable families to save, build assets, and achieve financial sufficiency and prosperity (Berke, Lopez-Fernandini, & Herrmann, 2008; Hogarth, Anguelov, & Lee, 2004). These factors make unbanked households logical targets of interventions. However, not all unbanked households should be encouraged to open bank accounts because of limited financial resources (Lyons, 2004/2005).

In tandem with the educational effort, policy makers could lower the transaction costs of filing taxes by providing incentives to EITC-eligible households to have their tax refund directly deposited into their own bank account (Bertrand, Mullainathan, & Shafir, 2005). In fact, direct deposit is the only way to ensure that low- and moderate-income households receive 100% of their tax refund since fees paid at the check cashing stores reduce the amount of their refund. An increase in the availability of VITA services and concerted efforts to ensure that the services are provided by trustworthy organizations capable of providing quality tax assistance are also advisable (Lim, Livermore, & Davis, 2009).

Regarding increasing bank account ownership, subsidies for opening a bank account for low- and moderate-income families provided through the tax code and other mechanisms may counter the effects of high bank fees and other bank requirements, overdraft protection fees, and other costs known to discourage many families from opening accounts (Barr, 2009; Sherraden, 2008). Banks can attract the unbanked (Barr & Blank, 2009) by adopting lower fees, less confusing fees, and lower minimum balances (Barr, 2009; Stegman, 2001). They can also make services more convenient to the unbanked since this has been noted as a deterrent in prior research (Barr, 2009; Sherraden et al., 2005). Further, policymakers should ensure that the financial industry is monitored and regulated so that bank accounts are beneficial to low- and moderate-income families (Stegman, 2001).

Very little research has been done on differences in tax filing and other related financial behavior between banked and unbanked households. Thus, this study compared its findings to the only other study that has done so previously. Some of the inconsistent findings between the present study and Barr and Dokko’s (2006) study may suggest that there are regional differences in the financial behaviors among low- and moderate-income households in the mostly rural South and a Midwestern metropolitan area. As noted earlier, differences between the sample characteristics in these studies may have contributed to the differences in financial behaviors. Yet another plausible explanation is that real differences may exist in the financial behaviors between low- and moderate-income households in general and EITC-eligible households assisted at VITA sites. As briefly mentioned earlier, the present study indirectly reveals that use of VITA benefits these households by providing tax filing services, which in turn may prevent these households from paying high costs for tax preparation and taking out RALs. Clearly, research that tests for a causal relationship between establishment and utilization of VITA sites and the reduction of the use of high cost paid tax preparer and taking RALs is warranted.

References


