Center for Financial Security

UNIVERSITY OF WISCONSIN-MADISON

Implementation and Impact Evaluation of Local Interventions for Financial Empowerment through Utility Payments (LIFT-UP)

Prepared for The National League of Cities Institute for Youth, Education, and Families

Stephanie Moulton*, *The Ohio State University, CFS Affiliate*
Danielle Harlow, *The Ohio State University*
Olga Kondratjeva, *The Ohio State University*
Stephanie Casey Pierce, *The Ohio State University*

Center for Financial Security **
National League of Cities Final Report 2016-3.1

May 2016

*Contact Author and Co-PI, Stephanie Moulton
moulton.23@osu.edu

** Thank you to J. Michael Collins, Faculty Director of the Center for Financial Security and PI on the project. The project was made possible through the collaborative efforts of the funding organization NLC, grantee CFS and sub-grantee OSU.

Table of Contents

EXECUTIVE SUMMARY

Municipal financial empowerment (FE) strategies are efforts undertaken by cities to increase the financial stability of low-income families. FE strategies link vulnerable households to financial services and public benefits, and provide them with tools to build assets and manage money more effectively. A key challenge to the success of municipal FE services is identifying "on-ramps" for local residents who might be at risk of financial instability.

One potential on-ramp is through municipal debt collections services, such as water utilities. When families fall behind on payments for basic necessities like water, it may be a sign of financial instability. Local Interventions for Financial Empowerment through Utility Payments (LIFT-UP) is a model that targets families who have missed payments to utilities or other municipal entities and offers FE interventions at the onset of the debt collection process. LIFT-UP is designed to reconcile a "missed opportunity" to connect residents who are struggling to pay for municipal debts, like water utility bills, with FE services.

Since 2000, The National League of Cities (NLC) Institute for Youth, Education, and Families (YEF Institute) has positioned itself as a leader among cities engaged in FE services. The LIFT-UP model builds on NLC's successes with other initiatives and taps NLC's extensive network of partner cities and non-profit organizations. With LIFT-UP, NLC introduces an innovative new tool to the Municipal Financial Empowerment landscape.

In 2013, NLC selected five cities to pilot the LIFT-UP model with their city-owned water utilities: **Houston, Texas**, **Louisville, Kentucky**, **Newark, New Jersey**, **Savannah, Georgia** and **St. Petersburg, Florida.** Prior to the launch of LIFT-UP, the five cities reported delinquency rates at the water utility that ranged between 20% and 48% of all accounts. City officials in each of the cities recognized this opportunity and were instrumental in assembling LIFT-UP teams made up of utility staff, FE providers and other representatives from municipal and nonprofit organizations.

To assess the impact of the LIFT-UP pilot, NLC engaged an external evaluator, the Center for Financial Security (CFS) at the University of Wisconsin. This report summarizes the results of the evaluation. As a pilot initiative, the lessons learned through the evaluation of LIFT-UP can improve future iterations of the program, as well as inform innovative municipal financial empowerment strategies more broadly.

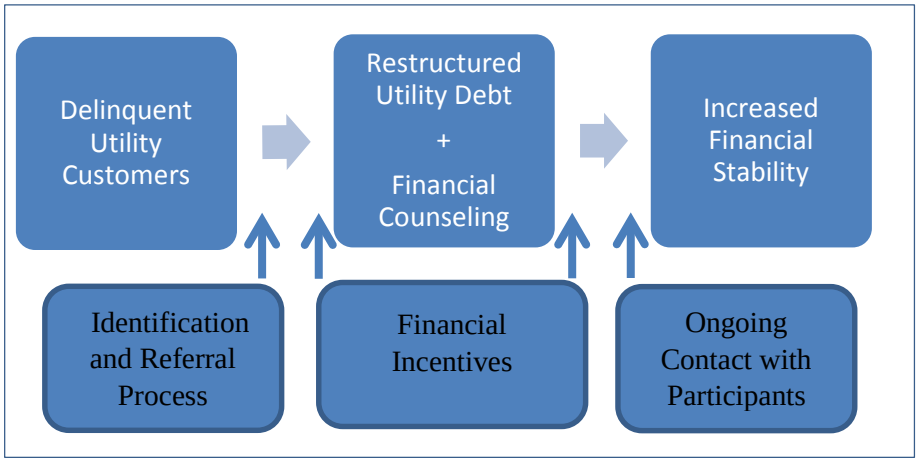
What is the LIFT-UP Model?

The LIFT-UP model has five core components, with anticipated local variation depending on the resources and goals of each city. Figure ES.1 provides a basic logic model linking the LIFT-UP components with the ultimate goal of increased financial stability for city residents.

The first component is an **identification and referral process** by which cities leverage utility data to identify struggling customers to contact for LIFT-UP interventions. An important part of this process involves identifying the minimum (and maximum) delinquent balance threshold that will trigger referral into the LIFT-UP program. The second component, **restructured utility debt**, permits LIFT-UP customers to enter into longer-term and more lenient repayment arrangements for past due utility debt than customers are typically permitted. These restructured payment plans could vary in length, depending on the size of the outstanding balance, the financial constraints of the customer and the rules and constraints at the utility.

The third component of the model is **individualized financial counseling**, including a budget review and customized action plan to address financial needs, as well as referrals to emergency assistance, public benefits, and banking services as appropriate. Fourth, the LIFT-UP model requires cities to provide some form of **financial incentive to customers** who participate in the program and achieve certain milestones. Finally, building from insights in behavioral economics, the LIFT-UP model encourages **ongoing contact with participants** through a variety of methods to monitor and motivate their progress in the program.

FIGURE ES.1: Basic Logic Model of LIFT-UP



How was LIFT-UP Implemented across Cities?

No two cities are identical, and the same is true for the five pilot cities implementing LIFT-UP. Cities were encouraged to customize the core components of the LIFT-UP model to fit their local needs and capacity. On one hand, variation in implementation reduces the ability to pool results across sites, which could be viewed as a limitation of the evaluation. On the other hand, customization increases the probability that LIFT-UP will be more fully integrated into the ongoing practices of the city, and will better fit the needs of residents. Further, for other cities wishing to replicate LIFT-UP, variation across pilot cities offers examples of how the model can be applied in diverse municipal environments.

Houston, Texas

Houston, Texas is the largest city participating in the LIFT-UP pilot, with 465,000 residential customers at the water utility—about one quarter of whom are delinquent at any given point in time. In Houston, customers often carry large past due balances. Delinquent customers are charged interest on past due balances and are placed on a roster for shut-off, but the actual number of customers whose water is shut-off in a given month is significantly less than the number who are delinquent. The average outstanding balance of delinquent customers offered LIFT-UP was quite large, at $475. Given the relatively large balances, Houston set the minimum outstanding balance for LIFT-UP at $350 and the maximum outstanding balance at $1,000. Houston also offered LIFT-UP customers relatively long 6 to 24 month repayment plans to pay off their delinquent balances.

One of the key differences in the LIFT-UP implementation in Houston was the structure of FE services. Unlike some of the other pilot cities, Houston did not have an existing FE partnership to which it could refer delinquent customers. Instead, the Houston water utility created FE capacity in house—leveraging funding from the United Way to train a subset of the frontline utility workers as financial coaches, who conducted an initial financial review session with LIFT-UP participants and then followed up with them on a regular basis to monitor their progress towards their financial goals.

Louisville, Kentucky

The second largest water utility to participate in the LIFT-UP pilot is Louisville, Kentucky, with 244,000 residential customers. Delinquency at the Louisville water utility was the most severe of the pilot cities at the onset of the pilot, with nearly half (48%) of customers experiencing a water delinquency. Delinquent customers are charged interest on their past due balances, and incur a non-payment fee each period that they go without making a utility payment. Outstanding balances in Louisville at the onset of LIFT-UP were relatively lower than in other cities. As such, Louisville set the minimum threshold for LIFT-UP eligibility at $100, with payment plans for past due debt that could be extended up to 12 months.

In contrast to Houston, the city of Louisville had a robust existing municipal FE infrastructure, where FE services are offered to residents directly through the city. LIFT-UP participants were referred to the municipal FE services, who then referred the customer to additional resources as needed. While the implementation of LIFT-UP proceeded relatively smoothly in Louisville, data reporting for the evaluation proved challenging, as the water utility underwent a conversion of its billing system during the pilot period. Given this conversion, Louisville was unable to provide utility outcome data on customers. However, we include Louisville in the report to offer insights regarding LIFT-UP implementation.

Newark, New Jersey

While other cities included both homeowners and renters as part of the residential population to be considered for LIFT-UP, the City of Newark, New Jersey limited their program to homeowners, as many renters are not responsible for water utility bills in Newark. Newark

reported serving 37,000 residential homeowners at the water utility, of whom about 44% were delinquent at the onset of the LIFT-UP pilot. Delinquent customers in Newark carried the largest balances of all of the pilot cities, with an average outstanding balance of $903 among customers offered LIFT-UP. While Newark charges interest on past due balances, they have a less aggressive shut-off policy than some of the other LIFT-UP cities. Customers may carry a delinquent balance for a relatively long period without making a payment. Given the large balances, Newark set the eligibility threshold for LIFT-UP at a minimum balance of $300 and a maximum of $4,000—the highest maximum balance across pilot cities. Payment plans were set at 12 to 24 months, based on a repayment amount that would be affordable to the customer.

During the launch of LIFT-UP pilot, the City of Newark underwent a change in leadership that led to the closure of the Newark Financial Empowerment Center (FEC). The FEC was intended to provide financial counseling for LIFT-UP customers. After the transition, the Newark water utility was able to form a new partnership with the local United Way's Financial Opportunity Center. Rather than referring LIFT-UP customers off-site for financial counseling, a financial coach from the United Way held office hours on-site at the water utility for the initial intake session with LIFT-UP customers.

Savannah, Georgia

The City of Savannah, Georgia reported 72,000 residential accounts, of which thirty percent were delinquent at the beginning of LIFT-UP. In Savannah, delinquent water utility customers do not incur nonpayment fees or interest on delinquent water balances. However, the water utility terminates services regularly for delinquent customers and charges a shut-off fee. It is relatively common for delinquent customers in Savannah to experience several occurrences of water shut-off in a 12 months period, and some fall into a cycle of not making a payment until they receive a shut-off notice. The average outstanding balance for delinquent customers in Savannah was relatively low, leading the water utility to select a narrower eligibility threshold for LIFT-UP, with a minimum balance of $150 and a maximum balance of $500. The duration of payment plans for LIFT-UP was set at 4 months for all customers, with a 25% down payment required as the first payment.

In Savannah, a quasi-governmental nonprofit organization, Step Up Savannah, serves as the lead FE provider for the city. Step Up Savannah played a coordinating role for the implementation of LIFT-UP in Savannah, working closely with the water utility to recruit eligible customers to participate in LIFT-UP. Savannah's LIFT-UP team contracted with the nonprofit organization Consumer Credit Counseling Service (CCS) of Savannah to provide a one-time financial counseling session for LIFT-UP customers. As customers worked their way through the program, Step Up Savannah mailed payment reminder letters and sent text messages to keep participants on track.

St. Petersburg, Florida

St. Petersburg, Florida reported about 70,000 residential utility accounts, 20% of which were delinquent at the beginning of LIFT-UP. The water utility in St. Petersburg assesses several types of fees and penalties for late payments and non-payments, including a nonpayment fee as well as

interest on past due balances, and a shut-off and reactivation fee when services are terminated. Delinquent balances in St. Petersburg are lower than in the other cities. The average delinquent balance for LIFT-UP customers prior to the pilot was $132. As such, St. Petersburg had the lowest minimum balance requirement for LIFT-UP eligibility, at $50. To participate in LIFT-UP, customers also had to have experienced one or more service terminations within the past year and be at least 25 days delinquent at the beginning of the pilot. St. Petersburg allowed its LIFT-UP participants to receive payment plans up to 24 months long, and it did not require participants to make a down payment.

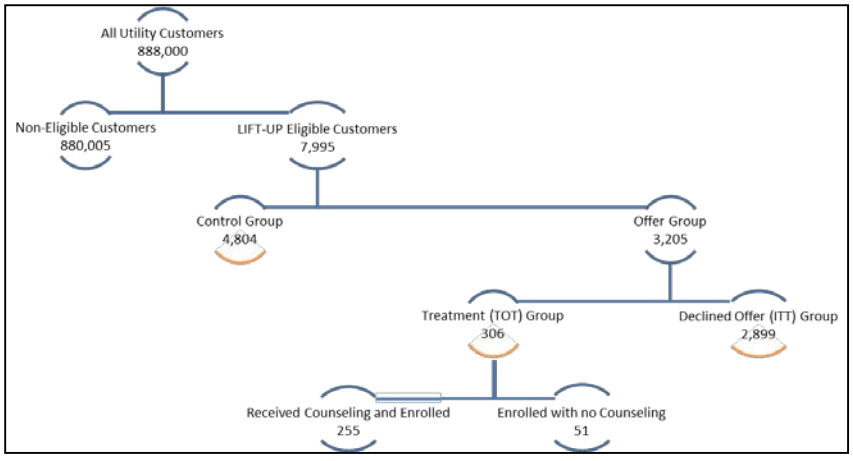
St. Petersburg contracted with a nonprofit organization, Neighborhood Home Solutions (NHS), to offer FE services. NHS is a financial counseling agency with a special focus on promoting homeownership. NHS already had a relationship with the city prior to the launch of LIFT-UP, but had not worked directly with the water utility. In addition to the services provided by NHS, a customer service manager at the water utility sent letters and made phone calls to LIFT-UP participants to remind them to attend their financial counseling sessions and to make payments.

How was the Evaluation Conducted?

The LIFT-UP pilot was designed to allow for an evaluation of the impact of the program on utility customers. To evaluate impact, we must estimate what would have happened to LIFT-UP customers had they not enrolled in LIFT-UP. Because we cannot observe this directly, we compare the outcomes of LIFT-UP customers to a group of customers who were not offered LIFT-UP but who were otherwise similar to customers who enrolled in LIFT-UP.

In each city, the LIFT-UP implementers applied certain pre-established eligibility criteria to their customer data, then (in most cases) randomly assigned some of the eligible accounts to the *Control* group, who would not be offered the LIFT-UP program and some to the *Offer* group, who were offered LIFT-UP, through either mailings or phone calls, depending on the city. Those customers in the *Offer* group who enrolled in LIFT-UP became part of the *Treatment* group (see Figure ES.2 for a visual summary of the different groups).

FIGURE ES.2: LIFT-UP Evaluation Design



Who Enrolled in LIFT-UP?

Enrollment into LIFT-UP began in March 2014 when **Savannah** mailed the first batch of postcards to eligible residents, followed shortly thereafter by **St. Petersburg** and **Louisville**. Due to unexpected delays and capacity constraints, **Houston** and **Newark** launched their programs several months later, in July and September 2014, respectively. The initial goal was to offer LIFT-UP to 2,000 residents across the five cities, with an expected 500 residents accepting the offer (100 per city) and enrolling in the program. By the end of the enrollment period, the LIFT-UP pilot program was offered to 3,205 customers, with 306 enrolling in the program—a take-up rate of 9.55%.

While the take-up rate of about 10% is lower than initially projected, we do not interpret this to be evidence of weak demand for the program. Instead, the lower than expected take-up rate is a reflection of outreach strategies, eligibility screening practices and the consequences of delinquency for water utility customers who do not participate in LIFT-UP. In general, cities that employed direct telephone outreach to enroll customers had higher take-up rates than those relying on mail outreach; this makes sense and is a finding that is not unique to this program. However, more staff time and resources are required to make outbound phone calls, so cities considering implementing a program like LIFT-UP should weigh the tradeoffs of higher take-up rates against the cost of the outreach method.

With regard to eligibility, all cities screened their account rosters to flag eligible customers prior to offering them LIFT-UP. However, there was often a time lag between the water utility flagging a customer as eligible and the offer of LIFT-UP. When this time lag was greater, take-up rates were lower, as some customers were no longer eligible by the time they received the offer. In most cities, customers reported the strongest incentive to participate in the LIFT-UP pilot was to prevent water shut-off. In some cities, the threat of shut-off is perceived to be greater than other cities, and these differences may have impacted take-up rates.

What is the Impact of LIFT-UP on Participant Outcomes?

The definition of success for an intervention like LIFT-UP differs by city because cities have different collections practices for delinquent water bills, which in turn lead to different customer payment behaviors. For example, some cities like St. Petersburg and Savannah terminate water services rather quickly after a customer misses a payment, leading delinquent customers to cycle in and out of shut-off status frequently. On the other hand, some cities like Newark and Houston charge interest and/or fees for past-due balances, but are more sporadic to terminate services. Customers in these cities tend to carry larger balances and make less frequent payments.

While an effort was made to find comparable indicators across cities (such as “risk of shut-off”), differences in definitions of the indicators between cities prevent estimating a pooled impact model for the same outcome across cities. For the evaluation, we identify four outcomes that can be compared across two or more of the cities: the probability of water shut-off, changes in

outstanding balances, changes in payment frequency relative to bills received, and the dollar amount of avoidable fees saved.

Table ES.1 provides a summary of outcomes at 12 months post baseline across three cities (**St. Petersburg, Savannah** and **Houston**) and 8 months post baseline in **Newark** (due to their delay in launching, only 8 months of data were available for the evaluation). As writing of the final report, complete data on utility outcomes was unavailable for **Louisville** due to a utility system conversion, and so we have excluded **Louisville** from the impact evaluation portion of the report.

Table ES.1. Estimated Impact of LIFT-UP on Outcome Indicators, Final Period

			ITT				TOT
	Control Mean	Offer Group Mean	Diff. in Mean (Offer-Control)	Regression Adjusted, Offer Group	Treated Mean	Treated Mean Δ	IV Regression Adjusted, Treated Group
St. Petersburg	(N=3,582)	(N=656)			(N=86)		
Pr Shut-off (12 mos)	0.64	0.58	-0.06	-0.05***	0.16	-0.53	-1.040***
Balances (12 mos)	113.79	191.79	78.00	64.74***	622.83	292.82	373.39***
Pay/Bill Ratio (12 mos)	0.84	0.82	-0.02	-0.01***	0.67	-0.14	-0.171***
Avoidable Fees (12 mos)	148.46	141.53	-6.93	-9.70***	66.83	-99.30	-138.9***
Houston	(N=98)	(N=630)			(N=37)		
Pr Shut-off (12 mos)	0.96	0.99	0.03	0.03	0.97	-0.03	0.28
Balances (12 mos)	487.50	352.59	-134.90	-103.60	373.89	-170.10	-1437.00
Pay/Bill Ratio (12 mos)	0.19	0.22	0.03	0.03	0.48	0.36	0.69**
Avoidable Fees (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Savannah	(N=372)	(N=871)			(N=97)		
Pr Shut-off (12 mos)	0.42	0.70	0.28	0.246***	0.67	0.06	1.039***
Balances (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pay/Bill Ratio (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avoidable Fees (12 mos)	46.37	88.06	41.69	37.64***	73.20	10.31	143.6**
Newark	(N=199)	(N=266)			(N=62)		
Pr Shut-off (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Balances (8 mos)	961.81	746.52	-215.29	-148.00	669.31	-299.91	-822.90*
Pay/Bill Ratio (8 mos)	0.24	0.31	0.07	0.08***	0.54	0.32	0.34***
Avoidable Fees (8 mos)	84.44	73.87	-10.57	-6.42	76.92	0.02	-24.54

*p<0.10; **p<0.05; ***p<0.01

Notes: Intent-to-treat (ITT) compares outcomes of the group of individuals who were offered LIFT-UP but who may or may not have enrolled, with a control group of individuals who were not offered LIFT-UP. Treatment-on-the-treated (TOT) compares outcomes of those offered LIFT-UP who enrolled (treated) to those in the control group. The IV regression model is a two-stage model, where treatment through LIFT-UP is predicted in a first stage, using the offer of LIFT-UP as an instrument. The regression-adjusted models control for the baseline measure of the outcome variable (per Table 6.1). In the TOT estimate, we also control for the outstanding balance at baseline in all models. In St. Petersburg, the TOT balance regressions also exclude extreme outliers, defined as those baseline balances in the top 1% of the distribution. In Savannah, the regression-adjusted models do not control for balance (as we do not have this data); instead, the TOT models control for shut-offs in the prior period and control for the billing cycle, given that groups were not assigned at random.

For each city and outcome, several different measures are provided. First, we present the Control group mean as of the end of the evaluation period, the Offer group mean as of the end of the evaluation period and the difference in means between the Control and Offer groups. To the extent that the Offer was randomized, the simple difference between Offer and Control group means provides an estimated impact of the "intent to treat" (ITT). However, given that there were differences at baseline for many of the outcomes, we also estimate a regression adjusted ITT impact, controlling for the level of the outcome variable at baseline. One of the limitations of the ITT approach is that it is not likely to detect a significant impact if the take-up rate of the treatment is low—which is the case in this pilot program.

The second set of outcomes considers the impact of LIFT-UP on those enrolling in the program. We first provide the treated group mean for each outcome as of the end of the evaluation period, as well as the change in the mean value from baseline to the end of the evaluation period (Treated Mean Δ). Because those selecting to enroll in LIFT-UP are different from those in the Control group (e.g., they have observed worse delinquencies and higher balances at baseline, and may have additional differences that are unobserved), we estimate a two-stage model to predict the impact of LIFT-UP among those treated, controlling for the likelihood of taking up treatment. This is known as the impact of the "treatment on the treated" (TOT). Appendix D provides a more detailed discussion of the methodology. This is the most reliable estimate of the statistical significance of the impact; however, with low take-up rates and small sample sizes, the magnitude of the estimates can be skewed. Thus, both descriptive and empirical estimates are provided to allow for a better picture of impact.

Key Findings

In three of the four cities (**St. Petersburg, Houston**, and **Newark**) there is evidence of a positive impact of LIFT-UP on the outcomes that are most relevant to the city and customer behaviors within that city. For cities like **St. Petersburg** and **Savannah**, standard collections practices prevent customers from incurring large outstanding balances and making infrequent payments—customers not paying utility bills have their water services shut off at a set (predictable) point in time shortly after missing a payment. Behaviorally, customers fall into a vicious cycle of not making payments until the utility shuts off their water, paying off their balances to have water services restored, and then not making a payment until services are again shutoff. In these cities, preventing water shutoff is the targeted outcome for a program like LIFT-UP.

In **St. Petersburg**, we observe a significant reduction in the probability of water shutoff for LIFT-UP customers. Participants in LIFT-UP are 53% less likely to experience a shutoff during the 12 months after enrolling in LIFT-UP, relative to the 12 months prior to enrollment. Avoidable fees are significantly lower for customers enrolled in LIFT-UP in **St. Petersburg** relative to customers in the Control group: LIFT-UP customers accrue an average of about $140 less in avoidable fees over the 12 month period after being enrolled LIFT-UP. By contrast, the outstanding balance for customers enrolled in LIFT-UP is significantly higher post-baseline than the Control group. This may be due in part to the relatively long duration of the payment plans in St. Petersburg (24 months) for LIFT-UP customers.

In **Savannah**, the evaluation is unable to detect a statistically significant positive impact of LIFT-UP on customer outcomes. However, the results of baseline balance testing demonstrate that customers in the **Savannah** Offer group were worse off at baseline, with significantly more shut-offs (and avoidable fees) in the 12 months prior to starting LIFT-UP. This means that we cannot rely on the impact estimates for Savannah.

In cities like **Houston** and **Newark,** actual shut-off of services is not as frequent of an occurrence. Even if a water utility places a customer on a shut-off roster, it does not mean services will be terminated. Thus, it is not surprising that a significant reduction in the probability of shut-off is not identified in **Houston**, and shut-off data cannot be reliably tracked in **Newark**. Behaviorally, customers in these cities tend to carry large outstanding balances and make infrequent payments. In these cities, breaking the nonpayment cycle and reducing the size of the outstanding balance would indicate success for LIFT-UP.

Indeed, LIFT-UP customers in both **Newark** and **Houston** have significantly lower balances relative to the Control group at 8 and 12 months after enrolling in the program. Looking at the change in the mean balances for the Treated group (Treated Mean Δ), the average customer enrolled in LIFT-UP has an outstanding balance that is $170 (**Houston**) or $300 (**Newark**) lower than when they first enrolled. [1] And in both cities, customers are making payments at a significantly higher frequency relative to bills received. Based on the TOT estimates, the ratio is 69 percentage points higher for LIFT-UP customers in **Houston** relative to the Control group and 34 percentage points higher for LIFT-UP customers in **Newark** relative to the Control group as of the end of the evaluation period.

Is the LIFT-UP Model Cost-Effective?

To put the results in context, this report supplements the impact evaluation with an estimate of cost-effectiveness. For the municipality, the cost-effectiveness of the program is an important outcome. Using data on costs reported by St. Petersburg as well as impact estimates produced through the evaluation, we identify scenarios under which the LIFT-UP model would break even or save revenue for the municipality.

Annually, the water utility in St. Petersburg accumulates about $2.4 million in costs associated with managing customers' delinquent accounts. This includes the cost of managing a delinquent account ($38 per account), the cost to shut off water services ($14.60 per occurrence), and the cost to turn-on water services ($14.60 per occurrence). A large portion of these costs (about $1.9 million) is passed on to customers through delinquency fees and charges. However, these costs are only recouped to the extent that customers bring their bills current. The city writes off about $533,000 in delinquent utility debt each year.

[1] We report the balances based on the Treated Mean change here, rather than the TOT estimates produced by the IV regression. The IV regression results are statistically significant, but the sizes of the estimates are much larger than the treated mean change. Large (out of range) estimates can occur when the sample size is very small in the Treated group, relative to the Control and Offer groups.

Using the results from the impact analysis, this report estimates that the cost savings from the LIFT-UP pilot in St. Petersburg could be as high as $270 per customer, including $140 per customer saved in avoidable fees and $130 per customer saved in delinquent debt. This savings is greater than the $260 cost per customer to implement LIFT-UP during the pilot period, which includes $117 for financial counseling, $80 financial incentive and IT and technical support costs. It is expected that the cost to implement the program would decline if the program were brought to scale. Some of the costs are specific to the evaluation conducted with the pilot, and would not be incurred on an ongoing basis (e.g., IT support costs and participant recruitment costs). The cost of ongoing outreach would decline per customer when spread across a larger number of customers, and the financial incentive may not be necessary if LIFT-UP were implemented as part of ongoing practices. Thus, it is reasonable to conclude that LIFT-UP can be implemented in a cost-effective manner that saves water utility costs for the city, while improving the financial stability of city residents.

What are Key Lessons Learned from the LIFT-UP Pilot?

During all stages of the LIFT-UP initiative, the NLC team emphasized peer learning—sharing best practices and challenges that emerge along the way in an effort to lead to long-term program improvements. Through face-to-face meetings, monthly webinars, and bi-monthly technical assistance calls the NLC team fostered knowledge exchange between all implementers and the evaluation team helped to document this process and to identify the key insights that were emerging as LIFT-UP progressed. In the final section of the report, we identify important lessons that emerged in three key learning areas.

First, *creating new targeting and referral systems* presents unique opportunities and challenges. The implementation of LIFT-UP in each city required commitment from stakeholders who have some degree of "legal" authority over the municipal system, but also were viewed as thought leaders in the community. The importance of these leaders cannot be understated when a city undertakes a new innovation like LIFT-UP; without them, the pilot programs would not have been successful. Further, the LIFT-UP model is heavily reliant on utility administrative data, which is why we recommend reviewing the capabilities of data and reporting systems prior to a new municipal innovation—particularly when conducting a rigorous evaluation of program impact is an important goal. Similarly, we recommend that cities carefully tailor outreach messages and the eligibility criteria used to target customers, so that the city approaches the "right" customer at the "right" time.

The second learning area emphasizes a core focus of LIFT-UP—*financial innovations with customer utility debt*. There often are tradeoffs to consider when designing any financial innovation. The financial product that is the most ideal for the consumer may not be feasible within the existing debt collection infrastructure. Implementers must identify creative ways to work within the existing debt collection system. We share some examples from LIFT-UP that could be replicated in other municipal debt innovations. In addition, there are tradeoffs to the amount of customization built into debt restructuring—on one hand, customization may improve

the likelihood of customer success. On the other hand, customization may require capacity that is not sustainable to bring an innovation to scale. Finally, drawing examples from LIFT-UP, we discuss different incentives (financial and non-financial) cities can use to encourage participation and follow-through.

The third learning area reflects on another key element of the LIFT-UP model – *financial empowerment options*. Across cities, it became apparent that different customers have different financial empowerment needs. Aligning the interventions to meet customer needs requires an understanding of the behavioral challenges underlying delinquent utility payments, sufficient outreach to motivate customers to participate, as well as adequate authority to adapt interventions to meet customers' needs.

The purpose of this evaluation was threefold: (1) to document the demand for LIFT-UP; (2) to estimate the impact of LIFT-UP on customer utility payment patterns; and (3) to draw insights from the LIFT-UP pilot that can inform future replication and scalability of the model. With regard to demand, there is both quantitative and qualitative evidence of customer demand for LIFT-UP. However, the timing and nature of the offer matter for achieving a high take-up rate.

With regard to impact, there is evidence of a positive impact of LIFT-UP on the outcomes that are most relevant for the city and customer behaviors within that city. In **St. Petersburg**, where delinquent customers experience relatively frequent water shut-offs but carry smaller balances, LIFT-UP customers are significantly less likely to experience a shut-off during the 12 month period following enrollment, and incur significantly fewer avoidable fees. In **Houston** and **Newark**, water shut-off is less common, but delinquent customers tend to carry large balances and make infrequent payments. In both cities, LIFT-UP participants have significantly lower balances than customers in the Control group, and are making significantly more payments relative to bills received after participating in LIFT-UP.

In each of the five cities, new on-ramps have been established to refer residents at risk of financial instability to FE services. This is a substantial accomplishment. The lessons learned during the LIFT-UP pilot extend beyond municipal water utilities. Other fee-collecting city agencies, such as public hospitals or municipal courts, can learn from the LIFT-UP model as they structure their debt collection practices. Oftentimes, municipalities turn to third-party debt collection agencies to recoup a portion of the revenue lost to delinquent accounts. While this may bring in some revenue for the city, it does not help the customers for whom the missed payments may be a sign of financial hardship. The cost-effectiveness analysis conducted as a supplement to this evaluation demonstrates that LIFT-UP can be implemented in a manner that reduces costs to the city and increases the financial stability of residents.

Chapter 1: Introduction

Many households in the U.S are at risk for financial instability. Insufficient and unpredictable incomes, lack of financial assets, and the accumulation of debt can leave families in a position where an unexpected crisis or setback can trigger financial hardship. A growing number of mayors and other municipal leaders have recognized that cities have a unique capacity to intervene in the lives of families who are struggling with financial instability. To meet this challenge, many cities have developed financial empowerment (FE) strategies that help improve access to quality financial information and services and connect residents to appropriate financial products and benefits. Since 2000, The National League of Cities (NLC) Institute for Youth, Education, and Families (YEF Institute) has positioned itself as a national leader among the growing number of cities that are undertaking this mission.

Local Interventions for Financial Empowerment through Utility Payments (LIFT-UP) is a model developed by the NLC that targets families who are in debt to utilities or other municipal entities and offers financial empowerment interventions at the onset of the debt collection process. While debt owed to municipalities is not a large fraction of overall consumer debt, NLC purposes that when a family is in debt to a utility company it is a strong and reliable indicator they are having larger financial problems. LIFT-UP is intended to reconcile a "missed opportunity" to connect residents who are struggling to pay for municipal debts, like water utility bills, with FE services while also addressing years of declining revenues and budget cuts within municipal governments, a trend that has led to more aggressive debt collection practices and utility shut-offs.

In 2013, NLC selected five cities to participate in a pilot implementation of LIFT-UP. Prior to the launch, the five pilot cities—**Houston, Texas**, **Louisville, Kentucky**, **Newark, New Jersey**, **Savannah, Georgia**, and **St. Petersburg, Florida**—reported delinquency rates at the water department that ranged between 20% – 48% of all accounts. City officials in each of the pilot cities recognized this opportunity and were instrumental in assembling LIFT-UP teams made up of utility staff, FE providers, and other representatives from municipal and nonprofit organizations.

In addition to the network of city partners, NLC engaged an external evaluator, the Center for Financial Security (CFS) at the University of Wisconsin, and affiliated researchers at The Ohio State University, to document the implementation process and assess the impact of the initiative. ***The purpose of this report is to summarize the implementation process, present results for both consumers and municipalities, and distil best practices for future replication and expansion***.

The evaluation seeks to help inform (1) the demand for the program from the target population; (2) the impact of the model on the payment patterns of utility customers; and (3) whether or not the model is worth expanding to other municipalities. See Table 1.1 for a summary of the evaluation questions and key indicators.

To help address these questions, cities collected administrative data on water utility customers' payments before and after the launch of LIFT-UP. We measure impact by tracking changes in customer payments and occurrences of delinquencies that place customers at risk of water shut-off. To isolate the effectiveness of LIFT-UP, the evaluation compares payments and delinquencies for LIFT-UP customers to the payments and delinquencies of utility customers with similar characteristics who did not go through the program. Through technical assistance and site visits, NLC and CFS worked with cities in the early stages of the project to develop the data systems necessary to identify customers for the program, generate a comparison group, collect utility payment data, and report these data to NLC. We discuss the evaluation design in more depth in Chapter 4 of this report.

Table 1.1: Evaluation Questions

Key Questions	Key Indicators
1. Is there **demand** for the program from the targeted population?	• # of Participants • % of eligible participants enrolling in the program • % of participants completing all components of the program
2. Does the LIFT-UP program model have an impact on the payment patterns of utility customers who have a history of unpaid bills and owe back payments to the utility company?	• % Increase/decrease in service terminations • $ decrease in avoidable fees • % past due debt repaid • % increase/decrease in on-time/delinquent payments
3. Is the model worth expanding to a broader population or to other cities based on its success with participants and any savings it generates for municipalities?	• Qualitative feedback from customers and municipal leaders about implementation and impact • Cost-benefit analysis, including costs and benefits to customers and municipalities

Such an evaluation is critical to the sustainability of the LIFT-UP program and the potential scalability of the model to other cities and other municipal programs. LIFT-UP implementation requires an up-front investment of time and resources. However, over the long term, these investments are intended to save money for municipalities and their customers. As a pilot initiative, the lessons learned through the evaluation of LIFT-UP can improve future iterations of the program, as well as inform innovative municipal financial empowerment strategies more broadly.

The remainder of this report is organized as follows. Chapter 2 provides background for the LIFT-UP program, including a general definition of financial empowerment and overview of the role of the National League of Cities, as well as an introduction to the LIFT-UP model and cities engaged in the Pilot. Chapter 3 describes how the Pilot cities enacted the five components of the LIFT-UP model during implementation, highlighting the heterogeneity in approach tailored to the constraints, opportunities, and structures within each city. Chapter 4 presents the evaluation methodology, Chapter 5 presents the take-up results, and Chapter 6 provides the results of the impact analysis. Chapter 7 offers a qualitative assessment of the program from the perspective of LIFT-UP participants. Finally, Chapter 8 concludes with key insights and lessons learned that

could guide future replication of the LIFT-UP model, as well as the debt collection practices of municipalities more broadly.

Chapter 2: Background

Financial Empowerment & NLC Initiatives

Figure 2.1: Common Financial Empowerment Strategies

- VITA/EITC Outreach
- Public Benefits Access
- Financial Education & Counseling
- Homeownership Counseling
- Bank Account Access
- Savings Programs

Financial empowerment (FE) programs support the efforts of low-income families to achieve financial stability by expanding their access to financial services, enabling them to take advantage of available benefits and tax credits, and providing them with tools to manage money and build assets more effectively. A recent scan of FE strategies conducted by the National League of Cities (NLC) found that 65% of municipalities had at least one core FE program in place and the average number of programs currently operating in communities surveyed is four to five. Twenty-five cities—20% of survey respondents—had six of seven building blocks in place. Figure 2.1 provides a non-exhaustive list of some of the more common financial empowerment strategies identified by the scan.[2]

The NLC's Institute for Youth, Education, and Families (YEF Institute) has been instrumental in assisting city leaders with integrating FE strategies into local governmental infrastructure, thereby enhancing positive outcomes and conserving city resources long term.[3] NLC embarked upon a family economic empowerment initiative in 2000 that has focused on helping build cities' capacity to address the economic and financial needs of their residents. Through this initiative, the YEF Institute has helped city leaders develop programs to connect residents to public benefits, build assets, and connect to safe and affordable financial services. This work has included the notable Bank On Cities campaign. Modeled on the successful Bank On San Francisco program, NLC promoted the Bank On Cities campaign to forge partnerships among city governments, financial institutions, and community and non-profit organizations to provide residents with greater access to safe and affordable financial services and financial education. By 2012, more than 75 cities were at varying stages of implementing a Bank On program. NLC also has partnered with many of the key players in the field and has hosted numerous meetings among city representatives to facilitate peer learning on FE topics.

[2]National League of Cities, Financial Inclusion Scan, 2015.

[3]New York City is an earlier adopter of Financial Empowerment provision. City officials claim that "fully integrating financial empowerment and asset building strategies into core social service delivery" can produce a "super vitamin" effect whereby the FE can magnify the positive outcomes of an intervention, therefore maximizing the impact of scarce social service resources (Mintz, 2011). The Cities for Financial Empowerment Fund is a nationwide movement-- inspired by early successes in New York City-- that seeks to recruit cities and mayors to pioneer the assimilation of FE into government infrastructure. Three LIFT-UP cities, Newark, NJ, Savannah, GA, and Louisville, KY are members of this coalition (Cities for Financial Empowerment Fund).

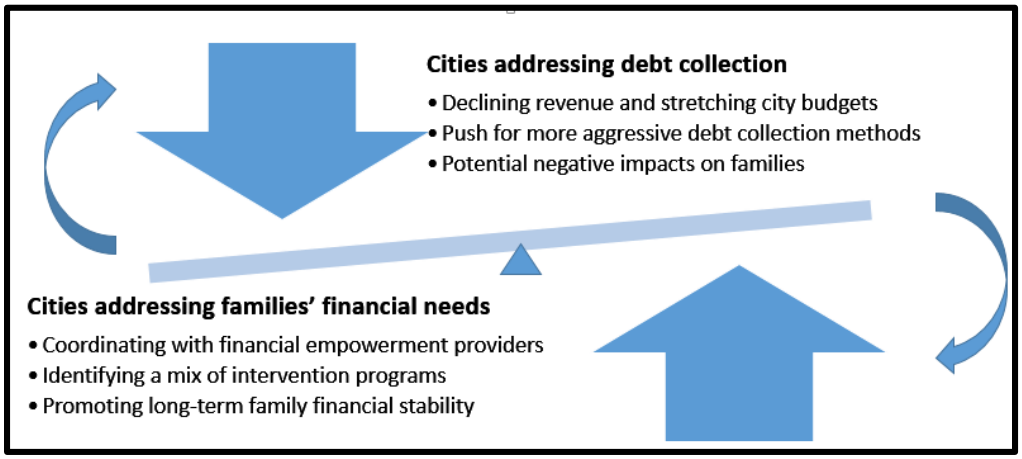
The LIFT-UP model builds on NLC's successes with other initiatives and taps NLC's extensive network of partner cities and non-profit organizations. With LIFT-UP, NLC introduces an innovative new tool to the municipal financial empowerment landscape.

The LIFT-UP Model

Although cities are developing FE initiatives, they may be inadvertently exacerbating the problems they are attempting to address through their municipal debt collections practices. Nowhere is this pattern more apparent than in debt collection efforts undertaken by public utilities, such as water/sewer or electric companies, owned by municipalities. When families fall behind on payments for these necessities, it may be a sign of financial instability. These families could likely benefit the most from municipal FE strategies. However, municipal debt collection is often disconnected from municipal FE services.

NLC's YEF Institute recognized this missed opportunity, illustrated in Figure 2.2[4], and created a model to align local financial empowerment services with municipal utility debt collection practices. Local Interventions for Financial Empowerment through Utility Payments (LIFT-UP) aims to develop a scalable model that identifies struggling families, helps them reduce debt and become financially secure, and is financially sustainable for municipalities.

Figure 2.2: Municipal Missed Opportunities



The LIFT-UP model has five core components, with anticipated local variation depending on the resources and goals of each city (see Table 2.1). The first component is an identification and referral process by which cities leverage utility data to identify struggling customers to contact for LIFT-UP interventions. The second component, restructured utility debt, permits LIFT-UP customers to enter into longer-term and more lenient repayment arrangements for past due utility debt than customers are typically permitted. The third component of the model is individualized financial counseling, including a budget review and customized action plan to address financial

[4]Figure 2.2 and a significant portion of the text describing the motivation for LIFT-UP in Chapter 2 of this report was provided by NLC.

needs, as well as referrals to emergency assistance, public benefits, and banking services as appropriate. Fourth, the LIFT-UP model requires cities to provide some form of financial incentive to customers who participate in the program and achieve certain milestones. Finally, building on insights in behavioral economics, the LIFT-UP model encourages ongoing contact with participants through a variety of methods to monitor and motivate their progress in the program.

Table 2.1: Core Components and Local Variations in LIFT-UP Implementation

Core Model Features	Local Variations
Innovative identification and referral processes • New mechanisms implemented by utility company to identify and refer target customers	**Streamlined identification and referral processes** • Points of intervention in the collections process • Staffing and training • Service delivery mechanisms
Restructured utility debt • More lenient terms of debt repayment agreed upon by financial counselor, participant, and utility company • Incentives to participate in program	**Restructured utility debt** • Waiver or reduction of typically required down payment • Longer term repayment plans • Fee and penalty forgiveness as permitted • Other amendments to billing structure to facilitate on time payment
Incentives to participate in program • Temporary hold on service termination while in good standing in program • Utility account credits for achieving program milestones	**Incentives to participate in program** • Temporary hold on accrual of additional late fees and penalties while in program as permitted • Definition of program milestones and timing and manner of release of account credits
Provision of FE services • Mandatory one-on-one financial counseling session • Access to other FE products and services as needed	**Provision of FE services** • Referrals for checking and savings accounts • Referrals for public benefits • Referrals to free tax preparation services • Credit building opportunities • Referrals to educational classes • Other FE services
Motivational prompting • Communication with participants at least quarterly	**Motivational prompting** • Media and methods of communication • Communication schedule • Other reminders and awareness campaigns

During the pilot implementation of LIFT-UP, NLC focused exclusively on debt at city-owned water utilities. Although the disconnect between city-led FE efforts and municipal debt collection practices may be present wherever municipal debt accrues, debt within public water utilities offers a starting point to pilot the LIFT-UP intervention. For municipal governments, delinquent water utility debt can create financial hardship for the municipal budget, in addition to creating hardships for individual households.

Defining the Problem: Delinquency at the Water Utility

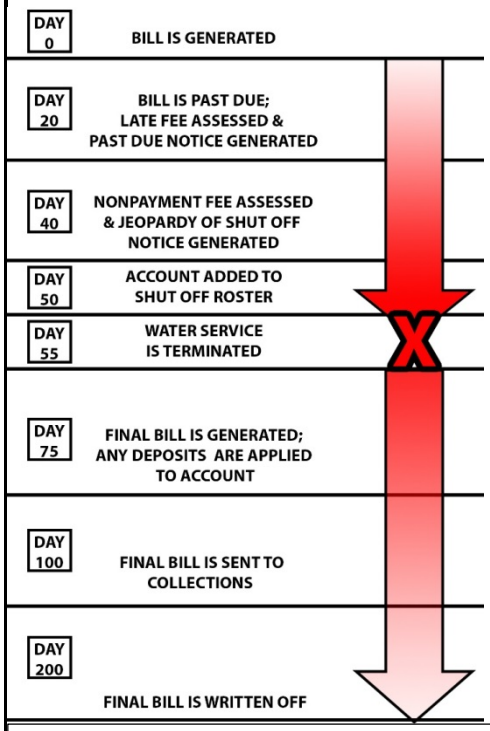
For individual households, missed water payments may be an early warning sign of financial instability. Families in such circumstances may be at risk of failing to meet other basic needs such as food, prescription drugs, and medical care. Further, when families fall behind on water

payments and experience termination of services, it can place their health and welfare in jeopardy, and may leave them at risk of eviction or foreclosure.

In a report on best practices for utility customer payment assistance programs, the American Water Research Foundation indicates that "one-third of customers within the lowest income quintile have had months where they could not pay all of their utility bills on time."[5] This creates a financial hardship for both utility customers and municipalities. For customers, delinquent balances often accrue interest charges and late fees and place the customer at risk of shut-off, resulting in loss of water and, often, additional charges. For municipalities, uncollected utility debt can create financial strain for the water utility and the city as a whole, resulting in increased political pressures for aggressive debt collection strategies.

An aggressive collections process may be perceived to be in the best interest of the bottom line for the city utility, but it does not serve the interests of low-income and other vulnerable

Figure 2.3: Typical Collections Process



Note: The timeline is illustrative and not based on any particular city's schedule

[5] Cromwell III, J. E., Colton, R. D., Rubin, S. J., Herrick, C. N., Mobley, J., Reinhardt, K., & Wilson, R. (2011), p. 34. *Best Practices in Customer Payment Assistance Programs.* Denver, CO: Water Research Foundation. http://www.waterrf.org/publicreportlibrary/4004.pdf

residents.[6] Shut-off is seldom a final outcome; it is common for chronically delinquent customers to experience a service termination multiple times in a year, incurring interest charges and fees that may even exceed the amount of the original bills. Some states have questioned the wisdom of levying high fees against low-income customers and have passed laws exempting these populations or capping the amounts that may be assessed.[7]

Figure 2.3 provides a visualization of a hypothetical collections process for a water utility.[8] Shut-off of service is often the end of a multi-stage collections process that begins the day after a bill is due. The definition of what is considered to be "past due" is often established by city or state statute. Many cities assess late payment fees or interest on the first day a payment is past due. Interest and fees are typically a percentage of the past due balance and are calculated based on either the entire delinquent balance or only the most recent late payment.

At a specified point in time without receipt of payments, the city will issue a shut-off notice, which informs a customer that they are in immediate jeopardy of service termination. An additional nonpayment fee may be charged at the time of the shut-off notice. If the customer does not submit a payment after receiving the notice, the utility adds the customer to a shut-off roster and may assess a shut-off fee. The length of time between a shut-off notice and actual termination of water services varies by city.

After termination of water services, the utility sends a final bill to the customer. Some cities contract with third party collections agencies to which the cities release the debt, based on the assumption that more aggressive collections practices will yield higher gross debt recovery. At this point, the collections agency may notify the credit bureau of the debt. If the city sells the debt to a collections agency, or otherwise believes it has a low probability of recovery (this is often pegged to a prescribed number of days past due), then the city writes off the debt as uncollectible.

Delinquent customers may interrupt the collections process at any time by making a payment on their utility bill that is considered sufficient to prevent water shut-off, or if service has already been terminated, to reactivate services. Faced with the threat of water shut-off, struggling consumers may fall into a "partial payment trap" in which they pay enough each month to maintain their water service, but continue to accrue interest or nonpayment fees on their remaining delinquent balance. Oftentimes, delinquent customers contact the utility on their own initiative to request extensions, payment plans, or referral to an agency providing utility payment assistance (UPA), typically a one-time payment to bring a customer current, therefore reinstating water service or preventing termination.

A core element of LIFT-UP is a debt repayment plan that offers consumers in crisis the chance to break the partial payment cycle, thereby reducing the accrual of unnecessary fees and, eventually, paying down their outstanding balances. In addition to debt repayment, LIFT-UP

[6] As the WRF report points out, that in communities with large low income populations the cost of enforcing an aggressive collections policy, by sending work crews out to shut-off service and using up customer service associates' time, may "begin to rival the amount of money at stake" (Cromwell III, et al., 2011, p. 36)
[7] (Cromwell III, et al., 2011, p. 65)
[8] See the AWR fund's description of a "conventional approach to collections" (Cromwell III, et al., 2011, p. 36)

targets the source of the financial hardship through linkages to FE services. LIFT-UP seeks to create a "win-win" scenario that brings key services and resources to struggling residents while simultaneously collecting needed revenue to city agencies through increased utility payments and prevention of utility shut-offs.

The Pilot Cities

NLC selected five cities to pilot the LIFT-UP model: **Houston, Texas; Louisville, Kentucky; Newark, New Jersey; Savannah, Georgia;** and **St. Petersburg, Florida**. NLC based its selections in part on their prior relationships with the cities, the cities' demonstrated commitment to FE, and the cities' ability to implement all of the components of the model. [9] Functionally, each city also owns or controls its water utility agency, giving them the authority and means by which to implement the model. All five cities benefited from the support of elected officials who, among other things, were critical to facilitating ongoing coordination between groups engaged in LIFT-UP.

NLC had pre-existing relationships with champions in each of the five cities, who were the initial point of contact to gain city support for the LIFT-UP pilot. Some of these champions were elected or appointed officials within city government while others were representatives of municipal FE agencies.

Team leaders within each city helped to coordinate the implementation of LIFT-UP. In two cities, a municipal FE agency led the coordination. In **Louisville**, the city's Department of Community Services provides FE services. In **Savannah**, a quasi-governmental nonprofit organization, Step Up Savannah, serves as the lead FE provider for the city. In other cities, the utility department played a larger role in coordination. Finally, each city identified a strategy to provide financial counseling services to residents who could benefit from the LIFT-UP interventions. Three of the five cities contracted with a non-profit organization to provide the counseling services while the other two cities provided services in-house through city-employed FE providers or trained utility workers; see Table 2.2.

Table 2.2: Key Players in LIFT-UP Cities

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Champion	City Controller's Office	City agency	Mayor's Office	Mayor's Office	City Council

[9] Washington D.C. was involved during the early planning stages, but a Mayoral transition prevented the city from continuing in the pilot. Washington, D.C. offers an interesting approach: a debt amnesty option wherein residents can stand in line on one day a year to have their municipal debts erased. NLC recruited Louisville to replace Washington, D.C., as Louisville had begun a program similar to LIFT-UP on its own initiative.

Team leads	City-owned utility	City agency	City-owned utility	FE Organization	City-owned utility
Financial counseling	City utility and third party non-profit partners	City agency and third party non-profit partner	Third party non-profit partner	Third party non-profit partner	Third party non-profit partner

Each of the five LIFT-UP cities has a different billing and collections structure that influences their practices for dealing with delinquent utility customers. Table 2.3 shows a breakdown and summary of the key differences among the participating cities.

Number of accounts – Municipal water utilities sell water to both residential and commercial customers, but in the LIFT-UP cities about 75 – 90% of all customers are residential. Interestingly, there is a not a strong correlation between the population of a city and the number of utility accounts it services. This can be partially an effect of the size of the service area of a water utility, the population density of the city or a result of ordinance or policy at the water utility. For example, **Newark** is more populous than **Savannah** or **St. Petersburg**, but its service area contains many multi-unit apartment buildings and, as a matter of utility policy, renters are not permitted to open accounts. Thus, one building containing several units will just have one account number.

Number of delinquent accounts – At any given point in time, an average of 33% of customers in the LIFT-UP pilot cities is delinquent on their water utility bills.[10] There is also wide variation among cities in the percentage of utility accounts that are considered to be delinquent. This is a function of utility collections procedures and protocols, but also varies based on the methods a city uses to calculate these numbers and its organizational definition of delinquency.

Table 2.3: Key Indicators of Delinquency Conditions and Procedures at the LIFT-UP Water Utilities

	Houston, TX	**Louisville, KY**	**Newark, NJ**	**Savannah, GA**	**St. Petersburg, FL**
Number of residential accounts	465,000	244,000	37,000	72,000	70,000
Number of total accounts	530,000	308,000	43,000	80,000	90,000
% of delinquent total accounts	25%	48%	44%	30%	20%
Frequency of billing	Monthly	bi-monthly	Monthly	bi-monthly	Monthly
Methods of payment acceptance:	Mailed-in personal checks, bank auto-draft (ACH), electronic	Onsite at Utility, mailed-in personal checks, bank auto-draft	Onsite at Utility, electronic funds transfer (EFT), money orders,	Onsite at Utility, mailed-in personal checks, electronic funds	Onsite at Utility, mailed-in personal checks, bank auto-draft

[10] Weighted average of total accounts and % of delinquent accounts

	funds transfer (EFT), money orders, telephone payments, online payments, dropboxes, pay at grocery stores or Western Union	(ACH), electronic funds transfer (EFT), money orders, telephone payments, online payments, dropboxes	telephone payments, online payments, dropboxes	transfer (EFT), money orders, dropboxes	(ACH), electronic funds transfer (EFT), money order, telephone payments, online payments, dropboxes, Amscot or CheckFree
Interest or late fees	10% of current balance	5% of accrued balance, compounded monthly	1.5% of accrued balance, compounded monthly	n/a	$5[iii]
Nonpayment fees	n/a	$25	n/a	n/a	$8
Shut-off fees	n/a	n/a	n/a	$50[ii]	$15
Reactivation fees	$33.02[i]	n/a	$25	n/a	$15[iv]

[i] *this number is recalculated each year; this is the fee in 2015*
[ii] *$100 if the meter is physically removed*
[iii] *$5 or 1.5% of outstanding balance, whichever is greatest*
[iv] *after hours reactivation is $35*

Frequency of billing – All LIFT-UP municipal water utilities bill their customers either monthly or bi-monthly. The frequency at which a utility bills its customers was an important variable in the implementation of LIFT-UP and is discussed in detail in Chapter 3.

Methods of payment acceptance – The LIFT-UP water utilities make a variety of payment methods available to their customers, but not all cities offer a full menu of options. For example, **Houston** does not permit customers to pay their bills in person at the water utility, but it does allow customers to pay at over 300 grocery stores in the metro area. **Newark** only began accepting online payments in early 2015, while **Savannah** does not currently accept online payments.[11]

Nonpayment fees and interest – Cities often charge fees or interest on delinquent balances. **Louisville** has an aggressive fee structure, which combines both interest and a substantial nonpayment fee ($25). **St. Petersburg's** fee structure mirrors Louisville's, but with lower interest rate and nonpayment fee amounts. **Houston** and **Newark** do not assess nonpayment fees, but they do charge their customers interest on the past due balance. However, the difference between the rates is stark; **Newark**'s 1.5% interest rate could be considered lenient, whereas **Houston**'s 10% interest is somewhat aggressive. In **Savannah**, the water utility does not charge nonpayment fees or interest prior to service termination.

[11] An entrepreneur in Savannah has created a website that accepts water utility payments online. He travels to the utility in person several times a day to settle customers' accounts with his credit card and then collects a $5.95 service fee and 4% surtax. This method of payment is neither affiliated with nor endorsed by the city of Savannah or the utility. http://savannahutility.com/

Shut-off and reactivation fees – Four of five LIFT-UP cities charge a shut-off or reactivation fee when services have been terminated. **Louisville**, which charges nonpayment fees and interest, does not charge additional shut-off fees because the nonpayment fee covers the cost of shut-off. **Houston**, **Newark**, and **Savannah** charge either a shut-off or reactivation fee, but not both. **St. Petersburg** is the only city that charges both a shut-off and reactivation fee, but the amounts of the fees are smaller compared to cities that only levy one fee.

Traditional utility payment assistance – As displayed in Table 2.4, all five LIFT-UP cities have non-profit organizations, churches, and/or community groups that offer Utility Payment Assistance (UPA). Some cities also provide financial assistance to customers directly, through an internal water assistance fund. From 2012 to 2013, Louisville's "Community Assistance Program distributed $672,000 to three entities that help residents with difficulty in paying their Louisville Water bill.[12] In 2014, [Louisville Metro Government] transitioned the administration of this program to fall under the Louisville Water Foundation."[13] Similarly, the City of Houston has a Water Aid To Elderly Residents (W.A.T.E.R.) Fund that distributes donated monies from water customers, charities, and businesses to low-income seniors and disabled persons through an ongoing assistance program, which requires bi-annual reapplication.[14]

Table 2.4: Utility Payment Assistance prior to LIFT-UP

	Houston, TX	**Louisville, KY**	**Newark, NJ**	**Savannah, GA**	**St. Petersburg, FL**
City-operated assistance program	W.A.T.E.R. Fund	Louisville Water Foundation	n/a	n/a	n/a
Referral infrastructure at utility	United Way provides referral booklets and performs in-house training	Customer service associates have a list of UPA agencies	Does not perform UPA referrals	Customer service associates have a list of UPA agencies	Nonprofit organizations do in-house presentations and customer service manager is knowledgeable about community resources
UPA agencies	Harris County social services, Salvation Army, other nonprofits, churches and community organizations	Department of Community Services, St. Vincent De Paul, Salvation Army and other nonprofits, churches and community organizations	n/a (While Newark may have agencies that offer assistance, the water utility does not refer customers to outside agencies)	Chatham County Division of Family and Children's Services, the Salvation Army, the EOA (Economic Opportunity Authority) and other nonprofits, churches and community organizations	Pinellas County Social Services, Pinellas Opportunity Council (POC), WE-help (St. Pete Free Clinic), St. Mary's Daystar, St. Vincent De Paul, Salvation Army and other nonprofits, churches and community organizations

[12]The three entities are: Jefferson County: Community Ministries; Bullitt County: Multi-Purpose Community Action Agency; Oldham County: American Red Cross.
[13] (Dearing-Smith, 2015)
[14] http://edocs.publicworks.houstontx.gov/documents/divisions/resource/ucs/waterfundeng.pdf

Chapter 3: LIFT-UP Implementation

NLC encouraged the municipalities participating in the pilot project to tailor the LIFT-UP model to meet the needs and capacities of their cities. Below, we describe variations in the operationalization of the model components across the five cities.

Component 1: Targeting & Referral Process

By leveraging administrative utility data, utilities can target struggling customers preemptively, before those customers face the consequences of municipal delinquency. During the pilot, all five cities cross-referenced payment and billing data against certain pre-established criteria that were believed to mark financial difficulty (such as service terminations, high delinquent balances, or receipt of utility payment assistance in a given time frame) to identify customers that might benefit from LIFT-UP; see Table 3.1.

Table 3.1: LIFT-UP Eligibility Criteria

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Delinquent balance	$350-1000.01	$100 or greater (phase 1)	$300-4000	$150-500	$50 or greater
Termination of service	Customers scheduled for immediate disconnection	One+ non-pay flag in prior year (1)	n/a	One+ service disconnection in prior two years	One+ service disconnection in prior year
Geographic target area	Most delinquent billing routes, by quadrant	Two target ZIP codes for LIFT-UP, three ZIP codes set-aside for the control group	n/a (entire service area targeted)	Billing routes that contained low-income neighborhoods and experienced the most shut-offs	n/a (entire service area targeted)
Other criteria	Active, residential customer only; consecutive arrears for 3+ billing periods	Receipt of social services in prior year (1); customers with greatest avoidable fees (2)	60 days delinquent, at minimum; service address matches billing address	n/a	25 days delinquent, at minimum
Disqualification criteria	n/a	Insufficient income; no past due balance; service address ≠ billing address; unauthorized usage (1 and 2)	Insufficient income	n/a	n/a

There is considerable variation in the targeted range for delinquent balances between cities. In **St. Petersburg**, the minimum delinquent balance to be considered for LIFT-UP was originally around $160, but the city reduced it to $50 when they discovered that not all geographies of the city had enough delinquent customers with high balances. **Newark**'s LIFT-UP target population had very large delinquent balances compared to the other cities, which is why their maximum delinquent balance, $4,000, is so high. The other cities tried to target people who were truly experiencing a financial crisis but were not grappling with a balance outside the range of typical delinquency.

Some cities focused on particular geographies, but **Newark** and **St. Petersburg** offered LIFT-UP citywide. **Louisville** and **Newark** chose to further narrow eligibility by applying disqualification criteria.

In most cities, eligibility criteria were applied at a fixed point in time, creating a pool of eligible accounts that could be revisited to increase enrollment as needed. One city, **Savannah**, sampled new accounts each time it conducted an enrollment campaign.

Component 2: Restructured Payment Plans

Upon enrolling in LIFT-UP, all customers received a payment plan to restructure their delinquent water utility debt. The payment plan was envisioned by NLC to be developed during an initial debt negotiation meeting with a designated financial counselor and would incorporate behavioral economic concepts to encourage repayment and savings. The intent was that the restructured payment amount would be based in part on family income and affordability.

As demonstrated in Table 3.2, there was considerable variation across cities in their approach to restructuring debt. First, the length of LIFT-UP payment plans varied considerably, ranging from 4 months in **Savannah** to up to 24 months in **St. Petersburg**. Much of this variation in payment plan length stemmed from existing utility collection processes and the amount of flexibility that was feasible within the current system.

TABLE 3.2: LIFT-UP Components – Restructured Payment Plans

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Standard length, prior to LIFT-UP	Typically 3-6 months, 12 maximum	3-week extensions maximum	Typically 4-6 months, 12 maximum	2 months*	Typically 3 months, 12 maximum
LIFT-UP length	6-12 months, 24 months maximum	up to 12 months	12-24 months	4 months*	Up to 24 months
Standard down payment, prior to LIFT-UP	25% of outstanding balance, at minimum	n/a	40% of outstanding balance, at minimum	50% of outstanding balance	Can be waived
LIFT-UP down payment	$25 incentive can be used as down payment if customer cannot make one	$0.00	waived	25% of outstanding balance, at minimum	Waived

** The down payment counts as the first payment*

Four of five LIFT-UP cities already had standard payment plan options available for eligible customers, but the LIFT-UP payment plans were often longer and customized to household budgets. **Savannah**, **Newark,** and **Houston** typically required an upfront payment, which was reduced or waived for LIFT-UP customers.[15] In some cities, as long as a customer remained in good standing in LIFT-UP, the assessment of additional penalties was suspended. In **Louisville**, the utility forgave old penalties (at its discretion).

Component 3: Financial Incentives

LIFT-UP customers also received financial incentives in the form of account credits, as a reward for completing program milestones. Some cities applied financial incentives upon program completion while others dispersed incentives throughout the program timeline. For three of the cities, attendance at the financial counseling session triggered an incentive release, while a string of consecutive on-time payments triggered another incentive; see Table 3.3. In **Houston** and **Savannah**, a customer was required to attend financial counseling in order to earn all of the available financial incentives. In **Newark**, **St. Petersburg**, and **Louisville**, a LIFT-UP customer was not eligible to begin a negotiated payment plan until they had attended a financial counseling session.

TABLE 3.3: LIFT-UP Components -- Financial Incentives (Account Credits)

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Sign-up	$25	n/a	n/a	n/a	n/a
On time payments	$50 (sixth)	$50[i] (first* & third)	n/a	n/a	$30** (third)
Program completion	-	$50	-	$50	-
Attending financial counseling session	$25	n/a*	$150 (must attend all three)	n/a	$50
Class attendance	$25	n/a	n/a	n/a	$30**
Released	As earned	When customer completes or is terminated	As earned	Upon completion	As earned

[i] *$25 – first payment & attendance at counseling / $25 – 3 months of consecutive on-time payments & demonstrated behavioral change*
** the first incentive is coupled with financial counseling*
***$30 release for completion of one of these milestones*

Component 4: Financial Empowerment Services

The fourth component of the LIFT-UP model links customers to financial empowerment (FE) services. Prior to LIFT-UP, relationships did not exist between water utilities and local FE providers that offer financial counseling services. Financial counseling is an umbrella term for the individualized financial debt review sessions that each city provided to LIFT-UP participants. The financial counseling session was envisioned by NLC to be linked tightly to the restructuring

[15] In Houston, the least down payment they can accept when entering into a payment plan is 25% of outstanding balance. For LIFT-UP customers, they accepted $25 down, which was satisfied through the $25 financial incentive released at sign-up, amounting to a *de facto* waiver of the down payment.

of the past-due utility debt. LIFT-UP participants would meet with a financial counselor to review their budget and identify an action plan to not only repay delinquent debt but also get on track with future payments. In addition, LIFT-UP participants were to receive additional resources and referrals for other FE supportive services, such as access to bank accounts or savings programs, credit or debt management, and additional income supports and public benefits. NLC expected that the additional FE services offered would vary considerably by city and by customer, depending on the municipal FE infrastructure and unique client needs. Indeed, there was considerable variation in the provision of counseling and FE services across cities, as summarized in Table 3.4.

Table 3.4: LIFT-UP Components – Financial Empowerment

	Houston, TX	**Louisville, KY**	**Newark, NJ**	**Savannah, GA**	**St. Petersburg, FL**
Provider	Utility staff trained by the United Way taught by Central New Mexico Community College	Louisville Department of Community Services and Apprisen	The United Way	Consumer Credit Counseling Service of Savannah	Neighborhood Home Solutions
Approach to Financial Counseling	Motivational class/ one on one coaching	Case management and/or credit counseling	One on one coaching and deep-dive on expenses	Individual budget counseling	Creating a budget, going over credit report
Number of sessions	2	1*	3	1	1
Other FE services	Eligibility screen for W.A.T.E.R. Fund; leak adjustments; Senior exemption, referrals to the United Way Thrive, Tax preparation, Care for Elders, job placement, low-interest loans, and Bank On Houston for unbanked customers	Optional six-week financial education series; help with rent, GED, employment training, childcare and adult programs, public transportation	Benefit screening, Individual Development Account (IDA) Program, Free Tax Preparation, Financial Literacy Workshops	Benefit screening, Referrals to free GED prep, income tax help, childcare and after school programs	Benefit screening, referrals for employment training, optional 4 "Financial Fitness" classes

** 1 financial counseling session, but treatment includes additional case management meetings*

In **Savannah**, the LIFT-UP team contracted with Consumer Credit Counseling Service (CCS) of Savannah to provide the financial counseling session. CCCS of Savannah counselors provide budget and credit counseling as part of their daily operations.[16] **St. Petersburg** also contracted with a nonprofit organization, Neighborhood Home Solutions (NHS). NHS is a financial counseling agency with a special focus on promoting home ownership. NHS already had a relationship with the city and the utility prior to the launch of LIFT-UP.[17] **Newark** provided a space at the utility offices for a financial counselor affiliated with the United Way to hold weekday appointments. In **Houston**, the team lead obtained funding from the local United Way to train six utility customer service representatives as financial coaches, through a program

[16] http://credit.org/cccs/

[17] Neighborhood Home Solutions had a purchase order to provide financial counseling for the city of St. Petersburg and advertised its services on inserts that were included in the water bills, before being tapped for LIFT-UP.

offered by the Central New Mexico Community College. [18] **Louisville**, by contrast, has its own dedicated department, Louisville Metro Community Services, that aggregates a wide array of social services, including a financial empowerment services center. This resource allowed **Louisville** to offer a "case management approach" in which city-administered financial counseling could be coupled with all the other services the city offers.[19]

Though programs varied, all cities integrated additional referrals to FE services into the counseling component. NLC wanted to offer a wider range of FE options to LIFT-UP participants on an ongoing basis but found this goal was difficult to implement during the timeframe of the Pilot.

Component 5: Ongoing Participant Contact

The final component, motivational participant prompting, refers to ongoing contact with LIFT-UP participants in a variety of forms. Initially, NLC envisioned that this contact would occur at least quarterly for up to a year after enrollment, to serve as a reminder of restructured debt payments and monitor participant progress towards their financial goals. NLC intended for LIFT-UP to become more than a "one-time" interaction and that by participating in LIFT-UP, customers would become better connected to resources that could help them achieve financial stability over the longer term. The ongoing interactions could take a variety of forms—from individual phone calls by utility workers or financial counselors to letters or postcards, to text messages or emails linked to key dates. NLC expected that the ongoing contact would vary significantly by city, depending in part on the length of the restructured payment plan, the provider of the financial counseling services, and the capacity of the city.

Table 3.5 summarizes the variation in ongoing contact by city. Some cities like **St. Petersburg** and **Newark** made outbound phone calls to remind customers to attend their financial counseling sessions and to make payments. **Savannah** sent payment reminder letters. **Louisville** made it a program requirement that LIFT-UP customers would call their financial counselor to confirm they had made a payment.[20] **Louisville** also sent text messages two days before a bill was due.

TABLE 3.5: LIFT-UP Components - Motivational Prompting

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Outbound phone calls	Yes	No	Yes	No	Yes
Reminder letters	Yes	Yes	No	Yes	Yes
Text messages	No	Yes	No	Yes[i]	No
Required check-ins (inbound)	No	Yes	No	No	Yes

[i] *Savannah began sending texting messages after most LIFT-UP customer's had already completed the LIFT-UP program*

[18] The Central New Mexico Community College offers "a dynamic, interactive coaching training that combines fundamental coaching skills with strong financial content" over the course of a five day training session. See: http://fyi.uwex.edu/financialcoaching/files/2010/07/CNM-Coaching-Training-Description.pdf

[19] http://louisvilleky.gov/government/community-services/seeking-services

[20] A 90 day follow up was a stipulation of the Community Development Block Grant funding

Chapter 4: Evaluation Methodology

The purposes of the evaluation are threefold: (1) to document the demand for LIFT-UP, as measured by the proportion of utility customers responding positively to the offer of LIFT-UP services; (2) to estimate the impact of LIFT-UP on customer utility payment patterns; and (3) to draw insights from the LIFT-UP pilot that can inform future replication and scalability of the model.

Research Design

NLC designed the LIFT-UP pilot to allow for an evaluation of the impact of the program on utility customers. To evaluate impact, we need to estimate what would have happened to LIFT-UP customers had they not enrolled in LIFT-UP. Because we cannot observe this directly, we compare the outcomes for LIFT-UP customers to a group of customers who were not offered LIFT-UP but who were otherwise similar to customers who enrolled in LIFT-UP. Ideally, the group of customers offered LIFT-UP and the comparison group would be randomly selected from the pool of eligible customers.

From an empirical perspective, randomization helps ensure that the customers in the Offer group and Control group are otherwise similar on characteristics that cannot be observed directly, like personal motivation to make water payments. By randomly selecting customers, we expect that more and less motivated customers are distributed relatively equally between the two groups. Randomly selecting customers for a pilot program like LIFT-UP can be politically and ethically challenging—particularly if resources are insufficient to offer services to all customers, and the services are proven to have a positive impact. Oftentimes, however, funding is not available to offer the intervention to all eligible customers, and evidence of effectiveness from a pilot study is needed to be able to make the case for additional funding. In these cases, randomization may be perceived as a neutral way to select which customers will be offered the pilot.

In each city, LIFT-UP was offered to a subset of eligible customers. Figure 4.1 provides a visual overview of the process, where LIFT-UP was offered to a random subset of eligible customers. Eligibility thresholds varied by city, as described in Chapter 3 of this report. Those who met the eligibility criteria in a city at a particular point in time but were not offered LIFT-UP are referred to as the "Control group." Those customers who were offered LIFT-UP are referred to as the "Offer" group or intent-to-treat group.[21] The Offer group also includes customers who decided to enroll in LIFT-UP. Enrollment in LIFT-UP is defined here as the enrollment in a restructured payment plan. We first evaluate the impact of LIFT-UP by comparing the outcomes of the Offer group to the outcomes of the Control group because this comparison provides the simplest measure of the impact of the LIFT-UP program on customer outcomes.

[21]There were a small number of word-of-mouth enrollments into LIFT-UP in some cities: customers who were not part of the Offer group, but were referred to the program by eligible friends or neighbors and permitted to enroll by intake staffers. They were not included in the take-up rates or evaluation due to potential selection bias.

The limitation of the Offer-Control group comparison is that it may be difficult to pick up statistically significant effects if a small number of customers offered LIFT-UP actually enroll in the program. Take-up can be a significant challenge for FE interventions like LIFT-UP. If take-up is low, the average effect of LIFT-UP for everyone offered the program (the Offer group) may not be significantly different from the average outcomes for the Control group. Even if LIFT-UP has a positive impact on those taking up the program, the effect size may not be big enough to move the average for the entire group offered LIFT-UP.

An alternative strategy is to compare the outcomes for those customers taking up the services (the Treatment group) to the outcomes of those customers who did not take up the services. The challenge is that those customers who choose to participate in LIFT-UP are likely very different from customers who do not select to take-up the program. They could be more self-motivated, and thus could have better outcomes because of their motivation. On the other hand, they may be in a worse financial condition than those not accepting the offer, and thus, may have worse outcomes because of their financial hardship.

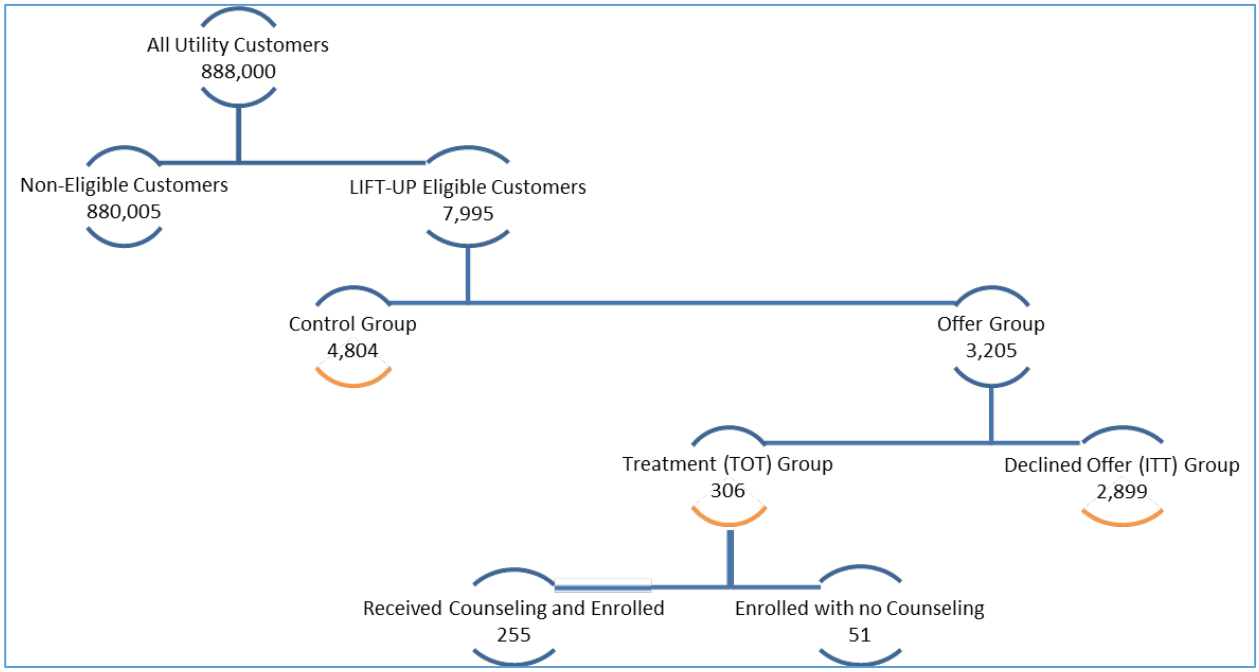
To address this issue of customer selection, we can estimate an empirical model that measures the effect of treatment on the Treatment group. We do this by applying a two-stage regression model in which we first model the selection of a customer into the program and then estimate the impact of the program after controlling for selection. See Appendix D for a more in-depth discussion of the methodology.

Finally, it is important to point out that the take-up of LIFT-UP can vary in intensity and by city. In some cities, customers could enroll in a payment plan even if they did not complete a financial counseling session, whereas in other cities financial counseling was required to receive a payment plan.[22] For the purposes of our primary analysis, we define treatment as enrollment in a payment plan, regardless of whether or not the customer completed counseling.[23]

[22]In Savannah, it was part of the program design that customers could obtain a payment plan without counseling. In Houston, some customers did receive payment plans without attending coaching, but it was because those customers did not keep their appointments, not an intentional part of the program design. In Newark, seven customers received payment plans without attending counseling during the initial roll out, because the counseling provider had not yet been finalized.

[23]Some individuals completed initial enrollment paperwork, but completed no additional components of LIFT-UP. Even though the extended interaction with a utility worker (while they go over the paperwork) could be construed as an additional "dosage" of treatment evaluation, these individuals were evaluated as part of the Offer group, not the Treatment group.

FIGURE 4.1: LIFT-UP Evaluation Design



Offer and Control Groups by City

After identifying eligible accounts, each city implemented a process for selecting customers for the Offer and Control groups (see Table 4.1). Technically, to be considered a true "Control" group, customers would need to be randomly selected into the group. Three cities (**Houston, Newark,** and **St. Petersburg**) selected accounts randomly to be offered LIFT-UP (and thus had a true Control group). Cities also varied in their strategies to recruit and enroll clients in the Offer group, as summarized in Table 4.1. Appendix A provides flow diagrams of the enrollment and treatment processes for each city. Appendix B provides a sample of a postcard used by **Savannah** to recruit customers to participate.

Houston identified eligible accounts using shut-off rosters and other indicators of delinquency. From the July 2014 shut-off roster, eligible accounts were identified and a Control group of 100 randomly selected accounts was set aside. The remaining eligible accounts were enrolled in the Offer group. Another set of accounts were randomly selected for the Offer group from the September 2014 shut-off roster. Houston utility staff trained as financial coaches made outbound calls to customers in the Offer group for a three-month period. Customers agreeing to participate were enrolled in a payment plan, and were subsequently referred to an additional financial education class.

Newark also randomly assigned 200 eligible customers to a Control group, from a list of eligible accounts generated in September 2014. The remaining eligible customers were included in the Offer group. Newark relied on both inbound and outbound calls to recruit participants in the Offer group for LIFT-UP. When customers in the Offer group received a notice of delinquency

from the water utility, they were encouraged to call the water company. During the LIFT-UP pilot period (through March 2015), utility staff would check to see if the delinquent customer calling the utility was listed in the Offer group and if yes, would inform the customer about the opportunity to participate in LIFT-UP. Customers agreeing to participate by phone were referred to a financial coach. The financial coach developed a payment plan with the customer and referred the customer back to utility for final enrollment.

Table 4.1: Control and Offer Groups

	Method to Identify Control Group	Method to Identify Offer Group	Mode of Offer	Recruitment Strategy	Enrollment Strategy
Houston	Randomized list of eligible customers as of 7/1/2014; 100 accounts set aside for Control group	Offer customers randomly identified from initial list and second eligible list on 9/1/14; all not in Control group included in Offer group	Outbound phone calls by utility staff to Offer group customers	Offer contact from trained utility staff (financial coaches) beginning 9/1/14, continued for 3 months	Customers agreeing to participate by phone were offered payment plan after meeting with utility staff financial coach; referred to additional financial education class
Louisville	Control group comprised of eligible customers residing in 3 specific ZIP codes	Offer group comprised of eligible customers residing in 2 similar ZIP codes	Initial postcard and letter to Offer group from water department and city government, followed up by phone call to confirm eligibility	Offer contact beginning 5/15/14; continued for several months	Interested customers contact water company; referred to counseling and screened for additional eligibility criteria before enrolling in payment plan
Newark	Randomized list of eligible customers as of 9/19/2014; 200 accounts set aside for Control group; remainder in Offer group	Offer customers randomly identified from initial list; all not in Control group included in Offer group	Inbound and outbound phone calls to delinquent customers; If Offer customer contacts utility about delinquent notice, offered LIFT-UP	Offer calls beginning 9/19/2014; continued for several months (and beyond LIFT-UP pilot program period)	Customers agreeing to participate by phone referred to financial coach; financial coach developed payment plan and referred back to utility for final enrollment
Savannah	400 eligible customers in particular billing route, randomly assigned to control group on 2/18/14	Eligible customers in similar billing routes; pulled randomly over 6 waves	Postcards to Offer group customers mailed by Step Up Savannah	Postcards begin 2/28/14; utility staff pulled eligibility roster for Offer group each wave	Customers bring postcards to utility to enroll; after enrollment in payment plan, referred to counseling
St. Petersburg	Randomized list of eligible customers as of 4/1/14 assigned to potential Offer group; remainder in Control group	Potential Offer customers randomly selected from initial list; only those receiving Offer included in Offer group	Phone calls to Offer customers from utility staff; confirmed customer still delinquent before calling	Offer calls begin 4/1/ 2014; continued for several months until 100 positive responses	Customers agreeing to participate by phone received a hold on shut-off, and referred to complete counseling before enrolled in payment plan

St. Petersburg pulled a list of eligible accounts in April 2014. From the list, a pool of customers was randomly selected to be potential Offer group customers. Outbound calls were made to a random subset of the potential Offer group pool until 100 customers agreed to participate in LIFT-UP-- a goal that was reached in January 2015. Only the customers receiving the Offer are

included in the Offer group. The remaining customers are included in the Control group. Customers agreeing to participate in LIFT-UP by phone received a hold on shut-off, and were referred to complete counseling before being enrolled in a payment plan.

Instead of randomly selecting customers, **Louisville** offered the LIFT-UP program to customers in select geographic areas, with customers in adjacent otherwise similar geographic areas serving as the comparison group. **Louisville** selected eligible accounts from five zip codes within the Shawnee Neighborhood Revitalization Strategy Area and selected customers in two zip codes (40211, 40212) to be offered LIFT-UP and customers in three zip codes (40210, 40203, 40202), to serve as the comparison group. [24] Customers in the Offer group (eligible ZIP codes) received postcards and letters over a period of several months, inviting them to participate in LIFT-UP. Interested customers contacted the water company and were referred to counseling and screened for additional eligibility criteria before being enrolled in a payment plan.

Savannah also selected eligible customers in targeted geographic areas for LIFT-UP, as defined by billing routes. Initially, Savannah identified two otherwise similar routes. Customers in one of the routes were randomly selected and set-aside as a Control group, and customers in the other route were randomly selected to be offered the program. To increase the number of customers enrolled in LIFT-UP, **Savannah** later included additional routes to be offered LIFT-UP, randomly selecting additional participants to be offered LIFT-UP in subsequent waves during the outreach period. Utility staff pulled a roster of eligible customers each wave and sent the roster to Step Up Savannah to mail a recruitment postcard (see Appendix B). The Control group remained static (pulled at the initial determination of eligibility). Thus, Savannah's strategy represents a hybrid of randomization and geographic comparison groups

Data and Outcome Indicators

Administrative utility data provided by the city water companies were used to construct outcome indicators for the evaluation. NLC and CFS worked extensively with IT professionals from each city to collect the appropriate administrative data, by offering technical assistance and conducting site visits. The types of data collected include:

- billed amounts and dates of bills;
- payment amounts and dates of payments;
- outstanding balance amounts;
- late fee amounts and dates of fee assessments (when applicable);
- nonpayment/shut-off order fee amounts and dates of assessment (when applicable);
- shut-off fees and dates of assessment (when applicable);
- service restoration fees and dates of assessment (when applicable); and

[24] This is a historic neighborhood in Louisville that obtained HUD NRSA funding in September 2013. http://louisvilleky.gov/sites/default/files/housing_community_development/shawnee_nrsa_plan-final-approved-9-25-2013.pdf

- account status (active or inactive).

Each city has a unique IT system to record administrative data, and each system differs in the types of data collected that is extractable for the analysis. In addition, each city varies in its processes for collecting utility payments, and these differences may affect the outcomes observed, sometimes creating "noise" or errors. For example, some cities accept water payments at a central municipal cashier, where a citizen can also pay her parking tickets, afterschool program fees and other fines and fees. If a water payment code is applied to one of these payments, an erroneous payment appears in their utility data, creating an outlier or anomaly.[25] In other instances, data may be accurately reported but unsystematic, capturing a change in real world conditions which are independent—and distortionary—of the performance of the LIFT-UP program. For example, some cities place a hold on issuing service terminations during winter months, or even during election campaigns.

Given these considerations, outcome indicators were selected for each city judiciously, to be relatively confident that the data have integrity and external validity. The selected set of indicators and definition of the indicators differs for each city; see Table 4.2.

Table 4.2: Outcome Indicators, Definitions by City (if indicator is available)

	Houston	Louisville	Newark	Savannah	St. Petersburg
Pr Shut-off (Probability of Shut-off)	Defined by receipt of shut-off order, which is triggered anytime account is over particular balance threshold; does not necessarily result in shut-off	Outcome data not available for LIFT-UP final report	Defined by receipt of shut-off notice; does not necessarily result in shut-off; only available for the first 3 months of the evaluation	Defined by customer charge of a $50 or $100 adjustment fee ($50 normal shut-off, $100 disconnect water meter)	Defined by customer charge of a $15 shut-off fee (can be charged more than once, and thus multiples of $15 within a given period)
# Shut-offs	Count of the number of shut-off orders in a period	-	Count of the number of shut-off notices in a period	Count of the number of shut-off charges in a period	Count of the number of shut-off fees issues in a period
Pay/Bill Ratio	Defined as the percentage of bills that are current in a period	-	Defined as the percentage of bills associated with payments, relative to total bills in a period	-	Defined as the percentage of bills associated with payments, relative to total bills in a period
Balance	The outstanding total balance in the end of the given period	-	The outstanding total balance in the end of the given period	-	The outstanding total balance in the end of the given period
Avoidable fees	-	-	The amount of avoidable fees used in the analysis includes only interest, as data on reinstatement fees is not provided for the full evaluation period	The sum of $50 and $100 adjustment fee charges incurred	The sum of actual total customer charges (late payment fees, turnoff charges, turn on charges, after hours, shut-off notice fees).

[25] Others include but are not limited to: water leaks (which are real costs but distortions of typical billing amounts), human and machine error when reading water meters, human errors when shut-off crews input codes in the field by hand.

While an effort was made to find comparable indicators across cities (such as “risk of shut-off”), differences in definitions of the indicators between cities prevent estimating a pooled impact model for the same outcome across cities. Rather, we estimate the impact of LIFT-UP for each city individually. A limitation of this approach is the smaller sample size and thus the power to detect effects; pooling the cities together would increase sample size and thus the ability to pick up on a statistically significant impact of LIFT-UP. The results of the empirical impact analyses are presented in Chapter 6.

In addition to utility data, as a part of the counseling process, the FE providers often collected demographic and financial data on LIFT-UP participants. Analysis of this data is not part of the primary evaluation, but it we present the data in Chapter 5 of the report for descriptive and informational purposes.

Numbers do not always tell the full story. CFS also helped to construct a customer survey that cities were able to administer to their customers. In addition, CFS conducted interviews with a few LIFT-UP customers from each city to ascertain how they felt about LIFT-UP and to determine whether they felt that they had benefitted from it. We summarize these responses in Chapter 7.

Implementation and Evaluation Timelines

The impact evaluation measures outcomes for 12 months in each city, at three-month intervals from the baseline date. The baseline date is the date of the eligibility determination (for the Control group), the date of offer of LIFT-UP (for the Offer group), or the date of enrollment in a payment plan (for the Treatment group). Table 4.3 provides a summary of the different implementation and evaluation timelines for each city.

The initial launch date for LIFT-UP was targeted to be February 2014 for all cities. However, due to varying capacity constraints and logistical issues, only **Savannah** launched LIFT-UP on the target date, followed by **St. Petersburg** in April 2014. **Louisville** was recruited to join the LIFT-UP pilot later than the other cities and was able to launch their program in May 2014. **Houston**’s water utility underwent an IT system conversion, delaying their launch until July 2014. Changes in utility staff personnel and capacity constraints delayed **Newark**’s launch until September 2014.

After a city launched LIFT-UP, there was a period of recruitment and enrollment that lasted 3 months in **Houston,** 6 months in **Louisville**, 8 months in **Newark**, 9 months in **Savannah** and 12 months in **St. Petersburg**. Chapter 5 of this report provides more detail about the outreach and recruitment process in each city. The rolling enrollment dates create a rolling baseline period for the Offer and Treatment groups. Thus, the timing of the 12-month evaluation period for a given customer will vary depending on when a customer was determined to be eligible (Control group), was offered the program (Offer group), or when the customer responded to the Offer and

enrolled in the program (Treatment group). For simplicity, Table 4.3 provide the dates of the *last* evaluation period for the final set of accounts in each group to be (1) selected for eligibility (Control), (2) offered LIFT-UP (Offer), or (3) enrolled in LIFT-UP (Treatment).

For example, in **Savannah**, a list of eligible customers was generated in February of 2014. From this list, a control group of 400 accounts was set aside. These 400 accounts in the control group are tracked for 12 months, from March 2014 – February 2015. Customers in the Offer group were mailed postcards inviting them to participate in LIFT-UP. These postcards were mailed in waves, beginning with an initial wave in February 2014 and ending with a final wave in October 2014. Customers who received postcards and decided to enroll in LIFT-UP are tracked for 12 months after the date of enrollment. Thus, for a customer who was mailed a postcard in October 2014 who subsequently enrolled in November 2014, the baseline date would be November 2014 and the account would be tracked for 12 months from December 2014 through November 2015. For customers who were mailed postcards and did not enroll in LIFT-UP, the baseline date is the date that the postcard was mailed. If a customer was mailed a postcard in October 2014 and never enrolled in LIFT-UP, the baseline date would be October 2014 and the account would be tracked for 12 months from November 2014 through October 2015.

In addition to tracking outcomes for 12 months after the baseline date, the evaluation considers historical data for each outcome 12 months prior to the baseline date. This historical data helps to ensure that the Offer and Control groups are relatively similar prior to the offer of LIFT-UP, and are used to model the impact of LIFT-UP.

Table 4.3: Evaluation Timeline

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Control Group					
Baseline Date(s)	Jul 2014	May & Sep 2014	Sep 2014	Feb 2014	Apr 2014
Last Evaluation Period	Aug 2014 – Jul 2015	Oct 2014- Sep 2015	Oct 2014 – Aug 2015[i]	Mar 2014 – Feb 2015	Apr 2014 – Mar 2015
Offer Group					
Baseline Date(s) [ii]	Jul & Sep 2014	May, Jun, Jul, Aug Sep & Oct 2014	Sep 2014	Feb, Apr, Jun, Aug, Sep & Oct 2014	Apr & Aug 2014
Last Evaluation Period	Oct 2014 – Sep 2015	Nov 2014- Oct 2015	Oct 2014 – Aug 2015	Oct 2014 – Sep 2015	Aug 2014 – Jul 2015
Treatment Group					
Enrollment Period	Aug 2014 – Nov 2014	May 2014 – Oct 2014	Oct 2014 – May 2015	Feb 2014 – Oct 2014	Apr 2014 – Jan 2015
Baseline Date(s)	Sep – Nov 2014	May – Nov 2014	Oct 2014 – May 2015[iii]	Mar – Nov 2014	Apr 2014 – Jan 2015
Last Evaluation Period	Nov 2014 – Oct 2015	Dec 2014-Nov 2015	May 2015-Dec 2015[ii]	Dec 2014 – Nov 2015	Jan 2015 – Dec 2015

[i] In Newark, we track customer data for a maximum period of 11 months rather than 12 months, given the delay in enrolling customers (see Treatment Group below).

[ii] The Baseline Date for the Offer group is the date that customers in that group were identified as being eligible for LIFT-UP. This is not necessarily the date the customers were contacted to participate in LIFT-UP.

[iii] Customers who enrolled after April 2015 will only have 8 months of data for the evaluation; thus, we cut Newark's outcome evaluation period for the full sample to be 8 months. Customers continued enrollment after March 2015; however, for the evaluation, we exclude accounts enrolling after March, as we would not have sufficient data to track outcomes. Eight customers who enrolled on or after March 30, 2015, were excluded from this evaluation.

Chapter 5: Take-Up and Completion Rates

Overall Take-Up Rates

One of the purposes of the evaluation is to identify potential demand for LIFT-UP among eligible utility customers. The take-up rate provides one measure of potential demand, calculated as the ratio of enrolled participants to those who were offered the program. For the evaluation, we define enrollment as the enrollment of a customer in a payment plan. This excludes customers who responded to the offer of LIFT-UP but were subsequently determined to be ineligible or who did not complete the steps necessary to enroll in a payment plan.

The initial goal was to offer the LIFT-UP program to 2,000 utility customers across the five cities, with an expected take-up rate of 25%, or 500 participants across the five cities (100 per site on average). A take-up rate of 25% was expected to be a conservative estimate, assuming that customers would be motivated to participate in LIFT-UP as an alternative to water shut-off. However, mode, intensity, and timing of outreach moderate the extent to which customers become aware of the program and believe that it may be of benefit for them.

Take-up became a considerable challenge for program implementers; outreach strategies were amended mid-course in several of the cities to improve take-up. In total, LIFT-UP was offered to 3,205 customers, with 306 enrolling in the program—a take-up rate of 9.55%. There was considerable variation across cities; see Table 5.1. **Newark** came close to the target enrollment rate at 18.80% (during the standard enrollment period, and 23.31% overall) and **St. Petersburg** slightly lower at 13.25%. Much of the variation in take-up rates can be explained by differences in outreach and enrollment strategies (as described in Chapter 4).

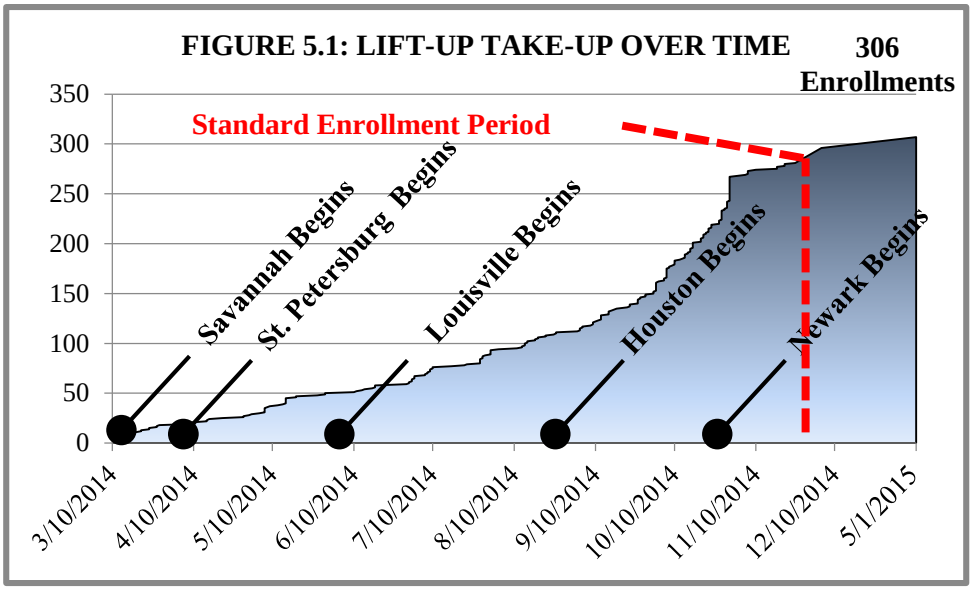
Table 5.1: LIFT -UP Take-Up Rates

Note: The numbers below differ slightly from the numbers used in the evaluation. See Appendix C for a reconciliation of the numbers used in this report.

	Total	Houston	Louisville	Newark	Savannah	St. Petersburg
Eligible	7995	714	1253	465	1300	4263
Control	4804	98	523	199	400	3584
Offer	3205	630	730	266	900	679
Treatment [i]	306	37	20	62	97	90
Word of Mouth Enrollments [ii]	19	4	2	11	2	0
Take-Up Rate	9.55%	5.87%	2.74%	23.31%	10.78%	13.25%

[i] *These enrollment numbers reflect customers who enrolled in a payment plan and exclude "word of mouth" referrals (which are also excluded from the outcome analysis).*
[ii] *Word of mouth enrollments are not factored into the take-up rates.*
[iii] *Newark enrolled 50 customers during Oct and Nov 2014 (the standard enrollment period). From Jan to May they enrolled an additional 13 customers. The take-up rate for the standard enrollment period is 18.80%.*

Take-up rates fluctuated over time in response to changes in outreach strategies as well as seasonal variation in utility collection practices, see Figure 5.1. October 31, 2014 was the original target deadline to enroll all participants in the pilot, and we see a sharp uptick in the take-up numbers around September and October. **St. Petersburg**, **Savannah**, and **Louisville** amended their recruitment techniques, and **Newark** and **Houston** began or restarted their campaigns. Lower enrollment numbers in **Louisville** may be partially attributed to eligibility criteria that were applied after intake and excluded some interested participants. Lower take-up in **Houston** may be attributed to a truncated enrollment period. These differences and implications for future replication of the LIFT-UP model are discussed in more detail in Chapter 8 of this report.



Note: These enrollment numbers may differ slightly in the evaluation tables. See Appendix C for a reconciliation.

Take-Up of LIFT-UP Components

In addition to overall take-up rates, as defined by the enrollment of a customer in a payment plan, it is useful to consider customer take-up of specific components of the LIFT-UP model. Table 5.2 provides a summary of the take-up of individual components.

First, in some cities, a larger number of customers responded to the initial offer of LIFT-UP but were subsequently determined to be ineligible for a payment plan or failed to follow through with required program components (such as counseling) that were necessary to enroll in a payment plan. This is most pronounced in **Louisville**, where 83 customers responded to the offer, but only 20 ultimately enrolled in payment plans. Nearly half (40) of the responding customers were determined to be ineligible by the city, and an additional 23 customers failed to complete the required counseling necessary to enroll in a payment plan. (Figure 5.2 presents the

distribution of reasons for ineligibility). If demand for LIFT-UP in Louisville were estimated based on positive response to the offer, 11.4% of the 730 customers offered LIFT-UP responded with interest—which is much higher than the payment plan take-up rate of 2.7%.

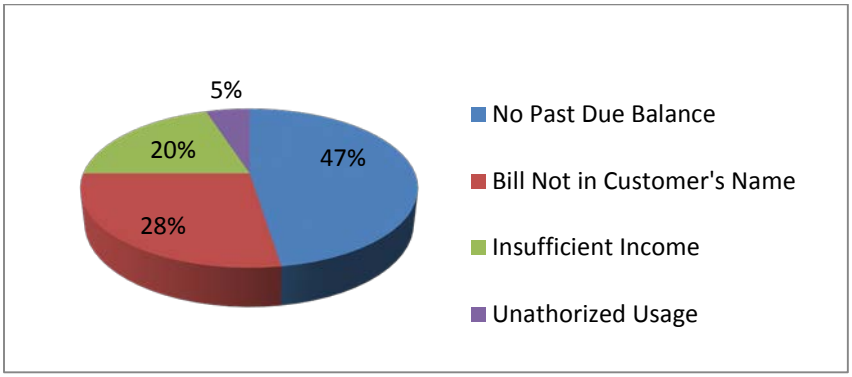
Table 5.2: Completion of LIFT-UP Program Components

Note: The numbers below differ slightly from the numbers used in the evaluation. See Appendix C for a reconciliation of the numbers used in this report.

	Louisville, KY	Houston, TX	Newark, NJ	Savannah, GA	St. Petersburg, FL
Responded to Offer	83	not tracked	80	not tracked	100
Not Eligible	40	n/a	7	n/a	n/a
Received Payment Plan	20*	37	62	97	90*
Attended Counseling		32	56	57	
Referred to Additional FE Service	not tracked	32	not tracked	11	not tracked

**payment plan developed at counseling session*
**excludes word of mouth enrollments*

Figure 5.2: Louisville Reasons for Ineligibility



In **Newark**, 80 out of 266 customers offered LIFT-UP responded favorably to the offer—a response rate of 30%. Of those responding, 7 were determined ineligible due to insufficient income to make payments, and 10 customers did not complete the required paperwork necessary to enroll. In **St. Petersburg**, while 100 customers responded to the offer and completed initial paperwork with the utility (a response rate of nearly 15%), nine customers did not follow through with the counseling and thus were not enrolled in payment plans.

For the purposes of the evaluation, we count everyone enrolling in a payment plan as being "treated," regardless of whether or not the customer completed the counseling process. In every city except **Savannah**, counseling was a required part of enrollment in LIFT-UP. However, in **Newark**, several customers enrolled in payment plans but had not yet completed counseling as of the time of this report. We continue to count these participants as part of the LIFT-UP evaluation because they were enrolled in a payment plan.

Finally, all cities referred LIFT-UP customers to additional FE services, such as VITA free income tax preparation or afterschool programs, but this data was generally not recorded. **Houston** offered a motivational and educational seminar as part of their treatment process and the majority of LIFT-UP customers attended.

LIFT-UP Completion Rates

Once customers enrolled in LIFT-UP, cities were asked to provide monthly reports to the NLC on the status of participant progress through the program. In Table 5.3, we summarize the status of LIFT-UP participants as of the final report submitted to the NLC. Customers who are identified as having *completed LIFT-UP* are those who made all required payments under their negotiated payment plans and have brought their delinquent accounts current. Customers who are identified as *terminated* are those who were initially enrolled in LIFT-UP but failed to meet their obligations under the LIFT-UP program, including missed payments, failure to attend the financial empowerment services when required, or moving outside of the city without paying the remaining balance in full. Finally, at the time of the final report, customers in some of the cities were *still enrolled* in the LIFT-UP program—continuing to make their required payments under the terms of the negotiated agreements. This is the case in **St. Petersburg**, **Newark,** and **Houston**, where customers were provided longer payment plans that extended beyond the LIFT-UP evaluation period.

Table 5.3: LIFT-UP Completion Rates

	Houston	Louisville	Newark	Savannah	St. Petersburg
Completed LIFT-UP	43.2%	54.5%	1.4%	60.9%	28.9%
Terminated (e.g., nonpay, move)	40.5%	45.5%	43.1%	39.2%	20.0%
Still Enrolled	16.2%	0.0%	55.5%	0.0%	51.1%
Total Number of LIFT-UP Participants	37	20	62	97	90

In **Houston**, payment plans last between 6 and 12 months. As of the final report, 16 of the 37 LIFT-UP participants (43.2%) had paid their past-due balances in full. The city terminated 15 participants (40.5%) from the program for various reasons, including failure to meet with the financial coach, not following through with payments or moving out of the service area. An additional 16% of participants were still enrolled in the program.

Louisville's payment plans lasted up to 12 months. As of the final report, 55% of LIFT-UP enrollees completed the program, with an additional 45% terminated for failure to make payments.

Newark offered long-term plans, up to 24 months in length, and therefore we would expect most individuals to still be enrolled. In fact, 56% of individuals are still enrolled. One customer paid

their balance in full and completed LIFT-UP. An additional 43% of customers have been terminated from LIFT-UP for failure to follow-through with their payment plans.

Savannah's fixed, 4-month plan (an initial down payment and three additional months to make subsequent payments) allows a complete picture of program completion. Sixty-one percent of Savannah LIFT-UP customers completed their payment plan. The remaining 39% were terminated for missing payments.

St. Petersburg offered long-term payment plans, extending up to 24 months. Therefore, we would expect most individuals to still be enrolled. In fact, more than half of the participants were still enrolled as of the final report (51%). An additional 29% of customers had completed LIFT-UP, and 20% of individuals were terminated for failure to make on-time payments.

LIFT-UP Participant Demographic Characteristics

As part of the financial counseling process, **Louisville**, **Savannah**, and **St. Petersburg** gathered demographic data on the LIFT-UP customers whereas **Newark** and **Houston** did not track this information as part of the treatment process. Table 5.4 provides a summary of demographic and financial variables for the cities in which it was available.

For all cities, the utility data allows us to identify the proportion of LIFT-UP participants who own their homes. In most cities, one-third to one-half of LIFT-UP customers owned their own homes. **Newark** intentionally targeted homeowners.

For the three cities with demographic data, the majority of LIFT-UP customers were ethnic or racial minorities, primarily African-Americans. The average household size for the U.S. is 2.85 persons and we see that **Louisville** and **Savannah**'s average household size are close to that number.[26] **St Petersburg** was higher at 3.41 persons, but if a few large households are excluded (household sizes greater than 10), the average number of persons is 2.99. In terms of household income, **Savannah** and **St. Petersburg** appear to have similar average household incomes, but Louisville is much lower. **Louisville** only enrolled households with demonstrable income, which is why the minimum household income is not zero. The federal poverty level provides a more accurate measure of a households' financial health because it is adjusted for household size.[27] Here, **Louisville** also appears to serve low-income customers through LIFT-UP, despite the minimum income criteria. This is likely because **Louisville** targeted LIFT-UP at a neighborhood with a high percentage of low- and moderate-income households. It is important to point out that these demographic characteristics are for the LIFT-UP customers receiving financial counseling;

[26] https://www.census.gov/prod/cen2010/briefs/c2010br-14.pdf

[27]The federal poverty level is set at the minimum amount of gross income that a family needs for food, clothing, transportation, shelter and other necessities. In the United States, this level is determined by the Department of Health and Human Services. FPL varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs, such as Medicaid in the U.S., define eligibility income limits as some percentage of FPL. http://www.investopedia.com/terms/f/fpl.asp#ixzz3e1smmhNr

it is unclear if this is representative of the Offer group as a whole, or just those responding to the offer and enrolling in LIFT-UP.

Table 5.4: LIFT-UP Customer Demographic Characteristics

	Louisville, KY[i]	Savannah, GA[ii]	St. Petersburg, FL	Houston, TX	Newark, NJ
Homeownership – own:	5%	42%	31%	50%	100%[iii]
Ethnic or racial minority:	90%	91%	77%	Not tracked	Not tracked
Average household size:	2.35	2.82	3.41	Not tracked	Not tracked
Average annual household income:	$12,367	$23, 757	$20,207	Not tracked	Not tracked
Income range:	$1,943 – $25,200	$0 – $77,928	$0 – $45,000	Not tracked	Not tracked
% of household below Federal Poverty Level:	85%	46%	n/a[iv]	Not tracked	Not tracked
Composite cost-of-living index[v]	87.7	93.5	92.4[vi]	92.2	129.7

[i] 28% did not provide data on minority status
[ii] This data is based on the 57 participants who attended financial counseling; of these 4 did not respond
[iii] Assumed; eligibility requirement in Newark based on matching billing address and service address
[iv] Due to missing data, we are unable to calculate the proportion of households below poverty for this report
[v] U.S. Average is 100; data is for 2010[28]
[vi] CLI for Tampa, FL

[28] http://www.census.gov/compendia/statab/cats/prices/consumer_price_indexes_cost_of_living_index.html

Chapter 6: LIFT-UP Program Impacts

This chapter of the report provides the results of the impact evaluation of the LIFT-UP program. As of the timing of the final report, complete data on utility outcomes was unavailable for Louisville due to a utility system conversion. Thus, we have excluded Louisville from the impact evaluation portion of the report.

Because each city measured outcome indicators differently, we cannot pool the data for the four cities together. Rather, we present the results of the impact analyses separately for each city. As described in Chapter 4, CFS aimed to select outcome indicators that would be relatively comparable across cities. However, it is important to keep in mind the definitions of particular outcomes and the substantive importance of particular outcomes will vary by city. The discussion below highlights this variation.

Comparison of Outcome Indicators at Baseline

The evaluation design for the LIFT-UP Pilot includes a comparison group of otherwise similar customers in each city who were not offered LIFT-UP (referred to here as the "Control Group"). A first step in the evaluation is to identify the extent to which the Control Group customers are similar to those offered LIFT-UP (the Offer Group) at baseline- prior to being offered LIFT-UP. For the cities employing a randomized study design (**Houston**, **St. Petersburg**, and **Newark**), if randomization works as intended, we would expect to find no statistically significant differences at baseline between the Offer and Control groups. For **Savannah**, we might expect to observe some significant differences between the Offer and Control groups, given the groups were selected based on geography rather than randomization.

To the extent that treatment was randomized and the Control Group appears to be statistically identical to the Offer Group at baseline, we are more confident in our ability to simply compare the outcomes between the Offer and Control groups without the need for additional statistical techniques (an intent to treat, or ITT comparison). However, to the extent that we observe significant differences between the groups at baseline (or randomization did not occur), we cannot rely on a simple comparison of outcomes between the two groups to identify the impact of LIFT-UP. In this case, statistical modeling is necessary to control for the baseline characteristics of the two groups when estimating the impact of LIFT-UP on outcomes.

Table 6.1 summarizes the key outcome indicators at baseline for the Control and Offer groups, testing for statistically significant differences. (See Chapter 4, Table 4.2 for a definition of each of the outcome indicators). Table 6.1 also provides the baseline level of a given indicator for customers in the Treatment group; however, it is expected that this group will differ from the Offer and Control groups on both observable and unobservable characteristics, given the low rates of take-up across cities and the likely select nature of customers who respond to the offer. The Treatment group baseline characteristics are provided for descriptive purposes only, and not to test for statistical differences between the Control or Offer groups. We will model the decision to respond to the offer of LIFT-UP when estimating the impact of LIFT-UP among those taking up the program (the treatment on the treated, or TOT analysis).

Table 6.1: Baseline Comparison of Outcome Indicators				
	Control	Offer		Treated
St. Petersburg				
Pr Shut-off (12 months before LIFT-UP)	0.662	0.648		0.698
# Shut-offs (12 months before LIFT-UP)	1.514	1.509		1.535
Balance (At baseline)	109.33	131.95	***	330.01
Payment/Bill Ratio (12 months pre LIFT-UP)	0.848	0.835	*	0.803
N	3582	656		86
Houston				
Pr Shut-off (12 months before LIFT-UP)	1.00	1.00		1.00
# Shut-offs (12 months before LIFT-UP)	6.81	7.40		8.38
Balance (At baseline)	602.10	474.65	***	543.99
Payment/Bill Ratio (12 months pre LIFT-UP)	0.15	0.14		0.11
N	98	630		37
Savannah				
Pr Shut-off (12 months before LIFT-UP)	0.31	0.45	***	0.61
# Shut-offs (12 months before LIFT-UP)	0.49	0.75	***	1.05
Avoidable Fees (12 months before LIFT-UP)	29.30	44.95	***	62.89
N	372	871		97
Newark				
Balance (At baseline)	983.99	903.24		969.23
Payment/Bill Ratio (8 months pre LIFT-UP)	0.17	0.16		0.22
Avoidable Fees (8 months before LIFT-UP)[i]	72.5	68.21		76.9
N	199	266		62

*p<0.10; **p<0.05; ***p<0.01

Note: The sample sizes for the groups used for the impact evaluation will differ slightly from the sample sizes used in the prior section to calculate take-up. This is because the impact evaluation excludes customers with missing utility data, corrects for crossover between groups, and excludes customers with accounts that closed prior to the treatment period, or for whom the first observed transaction occurs after the enrollment date. See Appendix A for a description of these differences.

[i] In Newark, avoidable fees are limited to interest rate fees, as we do not have sufficient data to calculate shut-off and reinstatement fees.

In **St. Petersburg**, the Offer and Control groups are similar at baseline for shut-offs, where approximately 65-66% of customers in both groups experienced a shut-off during the 12 months prior to LIFT-UP, with the average customer experiencing 1.5 shut-offs during that period. There is a significant difference in the customer balances at baseline, where the average balance for customers in the Offer group is about $20 higher than the average balance for customers in the Control group- thus, Offer group customers are slightly worse off at baseline. The payment to bill ratio is slightly lower for those in the Offer group—the average customer made a payment for 84% of bills received in the 12 months prior to LIFT-UP, compared with 85% for the Control group. In general, it appears that differences between the Offer and Control groups at baseline are small. On the other hand, those responding to the Offer are in a worse situation at baseline—with an average balance of $330, relative to $109 for the control group and $131 for the Offer

group. This highlights the importance of not simply comparing the outcomes for those who take up LIFT-UP to those not taking up; those taking up LIFT-UP start from a worse financial position. These individuals may be more motivated to take up the program because of their financial position.

For **Houston**, eligibility for LIFT-UP is defined as being on the shut-off roster; thus, it is no surprise that 100% of the accounts in both the Control and Offer groups had experienced shut-offs in the 12 months prior to LIFT-UP. In terms of the number of shut-offs, the Offer group is in a slightly worse situation- with an average of 7.4 shut-offs in the prior 12 months, compared to 6.8 for the Control group, though this difference is not statistically significant. With regard to the outstanding balance at baseline, the Offer group has a balance that is about $125 lower than the balance for Control group customers- and this difference is statistically significant. This indicates the importance of modeling the impact of LIFT-UP while controlling for the baseline balance. There is no significant difference in the number of payments to bills in the prior 12 months; the average customer in both groups only makes a payment for 14-15% of the bills that they receive. The baseline characteristics of the Treatment group in Houston are slightly worse than the Offer group, with a larger number of shut-offs, slightly higher balances, and a lower payment to bill ratio. As with St. Petersburg, more financially stressed clients may be more motivated to take-up LIFT-UP.

Given **Savannah** did not randomize the offer of LIFT-UP, it is not surprising that are significant differences between the Control and Offer groups as a baseline. However, these differences reduce the ability to rely on treatment effects models to estimate the impact of LIFT-UP in Savannah. In particular, the Offer group appears to be significantly more distressed on all three outcome indicators at baseline. With regard to shut-offs, 45% of customers in the Offer group experienced a shut-off with an average of 0.75 shut-offs during the 12 months prior to LIFT-UP, compared with 31% of customers in the control group and an average of 0.49 shut-offs. In terms of avoidable fees charged to customers, those in the Offer group had an average of $45 in avoidable fees accrued in the prior 12 months, relative to $29 for the Control group. The Treatment group is more distressed on all dimensions at baseline, with 61% experiencing a shut-off, and the average customer with one shut-off, and average avoidable fees of $63. Savannah does not have reliable information on the outstanding customer balance in prior periods that can be used for the evaluation.

In **Newark**, the randomization worked well and there are no statistically significant differences between the Control and Offer groups at baseline. Shut-off data in Newark is not reliable and is thus not included in the evaluation. The average customer in the Control group has a balance of $984 at baseline, relative to $903 for the Treatment group, but this difference is not statistically significant. In the eight months prior to LIFT-UP, the average customer made a payment for 16 – 17% of the bills received. During the same period, the average customer in both groups accumulated about $70 in avoidable fees. Those responding to the offer of LIFT-UP in Newark are slightly more distressed at baseline, with a baseline balance of $969 and avoidable fees of $76.9 accumulated in the prior eight months. The average payment to bill ratio of Treatment group customers is 22%.

It is interesting to compare the relative levels of the outcome indicators at baseline between cities. The data indicates that **Houston** and **Newark** serve more distressed clients, with higher balances at baseline and very infrequent water payments during the period prior to LIFT-UP. By contrast, **Savannah** customers in the Control group appear to be the least distressed, although Savannah's Offer and Treatment groups are relatively more distressed than other Savannah customers and less distressed than those taking up LIFT-UP in the other cities.

Impact Analysis: Outcomes across Cities

Table 6.2 provides a summary of outcomes at the end of the evaluation period, which is 12 months post baseline across three of the cities and 8 months post baseline for Newark. Given the late launch of the LIFT-UP program in Newark, the final period represents 8 months rather than 12 months. As described in Chapter 4, not all cities collect data on all indicators. For this comparison, four indicators are selected that are available in most cities, tracked through the end of the evaluation period: the probability of experiencing a shut-off, the cumulative outstanding balance, the ratio of payments to bills, and avoidable fees (including shut-off fees, late fees, and interest) accrued. The city-by-city impact analysis later in this section provides a broader array of outcomes for each city and impact estimates at 3, 6, and 12 months post-baseline.

For each city and outcome, several different measures are provided. First, we present the Control group mean as of the end of the evaluation period, the Offer group mean as of the end of the evaluation period and the difference in means between the Control and Offer groups. To the extent that the Offer was randomized, the simple difference between Offer and Control group means provides an estimated impact of the "intent to treat" (ITT). However, given that there were differences at baseline for many of the outcomes, we also estimate a regression adjusted ITT impact, controlling for the level of the outcome variable at baseline. One of the limitations of the ITT approach is that it is not likely to detect a significant impact if the take-up rate of the treatment is low—which is the case in this pilot program.

The second set of outcomes considers the impact of LIFT-UP on those enrolling in the program. We first provide the treated group mean for each outcome as of the end of the evaluation period, as well as the change in the mean value from baseline to the end of the evaluation period (Treated Mean Δ). Because those selecting to enroll in LIFT-UP are different from those in the Control group (e.g., they have observed worse delinquencies and higher balances at baseline, and may have additional differences that are unobserved), we estimate a two-stage model to predict the impact of LIFT-UP among those treated, controlling for the likelihood of taking up treatment. This is known as the impact of the "treatment on the treated" (TOT). Appendix D provides a more detailed discussion of the methodology. This is the most reliable estimate of the statistical significance of the impact; however, with low take-up rates and small sample sizes, the magnitude of the estimates can be skewed. Thus, both descriptive and empirical estimates are provided to allow for a better picture of impact.

Table 6.2. Estimated Impact of LIFT-UP on Outcome Indicators, Final Period

			ITT				TOT
	Control Mean	Offer Group Mean	Diff. in Mean (Offer-Control)	Regression Adjusted, Offer Group	Treated Mean	Treated Mean Δ	IV Regression Adjusted, Treated Group
St. Petersburg	(N=3,582)	(N=656)			(N=86)		
Pr Shut-off (12 mos)	0.64	0.58	-0.06	-0.05***	0.16	-0.53	-1.040***
Balances (12 mos)	113.79	191.79	78.00	64.74***	622.83	292.82	373.39***
Pay/Bill Ratio (12 mos)	0.84	0.82	-0.02	-0.01***	0.67	-0.14	-0.171***
Avoidable Fees (12 mos)	148.46	141.53	-6.93	-9.70***	66.83	-99.30	-138.9***
Houston	(N=98)	(N=630)			(N=37)		
Pr Shut-off (12 mos)	0.96	0.99	0.03	0.03	0.97	-0.03	0.28
Balances (12 mos)	487.50	352.59	-134.90	-103.60	373.89	-170.10	-1437.00
Pay/Bill Ratio (12 mos)	0.19	0.22	0.03	0.03	0.48	0.36	0.69**
Avoidable Fees (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Savannah	(N=372)	(N=871)			(N=97)		
Pr Shut-off (12 mos)	0.42	0.70	0.28	0.246***	0.67	0.06	1.039***
Balances (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pay/Bill Ratio (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avoidable Fees (12 mos)	46.37	88.06	41.69	37.64***	73.20	10.31	143.6**
Newark	(N=199)	(N=266)			(N=62)		
Pr Shut-off (12 mos)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Balances (8 mos)	961.81	746.52	-215.29	-148.00	669.31	-299.91	-822.90*
Pay/Bill Ratio (8 mos)	0.24	0.31	0.07	0.08***	0.54	0.32	0.34***
Avoidable Fees (8 mos)	84.44	73.87	-10.57	-6.42	76.92	0.02	-24.54

*p<0.10; **p<0.05; ***p<0.01

Notes: Intent-to-treat (ITT) compares outcomes of the group of individuals who were offered LIFT-UP but who may or may not have enrolled, with a control group of individuals who were not offered LIFT-UP. Treatment-on-the-treated (TOT) compares outcomes of those offered LIFT-UP who enrolled (treated) to those in the control group. The IV regression model is a two-stage model, where treatment through LIFT-UP is predicted in a first stage, using the offer of LIFT-UP as an instrument. The regression-adjusted models control for the baseline measure of the outcome variable (per Table 6.1). In the TOT estimate, we also control for the outstanding balance at baseline in all models. In St. Petersburg, the TOT balance regressions also exclude extreme outliers, defined as those baseline balances in the top 1% of the distribution. In Savannah, the regression-adjusted models do not control for balance (as we do not have this data); instead, the TOT models control for shut-offs in the prior period and control for the billing cycle, given that groups were not assigned at random.

Probability of Shut-off

For three of the four cities, we can estimate the probability of experiencing a water shut-off for the period 12 months after baseline (**St. Petersburg**, **Houston**, and **Savannah**). Recall that a water shut-off is not a terminal outcome—it is quite common for households who are delinquent on their water bills to cycle in and out of shut-offs. In **St. Petersburg**, the probability of experiencing any shut-off is significantly lower for both the Offer and Treatment groups based

on the ITT and TOT estimates. Descriptively, **St. Petersburg** LIFT-UP participants are 53% less likely to experience a shut-off during the 12 months after enrolling in LIFT-UP, relative to the 12 months prior to enrollment (Treated Mean Δ). In **Houston**, there is a slight reduction in the probability of receiving a shut-off for those in the Treatment group (3%), but this difference is not statistically significant. Given that all households in **Houston** were on the shut-off roster to be considered for eligibility, this result is not surprising. In **Savannah**, the probability of experiencing a shut-off is significantly higher for customers in the Offer and Treatment groups, relative to the Control group. This may be partially explained by the significantly worse baseline probability of delinquency for customers in the Offer group. We explore this in more detail in the impact section for Savannah, below.

Outstanding Balance on Utility Bill

For three of the cities, we can estimate the change in the outstanding water bill balance, at 12 months post baseline (**St. Petersburg** and **Houston**) or at 8 months post baseline (**Newark**). This includes current as well as delinquent water bill charges. The duration of the payment plan for the delinquent balance will influence the ability to detect a noticeable decrease in the balance the end of the evaluation period. Recall that in **St. Petersburg**, most customers enrolled in LIFT-UP are on a 24-month payment plan. Relative to customers not enrolled in LIFT-UP (whose services would have been shut off), these customers carry a higher balance for a longer period. In fact, in **St. Petersburg**, we observe a significant increase in the outstanding water bill balance for customers in the Offer and Treatment groups. By contrast, in **Houston** and **Newark**, we observe a decrease in the outstanding balance for customers in the Treatment and Offer groups relative to the Control group—a decrease that is statistically significant for LIFT-UP customers in **Newark** at 8 months post baseline. The average customer enrolled in LIFT-UP has an outstanding balance that is $170 (Houston) or $300 (**Newark**) lower than when they first enrolled.

Payment to Bill Ratio

Another metric to consider is the frequency of making bill payments or the ratio of payments made to bills received in the 12-month period (**St. Petersburg** and **Houston**) or 8-month period (**Newark**) following baseline. This metric is perhaps more informative in cities that lack an aggressive shut-off policy, like **Houston** and **Newark**, relative to a city like **St. Petersburg** where shut-off occurs predictably with a delinquency. In **Houston** and **Newark**, customers incur fees for carrying a delinquent balance and may be placed on a shut-off roster, but the actual probability of having water services shut off for nonpayment is low. Thus, customers may fall into a habit of not making regular payments on their water bills until shut-off actually occurs. LIFT-UP may help break this habit through the restructured (monthly) payment plan for the delinquent balance. In fact, in both **Houston** and **Newark**, customers enrolled in LIFT-UP make payments at a significantly higher frequency than customers in the Control group: a ratio that is 69 percentage points higher for LIFT-UP customers in **Houston** and 34 percentage points higher for LIFT-UP customers in **Newark**.

Avoidable Fees

A final metric that can be compared across cities is the amount of avoidable fees saved during the 12-month period (**St. Petersburg** and **Savannah**) or 8-month period (**Newark**) following baseline. Avoidable fees include interest charges and fees for delinquent balances, shut-off, and turn on fees and late payment fees. These fees measure the cost of what a particular city considers a bad outcome (whether it is a shut-off or a delinquency), and the direct cost savings customers for preventing bad outcomes. In **St. Petersburg**, avoidable fees are significantly lower for customers enrolled in LIFT-UP relative to customers in the Control group: **St. Petersburg** LIFT-UP customers have an average of about $140 less in avoidable fees. **Newark** LIFT-UP customers incur also incur less in avoidable fees, but the difference is not statistically significant than the Control group when controlling for the baseline balance. By contrast, LIFT-UP customers in Savannah incur significantly higher levels of avoidable fees by 12 months post-LIFT-UP. Given the short duration of the payment plan in Savannah (4 months), it is possible that customers in LIFT-UP simply postpone their delinquency during the 4-month period and experience delinquency and incur fees at a higher rate post the end of their payment plans.

Discussion of Outcomes across Cities

The definition of success for an intervention like LIFT-UP differs by city because cities have different collections practices for delinquent water bills, which in turn lead to different customer payment behaviors. For cities like **St. Petersburg** and **Savannah**, standard collections practices prevent customers from incurring large outstanding balances and making infrequent payments. Delinquent customers have their water services shut off at a set (predictable) point in time shortly after missing a payment. Behaviorally, customers fall into a cycle of not making payments until water is shut off, then bringing their balances current to have water services restored, and then not making a payment until services are again shut-off. In these cities, preventing water shut-off is the targeted outcome for LIFT-UP. In **St. Petersburg**, we observe a significant reduction in the probability of water shut-off for LIFT-UP customers.

On the other hand, in cities like **Houston** and **Newark**, actual shut-off of services is not as frequent of an occurrence. Even if a water utility places a customer on a shut-off roster, it does not mean services will be terminated. Behaviorally, customers in these cities tend to carry large outstanding balances and make infrequent payments. In these cities, breaking the nonpayment cycle and reducing the size of the outstanding balance would indicate success for LIFT-UP. Indeed, LIFT-UP customers in both **Newark** and **Houston** have lower balances relative to the Control group at 8 and 12 months after enrolling in the program. And in both cities, customers are making payments at a significantly higher frequency relative to bills received.

Thus, while the impact analysis does not demonstrate unanimous positive impact of LIFT-UP across all outcome indicators, in three of the four cities (**St. Petersburg**, **Houston**, and **Newark**) there is evidence of a positive impact of LIFT-UP on the outcomes that are most relevant to the city and customer behaviors within that city. In the sections that follow, we explore in more detail an array of different outcomes and their evolution over time within the four cities.

Program Impacts: Houston

Table 6.3 provides a summary of outcomes at 3, 6, and 12 months post-baseline for **Houston**. Here, we consider the trend in outcomes over time. As with the probability of shut-off, LIFT-UP does not have a statistically significant impact on the number of shut-offs at 12 months. Customers in the LIFT-UP offer group have a significant (although small) increase in the probability of shut-offs at 3 months after baseline, and a small, significant increase in the number of shut-offs at 3 and 6 months. However, this difference is not statistically significant among customers enrolling in LIFT-UP (TOT). The reduction in the outstanding balance is statistically significant for both Offer and Treatment group customers at 3 and 6 months post-baseline. By 12 months, the difference is no longer statistically significant, and the magnitude of the difference is smaller. Customers enrolled in LIFT-UP are making significantly more frequent payments relative to bills at 6 and 12 months. The magnitude of the effect is greater at 6 months, suggesting that in **Houston**, LIFT-UP may reach its peak impact at 6 months post baseline and decline thereafter.

Table 6.3: Estimated Impacts of LIFT-UP, Houston

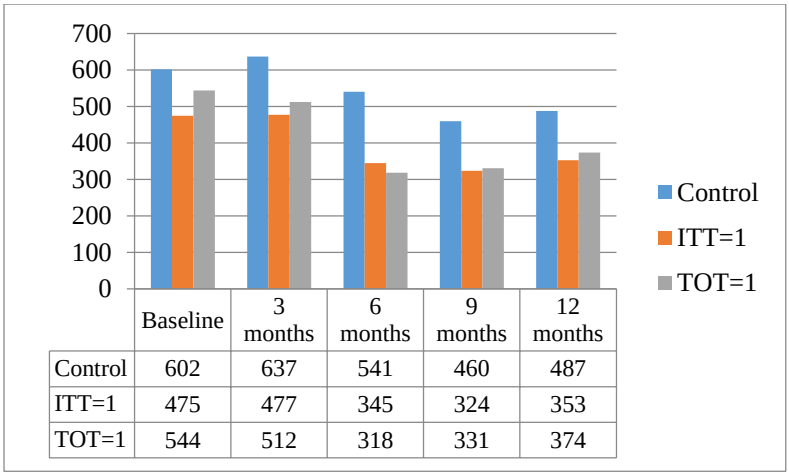
			ITT				TOT
	Control mean (T2) (N=98)	Offer Group Mean (T2) (N=630)	Diff. in Mean (Offer-Control)	Regression Adjusted, Offer Group	Treated Mean (T2) (N=37)	Treated Mean Δ	IV Regression Adjusted, Treated Group
Pr Shut-off (3 mos)	0.89	0.98	0.09	0.09***	0.57	-0.41	0.66
Pr Shut-off (6 mos)	0.95	0.98	0.04	0.04	0.78	-0.22	0.18
Pr Shut-off (12 mos)	0.96	0.99	0.03	0.03	0.97	-0.03	0.28
# Shut-offs (3 mos)	2.00	2.33	0.33	0.31**	0.84	-1.46	2.329
# Shut-offs (6 mos)	3.28	3.77	0.49	0.52***	1.51	-3.16	3.92
# Shut-offs (12 mos)	5.74	6.53	0.79	0.58	3.59	-4.78	3.266
Balances (3 mos)	636.65	477.36	-159.29	-85**	512.48	-31.50	-1,261**
Balances (6 mos)	540.85	345.06	-195.79	-154***	318.29	-225.69	-2,326***
Balances (12 mos)	487.50	352.59	-134.90	-104	373.89	-170.10	-1437
Payment/Bill Ratio (3 mos)	0.13	0.12	-0.01	-0.01	0.49	0.42	0.08
Payment/Bill Ratio (6 mos)	0.14	0.18	0.04	0.04*	0.56	0.48	0.85***
Payment/Bill Ratio (12 mos)	0.19	0.22	0.03	0.03	0.48	0.36	0.69**

*p<0.10; **p<0.05; ***p<0.01

Notes: Intent-to-treat (ITT) compares outcomes of the group of individuals who were offered LIFT-UP but who may or may not have enrolled, with a control group of individuals who were not offered LIFT-UP. Treatment-on-the-treated (TOT) compares outcomes of those offered LIFT-UP who enrolled (treated) to those in the control group. The IV regression model is a two-stage model, where treatment through LIFT-UP is predicted in a first stage, using the offer of LIFT-UP as an instrument. The regression-adjusted models control for the baseline measure of the outcome variable (per Table 6.1). In the TOT estimate, we also control for the outstanding balance at baseline in all models.

Figure 6.1 provides a visual confirmation of this trend with regard to the outstanding balance over time. The peak impact at 6 months makes sense, given that the duration of the restructured payment plan in Houston was typically 6 to 12 months.

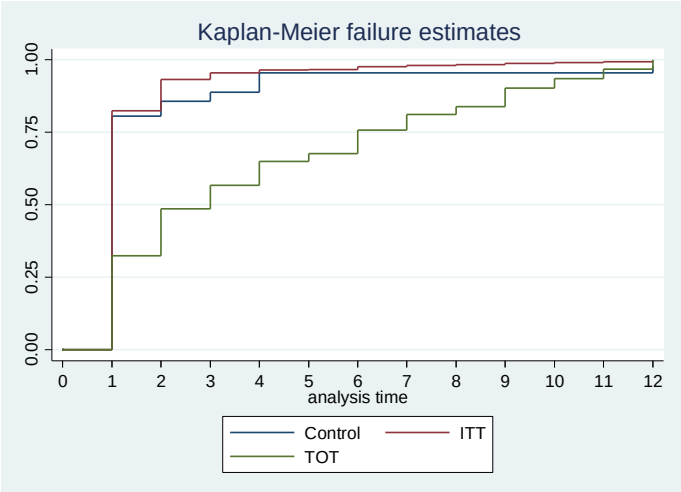
Figure 6.1: Houston, Account Balances Over Time



	Baseline	3 months	6 months	9 months	12 months
Control	602	637	541	460	487
ITT=1	475	477	345	324	353
TOT=1	544	512	318	331	374

Finally, we trace the evolution of the probability of experiencing a shut-off over time, using Kaplan-Meier failure estimates. Figure 6.2 graphs the probability of shut-off by month post baseline for the Offer (ITT), Treatment (TOT), and Control groups. The lower probability of shut-off for the Treatment group is apparent for the first several months, but then the impact diminishes over time, such that by the end of the observation period, most customers in the Treatment group have again received a shut-off notice.

Figure 6.2: Houston, Hazard of Shut-off



Program Impacts: Newark

Table 6.4 provides a summary of outcomes at 3, 6, and 8 months post-baseline for Newark. In Newark, account shut-off data was available at 3 months post baseline, and we present the results here. As expected based on Newark's standard collection practices (infrequent actual water shut-offs), the probability of receiving a shut-off notice is not statistically lower among Offer or Treatment customers. The direction of the impact is negative, relative to the control group. In terms of balances over time, a reduction in the outstanding balance occurs at 3 and 6 months post-baseline, but this reduction does not reach statistical significance until 8 months post baseline. While avoidable fees are lower for Treatment group customers than the Control group, this difference is not statistically significant when controlling for the baseline balance. The standard restructured payment agreement in Newark is 12 to 24 months. This may explain why the impact extends for a longer period of time in Newark than observed in Houston.

Table 6.4: Estimated Impacts of LIFT-UP, Newark

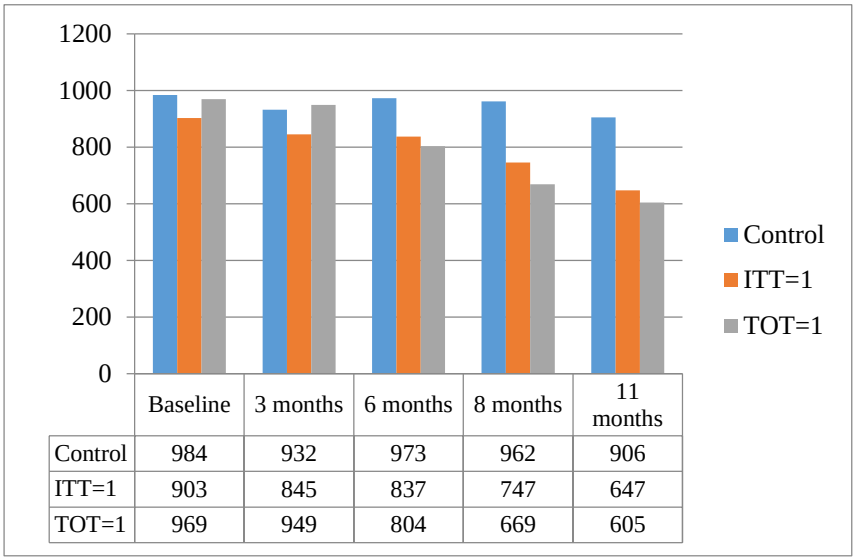
			ITT				TOT
	Control mean (T2) (N=199)	Offer Group Mean (T2) (N=266)	Diff. in Mean (Offer-Control)	Regression Adjusted, Offer Group	Treated Mean (T2) (N=62)	Treated Mean Δ	IV Regression Adjusted, Treated Group
Pr Shut-off (3 mos)	0.40	0.38	-0.02	-0.01	0.37	0.07	0.005
# Shut-offs (3 mos)	0.41	0.40	-0.01	0.00	0.41	0.11	0.05
Balances (3 mos)	932.43	845.29	-87.14	-9.09	949.37	-19.85	-46.40
Balances (6 mos)	973.18	837.02	-136.16	-66.21	803.74	-165.48	-419.50
Balances (8 mos)	961.81	746.52	-215.29	-148.00	669.31	-299.91	-822.90*
Payment/Bill Ratio (3 mos)	0.24	0.31	0.06	0.07***	0.55	0.24	0.32***
Payment/Bill Ratio (6 mos)	0.21	0.29	0.08	0.08***	0.54	0.30	0.40***
Payment/Bill Ratio (8 mos)	0.24	0.31	0.07	0.08***	0.54	0.32	0.34***
Interest/Fees (3 mos)	30.98	27.78	-3.2	-1.13	31.16	2.89	-8.86
Interest/Fees (6 mos)	63.60	56.73	-6.87	-3.28	61.05	3.64	-19.99
Interest/Fees (8 mos)	84.44	73.87	-10.57	-6.42	76.92	0.02	-24.54

*p<0.10; **p<0.05; ***p<0.01

Notes: Intent-to-treat (ITT) compares outcomes of the group of individuals who were offered LIFT-UP but who may or may not have enrolled, with a control group of individuals who were not offered LIFT-UP. Treatment-on-the-treated (TOT) compares outcomes of those offered LIFT-UP who enrolled (treated) to those in the control group. The IV regression model is a two-stage model, where treatment through LIFT-UP is predicted in a first stage, using the offer of LIFT-UP as an instrument. The regression-adjusted models control for the baseline measure of the outcome variable (per Table 6.1). In the TOT estimate, we also control for the outstanding balance at baseline in all models.

In Newark, Figure 6.2 descriptively traces outstanding balances over time through 11 months post-baseline, even though not all Treated customers are observed for the full 11 months. Here, we see that the trend in reduced balances persists at 11 months, where the average balance of those enrolled in LIFT-UP is $605, relative to an average balance of $669 for LIFT-UP customers at 8 months, and $969 at baseline.

Figure 6.2: Newark, Account Balances Over Time



	Baseline	3 months	6 months	8 months	11 months
Control	984	932	973	962	906
ITT=1	903	845	837	747	647
TOT=1	969	949	804	669	605

Program Impacts: Savannah

Table 6.4 provides a summary of outcomes at 3, 6, and 12 months post-baseline for Savannah. As with the 12-month outcomes, customers in the Offer and Treatment groups have a significantly higher probability of shut-off, a higher number of shut-offs, and incur relatively more avoidable fees at all points in time post baseline, relative to customers in the Control group. There are two possible explanations for this result. One possibility is that LIFT-UP actually exacerbated the probability of shut-off for enrolled customers. Given the short duration of the restructured payment plan (4 months), it is possible that breaking the typical shut-off/turn-on cycle in Savannah for a temporary period of a few months, and then returning to the cycle immediately thereafter actually made shut-off more likely for enrolled customers.

Given that LIFT-UP was not offered at random in Savannah but was based in part on geography, another possibility is that customers in the Offer (and Treatment) groups are simply more likely to experience shut-offs than customers in the Control group and that this increased likelihood persists over time. The Kaplan-Meier failure estimates graphed in Figure 6.3 provide some support for this hypothesis. Here, we trace the hazard of shut-off for six billing cycles post baseline (where billing cycles are every two months). The graphs demonstrate that the ITT (Offer group) has a much higher rate of shut-off across all time periods- beginning with the first billing cycle. While the Control group consistently has the lowest rate of shut-off, those enrolled

in LIFT-UP (TOT) have a much lower rate of shut-off through billing period 3 (6 months post baseline) relative to the Offer (ITT) group.

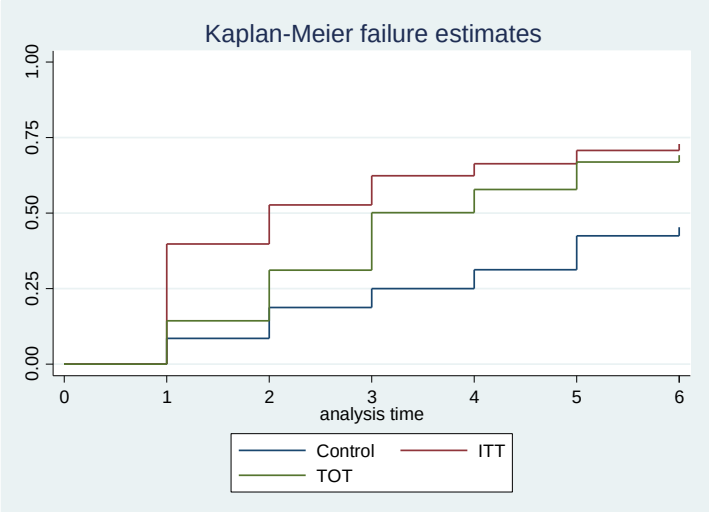
Table 6.4: Estimated Impacts of LIFT-UP, Savannah

			ITT				TOT
	Control mean (T2) (N=372)	Offer Group Mean (T2) (N=871)	Diff. in Mean (Offer-Control)	Regression Adjusted, Offer Group	Treated Mean (T2) (N=97)	Treated Mean Δ	IV Regression Adjusted, Treated Group
Pr Shut-off (2 mos)	0.08	0.41	0.33	0.326***	0.14	-0.15	1.185***
Pr Shut-off (6 mos)	0.24	0.62	0.37	0.358***	0.47	0.02	1.645***
Pr Shut-off (12 mos)	0.42	0.70	0.28	0.246***	0.67	0.06	1.039***
# Shut-offs (2 mos)	0.11	0.46	0.35	0.348***	0.15	-0.14	1.030***
# Shut-offs (6 mos)	0.31	0.91	0.60	0.584***	0.65	0.06	1.719***
# Shut-offs (12 mos)	0.63	1.31	0.68	0.609***	1.21	0.15	2.175***
Avoidable Fees (2 mos)	9.95	32.72	22.77	22.80***	10.82	-8.25	83.14**
Avoidable Fees (6 mos)	25.40	63.43	38.03	36.95***	41.24	5.15	113.9***
Avoidable Fees (12 mos)	46.37	88.06	41.69	37.64***	73.20	10.31	143.6**

*p<0.10; **p<0.05; ***p<0.01

Notes: Intent-to-treat (ITT) compares outcomes of the group of individuals who were offered LIFT-UP but who may or may not have enrolled, with a control group of individuals who were not offered LIFT-UP. Treatment-on-the-treated (TOT) compares outcomes of those offered LIFT-UP who enrolled (treated) to those in the control group. The IV regression model is a two-stage model, where treatment through LIFT-UP is predicted in a first stage, using the offer of LIFT-UP as an instrument. The regression-adjusted models control for the baseline measure of the outcome variable (per Table 6.1). In the TOT estimate, we also control for billing cycle, given that groups were not assigned at random. We do not control for balance, as we do not have this data.

Figure 6.3: Savannah, Hazard of Shut-Off

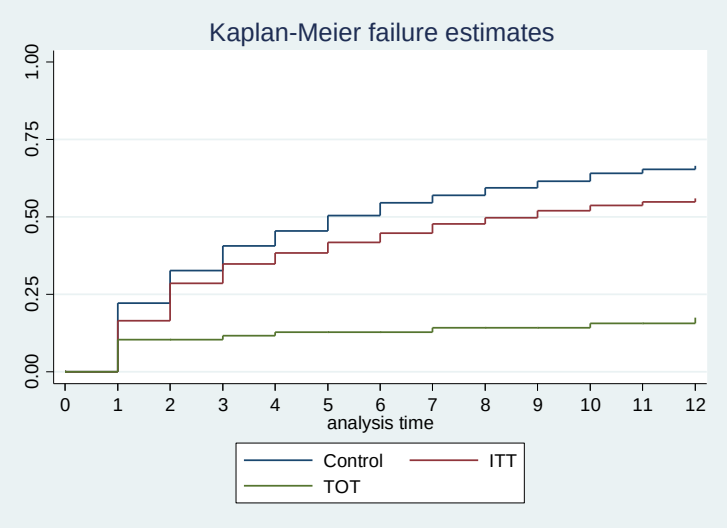


Program Impacts: St. Petersburg

Table 6.5 provides a summary of outcomes at 3, 6, and 12 months post-baseline for St. Petersburg. Here, we see that the probability of shut-off and the number of shut-offs are significantly lower for the Treated group across all periods, with the magnitude of the impact increasing over time. For the Offer group, the reduction is statistically significant at 6 and 12 months post-baseline. Similarly, the reduction in avoidable fees is significant at all points in time for the Treated group and increasing over time, whereas the difference becomes statistically significant at month 6 for the Offer group. The Kaplan-Meier failure estimates graphed in Figure 6.4 confirm this trend.

By contrast, the outstanding balance for customers in the Offer group and those enrolled in LIFT-UP increases over time, and this increase is statistically significant at all periods. There are a few possible explanations for this. First, as demonstrated in Figure 6.5, customers in the Treated group start with higher balances, and thus it makes sense that the relative magnitude of the outstanding balance would be greater for this group. However, the statistical model accounts for balances at baseline, and thus this difference should not be driving the result.

Figure 6.4: St. Petersburg, Hazard of Shut-Off



Another possibility is that by breaking the shut-off cycle for customers in St. Petersburg, customers who have become accustomed to waiting until shut-off to make a payment lose the "signal" to make payments. Customers enrolled in LIFT-UP who fail to make payments do eventually end up getting water services shut off, but they were given a grace period to begin making payments when they initially enrolled in LIFT-UP. This grace period allowed balances to grow for LIFT-UP customers. Further, payment plans typically extend 24 months for customers in St. Petersburg. It is possible that the trend in significantly higher balances will not persist over time—however, at 12 months it appears that balances are growing at a higher rate than for the Control group.

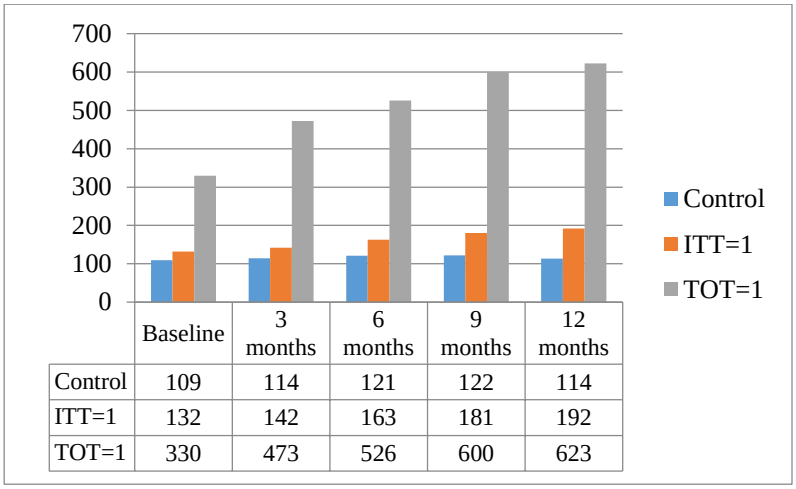
Table 6.5: Estimated Impacts of LIFT-UP, St. Petersburg

			ITT				TOT
	Control Mean (T2) (N=3,582)	Offer Group Mean (T2) (N=656)	Diff. in Mean (Offer-Control)	Regression Adjusted, Offer Group	Treated Mean (T2) (N=86)	Treated Mean Δ	IV Regression Adjusted, Treated Group
Pr Shut-off (3 mos)	0.40	0.38	-0.02	-0.03	0.12	-0.21	-0.762***
Pr Shut-off (6 mos)	0.53	0.48	-0.05	-0.06**	0.13	-0.34	-1.029***
Pr Shut-off (12 mos)	0.64	0.58	-0.06	-0.05***	0.16	-0.53	-1.040***
# Shut-offs (3 mos)	0.54	0.52	-0.02	-0.02	0.12	-0.28	-0.923***
# Shut-offs (6 mos)	0.95	0.87	-0.08	-0.08*	0.13	-0.60	-1.622***
# Shut-offs (12 mos)	1.52	1.35	-0.17	-0.17***	0.16	-1.37	-2.501***
Balances (3 mos)	114.46	141.73	27.27	15.65***	472.64	142.63	258.40***
Balances (6 mos)	121.43	162.77	41.33	28.43**	526.00	195.99	179.27***
Balances (12 mos)	113.79	191.79	78.00	64.74***	622.83	292.82	373.39***
Payment/Bill Ratio (3 mos)	0.85	0.86	0.02	0.019**	0.69	0.01	-0.12
Payment/Bill Ratio (6 mos)	0.84	0.84	0.00	0.01	0.68	-0.08	-0.06
Payment/Bill Ratio (12 mos)	0.84	0.82	-0.02	-0.01***	0.67	-0.14	-0.171***
Avoidable Fees (3 mos)	47.02	46.79	-0.24	-1.56	23.92	-21.78	-50.79***
Avoidable Fees (6 mos)	86.42	84.28	-2.14	-4.31**	39.48	-48.78	-90.70***
Avoidable Fees (12 mos)	148.46	141.53	-6.93	-9.70***	66.83	-99.30	-138.9***

*p<0.10; **p<0.05; ***p<0.01

Notes: Intent-to-treat (ITT) compares outcomes of the group of individuals who were offered LIFT-UP but who may or may not have enrolled, with a control group of individuals who were not offered LIFT-UP. Treatment-on-the-treated (TOT) compares outcomes of those offered LIFT-UP who enrolled (treated) to those in the control group. The IV regression model is a two-stage model, where treatment through LIFT-UP is predicted in a first stage, using the offer of LIFT-UP as an instrument. The regression-adjusted models control for the baseline measure of the outcome variable (per Table 6.1). In the TOT estimate, we also control for the outstanding balance at baseline in all models. The TOT balance regressions (at 6 and 12 months) also control for extreme outliers, defined as those baseline balances in the top 1% of the distribution.

Figure 6.5: St. Petersburg, Account Balances Over Time



	Baseline	3 months	6 months	9 months	12 months
Control	109	114	121	122	114
ITT=1	132	142	163	181	192
TOT=1	330	473	526	600	623

Chapter 7: Supplemental Analyses

This chapter provides a discussion of LIFT-UP outcomes from the perspective of the municipality and the customer. For the municipality, the cost-effectiveness of the program is an important outcome. Using data on costs reported by St. Petersburg as well as impact estimates from the prior Chapter, we discuss scenarios under which the LIFT-UP model would break even or save revenue for the municipality.

For the customer, it is important to consider individual experiences with the program and customer satisfaction. We summarize insights collected by CFS personnel through interviews with LIFT-UP participants across all five cities.

Cost Effectiveness Analysis

To estimate the cost-effectiveness of LIFT-UP, we selected one of the five cities, St. Petersburg, FL, to examine in detail. St. Petersburg submitted a final report to NLC detailing the costs to the city of delinquent accounts, as well as the costs incurred during the pilot implementation of LIFT-UP. To the extent that LIFT-UP reduces account delinquency, the city saves revenue that it would have otherwise incurred. How does the revenue saved (by a lower rate of delinquent accounts) compare to the cost of implementing the LIFT-UP program? The aim of the cost-effectiveness analysis is descriptive—to present different scenarios under which the LIFT-UP program would be cost effective.

Annually, the water utility in St. Petersburg accumulates about $2.4 million in costs associated with managing customers' delinquent accounts. This includes the cost of managing a delinquent account ($38 per account), the cost to shut off water services ($14.60 per occurrence), and the cost to turn-on water services ($14.60 per occurrence). A large portion of these costs (about $1.9 million) is passed on to customers through delinquency fees and charges. However, these costs are only recouped to the extent that customers bring their bills current. The city writes off about $533,000 in delinquent utility debt each year. Standard costs associated with managing customers' delinquent accounts are shown in Table 7.1.

Table 7.1: Costs Associated with Delinquent Accounts, St. Petersburg

	Cost to City	Fee Charged to Customer	Estimated Annual Cost
Delinquent Account	$38.00	$35.00	$81,000
Shut-Off Cost	$14.60	$15.00	$895,000
Turn-On Cost	$14.60	$15.00	$895,000
Debt-Write Off	--	--	$533,000
Total			**$2,404,000**

During the pilot implementation of LIFT-UP, St. Petersburg kept track of costs incurred. Table 7.2 summarizes costs associated with the implementation of LIFT-UP in St. Petersburg. Total cost per LIFT-UP participant during the pilot implementation is estimated to be about $260. Some of the costs are unique to the research design integrated as part of the pilot. For example, the cost to recruit participants ($11.80 per customer) was largely a function of the need to offer the program to a random subsample of the delinquent population, rather than offering the program to any delinquent customer contacting the utility. This cost included utility staff member time to contact and follow-up with eligible households. The technical support cost of $19.44 per customer includes the additional time for IT staff to assist with data tracking and extraction for the evaluation—this may or may not be part of an ongoing implementation of LIFT-UP. In addition, financial incentives ($80 per customer) were part of the LIFT-UP pilot, but it is not clear if such financial incentives would be necessary or feasible for large-scale implementation.

Other costs are likely to continue to be an ongoing part of the model, but efficiencies may be realized over time. For example, there is a small cost to the staff member time to enroll a customer in a payment plan ($3.60 per customer), as well as staff member time to monitor LIFT-UP customer accounts and reach out if payments are missed ($26.67 per customer). The financial counseling cost in St. Petersburg included a $100 fee for an initial financial counseling session, as well as $17.50 for a credit report. In future iterations of the model, it may be that some customers could be provided with more or less financial counseling, depending on their unique needs (to be discussed in Chapter 8 of this report).

Table 7.2: Costs of LIFT-UP Implementation, St. Petersburg

	Amount per Customer	Total Cost
Recruitment/Outreach	$11.80	$1,062
Enrollment in Payment Plans	$3.60	$324
Ongoing Outreach	$26.67	$2,400
Technical Support	$19.44	$1,750
Counseling & Credit Report	$117.50	$10,575
Financial Incentives to Customers	$80.00	$7,200
Total	**$259.01**	**$23,311**

Notes: For the purposes of estimating total cost, we limit the sample to the 90 customers in St. Petersburg who enrolled in LIFT-UP; thus, we multiply the cost per participant by 90. Actual costs may be higher if the number of participants contacted or enrolled is higher. For example, St. Petersburg reported a total recruitment cost of $45,045, including 3,804 contacts made to eligible participants to recruit them to participate in the pilot. The average cost per contact is $11.80.

To evaluate the cost-effectiveness of LIFT-UP, it is important to consider different scenarios under which the cost to implement the model would be equal to or less than the savings to the utility from a reduction in delinquent accounts. First, we can consider the "avoidable fees" that are reduced by participating in LIFT-UP. In St. Petersburg, avoidable fees include delinquency fees, shut-off and turn-on fees. While these are fees that are incurred by customers, they ultimately reflect the cost to the utility of managing the delinquent account (as indicated in Table 7.1). Thus, reducing these fees is a net gain to the customer and the utility. Based on the 12-

month impact estimates in St. Petersburg, participation in LIFT-UP is associated with about $140 less in avoidable fees per customer over a 12-month period, relative to otherwise similar customers not enrolled in LIFT-UP. This is due in large part to a reduction in water shut-offs among LIFT-UP participants who are actively making payments. These savings represent about 54% of the $260 estimated cost per customer to provide LIFT-UP. If this rate of reduced fees were to continue for 24 months, the savings from avoidable fees would more than cover the cost to provide LIFT-UP. This may be possible, given that the typical customer has a 24-month payment plan. However, this assumes that the impact continues at the same rate and does not decline over time.

Another cost savings that is more complicated to estimate is the savings to the city of not writing off delinquent utility accounts to bad debt. It is difficult to estimate the exact proportion of the 90 LIFT-UP customers who would have otherwise had their accounts written off to bad debt if they did not enroll in LIFT-UP. However, we can estimate the proportion that will successfully complete the program- that is, the proportion who will pay off their delinquent balance in full. As of 12 months post baseline, roughly 30% of LIFT-UP customers have completed LIFT-UP and paid off their past due utility debt (Chapter 5, Table 5.3). Based on the completion rates in other cities, it is likely that at least 40% of customers will complete the program within 24 months from baseline.

The average LIFT-UP customer in St. Petersburg had an outstanding balance of $330 at baseline (Chapter 6, Table 6.1). If we estimate that 40% of customers will bring their balances to $0, this is an average cost savings of about $130 per LIFT-UP customer. If 50% of delinquent accounts are written off to bad debt each year, this would represent an average savings of $65 per LIFT-UP customer per year, based on the reduction in charges being written off to bad debt. To the extent that this reduction continues over time, this amount could be doubled to represent the 24-month payment plan length of most participants.[29]

Based on this analysis, the cost savings from the LIFT-UP pilot in St. Petersburg could be as high as $270 per customer, including $140 per customer saved in avoidable fees and $130 per customer saved in delinquent debt. This savings is greater than the $260 cost to implement LIFT-UP during the pilot period. It is expected that the cost to implement the program would decline if the program were brought to scale. Some of the costs are specific to the evaluation conducted with the pilot, and would not be incurred on an ongoing basis (e.g., IT support costs and participant recruitment costs). The cost of ongoing outreach would decline per customer when spread across a larger number of customers, and the financial incentive may not be necessary if LIFT-UP were implemented as part of ongoing practices. Thus, it is reasonable to conclude that LIFT-UP can be implemented in a cost-effective manner that saves water utility costs for the city, while improving the financial stability of city residents.

[29] It is important to caution, however, that at 12 months post baseline, the average LIFT-UP participant in St. Petersburg actually had an increase in outstanding balance (Chapter 6, Table 6.5 & Figure 6.5). If the LIFT-UP program is brought to scale in St. Petersburg, it is likely that the water utility will make programmatic changes to reduce the growth of the balance.

LIFT-UP Participant Interviews

To provide additional context for the evaluation results, a member of the CFS evaluation team interviewed LIFT-UP participants in each city, including one participant in Houston, two participants in Louisville, one participant in Newark, two participants in Savannah, and one participant in St. Petersburg.

The interviews were conducted by phone and lasted an average of 15 minutes each. The LIFT-UP city team leaders identified receptive participants and explained the interview process to the participants. Within a few days, a member of the CFS evaluation team contacted the participants. The evaluators requested city team leaders to select a mix of participants, including those who were positive about the program as well as those who were negative. However, those with more positive experiences were more likely to respond to the request to be interviewed.

The summary of responses should not be viewed as an unbiased assessment of the program; rather, they offer insights from the point of view of a select group of LIFT-UP participants. The participants who talked with the CFS team were generally excited about the program and eager to share their stories. The interview questions had four specific areas of focus, corresponding to the outreach process, the payment plan, the financial counseling session, and their overall financial health. Interview questions are provided in Appendix E. We summarize the feedback provided below.

Outreach

Participants were asked to describe how they heard about the program and their initial reaction to the offer. The majority of the interviewees reported hearing about the program from the city. One participant from Louisville reported hearing about LIFT-UP from a Catholic charity rather than the city. She became a "word of mouth" enrollee.

When the interviewees recalled their initial reactions to the LIFT-UP program, they remembered feeling very positive about the program. Below are select quotes from the participants in each city:

- "I was grateful because I needed the help. I didn't want to be shut off but I didn't have that amount of money to pay off my bill." (**Newark**)
- "I was behind. I had been out sick because of my diabetes. And I was calling every month asking for an extension. And then she offered it to me." (**St. Petersburg)**
- "They kept in touch and kept telling me about the program. I was having trouble making the mortgage and then we started getting water cutoff notices." (**Houston**)
- "I needed the help. I was very happy. It was the shut-off notice that prompted me to come in." (**Savannah**)

- "I was excited and said it came at the right time. I was doing a lot of praying. I was in 'dire straits' because I had to leave work for medical reasons and go on disability." (**Louisville**)

Payment Plans

Participants were asked to describe their experiences with the payment plan for their restructured utility debt, including how it helped them (if at all). Generally, the interviewees felt that their payment plans were an appropriate amount to pay, although this varied by city, as each city had a different structure for the payment plans.

- In **Newark**, one interviewee expressed that her financial counselor was very respectful about making sure she could pay the amount of the plan: "They based it on my income and my monthly bills. It worked for me… I knew if I had a problem I could have asked for a lower amount."
- Another interviewee in **Houston** explained how the restructured debt helped her to get out of the partial payment trap: "It really helped us until we were able to get back on our feet. We didn't have to deal with fees or anything. Before this program, we were making partial payments to keep our water from being shut off. They sent us reminders. Like a payment agreement confirmation. With the credits they were giving us we were able to get the payments current."
- In **Savannah**, one interviewee felt that the payment amount was a bit too high: "I did feel like it was a little too high. I did scramble up enough to send it in… I would have preferred six installments. It should have been a little longer to allow you to pay it off."
- However, a participant in **Louisville** expressed that the payment amount was initially too low: "It was too low. I had previously been through financial counseling and learned financial budgeting skills, so I requested a higher payment plan."
- Interestingly, it was not just the restructured debt amount that participants appreciated about the payment plans. In **Louisville**, a participant also expressed satisfaction with the ability to move her payment due date: "They asked me if I wanted to change my bill date. The fifth of the month was the right time… of the month because I get my disability check on the third. Some of my bills were falling in the middle of the month and some at the end of the month. And I was getting confused and getting late payment fees."

Financial Counseling

Participants were also asked how they felt about the financial counseling component of LIFT-UP, and whether or not it was useful to them. Most interviewees reported being satisfied with their counseling session and especially reported feeling listened to and respected:

- "I didn't feel like I was being forced into anything. I felt like I was in control of my account." (**Louisville**)
- "I loved the way I can talk to her about things. We looked at things I could cut down on together." (**Louisville**)

- "These people are real professionals. They helped me find out what was happening with my house. My mortgage company was pushing me around and I didn't have anyone to help me." (**Savannah**)
- "[The trained utility customer service associate] was the person who was really calling us and keeping us informed…She was giving us leads on employment. She had phone numbers for us. And when one thing fell through, she helped us with other things. She was making sure that we weren't having trouble paying our water bill. She coached us on any other concerns we had." (**Houston**)
- "To sum it up, he was awesome. He listened to me and was willing to work with me. He was very good. When he quoted me the amount that I was responsible for on a monthly basis, he asked if I could handle that amount." (**Newark**)

Participants were also asked to describe their experiences with creating a budget and action plan, and the referrals for additional FE services. Most participants were generally positive about their experiences:

- "I couldn't see where my money was going so I was often short or in the negative. Before LIFT-UP, I was short 12/12 months. During the first month, I had to adjust and was short then, but I started making good habits and now I have no problems." (**Louisville**)
- The same interviewee explained how LIFT-UP helped her to work with **Louisville**'s bi-monthly budgeting cycle: "…with the billing every other month, I would think that I had a whole month to catch up but then something always happens and then I didn't have enough to pay my bill. I always owed something and was paying monthly anyway."
- "I'm managing my bills and money much better than I was in the past… For instance, she [her financial counselor] explained that I could make changes to my cable bill. She explained that I could still keep cable, and helped me get on a payment plan with [Louisville Gas and Electric]. And in the winter, people came out to help me put plastic on my doors."[30] (**Louisville**)
- The interviewee from **Houston** enjoyed the motivational class, commenting, "When I went to the class, there were some things we could have changed. We have started to make those changes now… It was really fun. We enjoyed it. He shared with us his experiences. I passed the information onto my family members and the book.[31] I shared it with my sisters. I was really glad that my husband and I attended."

A few participants expressed frustration about the limits of budgeting on a fixed income. For example, a **Savannah** participant commented, "I was telling her that I don't have enough money

[30] She is referring to the Louisville Department of Community Service's partnership with Kentucky's Community Action agency, which offers weatherization services. http://www.communityactionky.org/weatherization.html
[31] Lonnie Matthews, who conducted the motivational classes, passed out a book called "Spend Everything."

to hardly live. I was disabled and my money runs out….The money that I have is spent every month. There was nothing to cut."

In general, the interviewees did not report difficulty in gathering the documentation they needed for the counseling session or difficulty in getting to the location of the counseling. Even the **Newark** interviewee was satisfied with coming to City Hall. One elderly lady from **Savannah** did her counseling over the phone because she was not physically able to come to CCCS.

Financial Health – Finally, LIFT-UP participants were asked questions about their overall financial health, including factors that contributed to their difficulty making their water bills, as well as whether they are now able to pay their bills on time and are better able to manage their finances overall. Interviewees report different reasons for struggling to pay their bills, including:

- Being a fixed-income senior with high medication costs (**St. Petersburg**)
- Being a disabled senior on a fixed income (**Savannah** and **Louisville**)
- Unemployment, underemployment, and unpredictable work hours (**Houston** and **Savannah**)
- Having to cover the funeral expenses of two relatives, causing a temporary setback (**Newark**)
- Poor money management and disorganization (**Louisville**)

One participant in **Houston** described how LIFT-UP helped to take control of her finances during a crisis and provided some psychological relief: "[LIFT-UP] has helped me immensely. We don't have to worry about the late fees and cut off fees. We're able to pay our bills. Just knowing that there is one bill that you can pay, it really does help. It not only helped me, it kind of bumped my self-esteem and my husband's self-esteem and it breaks a person if they can't provide for their family. It was good to know there was somebody to help me."

Another participant in **Newark** reported that LIFT-UP had helped her "focus on her bills," but did not feel that she generally struggled to pay her bills. She had fallen behind because of an emergency, and said, "I only had the one set back. I don't go out, smoke or drink for the most part. I'm a state of New Jersey employee. I just mostly have to take care of the household."

Of interviewees who were asked the question, all of them felt that LIFT-UP had prevented their water from being shut off and would recommend it to a friend. Here were a few of the interviewees' closing thoughts about LIFT-UP:

- "It's a good program for everyone who is struggling financially. My life is changed already because my house was saved." (**Savannah**)
- "Hope y'all keep this up. I hope this can continue on because this is a very good program." (**Louisville**)
- "It was such a change to get a call from somebody who wanted to help me, instead of telling me we're gonna turn this off and turn that off. It was such a relief to have a positive response." (**Houston**)
- "I have recommended LIFT-UP to a friend." (**Newark**)

Chapter 8: Key Insights and Implications

This chapter of the report summarizes key insights that can help inform future program modifications and potential expansions. During all stages of the LIFT-UP pilot, emphasis has been placed on peer learning—sharing best practices and challenges that emerge along the way in an effort to lead to long-term program improvements. The findings in this chapter result from a "process analysis," reflecting on the interactions and insights that have been gathered throughout the design, implementation and evaluation of LIFT-UP.

Specifically, the insights summarized in this chapter are culled from the information shared during LIFT-UP webinars, TA calls, site visits, and cross-site meetings, as well as interviews with stakeholders and customers engaged in the LIFT-UP process.[32] The report groups insights into ***three core learning areas***, reflecting different aspects of the LIFT- UP system.

The first learning area explores the opportunities and challenges of ***creating new targeting and referral systems*** within the municipal infrastructure to identify struggling residents. Innovation does not occur on in a vacuum but within existing systems that have established processes for getting work done. Successful implementation of municipal innovations requires recognition of the existing system constraints while identifying opportunities to leverage change. These opportunities and constraints exist at the policy field level where local government leaders, policymakers, nonprofit innovators and program administrators come together around an idea for system change. Opportunities and constraints are also found at the operational level within the municipal agency—in this case, publicly owned water utility companies with their own technologies for managing and tracking utility customer information. Finally, opportunities and constraints arise at the frontlines, where customers engage directly with the municipal service. Each city had its own strategy for targeting customers and restructuring utility debt, some strategies more successful for generating take-up and other strategies potentially more valuable for creating sustainable change.

The second learning area emphasizes the core of LIFT-UP—***financial innovations with customer utility debt***. There are often tradeoffs to consider when designing any financial innovation. The financial product that is the most ideal for the consumer may not be feasible within the existing debt collection infrastructure. Implementers often need to identify creative ways to work within or even shift the existing debt collection system. We share some examples from LIFT-UP that could be replicated in other municipal debt innovations. In addition, there are tradeoffs to the amount of customization built into debt restructuring. On one hand, customization may improve the likelihood of customer success. On the other hand, customization may require capacity that is not sustainable to bring an innovation to scale. Finally, drawing

[32] CFS evaluators engaged with cities throughout the two-year implementation period to document processes and insights and to facilitate the evaluation. The CFS principal investigator met one-on-one with each city team during the initial cross-site meeting in January 2014, and again at the conclusion of the pilot in January 2016. CFS evaluators participated in monthly cross-site webinars with NLC and city implementation teams. CFS evaluators also participated in two on-site visits with each city over the two year implementation period (either remotely or in-person).

examples from LIFT-UP, we discuss different financial and non-financial incentives that can be employed to encourage participation and follow-through.

Finally, the third learning area reflects on the ***financial empowerment options*** that were provided as part of LIFT-UP. Across cities, it became apparent that different customers have different financial empowerment needs. Aligning the interventions to meet customer needs requires an understanding of the behavioral challenges underlying delinquent utility payments, sufficient outreach to motivate customers to participate, as well as adequate authority to adapt interventions to better meet customer needs.

Creating New Targeting and Referral Systems

The first learning area begins with the foundation of the LIFT-UP architecture- creating new "on-ramps" within municipal systems to identify struggling residents. At the outset of the LIFT-UP initiative, NLC understood that each city would have different capacities and capabilities and that structural differences would lead to different programmatic designs. However, the degree of heterogeneity between municipal utility systems, and the extent to which that heterogeneity would impact LIFT-UP implementation was largely unknown.

Any implementation system can be broken down into three levels:[33] (1) the policy field level, including the regulations, ordinances, and politics that frame what is even feasible within a given program; (2) the operational (or organizational) level, where general mandates (e.g., collection revenue from customers for water services) get programmed into specific procedures and practices; and (3) the frontlines, where residents interact directly with the service being provided, through engagement with customer service workers or technology based platforms established to manage intake. At each level, different factors influence the implementation and ultimate success of an initiative. Figure 8.1 summarizes some of the key factors at each level that were influential for LIFT-UP across the five cities.

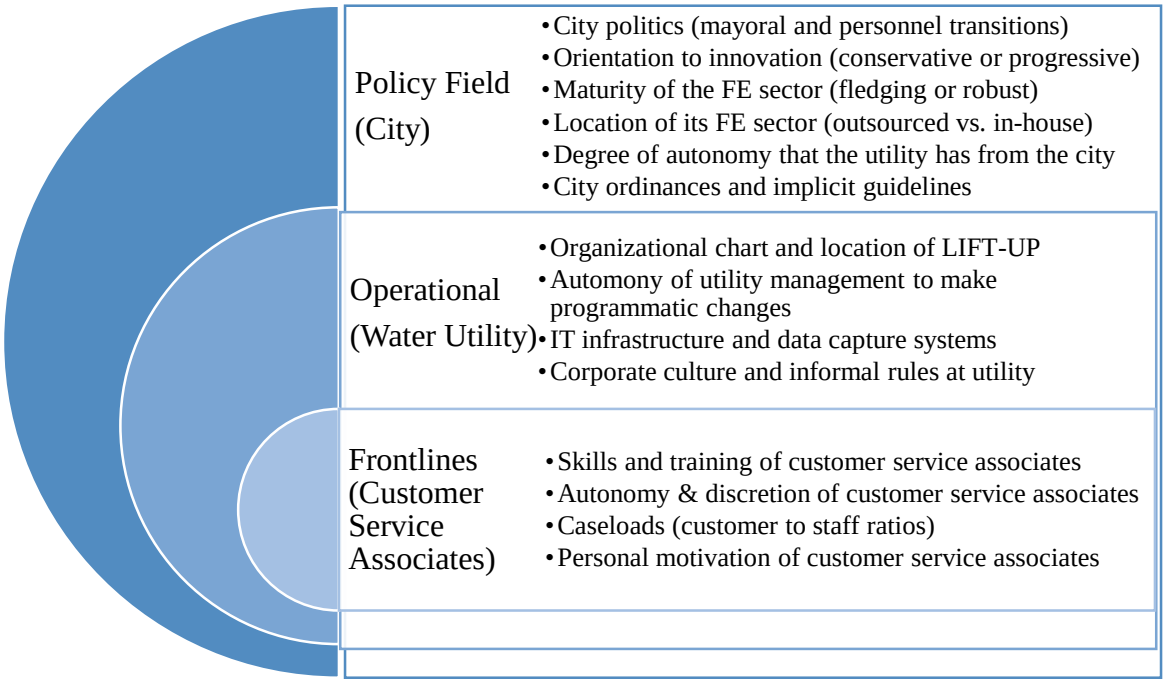
State and city ordinances have influenced the LIFT-UP initiative since its inception. The earliest LIFT-UP meetings explored municipal debt amnesty, similar to a program in Washington, D.C.[34] However, water utility professionals pointed out that in many American cities, forgiveness of municipal debt is prohibited by statute.

During LIFT-UP implementation, the LIFT-UP teams had to navigate between remaining in compliance with ordinances and obtaining enough flexibility to offer LIFT-UP customers a truly innovative financial product. Often, in the face of unexpected circumstances, LIFT-UP

[33]The terminology regarding the implementation system is borrowed from the book *Effective Implementation in Practice: Integrating Policy and Management*, by Jodi Sandfort and Stephanie Moulton (2015), Wiley Press.
[34]With funding from the Ford Foundation, NLC brought a few city leaders and foundations together in 2012 to explore this concept. Washington, DC was originally one of the five pilot cities, but had to drop out of the pilot early on due to capacity constraints.

implementers had to make programmatic decisions on the spot—building the aircraft while flying it at the same time.

FIGURE 8.1: System Factors Influencing LIFT-UP Success



Some of the infrastructure factors must be taken as they are—there are certain things that will not change during the implementation of a new initiative like LIFT-UP. On the other hand, some factors may be malleable—levers that can be potentially adjusted to improve program impact. These levers are present at each level in the municipal system. At the policy field level, implementers can proactively secure stakeholder commitment to the innovation. At the operational level, implementers can identify the opportunities and constraints of the existing technological infrastructure. And, at the frontlines, implementers can identify promising targeting and referral strategies that are most likely to engage the desired target population. Below, we discuss each lesson in turn.

LESSON 1: Secure Stakeholder Commitment to the Innovation

The first lesson is so fundamental that it is often overlooked. Any lasting innovation to a municipal system requires stakeholder commitment. Important stakeholders in the policy field include policymakers, public officials, agency staff, nonprofit leaders, private philanthropists and organized citizen groups (such as neighborhood associations) who can affect or can be affected by the innovation. It is important to not only consider those stakeholders who have legal

authority over the municipal system, but also those who are viewed as thought leaders in the community who may be able to shift public perceptions of the issue at stake. These respected leaders are often well positioned to bring new ideas or disseminate best practices.

For LIFT-UP, the NLC served as the initial thought leader that planted the seed of LIFT-UP within the pilot cities. However, in each city, the seed had to be cultivated by local officials and thought leaders to bring the concept to fruition within the context of the individual municipality. NLC provided ongoing support to facilitate this cultivation, but ultimately, the success of LIFT-UP depended on the buy-in and leadership of local stakeholders.

In each of the LIFT-UP cities, there was an initial champion within city government, as described in Chapter 2 of this report. The champion often had a prior relationship with NLC, and was committed to supporting the implementation process—even though the champion was often not responsible for implementation directly, he/she had considerable legitimacy and authority within the community to mobilize the change process. In some cities, this required securing additional buy-in from other political leaders (such as city council), as well as leaders within the municipal utility departments and financial empowerment provider organizations. While each city is unique, there are a few best practices that were observed across the LIFT-UP pilot sites.

- ✓ **Identify the city champion who has the authority and leadership to spearhead the innovation.**

  In each city, the person championing LIFT-UP was not only in a position of authority but also possessed leadership skills needed to navigate the sometimes arduous technical and political challenges that arise during implementation. For LIFT-UP, the initial champion was often in the "background" and not present in the day-to-day discussions of implementation with the city teams. However, the champion could be activated as needed if a roadblock emerged that required skillful navigation of the municipal context.

- ✓ **Ensure that relevant stakeholders are at the table and informed throughout the process.**

  Beyond the initial champion, successful implementation of LIFT-UP required buy-in from a variety of stakeholders. Some of the stakeholders, like city council, were satisfied to be informed of the program up-front, with modest updates as needed throughout implementation. Other stakeholders, like the utility department management staff, needed to be engaged more directly on a continuous basis, as the program required the time and commitment of their staff and resources.

LESSON 2: Review the Capabilities of Data and Reporting Systems

Tracking customer utility data was an important component of LIFT-UP, not only for the evaluation but also for the implementation. For the evaluation, identifying the impact of LIFT-UP on customer payment patterns required data on customers before and after the LIFT-UP initiative. But tracking data was not only about the evaluation—the ability to effectively target

customers for LIFT-UP is dependent upon the availability of accurate utility data. Knowing which customers are struggling to pay their utility bills—and the subset of customers that may benefit the most from an intervention like LIFT-UP- requires utility staff to be able to extract and monitor customer payment data. However, early on in LIFT-UP, CFS evaluators learned that the IT professionals tasked with retrieving utility data were often limited by the capacities of the information systems in place at municipal utility companies.

Some of the data systems in the LIFT-UP cities dated to the 1990s and were limited in their ability to extract data on customers over time. In **Savannah**, data on billing, payments and shut-offs were maintained in three separate data files, and there was not a clear mechanism to link the data files over time. Other systems, such as **Newark**'s IT system, had been installed more recently, were upgraded regularly and presented fewer extraction and monitoring challenges. However, even with a more advanced database, understanding the types of data to track and monitor over time—and having the staffing capacity and skills to do so—can be a challenge. Two types of data challenges were encountered in LIFT-UP: (1) data operational challenges, or difficulty stemming from the capacity of the IT system infrastructure and the staffing time and skills required to extract data; and (2) data information challenges, or difficulty making sense of the data being tracked due to data errors, lags in reporting, and lack of clarity regarding expectations for the evaluation.

Operational challenges – Three of the five cities encountered substantial operational challenges with their IT systems during the implementation of LIFT-UP. In **Houston**, an IT system upgrade interrupted the availability of data at the beginning of implementation, delaying the launch in **Houston** by several months. In **Savannah**, much of the customer identification and data collection had to be done manually given the antiquated IT system, placing a significant burden on staff. In **Louisville**, staff turnover in the IT department after the initial launch of the program placed substantial burden on the remaining staff to extract and aggregate data, delaying their ability to provide data for the evaluation. Across all cities, municipal IT professionals are often juggling multiple projects and in some cases may have limited time to work on data extraction and reporting.

Informational challenges – Even if data systems are in place, making sense of the information extracted was a substantial challenge across all cities in the LIFT-UP program. Unlike other types of billing data (e.g., mortgage loan data or data reported to credit agencies), there is no standard format for reporting utility data. In the five pilot cities, the utility data systems rarely tracked "delinquencies" explicitly (e.g. number of days delinquent). Instead, delinquencies have to be inferred from fees, interest charges, or changes in payments and bills over time. Each city has its own procedures for assessing fees and charges, as described in Chapter 2 of this report, further complicating comparisons across cities. Some of the major informational challenges encountered during LIFT-UP included timing lags, difficulty linking data over time and across datasets, and lack of clarity regarding data needs for the evaluation.

Timing lags – A common criteria for identifying LIFT-UP customers was to target customers with an outstanding balance that crossed a particular threshold (e.g., $500). However, sometimes there is a lag between a customer making a payment and when the payment posts to the system.

This can distort a customer's "real time" outstanding balance. When this occurs, customers in good standing may be falsely identified as eligible, and eligible customers who would benefit from the program may be overlooked. Further, during the implementation of LIFT-UP, there was often a time lag between the time a customer was identified as eligible in the utility data, and when they are contacted to enroll in the program- sometimes by as much as several months. The customer may have resolved their past due balance by the time they were contacted for LIFT-UP, making them no longer the appropriate target group for the program. This can make the take-up number appear artificially low; a portion of the customers offered LIFT-UP may actually have been ineligible for the program by the time they responded to the offer.

Louisville developed a sophisticated targeting strategy, creating an algorithm that used data on balances, fees, and charges to identify customers most at risk. However, delays in the reporting of balance data in the system led to customers being flagged for LIFT-UP who had actually already paid their balances in full. This contributed to a lower take-up rate in **Louisville**, as a non-substantial portion of the customers contacted for LIFT-UP were actually ineligible, as described in Chapter 5 of this report.

Difficulty linking data – CFS tracked customer data for the LIFT-UP evaluation for two years, one year before and after the launch of LIFT-UP in each city. Linking customer data over time proved challenging in many of the cities. In some cities, account numbers are tied to addresses rather than customers, and identifying a customer required merging in an additional identifier (that may change over time). Utility data is only maintained for a customer as long as they reside within the city (and in some cases, at the same address). Thus, when a customer moves, the data drops from the sample. To the extent that there is a lag between the account closure and the time that data is pulled from the system, the customer may be absent from reporting for several months when the account was still active. Understanding the processes used to track closed accounts is critical to both implementation and evaluation.

Lack of clarity regarding data needs for the evaluation – At the outset of LIFT-UP, NLC and CFS worked closely with the cities to identify the data the cities would need to collect for the evaluation. CFS selected one city (**Newark**) for initial testing and refinement of the outcomes to be tracked for the evaluation. CFS assumed that all water billing and payment systems were relatively similar, and the processes for tracking data in **Newark** would be transferable to other LIFT-UP cities. However, not all cities had equally sophisticated systems. Several months into the implementation of LIFT-UP, it became apparent that the IT systems in each city were unique and most were less sophisticated than the system in **Newark**.

Aside from having different IT systems, cities collected different types of data. Water utility data can contain different types of debits and credits, including but not limited to: bills, payments, account adjustments, interest charges, fees (late fees, nonpayment fees, shut-off fees, and reactivation fees), balance transfers, bad debt write-offs, and security deposit refunds. It is very seldom that a data reporting system is sophisticated enough to report these events with a specific label. It is much more common for a data system to report any credit as a "payment," even if it is a refund or balance transfer. This contributed to confusion and lack of clarity regarding the types of data needed for the evaluation.

The CFS evaluation team did not know upfront which types of data to request from each city, as each city had a different system with different indicators. An individualized data strategy had to be worked out with each city during implementation, engaging IT personnel within the city to identify the outcomes that could be tracked over time for that city and ensure that the data was being interpreted appropriately. This consumed more staff time and expertise than CFS and the city teams had anticipated. It would be preferable to take steps early on to understand the data system and its capabilities, as well as the processes to meet the data needs for the evaluation.

- ✓ **Orient key LIFT-UP implementers to the utility data reporting system**

  Using data successfully for implementation and evaluation requires more than the ability to extract data—it requires the ability to understand how to use data to make program decisions and improvements. For LIFT-UP, cities that were able to most successfully leverage their data systems were those that brought IT staff together with utility billing and collections staff to identify indicators to track over time. IT professionals may know how to extract data from billing and payment systems, but unless they are also intimately familiar with billing policy, they may not know which indicators to pull and how to verify the validity of the data. Bringing implementers together with IT staff will help reduce operational and informational challenges. It can also help foster information sharing and may increase interest and participation across the utility.

  Louisville offers a positive example of leveraging utility data to inform LIFT-UP implementation. As mentioned previously, **Louisville's** LIFT-UP implementation team worked closely with the Louisville Water Company's business development analyst to create an algorithm to identify customers at the greatest risk of incurring fees or having their water shut off. The algorithm resulted in a score for each customer in **Louisville**'s target area, enabling the Community Services staff to focus recruitment efforts on the top scoring households. Communication and collaboration between IT and water department staff and the Community Services department were vital to the successful use of data.

- ✓ **Plan LIFT-UP implementation around system and personnel capacity**

  Several of the cities engaged in LIFT-UP faced IT system conversions and staffing changes during implementation. On one hand, system changes can present an opportunity to implement a new program or build in new features (like budget billing or monthly billing). A new IT system conversion or update provides an opportunity to make changes to otherwise ingrained processes, allowing for innovation.

  On the other hand, staffing resources are typically strapped during system conversions, and simply maintaining the basic operations becomes a priority, putting new innovations on the back burner. Ideally, implementers should try to obtain a calendar of planned system upgrades, which constrain system and personnel capacity, before initiating outreach. They should also build considerable slack into the implementation timeline, in anticipation of data reporting delays.

- ✓ **Verify data against individual account information**

  Data extracted from large databases (such as billing and payment databases) may have idiosyncrasies that are difficult to detect without applying the data to an actual case. Particularly when extracting data on customers over time, it may be easy to mistake something observed in the data (like a person moving from one address to another) for something else (like a shut-off). To help address this issue, we found it helpful to randomly sample a few customer accounts, and compare the payment and billing history for those accounts as reported in the database with the information available to customer service staff. Customer service staff can often help explain idiosyncratic data observed on an account, which can help flag potential issues in the larger database.

LESSON 3: Target the Right Customers at the Right Time

Across all five cities, take-up numbers were lower than anticipated, requiring city teams to retool their outreach strategies. Initially, it was assumed that LIFT-UP was an offer "too good to refuse." After all, LIFT-UP offered delinquent customers a chance to sustain their water service, while receiving free financial counseling and financial incentives. In fact, some customers reported that they perceived the initial offer to be too good to be true, believing it to be a scam and thus not responding. Some customers reported that they did not want to share their personal information with a government entity, and thus did not wish to participate.[35] Other customers did not perceive the potential benefit of the reduction in utility debt to be worth the cost of their time to participate in the financial counseling.

A potential solution to the misperceptions surrounding LIFT-UP would be a city-wide promotional campaign to raise awareness and establish legitimacy. However, given that LIFT-UP could only be offered to a subset of clients (due to cost constraints and the needs of the evaluation) such a campaign was not feasible. Within the LIFT-UP constraints, city teams worked hard to revise their messaging and outreach strategies, engaging the assistance of behavioral economics experts to review their materials. For example, based on the advice of ideas42, **Savannah** revamped its outreach postcard to emphasize preventing the loss of water service (tapping into customer loss aversion) rather than the financial incentive and saw an immediate improvement in take-up.

Another challenge to take-up is ensuring that the right customers are being targeted with the outreach message. Most notably, customers may not respond to the offer if they are no longer delinquent on their utility debt. This was a common theme across all five cities. As noted previously, there was often a considerable lag between the time customers were initially screened for eligibility and when they received the offer to participate in the program, during which customers may have self-cured their own delinquency. In addition, customers who are too delinquent in debt or lacking any source of income may not be able to afford any repayment plan, regardless of its generosity.

[35] One person voluntarily withdrew for the LIFT-UP program, stating this concern as the reason.

LIFT-UP teams worked to select eligibility criteria that would target the appropriate clients. City teams selected different thresholds for delinquent balances, with some requiring customers to have lower past-due amounts and thus more limited time for repayment (**Savannah**), while other cities (**Newark**) targeted customers with much higher delinquent amounts and thus provided longer repayment periods. City teams attempted to target customers in crisis, by flagging receipt of social services (**Louisville**), having experienced a service termination in the past (**Savannah**, **Newark**) or being at immediate risk of shut-off (**Houston**). These customers in crisis are in contrast to customers who chronically pay their bill at the last minute, but are not experiencing acute financial distress, sometimes referred to as "floaters."[36]

Most of the eligibility criteria were applied before outreach; therefore, any customer who was contacted would have been eligible to enroll. But two cities, **Louisville** and **Newark**, further screened customers for eligibility (based on additional criteria) after they responded to the offer. In both cities, customers needed to demonstrate sufficient income to afford a repayment plan. In **Louisville**, 48% of all customers who responded to the LIFT-UP offer were ineligible to enroll for a variety of reasons (see Chapter 5, Figure 5.2).

From these experiences, best practices emerge that can guide future implementation.

- ✓ **Apply disqualification criteria before outreach**

  From an efficiency and customer relations perspective, it may be better to exclude ineligible individuals before attempting outreach, rather than to screen for eligibility after they respond. This reduces the cost of outreach (by contacting fewer ineligible customers), saves time during intake, and may reduce the potential for dissatisfied or demoralized customers.

  Certain criteria, such as prior unauthorized water usage, should be identifiable in utility data sources that could be integrated prior to flagging clients for eligibility. Other criteria, such as income, may not be known by the utility until after the customer responds and provides the information. In **Louisville**, nearly half of the accounts that were ineligible were ineligible due to lack of income (see Chapter 5, Figure 5.2). The utility staff would have no way to know this in advance, as income data is not regularly collected by city utility companies—contact with the participants was necessary to collect income information. An alternative to ineligibility would be to offer such customers a different intervention—such has a referral to a social services organization or employment agency—combined with a repayment plan.

- ✓ **Leverage shut-offs and avoidable fees to motivate participation (loss aversion)**

  Behavioral economics posits that people tend to be more responsive to preventing a loss than gaining a benefit. Preventing the loss of water can be a powerful motivator to

[36] Actually, at utilities with no late fees (**Savannah**) or very low interest charges (**Newark**), this behavior is completely economically rational, even for a person who could pay their bill on time, depending on the returns they get from their investments or savings. For a person who is cash strapped, they can often "borrow" money from their water utility, even if they have an aggressive late fee structure, at a lower rate than they could borrow it on the free market.

participate in the LIFT-UP program, perhaps more powerful than the offer of a financial incentive. The LIFT-UP team in **Savannah** learned this lesson early on. As mentioned above, the postcard offering LIFT-UP initially emphasized the financial incentive (see Appendix B). When take-up was less than expected, they reframed the postcard to emphasize preventing water shut-off by participating in LIFT-UP.

The risk of shut-off is a more powerful motivator in cities where shut-off is perceived to be frequent. For a financially struggling household that is facing a scarcity of funds, every bill is in competition with all other household bills. People may pay their utility bills based on which utility has the reputation of being quickest to shut-off services for nonpayment. In most of the LIFT-UP cities, customer service associates reported that the electric utility companies have a reputation for being more punitive than the water utility—with a higher likelihood of disconnecting services for nonpayment and less flexibility for past-due debt. This is likely because electric utilities are often private companies, whereas the water utilities in the LIFT-UP cities are publicly owned, and thus have a public mission that they balance against their bottom line.

Even if water shut-off is less frequent, all cities do eventually disconnect services for nonpayment, and/or charge interest and fees. LIFT-UP may be viewed as a more attractive alternative to households if offered immediately prior to service disconnect. If interest and fees are more of a risk than shut-off, informing consumers of the money that they are losing to "avoidable fees" can be a powerful motivator. The LIFT-UP team in **Houston** leveraged this strategy. While shut-offs are infrequent and unpredictable, residents can accumulate significant amounts of avoidable fees. In the offer to participate in LIFT-UP, **Houston** emphasized the dollar amount of charges that the resident lost in the past year to avoidable fees due to nonpayment.

- ✓ **Don't assume that LIFT-UP is an "offer they can't refuse"—messaging matters!**

  As a final note, the experiences with LIFT-UP reinforce the importance of messaging—even for an offer that seems too good to turn away. Well-designed messaging is important to building legitimacy for the program. This is important for written and telephone communications to residents about the program, as well as communications with other city partners who may be able to make referrals to the program. As LIFT-UP is being rolled out, implementers can send announcement emails to Utility Payment Assistance providers, other FE providers in the city, other nonprofit organizations within the city and other city agencies that deal with the public. Signage within the utility can help promote awareness among utility staff and signage or brochures at other city agencies can help establish the legitimacy and visibility of the LIFT-UP program.

Financial Innovations with Utility Debt

The second learning area encompasses one of the key innovations at the very core of LIFT-UP—restructured customer utility debt. Early on, NLC engaged municipalities to learn what sorts of

innovation were possible to help customers resolve delinquent utility debt. It was quickly learned that debt forgiveness was not technically feasible in most cities due to city ordinances and policies. However, other strategies were possible, including extended repayment plans for past due debt and financial incentives for the completion of program milestones.

As described in Chapter 3 of this report, municipalities tailored the debt repayment structure to the needs and parameters of their communities. What one city may consider innovative may already be standard practice in a different city. For example, prior to LIFT-UP, the city of **Savannah** had a rigid policy for delinquent debt, requiring repayment of half of the debt up-front and the subsequent delinquent amount within one month to prevent water shut-off. **Savannah**'s LIFT-UP innovation, which included a reduction in the amount due in full up-front and an extended repayment period of four months for LIFT-UP customers, was a considerable change from the status quo. By contrast, in **St. Petersburg** and **Houston**, flexible payment plans for delinquent debt were not unusual prior to LIFT-UP. The LIFT-UP innovation was to incorporate a customer's budget into the process for establishing the debt repayment amount-offering even more flexibility for LIFT-UP customers relative to the status quo.

Heterogeneity in the innovations across the five LIFT-UP cities allows for comparisons of strengths and weaknesses of different practices that can inform future program improvements and replication. Below we describe three lessons learned regarding the opportunities and constraints of the current billing systems, customization of payment plans and the use of incentives to motivate take-up and follow-through.

LESSON 4: Understanding Opportunities and Limitations of Existing Payment Structures

One of the core financial innovations of LIFT-UP is a restructured payment plan for past-due utility debt. While repaying past-due debt is important, it is also important that customers stay on track with new utility bills they incur while they are paying back past debt. Creating one payment that combines both the past-due amount and new utility charges is likely easiest for the customer to manage. However, this requires that the utility make customers aware of the total amount to pay with each bill, ideally through a modified billing statement that includes both amounts. It also requires that there is a set due date for both bills that occurs simultaneously. This can be challenging if the utility typically issues water bills every other month or on a set cycle that it cannot easily adjust.

Four of the five LIFT-UP cities (every city except **Houston**) employ a team of on-foot meter readers who must physically visit a property and read a meter before the utilities can generate a bill. This manual meter-reading process can be expensive for a city. In order to cut down on staff time, meter readers record usage every other month in **Savannah** and **Louisville**, and bills are subsequently generated bi-monthly. While bi-monthly billing may save the water utility money, customers who are on fixed or limited incomes may have difficulty managing a bill that comes due every other month. In a report on best practices for municipal water utilities, American Water Resources claims that "for whatever reason, or combination of reasons, that a customer

encounters difficulty in paying a water bill, that difficulty is always lessened if the bill is reduced."[37]

In **Savannah**, the utility debt repayment amount was structured to be repaid monthly, while the current charges continued to be billed on a bi-monthly schedule. Water company policies and limited capacity prevented **Savannah** from adopting a monthly payment schedule for ongoing bills for LIFT-UP customers. Instead, **Savannah** utility staff developed a written agreement with customers that explained the three payments that customers would need to make to remain enrolled in LIFT-UP in addition to their regular bills. Despite this signed agreement, having two separate water bills due at two different times contributed to confusion for LIFT-UP participants, leading some to pay their monthly restructured debt amount but not their ongoing utility payments. Unfortunately, this may actually make customers more delinquent after exiting the LIFT-UP program, to the extent that they become behind on new utility charges that accrue while they are in the program. In a survey of LIFT-UP customers in **Savannah**, 88% of respondents reported that they would prefer to pay a smaller water bill amount each month than continue with bi-monthly billing.

In **Louisville**, utility bills are also due bi-monthly, but for the LIFT-UP program, enrolled customers were put on a monthly payment plan that included a budgeted amount for the new utility bill, as well the amount of the repayment of the past due debt.[38] The metro government in **Louisville** integrates FE services, facilitating the alignment between the new utility debt and the restructured debt worked out with the FE provider. In addition, FE providers in **Louisville** sent out monthly text message reminders to LIFT-UP customers prior to their billing due dates.

In summary, the frequency of billing is important- not only for the restructured debt payment, but also for the ongoing utility debt. While monthly billing is ideal, monthly billing may not be technically or politically feasible in some cities. In these cases, cities should consider alternatives to either encourage monthly bill payments (even if the actual bill is not generated monthly), or offer budget billing for off-cycle bills.

- ✓ **Encourage monthly bill payments**

  Not all cities have the budget or capacity to transition to monthly billing, but all cities can encourage customers who are behind on their payments to adopt monthly bill paying on their own by making a partial payment in advance of a bi-monthly bill. Some customers may wish to pay monthly, but are locked into "a partial payment" cycle in which they are paying enough to keep their water service on but always maintaining a delinquent balance (that is subject to interest and late fees). The key benefit of LIFT-UP for these customers may be the opportunity to pay down their balance and reset this cycle, affording them the opportunity to pay monthly if they wish.

[37] (Cromwell III, et al., 2011, p. 7)

[38] **Louisville** is transitioning to monthly billing and is rolling out the transition by billing route. Eventually **Louisville** will bill monthly city-wide, which the financial counselor used to help justify enrolling customers in monthly payment plans.

In **Savannah**, customer service staff mentioned that some of their senior residents on fixed incomes voluntarily pay their water bill monthly. When they receive their Social Security check, they bring in a payment to the water company for about half of their typical billing amount. This informal strategy could be encouraged for other customers with fixed incomes who may benefit from making smaller payments every month.

- ✓ **Offer budget billing**

  Budget billing is a process by which a customer's water utility bill is averaged over a period of time (typically a year) and then divided into estimated monthly payment increments. Customers pay the estimated amounts each month, regardless of whether or not utility staff physically read a water meter. When utility staff read the meter, they record the actual amount. At the end of a period of time (typically a year), a truing up occurs, whereby the customer pays or receives the amount owed or credited based on the difference between the estimated and actual water usage. For the city, this creates the benefits of a monthly bill without the cost to the city of monthly readings. For the customer, the estimated amount due is the same each month creating predictability for households living on a fixed income. This can help prevent the "sticker shock" that results from seasonal variations in water consumption.

  A downside of this strategy is the potential "shortfall" that may occur when actual water usage is calculated. It may be difficult for a household on a fixed income to make an off-cycle payment to adjust for the shortfall, placing them at risk for delinquency. For the utility, a potential challenge to budget billing is the IT infrastructure needed to generate such a bill. **Savannah** considered this strategy but was unable to implement it given their current IT system. As the city transitions to a new IT system, they hope that the new system is equipped with monthly and/or budget billing capabilities.

LESSON 5: Consider Tradeoffs of Flexible vs. Inflexible Debt Repayment Plans

Cities had the latitude to develop a structure for repayment of delinquent utility debt that fit their customers' needs and their systems' capacities. Some cities offered prescribed plans that were the same for every customer, whereas other cities offered tailored plans based on individual ability to pay. Each approach has strengths and weaknesses; while more flexible payment plans are more responsive to customers' needs, they require more time to develop and manage. Prescriptive payment plans can be easier to implement and manage.

Across cities, a variety of factors informed the designs of payment plans, including:

- the current IT infrastructure at the water utility and ability to set-up and track debt repayment;
- the capacity of water utility staff to work out and monitor payment plans with customers;
- the degree of autonomy that the utility has within the city government to set its own policies and procedures;

- the degree of autonomy that the customer service staff have within the utility;
- the city's customer service orientation towards its residents;
- the average amount of the delinquent balance of eligible LIFT-UP customers;[39]
- the length of existing payment plans available to all water utility customers; and
- the degree of coordination between the LIFT-UP implementers at the water utility and the FE providers.

Table 8.1 summarizes the strengths and weaknesses of prescriptive approaches versus more customized approaches. Sometimes, a city had little flexibility in its current structure and could only offer a more prescriptive payment plan. In **Savannah**, every successful LIFT-UP customer made four payments — a 25% down payment and three additional monthly payments— regardless of the size of their outstanding balance or demonstrated ability to pay. As noted earlier in this chapter, this was innovative in **Savannah**, given the constraints of current policies that typically do not allow payment plans longer than two months and require 50% down payment.

Table 8.1: Comparison of Prescriptive and Customized Payment Plans

	Prescriptive Payment Plans	Customized Payment Plans
Strengths	- Immediate enrollment in payment plans by customer service associations - Less staff time to work out individualized plans based on budgets - More equitable across customers - Tends to be shorter duration; easier to track progress and completion - More structured release of incentives upon key payment milestones	- More responsive to customers' financial needs and capacities - Repayment amount likely more affordable for a given customer based on their budget - Incentivize customers to participate in financial counseling and build a relationship with the financial counselor - Longer duration may allow for more time to address longer-term financial stability
Weaknesses	- Payment amounts may not be affordable to customers and may not address underlying financial instability - Does not reflect differing customer needs and reasons for delinquency - Less incentive to participate in financial counseling if not required as part of the payment plan	- More capacity required to implement, including staff time to set the amount and IT capabilities to track repayments - Longer duration of repayment makes tracking participation outcomes more difficult; more attrition due to relocation - More difficult to scale-up with a broader population

In addition to being more technically feasible in some cities, prescriptive payment plans offer other benefits. Customer service associates at the water utility can enroll customers immediately by rather than waiting for a financial review to determine the appropriate payment amount. This can be important for a customer at risk of shut-off; waiting to meet with a counselor may allow further charges to accrue and make it more difficult to recover once the payment plan begins. Further, customers may view prescriptive plans as more "equitable," as everyone receives the

[39] This is a function, directly, of how high an account's delinquent balance is allowed to climb before water service is terminated. In cities with aggressive service termination policies, this balance has a fairly hard cap; in cities with more lenient policies, this balance can become very high.

same benefit who participates in the program. Prescriptive plans also tend to be shorter in duration, making participation and successful completion easier to track.

On the other hand, prescriptive payment plans have several weaknesses. Because the approach does not align the amount of repayment with the customer's budget, the amount of the payment may not be realistic or affordable. The customer may either not comply with the repayment amount or may neglect other bills while they settle their debt with the utility, thus perpetuating the cycle of financial imbalance and not improving long-term stability. The prescriptive approach treats all customers the same—which may not be appropriate given different reasons for delinquency. A customer experiencing a short-term unemployment spell may benefit from a different type of payment plan than a customer with a chronically low fixed income. Further, if financial counseling is not required to determine the amount of the payment plan, customers may not have an incentive to complete financial counseling.

For the LIFT-UP program, most cities adopted a more flexible payment plan approach in which the LIFT-UP customer met with a financial counselor to create a budget, and then the counselor and customer decided together how much the customer could repay each month. Customized plans required approval from someone at the water utility, although, during the pilot, payment plans were generally accepted without revision. Cities typically set a maximum duration of time for repayment and/or minimum monthly repayment amount and then had latitude within that structure for individual customer needs. As one might expect, the resulting payment plan often reflected the most lenient structure permissible. For example, **St. Petersburg** set the minimum monthly repayment amount at $5 per month. In meetings with the financial counselor, most all of the customers received the $5 per month repayment plan with a few exceptions for customers who demonstrated the ability to repay more each month.

A strength of a customized payment plan include is the increased likelihood that the customer will be able to afford the repayment amount, as it is tailored to his or her budget. Also, the customer is empowered to work with the counselor to identify a realistic plan. This may increase trust between the customer and the counselor and lead to more engagement in the financial counseling process. The longer duration of customized plans may allow the counselor and customer to work on issues of financial instability for a longer period, increasing the likelihood of long-term success. However, more customized approaches can be time and resource intensive for utility staff, financial empowerment providers, and customers. It may be more difficult to scale up a customized payment plan structure, given the associated costs. Given these strengths and weaknesses, we recommend finding a middle ground that fits the capacity of the utility.

- ✓ **Find a middle ground: consider payment plan tiers**

  While customized payment plans offer benefits for some households, they may not be necessary for all households. As learned in **St. Petersburg**, it is likely that many customers will be placed in the most lenient plan available. Thus, having two or three different options may not only be more technically feasible but may align well with different types of client needs. Cities could develop a formula or to assign customers into different payment plan options based on income and the amount of the delinquent

balance. A more formalized structure can simplify the process for implementers, allow for the development of boilerplate forms and repayment schedules and ultimately, may be easier to navigate for the customer.

- ✓ **Be realistic about the capacity to implement customized payment plans**

  LIFT-UP customers may prefer customized payment plans, but they require more of the implementers' time and other resources. Cities can develop prescriptive plans that integrate some of the elements of the customized plans. It is important to be realistic about the time, staffing, and other resources the team will be able to commit for the duration of the project when deciding what kinds of plans to offer.

LESSON 6: Think Strategically about Incentives

Each LIFT-UP city offered financial incentives to customers who enrolled in the program. As discussed in Chapter 3 of this report, the timing and amount of incentives varied considerably between cities. The extent to which financial incentives were powerful motivators for enrollment in LIFT-UP is unclear; most cities reported that the flexible repayment plan and ability to avoid shut-off was a more powerful motivator to enroll in LIFT-UP than the financial incentive. However, this varied by city and the extent to which the financial incentive represented a substantial portion of the customer's balance.

Some cities used financial incentives to motivate participation in the financial counseling session. **Houston**, for example, provided a $25 incentive upon completion of the initial session and $25 for completion of the financial class. **St. Petersburg** and **Newark** also tied financial incentives to class completion. In these cities, LIFT-UP teams reported that the financial incentives seemed to be an important motivator to follow-through with the sessions. However, to the extent that cities required customers to complete financial counseling sessions in order to enroll in a payment plan, it is impossible to parse out the independent effect of the financial incentive. Three of the cities (**Houston**, **Louisville,** and **St. Petersburg**) tied financial incentives to on-time payments. It is unclear if these incentives motivated payment behaviors.

Financial incentives may be a motivator for participation in LIFT-UP; however, it is unclear if they truly changed behavior in the program. Given the additional cost of offering financial incentives, it is useful to consider other "non-financial" incentives that may also motivate participation and follow-through. For example, Neighborhood Home Solutions (NHS) in **St. Petersburg** offered a tri-merge credit report to Treatment group participants, which cost the city around $20. While by law, consumers may access a free credit report once per year, NHS staff members provided line-by-line interpretations of the reports and recommendations for improvements. This may serve as a low-cost incentive that provides the customer with something useful and tangible to bring home after a session. NHS counselors reported that many LIFT-UP customers had never seen their credit reports before.

In many cities, participation in LIFT-UP meant waiving a significant amount of late fees and interest charges that would otherwise accrue on customers' delinquent balances (in addition to a

hold on having water service shut-off). In **Louisville**, the utility company agreed to waive (at their discretion) eligible fees/penalties for participants who completed the program. In **Savannah**, customers sometimes brought their LIFT-UP postcards into the utility after the utility had terminated their service as a means of getting their water service restored.

Aside from financial savings, there were often "collateral" incentives to participation in LIFT-UP—incentives that the cities did not formally plan as part of the program design, but nonetheless produced a benefit that was not available to the average customer. In **Louisville**, the financial counselors encouraged LIFT-UP customers to move their billing date to a more convenient time during the month. This courtesy is available to all Louisville Water Company customers but is not well publicized. In **St. Petersburg**, as an incentive for completing the enrollment paperwork, the LIFT-UP team lead offered a 30-day grace period, with no money down, during which late fees and service terminations would be suspended to allow customers time to visit the financial counselor without incurring an additional penalty. The City of **Houston** only conducts customer service interactions over the phone or via web chat. However, LIFT-UP participants were permitted to have in-person interactions with their customer service representative as part of their financial coaching.

- ✓ **Consider collateral incentives that can be offered to LIFT-UP participants**

  At the outset of the LIFT-UP program, financial incentives were considered to be an important part of the design for each city. While city policy restricted cities from forgiving past due debt, the cities were able to offer credits to be applied to accounts as incentives for program participation or completion of milestones. During the implementation of LIFT-UP, cities learned that non-financial collateral incentives might motivate participant behavior as much or more than financial incentives. Cities could incorporate these collateral incentives into program materials early on, instead of or in addition to financial incentives.

- ✓ **When possible, link LIFT-UP to existing utility assistance programs**

  Payment plans offered through LIFT-UP operated independently of other utility assistance programs in the cities. This does not have to be the case; in some cities, it may make sense to partner with providers of utility assistance to enroll customers in longer term payment plans and financial empowerment services in conjunction with the receipt of short-term utility assistance. Most of the cities participating in LIFT-UP have knowledge of local utility assistance providers and some already coordinate with them to assist customers in need.

Linkages to Financial Empowerment

The third learning area unpacks the linkages to financial empowerment services—both linkages between utility customers and financial empowerment services and linkages between the

municipal utility and financial empowerment providers. The integration between financial empowerment services and the municipal utility varied considerably across cities participating in LIFT-UP, ranging from completely integrated within city government (**Louisville**), to third-party providers (**Savannah**, **St. Petersburg** and **Newark**), to training customer service associates in-house to provide services (**Houston**). Different providers have different orientations to financial empowerment that influence the array of services offered to LIFT-UP customers. In **Savannah**, Consumer Credit Counseling Services (CCCS) of Savannah traditionally focuses on credit and debt management counseling, while Neighborhood Home Solutions (NHS) in **St. Petersburg**'s main line of business is preparing households for a home purchase. **Newark**'s provider tended to focus more on general financial counseling and coaching; **Houston** also trained staff using a financial coaching model. **Louisville**'s in-house Department of Community Services traditionally placed substantial emphasis on case management.

An important lesson from LIFT-UP was that each of these models had something to offer LIFT-UP customers. Customers with different financial situations benefit from different approaches, and the array of variation present across the five cities helped elucidate some of the differences. Rather than a "one-size-fits-all" approach, there is likely a benefit to tailoring financial empowerment services to the needs of the customers and the capacities within the cities.

LESSON 7: Align Financial Empowerment Services with Customer Needs

Customers targeted for LIFT-UP had a variety of different reasons for becoming delinquent on their water bills. While all customers were offered an individual financial counseling session, the initial LIFT-UP design included a variety of other financial empowerment services that could be offered to LIFT-UP customers, including everything from screening for public benefits to access to checking and savings accounts. Rather than offering all customers the same menu of services, customers with different needs may benefit from different types of services. At the final cross-site meeting, LIFT-UP city teams—along with NLC and CFS—reflected on the types of financial challenges represented in the LIFT-UP population. Interviews with LIFT-UP customers further helped to refine the typology. Table 8.2 summarizes four common challenges experienced by customers who participated in LIFT-UP. Some customers experience more than one challenge. Cities could use this typology in future iterations of LIFT-UP to target particular interventions to meet specific customer needs.

Table 8.2: Common Financial Challenges Experienced by LIFT-UP Customers

Poor Money Management	Chronically Limited Income	Acute Financial Crisis	Chronically No Income
• Low to Moderate Income • Insufficient emergency savings • High consumer debt • Income volatility	• Fixed income (retired/ disabled persons) • Unreliable/ reduced wages • Working poor • Elderly	• Job Loss • Health Issue • Loss of spouse (divorce, death) • Other sudden, financial shock	• No documented income • Possible physical or mental challenge • Possible income from informal / gray market job sector

The first challenge is *poor money management*. Customers experiencing difficulties with money management are perhaps best suited for traditional financial empowerment services, such as low fee bank accounts to facilitate asset building. The "Bank On Cities" movement can help connect customers with financial institutions. For example, Bank On Houston has been a recommended resource for customers participating **Houston**'s LIFT-UP program. Customers struggling with money management may also benefit from financial and credit counseling services, including debt management plans to help pay down large outstanding credit balances with potentially high fees. CCCS of **Savannah** traditionally offers this type of service, and **Louisville** partnered with Apprisen to offer these services to LIFT-UP customers with high consumer debt. Financial education classes like Neighborhood Home Solutions of **St. Petersburg** offers might also benefit this population.

The second type of challenge experienced by some LIFT-UP customers is *chronically limited income.* This includes senior and disabled residents with social security income; their income is predictable but chronically low, leaving little buffer to cover unexpected expenses. This category also includes residents working minimum wage jobs, seasonally, or with unpredictable income streams. These households would likely benefit from a mixture of both income supports—such as utility payment assistance and/or public benefits—and financial empowerment tools—such as increased access to bank accounts and financial education.

The third financial challenge occurs when delinquency on utility debt results from an *acute financial crisis,* due to issues like job loss, medical emergency, or death of a spouse. Customers in crisis may benefit, in the short term, from enrolling in public benefits, employment programs, or support groups. In the longer term, this customer group may benefit from financial empowerment services that help build savings and access to credit.[40] It is likely that customers who become delinquent in response to a financial crisis may have had limited savings or available credit prior to the crisis; building liquidity for future emergencies could be part of a longer-term plan for financial stability.

The final financial challenge experienced by a subset of LIFT-UP customers is a lack of reliable income. This is perhaps the most difficult financial challenge. It is not clear whether the LIFT-UP intervention is appropriate to address the chronic needs of this population. The reasons why a household may be experiencing no income are often complicated, and may include lack of job skills, mental illness, and/or drug and alcohol abuse. While LIFT-UP may not be able to address these challenges, it is possible that the program could serve as a source of referral. For example, the city could refer low-income customers to other social service providers for help with applying for public benefits or for job training. In **Louisville**, the Department of Community Services used a case management approach in which it bundled financial counseling services with the other benefits and services **Louisville** offers its residents. According to the **Louisville** LIFT-UP team, providing case management to participants enabled Community Services to

[40]Such enhancements may be explored as part of LIFT-UP 2.0.

develop strong relationships, expand upon participants' financial empowerment and education skills, and connect participants with other needed services or resources.[41]

LESSON 8: Leverage Partnerships to Expand Capacity

One of the most significant legacies of LIFT-UP has been the strengthening of existing relationships or the forging of new partnerships between the water utility and FE providers in their cities. For example, Care for Elders (CFE) is **Houston**'s largest, most diverse and most experienced nonprofit agency that focuses solely on elder care issues and unites over 80 members from the public, private, and nonprofit sectors.[42] The agency was originally involved in the planning stages of the LIFT-UP intervention and placed house calls to elderly LIFT-UP customers, but funding issues forced CFE to drop out. Yet, even this brief period of engagement formed a strong referral relationship between the utility and CFE. Customer Service associates at the utility now perform "warm transfers" to CFE when seniors call in, and CFE can leverage its relationship with the utility to help existing clients who are struggling with their water bills.[43] Similarly, **St. Petersburg** has continued to refer non-LIFT-UP clients to their FE provider (Neighborhood Home Solutions) and **Newark** has continued to send LIFT-UP clients to the United Way, even after their enrollment period ended.

The outcomes from these new partnerships may not be apparent in the short-term utility payment data, but they are likely to influence the financial stability of city residents over the longer term. Success of the LIFT-UP initiative can take a variety of forms, from institutionalizing restructured payment plans and financial counseling referrals into the utility's daily operations to formalizing partnerships with financial empowerment providers across the city.

- ✓ **Develop protocols to sustain municipal utility/FE provider partnerships long-term**

  The success of the utility/FE partnerships in the LIFT-UP cities can be partially attributed to transformational leadership on the part of the LIFT-UP team members. However, positive changes that come about due to transformational leadership can be difficult to sustain if the leader departs the organization. For the most part LIFT-UP has helped to foster relationships between key *people* at organizations, but in order to the sustain the momentum that LIFT-UP has generated, the focus should shift to strengthening the network *organization*-wide and at all levels of authority.

  Cities can develop protocols that formalize referrals to FE providers when customers fall behind on utility bills. Rather than providing customers with a list of referrals to community agencies for utility assistance, cities can train customer service associates to make warm referrals to associates at partner organizations that can help meet the immediate financial needs of the customers. While ideally these referrals would be paired

[41]This is from the final report submitted by the Louisville LIFT-UP team.
[42] http://careforelders.org/default.aspx/MenuItemID/491/MenuGroup/.htm
[43] A "warm transfer" involves placing a customer on hold, dialing a number out to a third party, and then patching that customer to the third party.

with a restructured payment plan for past due utility debt, the simple act of making the referral can go a long ways towards increasing the financial stability of city residents.

- ✓ **Seek collective opportunities for funding and impact**

  The majority of the FE providers that partnered with the LIFT-UP teams were nonprofit organizations that provide financial counseling services to city residents, independent of the LIFT-UP program. However, these organizations need stable financial support to continue serving city residents. Most LIFT-UP teams used a portion of the grant funding under the LIFT-UP program to compensate the FE providers for their services to LIFT-UP customers. Moving forward, additional sources of sustainable revenue are likely needed to continue to offer services tailored to the needs of delinquent utility customers. Municipalities can work with FE providers to identify collective opportunities for revenue generation that can also generate city-wide impact.

Concluding Thoughts

The purpose of this evaluation was threefold: (1) to document the demand for LIFT-UP; (2) to estimate the impact of LIFT-UP on customer utility payment patterns; and (3) to draw insights from the LIFT-UP pilot that can inform future replication and scalability of the model.

With regard to demand, there is both quantitative and qualitative evidence of customer interest in participating in LIFT-UP. However, the timing and nature of the offer matters. Chapter 5 documents take-up rates as high as 24% in **Newark**, with an average take-up rate of about 10% across all five cities. In general, timing the offer with a shut-off or delinquency notice increases participation. In **Newark**, eligible customers in the Offer group were invited to participate in LIFT-UP when they called the utility regarding the delinquency notice they received in the mail. In **St. Petersburg**, a utility staff member called customers in the Offer group who were assigned for water shut-off in the near future. Participation in LIFT-UP was viewed as a preferable alternative to loss of water services. To the extent that shut-off is perceived to be a low probability occurrence (e.g., in **Houston**), the threat of shut-off may not be sufficient to motivate participation. In this case, framing the offer in terms of the dollar amount of avoidable fees to be saved can be a powerful motivator. In **Savannah**, implementers were able to increase take-up by adjusting the wording used on the initial offer postcard. Rather than emphasizing the financial incentive, take-up improved when LIFT-UP was framed as a way to prevent a loss of service.

A central component of the pilot implementation of LIFT-UP is the collection of utility payment data necessary to estimate the impact of LIFT-UP on customer payment outcomes. Three of the cities employed a randomized study design. Given the heterogeneity of collections practices and payment structures of municipal utilities, there is no single outcome that can be used to provide a precise estimate of program impact. Instead, the definition of success for an intervention like LIFT-UP differs between cities because cities have different water utility collection practices, which in turn lead to different customer payment behaviors. While the impact analysis (Chapter 6) does not demonstrate unanimous positive impact of LIFT-UP across all outcome indicators, in

three of the four cities (**St. Petersburg**, **Houston** and **Newark**) there is evidence of a positive impact of LIFT-UP on the outcomes that are most relevant for the city and customer behaviors within that city.

In **St. Petersburg**, LIFT-UP customers are significantly less likely to experience a shut-off during the 12 month period following enrollment, and incur significantly fewer avoidable fees—saving an average of $140 per customer relative to customers in the Control group who were not offered LIFT-UP. In **Houston**, LIFT-UP participants have significantly lower balances than customers in the Control group at 6 months after enrollment and still have lower balances at 12 months post-enrollment, although the gap begins to narrow after 6 months and is no longer statistically significant at 12 months. In **Newark**, LIFT-UP participants have significantly lower balances at 8 months (the last period observed for the full evaluation sample), and for those with data available, the effect appears to persist through 11 months. Customers in both **Houston** and **Newark** are making significantly more payments relative to bills received after participating in LIFT-UP—an average payment to bill ratio that is 69 percentage points higher in **Houston**, and 34 percentage points higher in **Newark**.

In **Savannah**, the evaluation is unable to detect a statistically significant positive impact of LIFT-UP on customer outcomes. This is likely due in part to the significant differences between the Control and Offer groups at baseline, as noted in Chapter 6. Customers in the Offer group were worse off prior to the start of LIFT-UP than customers in the Control group. It is promising that the customers in the Offer group who enrolled in LIFT-UP had better outcomes over time than customers in the Offer group who did not enroll in LIFT-UP. And, in a follow-up survey of LIFT-UP participants in Savannah, respondents indicated that the program "helped them get on track with their water bills." However, we cannot determine for certain that LIFT-UP caused the improved outcomes. This is an important reminder that impact evaluations do not take place in a laboratory, but take place in the real world that can be messy and difficult to control. Getting an innovation off the ground in such a setting can be a positive impact in and of itself.

In each of the five cities, new on-ramps have been established to refer residents at risk of financial instability to FE services. This is a substantial accomplishment. While the conversion of the water utility IT system prevented **Louisville** from providing data for the impact evaluation, the pilot can still be considered a success. A new partnership has been established between the city FE agency and the water utility that is likely to continue for years to come. In **Houston**, front-line utility staff are now trained as financial coaches, augmenting their customer service skills with tools that equip them to better assist struggling residents.

The lessons learned during the LIFT-UP pilot extend beyond municipal water utilities. Other fee-collecting city agencies, such as public hospitals or municipal courts, can learn from the LIFT-UP model as they structure their debt collection practices. Oftentimes, municipalities turn to third-party debt collection agencies to recoup a portion of the revenue lost to delinquent accounts. While this may bring in some revenue for the city, it does not help the customers for whom the missed payments may be a sign of financial hardship. The cost-effectiveness analysis conducted as a supplement to this evaluation demonstrates that LIFT-UP can be implemented in a manner that saves costs to the city and increases the financial stability of residents.

References

Cities for Financial Empowerment Fund. (n.d.). *Cities for Financial Empowerment Fund*. Retrieved from http://www.cfefund.org/

Corporation for Enterprise Development. (2011). *Building Economic Security in America's Cities: New Municipal Strategies for Asset Building and Financial Empowerment.* Washington, D.C.: Corporation for Enterprise Development.

Cromwell III, J. E., Colton, R. D., Rubin, S. J., Herrick, C. N., Mobley, J., Reinhardt, K., & Wilson, R. (2011). *Best Practices in Customer Payment Assistance Programs.* Denver, CO: Water Research Foundation.

Dearing-Smith, K. (2015, April 13). Email Correspondence. (D. Harlow, Interviewer)

Louisville Water Company. (n.d.). *Louisville Water Foundation*. Retrieved from Louisville Water : http://www.louisvillewater.com/about-us/louisville-water-foundation

Mintz, J. (2011). *Municipal Finacial Empowerment: A Supervitamin for Public Programs.* New York City: Department of Consumer Affairs, Office of Financial Empowerment.

National League of Cities. (2011). *Bank On Cities: Connecting Residents to the Financial Mainstream.* Washington, D.C.: National League of Cities.

National League of Cities. (2015). *City Financial Inclusion Efforts: A National Overview*. Washington, D.C.: National League of Cities. Available online at: https://www.metlife.com/assets/cao/foundation/city-financial-inclusion-efforts.pdf

APPENDICES

Appendix A: Treatment Process Diagrams

Figure A.1: Houston LIFT-UP Treatment Process Diagram

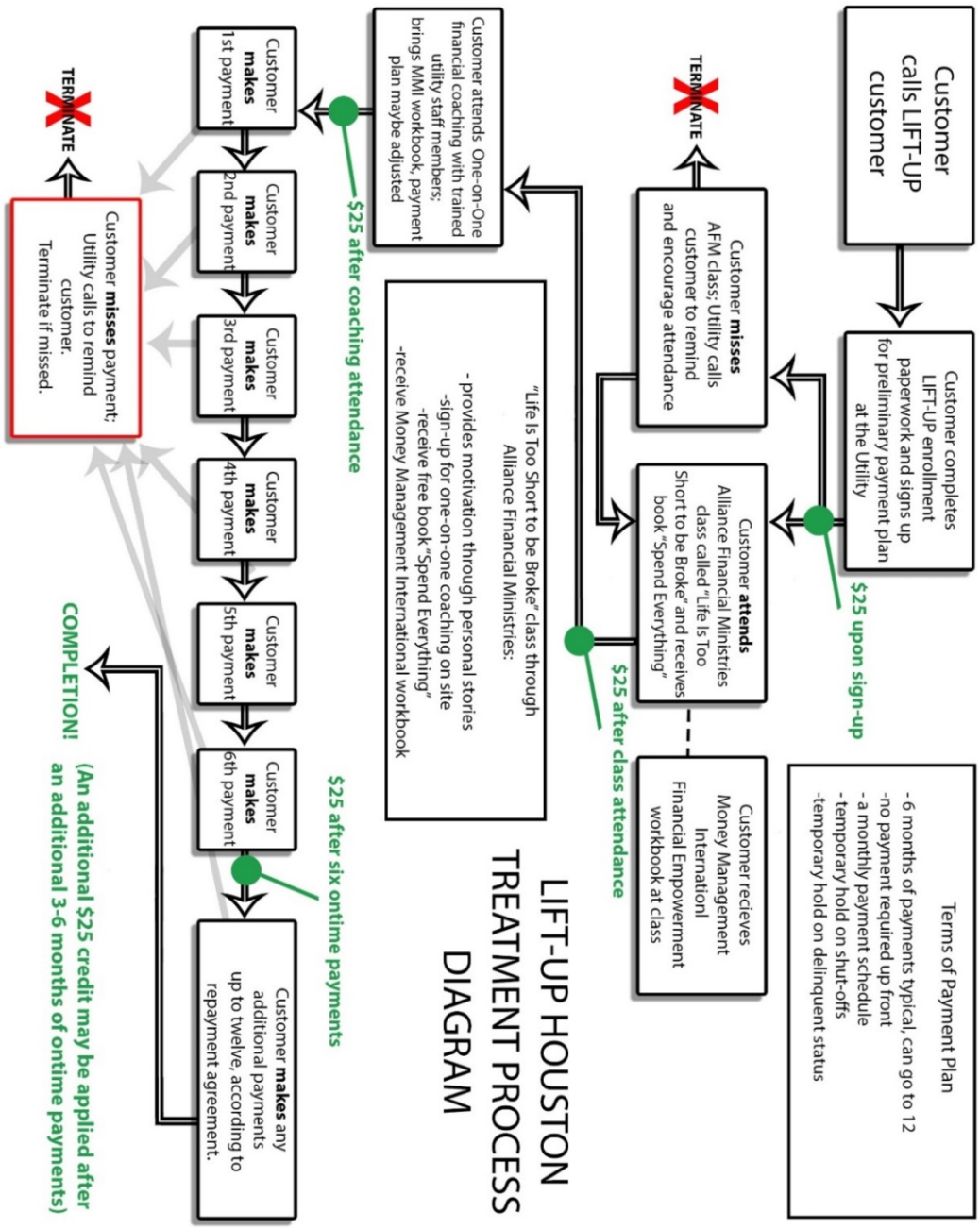


Figure A.2: Louisville LIFT-UP Treatment Process Diagram

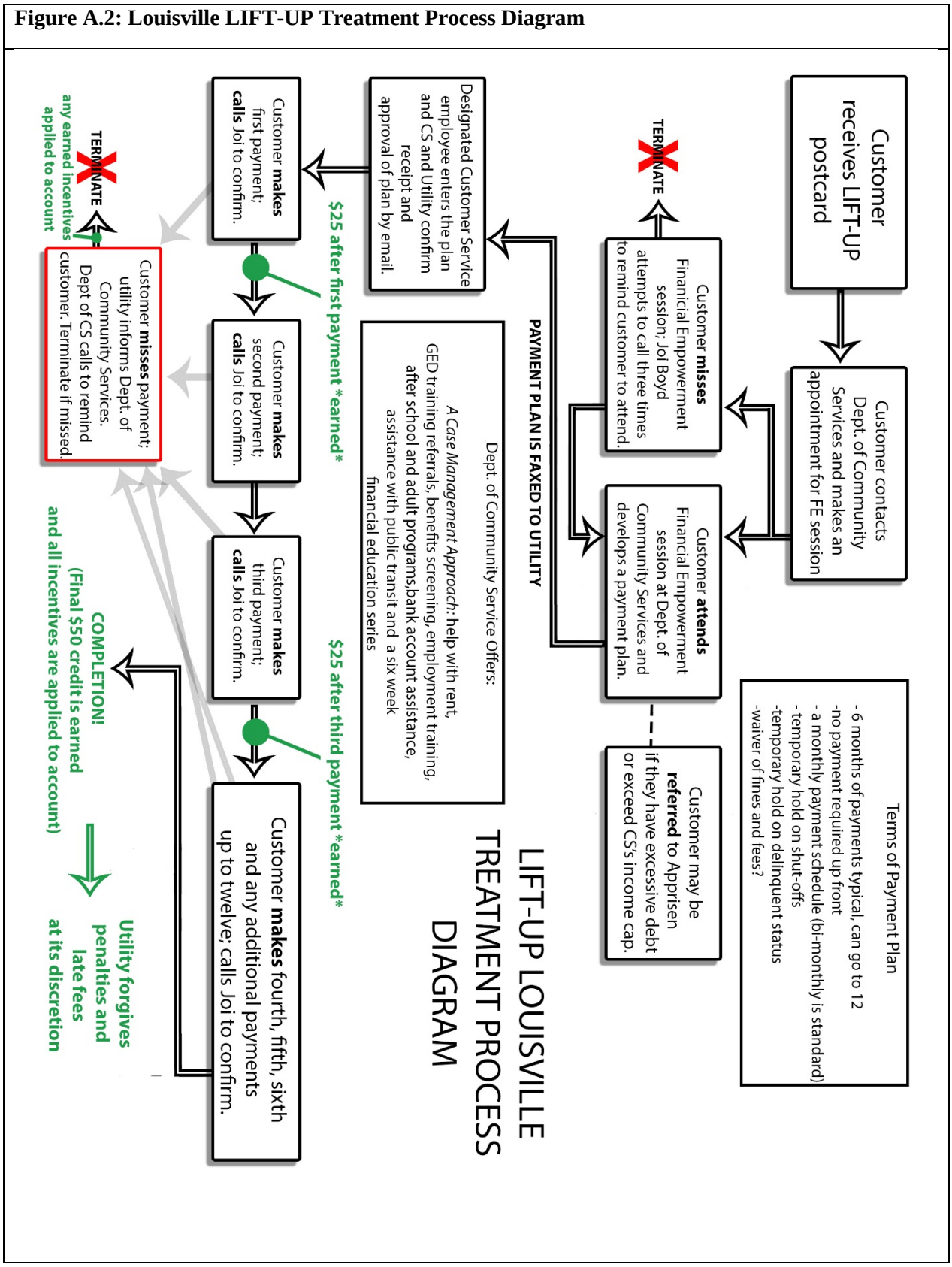


Figure A.3: Newark LIFT-UP Treatment Process Diagram

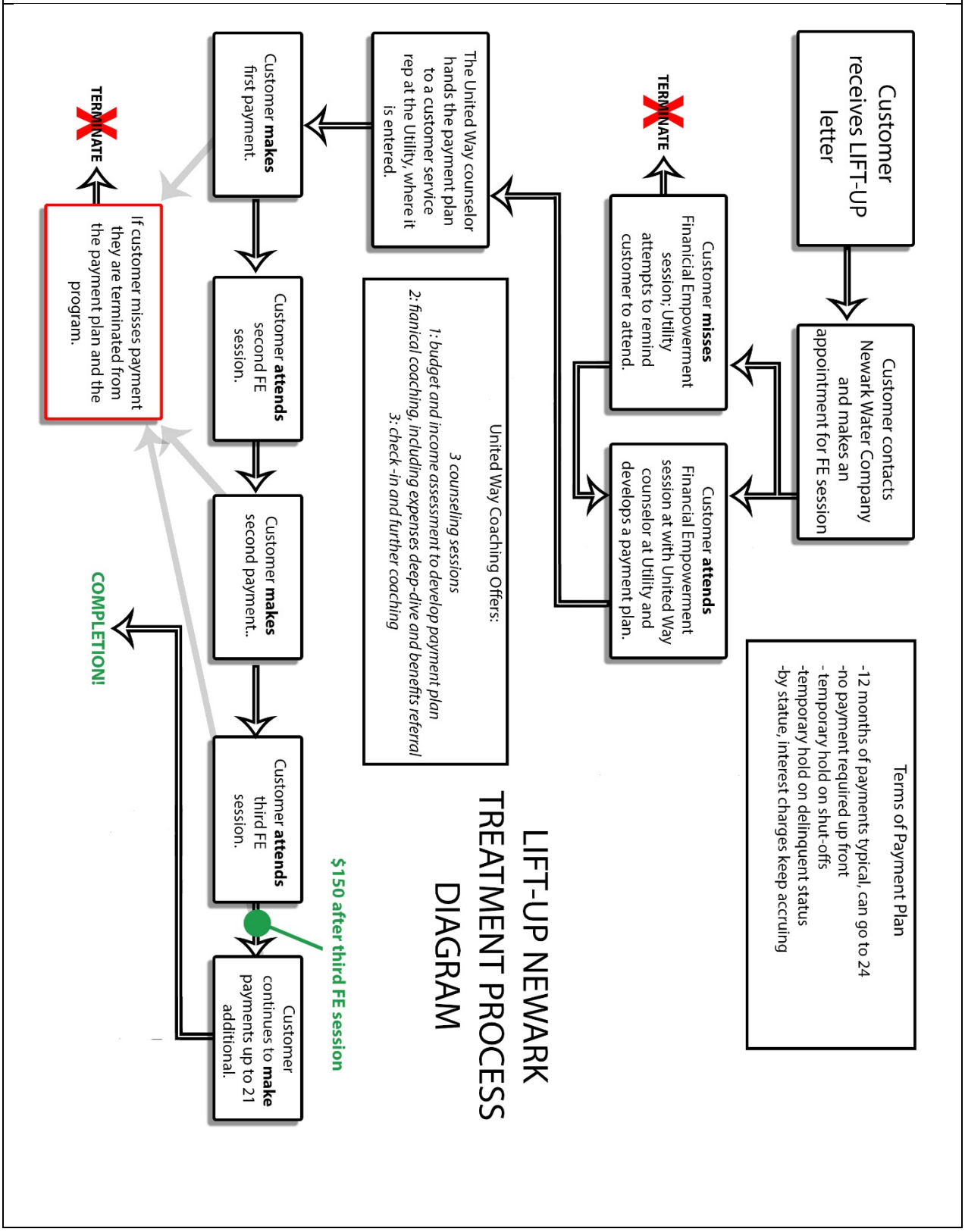


Figure A.4: Savannah LIFT-UP Treatment Process Diagram

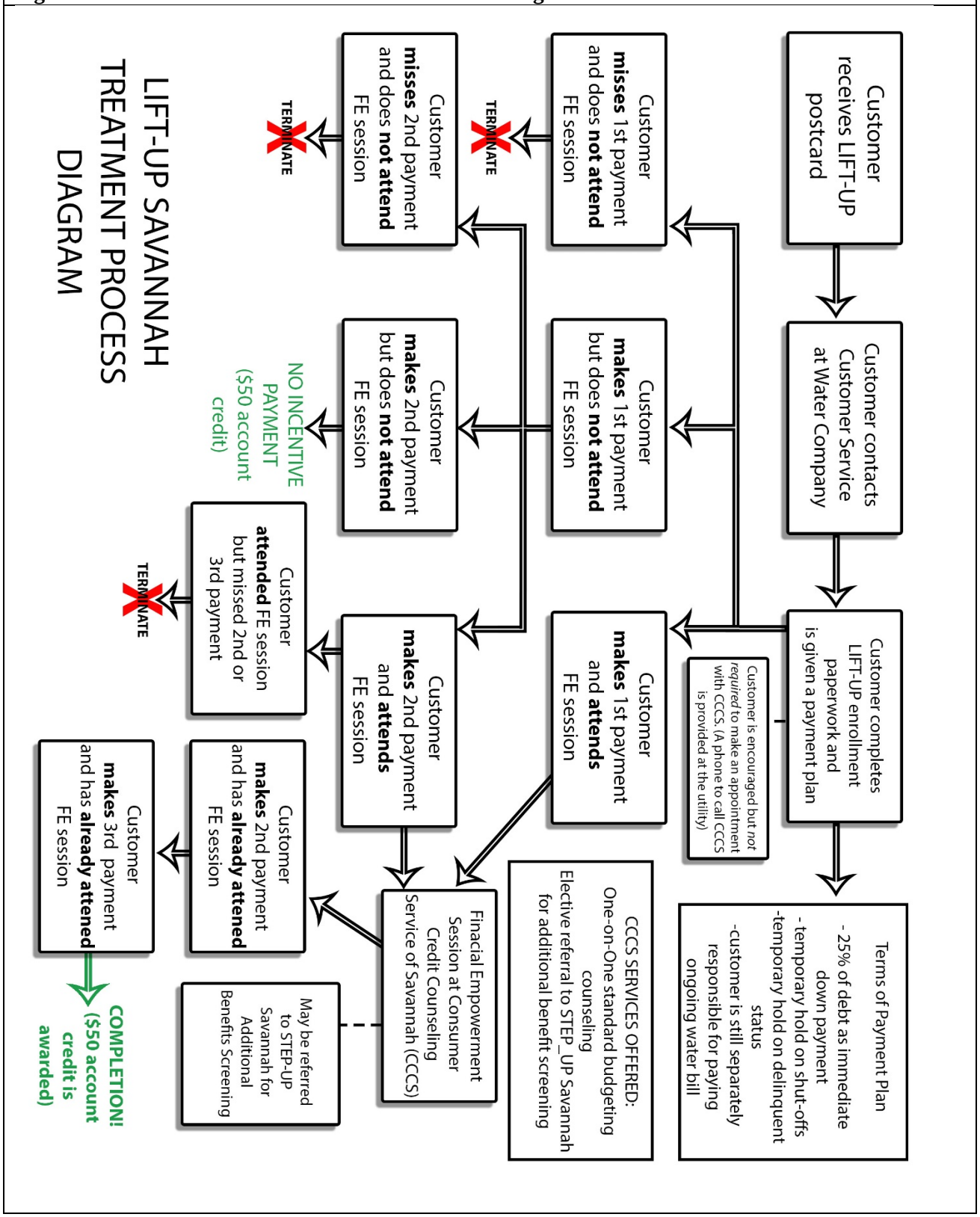
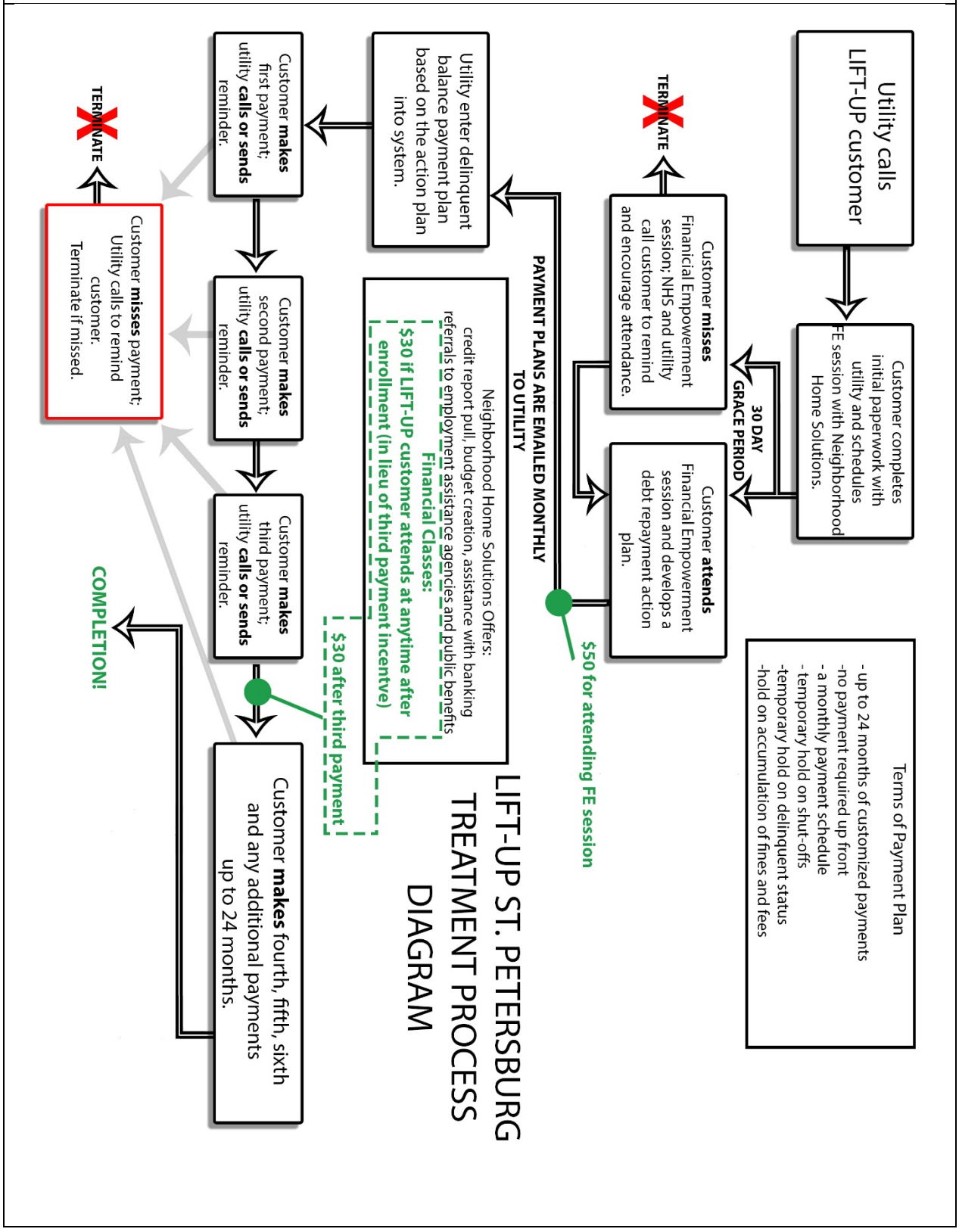
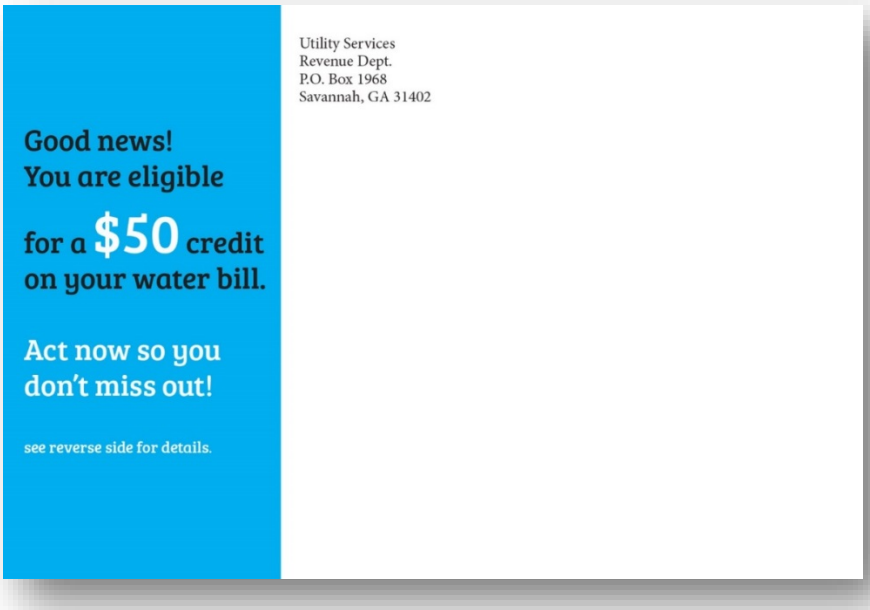


Figure A.5: St. Petersburg LIFT-UP Treatment Process Diagram



Appendix B: Sample Outreach Materials

Figure B1: Savannah Outreach Postcard



Appendix C: Take-Up and Evaluation Numbers Reconciliation

Each month, city teams reported to NLC and CFS the number of customers eligible for LIFT-UP, the number of customers offered LIFT-UP, the number of customers who responded to the offer, and the current status of customers who responded to the offer (e.g., if they received a payment plan, and whether or not they were current or terminated). In addition, city teams provided utility data once per quarter. That data specified whether customers were in the Control, Offer, or and Treatment group. For reasons described below, the number of customers on the monthly reports did not always match the number of customers on the quarterly reports or the number of customers used in this evaluation. Tables C.1-C.3provide a reconciliation of the numbers that we use in our evaluation for the Offer group (Table C.1), the Control group (Table C.2) and the Treatment Group (Table C.3). Underneath each table, we provide a short summary by city of the reported differences.

Table C.1: Offer Group Reconciliation (Cities' Reported Numbers, CFS Take-Up Numbers, and CFS Evaluation Numbers)

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Number reported by cities	**630**	**845**	**266**	**913**	**423**
Word-of-mouth enrollments	0	0	0	-2	0
Crossover	0	0	0	-1	0
Additional accounts reported in data	0	+2	0	0	+257
Number in city utility data	**630**	**847**	**266**	**910**	**680**
Duplicate accounts	0	-117	0	-10	-1
Number used by CFS to compute take-up	**630**	**730**	**266**	**900**	**679**
Data quality issue	0	0	0	-1	-2
Missing data issue	0	0	0	-28	-21
Number used by CFS for the evaluation	**630**	**730**	**266**	**871**	**656**

Houston conducted two waves of enrollment; the first wave took place in July, and the second took place in September. In the September wave, the City of Houston re-contacted 22 customers from the July Offer group and 14 customers from the July Control group. The 22 re-contacted customers from the July Offer group are counted once as part of the Offer group. The 14 customers re-contacted from the July Control group are included as part of both the Offer and the Control groups ("crossover" accounts).

Louisville reports that it offered LIFT-UP to 545 customers from May to August (phase 1) and to 300 in September and October (phase 2). However, Louisville's data indicates that it offered it to 302 customers in the second phase. Between the first phase and second phase, there were 117 duplicated customers; that is, the same customers were contacted twice by mail.

The numbers reported by **Newark** align with the numbers used in the evaluation.

Savannah contacted 910 customers via mail over all waves of outreach. Ten customers received the mailing twice. Two customers enrolled in Savannah's LIFT-UP program after receiving a word-of-mouth referral. CFS excluded these customers from the evaluation. In addition, one customer from the Control group enrolled in LIFT-UP; CFS excluded this crossover customer from its evaluation. One customer in Savannah's Offer group contained incomplete data and was dropped from the evaluation. An additional 26 Offer group customers were dropped from the evaluation due to missing baseline or outcome data (e.g., there is no record of customer billing data during the period before and/or after LIFT-UP). Of the 28 dropped customers, five had first observed billing date after they were offered LIFT-UP (the baseline date), and 23 customers' accounts had been closed before the LIFT-UP baseline date.

The number of accounts in the Offer group reported by **St. Petersburg** includes only those customers with whom they made successful contact. The CFS evaluation includes all customers who were *intended* to be contacted—which adds an additional 257 customers to St. Petersburg's Offer group. A total of 680 observations is included in the Offer group. One customer in the Offer group had two residencies listed among the Offer group customers, even though the utility data file contains billing and payment data only on one of these residencies. We include only the customer/residence combination that appears in the utility data. Two customers in St. Petersburg had multiple locations assigned to one customer ID within the utility transactions data file. The customers with multiple residencies were dropped from the evaluation. An additional 21 customers' accounts had been closed before they were sent a mailing for LIFT-UP and thus are excluded from the evaluation.

Table C.2: Control Group Reconciliation (Cities' Reported Numbers, CFS Take-Up Numbers, and CFS Evaluation Numbers)

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Number reported by cities	**99**	**373**	**200**	**400**	**3852**
Comparison group construction	0	+198	0	0	0
Number in city utility data	**99**	**571**	**200**	**400**	**3852**
Duplicate accounts	0	-48	0	0	-10
Crossover	-1	0	0	-8	0
Other	0	0	0	0	-257
Number used by CFS to compute take-up	**98**	**523**	**200**	**392**	**3585**
Data quality issue	0	0	-1	0	-3
Missing data issue	0	0	0	-20	0
Number used by CFS for evaluation	**98**	**523**	**199**	**372**	**3582**

Houston conducted two waves of enrollment. In the July wave, one customer was listed in both the Offer and the Control account. This "crossover" customer was excluded from the Control group and remained only as part of the Offer group. In the September wave, they re-contacted 14 customers from the July Control group, which are included as part of both the Offer and the Control groups ("crossover" accounts).

For the first phase of their enrollment, **Louisville** created a Control group by applying the same eligibility criteria that were used to generate the Offer group from the target zip codes to the Control zip codes. This generated a Control group of 373 accounts. For the second phase of their enrollment, Louisville used a scoring algorithm instead of the previous eligibility criteria to identify Offer group participants. The Control group for the second phase was generated by applying the same scoring algorithm to the Control zip codes. This process generated 198 additional Control customers. Of those, 48 were already part of the phase one Control group, and thus, we only count them once.

We dropped one customer in **Newark**'s Control group from the evaluation due to incomplete data.

During one of their outreach waves, **Savannah** accidentally offered LIFT-UP by mail to 34 customers from the Control group. To correct for this, we included these 34 customers in both the Control and Offer groups because removing them from the Control group would create selection bias for the customers remaining in the Control group. Of these 34 customers, eight customers actually enrolled in LIFT-UP ("crossover" accounts). Therefore, we removed these customers from the Control group and assigned them to the Treatment group. In Savannah, we dropped 19 Control group customers from the evaluation due to missing baseline or outcome data (e.g., missing customer billing data during the period before and/or after LIFT-UP). Of those 20 customers, 14 customers' accounts had been closed before the LIFT-UP baseline date, and 6 customers' first observed billing date came after the baseline date for LIFT-UP.

St. Petersburg previously allocated 257 customers to the Control group that technically belonged to the Offer group, because even though these customers did not respond to the Offer, they were randomly selected to be offered LIFT-UP. We have subtracted these customers from the Control group for our evaluation. Additionally, we dropped 10 duplicate customers from the Control group. Finally, three customers had multiple locations assigned to one customer ID, so we excluded them from the evaluation.

Table 4.3: Treatment Group Reconciliation (Cities' Reported Numbers, CFS Take-Up Numbers, and CFS Evaluation Numbers)

	Houston, TX	Louisville, KY	Newark, NJ	Savannah, GA	St. Petersburg, FL
Number reported by cities	**43**	**22**	**66**	**99**	**103**
Different definitions of "enrollment"	-2	0	+7	0	-13
Number in city utility data	41	22	73	99	90
Word of mouth enrollments	-4	-2	-11	-2	0
Number used by CFS to compute take-up	**37**	**20**	**62**	**97**	**90**
Other	0	0	0	0	0
Missing data issue	0	0	0	0	-4
Number used by CFS in evaluation	**37**	**20**	**62**	**97**	**86**

Houston reported two customers as "pending" but the customers never enrolled in LIFT-UP. In addition, four word-of-mouth enrollments were excluded from the take-up numbers and evaluation.

In **Louisville,** two word-of-mouth enrollments were excluded from the take-up numbers and the evaluation.

In **Newark**, during the initial rollout of LIFT-UP, seven customers from the Offer group were given payment plans but were not recorded in Newark's monthly reporting data because the customers never met with the counselor. Because the customers were given payment plans, we count them as part of the Treatment group. In addition, we excluded 11 word-of-mouth enrollments.

In **Savannah,** two word-of-mouth enrollments were excluded from the take-up numbers and the evaluation.

In **St. Petersburg,** 103 customers signed up for the program and received at least the "grace period." Among these, 13 customers did not attend the financial counseling session and are not considered as treated for the evaluation purposes. In addition, four LIFT-UP customers' accounts had been closed before their treatment period began. We dropped them from the Treatment group, but not the Offer group.

Appendix D: Impact Evaluation Methodology

Impact Estimates

The research design of this study allows for the estimation of the causal impacts of participation in LIFT-UP on the evaluation outcomes. In three of the cities (Houston, Newark, and St. Petersburg), customers were randomly assigned to the Offer and Control groups. In Savannah, the Offer was randomized within specific geographic areas. The randomization process ensures that the systematic differences between the two groups are minimized: on average, the Offer group will have the same characteristics as the Control group, and the only systematic difference is the assignment of the offer of LIFT-UP. Therefore, in a randomized control trial (RCT), the impact of LIFT-UP can be measured by the differences in outcomes between the Offer and Control groups-- the intent to treat (ITT) effect.

In this RCT study, however, a large proportion of the customers who were offered the LIFT-UP program did not actually take it up. This will make it difficult to detect a significant impact using only the ITT analysis. To account for the non-participation in estimating the impact of LIFT-UP on the evaluation outcomes, we employ treatment-on-the-treated (TOT) analyses.

ITT Differences of Means

The intent to treat (ITT) analysis estimates the average effect of the *offer* of LIFT-UP on the evaluation outcomes, assuming that the randomization process was carried out properly. The ITT analysis draws the causal inference on the Offer group as a whole without correcting for non-participation. We measure the effects of participating in LIFT-UP on evaluation outcomes by estimating the difference in outcomes between the Offer and Control groups:

$$ITT = \bar{Y}_O - \bar{Y}_C$$

where $\bar{Y}_O$ is the mean of the outcome variable in the Offer group, and $\bar{Y}_C$ is the mean of the outcome variable in the Control group.

ITT Regression Analysis

The assumption that there are no systematic differences between the Offer and Control groups may not hold either because of programmatic design flaws or because of sampling variation. The sampling variation can lead, by chance, to the systematic differences in the average characteristics of the Offer and Control participants, particularly in small samples. If differences exist between the groups, the differences in outcomes between the two groups cannot be attributed solely to the effects of LIFT-UP. To account for the possibility of pre-existing systematic differences between the two groups, we use the ordinary least squares (OLS) method to estimate the following regression model:

$$Y_i = \beta_0 + \beta_1 O_i + X_i\delta + e_i$$

where Y_i is an outcome variable, O_i is a dichotomous variable equal to one if an individual i is in the Offer group, and zero otherwise, X_i is a vector of control variables, and e_i is an error term. The vector of control variables includes the baseline measure of the outcome variable, as well as

the balance at baseline for all ITT regression models (or the cycles in the case of Savannah). We report the results of the statistical test to determine if the coefficient on the Offer group variable is statistically different from zero. Adding control variables that are correlated with the outcome and are unaffected by the Offer group variable can increase the precision of the estimates.

TOT Regression Analysis

The drawback of the ITT analysis is that we estimate the effects of being offered the LIFT-UP program. Therefore, the true effects of LIFT-UP may be less detectable if the take-up rates are low. Unlike the ITT analysis, the treatment-on-the-treated (TOT) analysis estimates the average treatment effect conditional on the actual participation in the LIFT-UP program.

The issue with the TOT analysis is that the randomization assumptions and the causal inference are no longer supported. Because some individuals select to participate in the program and others do not, participants of LIFT-UP who take up the treatment may be systematically different from participants who do not take up the treatment. As a result, using simply an indicator for being treated (e.g., if the customer is in the Treated group) to estimate the effects of LIFT-UP on the evaluation outcomes can produce biased estimates, where the changes in outcomes can be driven by systematic differences between participants rather than the treatment of LIFT-UP.

We use the instrumental variable (IV) approach to account for the potential selection bias due to the participant choice to enroll in LIFT-UP. An instrumental variable is an exogenous variable that affects the outcome variable only through its effect on the endogenous variable, and not through the influence on the error term. Under the TOT analysis, information about the offer of LIFT-UP can be used as a valid instrument for the enrollment in LIFT-UP, given that the offer of LIFT-UP was random. The validity of the instrument is based on the reasonable assumption that the offer of LIFT-UP affects the outcome only through its effect on the enrollment in LIFT-UP.

For the TOT analysis, we estimate the two-stage least squares (2SLS) regression model. In the first stage, we regress the endogenous variable (participation in LIFT-UP, or being "treated") on the exogenous variable (offer of LIFT-UP, or being randomly assigned to the treatment group) and control variables, and obtain the fitted values from the following OLS regression:

$$t_i = \alpha_0 + \alpha_1 O_i + X_i\varphi + v_i$$

where t_i is a dichotomous variable equal to one if an individual *i* took up the treatment, O_i is a dichotomous variable equal to one if an individual *i* is in the Offer group, and zero otherwise, X_i is a vector of control variables, and e_i is an error term.

In the second stage, the fitted values are plugged into the following OLS regression:

$$Y_i = \pi_0 + \pi_1 \hat{t}_i + X_i\tau + e_i$$

where $\hat{t}_i$ is the fitted value for an individual *i* from the previous equation.

Robustness Checks

We use the ITT and TOT analyses to estimate the effect of participating in LIFT-UP on utility payment outcomes, including the probability of a shut-off. However, the current analysis for the

probability of shut-off is limited because it ignores censoring and the timing of events. In particular, the current analysis does not differentiate between accounts that closed during the evaluation period without a shut-off and accounts that did not close during the evaluation period and did not experience a shut-off. Similarly, it does not differentiate between the probability of a shut-off that occurred at the beginning of the evaluation period or in the end of the evaluation period. To address these limitations, we conduct a survival analysis (or event-history analysis) as a robustness check. The survival analysis is appropriate when studying the time until the event occurrence because it properly treats censored events and the timing of events.

The results of the survival analysis confirm the results reported in the body of the report. Using the event history estimation, the probability of shut-off for those taking up LIFT-UP ("Treated") is significantly lower in St. Petersburg at 12 months post baseline, and is insignificant in Houston. In Savannah, the coefficient for Treatment continues to be significant and positive, suggesting a higher probability of shut-off for those enrolled in LIFT-UP.

The Kaplan-Meier Estimator

The Kaplan-Meier estimator is a non-parametric model that estimates the probability of the first shut-off as the function of time. We use the Kaplan-Meier estimator to provide a descriptive analysis and graphical representation for the probability of the first shut-off and to compare the rates of shut-off and the proportion of individuals who have experienced the first shut-off at different points in time across the control, treatment and "treated" groups. These graphs are displayed in the body of the report, by city.

Cox Proportional Hazard Model

We use the Cox regression model to estimate the effect of participating in LIFT-UP on the hazard of the first shut-off. The advantage of the Cox regression model over the Kaplan-Meier estimator is that the Cox regression estimates the non-linear relationship between the participation in LIFT-UP and the hazard of shut-off and adjusts for the control variables. To estimate the Cox regression model, we obtain the fitted values from the first stage regression described above, and plug them into the following model:

$$h_i(t) = h_0(t)\exp(\beta_1 \hat{t}_i + X_i\delta)$$

where $h(t)$ denotes the hazard function for the *i*th individual at time *t*, $h_0(t)$ is the baseline hazard function, $\hat{t}_i$ is the fitted value for an individual *i* from the first stage regression, and X_i is a vector of control variables. Under the Cox regression, no assumptions are made about the shape of the baseline hazard function. We check if the proportional hazards assumption is met and use the Breslow method to handle the events that occur at the same time (tied events). The substantive results are identical to those reported in the body of the report for probability of shut-off, as well as the results estimated under the event history analysis (above).

Appendix E: CFS Participant Interview Script

CFS conducted 10-15 minute interviews with 1-2 LIFT-UP participants per city. Here we include the introductory script and interview probes which were used to conduct these interviews.

Hi, my name is _____ **(CFS Interviewer name)** and I'm with an organization called the Center for Financial Security. Your financial counselor _____ **(Counselor's name)** with _____ **(FE provider)** recommended you as someone that might be willing to talk with me about your experiences with the LIFT-UP program—a program provided in partnership with _____ **(LIFT-UP City)** water company to help people with their water bills. Is now a good time to talk?

I am working with a group of researchers to evaluate the LIFT-UP program so that it can be improved in the future. I would like to hear about your experiences with the program. If I ever ask you a question that you would prefer not to answer, please just say so and we'll move on. Your responses will be used to help evaluate the program and inform research related to the program, but neither your name nor any other identifying information will be used or connected with these answers.

Now, with your permission, I'll start the interview…

[TAKE-UP]

1. **Tell me about when you first heard about the LIFT-UP program.**
    a. **Do you remember *when* you first heard of the program?**
    b. ***How* did you find out about the program?**
    c. **What was your first reaction when you heard about the program?**

-if eager: what about the program excited you?

-if hesitant: what about the program made you hesitant? What changed your mind?

[FEELINGS ABOUT LIFT-UP PAYMENT PLAN]

2. **As you know, the LIFT-UP program included both a payment plan to help with your water bill and a session with a financial counselor. I would first like to learn a bit more about the payment plan and your experiences with the water company.**
    - What did you think of the payment plan that was offered?
    - How was your interaction with the city utility during LIFT-UP?
    - Is there anything that would have made the payment plan better? (If yes, describe)

[FEELINGS ABOUT FINANCIAL COUNSELING]

3. **Now, I'd like to learn a bit about your experiences with the financial counselor. Tell me about your session with the financial counselor.**
    - What parts of the session did you find most helpful?
    - What parts of the session did you find the least helpful?
    - How difficult was it for you to gather the correct documentation for the counseling session?

- Did you have any “ah-ha” moments when you were going over your budget?
- Was it easy for you to get your financial counseling appointment? Were there any barriers?
- Is there anything that you would change about the financial counseling session to make it better?

[FEELINGS ABOUT FINANCIAL HEALTH]

4. **Now, I’d like to ask a few questions about your bills. Do you ever have difficulty paying your bills? How often? (prompt if needed: would you say every month, a few times a year, about once per year, or less than once a year)**
   - What bills are the most difficult for you to pay?
   - Would you say that it is more difficult to pay your water bill than other bills, or less difficult? (Why?)
   - What factors make it difficult to pay your bills?
   - Can you think of anything that might make it easier to pay your bills?
5. **This is the last question. I’d like to know if you think that participating in the LIFT-UP program has helped you.**
   - Do you feel that LIFT-UP has helped you better manage your money? In what ways?
   - Do you feel that LIFT-UP prevented your water from being shut-off?
   - Do you think, one year from now, that you will be better able to pay your bills because you participated in LIFT-UP?
   - Would you recommend the LIFT-UP program to a friend? Why or why not?

Implementation and Impact Evaluation of Local Interventions for Financial Empowerment through Utility Payments (LIFT-UP)

Prepared for The National League of Cities Institute for Youth, Education, and Families

Center for Financial Security
National League of Cities Final Report 2016-3.1

Center for Financial Security
School of Human Ecology
University of Wisconsin-Madison
Nancy Nicholas Hall
1300 Linden Dr.
Madison, Wisconsin 53706
608.890.0229
cfs@mailplus.wisc.edu

cfs.wisc.edu