# Can unconditional cash transfers make recipients worse off? Evaluating a social assistance program in Georgia

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June 29, 2015

**Abstract**

We study the impact of an unconditional cash transfer program in Georgia on a broad range of outcomes. Our analysis is based upon an original survey conducted in 2014 of around 340 households living in Tbilisi who applied for social assistance in 2009. We compare households who were just eligible for the program to households who nearly missed the eligibility threshold in a regression discontinuity design. Contrary to our expectations, we find that receiving the program leads to a *worsening* in (self-reported) basic economic conditions, such as the ability to afford food. Possible explanations include crowding-out of other sources of income and differential misreporting by recipient status.

Keywords: Cash transfers, poverty, household surveys.

JEL Classification: H23, I38, O12

*A joint workplace of Charles University and the Economics Institute of the Academy of Sciences of the Czech Republic, Prague, Czech Republic. We thank for helpful discussions and advice. We thank Michal Bauer, Randy Filer, Nikolas Mittag, Norberto Pignatti and conference participants at the 2014 GDN workshop for helpful comments. This research was supported by a grant from the CERGE-EI Foundation under a program of the Global Development Network. All opinions expressed are those of the authors and have not been endorsed by CERGE-EI or the GDN.

# 1 Introduction

Cash transfers to the poor have become a cornerstone of social policy in developing countries. Following the success of Progresa/Oportunidadesa in Mexico and Bolsa Familia in Brazil, many countries have adopted similar schemes (Barrientos & Hulme 2009). Correspondingly, a large literature has developed to evaluate the impact of cash transfers on recipient outcomes (for a review see DFID 2011).

Elementary microeconomics suggests that cash transfers should lead to a release in the budget constraint of household translating into some combination of consumption and investment. It is thus almost axiomatic that a cash transfer program would increase the consumption of recipients. A number of studies have found a positive effect on consumption (Attanasio & Menard 2006, Gertler et al. 2012). Recent literature tends to focus on what type of consumption is increased (see e.g. Attanasio et al. 2012, Evans & Popova 2014)).

In this paper, we use an original household survey and a regression discontinuity approach to evaluate an unconditional cash transfer program in Georgia. We find that receiving cash transfers lead to a *worsening* in (self-reported) basic economic conditions, such as the ability to afford food. We discuss a number of possible mechanisms in the text, including crowding out from other sources of incomes. However, the results clearly remain puzzling and may possibly by driven by misreporting by respondents.

We are aware of two other studies that study the effect of the same program program, each of which focuses on a relatively narrow set of outcomes. Abramishvili and Lanchava (2015) find a positive effect of the program on university enrolment while Kits et al. (2013) find that the program decreases the labor supply for women.

The paper proceeds as follows. Section 2 describes the social assistance program in Georgia. Section 3 covers data and section 4 methodology. Section 5 presents the results and section 6 concludes

# 2 The social assistance program in Georgia

Poverty is a persistent problem in Georgia with 11.6% of the population living below the national poverty line. In 2005, the reformist government of Mikheil Saakashvili instituted a cash transfer program for the poor. Under the scheme, program recipients receive a cash amount 30 GEL (around 18 USD) per month plus 12 GEL (around 7 USD, this amount was later increased to 24 GEL) per household member beyond the first one. A household of two adults and two children enrolled in 2009 would 102 GEL (around 66 dollars) per month.

Once enrolled in the program, recipients receive the cash transfers monthly and there is no condition attached to the receipt of governmental assistance. If recipients' economic situation were to improve substantially, they are supposed to report the improvement to the government agency and they might lose the benefits. Relatively few households appear to exit the program in this way[1] but the prospect of losing support might influence households' behavior.

To determine eligibility, applicants to the program are visited by government agents who ask a battery of questions - from income health status to the condition of the applicants' dwelling. The answers to these questions are then aggregated using a complex formula to produce a poverty score. Applicants whose score fall below a certain threshold are deemed eligible while those above are declared ineligible and do not receive any support from this program.

Rejected applicants could in principle apply in a subsequent year, but this appears to be rare. As we will discuss later in the text, the vast majority of survey respondents who were above the poverty threshold (and hence ineligible) report not receiving the program when interviewed five years later.

As of 2015, 11.6% of the population received cash transfers.[2] The program absorbed roughly 1% of GDP and 3.3% of public expenditure.

[1] As we discuss later in the text, more than 75% of program recipients reported received benefits when interviewed five years after program entry.

[2] Our own calculation based upon social assistance data described below.

# 3 Data

We obtained data from the Georgian ministry covering the population of households applying to the program from its inception in 2005 to March 2010. The data from the ministry includes the household poverty score, the time of the visit by government agent, and the applicant' answers to a number of questions that enter into the poverty score calculation.

To complement the data from the ministry, we designed a survey instrument to measure the economic outcomes of the program. To a large extent, we re-used questions used in other surveys in Georgia. The text of selected questions is available in the appendix.

An important choice was which households to survey. Since we were planning to analyze the program in a regression discontinuity framework, it was natural to sample households as close to the threshold as possible. While we were initially planning a nationally representative survey, the logistical difficulties of surveying households outside of the capital Tbilisi proved considerable. Given the limited resources at our disposal, we chose to focus on applicants from Tbilisi. An additional difficulty we encountered is that the data from the ministry did not include detailed addresses, and multiple requests for access to these addresses were denied. We were, however, able to obtain addresses from a private company.

(insert figure 1 about here)

We selected 901 households from the Tbilisi region who applied in 2009. Figure 1 illustrates our sampling frame. We conducted our survey between October 2014 and March 2015, with a break in January and February 2015.[3] Research assistants contacted 901 households and obtained 334 useable answers for a response rate of 37.2%. The response rate was balanced across respondents (36.7%) and non-respondents (37.4%).

In the survey, we explicitly asked whether respondents were receiving the program. This enables us to compare self-reported recipient status with recipient status inferred from the poverty score in the administrative data (see table 1). Out of the respondents who were eligible from the program according to their 2009 poverty score, 76% reported receiving the program at the time of survey. The reminder can be due either to imperfect recall, unwillingness to disclose receiving the program, us interviewing the wrong households or exit from the program. Conversely, out of the respondents who were not eligible from the

[3]The bulk of the data was collected in October and November 2014

program according to their 2009 poverty score, 91% reported not receiving the program as of 2014. The remaining 9% can be due to entry in the program at a subsequent date, incorrect answers of the respondent or us interviewing the wrong households. Given that some level of noise can be expected from survey data, there seems to be a reasonably good concordance between eligibility inferred from administrative data and self-reported program recipient status. We use eligibility inferred from administrative data for the purpose of analysis.

# 4 Methodology

To estimate the impact of the program, we implement a regression discontinuity (RD) approach. Specifically, we will use specifications of the form:

$$Y_i = \beta_0 + \beta_1 T_i + f(S) + \epsilon_i \tag{1}$$

Where $Y_i$ is an outcome variable, $T_i$ is an indicator for being a program recipient (which corresponds to being below the eligibility threshold), and $f(S)$ is a polynomial function of the difference between the poverty score and the eligibility threshold. We use a polynomial of degree one but allow for different slopes on either sides of the threshold.

Provided that the assignment to the treatment is as good as random in the neighborhood of the eligibility threshold, this specification will give the local average treatment effect (LATE) of the program. It is thus important to keep in mind for the interpretation of the results that we are estimating the effect of the effect of the program at the threshold, and the average effect of the program on the treated.

# 5 Results

Table 2 displays results for a set of economic outcomes. Each line corresponds to a different regression with the relevant dependent variable indicate on the left. Program recipients are significantly more likely to describe their economic condition as "money is not enough for food". This is confirmed by the results of table 3 where we report answers about specific

items the household had trouble to afford over the course of a typical month. Program recipients are significantly more likely to answer that they have to limit their consumption of bread, milk, poultry, fish, vegetables, sweets and chocolate due to the budget difficulties. For the other items we asked for (meat, pork, potatoes, electricity, gas), the effect of program recipients is not significant but the point estimates go in the same direction.

(Insert table 2, 3, 4 about here)

Coming back to table 2, we report that program recipients are less likely to expect that their income in 2015 to be higher than in 2009. Next, we show results for the likelihood of income and spending being below USD 100 per month, or below 250 per month (we did not ask for the exact amount, only whether income and spending fell into one of six intervals). Being a recipient has no significant effect on these measures of income and spending, though we note that the point estimates correspond to a higher likelihood of low income and spending. Program recipients are more likely to report that they have had to borrow to pay for utilities in the last six months, as well as having had to borrow to pay for food, although only the former is significant. There is virtually no difference between program recipients and the control group in terms of the likelihood of being in debt and the likelihood of having savings. The effect of program receipt on the rate of happiness, life satisfaction, self-reported health, or the perceived economic condition relative to other households is not significant.

In table 4, we report the effect of the program on ownership of certain durable items, including color televisions, digital cameras, washing machines, fridges, air conditioners, cars, line phones and cell phone. None of the coefficients is significant but most of the point estimates are negative.

Our results should be interpreted with caution given measurement issues and the relatively low power associated with our sample size. However, the results seem to draw a worrying picture regarding the effect of the program on basic economic conditions. Among the questions we asked, there is none where the program has a significant effect that could be interpreted as an improvement in household conditions. In fact, most point estimates point to a negative effect of program receipt, and in several cases these are significant.

# 6 Discussion and conclusion

We evaluate a social assistance program in Georgia using an original household survey and a regression discontinuity approach. Contrary to our expectations, we find that receiving the program leads to a worsening in (self-reported) basic economic conditions, such as ability to afford food. We find patterns corresponding to a worsening in economic conditions in the answers to a sizeable number of different questions, though the results are significant only for a subset of those.

These results should be interpreted with caution given the following caveats. First, our sample size is relatively small, both in absolute in number and relative to the population. Second, the regression discontinuity approaches identifies the local average treatment effect around the threshold, and not the average treatment effect of the program. Third, we are relying on self-reported data, which necessarily involve noise. A potentially bigger concern that is that program recipients may be conceivably less truthful in their answers if they are concerned about losing the program. Fourth, we are not measuring consumption (not to mention welfare) with precision due to the nature of the questions asked.

To the extent that the recipients' worsening of economic conditions relative to the control is genuine, a natural question to ask is why that might be. One possibility is that the program crowds out other sources of income. In principle, the cash transfers could reduce receipt from other social programs, but that is not the case in the Georgian context. More relevant in our context are remittances from family members abroad or in Georgia. Alternatively, receiving program could reduce incentives to work, as a previous study (Kits et al. 2013) of the same program has found. However, it would require a very large elasticity of these other sources of incomes to the public transfers to generate the observed patterns. A very large elasticity may seem implausible, at least in the absence of other contributory factors.

Another possibility is that the recipients invest both the transfers and additional resources in investments in durable goods or human capital. This could then lead to lower ability to afford food (and other such patterns) in the time window we are observing. In our data we do not observe that recipients own more durable goods that the control group. However, a previous study (Abramishvili & Lanchava 2015) has found that the same program had an effect on university enrollment for the children of the recipients.

Other explanations are possible. The program may change perceptions of conditions rather the conditions themselves. Alternatively, the cash transfers may leading to a 'Dutch disease' situation by encouraging bad habits. It is possible that differential (miss-)reporting by respondents drive our findings. Which (if any) of the explanations suggested here holds has important implications for how the program should be viewed.

Given the limitations of our study, our conclusions should be treated with caution. However, we believe that evidence subject to limitations is better than no evidence at all and that this study can be useful step in understanding the effect of this program, as well as other cash transfer programs in transition countries. In light of our findings, we recommend that that a thorough and extensive evaluation of the social assistance program in Georgia be conducted.

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# Tables

**Table 1:** Self-reported recipient status in 2014 and 2009 eligibility threshold

| | | Below eligibility threshold in 2009 | | |
|---|---|---|---|---|
| | | Yes | No | |
| Report receiving program in 2014 | Yes | 121 | 15 | 136 |
| | No | 38 | 160 | 198 |
| | | 159 | 175 | 334 |

**Table 2:** Effect of the program on economic conditions

| | Program receipt | | Mean of D.V. |
|---|---|---|---|
| Money is not enough for food | 0.297*** | (0.106) | 0.49 |
| Income in 2015 expected to be higher than in 2009 | -0.217** | (0.084) | 0.20 |
| Monthly income is below USD 100 per month | 0.017 | (0.104) | 0.33 |
| Monthly income is below USD 250 per month | 0.084 | (0.105) | 0.70 |
| Monthly spending is below USD 100 per month | 0.023 | (0.104) | 0.32 |
| Monthly spending is below USD 250 per month | 0.064 | (0.104) | 0.70 |
| Has savings | -0.021 | (0.020) | 0.01 |
| Has debts | -0.003 | (0.107) | 0.61 |
| Had to borrow money to pay for utilities in the last six months | 0.316** | (0.114) | 0.38 |
| Had to borrow money to pay for food in the last six months | 0.158 | (0.113) | 0.53 |
| Rate of happiness | -0.379 | (0.621) | 5.67 |
| Rate of satisfaction | 0.093 | (0.545) | 4.38 |
| Rate of health | -0.131 | (0.225) | 2.70 |
| Economic condition of the household relative to others is poor | -0.037 | (0.111) | 0.42 |
| Household economic position in 10 ladders | -0.518 | (0.379) | 3.44 |
| Share of household members employed | -0.044 | (0.037) | 0.10 |

Each line corresponds to a different regression with the dependent variable indicated in the first column. All regressions include linear distance to the threshold as control. $N = 334$. Standard errors in parentheses.$^{*}p < 0.1$, $^{**}$ $p < 0.05$, $^{***}$ $p < 0.01$

**Table 3:** Effect of the program on inability to afford certain items

| | (1) Bread | (2) Milk | (3) Poultry | (4) Meat | (5) Pork | (6) Fish |
|---|---|---|---|---|---|---|
| Program receipt | 0.214** | 0.273** | 0.293*** | 0.098 | 0.101 | 0.175* |
| | (0.097) | (0.107) | (0.101) | (0.080) | (0.080) | (0.101) |
| Observations | 331 | 329 | 328 | 330 | 330 | 329 |
| Distance | Yes | Yes | Yes | Yes | Yes | Yes |
| Mean of dependent variable | 0.20 | 0.52 | 0.67 | 0.81 | 0.81 | 0.69 |
| | (7) Vegetables | (8) Potatoes | (9) Chocolate | (10) Electricity | (11) Gas | |
| Program receipt | 0.228** | 0.157 | 0.236** | 0.089 | 0.033 | |
| | (0.109) | (0.104) | (0.103) | (0.099) | (0.102) | |
| Observations | 329 | 327 | 324 | 328 | 305 | |
| Distance | Yes | Yes | Yes | Yes | Yes | |
| Mean of dependent variable | 0.40 | 0.25 | 0.64 | 0.65 | 0.65 | |

Standard errors in parentheses.*$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

**Table 4:** Effect of the program on items owned

| | (1) Color television | (2) Digital camera | (3) Washing machine | (4) Fridge |
|---|---|---|---|---|
| Program receipt | -0.073 | 0.013 | -0.125 | 0.029 |
| | (0.070) | (0.043) | (0.098) | (0.105) |
| Observations | 331 | 328 | 329 | 331 |
| Distance | Yes | Yes | Yes | Yes |
| Mean of dependent variable | 0.86 | 0.05 | 0.28 | 0.68 |
| | (5) Air conditioner | (6) Car | (7) Land line phone | (8) Cell phone |
| Program receipt | -0.024 | -0.013 | -0.121 | -0.036 |
| | (0.026) | (0.087) | (0.112) | (0.099) |
| Observations | 326 | 329 | 328 | 330 |
| Distance | Yes | Yes | Yes | Yes |
| Mean of dependent variable | 0.02 | 0.15 | 0.59 | 0.74 |

Standard errors in parentheses.*$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

# Figures

**Figure 1:** Sampling frame

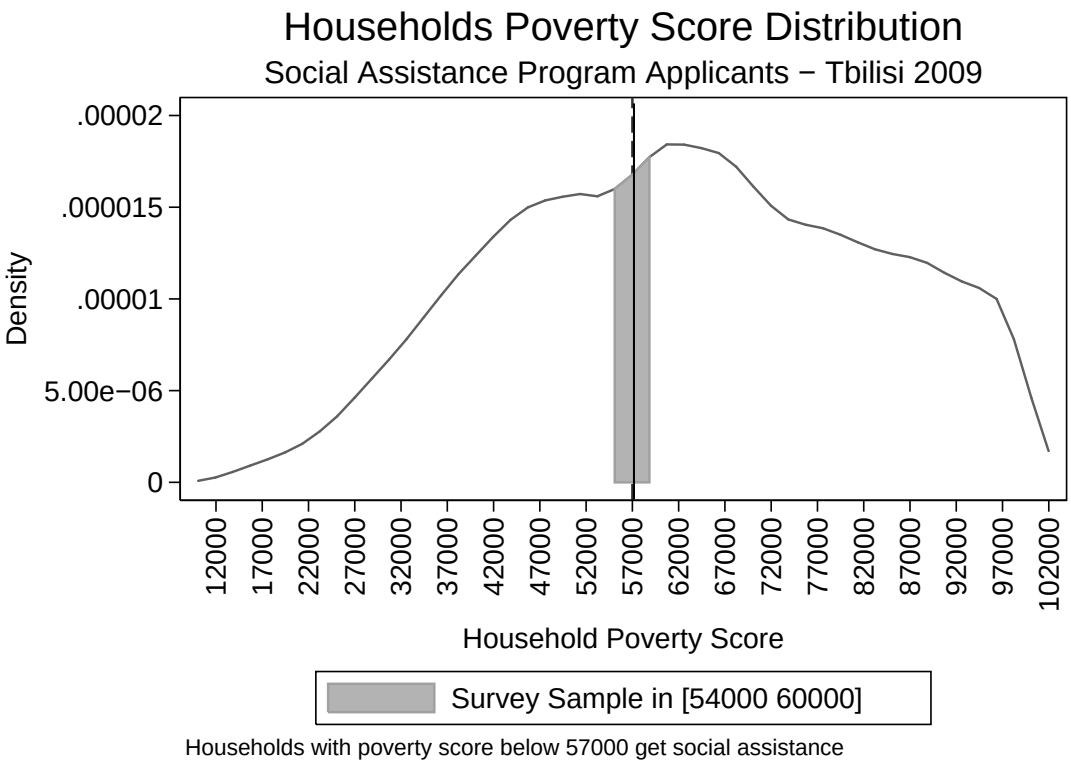
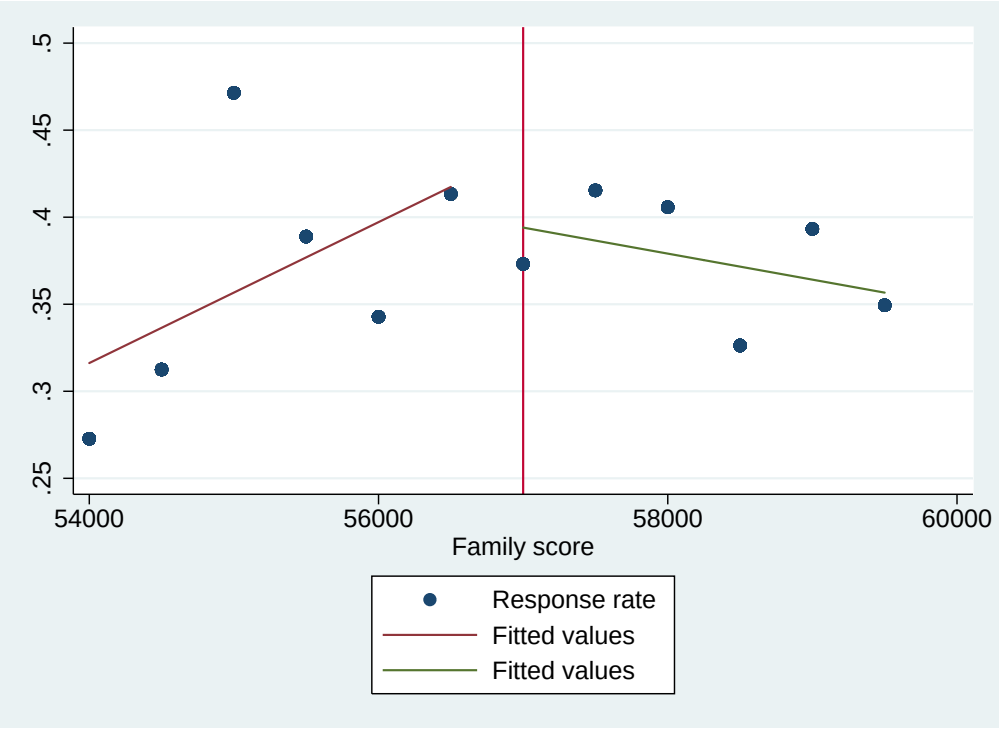
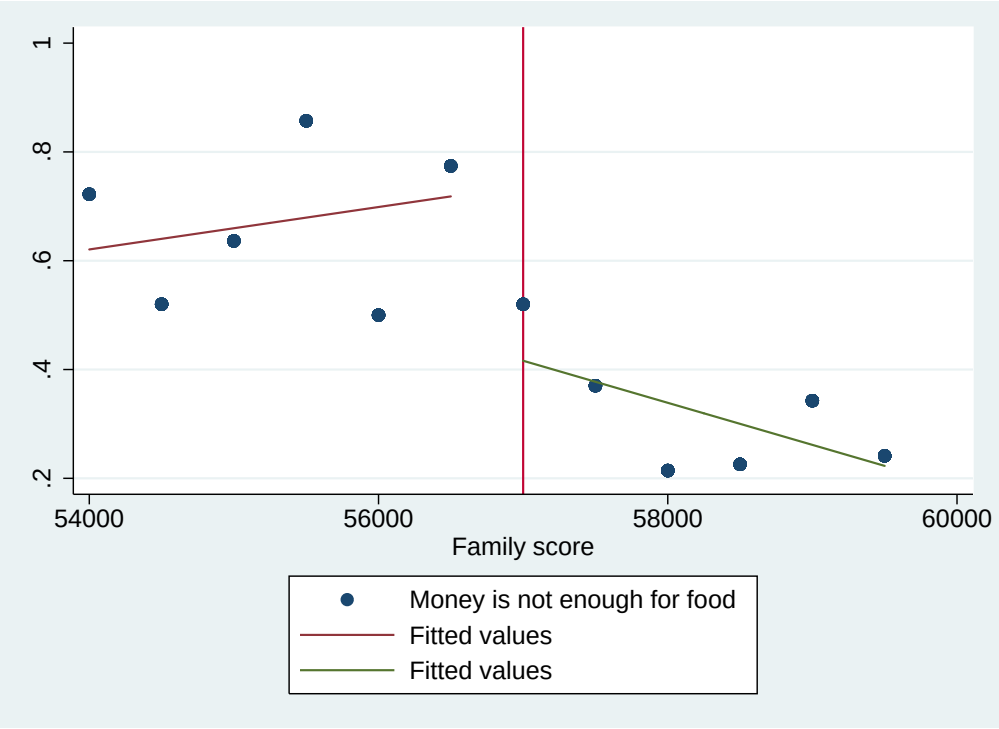


**Figure 2:** Effect of the program on recipients' economic situation - improvement since 2009




Household with a poverty score below 57000 get social assistance.

**Figure 3:** Effect of the program on recipients' economic situation - ability to afford food




Household with a poverty score below 57000 get social assistance.

# Appendix: selected survey questions

Which of the following statements best describes the current economic situation of your household? 1) Money is not enough for food 2) Money is enough for food only, but not for clothes. 3) Money is enough for food and clothes, but not enough for expensive durables like a refrigerator or washing machine. 4) We can afford to buy some expensive durables like a refrigerator or washing machine. 5) We can afford to buy anything we need.

Households may experience financial difficulties. Please tell me, over the course of a typical month, does your household have to limit consumption or use of the following due to budget difficulties? 1) Bread 2) Milk 3) Poultry 4) Meat 5) Pork 6) Fish 7) Vegetables 8) Potatoes 9) Chocolate and Sweets 10) Electricity 11) Gas

Household income is a sum of monetary income of all household members. Speaking about monetary income of all your household members last month, to which of the following groups does your household belong. 1) More than USD 1200 2) USD 801-1200 3) USD 401-800 4) USD 251-400 5) USD 101-250 6) Up to USD 50.

Please tell me your household's spending last month? 1) More than USD 1200 2) USD 801-1200 3) USD 401-800 4) USD 251-400 5) USD 101-250 6) Up to USD 50.

In the past 6 months, how often has your household borrowed any money to pay for utilities? Have you borrowed money 1) Each month 2) Every other month 3) Less frequently or 4) Never.