

INVESTIGATING THE WOMEN'S MULTIPLIER EFFECT AND PROPENSITY FOR
COMMUNITY-ORIENTED SPENDING

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ABSTRACT

Among international development conventions, the most common in the gender empowerment field is: When you invest in women, they re-invest 90 percent back into their families and communities. This rate is considered exceptionally high, especially as the publicized average for men is only between 30 to 40 percent. Women's superior re-investment rate can be found cited by the most diverse range of international donors, implementers, and experts on women's empowerment. This study analyzes gender, age, marital status, and education level, which may complement gender as control variables to potentially better predict spending habits and investigate women's choice to invest more in their communities. The analysis also offers recommendations on how policymakers and development professionals can best align their programming efforts to maximize the effectiveness and expectations of gender-targeted economic empowerment activities.

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INTRODUCTION AND BACKGROUND

A significant portion of development resources are focused on individual household economic growth, specifically to ensure, at the micro-level, people have the opportunity to reliably provide for themselves and their communities. Prior to crafting interventions to increasing economic empowerment, practitioners and policymakers should understand the spending decisions and motivations that influence the ability of an individual to provide for his/her community. The information drawn from such an analysis can then be used to ensure that solutions understand the priorities, cultural norms, and context that influence individuals' spending choices, especially the potential nuances between gender; age; education-level; and marital status.

Most international development organizations have theorized, perhaps unfairly, that when you invest in women, they re-invest 90 percent back into their families and communities, meaning that women prioritize community-oriented expenditures more than individually-serving choices, like alcohol; tobacco; or other luxury goods. The 90 percent rate is considered exceptionally high, especially as the publicized average for men is only between 30 to 40 percent. Women's superior re-investment rate can be found cited by the most diverse range of international donors, implementers, and experts on women's empowerment, including the former U.S. Ambassador-at-Large for Global Women's Issues; the Clinton Global Initiative; the U.S. Agency for International Development (USAID); SHE Investments; the Nike Foundation; Mercy Corps; the White House Council on Women and Girls; the Luxembourg Microfinance and Development Fund; Merrill Lynch; and the United Nations Foundation.

Women's 90 percent re-investment rate, used interchangeably in this study with community-oriented spending or expenditure pattern, motivates donors, investors, and international organizations to fund women-targeted programming because it provides the most return. The guiding principle for this investment is that when organizations invest in a woman, instead of a man, there is a "multiplier effect" that ripples throughout her community through her socially-responsible expenditure choices. The multiplier effect's spillover translates to an abundance of positive externalities for the surrounding society, so a US\$1 direct funds transfer to a woman could translate to up to US\$0.90 of benefits for her, her family, and her community, as compared to US\$0.30 or US\$0.40 for a direct investment to a man.

Much of the current rhetoric regarding women's 90 percent reinvestment rate is predicated on a World Bank study, completed in partnership with the Nike Foundation, in 2009. The study, "Because I Am Girl: The State of Girls Around the World in 2009," launched the partnership between the World Bank, the Nike Foundation, and Plan International as a "global movement to ensure girls everywhere can learn, lead, decide, and thrive." This initial study emphasized that as girls become educated across the world, their economic futures are more productive, less vulnerable, and more likely to produce widespread growth throughout their societies. More specifically, the report highlights that "women will re-invest their funds back into their community, namely through food, health care, home improvement and schooling for themselves and their children" (5). The study does not provide empirical evidence or citations for this calculation or further comment on how the percentage was found, though it does provide case study, anecdotal verification.

The Nike/World Bank study was published at the height of gender-targeted programming becoming an international development funding trend by worldwide donors. When the Millennium Development Goals (MDGs) were released in 2000, promotion of gender equality was recognized for the first time as a shared international goal, bringing it into the development limelight. According to the OECD, from 2002 to 2013, the funding for gender promotion activities worldwide tripled from USD 8 billion in 2002 to USD 28 billion in 2013 (4). The increased funding for gender equality programs outpaced total aid growth: while total aid has grown around one percent annually since 2008, aid for gender equality increased by four percent annually. In conflict and fragile areas, over the same period, aid for gender promotion activities grew ten percent per year (6). The majority of this observed increase, however, has been concentrated in health and education programs, rather than economic participation or financial inclusion, in line with the MDGs' priorities (4).

This lack of equal resourcing under gender equality translates to an opportunity to ensure that those activities focused on women's economic empowerment are the most effective. This paper seeks to understand if (and how) women's expenditures are unique to men's and how best to align those differences with worldwide economic empowerment development programs. Specifically, I analyze two aspects: 1. Are women's expenditure habits statistically different than men's? Are they more community-oriented? and 2. What proportion of funds given to women are spent in a socially-responsible manner? To answer the first aspect, I look at the U.S. Department of Labor's Consumer Expenditure Survey to analyze the ways in which gender is a factor in expenditure habits. For the second aspect, I utilize experiments completed by Innovations for Poverty Action in Uganda, Mexico, and Morocco to see the proportion of funds

from cash transfer programs women spend on community-oriented categories. I utilize three controls throughout the analysis: age, education level, and marital status or family structure, to understand if those factors are better predictors of spending habits than gender alone. From there, I will offer recommendations on how policymakers and development professionals can best align their programming efforts to maximize the effectiveness and expectations of gender-targeted economic empowerment activities.

LITERATURE REVIEW

To situate this study in a development policy context, it is necessary to understand the ways in which people who are poorer spend their funds. In Abhijit Banerjee and Esther Duflo's article, "The Economic Lives of the Poor," they investigate how people with less funds are unique economic actors. The authors specifically define "poor" as living on less than US\$1 day and derive their findings from the World Bank Family Life Surveys completed in 2002 and 2003 across 13 countries. Their study begins to expose another development trope – that those who are living in extreme poverty will spend their money making sure they have enough calories to eat. Their findings show that across the countries studied, food represented 56 to 78 percent of a poor individual's budget and there are significant non-food items that the poor spends the remaining amount on, especially alcohol and tobacco. Similarly, the extreme poor tend to spend a large amount on festivals and family events, such as a wedding; funeral; or religious celebration. Banerjee and Duflo extrapolate their results and find that the "typical poor household in Udaipur, India could spend up to 30 percent more on food than it actually does, just based on what it spends on alcohol, tobacco, and festivals" (14).

In addition to contextualizing how people in developing countries tend to spend their money, the way in which women operate economically is also essential. In Esther Duflo's journal article, "Women Empowerment and Economic Development," she outlines the way in which women act as economic stakeholders, as well as researches the ways gender empowerment can advance socioeconomic development. Duflo unpacks the evidence and concludes that, "Compared to income or assets in the hands of men, income or assets in the hands of women is associated with larger improvements in child health and larger expenditure

shares of household nutrients, health, and housing” (27). Expanding on Duflo’s assertion, when women control income or assets as decision-makers, the results are better for communities writ-large in that many human development indicators, in this case child health; nutritional quality; and housing reliability, increase.

Thirdly, to best understand if, and to what extent, development programs should expect women to spend their funds in a more community-oriented way, it is important to determine how men and women spend money differently in general. Most of the research in this area is focused around household-level decisions between husband and wife, assuming that both genders share household funds. These studies often investigate the varying levels of access on how those funds are spent depending on the surrounding social context. For example, Dr. Soheila Alirezanejad’s “Saving or Spending Money: Women Making Decisions in Rural Iran” looks at rural women’s financial decisions after receiving community-based microloans from newly-established microfinance institutions. In this study, Dr. Alirezanejad discovered that, when women in rural Iranian communities were provided with microloans for the first time, they often spent the loans on their family, rather than on individually-focused luxury items. Despite the program parameters of requiring participants to save their loan funds in informal or formal account or re-investing in their business, women spent their funds on food, house structure repairs, and education. The study notes that, through a series of interviews with loan recipients, much of the spending behavior was due to two factors: (i) societal norms, which dictated that women’s top priority should always be the family otherwise she is considered inept and (ii) in exchange for the wife being allowed to attend microloan meetings, her husband directed the way in which the program funds were spent. This exertion of external control over a women’s decision, due to

household decision-making patterns, resulted in women not being fully autonomous in their decisions on how to spend their funds at the household level, even when through women-only programming.

Dr. Selamah Abdullah Yusof's examines similar household spending decisions in Malaysia through her article "Household Decision-Making and Expenditure Patterns of Married Men and Women in Malaysia." Dr. Abdullah Yusof's article provides an opportunity to begin to understand the complexity of gendered household financial decision-making around the world, largely dependent on the surrounding culture. Unlike Iran, Dr. Abdullah Yusof's survey of 1,778 Malaysian married individuals demonstrated that wives were highly autonomous, especially serving as the final decision-maker on everyday household expenditures. Husbands, however, serve as the final decision-maker on large household expenditures, which are usually for the household, such as school tuition; property; or leisure trips. The study also notes that this dynamic was predictable given the traditionally patriarchal structure of Malaysia where men typically control wide-impact decision-making.

To consider beyond household decision-making paradigms, Brenda Segal and Dr. Jeffrey Podoshen analyzed the differences between individual (i.e. not married) men and women as consumers. In "An Examination of Materialism, Conspicuous Consumption and Gender Differences," Segal and Dr. Podoshen surveyed 1,180 American men and women and found that men were more likely to purchase goods based on materialism and conspicuous consumption compared to women. They also extrapolated that the reasoning behind men scoring significantly higher than women in these categories is due to men's desire for external validation based on purchasable goods. Women scored higher on impulse purchasing than men, though the authors

were not able to convincingly explain why this result was present. Segal and Podoshen's study importantly recognizes that men and women in the U.S., and likely throughout the world, are different in terms of how they internalize societal spending pressures and how they operate as consumers writ-large.

Outside of household and as consumers, women with political power also are distinctly different from men. Many studies, including Dr. Mirya Holman's "Sex and the City: Female Leaders and Spending on Social Welfare Programs in U.S. Municipalities" provide evidence that female politicians in the U.S. tend to allocate more money to social welfare program more often and at a higher rate than their male counterparts. This spending preference on government funds translates to focusing more on the social well-being of a community, rather than its development. Dr. Holman notes that this trend is not universal across all levels of government. Women on city councils, however, do not affect the amount; type; or scope of social welfare programs when a male mayor is present. Yet, when a woman is in an executive political position, such as mayor or governor, her preferences are much more predictably toward socially-oriented programs.

A similar trend was observed in Taiwan by Dr. Li-Ji Chen in her study, "Do Female Politicians Influence Public Spending? Evidence from Taiwan." In this analysis, Dr. Chen studied whether female politicians in Taiwan were more likely to allocate government spending toward social welfare programs at the mayor and city council levels. Her analysis demonstrated that when women were mayors in one of her 23 studied counties, women campaigned on increasing social welfare programs and, once elected, allocated more funds to those initiatives. When women were councilmembers, however, there was a negative effect on social welfare

spending. Dr. Chen attributes this negative effect on the fact that councilmembers are typically more driven by party politics than mayors, so they are less autonomous decision-makers.

Collectively, previous research has demonstrated that in terms of financial decision-making and spending patterns, men and women are different – at the household, consumer, and political levels. This understanding how men and women operate in different financial decision-making position is imperative to investigating how they may be different in how they utilize supplemental development funds, toward either themselves or their community.

CONCEPTUAL MODEL

The following section describes the conceptual model, limitations, and assumptions created to test whether women's spending is statistically different from men's and the proportion of development funds women spend on community-oriented causes. Building on the literature review and theoretical foundations provided in the previous section, this model proceeds in two stages. The first stage investigates the relationship between gender and expenditures, particularly into two sub-categories: individually-oriented expenditures and community-oriented expenditures, utilizing the 2015 Consumer Expenditure Survey. The second stage leverages data from three cash transfer experiments completed by Innovations for Poverty Action (IPA) in Uganda, Mexico, and Morocco. This dataset shows the same categories (individually-oriented and community-oriented) to study the proportion of funds women receive expended on socially-responsible causes. The control variables for both stages are age, highest completed education level, marital status, and number of children or family type to analyze their significance.

The hypothesis for this analysis is that there is no difference between spending habits based on gender alone, meaning there would be no relationship between gender and whether a person expends funds on community-oriented causes. For this analysis, individually-oriented expenditures are defined as spending on goods to benefit the individual only, also referred to as selfish or temptation goods or services. Community-oriented expenditures are defined as those that have benefits that extend beyond the spender, such as household goods; medical expenses; and school fees for their children. For the purposes of this analysis, those causes coded as community-oriented are considered socially responsible.

This study will utilize community-oriented expenditures to be the basis of a re-investment, meaning if someone puts funds into a community-oriented expenditure, they have re-invested in their community. If the individual prefers to spend on individually-oriented expenditures, they will not have re-invested in their community. Such a distinction is important because it sets the definitional parameters as to what qualifies as a re-investment from which we can draw whether women are more likely to re-invest than men. The control variables included in the analysis will examine the effect of age, education, marital status, and number of children or family structure through their interactions with gender, on the amount of re-investment and be more accurate predictors for re-investment beyond solely gender.

There is a variety of assumptions that are made to undertake this study. These includes the initial assertion that gender is binary in that someone may only identify as male or female. Though there is a significant amount of research looking into the gender differences between individuals who identify as trans* and non-binary, this study will focus on only the male and female distinction. This study also assumes that the model satisfies, to the greatest extent possible, the Ordinary Least Squares (OLS) assumptions. There is also an assumption that there is no selection bias in the selection of the individuals who participated in any of the surveys used as the raw data for this analysis and that data collection process was completed in a rigorous, replicable fashion. Lastly, this study is intended to show relationships and correlation, but does not imply causality.

DATA AND METHODOLOGY

Because of the lack of availability for a perfect dataset, this analysis utilizes a uniquely-created set of variables to determine the effect of gender on community re-investment, utilizing age, education level, marital status, and number of children or family type (depending on availability, as outlined below) as controls. These controls are essential to understanding if there is any complexity to the alternative hypothesis that gender is associated with higher community-oriented expenditures. The trope that I am analyzing states that *all* women, despite any other demographic characteristics – such as age, education attained, marital status, or family structure – are more likely to be community-oriented spenders compared to male counterparts. These controls are instituted to ensure those factors, which may or may not influence the outcome of the regression, are considered.

To conduct this analysis, I utilize two different sets of data to best understand the differences between how men and women spend their funds and on which categories. The first dataset utilizes consumer data from the United States as a developed country perspective. The second collection of datasets are from Uganda, Mexico, and Morocco to understand the developing country perspectives. These two perspectives allow conclusions to be drawn to see if women inherently spend their money in more community-oriented ways from men, despite their surrounding economic context. More specifically, I use both a developed and collection of developing countries to understand whether this phenomena, or lack thereof, is generalizable to different parts of the world. If the alternative hypothesis is true – that there is a statistically significant relationship between gender and community-oriented spending habits without any

other controls in place, I would expect this result to carry through despite the socioeconomic status of the country in which women reside.

Dataset Collection A: Developed Country (The United States)

The first dataset collection is a subset of the United States Department of Labor Consumer Expenditure Survey (CE) from the third quarter of 2015. The U.S. Bureau of Labor Statistics collects the CE and its goal is to understand how Americans spend their funds. The survey is conducted nationwide through household distribution to the civilian non-institutional population and collects information on expenditure categories, demographic qualities, and income information. The CE is comprised of an aggregation of two surveys: the Interview Survey, which is focused on large and recurring expenditures (e.g. rent and utility payments) and the Diary Survey, which collects information on frequently-purchased items of smaller values (e.g. clothing and food). The data used for this study is from the third quarter of 2015, from July to September, as the most recently available data at the time of my collection. From this dataset, I utilize variables from both the Interview Survey and the Diary Survey, including: gender, highest level of educational attained, marital status, family type, community, and individual expenditures. The full variable definition is provided in Table 6 in the Appendix.

For the variables used, the variable of interest is gender with the controls being educational attainment, marital status, and family structure. From there, the spending categories of interest are defined, as well as their consideration as individually-oriented or community-oriented. An expenditure was classified as individually-oriented if it generally considered to be benefiting only the purchaser as an individual. This is not to imply that such expenditures are not warranted or appropriate, but rather benefiting only one individual, rather than a group of

individuals. Many of the individually-oriented expenditure categories focus on luxury goods, such as alcoholic beverages; vacations; entertainment; tobacco; and other similar products. Individually-oriented expenditures are those that are essential for living, such as healthcare, and also those that could have a community benefit, such as education. In these cases, it is assumed that a more educated, healthy population is beneficial to societal development writ-large, as it is less burdensome to the surrounding community and allows for the foundation of societal progress and growth. It is important to note that this data is collected on the basis of existing income and was not the result of supplemental cash transfers or grants delivered by the U.S. Department of Labor.

Dataset Collection B: Developing Countries

Dataset Collection B.1: Uganda

The second dataset I use for this analysis is from programmatic data from the Innovations for Poverty Action (IPA) Women's Income Generating Support (WINGS) program in northern Uganda. The program was a randomized-control trial (RCT) for 1,800 women – 15 of the poorest and most vulnerable population in 120 villages - living in the country's northern region. Initial research began in 2007 to identify the most vulnerable populations, baseline data was collected in 2009, and final data collection occurred in 2012. The significance of the location of the population is an interesting contrast to the United States because of northern Uganda's history around the time of programming to be just emerging from war and prolonged political conflict. The WINGS program individual business skills training, as well as a start-up grant of approximately US\$150. For the purposes of my analysis, the component of the program that is most interesting is how the women utilize their transfer of US\$150. For this dataset, I utilized the

following variables: age at the end of the program, years of education at the end of the program, marital status, number of children ages 5 to 15 in the household, individual, and community expenditures. A full list and definitions of the variables can be found in Table 7 in the Appendix.^a

Dataset Collection B.2: Mexico

The second dataset in the developing countries collection is from a clustered randomized trial completed by Innovations for Poverty Action, in partnership with Comparatamos Banco; Mexico's largest microcredit lender. The program began with baseline surveys collected from 16,000 households April to June 2010 in the north-central part of the Mexican State of Sonora, which includes Nogales; Agua Prieta; and Caborca as the urban areas and their more peri-urban and rural surrounding communities. Endline surveys were distributed to the same communities between November 2011 and March 2012. To qualify to participate in the survey, women ages 18 to 60 had to answer "yes" to at least one of the following questions:

- (1) "Do you have an economic activity or a business? This can be, for example, the sale of a product like cosmetics, clothes, or food, either through a catalogue, from a physical location or from your home, or any activity for which you receive some kind of income";
- (2) "If you had money to start an economic activity or a business, would you do so in the next year?";
- (3) "If an institution were to offer you credit, would you consider taking it?"

Once a respondent qualified, she was screened for a loan from Comparatamos with the range being from US\$125 for first-time borrowers to US\$500, depending on prior loan

^a Note that because the WINGS program targeted women only, I have not utilized a gender variable since there is only one option possible (=1 female).

repayment history. The loans did not require collateral and repayment was completed weekly installments over 16 weeks and guaranteed by joint liability. In total, 16,560 women completed the program. From this RCT my analysis uses the following variables from the endline survey: age at the end of the program, level of education completed, marital status, individual, and community expenditures. Variable descriptions and definitions can be found in Table 8 in the Appendix.^b

Dataset Collection B.3: Morocco

The third dataset my analysis uses is from an RCT experiment studying microcredit in rural Morocco, completed by IPA, from April 2006 to January 2010. The microcredit scheme for this experiment was done in partnership with Al Amana, which was Morocco's largest microcredit institution at the time of the program. The program extended into six rural areas throughout the country. After a baseline household-level study to understand the economic context of the rural communities was distributed, IPA randomly offered microcredit lines for the households to accept or decline. For those who accepted the microcredit, an endline survey was given, which is the data I utilize. In total, the amount of households surveyed for the endline was 5,551 households. More specifically, the variables I use from this dataset are gender, age of respondent, years of education, relationship to the head of household (in place of marital status, which was not asked as part of the survey), individual, and community expenditures. The full variable definitions and descriptions can be found in Table 9 of the Appendix.

^b Note that because the Comparatamos program targeted women only, I have not utilized a gender variable since there is only one option possible (=1 female).

Data Limitations

Due to data availability, there are limiting factors with my datasets that could affect my analysis. Because there is no perfect dataset to measure my hypothesis, I use a multi-dataset approach to best capture whether women are more likely to spend their money in community-oriented ways. As noted above, there are differences between the four datasets – from different collection methods to a difference in variables, such as some disaggregating by gender and some targeting women only to period of data collection. Similarly, I utilize data using income in the U.S. sample and a cash transfer for the Uganda, Mexico, and Morocco samples. There may be differences in the way that people spend their regular earned income compared to an inflow and there is not controlled for in this study. Because of these limitations, there may be variances for which I cannot control for that may indirectly influence my analysis.

The Models

The first empirical model I utilize for all of the four component is based on summing all of the totals for the community-oriented expenditures and separately totaling the individually-oriented expenditures to obtain one value for community-oriented and one value for individually-oriented. After that transformation, I utilize an Ordinary Least Squares (OLS) regression model with my control variables for both predicted community and predicted individually-oriented expenditures with gender and my control variables.^c For the datasets that do not include gender as a variable because the sample was female, gender will be dropped, but the data will be analyzed as indicative of all-female responses. The second model is a proportional model, which examines the individual to community expenditures by dividing the individual summed total by

^c Model 1 regressions were calculated using the natural logarithms of both individual and community summed total raw expenditures and no substantial differences were found. As a result, they have not been included in this analysis. The results from those regressions can be found in the Appendix as Tables 10-14.

the community summed total. The objective with this model is to understand if there are any nuances between not just the raw amount in dollars women and men spend toward individual or community expenditures, but also as a ratio of their spending choices. This is intended to capture the differences that may be present and diminish outlier expenditures that may sway the raw amount models.

Both sets of models are shown below:

Model 1: Raw amount of dollars spent models

$$\text{Amount of dollars spent on community} = \beta_0 + \beta_{\text{Gender}} + \beta_{\text{Age}} + \beta_{\text{Education}} + \beta_{\text{MaritalStatus}} + \beta_{\text{Children}} + \varepsilon$$

$$\text{Amount of dollars spent on individual} = \beta_0 + \beta_{\text{Gender}} + \beta_{\text{Age}} + \beta_{\text{Education}} + \beta_{\text{MaritalStatus}} + \beta_{\text{Children}} + \varepsilon$$

Model 2: Proportion of individual expenditures to community expenditures

$$\text{Individual: community expenditures} = \beta_0 + \beta_{\text{Gender}} + \beta_{\text{Age}} + \beta_{\text{Education}} + \beta_{\text{MaritalStatus}} + \beta_{\text{Children}} + \varepsilon$$

DESCRIPTIVE STATISTICS

As mentioned in the previous section, this study utilizes multiple datasets, analyzed individually, to provide the most robust conclusions to determine how women's expenditures differ from men's and how that can best relate to their ability to spend in a more community-oriented fashion. The study uses four sample datasets:

Dataset A: Individual-level expenditure data from U.S. Department of Labor, Bureau of Labor Statistics, 2015 Consumer Expenditure Survey.

Dataset B.1, B.2, B.3: Individual-level cash transfer data from Innovations for Poverty Action's evaluation of three programs in Uganda, Mexico, and Morocco

To calculate the individual and community totals for each of the datasets, an amalgamation of variables was totaled based on the direct applicability to either category. Only expense variables that could be immediately determinable as individually-oriented or community-oriented were used. Other variables, such as investment in own business, were not used because of the lack of clarity on whether such expenditures would be generally considered individual or community-oriented. Table 1 shows which variables from each dataset were used to comprise the individual and community totals. Table 1 also includes the unrestricted means by gender on individual, community, and proportional expenditures^d across all four samples.

^d The proportion for this value is calculated by dividing the individually-oriented total by the community-oriented total.

To begin with the summary statistics for each of the four sample datasets, Table 2 highlights descriptive statistics for the dataset used for the Consumer Expenditure Survey from Dataset A below, followed by Table 3 for Uganda; Table 4 for Mexico; and Table 5 for Morocco.

Table 2: Descriptive Statistics for the United States

| | N | Mean | Standard Deviation | Min | Max |
|--------------------------------|----------|-------------|---------------------------|------------|------------|
| Gender | 6,372 | 0.53 | 0.50 | 0.00 | 1.00 |
| Age | 6,372 | 51.16 | 17.79 | 16.00 | 87.00 |
| Marital status | 6,372 | 0.50 | 0.50 | 0.00 | 1.00 |
| Educational attainment | 6,372 | 13.66 | 1.72 | 0.00 | 16.00 |
| Family type | 6,372 | 0.52 | 0.49 | 0.00 | 1.00 |
| Individually-oriented expenses | 6,372 | 802.29 | 1,717.23 | 0.00 | 47,782.00 |
| Community-oriented expenses | 6,367 | 389.66 | 1,049.29 | 0.00 | 37,213.33 |

Gender in this dataset represents the identification of gender where female = 1. Age is represented in years. Marital status is shows whether a person is married where currently married is =1. Educational attainment is expressed in years of education. Family type represents whether a respondent has children (=1) or does not. Individual-oriented expenses and community-oriented expenses are customs variables as calculated from Table 1, both are expressed in U.S. dollars.

In this dataset, there is near parity between male and female respondent participation, which is important as our primary variable of interest, meaning slightly over half of the sample identify as female. There is also strong variation for age, years of education, and family type, providing a robust diversity in the sample. Similarly, in looking at the frequency in marital status, there is near parity reporting that they are currently married at 50 percent. In looking at the individually-oriented expenses, the average is \$802.29 with a large standard deviation and a high range of \$47,782.00. For community-oriented expenditures, the average is \$389.66, also with a large standard deviation and range of \$37,213.33.

Table 3: Descriptive Statistics for Uganda

| | N | Mean | Standard Deviation | Min | Max |
|--------------------------------|----------|-------------|---------------------------|------------|------------|
| Age | 6,335 | 31.89 | 10.07 | 18.00 | 69.00 |
| Number of children | 1,780 | 2.47 | 1.55 | 0.00 | 9.00 |
| Educational attainment | 1,792 | 2.84 | 2.85 | 0.00 | 14.00 |
| Individually-oriented expenses | 1,779 | 1.57 | 1.94 | 0.00 | 21.64 |
| Community-oriented expenses | 775 | 0.78 | 1.76 | 0.00 | 34.04 |

Gender is not expressed in this table because the sample was female. Age is represented in years. Number of children is the amount of living children in the household age 5 to 15. Educational attainment is expressed in years of education. Individual-oriented expenses and community-oriented expenses are customs variables as calculated from Table 1, both are expressed in U.S. dollars.

From the Uganda summary statistics, it is noted that the entire sample was comprised of women, so there is no included measure on gender. There is a healthy amount of variation in age with the average age being just over 31 years old and the oldest member at 69. The years of education is interesting because though the most amount of education was 14 years, which includes some post-high school vocational training, the average was 2.48 years, meaning most people did not graduate from primary school. The average amount of children aged 5 to 15 living in the household is 2.49 per woman and with a standard deviation of 1.55, most women have between 0 and 5, though some are as high as 9. The average total for individually-oriented expenditure was \$1.57 with a range of 21.64. The community-oriented total mean was \$0.78 with a range of \$34.04.

Table 4: Descriptive Statistics for Mexico

| | N | Mean | Standard Deviation | Min | Max |
|--------------------------------|----------|-------------|-------------------------------|------------|------------|
| Age | 16,560 | 37.66 | 11.11 | 18.00 | 60.00 |
| Marital status | 6,783 | 0.72 | 0.45 | 0.00 | 1.00 |
| Education: Primary school | 16,548 | 0.29 | 0.45 | 0.00 | 1.00 |
| Education: Middle school | 16,548 | 0.40 | 0.49 | 0.00 | 1.00 |
| Education: High school | 16,548 | 0.24 | 0.42 | 0.00 | 1.00 |
| Individually-oriented expenses | 16,435 | 5.20 | 6.78 | 0.00 | 118.60 |
| Community-oriented expenses | 14,947 | 5.11 | 44.07 | 0.00 | 4,928.77 |

Gender is not expressed in this table because the sample was female. Age is represented in years. Marital status refers to whether someone is currently married (=1). Education: Primary school refers to whether someone's highest amount of education is primary school (=1). Education: Middle school refers to whether someone's highest amount of education is middle school (=1). Education: High school refers to whether someone's highest amount of education is high school or higher (=1). Individual-oriented expenses and community-oriented expenses are customs variables as calculated from Table 1, both are expressed in current U.S. dollars.

Like the Uganda data, the Mexico IPA data also samples from only females. The average age in this dataset is 37.66 years and most (71.7 percent) are currently married. For educational attainment, 28.9 percent of respondents denoted primary school as their highest education level attained, 39.9 percent reported middle school as their highest, and 23.5 percent reported high school as their highest. Individually-oriented expenditures had a mean of \$5.20 with a range of \$118.60, while community-oriented expenses averaged \$5.11 with a large range of \$4,928.77.

Table 5: Descriptive Statistics for Morocco

| | N | Mean | Standard Deviation | Min | Max |
|--------------------------------|----------|-------------|-------------------------------|------------|------------|
| Gender | 5,467 | 0.05 | 0.23 | 0.00 | 1.00 |
| Age | 4,696 | 47.30 | 11.25 | 18.00 | 69.00 |
| Relationship to HH | 5,528 | 0.98 | 0.13 | 0.00 | 1.00 |
| Educational attainment | 5,393 | 2.37 | 2.75 | 1.00 | 16.00 |
| Individually-oriented expenses | 5,039 | 2.47 | 2.47 | 0.00 | 149.15 |
| Community-oriented expenses | 5,376 | 39.75 | 109.25 | 0.00 | 5,379.39 |

Gender in this dataset represents the identification of gender where female = 1. Age is represented in years. Relationship to HH is the relationship to the head of household where self = 1 and not self = 0. Educational attainment refers to the amount of years of education completed. Individual-oriented expenses and community-oriented expenses are customs variables as calculated from Table 1, both are expressed in current U.S. dollars.

The Morocco sample includes data on both men and women, though only 5.48 percent of the sample identify as women. This sample is also older than the other two on average with the average age being 47.3 years old. The relationship to the head of household shows that most people were responding as either the head of household themselves or the spouse of the head of household. Most people in the sample have few years of education, averaging 2.36 on average, with the highest being 16 years, denoting graduation from college. The average amount of individually-oriented expenditures was \$2.47 with a range of \$149.15. The community-oriented expenditures had a much larger average with \$39.75 and a large range of \$5,379.39.

EMPIRICAL STATISTICS

The first model I will analyze uses the developed country data from the United States Consumer Expenditure Survey (Dataset A) using the raw amounts in dollars for both the individual and community-oriented expenditures. From there, I will run the same model, with the variables as available, for the Uganda, Mexico, and Morocco datasets on the raw amounts in dollars. After those models are complete, I will run the second set of models, which will be a proportion of individual to community-oriented expenditures for the four samples.

Dataset A: The United States

The regression results from this dataset for individually-oriented (1.1) and community-oriented (1.2) expenditures are noted below:

| VARIABLES | Model 1.1 Individual | Model 1.2 Community |
|------------------------|-------------------------|------------------------|
| Gender | -24.70 (43.05) | -12.03 (26.29) |
| Age | 1.453* (0.818) | 5.381*** (0.635) |
| Marital status | 360.4*** (41.35) | 241.4*** (25.44) |
| Educational attainment | 193.0*** (14.06) | 76.30*** (7.292) |
| Family Type | -85.67* (44.13) | -67.73** (27.02) |
| Constant | -2,031*** (199.5) | -1,007*** (94.65) |
| Observations | 6,372 | 6,367 |
| R-squared | 0.058 | 0.042 |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

From this output, we can see that for the raw amount of individually-oriented expenditures, Model 1.1, gender is not statistically significant at any conventional level, though age; marital status; educational attainment; and family type are. This means that there is no association between whether someone in the sample is likely to spend money in an individually-oriented way and their gender, but there may be for age; marital status; educational attainment; and family type. The four statistically significant control variables are significant at the between the 0.01 and 0.10 levels. This highlights that there appears to be a relationship between the tendency of someone spending their money in an individualistic way and their age; marital status; education, though all relationships are positive. This means that the amount that someone spends his or her money in an individually-oriented way tends to be higher if there are older, married, or have more years of education. This could be because people who are married could have joint assets, meaning a dual-income household with more disposable income available. Similarly, people who are older or with higher levels of education could have higher paying jobs, as often holds true in the U.S. job market, which could be related to having more disposable income. Family type is negatively associated with individually-oriented spending, which is logical in that if there are children in the family, a person is less likely to spend on themselves and would rather spend on their children. All of the instances that could result in having more disposable income, though, do not explain why people would choose to spend their disposable income in an individualistic way. It should be noted for the entire model that the R-squared value is only 0.058, meaning all of the variables only explain a little bit of the variation seen in the individually-oriented spending variable.

Model 1.2 looks at the community-oriented spending choices in the same way as the individually-oriented expenditures. For this analysis, it appears that again, gender is not statistically significant. The other control variables are significant at the 0.01 or 0.05 levels. For the control variables – age, marital status, educational attainment – are all positively associated with community-oriented spending, meaning that as someone gets older, is married, or increases their years of education, they are more likely to spend more on their community. Similar to the individual model, family type is negatively associated. The total variability explained by the model’s variables is only 4.2 percent, as shown in the R-squared value.

Dataset B.1: Uganda

The results from running the regressions to see the tendency toward individually-oriented (2.1) and community-oriented (2.2) spending habits in Uganda is:

| VARIABLES | Model 2.1 Individual | Model 2.2 Community |
|------------------------|-------------------------|------------------------|
| Age | -0.00436 (0.00881) | 0.0361*** (0.0118) |
| Educational attainment | -0.0108 (0.0173) | 0.0402 (0.0326) |
| Number of children | -0.107*** (0.0348) | 0.112*** (0.0286) |
| Constant | 1.969*** (0.264) | -0.623* (0.336) |
| Observations | 1,609 | 748 |
| R-squared | 0.008 | 0.033 |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

For this dataset, gender was not an available to study since the entirety of the sample was

female. In Model 2.1, the only available control variable that was significant was the amount of children in the household, which was significant at the 0.01 level. The interpretation is that as the amount of children in the household increases, the tendency for individualistic expenditures decreases. This is a logical finding consistent with the literature because each additional child requires more funds to be able to provide their basic needs. The R-squared value for this model is only 0.008, meaning that the controls do not explain very much of the variability seen in the individual spending variable.

In Model 2.2, amount of children in the household remains significant, though age also becomes highly statistically significant. Level of education remains not significant. This output shows that the both an increase in age and increase in the amount of children are positively associated with a larger amount of community-oriented expenditures. The overall R-squared value for the model is 0.033, though, so the controls do not fully explain the variance in community expenditures.

Dataset B.2: Mexico

The regressions for the individually-oriented expenditures (3.1) and community-oriented expenditures (3.2) for Mexico is:

| VARIABLES | Model 3.1 Individual | Model 3.2 Community |
|---------------------------|-------------------------|------------------------|
| Age | -0.0856*** (0.0196) | 0.0872*** (0.0303) |
| Marital status | -0.0403 (0.485) | -1.223 (1.153) |
| Education: Primary school | -0.576 (0.573) | -5.824*** (1.797) |

| | | |
|--------------------------|---------------------|----------------------|
| Education: Middle school | -0.214 (0.592) | -4.800*** (1.729) |
| Education: High school | -0.423 (0.548) | -2.219 (2.059) |
| Constant | 8.650*** (0.937) | 6.706*** (2.175) |
| Observations | 1,812 | 1,629 |
| R-squared | 0.021 | 0.019 |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

This data, like the set for Uganda, is female-only, so gender is not included as a variable. In Model 3.1 for individually-oriented expenditures, the only one that is statistically significant is age, which is significant at the 0.01 level. This means that as someone got older, the less the tendency was to spend on themselves. It should be noted that the R-squared value is low at 0.021.

For Model 3.2, when looking at the tendency for women to spend in community-oriented ways, in this model, age and whether she completed primary or middle school are statistically significant at the 0.01 levels. Her marital status and whether she completed high school are not significant. The meaning of these results is that women who are old and have completed either primary or secondary school as their highest educational attainment are more likely to spend money in a community-oriented way.

Dataset B.3: Morocco

The results from the Morocco individually-oriented model (4.1) and community-oriented model (4.2) are below:

| VARIABLES | Model 4.1 Individual | Model 4.2 Community |
|-----------|-------------------------|------------------------|
|-----------|-------------------------|------------------------|

| | | |
|------------------------|----------------------|----------------------|
| Gender | -1.132*** (0.307) | -17.63*** (3.568) |
| Age | 0.00119 (0.00971) | 0.682*** (0.166) |
| Relationship to HH | 3.872 (3.420) | -0.154 (2.991) |
| Educational attainment | 0.0995* (0.0561) | 2.102*** (0.726) |
| Constant | -1.597 (3.447) | 4.010 (9.138) |
| Observations | 4,241 | 4,519 |
| R-squared | 0.016 | 0.007 |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Model 4.1 shows that gender is the only statistically significant measure at the 0.01 level and highest education attained was also significant at the 0.10 level. In interpreting gender, this means that being a woman (gender = 1) is associated with a decrease in individually-oriented expenditures by approximately US\$11.39. For education, with each additional year of education, people were likely to spend US\$1.00 more on themselves.

In this model, gender; age; and education were all statistically significant at the 0.01 level. For gender, being a woman is associated with a US\$17.63 drop in community-oriented spending, while each additional year of age and education were correlated with an increase of US\$0.68 and US\$2.10 toward community spending respectively. The finding on gender is especially interesting because it contradicts the individually-oriented Model 4.1 in which women were likely to spend less on selfish expenditures than men. This difference could be because there are more categories in this dataset that are neither individually-oriented nor community-

oriented that are not captured by the models, which is apparent in the low R-squared value of 0.007.

Proportion of Individual:Community Expenditure Models

For these four models, the total amount of individual-oriented expenditures (*individual*) is divided by the total amount of community-oriented expenditures (*community*) to create the proportion of individual to community expenditures (*proportionIC*). In addition to the raw amount spent models, the proportional amount is important to understand, on an individual level, whether women choose to spend more of the money they have on themselves or their community, despite what their income; transfer; or loan amount may be. If the alternative hypothesis that there is an association between gender and community-oriented spending, I expect the proportion of individual to community spending to be less than 1.00.

Dataset A: The United States

In looking at the U.S. dataset, the following results were found using the proportion of individual to community expenditures:

| VARIABLES | (1) Model 5 |
|----------------|-----------------------|
| Gender | -0.400 (1.311) |
| Age | -0.154*** (0.0485) |
| Marital status | -0.385 (2.482) |
| Education | 0.150 (0.260) |
| Family type | -0.0998 (0.426) |

| | |
|---------------------------------------|-------------------|
| Constant | 12.89* (7.656) |
| Observations | 3,297 |
| R-squared | 0.005 |
| Robust standard errors in parentheses | |
| *** p<0.01, ** p<0.05, * p<0.1 | |

Interestingly, in these findings, the only variable that remains statistically significant from the raw amount models was age. Gender remained insignificant at all conventional levels. In this case, age of the respondent was negatively correlated with the proportion of individual to community spending, meaning that as a respondent increases in age by one year, this model would predict the proportion they spend between their individual to community expenditures decreases by \$0.15, holding all else constant.

Dataset B.1: Uganda

The same model was run for Uganda and resulted in the below:

| VARIABLES | (1) Model 6 |
|---------------------------------------|----------------------|
| Age | -0.0109 (0.0127) |
| Education | -0.0254 (0.0334) |
| Number of children | -0.203** (0.0816) |
| Constant | 1.080* (0.610) |
| Observations | 717 |
| R-squared | 0.026 |
| Robust standard errors in parentheses | |
| *** p<0.01, ** p<0.05, * p<0.1 | |

As with the United States sample, the results from this proportional analysis are similar in

that only one variable remained significant: the amount of children in the household at the 95% confidence level. In the Uganda sample, age was no longer significant and education remained insignificant. The interpretation of the number of children is as I previously expected: as the number of children in the household grows, the proportion of the amount spent from individual to community expenditures decreases by 0.203.

Dataset B.2: Mexico

Mexico’s proportion of individual to community expenditures resulted in the below:

| VARIABLES | (1) Model 7 |
|----------------|-----------------------|
| Age | -0.148*** (0.0361) |
| Marital status | 0.283 (0.847) |
| Primary school | 3.026** (1.379) |
| Middle school | 1.687 (1.294) |
| High school | 1.802 (1.377) |
| Constant | 8.062*** (1.789) |
| Observations | 1,211 |
| R-squared | 0.015 |

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

As with the previous results, the Mexico findings are aligned whereby only a portion of the originally-significant variables remain significant in the proportion model. In this case, age and primary school as the highest educational attainment are the only remaining significant variables as middle school as the highest attainment is no longer significant. Interestingly, age is

negative, which is logical because as someone ages, their priorities may change to be more community oriented. Primary school as the highest educational attainment, however, is positive, meaning that for those individuals, they are more likely to have a higher individual to community spending ratio and therefore spending more on themselves.

Dataset B.3: Morocco

The Morocco findings for the proportion model are:

| VARIABLES | (1) Model 8 |
|--------------------|--------------------------|
| Gender | -0.169* (0.0969) |
| Age | -0.00994*** (0.00332) |
| Relationship to HH | -0.0618 (0.0984) |
| Education | -0.00234 (0.0113) |
| Constant | 1.093*** (0.207) |
| Observations | 3,713 |
| R-squared | 0.004 |

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

In this model, gender lowers in significance, though is still significant at the 10% confidence level. It should be noted that, in all of the proportion models, the Morocco sample is the only one in which gender is significant at any conventional level. Gender is negative in this case, meaning that women (gender = 1) have a smaller proportion of individual to community spending and are more likely to spend toward the community, all else held constant. Beyond gender, age remains statistically significant, though education no longer is significant. As with

the other models in the models, the age coefficient is negative, which can be interpreted to mean that as someone gains one additional year, they tend to have a smaller proportion of individual to community expenditures.

DISCUSSION AND CONCLUSION

The results from both the raw value and the proportion models demonstrate one important conclusion: gender is not statistically significant across all contexts when using the U.S, Uganda, Mexico, and Morocco as examples. This is a departure from the trope that women are inherently more community-oriented spenders and are more likely to invest in their community than themselves. The lack of consistency of findings between the four datasets also means that I fail to reject the null hypothesis that there is no relationship between gender and amount of community-oriented expenditures. There was also no single control variable that was universally significant across the four samples. The studied trope for this analysis can be summarized to mean that all women – despite age, marital status, education level, and family structure – spend their funds in different manners between individually-oriented and community-oriented expenditure choices.

The finding that women’s spending choices are not universal in pattern demonstrates the need for a policy revision when conceptualizing gender-targeted programming. For instance, if most of the current development policy framework insists that all women are most likely to take their funds and re-invest in their communities, as noted in the background section of this study, donors are misrepresenting the nuances between different types women in unique contexts. These differences could be contributing to how women decide to spend their funds more so than their perceived inherent community prioritization that comes from being a woman.

The policy dangers that result from this misrepresentation are substantial. If a program begins under the false assumption that women inherently invest more of their funds in their community and women do not act in which a donor expects, the donor may decide that the program is a failure and end their program. This decision to cease programming would then be the result of women not meeting an unrealistic expectation that is not evidenced-based.

This study was not able to fully dive into all of the characteristics of the sampled women to understand how they make their choices. To investigate these differences, future studies should consider additional demographic information, including financial history (such as individual debt, credit lines, and others), as well as financial literacy, to gain a more comprehensive understanding of how a woman's past may influence the way she spends her funds. Additionally, future research should focus on the ways in which the consumer identifies their expenditures and how they perceive their spending choices. In this analysis, I decided whether expenditures were individually-oriented or community-oriented based on how many people would directly benefit. It would be important in the future to see how people perceive their own choices and if that is aligned with this study's sorting. Lastly, due to this study's reliance on RCT experiments on conditional cash transfer, it is not generalizable to the wider female population. Future work should consider utilizing unconditional cash transfer data to understand free spending choices that are not tethered to programmatic goals to honestly appreciate how men and women spend differently, if at all.

To better ground gender-targeted development policy, donors should consider that women have many facets of their identities, which can – and likely do – contribute to their spending choices. Middle-aged women with three children in a rural community in Ghana may

choose to spend their money differently than a single, twenty-year-old businesswoman in urban Ukraine, for example. Understanding these nuances that surround and are embodied by women is central to formulating and implementing the most effective, evidenced-based policy solutions to aid in women's economic empowerment and overall economic growth.

APPENDIX

Table 6: Variable Definitions for Dataset A – United States

| Variable Name ^{*e} | Variable Description | Variable Code or Notes |
|-----------------------------|--|---|
| Sex_ref* | Gender of respondent | 0 Male 1 Female |
| High_edu | Highest level of education received by respondent | 00 Never attended 10 1st-8th grade 11 9th-12th grade (no high school diploma) 12 High school graduate 13 Some college, no degree 14 Associates degree 15 Bachelor's degree 16 Master's degree, professional/doctorate degree |
| Marital1* | Marital status of respondent | 0 Not currently married (includes widowed, divorced, separated, and never married) 1 Currently married |
| Fam_Type* | Family type of respondent (in place of number of children) | 0 No children (either married couple or single) 1 With children (either married couple or single) |
| TOBACCCQ | Amount of funds in dollars spent on tobacco and smoking supplies during Q3 2015 | Treated as individually-oriented expenditure |
| READCQ | Amount of funds in dollars spent on reading during Q3 2015 | Treated as individually-oriented expenditure |
| EDUCACQ | Amount of funds in dollars spent on education during Q3 2015 | Treated as community-oriented expenditure |
| ENTERTCQ | Amount of funds in dollars spent on entertainment during Q3 2015 | Treated as individually-oriented expenditure |
| HEALTHCQ | Amount of funds in dollars spent on healthcare during Q3 2015 | Treated as community-oriented expenditure |
| MENBOYCQ | Amount of funds in dollars spent on clothing for men and boys during Q3 2015 | Treated as individually-oriented expenditure |
| WOMGRQCQ | Amount of funds in dollars spent on clothing for women and girls during Q3 2015 | Treated as individually-oriented expenditure |
| TVRDIQCQ | Amount of funds in dollars spent on televisions, radios, and other entertainment devices during Q3 2015 | Treated as individually-oriented expenditure |
| PETTOYCQ | Amount of funds in dollars spent on pet and pet supplies during Q3 2015 | Treated as individually-oriented expenditure |
| TTOTALP | Amount of funds in dollars spent on vacation trips during Q3 2015 | Treated as individually-oriented expenditure |
| ALCBEVCQ | Amount of funds in dollars spent on alcoholic beverages during Q3 2015 | Treated as individually-oriented expenditure |
| TFOODAWC | Amount of funds spend in dollars on food and non-alcoholic beverages this quarter at restaurants, cafes, and fast food places during out-of-town trips | Treated as individually-oriented expenditure |

^e Those variables marked with an asterisk signify those that have been re-coded to suit this analysis. In all instances, those variables have been transformed into binary variables between whether the result of interest is set equal to 1 and the absence of such a result is equal to 0.

Table 7: Variable Definitions for Dataset B.1 - Uganda

| Variable Name | Variable Description | Variable Code or Notes |
|------------------------|---|--|
| age_bas | Age at the end of the program | |
| edu_bas | Years of education at the end of the program | |
| partner_p1e | Married or living with a partner | |
| hh_children2_p1e | Number of children aged 5 to 15 in the household | |
| grantamt | Total grant amount received | |
| cashtotal4w_p1e | Monthly gross cash earnings (subtracting grant amount) | |
| consalcoholpercap2_p1e | Amount spent on alcohol | Treated as individually-oriented expenditure |
| foodout_tot_p1e | Weekly value of food consumption outside the home | Treated as individually-oriented expenditure |
| conseducpercap2_p1e | Amount spent on educational expenses (includes adult learning) | Treated as community-oriented expenditure |
| conscomfortpercap2_p1e | Amount spent on comfort goods | Treated as individually-oriented expenditure |
| kidseduc_r_p1e | Amount spent on education for your biological children in the second term | Treated as community-oriented expenditure |
| kidshealth_r_p1e | Amount spent on health of your biological children in past four weeks | Treated as community-oriented expenditure |
| grantspend_bribes_p1e | Amount spent on bribes | 0 if no spending on bribes 1 if spent money on bribes Treated as individually-oriented expenditure |
| grantcommgaveprop_p1e | Proportion of grant money given to community members for projects | Treated as community-oriented expenditure |

Table 8: Variable Definitions for Dataset B.2 - Mexico

| Variable Name | Variable Description | Variable Code or Notes |
|-------------------|--|---|
| F5_1 | Age of respondent at the end of the program | |
| Q1_5_primary | Level of education completed | Completed primary school |
| Q1_5_middle | | Completed middle school |
| Q1_5_high | | Completed high school |
| BQ1_2_married_bin | Marital status | 0 Not married 1 Married |
| Q13_jobincome | Household income from salaried and non-salaried jobs last month in dollars | |
| Q21_5_comp | Total amount of loan received from Comparatamos Banco in dollars | |
| Q7_tempt | Amount spent on temptation goods (cigarettes, alcohol, sweets, food outside of the home, and soda) | Treated as an individually-oriented expenditure |
| Q18_2_1_amount_wk | Amount spent on school expenses (weekly) | Treated as a community-oriented expenditure |
| Q18_2_3_amount_wk | Amount spent on family events | Treated as a community-oriented expenditure |
| Q18_2_2_amount_wk | Amount spent on medical expenses | Treated as a community-oriented expenditure |

Table 9: Variable Definitions for Dataset B.3 – Morocco

| Variable Name | Variable Description | Variable Code or Notes |
|---------------|--|--|
| a4_1 | Gender of respondent | 0 Male 1 Female |
| a7_1 | Age of respondent | |
| a8_1 | Years of education attained | |
| a3_1 | Relationship to the head of household | Utilized instead of marital status, which was not asked explicitly in the survey |
| h10_1 | Salary received by member during the past month in dollars | |
| i9_1 | Total loan amount given by Al Amana | |
| h1_16 | Expenditure last week on cigarettes | Treated as individually-oriented expenditure |
| h1_17 | Expenditure last week on meals outside the home | Treated as individually-oriented expenditure |
| h1_18 | Expenditure last week on drinks outside the home | Treated as individually-oriented expenditure |
| h3_8 | Expenditure last 30 days on medical and healthcare fees | Treated as community-oriented expenditure |
| h3_11 | Expenditure last 30 days on donations to the Imam | Treated as community-oriented expenditure |
| h3_14 | Expenditure last 30 days on leisure and entertainment | Treated as individually-oriented expenditure |
| h4_1 | Total expenditure on in the last 12 months on school fees | Treated as community-oriented expenditure |
| h4_8 | Total expenditure on last 12 months on donations | Treated as community-oriented expenditure |

Table 10: United States Regressions with Natural Logged Individual and Community Raw Expenditures

| VARIABLES | (1) Model 1.3 Log Individual | (2) Model 1.4 Log Community |
|------------------------|---------------------------------------|--------------------------------------|
| Gender | -0.0972* (0.0356) | 0.00817 (0.0404) |
| Age | 0.00100* (0.00104) | 0.0119*** (0.00122) |
| Marital status | 0.339*** (0.0866) | 0.635*** (0.104) |
| Educational attainment | 0.214*** (0.0114) | 0.127*** (0.0130) |
| Family Type | -0.00425* (0.0139) | -0.00236* (0.0158) |
| Constant | 2.980*** (0.216) | 3.206*** (0.258) |
| Observations | 5,172 | 3,297 |

| | | |
|-----------|-------|-------|
| R-squared | 0.106 | 0.129 |
|-----------|-------|-------|

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 11: Uganda Regressions with Natural Logged Individual and Community Raw Expenditures

| VARIABLES | (1) Model 2.3 Log Individual | (2) Model 2.4 Log Community |
|------------------------|---------------------------------------|--------------------------------------|
| Age | -0.00489 (0.00387) | 0.0539*** (0.00997) |
| Educational attainment | 0.000228 (0.00851) | 0.0404 (0.0261) |
| Number of children | -0.0651*** (0.0159) | 0.522*** (0.0578) |
| Constant | 0.290** (0.118) | -4.262*** (0.369) |
| Observations | 1,598 | 717 |
| R-squared | 0.015 | 0.204 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 12: Mexico Regressions with Natural Logged Individual and Community Raw Expenditures

| VARIABLES | (1) Model 3.3 Log Individual | (2) Model 3.4 Log Community |
|----------------|---------------------------------------|--------------------------------------|
| Age | -0.00880*** (0.00250) | 0.0259*** (0.00403) |
| Marital status | 0.0753 (0.0590) | -0.00269 (0.0967) |

| | | |
|---------------------------|---------------------|----------------------|
| Education: Primary school | -0.0706 (0.0873) | -1.130*** (0.151) |
| Education: Middle school | -0.0773 (0.0816) | -0.767*** (0.138) |
| Education: High school | -0.0914 (0.0861) | -0.519*** (0.152) |
| Constant | 1.839*** (0.118) | 0.660*** (0.200) |
| Observations | 1,357 | 1,213 |
| R-squared | 0.014 | 0.064 |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 13: Morocco Regressions with Natural Logged Individual and Community Raw Expenditures

| VARIABLES | (1) Model 4.3 Log Individual | (2) Model 4.4 Log Community |
|------------------------|---------------------------------------|--------------------------------------|
| Gender | -0.0634 (0.132) | -0.476*** (0.141) |
| Age | 0.000297 (0.00190) | 0.0168*** (0.00271) |
| Relationship to HH | 0.290 (0.209) | -0.330 (0.0973) |
| Educational attainment | 0.0102 (0.00796) | 0.0208** (0.0101) |
| Constant | 0.679*** (0.231) | 1.579*** (0.174) |
| Observations | 2,376 | 4,029 |
| R-squared | 0.003 | 0.014 |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

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