



METHODOLOGICAL EXPERIMENT ON MEASURING ASSET OWNERSHIP FROM A GENDER PERSPECTIVE (MEXA)

TECHNICAL REPORT

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1. Introduction

1.1. Motivation and Background

In their productive capacity, assets generate income and facilitate access to capital and credit. In the face of shocks, they enhance the ability to diversify income and alleviate liquidity constraints (Hulme and Shepherd, 2003; Carter and Barrett, 2006). Ownership of, and control over assets is a key input into individual empowerment and the related micro data constitute an essential input into extensive economic research focused on intra-household bargaining outcomes and their impact on household and individual welfare (Agarwal, 1997; Beegle et al., 2001; Quisumbing and Maluccio, 2003; Fafchamps and Quisumbing, 2005; Friedemann-Sanchez, 2006; Doss, 1996, 2006; Allendorf, 2007; Oduro et al., 2015).

Despite the importance of individual-level asset ownership data in creating a more careful understanding of shared prosperity, and the fact that most assets are owned by individuals, either solely or jointly, it is typical for the micro data on asset ownership to be collected largely at the household-level, often from only one respondent per household (Doss et al., 2008; Deere et al., 2012; Ruel and Hauser, 2013). Consequently, analysts have resorted to comparing households according to whether they are “headed” by a male or a female.² The ensuing conclusions on the gender asset gap are confounded by the fact that male-‘headed’ households conflate households with monogamous or polygamous partners with households without female adults, and that it is significantly more likely for women to be living in male-‘headed’ households than men living in female-‘headed’ counterparts (Deere and Doss, 2006).

Even when household survey data are collected at the individual-level, with unique identification of reported, documented and/or economic owners of a given asset within the household, the information is often collected from a single respondent. The respondent is usually the self-identified “most knowledgeable” household member which overwhelmingly corresponds to the ‘head’ of household, whose identification, particularly in couple households, is a function of existing social norms that could come with gender biases (Deere and Doss, 2006). Further, data on “ownership” are seldom paired with data identifying the individuals who hold the various

² In the context of a household survey that solicits information on “headship”, this information is gathered when a sampled household is first approached for an interview, and often through the question: “Who is the head of this household?” The simplicity of the question is, however, deceiving. First, headship definitions may vary across countries. The head of household could be equated to the eldest member of the household, the primary breadwinner **and/or** the primary decision maker. Second, headship definitions typically refer to the head of household as an individual whose “authority” is recognized by the household members, but this definition overlooks the potential intra-household variation in authority in different realms of decision making. Relatedly, the headship concept has rarely been extended to capture “dual-headed” households. Finally, there may be a disconnect between the headship definition and the interpretation of the survey question, with the latter exhibiting idiosyncrasy potentially at the household-level.

rights to the assets. This in turn limits our understanding of the inter-relationships among ownership and rights indicators, and whether these relationships vary across individuals.

Underlying these sub-optimal approaches to individual level data collection, in particular the use of proxy respondents that overlooks information asymmetries within households, is the **lack of technical guidelines on questionnaire design and respondent selection protocols that properly capture individual-level ownership of, and rights to assets.** In a world of imperfect and scarce data, the absence of these recommended practices fuels the prevalence of myths regarding women's asset ownership and contributes to the inability to clearly articulate policy responses to inequalities faced by women and men (Doss et al., 2015). The provision of these guidelines, anchored in solid methodological research, would in turn improve the collection of household survey data facilitating better socioeconomic research focused on personal wealth and its distribution.

In particular, the study of gender differences in asset ownership and wealth would reveal the extent of economic disadvantage accumulated by women over the life cycle and its inter-generational implications in a stratified social system, providing a longer term overview of the gender dimensions of economic inequality and vulnerability (Warren, 2006; Ruel and Hauser 2013). As sex-disaggregated individual-level asset ownership indicators have been endorsed for monitoring a subset of the Sustainable Development Goals (SDGs), knowledge generation on proper questionnaire design and respondent selection protocols for collecting information from more than one individual per household on ownership of, and rights to assets would also be key to promoting the availability and comparability of these indicators on a cross-country basis.³

Despite this need and the existing evidence on the gender gap in asset ownership and wealth (Germany: Sierminska et al., 2010; United States: Neelakantan and Chang, 2010; Ruel and Hauser, 2013; Ecuador, Ghana and India: Doss et al. 2011), the required information is currently not available for the overwhelming majority of countries, in part due to knowledge gaps in preferred questionnaire design and respondent selection protocols for capturing individual-level data on ownership of, and rights to assets.⁴ With this in mind, the United Nations Evidence and Data for Gender Equality (EDGE) project⁵ and the World Bank Living Standards Measurement

³ To monitor Targets 1.4 and 5.7, the following indicators have been endorsed, respectively: (i) Percentage of people with secure tenure rights to land (out of total adult population), with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure, and (ii) Percentage of people with ownership or secure rights over agricultural land (out of total agricultural population), by sex; and share of women among owners or rights-bearers of agricultural land, by type of tenure.

⁴ These knowledge gaps were recognized by the United Nations Evidence and Data for Gender Equality (EDGE) project draft Technical Report on Measuring Individual Level Asset Ownership and Control, and at the technical meeting organized by the EDGE project in Bangkok in July-August 2013 and attended by national statistics offices from Fiji, Georgia, Ghana, Maldives, Mexico, Philippines, South Africa, Swaziland and Uganda.

⁵ The EDGE project is executed jointly by the United Nations Statistics Division (UNSD) and the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) and seeks to accelerate existing efforts to generate comparable gender indicators on health, education, employment, entrepreneurship, and asset ownership.

Study (LSMS)⁶ program established a partnership in March 2014 to implement a randomized household survey experiment that documents the relative effects of different approaches to survey respondent selection and questionnaire design on individual-level measurement of ownership and control of assets. The household survey experiment, known as the “Methodological Experiment on Measuring Asset Ownership from a Gender Perspective” (MEXA), was implemented by the Uganda Bureau of Statistics (UBOS) during the period of May-August 2014 with in-country training, survey management, field supervision, data processing and quality control support from the LSMS. MEXA was conducted successfully using the World Bank’s *Survey Solutions* Computer-Assisted Personal Interviewing (CAPI) software.

The MEXA design was informed by the recommendations of the EDGE Follow-up Meeting on Measuring Asset Ownership from a Gender Perspective that was held on November 21–22, 2013 with participation from the United Nations Statistics Division (UNSD), the UN Women, World Bank, the United States Agency for International Development (USAID), UBOS and Yale University. A review of the survey instruments and protocols linked to the Gender Asset Gap Project, Women’s Empowerment in Agriculture Index (WEAI), Demographic and Health Surveys, and Living Standards Measurement Study – Integrated Surveys on Agriculture (LSMS-ISA) initiative was important for distilling the prominent approaches to respondent selection in household surveys across the developing world.

A question that was discussed extensively during the meeting, that had not been answered by available research, was whether interviewing only the ‘most knowledgeable’ household member, as is typically done in household surveys, yields comprehensive information about individual-level asset ownership and control for both men and women. Several unanswered research questions subsequently guided the decisions regarding the MEXA design: 1) How much can we improve understanding of (i) intra-household asset ownership and control and (ii) inter-relationships between reported, economic and documented ownership of, and rights to assets by interviewing multiple household members, as opposed to the most knowledgeable household member? 2) Do partners provide different information about personal and each other’s asset

The project focuses on (i) the development of a platform for international data and metadata compilation covering education, employment and health indicators, (ii) the development of international definitions and methods for measuring gender-disaggregated entrepreneurship and asset ownership, and (iii) testing the newly developed methods in selected countries.

⁶ The LSMS program was established by the World Bank Development Research Group in 1980 as a response to a perceived need for policy relevant data that would allow policy makers to move beyond the measurement of indicators and to understand the determinants of these observed outcomes. The overarching objectives of the program have been to (i) explore ways of improving the quantity, quality, type and relevance of household survey data collected by national statistical offices (NSOs) in developing countries, (ii) increase the capacity of NSOs to implement household surveys and to analyze household survey data, and (iii) assist policy makers in their efforts to identify how policies could be designed and improved to positively affect outcomes through increase availability, quality and analysis of household survey data. The program is currently housed in the Development Data Group Survey Unit. For more information on the LSMS, please visit www.worldbank.org/lsm.

ownership when interviewed separately versus together? 3) Do individuals provide different information about personal asset ownership when interviewed separately but asked to report only on assets they own versus assets owned by any household member, including themselves? 4) Are household members hiding assets from one another that would be missed by not interviewing them in private?

1.2. Overview of MEXA Design

In view of the prevailing protocols on respondent selection and fieldwork implementation, and the research questions, MEXA tested **5 survey treatments**, each of which sought to establish a different interview setting while identifying, at the asset level and across 13 asset classes, *reported* owners, *economic* owners, *documented* owners and holders of rights to (i) *bequeath*, (ii) *sell*, (iii) *rent out*, (iv) *use as collateral*, and (v) *invest/make improvements*.⁷

Arm 1 (standard of practice) interviewed the individual who, following the enumerator’s introduction of the survey, was identified to be the “**most knowledgeable**” **household member**.” This respondent was attempted to be interviewed alone, and was asked about **the assets owned by each member of the household**, exclusively or jointly with others within or outside the household, in each asset class. In line with the prevailing implementation protocols, the selection of the most knowledgeable household member was a function of the adult individuals that were available at the time of the interview. This could have meant that the first choice for the most knowledgeable member was not interviewed if he/she was unavailable during the time that the field team was going to be in that enumeration area.

Arm 2 interviewed **the randomly selected member of the principal couple** while **Arm 3** interviewed **the principal couple together**. The questionnaire for Arm 2 and Arm 3 was otherwise identical with respect to Arm 1, and the interview targets were attempted to be interviewed in private. The inclusion of Arm 2 and Arm 3 was in part driven by the proposals that are commonly suggested by the survey implementing agencies that are eager to introduce more structure to the respondent selection process without having to collect intra-household information on asset ownership and control from multiple individuals.

Arm 4 and **Arm 5** were the most challenging from an implementation perspective since **up to 4 adult household members**, 18 years and above, were attempted to be interviewed in private and

⁷ The approach to identify reported, economic and documented owners in Arms 1 through 4 versus Arm 5 is different by design, and the details on these differences are provided in Section 2.2. In the case of Arms 1 through 4, *reported owners*, *economic owners* and *documented owners* (as applicable), are identified, respectively, through the questions “*Who owns this [ASSET]?*”, “*If this [ASSET] were to be sold/rented out today, who would decide how the money is used*” and “*Whose names are listed as owners on the ownership document for this [ASSET]?*”. The inquiry about the specific rights is in line with conceptualization of ownership also as a bundle of rights.

simultaneously. Identical to Arms 1 through 3, each respondent in an **Arm 4** household was asked independently about **the assets owned by each member of the household**, exclusively or jointly with others within or outside the household, in each asset class. In contrast, **Arm 5** only inquired about **the assets owned by the respondent**, exclusively or jointly with others within or outside the household, in each asset class. Another household member’s potential joint ownership of an asset was identified only conditional on the respondent’s identification of himself or herself as an owner of that asset.

Arm 4 and Arm 5 were included in the MEXA design due to the interest in (i) developing a more nuanced understanding of individuals’ empowerment and (ii) understanding intra-household inequality in ownership and control of assets and women’s perception of their ownership and rights vis-à-vis that of men’s. Arm 5 was implemented specifically to test whether we obtain different information when a respondent is asked to report on personal ownership of, and rights to assets as in Arm 5 versus to report on ownership of, and rights to assets among all household members, including the respondent, as in Arms 1 through 4. This entailed phrasing the questions on ownership and rights differently in Arm 5 (e.g. “Are you among the owners of this dwelling?” followed by “Who else owns this dwelling?” to capture other household and/or non-household members that may be joint reported owners) vs. in Arms 1 through 4 (e.g. “Who owns this dwelling?” – a single question that is meant to capture exclusive or joint household and/or non-household member owners). The intra-arm differences in questionnaire design are detailed below in Section 2.2.

Finally, Arm 4 and Arm 5 had each respondent create an independent roster of assets in each asset class with the idea that the analysis team would attempt to create a panel of assets across the respondents of the same household based strictly on the household survey data. This decision was thought to better capture assets that may be hidden from other household members, and still did not compromise the objective of creating a household-level wealth aggregate that would ultimately feed into the System of National Accounts.⁸

1.2.1. A Note on the Elusive Gold Standard

Among the survey treatments tested, MEXA lacks a gold-standard approach to measure individual ownership and control of assets in an “objective” way; an attribute that separates MEXA from an ideal household survey experiment that would seek to test the relative accuracy

⁸ As part of the household surveys that were conducted under the Gender Asset Gap project, creating first a household inventory and asking as part of individual interviews regarding assets that may not have been listed in the inventory but that may have been owned by the individuals generated a near-negligible number of previously-omitted assets that were added to the inventory. It was not clear whether the limited incidence of addition of assets to the household inventory during the individual interviews was in line with the reality or related to intended or unintended omission on the part of the enumerators or the respondents due to fatigue or incorrect understanding of the fieldwork protocol.

and cost effectiveness of alternative approaches to measurement in the context of an objective, gold standard. While MEXA analysis clearly shows that the use of proxy respondents is not the gold standard for collecting intra-household information on individual ownership of, and rights to physical and financial assets, finding “the” gold standard for structured household survey interviews in Uganda and similar African settings could prove to be elusive for several reasons.

First, even if one might seek to measure individual ownership of assets only by using household survey data on documented ownership for applicable physical and financial assets, it is not always clear whether specific documents should be of interest and which document should be prioritized in the event of holding multiple documents with different legal implications. Uganda-specific examples for dwelling, agricultural land, and non-agricultural real estate include title, customary certificate of ownership, inheritance document, and sales receipt. **Second**, the enumerators cannot always cross-check the document referenced by a respondent that identifies the owner(s) for a given asset. The failure to cross-check the documents could be due to the respondent refusal or inability to locate the document. In the case of MEXA, irrespective of treatment arm or asset class, the enumerators were able to cross-check an ownership document in only 25 percent of the interviews that identified at least 1 documented owner of an asset.

Third, irrespective of the type of ownership document, the incidence of documented ownership for applicable physical and financial assets remains low across sub-Saharan Africa, as measured by the household survey data or the administrative records. The MEXA data support this observation for Uganda. **Fourth**, even with the documentation, the intra-household “truth” regarding who exerts control over specific rights to a given asset may not line up with which household members are listed on the ownership document of interest. This discrepancy could be due to (i) proxy owners intentionally being listed on the ownership document, (ii) lags in the updating of the ownership records subsequent to inter-personal transfers, and/or (iii) temporal variation in decision making power dynamics within the household that are mediated by factors that are beyond the documented asset(s) in question. **Fifth**, one’s documented ownership could be disputed by other individuals or not recognized by the authorities due to weaknesses in citizen identification and relevant information systems. These weaknesses would in turn impact the ability of a household survey implementer to potentially access these systems for identifying the owners in each asset class that are captured in the household survey and/or validating the information provided by the respondents on the documented ownership status of the household members.

Sixth, a large disconnect exists, at least in the case of Uganda, between *de jure* legislation, which guarantees property rights irrespective of sex, and *de facto* recognition and implementation of property rights at the local-level. The *de facto* arrangements are known to prevail over the state laws, exhibiting spatial variation in accordance with social norms and typically awarding fewer property rights to women, usually through their relationship to a male relative. Given the legal

pluralism that underlies the recognition and implementation of property rights and the conflicting intra-household reports on individuals' ownership and control of assets, a supra-household, third-party verification mechanism may fail to be gender-sensitive, and could disregard competing ownership claims within the household. Further, a supra-household mechanism that could be consulted to overcome the conflicting intra-household reports would overlook intra-household variation in conceptualization of ownership that could be underlined by different sets of rights that are held by individuals. Revealing to third parties household-specific discrepancies that arise from private interviews would also be in breach of the confidentiality agreement between the survey administrators and the respondents.

1.3. Overview of the Empirical Analysis

The analysis underlying the estimation of the relative treatment effects is conducted at the individual level, implying that the asset-level unit-record data are transformed in each asset class into a database of adult individuals that are assigned specific ownership and rights arrangements. The decision to conduct the analysis at the individual level is linked to the aforementioned conceptual arguments for measuring asset ownership and control at the individual-level as well as to the individual-level focus of the SDG indicators that relate to asset ownership and control.

We rely on multivariate regressions to estimate the effects associated with Arms 2 through 5. Arm 1 is the category to which the rest of the treatment arms are compared in each regression as interviewing the most knowledgeable household member is the prevailing practice in household surveys collecting information on asset ownership across the developing world. However, the regression outputs include the p-values from the tests of equality of coefficients that reveal all possible pairwise differences among the rest of the treatment that are statistically significant. Sections 1.3.1 and 1.3.2 provide an overview of the core household and individual samples that underlie our findings. The inter-arm comparisons based on alternative household and individual sample specifications, which are detailed in Section 4, are provided in Appendix B. Section 1.3.3 outlines the priority asset classes that are associated with the results reported in the main report.

1.3.1. Household Sample Specification

Given the exclusive focus on the couple households in Arm 2 and Arm 3, the results that are part of the main report, henceforth referred to as the **core results**, are informed by the complete inter-arm comparisons (Arm 1 through Arm 5) among adults living in **couple households**. This implies that approximately 65 percent of the sampled households in Arm 1, Arm 4 and Arm 5 underlie the core results.

1.3.2. Individual Sample Specification and Data Construction

There are two approaches to individual sample specification (and the definition of the outcome variables) that inform the core results as well as the findings presented in the Appendices.

The **first approach to adult individual sample specification** focuses exclusively on the respondents in the couple households. The ownership and rights indicators for this sample are based strictly on what individuals reported regarding themselves. This implies that in Arm 4 and Arm 5, the proxy respondent reporting has no bearing on the definition of the outcome variables of interest for another individual that was also interviewed. The resulting dataset is henceforth referred to as the **respondent data**. Conducting the analysis with the respondent data allows us to estimate the survey treatment effects on how males and females view *their own* ownership and rights to assets, without any bearing by potential proxy respondent reporting in the same household.

The second approach to adult individual sample specification focuses on all adult individuals living in couple households, irrespective of an individual's respondent status. As part of this approach, an individual is assigned ownership and rights for a specific asset class based on the reporting of a single respondent in Arm 1 and Arm 2, the joint reporting of the couple in Arm 3 and the pooled reporting of 1 or more respondents in Arm 4 and Arm 5 households. In the latter case, an adult individual is classified to have a specific (exclusive or joint) ownership or right status for a given asset class if there is at least 1 respondent reporting the individual to possess the specific ownership or right status of interest for at least 1 asset. The resulting dataset is henceforth referred to as the **pooled data**.

The approach to the definition of the outcome variables in the pooled data is in line with the approach taken in the analysis of the data from the Gender Asset Gap Project. This approach allows for the broadest/inclusive overview of individual asset ownership and control as it overlooks the conflicting intra-household reports in Arm 4 and Arm 5. The possibility of intra-household discrepancies, which is detailed in Section 1.3.2.2, had been foreseen prior to the start of the MEXA fieldwork. The design team had, therefore, explored the possibility of third party verification of ownership- and rights-related reporting, piggybacked onto the household survey operations. This idea was not put in motion for two main reasons: (i) potential violation of respondent confidentiality by sharing information with the third parties, and (ii) concerns for gender biases that could underlie the judgments of the third parties used for verification.⁹

⁹ The attempts at reconciling discrepancies using only household survey data at the analysis stage later required the reconciliation of the asset rosters provided independently by the multiple respondents in the same Arm 4 or Arm 5 household. The attempted reconciliation, which was based on the overlap between the values provided for the same set of observable asset attributes by the different respondents, produced mixed results, which are detailed later in the report. Even if a unique list of assets could be built across the multiple respondents in the same Arm 4 or Arm 5

1.3.2.1. Motivation for Pooled vs. Respondent Data Analysis

In the context of household surveys with a single set of responses on respondents' and non-respondents' asset ownership and control, as in Arms 1 through 3, it is reasonable to expect that the analysis sample would include all household members above a specific age threshold, irrespective of their respondent. One would in fact be driven to cast a wide net in defining the analysis sample when a non-ignorable share of household surveys across the developing world lack information on respondent identification. It is for this reason that the pooled data are inclusive of all adult individuals residing in couple households and that the outcome variables are computed in a way that intra-household discrepancies in the assignment of ownership and rights, which are avoided by design in Arms 1 through 3, are overlooked in Arm 4 and Arm 5.

However, given the objective of interviewing specific members of the household in each arm and the objective of interviewing multiple individuals in Arm 4 and Arm 5, it is also logical to conduct the analysis using the respondent data, only for the sample of respondents and by redefining the outcome variables strictly based on the respondents' reporting regarding themselves. The analysis of the respondent data is in fact necessitated by the inclusion of Arm 5 in MEXA design. As noted above, Arm 5 inquires, in each asset class, about the assets owned specifically by the respondents, exclusively or jointly with others within or outside their households. A potential Arm 5 treatment effect in the respondent data with respect to Arm 1 could therefore be related (a) the interview setting being different than the status quo, and (b) the questionnaire's focus on the respondents' personal ownership of, and rights to assets (and the identification of potential joint owners/right holders only conditional on the respondent being an owner or a right holder).

1.3.2.2. Dynamics Underlying Pooled Data Analysis

To understand the dynamics underlying the construction of the pooled data, the following must be noted. In all treatment arms, there is scope for the respondents to provide information on the non-respondents' ownership of, and rights to assets. The extent to which the information is provided on behalf of the non-respondents in each treatment arm is, however, different, depending on who is interviewed in each household (e.g. whether one or more respondents are

household, the observable asset attributes that could be used as part of an ex-post triangulation effort to deduce the correct reported, economic and documented owner(s) of a given asset are limited in number. For dwelling and agricultural land, these attributes relate to how the asset was acquired and from whom the asset was acquired. Even when the answers provided for these questions do not exhibit variation across the respondents of the same household, the way in which the information should be fed to deduce the correct owners of a given asset is ultimately context-specific. In the case of MEXA, we had conducted manual reviews of the interviews conducted in a random subset of Arm 4 and Arm 5 households that had 2 or more respondents that identified reported dwelling owners differently. The intra-household inter-respondent comparisons of the responses provided for the questions that would be considered for a triangulation exercise often produced conflicting accounts for the same dwelling unit.

interviewed or what the respondent's relationship to the head of household¹⁰ and the spouse is) and what the approach to questionnaire design is (i.e. the approach in Arms 1–4 versus the approach in Arm 5 which theoretically identifies the non-respondents only as joint owners, or right holders, conditional on the respondent identifying himself or herself as an owner for at least 1 asset in a given asset class).

Moreover, the fact that the asset-level unit-record data are transformed to a database of adult individual owners and right holders in each treatment arm and each asset class, implies that the adult household members, irrespective of their respondent status, could be tagged as exclusive, joint and/or non-owners (or rights holders) depending on which assets were listed in a given asset roster. The possibility of an individual being simultaneously associated with different ownership arrangements is in part related to the aggregation of asset-level data, but in the case of Arm 4 and Arm 5, this possibility is further compounded by the fact that the asset rosters were created independently by multiple respondents within the same household.

The pooled data construction in Arm 4 and Arm 5 further creates a unique set of scenarios that underlie the treatment effects associated with these arms vis-à-vis the rest. First, while we are lowering the scope for the proxy respondent reporting by attempting to interview more than 1 adult individual per household, we are allowing the possibility for the respondents to provide conflicting information regarding each other's and the non-respondent adult household members' exclusive or joint ownership of, and rights to assets. The scope for intra-household discrepancies in reporting is lower, but still present, in Arm 5 compared to Arm 4, given the focus of Arm 5 on the assets owned by the respondents exclusively or jointly with others within and/or outside the household. Moreover, even if an individual may not report himself/herself as an asset owner/right holder, other respondents in the same household could identify him/her as an exclusive asset owner/right holder in Arm 4 and/or a joint asset owner/right holder in Arm 4 and Arm 5. The way that the pooled data are compiled could, therefore, discount what the individual reports about himself/herself as long as he/she is associated with the ownership and rights constructs of interest by at least one other respondent in the same household.

1.3.3. Core Asset Classes

While the report is inclusive of the findings tied to all physical and financial asset classes, the core results include the survey treatment effects on individual reported, economic, and, as applicable, documented ownership of, and rights to (i) dwelling, (ii) agricultural land, (iii)

¹⁰ Notwithstanding the issues that are noted above regarding headship definitions in household surveys and that deserve further social research, the MEXA headship definition was consistent with the UBOS headship definition for household surveys in Uganda: “The head of household is as the one who manages the income earned and expenses incurred by the household, and who is the most knowledgeable about other members of the household. He/she will be the person named when you ask the question ‘Who is the head of this household?’”

livestock, (iv) non-farm enterprises, and (v) financial accounts. This decision is underlined by several considerations. First, the data collected in Ecuador, Ghana, and India, as part of the Gender Asset Gap project, indicate that the majority of individual wealth is stored in dwellings, agricultural land and non-farm enterprises. Second, we focused on financial assets due to its cross-country applicability and on livestock due to its non-ignorable ownership prevalence and relevance in Uganda. Third, the questionnaire modules on the priority asset classes, with the exception of livestock, collected information for each asset that would have been listed in a roster individually. The results associated with the rest of the physical and financial asset classes are presented in Appendix C, along with the succinct description of the survey treatment effects.

1.4. Key Contributions and Findings

The contribution of this technical report is fourfold. First, the report provides, for the first time, experimental evidence on the effects of variation in respondent selection protocol and questionnaire design vis-à-vis the status quo on the estimates of individual ownership of, and rights to assets. Second, the analysis explores the heterogeneity of impact across a comprehensive range of physical and financial assets, using a sample with national coverage in Uganda. Third, the differentiation among a range of outcome variables related to reported, documented and economic ownership, as well as specific rights, is at the heart of the analysis that also gives an overview of inter-relationships among the different constructs. This insight is important as rights to a specific asset can have intra-household variation across individual members (Gray and Kevane, 1999). An ownership construct for a given asset type may further imply a different set of rights in different parts of the same country, and for men versus women, as a function of variations in government policy, social norms, marital and inheritance regimes, intra-household arrangements and markets (Doss et al., 2008). Fourth, the findings have informed the design of the household surveys implemented under the EDGE umbrella in Georgia, Maldives, Mexico, Mongolia, Philippines, and South Africa. Fifth, the technical report will be an integral part of the EDGE methodological guidelines on measuring asset ownership from a gender perspective, which will be submitted to the United Nations Statistical Commission in 2017.

While the readers should consult the conclusion of the report for an in-depth synopsis of the headline findings and the associated recommendations, a succinct overview is provided here of the main results that emerge from an extensive array of survey treatment effects estimated for 11 outcome variables and 5 priority asset classes. Detailed comparisons of (i) the treatment effects based on the respondent data versus the pooled data, and (ii) the respondent versus proxy respondent reporting regarding the respondents' ownership of, and rights to assets reveal that with respect to interviewing the most knowledgeable household member (i.e. Arm 1), **interviewing multiple adult members in the same household with a questionnaire that has a**

joint focus on respondents' and other household members' ownership of, and rights to assets (i.e. Arm 4) drives female and male respondents to be more inclusive in their reporting regarding ownership of assets in priority asset classes among adult household members of the opposite sex. A testament to this dynamic is the non-ignorable share of female and male respondents that classify themselves without reported ownership, economic ownership or specific rights in the priority asset classes but that are tagged as reported owners, economic owners and rights holders by other respondents in the same Arm 4, and to a lesser extent Arm 5, households.

Further, the (respondent) data analysis shows that **questionnaire design has an unquestionable effect on respondents' reporting regarding personal ownership of, and rights to assets.** When subject to a questionnaire with a joint focus on respondents' and other household members' ownership of, and rights to assets, **neither male nor female respondents in Arm 4 households are more likely to tag themselves as owners compared to other households subject to the same questionnaire instrument but alternative respondent selection protocols that yield a single respondent (i.e. Arms 1 through 3).**

On the other hand, **when subject to a questionnaire with a sole focus on respondents' personal ownership of, and rights to assets in Arm 5, female respondents identify themselves as, overall and joint, reported owners of dwelling, livestock and financial assets at a substantially higher rate compared to their female comparators in households in Arms 1 through 4. Similar treatment effects are derived for the male respondents in Arm 5 households** in the analysis of (overall and joint) documented and (joint) economic ownership of dwelling and agricultural land as well as (joint) reported ownership of livestock and financial accounts.

The respondent data analysis also reveals that **the share of self-reported male owners with each right is substantially higher than the share of self-reported female owners with a particular right. This relationship holds true for both exclusive and joint reported as well as economic ownership, and does not exhibit variation by priority asset class or treatment arm.** While these findings signal conceptualization of ownership to be potentially different among self-reported male and female owners, the pronounced gender differences likely underline the prevailing gender equalities in asset ownership and control as well.

Lastly, compared to Arm 1, **we cannot recover statistically significant treatment effects associated with Arm 2, when a randomly selected member of the principal couple is interviewed.** This finding holds true in the analysis of the pooled data and the respondent data, and irrespective of the outcome variable or the asset class in question. **The only positive and statistically significant treatment effects associated with Arm 3 (i.e. the joint interview of**

the members of the principal couple) are observed in the pooled data analysis of joint reported ownership of dwellings and livestock among females and males.

The report is organized as follows; Sections 2 and 3 describe the implementation of MEXA and provide summary statistics, respectively, Section 4 presents the empirical approach to comparative assessment of survey treatment effects, Section 5 reports the results, and finally, Section 6 recaps the headline findings, provides interim recommendations for survey implementers and social scientists interested in individual-level data collection on ownership and control of physical and financial assets, and suggests directions for future research.

2. MEXA Implementation

2.1. Country Context

Uganda is a landlocked East African nation of approximately 37.5 million people, with an annual population growth rate of 3.3 percent and 84.6 percent of the population living in rural areas (2013). National and rural rates of the population living in poverty, with respect to the national poverty line, are estimated at 19.5 and 22.4 percent, respectively (2012) and Gross Domestic Product per capita in current US Dollars stands at 657.4 (2013). The economy is heavily dependent on agriculture, such that agricultural land constitutes 71.4 percent of total land area, agriculture value added corresponds to 25.3 percent of the GDP, and agricultural employment makes up 65.6 percent of total employment (2013). The female share of labor in crop production stands at 56 percent (Palacios-Lopez et al., 2015).¹¹

While land is a key asset in rural areas and access to, and ownership of, land is an important predictor of welfare, accessing land and having control over property is an ongoing problem among Ugandan women. Previous research has noted the large disconnect between (i) *de facto* recognition and implementation of property rights at the local-level and (ii) *de jure* legislation that guarantees property rights irrespective of gender (Constitution Article 26); that decrees gender equality in land rights, both during marriage and in the event of its dissolution (Constitution Article 31); and that allows for affirmative action in favor of marginalized groups based on gender or other reason created by history, tradition or custom (Constitution Article 32) (Doss et al., 2012). The co-existence and interactions of state and customary law, i.e. legal pluralism, complicate the acquisition and enforcement of property rights in the case of Uganda, and especially for women who are awarded fewer property rights under customary law and usually through their relationship to a male, including a father, husband, brother or son (Doss et al., 2014). Although the Constitution mandates state law to override customary law in the event

¹¹ The statistics on Uganda are obtained from data.worldbank.org. The year that each statistic is associated with is noted in parenthesis.

of a conflict between different types of law (Article 2), this stipulation is often not recognized at the local-level and customary law generally prevails and is enforced by community members (Doss et al., 2012). Given the complexities around the recognition and implementation of property rights and their variation across space in accordance with social norms, the need for methodological research on the gender-sensitive capture of information on individual-level ownership of, and rights to assets is particularly important for Uganda as it strives to bridge the disconnect between state and customary laws regulating property rights.

The LSMS has had a longstanding partnership with UBOS and has worked together on several methodological experiments and the Uganda National Panel Survey (UNPS) since 2009/10. UNSD and UBOS also had bilateral discussions early on in the EDGE project about the possibility of implementing a household survey in Uganda under the EDGE umbrella. Given this history and the strong implementation and analytical capacity at UBOS, Uganda served as the ideal candidate for the implementation of MEXA with (i) both urban and rural settings to experience the challenges that come with each of these, (ii) almost inaccessible rural areas during different agricultural seasons, (iii) areas without any or limited access to electricity, and (iv) laws in conflict with cultural norms and the challenges that may come with this for field staff.

2.2. Questionnaire Design

The MEXA questionnaire design built on the recommendations from (i) the draft EDGE Technical Report on Measuring Individual Level Asset Ownership and Control, (ii) the Follow-up Meeting on Measuring Asset Ownership from a Gender Perspective that was held on November 21–22, 2013 with participation from the UNSD, UN-Women, World Bank, USAID, UBOS and Yale University, and (iii) the consultation at UBOS headquarters in Kampala, Uganda on January 23, 2014, with participation from the UN EDGE, LSMS and a diverse group of in-country stakeholders. A thorough review of the questionnaires for the Uganda National Household Survey, the UNPS and the Uganda 2014 National Population and Housing Census was conducted to confirm that MEXA questions, definitions, and response options were in line with the UBOS practices as much as possible. In addition, input was solicited from Abby Sebina-Ziwa, Esther Obaikol and Herbert Kamusiime who have unique qualitative backgrounds and experience with data collection on women's land rights in Uganda. The initial consultations on the qualitative aspects of the survey design in terms of gender-match up during interviews, prevalence of hidden assets, and strategies for enumerators to employ to encourage respondents to share this personal information, guided MEXA's continued dialogue with Sebina-Ziwa, who later provided training support.

Table 1 provides a list of modules included in the MEXA questionnaire which is composed of two parts. The first part is the household questionnaire and includes the roster of all household

members and asks for demographic and economic information on each household member. This portion of the questionnaire also includes questions on the basic characteristics of the principal dwelling. These questions were designed after the UNPS modules which contain the household roster and household characteristics, and follow the current practices used in comparable national household surveys to which the LSMS provides technical assistance.

The second part is the individual questionnaire. Starting with Module 3B, the information is solicited for each unique asset in each asset class, with the exception of the questionnaire modules on livestock, small agricultural equipment, consumer durables and valuables. These modules collect information aggregated for different types of assets in the respective asset class since it was deemed unfeasible to collect information for each unique asset.

Excluding Module 3B: Dwelling, each individual questionnaire module asks the respondent to create a roster of assets. In Arm 4 and Arm 5, this decision created the potential for non-unique identification of assets across the respondents of the same household either because the assets were hidden from some household members or the assets were omitted by the respondent(s), intentionally or unintentionally.

As noted in Section 1.2, the creation of independent asset rosters in Arm 4 and Arm 5 stands apart from the approach used in the Gender Asset Gap project, which required one respondent in each household to first create a household inventory of assets and allowed all respondents in the same household as part of private interviews to add to the inventory any other asset that could have been left out. This approach, however, usually did not result in the identification of additional assets in the context of the Gender Asset Gap project.¹²

Further, the individual questionnaire in Arms 1 through 4 inquires about assets owned, exclusively or jointly with someone else, by any member of the household, including the respondent. The individual questionnaire in Arm 5 is nearly identical to the content and organization of the Arms 1–4 questionnaire, but the phrasing of the questions differs slightly in that information is only collected on assets owned, either solely or jointly, by the respondents themselves. For instance, after assessing the overall ownership status of the respondent's dwelling, the Arms 1–4 questionnaire asks ownership and rights questions in the following manner: “Who – inside the household – owns this dwelling?” and “Who – outside the household – owns this dwelling?” allowing for 4 individuals within and 2 individuals outside of the household to be listed. In the Arm 5 questionnaire ownership questions are asked more directly in terms of the respondent's ownership that perhaps influences how they consider their response. In Arm 5 the questionnaire asks “Are you among the owners of this dwelling?”

¹² This information is based on personal communication with Cheryl Doss and Caren Grown.

For the other 12 asset domains covered in the experiment, the modules require a two-step question process. For Arms 1–4 the questions posed are in the form “Do you or anyone in your household own any [ASSET], exclusively or jointly with someone else?”, and after compiling the roster of assets, the questions are similar to the dwelling module: “Who – inside the household – owns this [ASSET]?” and “Who – outside the household – owns this [ASSET]?”. In the Arm 5 questionnaire respondents are simply asked “Do you own any [ASSET], exclusively or jointly with someone else?” and then a roster is created including only those assets owned by the respondent and when identifying owners asks “Does anyone jointly own this [ASSET] with you?” and if so, then “Who else – in this household – owns this [ASSET]?” and “Who else – outside the household – owns this [ASSET].”

The individual questionnaire records the information separately on a. *reported* ownership (i.e. who owns this [ASSET]?); b. *documented* ownership (i.e. whose names are listed as owners on the ownership document for this [ASSET]? *as applicable*); c. *economic* ownership (i.e. if this [ASSET] were to be sold/rented out today, who would decide how the money is used); and d. who has the *right* to (i) bequeath, (ii) sell, (iii) rent out, (iv) use as collateral, and (v) make improvements/invest in this [ASSET]?¹³

Individuals associated with each concept are identified uniquely, whether they are household members (with links to the household roster) or non-household members (with links to the network roster). For each right, individual right holders are identified regardless of whether or not they need consent or permission. However, the questionnaire also (i) probes for whether each specified right holder needs permission or consent from someone else to exercise that right and (ii) identifies, as applicable, from whom the individual would need permission or consent, irrespective of the permission/consent giver being a household member or not.

The individual questionnaire additionally collects information on essential attributes of each asset, probes for the way(s) in which the asset was acquired and identifies the individuals from whom the asset was inherited or received as a gift, as applicable. The questionnaire also collects information on asset values. The respondents are asked to provide the current hypothetical sales value for each asset, and the construction costs specifically for the dwelling, and information on their knowledge of asset sales/rental transactions in their communities, specifically for dwelling, agricultural land and other real estate. Finally, the questionnaire attempts to identify hidden assets owned by respondents and the household members from whom the assets are hidden.

At the end of each questionnaire module the enumerators were expected to record information on the interview setting. They reported whether or not the respondent(s) was alone while the module

¹³ The range of rights included in the questionnaire was influenced by Schlager and Ostrom’s (1992) theoretical framework on bundle of rights, which focuses, in the context of natural resources, on issues related to access, withdrawal, management, exclusion and alienation while defining rights that could form a bundle.

was administered and, if not, identified the gender and age range (adult versus child) of the outsider witnessing the interview. For Arm 3, the enumerator identified the presence and participation level of each of the respondents (the husband and the wife).

2.3. Fieldwork

2.3.1. Sample Design

The experiment attempted to cover 140 enumeration areas (EAs) across Uganda, with a 84/56 urban/rural split, selected with probability proportional to size in urban and rural strata. The actual EA coverage was 137.¹⁴ In each EA, following a full household listing, 20 households were selected using systematic sampling with a random start, and 4 households were randomly allocated to each of the 5 treatment arms, translating into an initial allocation of 560 households per treatment arm (before refusals and the exclusion of certain households in Arm 2 and Arm 3 due to the possible absence of a principal couple). The decision to allocate 560 households per treatment at start was rooted in the objective of attaining approximately 300 couple households per treatment arm, given the estimated non-response rate of 10 percent and the estimated couple household rate of 61 percent. In Arm 4 and Arm 5, the number of respondents was capped at 4 for each household due to logistical considerations related to both the *Survey Solutions* CAPI system and enumerator team compositions. This exclusion, in and of itself, led to a negligible number of adults that were missed. If a household had more than 4 adult members that were eligible for an interview in Arm 4 and Arm 5, the teams made sure to target the household head, and the spouse if applicable, with the rest of the respondents selected at random.

2.3.2. Training

2.3.2.1. Training Schedule

MEXA training lasted for 3 weeks so that adequate time could be allotted to questionnaire content, interview settings, approaching households, and sensitive interview scenarios along with time for proper training on using *Survey Solutions*. The training period was broken into three stages: (i) 5 days were spent on questionnaire content, interview settings and respondent sensitization, (ii) 5 days were spent on *Survey Solutions* and (iii) 2 days were spent on survey management. 3 days of field practice were spread throughout the weeks to give enumerators hands on experience at all stages of the process.

¹⁴ 2 EAs remaining at the end of the fieldwork in the Western region were not visited since UBOS shut down all household survey operations in the country prior to the start of the National Population and Housing Census in August 2014. 1 EA was not covered since the survey team was not allowed to enter by the community.

2.3.2.2. Management and Field Staff

The UBOS staff and the World Bank LSMS team jointly led the training for MEXA. The UBOS staff originated from the Directorate of Socioeconomic Surveys and the Gender Division. The UN EDGE project team members were also present to backstop the training sessions, and were part of the larger management team supervising the field practice activities.

The field staff was chosen from the UBOS enumerator pool and candidates were selected based on education-level (Bachelor's degree required), prior survey experience and languages spoken. The final group was comprised of 16 men and 14 women. Supervisors were chosen throughout the course of the training and field practices based on performance on tests administered during the training process and evaluations by survey management members from UBOS and the World Bank team. The full staff was trained together for the majority of the training process with the two days on survey management focused only on the role of the supervisors.

2.3.2.3. Training Content

MEXA training involved going through the questionnaire(s) first in English as the staff became accustomed to the concepts and the wording of questions driving the design of the experiment. Mock interview sessions conducted in the seven major languages of Uganda were done in tandem.

Given that the majority of enumerators had previous experience working for UBOS, they were familiar with more complex survey instruments. That being said, it was still critical to take adequate time to prepare the enumerators for the tactful approach to communities required and the individual interview set-up. Additionally, the focus on (individual) ownership and rights was new to the enumerators along with the level of detail asked regarding different assets.

2.3.2.3.1. Approach to Communities and Interview Settings

One full day of participatory training was provided by Abby Sebina-Zziwa to raise awareness and stimulate discussion around Uganda-specific sensitivities that may arise at the household- and community-level regarding data collection on individuals' asset ownership and control. The training also extended to the participatory formulation of solutions that could be employed in the field in response to the expected challenges. Enumerators were encouraged to sensitize the local leaders and guides to the nature of questions and interview settings as early as possible to assist the teams in approaching households. The majority of the time the teams were able to contact the

local leaders 1 to 2 days before reaching an EA as they had the contact information from the household listing exercise done in March 2014.

An Introductory Statement of Purpose, which was intended to be read to the sample household and shared with the local leaders and guides, was devised during the training and was revised as field pilots were done and community and household reactions to the experiment were assessed. Although the official introduction was brief, it touched on the purpose of the experiment – to better understand asset ownership in Uganda – and stated simply that the findings would provide important information to the Government for developing policies and programs to improve the lives of men and women. As with all household survey introductions, the statement emphasized the confidentiality of the survey. It highlighted the importance of interviewing the specific household members selected to ensure the collection of the most accurate information and stressed that the interview should be conducted alone, without family or neighbors present. Respondents were requested to ask other family members and neighbors within hearing distance of the interview to come back at a later time. The gender-focus of the experiment was not part of the initial introduction to avoid any reaction from respondents both male and female, both positive or negative.

The interview settings created by each treatment arm and the specific rapport expected from the enumerators in each treatment arm were discussed extensively during the training. Although the Arm 1 approach involved interviewing the most knowledgeable member within the household, i.e. conducting business as usual, the enumerators still had to ensure that they managed to interview the most knowledgeable household member about the assets owned. For Arms 2 and 3, the enumerator first had to assess if a selected household contained a couple, to determine whether to proceed with an interview. This in itself posed unique challenges as households were at times inclined to mislead the enumerators about the existence or non-existence of spouses based on the desire for and suspicion that incentives may be involved. For example, a woman once reported that she was a widow despite the village leader informing the team that a couple resided in the selected dwelling. The individual thought that the project may offer money to widows. The enumerators were trained to explain the exercise as thoroughly as possible and make it clear to respondents that there were no monetary or non-monetary awards to be given to households.

After determining whether or not a given Arm 2 or 3 household contained a principal couple, the enumerators had to tactfully exit from the household if they were not going to conduct an interview. For eligible households within Arm 2, the enumerators used random number tables to determine whether they would be interviewing the husband or the wife and explained the process to the respondent. This random selection was done prior to approaching Arm 2 households in each EA so that the supervisor could assign an enumerator of the appropriate gender to the household, depending on the gender of the selected member of the principal couple (see Section

2.4.2). In Arm 3, after the initial explanation of interviewing both the husband and spouse together, the enumerators assessed throughout the interview whether both respondents were actively participating and, if not, encouraged equal participation.

Arm 4 and Arm 5 presented the most challenging field scenarios for the enumerators. For each of these treatment arms, the enumerators were instructed to have 1 or more team members present to administer the household roster upon approaching the household, and after establishing the list of all adults within the household, enumerator assignments would be made to accommodate the number of adults considered usual members. Callbacks were often a necessity to attain simultaneity for all, or at least some, of the interviews conducted within Arm 4 and 5 households. If enumerators managed to get more than one household member for interviews at the same time, they split up the interviews according to gender and made sure to conduct the interviews out of earshot of the other respondents. Oftentimes sitting on opposite sides of the respondents' dwelling was enough, but if necessary one or more enumerators would find secluded areas further from the dwelling and neighboring dwellings to conduct the interview(s). Supervisors and enumerators were asked to use their best judgment in determining the timing of Arm 4 and 5 interviews. A common scenario encountered was reaching a household, assessing the number of eligible respondents but realizing that one or more of the eligible respondents may not be available during the 3 days the team was in an EA. In this case it was up to the supervisor and enumerator to discuss at what point they should proceed with interviewing 1 eligible respondent and take the risk of losing simultaneity, but at least ensuring that 1 person in the household was interviewed.

2.3.2.3.2. Ownership and Rights Definitions

Highlighting the technical definitions and differences between reported, documented, and economic ownership along with the rights to bequeath, sell, rent out, use as collateral and invest/make improvements was at the core of the training. The term “bequeath” was new to many of the enumerators and understanding the complexities of each of the other terms took some time for the staff. Enumerators were initially hesitant to accept that responses to ownership and rights questions were not necessarily intended to be consistent across the board. For example, during a pilot interview an enumerator was observed updating the reported owners within the household based on the economic ownership responses. It was heavily emphasized that as long as the definitions and concepts for each of these ownership and rights constructs were explained clearly to the respondent then there was no right or wrong response – a respondent may consider themselves to be an owner of the dwelling but also not believe that they have the right to sell the asset.

2.3.3. Fieldwork Organization

MEXA fieldwork lasted 3 months during the period of May–August 2014. Following the typical implementation plan for household surveys run by UBOS, the teams traveled to the field for 20 days at a time and returned to Headquarters and their homes in Kampala for rest and team meetings with the UBOS management to reflect on performance in the field and review data quality. 7 field-based mobile teams consisting of 1 supervisor, 2 to 4 enumerators and 1 driver were assigned to cover specific districts, with each team responsible for covering 7–32 EAs. The large range in the number of EAs assigned to each of the field teams came from the number of EAs located in the different regions with specific languages spoken.

The initial staffing was done in accordance with the workload in different regions so teams in the Western region (1 team with 32 EAs), Central region (2 teams with 19 and 21 EAs each) and Eastern region (1 team with 13 EAs) each had 1 supervisor and 4 enumerators. The three Northern teams each had fewer EAs – 8, 9 and 16. The remaining 22 urban EAs in Kampala and Wakiso (i.e. the district neighboring Kampala) were divided among teams to work on as they completed their initial workload since the majority of these respondents spoke English or Luganda – both spoken by most of the field staff.

2.3.4. Data Entry and Quality Control

To ensure data quality and timely availability of data, MEXA was implemented using the World Bank’s *Survey Solutions* CAPI software.¹⁵ There are four pieces of *Survey Solutions*, namely Designer (for creating questionnaires), Headquarters (for centralized survey management), Supervisor (for field-based survey management) and Interviewer (for data collection). These pieces are used to exchange questionnaire assignments and data, and allow all managers and field staff to view the status of interviews in real time. One month prior to the start of MEXA training, the *Survey Solutions* team began the process of creating the CAPI version of the MEXA paper questionnaires.

To carry out MEXA, 1 laptop computer and an internet dongle were assigned to each team supervisor, and each enumerator had a 7-inch GPS-enabled Google Nexus Android tablet computer. Headquarters (in the case of MEXA, this was the UBOS management and the World Bank LSMS team) defined the survey project – survey staff, sample, and instruments – and assigned work to supervisors based on their regions of coverage. The work assignments took

¹⁵ For background and documentation on *Survey Solutions*, please visit www.worldbank.org/capi. The software platform is available free of charge and is being developed by the World Bank Development Data Group - Survey and Methods Unit (DECSM). To access *Survey Solutions* Designer, please visit and sign up as a user at www.solutions.worldbank.org. MEXA CAPI questionnaires could be made available free of charge to any interested implementing agency.

place either through a Wi-Fi connection between the Headquarters server and the supervisor laptops (without the need for the Internet) prior to departure from Kampala, or through the supervisor laptops syncing with the Headquarters server via the Internet while carrying out the fieldwork.

The supervisors used their laptops to synchronize with the Headquarters server to receive their workload and to manage the workflow by assigning interviews to interviewers. The interview assignments were transferred through a Wi-Fi connection from the supervisor laptops to the interviewer tablets. After confirming that all required questionnaire fields were filled without errors, the interviewers submitted completed questionnaires from their tablets back to the supervisor laptops through the same Wi-Fi connection. The supervisors held the most important role in terms of data quality checks as they were able to review interviewers' work and to approve or reject the questionnaires. If the questionnaires were approved, they were ready to be uploaded to the Headquarters server the next time, and if rejected, they were sent back to the enumerator's tablet to be reviewed and corrected, as necessary. The rejection of a questionnaire could have also happened at the Headquarters-level, in which case the assignment would have been pushed back to the respective team leader and the interviewer.

Headquarters was always able to review data quality after receiving the completed questionnaires from the field, and could export the data at any time. The data were exported in the form of .csv files that were then exported to Stata, and Stata do files were developed to create the final output. The use of *Survey Solutions* allowed for the real-time availability of data as the completed data was automatically uploaded to the Headquarters server each time the supervisor laptop was connected to the Internet¹⁶.

While administering the first module of the questionnaire the enumerator(s) also used their tablets to record the GPS coordinates of the dwelling units. In *Survey Solutions*, Headquarters can then see the location of the dwellings plotted on a map of Uganda to better enable supervision from afar – checking both the number of interviews performed and the fact that the sample households lie within EA boundaries. Geo-referenced household locations were linked with publically available geospatial databases to enable the inclusion of a number of geospatial variables - extensive measures of distance (i.e. distance to the nearest market), climatology, soil and terrain, and other environmental factors - in the analysis.

¹⁶ The successful UBOS experience with MEXA served as a foundation for the transition of the UNPS to a *Survey Solutions* based CAPI platform, and UBOS is currently evaluating the use of *Survey Solutions* for other household surveys beyond the UNPS.

2.4. Success of Implementation

2.4.1. Response Rate

Given our ex-ante expectations regarding the non-response rate of approximately 10 percent at the EA level and the rate of households with a couple being approximately 66 percent, we have recovered nearly 100 percent of the number of households expected to be interviewed in each Arm, and 98 percent on the whole, as depicted in Table 2. Arm 3 had the lowest response rate at 91 percent stemming from the operational challenge of getting both members of the principal couple together for interviews.

The same challenge within Arm 3 – interviewing selected respondents - carried over to the other treatment arms, when we focus on the response rate at the individual-level. In Arms 1–3 only one interview was conducted per household, so the overall household response rate represents the individual response rate, as well. To state this more clearly, in Arm 2, for example, enumerators managed to interview the randomly selected member of the principal couple for 100 percent of the expected households.

For Arm 4 and Arm 5, although the response rate at the household-level was 97 and 98 percent, respectively, this does not reflect the individual-level response rate and instead indicates that we were able to interview at least one eligible respondent within the household but not necessarily all of the usual adult members. More specifically, we were able to capture 100 percent of the interview targets – up to 4 adult individuals per household – in approximately 60 percent of households interviewed in Arm 4 and Arm 5. On the whole, 75 percent of all eligible interview targets were interviewed in Arm 4 and Arm 5, as shown in Table 3. Table 4 provides a more detailed breakdown of the couple households in Arm 4 and Arm 5 in accordance with number of respondents and their relationships to the head of household.

A number of field scenarios contributed to the challenges in interviewing all eligible interview targets within households. In urban areas one or both members of the principal couple were often at work for long hours, and in rural areas respondents were often away for the day or possibly longer to farm. The survey teams were given 3 days on average to cover a given EA for a total of 140 EAs in a 3-month time frame, and before the household survey operations were suspended in the country due to the 2014 National Population and Housing Census preparations. This constraint was in fact in line with the constraint faced in a typical household survey operation and was the primary reason why we could not capture all interview targets in Arm 4 and Arm 5.

2.4.2. Supplementary Implementation Protocols

Strict implementation protocols, which are provided in Appendix A, were put in place to ensure (i) that as many interviews as possible in Arm 4 and Arm 5 were conducted simultaneously, and (ii) a gender match-up between enumerators and respondents.¹⁷ Simultaneity in Arm 4 and Arm 5 was emphasized to avoid information sharing between respondents. Gender match-up between enumerators and respondents was encouraged based on previous qualitative fieldwork conducted by some of the experts on gender and land rights involved in the project. The work showed that respondents may be more comfortable disclosing such personal information – hidden assets, financial accounts, etc. - about themselves to enumerators of the same sex. During the training, the field staff made arguments against this based on observations in certain regions and based on the overlap or discrepancy between respondent and enumerator age, but to ensure consistency across all teams this rule was strictly enforced. Beyond the aforementioned basic guidelines on conducting interviews, a number of other rules were established to best prepare fieldworkers for unique field scenarios they might encounter. This list was dynamically updated and addendums were provided to teams throughout the course of fieldwork to address challenging scenarios as they arose. On the whole, MEXA was successful in following the established protocols.

2.4.2.1. Simultaneous Interviews

On the simultaneous interview objective, Table 5 indicates that 77 percent of the interviews in Arm 4 and 69 percent of the interviews in Arm 5 were conducted simultaneously. The incidence of simultaneous interviews in Arm 4 and Arm 5 households with multiple respondents were 78 and 72 percent, respectively, in rural areas. The comparable rates were 71 percent and 59 percent for Arm 4 and Arm 5 urban households, respectively. The simultaneous interview outcomes are impressive even for households with four members interviewed. In this subset, the interviews were conducted at the same time in 50 percent of the households in Arm 4 and 67 percent of the households in Arm 5. A common strategy employed by enumerators to achieve simultaneous interviews was scheduling callbacks with households in order to find a time when multiple members were available. Table 6, which is meant to be a more judicious depiction of the findings emerging from Tables 3 and 5, provides a breakdown of Arm 4 and Arm 5 households in accordance with the number of eligible adults and the fulfillment of the objective of interviewing all eligible adult members in a simultaneous fashion. As shown in Table 7, between 90 to 95 percent of the respondents were interviewed alone, according to the enumerator reporting, across the treatment arms, with the exception of Treatment Arm 3, where we see a higher rate of interviews with children being present with the couple. In Treatment Arm 3, 85 to 90 percent of

¹⁷ The investigation of the (open) methodological research questions on the effects of simultaneous interviews and gender match between enumerators and respondents was beyond the scope of MEXA.

the reporting on a cross-module basis was also underlined by both members of the couple participating, according to the enumerator reporting in Table 8.

2.4.2.2. Gender Match-Up

Table 9 shows the overwhelming degree to which female (male) enumerators were matched with female (male) respondents. This protocol did not apply to Arm 3 as both members of the principal couple were interviewed in these households, but across the four other treatment arms male respondents were interviewed by male enumerators 74.6 percent of the time and female respondents were interviewed by female enumerators 81.6 percent of the time. This was achieved despite some teams operating with fewer members overall and some with a gender imbalance among team members. In these cases, supervisors were advised to do the best they could in terms of meeting this requirement and for the supervisor to conduct interviews, as necessary.

The high success rate of gender match-up is generally consistent across the four treatment arms, though treatment arm 1 had the lowest percentage of interviews conducted with an enumerator of the same gender as the respondent while Arm 4 and Arm 5 achieved higher success on this front. This may be due to the strategies employed by the field teams when approaching households. Supervisors knew that Arm 4 and 5 households were likely to have multiple respondents in need of an interview and that many of these households would require both males and females. These households were often approached early on after entering an EA with both male and female enumerators prepared to interview respondents, whereas Arm 1 households were typically saved for later in the visit to the EA with only one enumerator approaching a household and not always with another enumerator available to take over, if necessary. For Arm 3 households, supervisors were instructed to assign male interviewers 50 percent of the time and females 50 percent of the time. This, however, was left more to the judgment of the supervisor and resulted in 55.2 percent of Arm 3 interviews conducted by male enumerators and 44.8 percent conducted by females, as shown in Table 10.

2.4.3. Duration

In examining the difficulty and cost of implementing each treatment arm, an important factor to consider is the duration of interviews, whose analysis was made possible by the use of *Survey Solutions* since the software captures the date and time for every “event” (i.e. each time that the enumerator enters a response) during an interview. With this feature, it was possible to calculate not only the full length of time it took for enumerators to administer the individual-level portion

of the questionnaire, but also to extract durations by module, and across key groups of questions regarding ownership of different assets.

The full results on timing are presented in Tables 11, 12 and 13. As shown in Table 11, although the MEXA questionnaire is lengthy, the overall average across all treatment arms was only 34 minutes per interview. Table 11 shows that even in Arm 3, in which both members of the principal couple deliberated responses, the average number of minutes was 39 with a median of 36 minutes. Interviews where the respondent(s) had fewer assets took as few as 5 minutes and the longest interview was an Arm 4 interview at 132 minutes.

Table 12 summarizes the length of time taken to collect information for each of the modules in the questionnaire – by type of asset without a large versus small asset types breakdown – and, unsurprisingly, the modules on dwelling, agricultural land, non-farm enterprises, and other real estate each took more than 10 minutes, on average, to administer. These results are conditional on the module being completed by the respondent. The four modules listed contained the most complex questions on three types of ownership and all rights. Agricultural land took the longest period of time to complete at 19 minutes overall, though Arm 3 households took a significantly longer time at 23 minutes.

The modules that anecdotally seemed to be the most difficult to administer throughout fieldwork were Module 3: Agricultural Land and Module 7: Non-farm Enterprises given the scope of the data collected. Uniquely identifying parcels and determining tenure status for land seemed to be challenging throughout training. During the pilots respondents were reported to get frustrated when they were administered Treatment Arms 1–4 and they were not among the owners of a particular business seeing as this module had the most challenging set of questions, which, could have been difficult even for the owners themselves. Despite this concern, these modules took, on average, 19 and 12 minutes to administer, respectively, conditional on the respondent reporting ownership by any household member of any asset.¹⁸ Arm 3 took the longest for both of these modules most likely reflecting any additional discussion among the two respondents since the members of the principal couple were together. Arm 3, on average, took 23 minutes and 14 minutes for agricultural land and non-farm enterprises, respectively.

The number of seconds taken to administer the key questions on ownership and rights are summarized in Table 13. The groups of questions include the initial filter question asking if anyone (or in the case of Arm 5, the respondent specifically) in the household is considered to be an owner or to have a particular right. It then covers the listing of any other household members with a particular type of ownership and, in the case of the different rights to an asset, the

¹⁸ The conditional average duration for the module on non-farm enterprises is a lower bound for the administration of the full module as it is inclusive of the interviews where only a subset of questions were administered due to the respondent not being one of the owners.

questions covering permission and consent. One clear pattern emerging from the data is that the three types of ownership covered in the questionnaire seem to take longer for the dwelling module across the board. This may be due to a higher incidence of joint ownership and even a less clear idea of who owns the dwelling – with the parcel it may be more clear to the respondent that it is the decision-maker on the plots or for non-farm enterprises the household member running the business. Additionally, given that all sets of key questions take more than just a few seconds, it is clear that some consideration is required on the part of the respondent and perhaps they even have to ask a clarifying question or two prior to settling on a final response. Nevertheless, even conditional on a household member reported to have a particular ownership status or right, these entire series of questions, on average, took less than one minute to cover.

2.5. Lessons Learned

2.5.1. Upfront Preparation

The preparation leading up to training and fieldwork sets the tone for the entire operation. First and foremost, the incredible time saved during fieldwork and during post-fieldwork analysis from using a CAPI platform comes at the cost of more upfront preparation time. To successfully implement a survey operation using any CAPI platform resources must be devoted to checking all questions and answer choices, skip patterns, and validation checks prior to the start of training. Along with this there should be a piloting period to test the entire system and confirm that all the moving parts work as one. Given the complexity and length of the MEXA questionnaire(s) more time on the front end would have allowed for a smoother training period and avoided some technical issues encountered in the first weeks of fieldwork.

Proper time must also be allotted to determining the appropriate field team composition, taking into consideration the regional/linguistic background of potential enumerators, the gender composition of the teams, and the number of team members required to allow for simultaneous interviews.

2.5.2. Training

Given the experience in Uganda, devoting at least three full weeks to training for an experiment of this complexity and importance is necessary to properly cover the aforementioned topics. A minimum of 2 days, preferably 3, should be devoted to raise awareness and stimulate open, participatory discussion among the field staff regarding the potential challenges at the household- and community-level, and the solutions that could be employed in the field. One recommendation is to spend time up front while interviewing potential supervisors and

enumerators and gauging their level of comfort asking the respondents personal questions about a wide range of assets, including hidden ones. Any enumerators who may have strong views that could influence a respondent and the information they share should not be considered.

2.5.3. High Quality Field Staff

Although the success of the experiment could not have been achieved without the high quality and performance of the team supervisors and enumerators involved, the project was not free of challenges that are experienced by field staff for any household survey. The heavy workload for the Western Region team, combined with poor management and lack of experience of the team supervisor, contributed to relieving the supervisor and three of the four team members quitting prior to the third and final trip to the field. One of the stronger supervisors from another team who had already completed his assignments was able to step in to lead the team with the remaining enumerator and one replacement enumerator from another team who could speak the language spoken in the region. However, this led to further delays as the smaller team could not move as quickly through the last group of EAs assigned to them. Though the situation was salvaged as best as possible, it provides an important reminder to hire only the most qualified, experienced and devoted enumerators especially for such a complex survey operation.

2.5.4. Handling Community Resistance

A major challenge with the implementation of MEXA was the resistance to the detailed module on agricultural land. While the initial plan was to couple farmer self-reported parcel areas with GPS-based area measurement, the local environment and fears of land grabbing called for a more sensitive approach and the GPS-based area measurement was not implemented. Even then, the charged atmosphere in the country posed some risk for our survey staff as such the community members in two different enumeration areas threatened the respective field teams, who were jailed briefly following the survey operations in those areas. One recommendation is for more radio announcements throughout the country informing listeners of the survey experiment, and possibly a stronger presence from the statistics office headquarters to provide a level of comfort to respondents and communities that the data are official and confidential.

3. Summary Statistics

3.1. Randomization and Respondent Descriptives

Before proceeding to the analysis, we must confirm that the randomization of households was successful. Table 14 provides sample means on a core set of household and dwelling attributes across treatment arms and for the couple sample and the overall sample. Taking the overall sample from Arms 1, 4 and 5, only 6 out of 99 pairwise comparisons across the attributes in Table 14 between the treatment arms are statistically significantly different from one another at least at the 10 percent level. For the couples sample across Arms 1 through 5, the comparable statistic is 39 out of 330 pairwise comparisons between the treatment arms. While the descriptive evidence largely supports the hypothesis that there are no systematic differences between the samples selected for each treatment arm, the regression analysis will nevertheless control for an extensive set of observable attributes that may be correlated with any remaining unobserved heterogeneity that jointly determines the outcomes and the treatment arm assignment.

Table 15 provides sample means on a core set of individual attributes for the respondents across treatment arms and provides results from the tests of mean differences with respect to Arm 1. *Overall* heading implies that all respondents in a given treatment arm are included for the computation of means. *Couple* heading indicates that all respondents in a given treatment arm are included for the computation of means as long as they reside in households with a couple. Each test of mean difference takes either the *Overall* Arm 1 mean or *Couple* Arm 1 mean as the comparison, in accordance with the *Overall* or *Couple* heading for Arms 2 through 5. The overwhelming majority of the statistically significant mean differences under Arm 4 and Arm 5 columns are not surprising given the most inclusive approach these survey treatments have tried to implement in constructing the respondent pool within each sampled household.

3.2. Incidence of Ownership and Rights Indicators

The analyses focus on the outcome variables related to *reported*, *documented* and *economic* ownership and the rights to *bequeath* and *sell*.

The means for these variables are presented, by treatment arm and gender of the individual, for the 5 priority asset classes and separately using the pooled vs. the respondent data in Tables B01–B10 in Appendix B. The two sets of averages are provided in Tables B01–B10 for the sample as a whole, for the male sub-sample and for the female sub-sample: (i) the first set of averages based on households with a couple in Arms 1 through 5 for the purpose of including Arm 2 and Arm 3 in the inter-arm comparisons (relevant for the core results), and (ii) the second set of averages based on all households in Arms 1, 4, and 5 (relevant for the sensitivity analyses).

that consider an alternative household sample definition). The “unconditional” designation in Tables B01–B10 implies that the averages are computed across all adult individuals originating from a given household sample, irrespective of any other individual or household attribute.¹⁹

The means for the outcome variables for the 8 non-priority asset classes are provided in the identical fashion in Tables C01–C16 in Appendix C. We refrain from discussing the averages in the interest of brevity and given the extensive discussion of the results in Section 5. They are provided in Appendix B and Appendix C to be able to contextualize the estimated treatment effects in the multivariate analysis relative to the simple means obtained in each treatment arm.

3.3. Discrepancies in Reporting

Since MEXA attempted to interview multiple respondents in each Arm 4 and Arm 5 household, it is expected that there will be differences in their responses to questions throughout the individual questionnaire modules. Even when discussing the same asset, such as the dwelling, they may have differing opinions or varying levels of knowledge as to who in the household is among the reported, economic and documented owners, and hold specific rights. Table 16 sheds light on the extent of these discrepancies in reporting on individual ownership in Arm 4 households, using the sample of individuals that were identified as owners by at least 1 respondent when 2 or more respondents were interviewed per household. The extent of discrepancy is different depending on the focus on reported versus economic ownership. Irrespective of asset class, the rate of unanimous agreement among respondents in a given household on an individual’s economic ownership is lower than the comparable measure pertaining to reported ownership. The extent of agreement is highest for individual’s reported ownership of dwelling (61 percent), followed by agricultural land (48 percent), non-farm enterprises (37 percent), and financial assets (26 percent). Even at 61 percent of unanimous agreement among respondents on an individual’s reported ownership of a dwelling, the extent of discrepancy in reporting is large enough to anticipate survey treatment effects associated with Arm 4.

Although in-depth analysis of the gender wealth gap based on MEXA is beyond the scope of the technical report and will be the subject of future research, Table 17 underscores the difficulty in soliciting consistent asset values among multiple respondents in Arm 4 households. Given the results, it is clear that obtaining consistent asset values across multiple respondents in Arm 4 households was difficult and resulted in highly variable estimates. For example, the difference between the hypothetical dwelling sales values provided by the respondent vs. the presumed most knowledgeable member, as a share of the value provided by the presumed most

¹⁹ There are conditional indicators related specifically to the rights to sell and bequeath. These variables are estimated conditional on the individual being tagged as a reported owner.

knowledgeable member, averaged first across respondents in each household and subsequently averaged across households stood at 34 percent, even after trimming the top and bottom 5 percent of the extreme value-laden distribution.

3.4. Overlap between Ownership and Rights

The respondent data analysis gives a clear sense of the inter-relationships among individuals' perceptions regarding their ownership of, and rights to assets. For dwelling, agricultural land, and non-farm enterprises, Tables 18, 19 and 20 present the share of respondents in couple households that identify themselves, respectively, as reported owners, economic owners and documented owners, and that also report having each of the five rights. We differentiate between exclusive and joint owners in each table, and report the findings by treatment arm and gender of the respondent.

First, the share of male owners with each right is substantially higher than the share of female owners with a particular right. This relationship holds true for both exclusive and joint reported and economic ownership, and does not exhibit variation by asset class or treatment arm (Tables 18 and 19). These findings underline the prevailing gender equalities in the ownership and control of assets and make sense in view of the country context and the customary laws that guarantee fewer ownership rights to women. Second, for both males and females and across all five rights, when a respondent considers themselves to be an exclusive owner of an asset, they are more likely to hold each right than those that consider themselves to be a joint owner. Third, although documented ownership may be considered by some as the strongest signal of control, exclusive or joint documented owners, irrespective of treatment arm or gender, do not report having each right 100 percent of the time (Table 20). Regardless, the shares of owners, whether exclusive or joint, with the rights of interest are highest under documented ownership.

Fourth, the share of owners holding each right is higher for non-farm enterprises than for agricultural land and especially for dwelling. This observation holds true regardless of (i) joint or exclusive ownership, (ii) the focus on reported versus economic ownership, (iii) treatment arm, and (iv) respondent gender. In the interest of brevity, we focus on the inter-relationships between the reported ownership constructs and each right and the findings based on the male and female sub-samples pooled across treatment arms (i.e. the “overall” columns in Table 18).

The share of joint or exclusive non-farm enterprise owners that report having a given right never falls below 88 percent for the male sub-sample. Across the treatment arms, the comparable statistic ranges from 78 to 96 percent for agricultural land and from 75 to 95 percent for dwelling. In the female sub-sample, the share of exclusive owners that report having a given right ranges from 80 to 97 percent for non-farm enterprises, 65 to 88 percent for agricultural

land, and 39 to 80 percent for dwelling. The comparable statistic is lower for each right in the sample of female joint owners, and ranges from 56 to 77 percent for non-farm enterprises, 42 to 76 percent for agricultural land, and 33 to 67 percent for dwelling. These findings suggest that the definition of ownership for non-farm enterprises might be clearer to the respondents, and women in particular, than for ownership of agricultural land and especially for dwelling; the asset class that presents the lowest levels of exclusive or joint female owners that also report having a given right.

Fifth, for the overwhelming majority of sub-samples by treatment arm and respondent gender, the share of exclusive as well as joint owners with the right to make improvements and invest in the asset is the highest. In contrast, the differences between the shares of male exclusive and female exclusive reported owners that report to have the right bequeath are estimated at 33, 14 and 7 percentage points for dwelling, agricultural land, and non-farm enterprises, respectively. The differences between the shares of male joint and female joint reported owners that report to have the right bequeath are even higher, and stand at 54, 40 and 29 percentage points for dwelling, agricultural land, and non-farm enterprises, respectively.

Complementing the analysis of the overlap between ownership and rights indicators, Tables 21, 22 and 23 provide the measures of overlap among reported, economic and documented ownership measures for dwelling, agricultural land and non-farm enterprises. The tables differentiate among exclusive and joint owners, and the findings are reported separately for the male and female sub-samples and by treatment arm.

Table 21 provides the shares of exclusive and joint reported owners that classify themselves, separately, as economic owners and documented owners. First, for both dwelling and agricultural land, reported owners are significantly more likely to identify themselves as economic owners than documented owners. This holds true regardless of treatment arm and gender and is in part due to low levels of documented ownership. Second, the shares of exclusive and joint reported owners that consider themselves as economic or documented owners tend to be higher in the male sub-sample by a significant margin. For instance, the overall shares of male joint reported owners that classify themselves as economic owners stand at 94 percent and 92 percent for dwelling, and agricultural land, respectively. The comparable statistics for the female sub-sample are 71 percent and 77 percent.

Table 22 provides the shares of exclusive and joint economic owners that classify themselves, separately, as reported owners and documented owners. This analysis supports the strong relationship between reported and economic ownership. Greater than 90 percent of males identifying themselves as economic owners of dwelling and agricultural land also hold reported ownership. This holds true for both exclusive and joint economic owners. The same can be said for exclusive economic owners of non-farm enterprises in the male sub-sample, but there is more

variation among joint economic owners of non-farm enterprises. For instance, while 100 percent of exclusive economic owners in Arm 5 hold reported ownership, only 57 percent of joint economic owners hold reported ownership. In the female sub-sample, we see greater variation in the estimated overlap measures among economic, reported and documented ownership. For instance, although 73 percent of females with exclusive economic dwelling ownership also hold reported ownership, only 48 percent of joint economic dwelling owners are reported owners.

And as with the sample of reported owners, the percentage of economic owners holding documented ownership is low. For instance, among joint economic dwelling owners in the male-subsample, the percentage reporting documented ownership ranges from 19 (Arm 4) to 31 (Arm 3) percent. The comparable statistic is lower across the board in the female sub-sample and ranges from 6 (Arm 3) to 17 (Arm 2) percent. Similarly, among joint economic agricultural land owners in the male-subsample, the percentage reporting documented ownership ranges from 25 (Arm 2) to 47 (Arm 5) percent. The comparable statistic is again lower across the board in the female sub-sample and ranges from 11 (Arm 3) to 27 (Arm 2) percent in the female sub-sample.

Table 23 provides the shares of exclusive and joint documented owners that classify themselves, separately, as reported owners and economic owners. Since documented ownership could be considered as the most secure form of ownership, one might assume that all of these individuals would list themselves as reported owners and consider themselves to have economic ownership. This, however, does not always hold true, with the caveat that incidence of documented ownership is low in general. The percentage of exclusive documented dwelling or agricultural land owners with reported and economic ownership falls at 89 percent or higher. The same holds true regardless of gender and treatment arm, with the exception of exclusive documented dwelling owners in the female sub-sample in Arm 5.

The overlap measures exhibit starker gender differences for joint documented owners. For both dwelling and agricultural land, the share of joint documented owners considering themselves as reported owners in the male sub-sample stand at 100 percent, with the exception of the overlap measure estimated at 93 percent for the male sub-sample in Arm 4 for agricultural land. The comparable statistic for the overlap between joint documented ownership and economic ownership in the female sub-sample is lower across the board and ranges from 33 (Arm 1) to 76 (Arm 5) percent for dwelling and from 63 (Arm 1) to 100 (Arm 5) percent for agricultural land.

4. Empirical Approach to Estimating Survey Treatment Effects

This section provides a description of the empirical framework for estimating the relative survey treatment effects that MEXA was designed to isolate. Within-EA randomization of the systematically sampled households across treatment arms allows us to estimate the causal effects

associated with each treatment arm. Following the conceptual arguments presented in Section 1.1, the analyses are conducted at the individual-level, among household members who were at least 18 years old at the time of the interview or less than 18 years of age if they were identified as members of the principal couple.

To facilitate full inter-arm comparisons, the core analysis uses in each treatment arm only the couple households, as noted in Section 1.3.1. The core specification is estimated on the whole and separately for the male and female sub-populations as:

$$y_{ih} = \alpha + \beta_1\tau_{2ih} + \beta_2\tau_{3ih} + \beta_3\tau_{4ih} + \beta_4\tau_{5ih} + \gamma C + \varepsilon_{ih} \quad (1)$$

where i and h represent individual and household, respectively; y is the binary or continuous dependent variable; α and ε represent constant and error terms, respectively; are binary variables identifying a household's assignment to Arms 2 through 5, with Arm 1 being the comparison category; and C is a vector of household and individual attributes that is included with the intention of capturing any remaining unobserved heterogeneity that may be correlated with these controls and that may also jointly determine both the dependent variable and household survey treatment assignment.

The range of control variables includes: the binary variable identifying whether the individual is female; the individual age in years; the binary variables identifying the individual's primary, secondary or post-secondary diploma, with no diploma being the comparison category; the binary variables identifying the individual marital status, with single being the comparison category; the binary variables identifying the individual on-farm and off-farm employment in the last 12 months; household size; household dependency ratio; age of the household head; the binary variable identifying whether the household head is female; principal components based index of housing quality, irrespective of ownership status; the binary variable identifying rural residence; the binary variables identifying Eastern, Western and Northern region residence, with Central region being the comparison category; and the team fixed effects. The findings are robust to excluding the control variables from the regressions; another indication that the randomization of households across treatment arms worked according to plan.

The dependent variables in the analyses of the pooled and respondent data are dichotomous, and take a value of 1 if for a given asset class and for at least 1 asset in that class:

1. an individual is an overall reported owner whether exclusive or joint
2. an individual is an exclusive reported owner
3. an individual is a joint reported owner
4. an individual is an overall economic owner, whether exclusive or joint
5. an individual is an exclusive economic owner

6. an individual is a joint economic owner
7. an individual is an overall documented owner, whether exclusive or joint
8. an individual is an exclusive documented owner
9. an individual is a joint documented owner
10. an individual has the right to sell, and
11. an individual has the right to bequeath.

Given the dichotomous nature of the dependent variables, Equation (1) is estimated as a Probit regression, and the reported estimates for Arms 2 through 5 correspond to the marginal effects on the outcome variables as a result of a unit change in the independent variables, *ceteris paribus*. Arm 1 is taken as the comparison category in Equation (1) as it represents the status quo in the approach to data collection in the overwhelming majority of the multi-topic household surveys implemented across the developing world. The results from each regression are coupled with the full spectrum of tests of equality of for complete inter-arm comparisons. The standard errors are clustered at the EA-level and take into account stratification across urban/rural domains.

As noted in Section 1.3.3, the core asset classes of interest are i) dwelling, (ii) agricultural land, (iii) livestock, (iv) non-farm enterprises and assets and (v) financial accounts. The results associated with the rest of the physical and financial asset classes are presented in the Appendix C, along with the succinct description of the survey treatment effects. For livestock and financial accounts, the dependent variables, by design, include only those on reported ownership. Similarly, economic ownership and rights-related outcome variables are only applicable for dwelling, agricultural land, and non-farm enterprises among the priority asset classes.

Furthermore, the dependent variables on documented ownership are computed only for dwelling and agricultural land. Although we have data on individual documented ownership of other (non-agricultural) real estate, the results from the analyses of these data are not part of the technical report given the prohibitively low levels of reported and documented ownership in our sample. In the analysis of documented ownership, an individual is identified as a documented owner if they are reported to be listed on a title deed, certificate of customary ownership, certificate of occupancy, a will, or a sales agreement either for the parcel on which dwelling is located (for dwelling) or for at least one agricultural parcel (for agricultural land).

Individuals, within or outside the household, who were reported to be listed on a given ownership document, if any, were identified uniquely on the questionnaire, and the enumerators requested to see the referenced ownership document to cross-check the reporting regarding the documented owners. Although our definition of documented ownership does not hinge on whether the ownership document was cross-checked, it is important to note that conditional on reporting regarding documented ownership, the respondents produced the ownership document

for the enumerator only in 25 percent of the interviews. This across-arm average does not exhibit variation by treatment arm or by asset class.

Regarding the analysis of the rights to sell and bequeath, separate regressions are estimated using (i) the entire adult population of interest (with the table heading “unconditional”), and (ii) the sub-sample of adults that are reported owners of at least 1 asset (with the table heading “conditional”). The variables are defined irrespective of the reported need to obtain consent/permission from anyone.

To gauge the sensitivity of our findings, we estimate Equation (1) for all applicable dependent variable-asset class combinations with alternative household and individual sample specifications. Specifically, we:

1. Discard Arms 2 and 3 and provide a comparative analysis of Arm 1, Arm 4 and Arm 5 without discarding the household without a couple. This is done separately using the pooled data and the respondent data.
2. Replicate the full inter-arm comparisons for the adult population living in couple households, using in Arm 4 and Arm 5 only households that had both members of the principal couple interviewed and leaving the sample composition in Arms 1 through 3 untouched. This is done using only the pooled data.
3. Replicate the full inter-arm comparisons for only members of the principal couple in Arms 1 through 5. This is done separately using the pooled and the respondent data.
4. Replicate the full inter-arm comparisons for only members of the principal couple in Arms 1 through 5, but using in the case of Arm 4 and Arm 5 only households that had both members of the principal couple interviewed. This is done using only the pooled data.
5. Conduct all analyses that are implied thus far and that relate specifically to agricultural land using only the sample of agricultural households, which are defined as households with at least 1 member with family farming as his/her main economic activity in the last 12 months and/or households with at least 1 member that is reported by any of the respondents as an owner of at least 1 agricultural parcel.

Appendix A Tables A01, A02 and A03 provide an overview the tables presented in the main report, Appendix B and Appendix C, respectively. The results from the sensitivity analyses based on the alternative household and individual sample specifications for the priority asset classes are provided in Appendix B and overwhelmingly support the conclusions emerging from the core results that are discussed in the subsequent section. Appendix C presents the results from the analysis focused on the asset classes that are not included within the core set. The results are discussed and presented across all primary and alternative household and individual sample specifications in the pooled as well as respondent data.

5. Results

In distilling the findings from the pooled and the respondent data analysis, we focus on the results that are statistically significant at least at the 5 percent level, even if the coefficients that are marginally significant at the 10 percent level are identified in the tables. The survey treatment effects are always relative to Arm 1, unless otherwise stated.

5.1. Pooled Data Analysis

As noted in Section 1.3.2, the pooled data includes all adult individuals living in couple households, irrespective of whether an individual was a respondent or not. One is assigned ownership and rights for a specific asset class based on the reporting of a single respondent in Arms 1 and 2, the joint reporting of the couple in Arm 3 and the pooled reporting of 1 or more respondents in Arm 4 and Arm 5 households. In Arm 4 and Arm 5, an individual is assigned a specific (exclusive or joint) ownership or right status for a given asset class if there is at least 1 respondent reporting the individual with that specific ownership or right status for at least 1 asset.

It is worthwhile to keep in mind several overarching observations that could facilitate the understanding of an extensive set of results. **First**, we fail to find statistically significant treatment effects associated with Arm 2, when a randomly selected member of the principal couple is interviewed. **Second**, the only statistically significant treatment effects associated with Arm 3, when both members of the principal couple are interviewed together, emerge from the estimations regarding the overall reported and joint reported dwelling ownership as well as the joint reported livestock ownership.

Third, the Arm 4 and Arm 5 effects that emerge as positive and statistically significant from a given estimation (i) represent a large percentage of the comparison group mean; (ii) hold true if we focus only the comparisons of Arm 1, Arm 4 and Arm 5 and use all households in these arms; (iii) are robust and often greater in magnitude when alternative household and individual sample specifications are used, as specified in the previous section; and (iv) are present across 4 out of 5 core asset classes. These observations hold true irrespective of the gender of the individual.

Fourth, the overwhelming majority of the Arm 4 and Arm 5 effects that emerge as positive and statistically significant in a given specification cannot be distinguished from one another in a statistically significant fashion. This observation holds for both male and female sub-samples. When Arm 4 and Arm 5 effects are estimated to be different from one another, either one of the estimated coefficients is statistically insignificant or both coefficients carry opposite signs. The latter applies for the male sub-sample exclusively. The overwhelming majority of the estimated

Arm 4 and Arm 5 effects in the female sub-sample in fact cannot be distinguished from one another, irrespective of the sign or the statistical significance of the coefficients.

Fifth, the overwhelming majority of the coefficients from Arms 2 through 5 are not statistically significant in the analysis of the pooled data on non-farm enterprises as such the rest of this section on the pooled data analysis focuses on the ownership of, and rights to dwelling, agricultural land, livestock and financial accounts.

5.1.1. Dwelling

For Dwelling, Arm 3, relative to Arm 1, increases the rate of (i) overall reported ownership in the female sub-sample (Table 25) and (ii) joint reported ownership in both female and male sub-samples (Table 27). These effects are, however, absent in the analyses of economic ownership (Tables 28–30).

Arm 4 increases the female incidence of overall reported and overall economic dwelling ownership, on average, by 9.8 and 12.9 percentage points, respectively (Tables 25 and 28). These effects are economically large and constitute 82 and 48 percent of the Arm 1 averages reported in Table B01 for the female incidence of overall reported and overall economic ownership in couple households, respectively.²⁰ The comparable Arm 5 treatment effects in the female sub-sample are higher, and are estimated at 12.9 and 18.0 percentage points for overall reported and overall economic dwelling ownership, respectively. Similar observations emerge in the analyses of joint reported and joint economic dwelling ownership in the female sub-sample. Arm 4 increases the female incidence of joint reported and joint economic dwelling ownership, on average, by 8.5 and 13.4 percentage points, respectively (Tables 27 and 30). The comparable Arm 5 treatments effects in the female sub-sample are again higher, and stand at 10.4 and 17.0 percentage points.

The analyses of reported and economic dwelling ownership also reveal statistically significant survey treatment effects in the male sub-sample, with the exception a few negative survey treatment effects. On reported ownership, Arm 4 and Arm 5 help boost the male incidence of joint ownership, on average, by 9.7 and 12.0 percentage points, respectively (Table 27). Conversely, Arm 5 reduces the male likelihood of exclusive reported dwelling ownership by 10.8 percentage points. On economic dwelling ownership, Arm 4 works to increase the male incidence of overall, exclusive and joint dwelling ownership, on average, by 10.3, 7.8 and 11.9 percentage points, respectively (Table 28–30). Arm 5 exerts a positive effect only on male

²⁰ As noted above, the Appendix B includes the means for all definitions of ownership and rights, which are provided on the whole and separately for the male and female adult samples. This is done for all asset types and by treatment arm: Arms 1 through 5 for couple households, and Arms 1, 4, and 5 for all households regardless of the presence of a couple.

incidence of joint economic dwelling ownership, and in fact works to reduce the male incidence of exclusive economic dwelling ownership, on average, by 7.6 percentage points (Table 29).

On documented dwelling ownership, Arms 2 through 4 are not associated with statistically significant treatment effects for overall, exclusive or joint documented dwelling ownership, irrespective of the gender of the individual. Arm 5, on the other hand, leads to a statistically significant increase in the incidence of overall documented ownership vis-à-vis Arm 1. The increase is estimated, on average, at 2.9 percentage points for the sample as a whole, 3 percentage points for the male sub-sample, and 2.7 percentage points for the female sub-sample (Table 31). While we do not have statistically significant findings in the analysis of the exclusive documented dwelling ownership, the Arm 5 effects on joint documented dwelling ownership stand at 4.8 and 3.1 percentage points for the male and female sub-sample, respectively (Table 33).

Finally, Arm 4, relative to Arm 1, increases the unconditional incidences of the rights to sell and to bequeath the dwelling unit, on average, by 5.6 and 3.8 percentage points, respectively, for the female sub-sample, and by 7.7 and 8.1 percentage points, respectively, for the male sub-sample (Tables 34 and 35). The comparable Arm 5 treatment effects are present only for the male sub-sample but are also negative, estimated at 10.2 and 12.6 percentage points.

5.1.2. Agricultural Land

For Agricultural Land, we do not pick up any treatment effects associated with Arm 3. Arm 4 increases the female incidence of overall reported and overall economic agricultural land ownership, on average, by 8.7 and 12.3 percentage points, respectively (Tables 36 and 39). These effects represent 64 and 45 percent of the Arm 1 averages reported in Table B02 for the female incidence of overall reported and overall economic ownership in couple households, respectively. Likewise, Arm 4 increases the female incidence of joint reported and joint economic dwelling ownership, on average, by 7.9 and 13.1 percentage points, respectively (Tables 38 and 41). Similar treatment effects associated with Arm 4 emerge in the analyses of reported and economic dwelling ownership related indicators in the male sub-sample. Arm 4 increases the male incidence of all reported and economic ownership indicators, on average, by more than 9 percentage points (Tables 36–41).

Arm 5, on the other hand, increases the incidence of overall reported, exclusive reported and joint reported agricultural land ownership in the female sub-sample, on average, by 12.3, 5.3 and 8.2 percentage points, respectively (Tables 36, 37 and 38), while exerting no effect on economic ownership indicators in the same sub-sample. The positive effect of Arm 5 is only present for

joint reported and joint economic ownership in the male sub-sample, estimated at 7.3 and 8.0 percentage points, respectively (Tables 38 and 41).

The survey treatment effects emerging from the pooled data on documented agricultural land ownership exhibit differences with the respect to the aforementioned findings based on the analysis of documented dwelling ownership. Arm 4 increases the incidence of overall documented agricultural land ownership vis-à-vis Arm 1, on average, by 13.4 percentage points for the sample as a whole, 13.6 percentage points for the male sub-sample, and 12.3 percentage points for the female sub-sample (Table 42). Positive Arm 4 effects are sustained for exclusive and joint documented ownership for the male sub-sample as well as joint documented ownership for the female sub-sample. Arm 5 exerts a positive survey treatment effect relative to Arm 1 only on the joint documented ownership among the male adults, estimated at 8 percentage points (Table 44).

Lastly, Arm 4, vis-a-vis Arm 1, increases the unconditional incidence of the rights to sell, on average, by 11.3 and 5.2 percentage points for the male and female sub-samples respectively, and boosts the unconditional incidence of the right to bequeath, on average, by 9.1 percentage points solely for male sub-sample (Tables 45 and 46). The comparable Arm 5 treatment effects are present only for the male sub-sample but are also negative, estimated at 10.1 and 12.5 percentage points. The signs and magnitudes of these effects are similar to those emerging from the analysis of pooled data on dwelling.

5.1.3. Livestock

For Livestock, Arm 3, relative to Arm 1, increases the incidence of joint reported ownership, on average, by 6.9 and 6.2 percentage points for the male and female sub-sample, respectively (Table 57). Arm 4 and Arm 5 increases the incidence of overall reported, exclusive reported and joint reported livestock ownership for the female sub-samples. The positive Arm 4 effects on these outcomes for the female sub-sample stand at 14.6, 6.9 and 8.9 percentage points. The comparable Arm 5 effects for the same sub-sample are similar, and are estimated at 16.8, 7.9 and 8.1 percentage points (Tables 55–57). We estimate similar Arm 4 effects in the male sub-sample. With respect to Arm 1, Arm 4 increase the male incidence of overall reported, exclusive reported and joint reported livestock ownership, on average, by 14.7, 12.4 and 8.4 percentage points, respectively (Tables 55–57). The positive effect of Arm 5 is only limited to the joint reported livestock ownership for the male sub-sample, which is estimated at 4.9 percentage points (Table 57).

5.1.4. Financial Accounts

For Financial Accounts, the female incidence of reported ownership is higher in Arm 4, compared to Arm 1, whether overall, exclusive or joint (Tables 58–60). The comparable Arm 4 effects in the male sub-sample fail to be statistically significant at least at the 5 percent level. Arm 4 increases the female incidence of overall reported ownership, on average, by 10.4 percentage points, which represents 58 percent of the Arm 1 average reported in Table B05 for this variable in couple households (Table 58). The effect on the female incidence of reported ownership is greater for exclusive ownership than joint ownership. While Arm 4 increases the female incidence of exclusive financial account ownership, on average, by 8.3 percentage points (Table 59), the comparable Arm 4 effect on the female incidence of joint financial account ownership is 2 percentage points (Table 60). These effects represent 54 and 75 percent of the respective Arm 1 means reported in Table B05 for these variables in couple households. Arm 5 effects are positive, statistically significant at the 1 percent level and similar in magnitude in the female sub-sample and in the analysis of overall reported and joint reported financial account ownership. Conversely, Arm 5 leads to a decrease in the male incidence of overall reported and exclusive reported financial account ownership (Tables 59 and 60), while exerting a positive effect of 1.6 percentage points on the male incidence of joint reported financial account ownership, which is marginally significant at the 10 percent level.

5.2. Respondent Data Analysis

The analyses have thus far focused on all adult household members, who are assigned ownership and rights, regardless of being a respondent but based on the reporting of a single respondent in Arms 1 and 2, the joint reporting of the couple in Arm 3 and the pooled reporting of 1 or more respondents in Arm 4 and Arm 5 households. In the latter case, the adult individuals are classified to have a specific ownership or right status (depending on the outcome variable of interest) if there is at least 1 respondent in the household reporting that individual with that ownership or right status.

We subsequently focus on the respondent adult sample residing in couple households, and reconstruct ownership and rights indicators for this sample based strictly on what individuals reported regarding themselves. Replicating the analysis using this sample and the alternative outcome variables allows us to estimate the survey treatment effects on how males and females view *their own* ownership and rights to assets. Similar to the approach to the reporting of the results from the pooled data analysis, we focus on the survey treatment effects that are statistically significant at least at the 5 percent level, and the survey treatment effects are always relative to Arm 1, unless otherwise stated.

There are five points to keep in mind while interpreting the treatment effects that are associated with Arm 4 and Arm 5 and that emerge from the analysis of the respondent data. First, their coefficients represent the relative treatment effects with respect to Arm 1. Second, Arm 4 coefficients strictly capture the effect of the change in the respondent selection protocol. Third, Arm 5 coefficients capture the effects of the change in the respondent selection protocol as well as the change in the questionnaire design, as explained in Section 1.3.2.1. Fourth, the tests of equality of the coefficients for Arm 4 and Arm 5 reveal whether the effect of the change in the questionnaire design is statistically significant when the respondent selection protocol dictates the simultaneous interviewing of up to 4 adult individuals in a household. Fifth, the statistical significance of Arm 4 and 5 coefficients together with the results from the tests of equality of the coefficients for Arm 4 and Arm 5 may indicate whether a potential Arm 5 treatment effect relative to Arm 1 is driven by the change in the respondent protocol versus the questionnaire design.

5.2.1. Dwelling

For Dwelling, the majority of the treatment effects based on the pooled data analyses disappear when considering only what the respondents report about their own ownership and rights. However, Arm 5 increases the incidence of overall reported ownership, on average, by 13.3 percentage points in the female respondent data (Table 61). The marginal effect constitutes 74 percent of the Arm 1 average incidence of overall reported ownership in the female respondent data for couple households as reported in Table B06. In contrast, the Arm 4 coefficient is not statistically significant. The Arm 5 effect is statistically different than the Arm 4 effect, and is driven by joint reported ownership related reporting. Specifically, Arm 5 increases the incidence of joint reported dwelling ownership, on average, by 11.4 percentage points in the female respondent data (Table 63). The marginal effect corresponds to 81 percent of the comparable Arm 1 average as reported in Table B06, and is again statistically different than the Arm 4 effect, which is not statistically significant.

Furthermore, Arm 3 leads to a drop in the incidence of exclusive dwelling reported ownership in the respondent data, which is estimated at 13.6 percentage points for the sample as a whole and 18.3 percentage points for the male sub-sample (Table 62). The principal couple, if interviewed together, is, therefore, less likely to report exclusive ownership for males than when males are interviewed alone. The Arm 3 effect is significantly different than the coefficients for other treatment arms. In contrast, Arm 3 leads to an 11.8 percentage point increase in the incidence of joint reported ownership in the male respondent data (Table 63). This effect is statistically different than the effects associated with other treatment arms, and constitutes 124 percent of the comparable Arm 1 average.

On economic dwelling ownership, the only survey treatment effects that are statistically significant are associated with Arm 5 and are estimated within the male sub-sample. Arm 5 reduces the likelihood of exclusive economic dwelling ownership, on average, by 8.8 percentage points in the male respondent data (Table 65). Conversely, the same survey treatment increases the incidence of joint ownership, on average, by 11.8 percentage points in the male respondent data (Table 66). The positive marginal effect represents 30 percent of the comparable Arm 1 average reported in Table B06, and is statistically different than the Arm 4 effect.

On documented dwelling ownership, while Arm 5 is not associated with any statistically significant treatment effect in the female respondent data analysis, the same survey treatment helps boost overall documented and joint documented ownership in the male respondent data by 11.5 and 11.4 percentage points, respectively (Tables 67 and 69).

5.2.2. Agricultural Land

For Agricultural Land, the majority of the Arm 4 and 5 effects that were statistically significant and sizeable in magnitude in the pooled data analysis disappear while making inter-arm comparisons with the respondent data. Arm 3 leads to an increase (decrease) in the joint (exclusive) reported ownership among the male respondents vis-à-vis Arm 1. The only other survey treatment effects that are statistically significant at least at the 5 percent level are associated with Arm 5, and relate to economic ownership. The Arm 5 treatment effects are negative and are estimated at 15.2 and 15.1 percentage points for overall and joint economic ownership, respectively, in the female respondent data (Tables 75 and 77). Conversely, Arm 5 increases the likelihood of joint economic ownership, on average, by 12.7 percentage points in the male respondent data (Table 77). Similarly, the Arm 5 treatment effects are positive, and are estimated at 13.4, 8.6 and 8.7 percentage points for overall, exclusive and joint documented ownership, respectively, in the male respondent data (Tables 78–80).

5.2.3. Livestock

For Livestock, the only treatment effects that are statistically significant at least at the 5 percent level emerging from the respondent data analysis are associated with Arm 3 and Arm 5. Arm 3 reduces the likelihood of overall and exclusive reported ownership, on average, by 11.7 and 10.8 percentage points, respectively, in the male sub-sample (Tables 91–92). Conversely, Arm 5 increases the likelihood of joint reported ownership, on average, by 1.5 and 3.9 percentage points in the male and female respondent data, respectively (Table 93). The only Arm 5 effect that is negative and statistically significant at least at the 5 percent level is estimated for exclusive reported ownership in the female respondent data.

5.2.4. Financial Accounts

For Financial Accounts, Arm 5 increases the incidence of joint reported ownership by 1.5 and 3.9 percentage points among male and female respondent samples, respectively (Table 96). These marginal effects represent 63 and 76 percent of the Arm 1 average incidence of joint reported ownership for the male and female respondents in couple households as reported in Table B10, respectively. The Arm 5 effects are significantly different from the Arm 4 effects, which are not statistically significant.

5.3. Respondent vs. Proxy Reporting Regarding Respondents' Ownership and Rights

To better understand the drivers of the survey treatment effects that emerge from the analysis of the pooled data on dwelling, agricultural land and financial accounts, we focus on the respondent sample in Arm 4 and 5 couple households with 2 or more respondents and provide the gendered-distributions of exclusive, joint and non-owners or right holders in these asset classes across the ownership categories that they are assigned to by the proxy respondent(s) in the same households. The results from this line of analysis are presented in Tables 97 and 98 for Arm 4 and Arm 5, respectively, with a focus on reported ownership, economic ownership and right to bequeath.²¹ Since the findings are qualitatively similar across these three dimensions, we focus on the reported ownership related findings in the discussion below.

From Table 97, it is clear that the Arm 4 effects that emerge for both male and female subsamples in the analysis of the pooled data on ownership of dwelling, agricultural land, and financial accounts are in part related to the respondents that do not identify themselves as owners but that are classified as exclusive or joint owners by the other respondent(s) in the same household.

On reported dwelling ownership, among 111 male respondents that identify themselves as exclusive dwelling owners in Arm 4 households, 67 percent are considered exclusive owners by the proxy respondent sample, while 32 percent are reported as joint owners by others and 6 percent are not considered to be owners at all. Of 20 male respondents that identify themselves as joint dwelling owners, 65 percent are in fact identified as exclusive owners and 10 percent are identified as non-owners in the same household. Finally, among 63 male respondents that report themselves as non-owners, 10 percent are classified as exclusive owners and 2 percent are classified as joint owners. The discrepancy between the respondent and the proxy reporting on the respondent's ownership status is even larger in the female sub-sample. Of the 42 female respondents identifying themselves as joint owners, 81 percent are not considered to be owners

²¹ While Tables 97 and 98 are inclusive of the findings pertaining to non-farm enterprises, these results are not discussed given the absence of any survey treatment effect in the pooled data on this asset class.

at all by other respondent(s) in the same household. Among the 172 female respondents that do not consider themselves as owners, 9 percent are identified as joint owners in the proxy respondent sample.

On reported agricultural land ownership, the measures of overlap between the respondents' and the proxy respondents' reporting regarding the respondents that identify themselves as exclusive or joint owners are quite similar to the aforementioned findings on dwelling ownership. Of 57 male respondents that do not identify themselves as owners of agricultural land, only 68 percent are classified as non-owners in the proxy respondent sample. Likewise, of 167 female respondents that do not report owning any agricultural land, 10 percent are classified as joint owners and 2 percent are classified as exclusive owners in the proxy respondent sample.

On reported financial account ownership, among the 62 male respondents reporting exclusive ownership of at least one financial account, 50 percent are considered non-owners by the proxy respondent(s) in the same household. The comparable statistic for the 60 female respondents that report exclusively owning a financial account is 58 percent. This finding is not surprising as the other household member(s) may be less aware of one's accounts whether they are intentionally hidden or not. On the other hand, of 126 male respondents do not report having a financial account, 5 percent are identified as exclusive owners and 4 percent are identified as joint owners in the proxy respondent sample. And of 142 female respondents that do not report owning a financial account, 11 percent are identified as exclusive account holders in the proxy respondent sample.

Turning to Arm 5-related findings in Table 98, it is important to remember that Arm 5 questionnaire does not allow for exclusive ownership assignment to an individual by another respondent in the same household. Nevertheless, the discrepancies between the respondent and the proxy respondent reporting on the respondent's ownership of, and right to bequeath are substantial. The discrepancies in turn inform our understanding of the positive and statistically significant Arm 5 effects emerging (i) from the pooled data due to individuals being assigned joint ownership by others in the same household even if the individuals do not classify themselves as owners, and (ii) from the respondent data due to individuals classifying themselves as exclusive or joint owners in Arm 5 at a higher rate relative to Arm 1 even if they may have been classified as non-owners had one relied solely on the reporting of others in the same household.

On reported dwelling ownership, among 122 male respondents that identify themselves as exclusive owners in Arm 5 households, 65 percent would have been considered non-owners had we solely relied on the reporting of others in the same household. The comparable statistic is 87 percent for the 15 female respondents that identify themselves as exclusive owners. Of 26 male respondents that identify themselves as joint dwelling owners, 50 percent are classified as non-

owners in the proxy respondent sample. The comparable statistic is 80 percent for 59 female respondents that identify themselves as joint owners. Finally, 6 percent of 150 (58) female (male) respondents that do not report themselves as dwelling owners are classified as joint dwelling owners by other respondents in the same household. The comparable statistic is 5 percent among 58 male respondents that are non-owners according to their own reporting.

On reported agricultural land ownership, among 122 male respondents that identify themselves as exclusive owners in Arm 5 households, 73 percent would have been considered non-owners had we solely relied on the reporting of others in the same household. The comparable statistic is 95 percent for the 95 female respondents that identify themselves as exclusive owners. Of 29 male respondents that identify themselves as joint dwelling owners, 79 percent are classified as non-owners in the proxy respondent sample. The comparable statistic is 90 percent for 41 female respondents that identify themselves as joint owners. Finally, 8 percent of 147 female respondents that do not report themselves as agricultural land owners are classified as joint owners by other respondents in the same household. The comparable statistic is 6 percent among 52 male respondents that are non-owners according to their own reporting.

On reported financial account ownership, among 63 male respondents that identify themselves as exclusive owners in Arm 5 households, 92 percent would have been considered non-owners had we solely relied on the reporting of others in the same household. The comparable statistics are identical for 48 female respondents identifying themselves as exclusive owners. Likewise, none of female or respondents classifying themselves as joint owners are identified as non-owners in the proxy respondent sample. Finally, 2 percent among 128 male respondents and 151 female respondents that do not report themselves as owners are reported to be joint owners in the proxy respondent sample.

6. Conclusion

The MEXA analysis yields an extensive set of findings that underlie recommendations for survey implementers in specific areas of data collection on ownership and control of physical and financial assets at the individual level.²² The conclusion highlights **five headline findings** for the readers.

First, with respect to the standard practice of interviewing the most knowledgeable household member (i.e. **Arm 1**), interviewing multiple adult members in the same household with the

²² Appendix A Tables A4 and A5 provide an overview of the directions of the statistically significant Arm 4 and Arm 5 coefficients vis-à-vis Arm 1 separately for male and female sub-populations and across pooled and respondent data analyses for the priority asset classes. While Table A4 focuses on the results that are discussed in Section 5 that are based on the core couple household sample, Table A5 focuses on the results that emerge from the alternative couple household and individual sub-samples noted in Section 4.

questionnaire that has a joint focus on respondents' and other household members' ownership of, and rights to assets (i.e. **Arm 4**) **drives female and male respondents to be more inclusive in their reporting regarding ownership of assets in priority asset classes among adult household members of the opposite sex.**

Second, more inclusive reporting among the Arm 4 respondents relative to their Arm 1 counterparts is discovered in (i) the comparison of the survey treatment effects estimated using the respondent data versus the pooled data, and (ii) the comparison of the respondent versus proxy respondent reporting regarding the respondents' ownership of, and rights to assets. As noted above, the respondent data include only the respondents and have the outcome variables defined strictly based on what individuals report regarding themselves. Pooled data, on the other hand, include all adults irrespective of their respondent status and have the outcome variables defined in Arm 4 and Arm 5 based on whether there is at least 1 respondent in the household reporting an adult individual to possess a specific ownership or right status for at least 1 asset in a given asset class. **Although Arm 4, in comparison to Arm 1, increases the majority of the reported, economic and documented ownership indicators across 4 out of 5 priority asset classes (namely dwelling, agricultural land, livestock and financial accounts) in the pooled data for both male and female adult sub-populations, the overwhelming majority of these positive, large and statistically significant Arm 4 treatment effects are statistically insignificant²³ in the analysis of the respondent data,** as reported in Section 5.2.²⁴

Further, the comparison between respondent and proxy respondent reporting on respondent's ownership of, and rights to assets in Arm 4 households with multiple respondents, as reported in Section 5.3, reveals that **a non-ignorable share of female and male respondents classifying themselves without reported ownership, economic ownership or specific rights in the priority asset classes are tagged as reported owners, economic owners and rights holders by other respondents in the same household.** This phenomenon also arises in Arm 5 households, but to a significantly lesser extent since the Arm 5 individual questionnaire focuses only on respondents' personal ownership of, and rights to assets, and is set up to identify alternative household members as owners and/or right holders in a given interview only through joint arrangements with the respondent.

Third, while the multiple respondents in the same Arm 4 and Arm 5 households, irrespective of the questionnaire design, tag other household members as owners and right holders at a significantly higher rate compared to the most knowledgeable member in Arm 1, the randomly

²³ As a reminder, while the discussion focuses on the coefficients that are statistically significant at least at 5 percent level, the tables also identify the coefficients that are statistically significant at the 10 percent level.

²⁴ Given the higher share of respondents who are heads of households in Arm 1 vis-à-vis Arm 4, one might have ex-ante expectations regarding negative, statistically significant Arm 4 treatment effects in the analysis of the respondent data, particularly within the male sub-sample and if heads of households are also more likely to own assets. These expectations are not realized, and there is no consistent pattern in the signs of the estimated Arm 4 coefficients.

selected member of the principal couple in Arm 2 and the principal couple that is interviewed together in Arm 3, **questionnaire design does have a bearing on respondents' reporting regarding personal ownership of, and rights to assets.**

As noted above, when subject to a questionnaire with a joint focus on respondents' and other household members' ownership of, and rights to assets, neither male nor female respondents in Arm 4 households are more likely to tag themselves as owners compared to other households subject to the same questionnaire instrument but alternative respondent selection protocols that yield a single respondent (i.e. Arms 1 through 3).

Conversely, **when subject to a questionnaire with a sole focus on respondents' personal ownership of, and rights to assets in Arm 5, female respondents identify themselves as, overall and joint, reported owners of dwelling, livestock and financial assets at a substantially higher rate** compared to their female comparators in households in Arms 1 through 4, in which one or more respondents may have been subject to a questionnaire with a joint focus on respondents' as well as other household members' ownership of, and rights to assets. Similar treatment effects are derived for the male respondents in Arm 5 households in the analysis of (overall and joint) documented and (joint) economic ownership of dwelling and agricultural land as well as (joint) reported ownership of livestock and financial accounts. Given the lack of statistically significant treatment effects associated with Arm 4 vis-à-vis Arm 1, and the statistically significant differences between the coefficients for Arm 4 and Arm 5 in the case of statistically significant Arm 5 coefficients, the Arm 5 effects relative to Arm 1 are more likely to be driven by the change in the questionnaire design rather than the change in the interview setting.

Fourth, the respondent data analysis gives a clear sense of the inter-relationships among individuals' perceptions regarding their ownership of, and rights to assets. MEXA data reveal that **the share of self-reported male owners with each right is substantially higher than the share of self-reported female owners with a particular right. This relationship holds true for both exclusive and joint reported and economic ownership, and does not exhibit variation by priority asset class or treatment arm.** Similarly, the shares of exclusive and joint reported owners that consider themselves as economic or documented owners tend to be higher in the male sub-sample by a significant margin for the applicable priority asset classes, namely dwelling and agricultural land, irrespective of treatment arm. While these findings signal conceptualization of ownership to be potentially different among male and female respondents that classify themselves as reported or economic owners, the pronounced gender differences, in view of the country context, likely underline the prevailing gender equalities in asset ownership and control.

Fifth, compared to Arm 1, we cannot recover statistically significant treatment effects associated with Arm 2, when a randomly selected member of the principal couple is interviewed. This finding holds true in the analysis of the pooled data and the respondent data, and across the outcome variables and the priority asset classes of interest. The only positive and statistically significant treatment effects that are associated with Arm 3, when both members of the principal couple are interviewed together, emerge from the pooled data analysis and regarding joint reported ownership of dwellings and livestock among females as well as males.

In light of the headline findings, the key recommendations of the report for those intending to collect intra-household information on individual ownership of, and rights to physical and financial assets as part of household surveys are to 1) reduce the reliance on a single respondent, notably the most knowledgeable household member, 2) expand the practice of interviewing multiple age-eligible individuals per household, with a focus on the members of the principal couple if a couple is present, and 3) probe directly and solely regarding respondents' personal ownership of, and rights to assets, whether exclusively or jointly with someone else, as in Arm 5. These recommendations are buttressed also by previous calls for collecting data on ownership of, and rights to assets at the individual level (Grown et al., 2005; Doss et al., 2011). Alas, even with the positive Arm 5 treatment effects emerging from the pooled as well as the respondent data for the female sub-population, within-Arm 5 gender differences in the outcome variables are substantial, and signal prevailing gender inequalities in the ownership of and right to assets in Uganda.

From a broader perspective, interviewing multiple age-eligible individuals per household would provide a medium for decreasing the use of proxy respondents while soliciting individual-level data on topics such as education, health, and employment, especially in the context of national multi-topic household surveys that are undertaken by national statistics offices. Specific to data collection on individual ownership of, and rights to assets, interviewing individuals directly and assuming the preeminence of self-reported information regarding one's own ownership of, and rights to assets would prevent individuals from otherwise being tagged as exclusive or joint owners by other respondents in the same household, even when individuals do not classify themselves as owners during their personal interviews. While interviewing multiple respondents per household creates the possibility for respondents to provide conflicting information regarding each other's and non-respondent adult household members' ownership of, and rights to assets, the scope for intra-household discrepancies in reporting is lower (and only present for joint ownership/rights-related outcomes) when the individual-specific interviews probe directly and solely regarding respondents' ownership of, and rights to assets.

The operationalization of the interim recommendations in future household surveys should not be perceived as a pipedream especially since the MEXA field teams were given an average of 3 days to cover each of the 140 EAs in order to complete the fieldwork in time for the 2014

National Population and Housing Census. Similar time constraints in fact apply to national household survey operations in Uganda, including the Uganda National Household Survey and the Uganda National Panel Survey. The prerequisites for the MEXA success include (i) careful questionnaire design and pre-fieldwork validation, (ii) agile, gender-balanced and mobile survey teams, and (iii) rethinking fieldwork management and scheduling interviews around the respondent schedules, as detailed in Section 2. The use of *Survey Solutions* CAPI software ensured that fieldwork management and data collection and quality control took place under one roof, in a fully-traceable fashion. This was one of the decisions that facilitated the successful implementation of MEXA and the accommodation of the unique challenges posed by each treatment arm. In the case of Uganda, UBOS already relies on mobile survey teams, and is rapidly expanding its use of CAPI.

Without doubt, the first reaction of survey implementing agencies to the recommendations of the technical report will be underlined by their concerns for additional implementation costs. The MEXA implementation budget, together with the detailed paradata on household and individual interview durations and dates extracted from the *Survey Solutions* platform, enable us to compute the estimate of implementation unit cost per household in each treatment arm, as depicted in Table 99.²⁵ Critical to these calculations is the calculation of the augmented total burden (Column 9) for each treatment arm, which takes into account (1) the sum of all household and individual interview durations in each treatment arm, (2) the average within-EA day spread between the start and end of all interviews associated with the households sampled for a specific treatment arm²⁶, and (3) the treatment arm specific percentage shortfall in the number of households with respect to the non-response adjusted expectations prior to the start of the fieldwork²⁷. Based on the relative contribution of each treatment arm to the across-arm sum of augmented total burden, we distribute the total implementation cost across the treatment arms, and document that **the implementation unit cost per household in the recommended Arm 5 was 31 percent higher than the comparable figure in Arm 1.**

As survey practitioners consider implementing Arm 5 in a more operationally- and analytically-feasible fashion, the mixed success in creating a unique asset roster across the asset rosters that

²⁵ The strength of the relative cost calculations is not only anchored in the detailed budget and paradata that are available to us but also feeds off of the MEXA design in the sense that there was a sample of households in each EA that was subject to each of the five survey treatments, and that the field teams were instructed to cover all households in a given EA within a rather inflexible timeline. As noted above, the latter practice mirrors the approach to other multi-topic household surveys in Uganda that would be candidates for the operationalization of the recommendations.

²⁶ The second adjustment is meant to capture the within-EA, across-arm heterogeneity in the effort exerted by the enumerators to schedule the necessary household and individual interviews within the more or less fixed timeline that each team was given to cover each EA in order to complete the MEXA fieldwork in time for the 2014 National Population and Housing Census.

²⁷ The third adjustment recognizes the across-arm heterogeneity in the “sunk costs” associated with the time spent with the non-responding households during the enumerators’ unsuccessful attempts to sensitize them and secure their participation in the survey.

are created independently by multiple respondents in Arm 4 and Arm 5 households signals the need for a different design decision.^{28,29} Similar to the Gender Asset Gap project, future survey operations may consider creating first a household inventory of assets that would be fed forward to individual-specific interviews and that would still allow respondents to add to this inventory as necessary. The way that the individual assets are listed as part of the household asset inventory could mirror the MEXA approach in accordance with the asset class in question and the corresponding questionnaire module. The comprehensiveness of the household asset inventory in terms of the asset classes can vary in accordance with expectations from the household survey to (i) address System of National Accounts needs, and (ii) provide estimates of personal wealth and (intra- and inter-household) gender wealth gaps, on the whole and for specific asset classes. For the computation of the outcome variables that are at the center of this analysis, the rostering of assets is still deemed to be the most accurate path to correct and comprehensive identification of owners. In addition, at least in the African context, several multi-topic household surveys³⁰ that would be candidates for the operationalization of these recommendations already follow the MEXA approach to unique identification of assets when they have questionnaire modules on the priority asset classes identified by the report.³¹

Going forward, the recommendations on improving the availability and the quality of intra-household information on individual ownership of and rights to assets have already informed the design the Malawi Fourth Integrated Household Survey (IHS4) 2016/17, which is implemented by the Malawi National Statistical Office from March 2016 to March 2017. The IHS4 will interview 12,480 cross-sectional households across 780 EAs, and in parallel, revisit a national sub-sample of 2,300 households that had been previously interviewed in 2010 and 2013 as part of the Integrated Household Panel Survey (IHPS). The IHS4 cross-sectional and panel components will administer a multi-topic Household Questionnaire, and if applicable, Agriculture and Fishery Questionnaires, in each sampled household. As part of the panel

²⁸ To give an example of the mixed success, consider, for instance, the members of the principal couple interviewed in Arm 4 households, the agricultural parcels that are identified by them in their individual interviews, and the parcel-specific information provided by these respondents. One can create all possible parcel pairs that can be established between the parcel records that are reported independently in the interviews of the members of the principal couple. Each parcel pair can have an overlap measure that captures the share of parcel-specific variables on (i) self-reported area, (ii) tenure, (iii) location, (iv) soil type, (v) primary use, and (vi) cultivated crops that have identical values reported by the head of household and his/her spouse. This overlap measure can be created from the perspective of the head of household and separately from the perspective of his/her spouse. Focusing, for instance, on the latter scenario, and establishing quintiles of parcel pairs in accordance with the overlap measure, we see that the mean percentage overlap in observable attributes is 40 percent, 60 percent, 77 percent, 84 percent and 88 percent in quintiles 1, 2, 3, 4, and 5, respectively.

²⁹ A similar design decision pertains to the use of simultaneous interviews.

³⁰ The examples include **Burkina Faso** Enquête Multisectorielle Continue, **Ethiopia** Socioeconomic Survey, **Malawi** Integrated Household Survey, **Mali** Enquête Agricole de Conjoncture Intégrée aux Conditions de Vie des Ménages, **Niger** Enquête Nationale sur les Conditions de Vie des Ménages et l'Agriculture, **Nigeria** General Household Survey, **Tanzania** National Panel Survey, and **Uganda** National Panel Survey.

³¹ An unanswered empirical question is whether the individual-level outcomes that are analyzed in this report would be computed differently by aggregating asset-level reporting regarding individual owners versus by simply asking each individual about their exclusive and, separately, joint ownership of and rights to at least 1 asset in a given class.

component specifically, the IHS4 will aim to administer up to 4 adult individual interviews per household.³² The individual interviews³³ will administer augmented and contextualized versions of selected **Arm 5** MEXA questionnaire modules³⁴ and the existing IHS4 questionnaire modules on education, health, employment and food insecurity³⁵. Further, in case of an agricultural household that is reporting to own and/or cultivate land in the reference rainy season, the household inventory of agricultural parcels that is created as part of the IHS4 Agriculture Questionnaire will be fed into each individual interview conducted in that panel household.³⁶ The individual interviews will be administered following the administration of the Household, Agriculture and Fishery Questionnaires.

Finally, although the MEXA findings are ultimately specific to Uganda, the analysis of the data from the EDGE-supported household surveys in 2015 and 2016 and Malawi IHS4-Panel Subcomponent will be essential in solidifying our understanding of the benefits and costs of interviewing multiple age-eligible household members and our recommendations on how to implement recommended questionnaire design and respondent selection protocols. A survey implementer may ultimately seek the objective of interviewing multiple age-eligible household members to improve the availability and the quality of intra-household information on key topics such as education, health, employment and ownership of and rights to assets, using international best practices on questionnaire design. Another implementer may seek the objective of interviewing a randomly-selected age-eligible interview target in each household on the same set of topics to compute national-level indicators for men and women. While the overall sample design will dictate the representativeness of the resulting individual-level data under each of these scenarios, non-response among the intended one or more interview targets per household

³² Only 1 percent of the household population is estimated to have more than 4 adults in Malawi, according to the IHPS 2013 data. If a sampled household has more than 4 adult household members, following the preference given to the head of the household, and his/her spouse if applicable, the remaining interview targets (2 or 3 depending on the presence of a spouse) will be selected at random from the remaining pool of adult household members.

³³ Another design decision relates to the simultaneity of interviews in households with multiple respondents. To estimate whether and to what extent this design decision would impact estimations in Arm 4 and Arm 5 households, one would need to design a separate household survey experiment. Going forward, given (i) the broader scope of individual-specific interviews that data collection on ownership of, and rights to assets would be integrated into, and (ii) the demanding time and resource constraints that the larger household survey operations would typically operate under, individual-specific interviews could end up revolving around respondent schedules. In the context of the IHS4, the simultaneity of individual-specific interviews within a household will not be actively sought, and will be dictated by respondent schedules and the time allocated to each team to cover that EA. The teams will, however, be gender-balanced and will seek to match female (male) respondents with female (male) enumerators.

³⁴ These modules include dwelling, agricultural land, and financial accounts, loans and liabilities.

³⁵ On individual-level measurement of food insecurity, the IHS4 Panel Subcomponent will use the individual-referenced questionnaire module that is developed by the FAO Voices of Hungry Project for the computation of the Food Insecurity Experience Scale (FIES), which has been endorsed as a SDG indicator.

³⁶ The IHS4 cross-sectional Agriculture Questionnaire will also collect parcel-level data on reported, economic and documented ownership, and rights to sell and bequeath but following the Arm 1 approach, per usual practice in Malawi. The parallel implementation of the IHS4 cross-sectional and panel components will, therefore, offer another opportunity to assess potential Arm 5 effects, vis-à-vis Arm 1, on the agricultural land-related outcome variables. Within Arm 5 specifically, the IHS4 data will allow for the comparison of respondent and proxy respondent reporting regarding respondent ownership of and rights to agricultural land, but this time at the asset-level.

will continue to be an issue (as also seen in the implementation of MEXA Arm 4 and Arm 5). This necessitates further discussion at the international-level regarding the solutions that may be consulted at the implementation and/or analysis stage to mitigate the effects of non-response on official statistics based on the resulting individual-level data.

The next phase of MEXA analysis will detail the experience with soliciting self-reported asset values, in particular within households with multiple respondents, and will document survey treatment effects on the estimation of personal wealth. The latter endeavor will have an initial focus on housing such that one does not need to create a unique roster of assets across interviews in households with multiple respondents. Given the gender differences in the overlap between ownership measures and rights for priority asset classes among the MEXA respondents that identified themselves as owners, an interesting area of future methodological research could explore possible cognitive gender differences in the interpretation of questions on reported ownership, economic ownership and specific rights.

7. References

- Agarwal, B. (1997). ““Bargaining” and gender relations: within and beyond the household.” *Feminist Economics*, 3.1, pp. 1 – 51.
- Allendorf, K. (2007). “Do women’s land rights promote empowerment and child health in Nepal?” *World Development*, 35.11, pp. 1975–1988.
- Beegle, K., Frankenberg, E., and Thomas, D. (2001). “Bargaining power within couples and use of prenatal and delivery care in Indonesia.” *Studies in Family Planning*, 32.2, pp. 130–146.
- Carter, M., and Barrett, C. (2006). “The economics of poverty traps and persistent poverty: An asset-based approach.” *The Journal of Development Studies*, 42.2, pp. 178–199.
- Deere, C. D., Alvarado, G., and Twyman, J. (2012). “Gender inequality in asset ownership in Latin America: female owners versus household heads.” *Development and Change*, 43.2, pp. 505–530.
- Deere, C. D. and Doss, C. (2006). “The gender asset gap: what do we know and why does it matter?” *Feminist Economics*, 12.1-2, pp. 1–50.
- Doss, C. (2006). “The effects of intrahousehold property ownership on expenditure patterns in Ghana.” *Journal of African Economies*, 15.1, pp. 149–180.
- Doss, C. (1996). “Intrahousehold resource allocation in an uncertain environment.” *American Journal of Agricultural Economics*, 78.5, pp. 1335–1339.
- Doss, C., Grown, C., and Deere, C. D. (2008). “Gender and asset ownership: a guide to collecting individual-level data.” World Bank Policy Research Working Paper No. 4704.
- Doss C., Deere, C. D., Oduro, A., Swaminathan, H., Suchitra, J., Lahoti, R., Baah-Boateng, W., Boakye-Yiadom, L., Twyman, J., Catanzarite, Z., Grown, C., and Hillesland, M. (2011). “The gender asset and wealth gaps: evidence from Ecuador, Ghana, and Karnataka, India.” Bangalore: Indian Institute of Management.
- Doss, C., Kovarik, C., Peterman, A., Quisumbing, A., and van den Bold, M. (2015). “Gender inequalities in ownership and control of land in Africa: myth and reality.” *Agricultural Economics*, 46.2, pp.403–434.
- Doss, C., Meinzen-Dick, R., and Bomuhangi, A. (2014). “Who owns the land? perspectives from rural Ugandans and implications for large-scale land acquisitions.” *Feminist Economics*, 20.1, pp. 76–100.
- Doss, C., Truong, M., Nabanoga, G., and Namaalwa, J. (2012). “Women, marriage, and asset inheritance in Uganda.” *Development Policy Review*, 30.5, pp. 597–616.
- Fafchamps, M., and Quisumbing, A. (2005). “Assets at marriage in rural Ethiopia.” *Journal of Development Economics*, 77.1, pp. 1–25.
- Friedemann-Sanchez, G. (2006). “Assets in intrahousehold bargaining among women workers in Colombia’s cut-flower industry.” *Feminist Economics*, 12.1-2, pp. 247–269.
- Gray, L., and Kevane, M. (1999). “Diminished access, diverted exclusion: women and land tenure in Sub-Saharan Africa.” *African Studies Review*, 42.2, pp. 15–39.

- Grown, C., Rao Gupta, G., and Kes, A. (2005). *Taking action: achieving gender equality and the millennium development goals*. London: Earthscan Publications.
- Hulme, D., and Shepherd, A. (2003). "Conceptualizing chronic poverty." *World Development*, 31.3, pp. 403–423.
- Neelakantan, U., and Chang, Y. (2010). "Gender differences in wealth at retirement." *American Economic Review*, 100.2, pp. 362–367.
- Palacios-Lopez, A., Christiaensen, L., and Kilic, T. (2015). "How much of the labor in African agriculture is provided by women?" World Bank Policy Research Working Paper No. 7282.
- Oduro, A., Deere, C. D., Catanzarite, Z. (2015). "Women's wealth and intimate partner violence: insights from Ecuador and Ghana." *Feminist Economics*, 21.2, pp. 1–29.
- Quisumbing, A., and Maluccio, J. (2003). "Resources at marriage and intrahousehold allocation: evidence from Bangladesh, Ethiopia, Indonesia, and South Africa." *Oxford Bulletin of Economics and Statistics*, 65.3, pp. 283–328.
- Ruel, E., and Hauser, R. (2013) "Explaining the gender wealth gap." *Demography*, 50, pp. 1155–1176.
- Schlager, E., and Ostrom, E. (1992). "Property-rights regimes and natural resources: a conceptual analysis." *Land Economics*, 68.3, pp. 249–262.
- Sierminska, E., Frick, J., and Grabka, M. (2010). "Examining the gender wealth gap." *Oxford Economic Papers*, 62, pp. 669–690.
- Warren, T. (2006). "Moving beyond the gender wealth gap: on gender, class, ethnicity, and wealth inequalities in the United Kingdom." *Feminist Economics*, 12.1-2, pp. 195–219.

8. Tables

Table 1: Overview of MEXA Survey Instruments

Module	Questionnaire	Unit of Observation
2 Household Roster	Household	Individual
3A Dwelling characteristics	Household	Dwelling
3B Dwelling	Individual	Dwelling
4 Agricultural Land	Individual	Parcel
5A Livestock - Large	Individual	Livestock Type
5B Livestock - Small	Individual	Livestock Type
6A Agricultural Equipment - Large	Individual	Large Agricultural Equipment
6B Agricultural Equipment - Small	Individual	Small Agricultural Equipment Type
7 Non-Farm Business Assets and Enterprises	Individual	Non-Farm Enterprise
8 Other Real Estate	Individual	Non-Agricultural Real Estate
9 Consumer Durables	Individual	Consumer Durable Type
10A Financial Assets	Individual	Financial Asset
10B Financial Assets	Individual	Loan advanced
11 Liabilities	Individual	Liability
12 Valuables	Individual	Valuable Type

Table 2: MEXA Households Interviewed

	Initial Allocation	Expected	Interviewed	% of Expected	Interviewed w/ a Couple		
					Any	More than 1 Interview	Both Members of Couple Interviewed
TA #1	544	490	495	100%	325	--	N/A
TA #2	544	299	304	100%	304	--	N/A
TA #3	544	299	272	91%	272	--	272
TA #4	544	490	475	97%	303	188	161
TA #5	544	490	481	98%	319	190	169
Total	2,720	2,068	2,027	98%	1,523	378	602

Table 3. Distribution of Treatment Arm 4 & 5 Households According to # of Adults Interviewed

	TA #4		TA #5	
	Total	%	Total	%
Households Interviewed	475		481	
All Eligible Adults Interviewed	295	0.61	286	0.59
4 adults	14	0.03	15	0.03
3 adults	20	0.04	23	0.05
2 adults	137	0.29	133	0.28
1 adults	124	0.26	115	0.24
Subset of Eligible Adults Interviewed	180	0.38	195	0.41
3 out of 4	15	0.03	12	0.02
2 out of 4	20	0.04	21	0.04
1 out of 4	11	0.02	12	0.02
2 out of 3	26	0.05	23	0.05
1 out of 3	8	0.02	12	0.02
1 out of 2	100	0.21	115	0.24
Average # of Adults Interviewed	1.62		1.61	
% of Eligible Adults Interviewed	76%		75%	

Table 4: Breakdown of Treatment Arms 4 & 5 Couple Households by Members Interviewed

	Number of Adults Interviewed							
	TA #4				TA #5			
	1	2	3	4	1	2	3	4
Only Head Interviewed	62				42			
	53.9%				32.6%			
Only Spouse Interviewed	49				82			
	42.6%				63.6%			
Only "Other" Interviewed	4				5			
	3.5%				3.9%			
TOTAL	115				129			
Only Head & Spouse Interviewed		134				130		
		87.6%				89.7%		
Head & 1 Other Interviewed		7				6		
		4.6%				4.1%		
Spouse & 1 Other Interviewed		10				8		
		6.5%				5.5%		
2 Spouses Interviewed		1				0		
		0.7%				0.0%		
2 Others Interviewed		1				1		
		0.7%				0.7%		
TOTAL		153				145		
Head, Spouse & 1 Son/Daughter Interviewed			13				11	
			50.0%				44.0%	
Head, Spouse & 1 Other Interviewed			3				8	
			11.5%				32.0%	
Head + 2 Spouses Interviewed			2				2	
			7.7%				8.0%	
2 Spouses + 1 Other Interviewed			1				0	
			3.8%				0.0%	
Head + 2 Others Interviewed			2				3	
			7.7%				12.0%	
Spouse + 2 Others Interviewed			5				1	
			19.2%				4.0%	
TOTAL			26				25	
Head, Spouse & 2 Others Interviewed				8				9
				100.0%				75.0%
Head + 3 Others Interviewed								2
								16.7%
Spouse + 3 Others Interviewed								1
								8.3%
TOTAL				8				12

Table 5: Distribution of Households with respect to # of Interviews & # of Simultaneous Interviews by Treatment Arm

	# of HHs	# of Simultaneous Interviews			
		0	2	3	4
TA #4					
2 interviews	183	0.19	0.81	N/A	N/A
3 interviews	35	0.14	0.23	0.63	N/A
4 interviews	14	0.00	0.29	0.21	0.50
Overall Share of Simultaneous Interviews in TA4					76.7%
Overall Share of Simultaneous Interviews in TA4 Urban HHs					71.2%
Overall Share of Simultaneous Interviews in TA4 Rural HHs					78.3%
TA #5					
2 interviews	177	0.29	0.71	N/A	N/A
3 interviews	35	0.00	27.30	0.60	N/A
4 interviews	15	0.07	0.07	0.20	0.67
Overall Share of Simultaneous Interviews in TA5					69.2%
Overall Share of Simultaneous Interviews in TA5 Urban HHs					59.3%
Overall Share of Simultaneous Interviews in TA5 Rural HHs					72.3%

Table 6. Breakdown of Treatment Arms 4 & 5 Identifying Households with All Protocols Followed

Number of Eligible Adults in Household	# of Households Interviewed	# of Households with All Adults Interviewed	# of HHs with All Adults Interviewed and All Interviews Simultaneous
Treatment Arm 4			
4+ adults	60	14	5
3 adults	54	20	12
2 adults	237	137	111
1 adults	124	124	N/A
Treatment Arm 5			
4+ adults	60	15	5
3 adults	58	23	15
2 adults	248	133	95
1 adults	115	115	N/A

Table 7. Incidence of Respondents Interviewed Alone By Module

		TA #1	TA #2	TA #3	TA #4	TA #5
Module 3	Alone	90.1	91.0	85.3	92.3	91.5
<i>Dwelling</i>	<i>With adult female</i>	1.4		3.3	0.1	0.6
	<i>With adult male</i>	3.2	2.7	2.6	2.6	3.5
	<i>Mixed sex present</i>	0.2		0.4	0.3	0.1
	<i>With children</i>	5.1	6.3	8.5	4.7	4.3
Module 4	Alone	91.0	91.4	81.1	93.8	91.9
<i>Agricultural Land</i>	<i>With adult female</i>	1.4	0.6	2.5	0.3	0.8
	<i>With adult male</i>	2.6	2.1	2.2	2.6	2.9
	<i>Mixed sex present</i>	0.2	0.3		0.3	0.4
	<i>With children</i>	4.8	5.7	10.1	3.1	4.0
Module 5	Alone	90.0	92.6	86.2	94.4	91.7
<i>Livestock</i>	<i>With adult female</i>	2.0	0.6	2.5	0.4	0.8
	<i>With adult male</i>	3.4	2.4	2.5	2.4	3.4
	<i>Mixed sex present</i>		0.3		2.7	0.3
	<i>With children</i>	4.6	4.2	8.7	0.1	3.9
Module 6	Alone	89.6	89.6	83.7	93.6	92.3
<i>Agricultural Equipment</i>	<i>With adult female</i>	1.6	0.6	2.9	0.4	0.6
	<i>With adult male</i>	3.4	1.8	2.9	2.6	3.2
	<i>Mixed sex present</i>				0.1	0.4
	<i>With children</i>	5.4	8.0	10.1	3.3	2.9
Module 7	Alone	90.6	91.0	86.6	94.0	92.2
<i>Non-Farm Business Assets & Enterprises</i>	<i>With adult female</i>	1.4	0.6	3.3	0.1	0.6
	<i>With adult male</i>	3.4	1.8	2.2	2.6	3.1
	<i>Mixed sex present</i>	0.2			0.1	0.5
	<i>With children</i>	4.4	6.6	7.6	3.2	3.5
Module 8	Alone	92.2	93.4	87.0	95.1	93.0
<i>Other Real Estate</i>	<i>With adult female</i>	1.4	0.3	2.9	0.1	0.6
	<i>With adult male</i>	2.8	2.1	2.9	2.6	3.3
	<i>Mixed sex present</i>					0.3
	<i>With children</i>	3.6	3.6	6.9	2.2	2.9
Module 9	Alone	92.2	91.9	87.7	94.2	92.1
<i>Consumer Durables</i>	<i>With adult female</i>	1.0	0.6	2.5	0.4	0.5
	<i>With adult male</i>	3.0	1.8	2.2	2.4	3.3
	<i>Mixed sex present</i>	0.2	0.3	0.7	0.1	0.4
	<i>With children</i>	3.6	5.4	6.9	2.8	3.8
Module 10	Alone	91.8	92.2	85.9	93.8	92.0
<i>Financial Assets</i>	<i>With adult female</i>	1.2	0.6	2.9	0.3	0.5
	<i>With adult male</i>	2.8	2.4	2.5	2.2	3.3
	<i>Mixed sex present</i>			0.8	0.1	0.4
	<i>With children</i>	4.2	4.8	8.0	3.6	3.9
Module 11	Alone	91.4	93.1	84.8	94.9	91.5
<i>Liabilities</i>	<i>With adult female</i>	1.0	0.9	2.9	0.1	0.6
	<i>With adult male</i>	2.8	1.5	2.9	2.4	3.6
	<i>Mixed sex present</i>		0.3	0.4	0.1	0.5
	<i>With children</i>	4.8	4.2	9.1	2.4	3.8
Module 12	Alone	92.0	93.4	84.1	94.2	91.8
<i>Valuables</i>	<i>With adult female</i>	0.6	0.6	2.5	0.3	0.5
	<i>With adult male</i>	3.0	1.8	2.2	2.7	3.5
	<i>Mixed sex present</i>	0.2	0.3	0.4		0.1
	<i>With children</i>	4.2	3.9	10.9	2.8	4.0

Note: "Respondent" is the principal couple for TA #3.

Table 8. Incidence of Treatment Arm 3 Couples Interviewed Together

		Overall	Urban	Rural
Module 3	Together and both participating	84.9	84.3	85.0
<i>Dwelling</i>	<i>Together, husband participating, wife not</i>	14.4	13.7	14.6
	<i>Together, wife participating, husband not</i>	0.4		0.5
	<i>Husband present, wife absent</i>	0.4	2.0	
	<i>Wife present, Husband absent</i>			
Module 4	Together and both participating	81.2	86.3	80.5
<i>Agricultural Land</i>	<i>Together, husband participating, wife not</i>	15.9	13.7	16.4
	<i>Together, wife participating, husband not</i>	1.8		2.3
	<i>Husband present, wife absent</i>	0.7		0.9
	<i>Wife present, Husband absent</i>	0.4		
Module 5	Together and both participating	88.0	94.1	86.8
<i>Livestock</i>	<i>Together, husband participating, wife not</i>	8.0	3.9	9.1
	<i>Together, wife participating, husband not</i>	1.1		1.4
	<i>Husband present, wife absent</i>	1.8	2.0	1.8
	<i>Wife present, Husband absent</i>	1.1		0.9
Module 6	Together and both participating	90.9	96.1	90.0
<i>Agricultural Equipment</i>	<i>Together, husband participating, wife not</i>	5.1	3.9	5.5
	<i>Together, wife participating, husband not</i>	1.5		1.8
	<i>Husband present, wife absent</i>	1.8		2.3
	<i>Wife present, Husband absent</i>	0.7		0.5
Module 7	Together and both participating	89.5	90.2	89.6
<i>Non-Farm Business</i>	<i>Together, husband participating, wife not</i>	7.3	5.9	7.7
<i>Assets & Enterprises</i>	<i>Together, wife participating, husband not</i>	0.7		0.9
	<i>Husband present, wife absent</i>	1.1	2.0	0.9
	<i>Wife present, Husband absent</i>	1.5	2.0	0.9
Module 8	Together and both participating	89.5	92.2	89.1
<i>Other Real Estate</i>	<i>Together, husband participating, wife not</i>	6.5	3.9	7.3
	<i>Together, wife participating, husband not</i>	1.1		1.4
	<i>Husband present, wife absent</i>	1.8	2.0	1.8
	<i>Wife present, Husband absent</i>	1.1	2.0	0.5
Module 9	Together and both participating	89.9	92.2	89.6
<i>Consumer Durables</i>	<i>Together, husband participating, wife not</i>	5.1	5.9	5.0
	<i>Together, wife participating, husband not</i>	2.9	2.0	3.2
	<i>Husband present, wife absent</i>	1.8		2.3
	<i>Wife present, Husband absent</i>	0.4		
Module 10	Together and both participating	87.6	86.3	88.1
<i>Financial Assets</i>	<i>Together, husband participating, wife not</i>	8.4	5.9	9.1
	<i>Together, wife participating, husband not</i>	1.5	2.0	1.4
	<i>Husband present, wife absent</i>	1.8	3.9	1.4
	<i>Wife present, Husband absent</i>	0.7	2.0	
Module 11	Together and both participating	88.8	88.2	89.1
<i>Liabilities</i>	<i>Together, husband participating, wife not</i>	6.9	5.9	7.3
	<i>Together, wife participating, husband not</i>	1.8	2.0	1.8
	<i>Husband present, wife absent</i>	1.8	2.0	1.8
	<i>Wife present, Husband absent</i>	0.7	2.0	
Module 12	Together and both participating	91.3	90.2	91.8
<i>Valuables</i>	<i>Together, husband participating, wife not</i>	3.3	3.9	3.2
	<i>Together, wife participating, husband not</i>	2.2	2.0	2.3
	<i>Husband present, wife absent</i>	1.5	2.0	1.4
	<i>Wife present, Husband absent</i>	1.8	2.0	1.4

Table 9: Respondent/Enumerator Gender Match

		<i>Gender of Enumerator</i>		
		<i>Male</i>	<i>Female</i>	
<i>Gender of Respondent</i>	Overall	<i>Male</i>	74.6	25.4
		<i>Female</i>	18.4	81.6
	TA #1	<i>Male</i>	72.3	27.7
		<i>Female</i>	24.7	75.3
	TA #2	<i>Male</i>	77.9	22.2
		<i>Female</i>	20.0	80.0
	TA #4	<i>Male</i>	80.8	19.2
		<i>Female</i>	16.3	83.7
	TA #5	<i>Male</i>	79.6	20.4
		<i>Female</i>	16.5	83.5

Table 10: Breakdown of TA #3 Interviews by Enumerator Gender

<i>Male</i>	<i>Female</i>
55.2	44.9

Table 11: Total Interview Duration (Minutes) by Treatment Arm

	All Respondents				Gender Overlap				Gender Discrepancy			
	<i>Mean</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>
TA #1	36	31	5	131	36	32	5	129	35	30	6	131
Observations	405				304				101			
TA #2	36	31	5	124	36	32	5	124	36	28	8	116
Observations	283				232				51			
TA #3	39	36	7	118								
Observations	216											
TA #4	34	31	5	132	35	32	5	132	31	27	6	118
Observations	625				516				109			
TA #5	29	24	5	131	29	25	5	131	28	21	5	126
Observations	645				531				114			
Overall	34	30	5	132	34	30	5	132	33	28	5	131
Observations	2174				1721				453			

Table 12: Module Interview Durations (Minutes) by Treatment Arm

	Treatment Arm					Overall
	TA #1	TA #2	TA #3	TA #4	TA #5	
Household	35.03	36.24	35.91	37.76	35.40	36.06
Dwelling	9.18	9.05	10.38	9.56	11.40	10.23
Agri. Land	18.21	17.98	23.19	19.82	17.70	19.04
Livestock	4.93	5.29	5.22	5.12	3.48	4.63
Agricultural Equipment	3.01	3.82	3.89	3.37	2.43	3.08
Non-farm business	12.64	12.68	13.73	10.92	10.14	11.52
Other Real Estate	12.29	13.67	9.74	12.85	11.60	12.24
Consumer Durables	1.51	1.67	1.88	1.45	0.70	1.39
Financial Assets	4.78	4.45	5.28	4.54	3.13	4.13
Liabilities	3.63	4.58	3.22	3.32	2.92	3.36
Valuables	0.26	0.37	0.74	0.28	0.19	0.33

Table 13: Key Ownership & Rights Question Groups Durations (Seconds)

	Reported	Economic	Bequeath	Sell	Collateral	Rent Out	Improve
Dwelling	16.40	14.30	11.20	7.40	8.20	6.60	6.80
Agricultural Land	7.00	5.50	8.10	6.20	5.80	5.80	5.50
Non-farm Enterprises	9.40	7.20	8.90	6.80	6.00	5.50	5.20
Financial Assets	4.80						

Table 14: Household Descriptives

	TA #1		TA #2	TA #3	TA #4		TA #5		
	Overall	Overall	Couple		Overall	Couple	Overall	Couple	
Household Size	5.51	5.49	6.17	6.14	6.19	5.03	5.79	5.22	5.96
# of HH Members: Age 0-6	1.33	1.24	1.51	1.58	1.58	1.2	1.54	1.22	1.52
# of HH Members: Age 7-14	2.05	2.54	2.98	3.06	3.05	2.35	2.81	2.38	2.85
# of HH Members: Male, Age 15-39	1.1	1.06	1.25	1.2	1.12	0.94	1.19	0.98	1.25
# of HH Members: Female, Age 15-39	1.03	1.11	1.12	1.09	1.15	1.01	1.06	1.09	1.05
# of HH Members: Male, Age 40-59	0.25	0.24	0.33	0.3	0.33	0.21	0.3	0.23	0.3
# of HH Members: Female, Age 40-59	0.25	0.26	0.24	0.22	0.29	0.22	0.2	0.25	0.22
# of HH Members: Age 60+	0.21	0.21	0.17	0.17	0.19	0.21	0.16	0.24	0.23
Dependency Ratio	1.23	1.19	1.21	1.2	1.28	1.24	1.14	1.26	1.17
Child Dependency Ratio	1.16	1.12	1.16	1.15	1.23	1.18	1.08	1.16	1.1
Elderly Dependency Ratio	0.11	0.1	0.06	0.053	0.08	0.13	0.06	0.15	0.09
<i>Reference Person Attributes</i>									
Age (Years)	41.82	42.45	40.31	39.76	41.74	41.04	39.03	42.94	41.18
Female	20.67	27.68	6.46	3.62	2.21	30.11	7.28	25.36	4.84
<i>Marital Status</i>									
None †	4.54	5.45				7.16		6.44	
Divorced/Separated †	17.41	24.65				25.26		23.08	
Married (Monogamous) †	49.19	45.25	62.23	63.16	65.07	42.32	62.58	42.2	58.39
Polygamous (Married/Cohabiting) †	13.27	11.92	17.53	16.78	15.07	10.53	15.23	14.14	20.65
Cohabiting Single Partner †	15.54	12.73	16.92	20.07	19.85	14.74	21.85	13.93	20.65
<i>Education</i>									
None †	16.58	18.18	12	12.17	11.03	19.16	13.58	18.3	14.84
Primary †	38.48	36.36	34.46	41.12	42.65	37.47	39.74	37.63	39.68
Secondary †	34.88	35.76	43.38	36.51	35.29	32.63	36.09	34.93	37.74
Higher †	10.06	9.7	10.15	10.2	11.03	10.74	10.6	9.15	7.74
<i>Main Economic Activity 12 months</i>									
None †	4.69	5.66	2.15	2.63	2.57	5.68	3.64	5.2	3.55
Off farm †	37.89	41.41	44.31	39.14	29.78	36.42	36.42	39.5	38.71
On farm †	57.42	52.93	53.54	58.22	67.65	57.89	59.93	55.3	57.74
<i>Religion</i>									
Catholic †	41.29	41.41	39.38	38.82	41.91	40.84	39.07	42.83	42.58
Protestant †	33.35	31.72	34.46	33.88	34.56	35.57	35.1	32.02	31.29
Muslim †	14.95	15.35	16.31	15.46	14.71	14.74	17.55	14.55	16.77
Other †	10.41	11.52	9.85	11.84	8.82	9.05	8.28	10.6	9.35
<i>Household Location</i>									
Rural	73.21	71.31	73.85	75	81.25	70.95	73.74	71.73	75.16
Northern Region	22.25	21.41	21.54	24.01	26.1	21.05	22.19	21	21.94
Central Region	31.23	33.94	29.54	26.32	23.9	33.47	29.8	33.47	28.06
Eastern Region	24.52	22.83	25.54	25.66	27.94	23.58	27.15	24.53	28.71
Western Region	22	21.82	23.38	24.01	22.06	21.89	20.86	21	21.29
<i>Dwelling Characteristics</i>									
Improved Roof	70.62	70.91	71.83	70.39	68.75	70.95	68.21	71.52	68.71
Permanent Wall	71.25	71.11	70.59	71.71	67.65	71.58	72.52	73.6	71.61
Finished Floor	33.56	35.15	34.98	30.92	27.57	36.63	31.79	34.93	32.58
Improved Toilet	10.7	10.91	9.91	10.86	6.62	11.79	10.6	12.06	11.61
Housing Index	0	0.01	0	-0.02	-0.15	0.04	-0.03	0.05	-0.02
Observations	2,026	495	325	304	272	475	302	481	310

Table 15: Respondent Descriptives

	Overall	TA #1		TA #2	TA #3	TA #4		TA #5		
		Overall	Couple	Couple	Couple	Overall	Couple	Overall	Couple	
Female †	0.55	0.55	0.48	0.53	0.50	0.57	0.53	0.58	0.57	**
Age (Years)	38.0	39.9	37.5	37.8	38.4	36.8	*** 34.4	*** 37.8	** 36.1	
<i>Relationship to Household Head</i>										
Head †	53.8	69.1	56.3	52.0	50.0	** 52.3	*** 43.7	*** 48.8	*** 39.9	***
Spouse †	36.6	27.3	42.5	48.0	50.0	** 30.1	43.5	35.0	*** 47.8	
Son/Daughter †	5.6	2.0	0.9	0.0	0.0	9.9	*** 7.9	*** 9.8	*** 8.5	***
Other Relative †	2.9	1.4	1.2	0.0	0.0	5.6	*** 3.4	4.2	3.1	**
Non-Relative †	1.2	0.2	0.0	0.0	0.0	2.1	*** 1.5	2.2	** 0.4	**
<i>Marital Status</i>										
None †	9.4	7.9	1.9	0.0	** 0.0	** 15.3	*** 9.2	*** 14.8	*** 8.5	***
Divorced/Separated/Widowed †	13.8	23.8	0.3	0.0	0.0	19.2	2.6	17.4	*** 2.7	
Married (Monogamous) †	51.6	46.3	67.4	66.8	68.9	43.6	59.3	44.6	58.3	**
Polygamous (Married/Cohabiting) †	9.0	8.7	12.6	12.2	10.5	7.2	9.6	8.8	11.6	
Cohabiting Single Partner †	15.9	13.5	17.9	21.1	20.6	14.3	18.5	13.8	18.3	
<i>Education</i>										
None †	18.0	19.0	14.5	14.8	16.9	19.0	16.2	18.2	14.7	
Primary †	41.1	39.0	37.2	42.1	42.8	40.6	43.1	41.3	44.2	
Secondary †	32.7	33.5	40.3	34.2	32.5	** 32.1	33.7	32.2	32.6	**
Higher †	8.3	8.5	8.0	8.9	7.7	8.3	7.0	8.3	8.5	
<i>Main Economic Activity Last 12 Months</i>										
None †	9.5	10.5	9.9	5.6	** 5.2	** 11.2	1.1	11.9	10.9	
Off farm †	27.4	31.3	28.0	32.2	21.3	** 26.2	** 23.0	28.4	24.5	
On farm †	63.1	58.2	62.2	62.2	73.5	*** 62.6	65.9	59.6	64.7	
<i>Religion</i>										
Catholic †	42.2	41.6	39.7	42.8	42.1	41.5	40.9	43.1	42.6	
Protestant †	32.5	30.7	33.2	32.6	32.4	34.7	34.3	31.5	31.2	
Muslim †	14.7	15.2	15.7	14.1	15.1	14.3	15.8	14.8	15.9	
Other †	10.6	12.5	11.4	10.5	10.5	9.5	9.0	10.6	10.3	

Note: ***** indicate statistical significance at 5\1 percent level, respectively.

Table 16: Agreement on Individual Owners' Reported & Economic Ownership in Treatment Arm 4 Households

Sample: Individuals Reported as Owners by At Least 1 Respondent in Households with 2+ Respondents

Average Share of Respondents in Unanimous Agreement on Individual's Ownership Status

	Dwelling	Parcels	NFE	Financial Assets
Reported Ownership				
Overall	0.61	0.48	0.37	0.26
Exclusive	0.35	0.30	0.42	0.91
Joint	0.03	0.04	0.77	0.00
Observations	267	300	137	231
Economic Ownership				
Overall	0.51	0.45	0.26	N/A
Exclusive	0.10	0.10	0.48	N/A
Joint	0.21	0.20	0.61	N/A
Observations	344	370	124	N/A

Table 17: TA4 Household-Level Share of Respondents Reporting DWELLING Value Over vs. Under Compared to Value Reported by *Presumed* Most Knowledgeable Member

Over	55.9
Same	5.5
Under	38.6
Average Within-Household Respondent Value As a Share of <i>Presumed</i> Most Knowledgeable Member Reported Value Averaged Across Households	
No Trimming	298%
<i># of Households</i>	195
Trimmed Top & Bottom 1%	134%
<i># of Households</i>	191
Trimmed Top & Bottom 5 %	34%
<i># of Households</i>	174

Table 18. Overlap Between Respondent Right Holder Status & Reported Ownership According to Respondent's Own Reporting, By Gender & Treatment Arm

	Dwelling										Agricultural Land										Non-Farm Enterprises															
	Exclusive Reported Ownership					Joint Reported Ownership					Exclusive Reported Ownership					Joint Reported Ownership					Exclusive Reported Ownership					Joint Reported Ownership										
	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5
Overall Sample	0.74	0.79	0.75	0.70	0.78	0.68	0.52	0.47	0.62	0.63	0.55	0.36	0.81	0.85	0.83	0.80	0.84	0.77	0.58	0.56	0.62	0.65	0.56	0.51	0.94	0.92	0.92	0.93	0.94	0.97	0.79	0.70	0.81	0.81	0.68	0.88
Sell	0.74	0.79	0.75	0.70	0.78	0.68	0.52	0.47	0.62	0.63	0.55	0.36	0.81	0.85	0.83	0.80	0.84	0.77	0.58	0.56	0.62	0.65	0.56	0.51	0.94	0.92	0.92	0.93	0.94	0.97	0.79	0.70	0.81	0.81	0.68	0.88
Bequeath	0.86	0.90	0.86	0.82	0.90	0.81	0.57	0.55	0.69	0.62	0.56	0.48	0.90	0.92	0.90	0.88	0.95	0.88	0.64	0.63	0.58	0.70	0.58	0.65	0.92	0.92	0.93	0.89	0.93	0.93	0.78	0.70	0.81	0.77	0.64	0.91
Use as Collateral	0.72	0.76	0.77	0.66	0.76	0.66	0.52	0.50	0.64	0.62	0.54	0.62	0.80	0.86	0.81	0.73	0.84	0.73	0.61	0.63	0.60	0.66	0.55	0.66	0.86	0.92	0.85	0.84	0.81	0.84	0.74	0.70	0.81	0.77	0.59	0.77
Rent it Out	0.75	0.78	0.77	0.69	0.78	0.75	0.59	0.55	0.69	0.66	0.62	0.49	0.83	0.89	0.84	0.77	0.85	0.81	0.66	0.76	0.64	0.71	0.61	0.61	0.87	0.89	0.85	0.88	0.81	0.91	0.72	0.65	0.75	0.77	0.64	0.76
Make Improvements	0.94	0.95	0.96	0.92	0.95	0.91	0.78	0.84	0.76	0.81	0.76	0.74	0.96	0.98	0.96	0.95	0.98	0.92	0.85	0.93	0.80	0.89	0.81	0.82	0.98	0.98	0.98	0.96	0.98	0.99	0.87	0.70	0.88	0.88	0.82	1.00
Female Sample	0.41	0.33	0.63	0.83	0.38	0.24	0.34	0.32	0.33	0.42	0.41	0.25	0.67	0.67	0.60	1.00	0.89	0.52	0.42	0.36	0.46	0.49	0.42	0.36	0.92	0.90	0.92	0.88	0.92	0.94	0.66	0.45	0.67	0.69	0.58	0.79
Sell	0.41	0.33	0.63	0.83	0.38	0.24	0.34	0.32	0.33	0.42	0.41	0.25	0.67	0.67	0.60	1.00	0.89	0.52	0.42	0.36	0.46	0.49	0.42	0.36	0.92	0.90	0.92	0.88	0.92	0.94	0.66	0.45	0.67	0.69	0.58	0.79
Bequeath	0.55	0.67	0.63	0.83	0.38	0.48	0.36	0.36	0.38	0.37	0.37	0.33	0.77	0.78	0.70	1.00	0.67	0.76	0.46	0.45	0.36	0.49	0.42	0.51	0.88	0.90	0.88	0.76	0.94	0.87	0.64	0.45	0.50	0.62	0.50	0.89
Use as Collateral	0.39	0.33	0.50	0.67	0.38	0.67	0.33	0.32	0.33	0.39	0.37	0.39	0.65	0.67	0.60	0.78	0.78	0.78	0.45	0.45	0.46	0.51	0.38	0.51	0.80	0.90	0.79	0.65	0.78	0.65	0.62	0.45	0.67	0.62	0.42	0.62
Rent it Out	0.45	0.33	0.50	0.50	0.63	0.38	0.42	0.36	0.48	0.47	0.49	0.35	0.68	0.67	0.60	0.89	1.00	0.55	0.52	0.64	0.54	0.57	0.50	0.45	0.81	0.87	0.79	0.76	0.76	0.87	0.56	0.45	0.50	0.62	0.50	0.63
Make Improvements	0.80	0.83	0.75	0.83	0.88	0.76	0.67	0.77	0.57	0.68	0.67	0.66	0.88	0.89	0.80	0.89	1.00	0.86	0.76	0.91	0.68	0.80	0.73	0.73	0.97	1.00	0.96	0.94	0.96	0.98	0.77	0.45	0.67	0.77	0.75	1.00
Male Sample	0.76	0.81	0.76	0.70	0.81	0.74	0.79	0.69	0.90	0.83	0.81	0.68	0.83	0.86	0.86	0.79	0.83	0.82	0.78	0.79	0.82	0.79	0.78	0.76	0.96	0.94	0.92	0.95	0.97	1.00	0.93	1.00	0.90	0.92	0.80	1.00
Sell	0.76	0.81	0.76	0.70	0.81	0.74	0.79	0.69	0.90	0.83	0.81	0.68	0.83	0.86	0.86	0.79	0.83	0.82	0.78	0.79	0.82	0.79	0.78	0.76	0.96	0.94	0.92	0.95	0.97	1.00	0.93	1.00	0.90	0.92	0.80	1.00
Bequeath	0.88	0.91	0.88	0.82	0.94	0.85	0.90	0.81	1.00	0.86	0.92	0.90	0.92	0.93	0.92	0.87	0.97	0.90	0.86	0.84	0.86	0.87	0.81	0.88	0.96	0.94	0.97	0.95	0.91	1.00	0.93	1.00	1.00	0.92	0.80	0.93
Use as Collateral	0.75	0.78	0.79	0.66	0.78	0.66	0.83	0.75	0.95	0.85	0.85	0.85	0.82	0.87	0.83	0.73	0.84	0.73	0.81	0.84	0.77	0.79	0.81	0.79	0.93	0.94	0.89	0.93	0.85	0.93	0.88	1.00	0.90	0.92	0.80	0.92
Rent it Out	0.78	0.80	0.79	0.70	0.79	0.81	0.86	0.81	0.90	0.85	0.85	0.87	0.84	0.91	0.87	0.76	0.84	0.86	0.83	0.89	0.77	0.84	0.78	0.88	0.91	0.91	0.89	0.93	0.88	0.95	0.89	0.89	0.90	0.92	0.80	0.93
Make Improvements	0.95	0.95	0.98	0.93	0.96	0.93	0.95	0.94	0.95	0.95	0.92	0.97	0.96	0.98	0.98	0.95	0.98	0.94	0.96	0.95	0.95	0.97	0.94	0.97	0.99	0.97	1.00	0.98	1.00	1.00	0.98	1.00	1.00	1.00	0.90	1.00

Table 19. Overlap Between Respondent Right Holder Status & Economic Ownership According to Respondent's Own Reporting, By Gender & Treatment Arm

	Dwelling										Agricultural Land										Non-Farm Enterprises															
	Exclusive Economic Ownership					Joint Economic Ownership					Exclusive Economic Ownership					Joint Economic Ownership					Exclusive Economic Ownership					Joint Economic Ownership										
	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5
Overall Sample	0.83	0.88	0.86	0.81	0.84	0.77	0.50	0.55	0.54	0.50	0.52	0.42	0.87	0.89	0.90	0.86	0.88	0.86	0.59	0.57	0.60	0.54	0.57	0.70	0.94	0.94	0.89	0.94	0.96	0.94	0.73	0.78	0.83	0.70	0.50	0.95
Sell	0.83	0.88	0.86	0.81	0.84	0.77	0.50	0.55	0.54	0.50	0.52	0.42	0.87	0.89	0.90	0.86	0.88	0.86	0.59	0.57	0.60	0.54	0.57	0.70	0.94	0.94	0.89	0.94	0.96	0.94	0.73	0.78	0.83	0.70	0.50	0.95
Bequeath	0.90	0.92	0.90	0.90	0.94	0.85	0.58	0.67	0.63	0.56	0.60	0.54	0.95	0.94	0.96	0.90	0.97	0.96	0.66	0.69	0.62	0.60	0.60	0.82	0.92	0.94	0.89	0.89	0.94	0.92	0.71	0.83	0.75	0.68	0.50	0.90
Use as Collateral	0.82	0.90	0.84	0.79	0.84	0.79	0.51	0.51	0.61	0.50	0.52	0.50	0.87	0.91	0.87	0.81	0.89	0.81	0.61	0.59	0.60	0.55	0.57	0.55	0.88	0.94	0.89	0.86	0.82	0.86	0.71	0.78	0.75	0.70	0.50	0.70
Rent it Out	0.84	0.88	0.84	0.80	0.87	0.80	0.58	0.61	0.66	0.56	0.60	0.54	0.89	0.90	0.90	0.83	0.90	0.90	0.67	0.72	0.67	0.61	0.65	0.75	0.88	0.92	0.89	0.89	0.82	0.87	0.69	0.74	0.71	0.70	0.53	0.80
Make Improvements	0.95	0.95	0.97	0.98	0.95	0.92	0.80	0.86	0.85	0.75	0.79	0.81	0.98	0.99	0.97	0.99	0.98	0.98	0.84	0.87	0.83	0.78	0.85	0.92	0.99	1.00	0.97	0.97	1.00	0.99	0.80	0.78	0.83	0.73	0.75	1.00
Female Sample	0.63	0.80	0.86	0.67	1.00	0.36	0.27	0.25	0.33	0.28	0.31	0.20	0.79	0.67	0.86	0.75	1.00	0.78	0.33	0.24	0.34	0.29	0.35	0.42	0.91	0.92	0.85	0.91	0.94	0.90	0.60	0.64	0.71	0.59	0.50	0.80
Sell	0.63	0.80	0.86	0.67	1.00	0.36	0.27	0.25	0.33	0.28	0.31	0.20	0.79	0.67	0.86	0.75	1.00	0.78	0.33	0.24	0.34	0.29	0.35	0.42	0.91	0.92	0.85	0.91	0.94	0.90	0.60	0.64	0.71	0.59	0.50	0.80
Bequeath	0.67	0.80	0.86	0.67	1.00	0.45	0.29	0.36	0.31	0.27	0.30	0.28	0.85	0.78	1.00	0.63	1.00	0.89	0.37	0.38	0.32	0.31	0.31	0.62	0.88	0.92	0.77	0.73	0.97	0.87	0.54	0.64	0.57	0.50	0.44	0.80
Use as Collateral	0.53	0.80	0.57	0.50	1.00	0.50	0.28	0.27	0.42	0.26	0.33	0.26	0.77	0.67	0.86	0.63	1.00	0.63	0.36	0.31	0.39	0.29	0.35	0.29	0.83	0.92	0.85	0.73	0.81	0.73	0.56	0.64	0.71	0.50	0.44	0.50
Rent it Out	0.53	0.80	0.71	0.33	1.00	0.36	0.40	0.39	0.53	0.35	0.49	0.34	0.81	0.67	0.86	0.75	1.00	0.83	0.48	0.49	0.49	0.40	0.54	0.50	0.81	0.88	0.85	0.82	0.78	0.79	0.56	0.64	0.57	0.55	0.44	0.80
Make Improvements	0.83	0.80	0.86	0.83	1.00	0.82	0.65	0.75	0.69	0.55	0.63	0.69	0.96	0.89	1.00	0.88	1.00	1.00	0.69	0.73	0.68	0.60	0.72	0.80	0.99	1.00	0.92	1.00	1.00	0.98	0.67	0.64	0.71	0.55	0.72	1.00
Male Sample	0.85	0.88	0.85	0.82	0.84	0.84	0.70	0.75	0.68	0.71	0.76	0.65	0.88	0.91	0.90	0.87	0.87	0.88	0.80	0.78	0.81	0.78														

Table 22. Overlap Between Respondent Economic Ownership vs. Reported Ownership & Documented Ownership

	Dwelling															Agricultural Land															Non-Farm Enterprises																
	Exclusive Economic Ownership							Joint Economic Ownership								Exclusive Economic Ownership							Joint Economic Ownership								Exclusive Economic Ownership							Joint Economic Ownership									
	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5											
Overall Sample																																															
Reported Ownership	0.98	0.99	0.97	0.98	1.00	0.95	0.72	0.77	0.72	0.70	0.67	0.76	0.99	0.97	1.00	0.96	1.00	1.00	0.78	0.79	0.76	0.70	0.68	1.00	0.99	1.00	1.00	0.94	1.00	1.00	0.80	0.91	0.79	0.75	0.66	1.00											
Documented Ownership	0.32	0.27	0.29	0.29	0.36	0.40	0.18	0.21	0.21	0.19	0.13	0.18	0.46	0.35	0.32	0.44	0.57	0.54	0.30	0.27	0.26	0.27	0.28	0.39																							
Female Sample																																															
Reported Ownership	0.73	0.80	0.71	0.67	1.00	0.73	0.48	0.41	0.39	0.40	0.44	0.63	0.89	0.78	1.00	0.63	1.00	1.00	0.53	0.47	0.51	0.41	0.43	1.00	0.99	1.00	1.00	0.91	1.00	1.00	0.76	0.91	0.86	0.64	0.72	1.00											
Documented Ownership	0.33	0.60	0.43	0.00	1.00	0.27	0.10	0.11	0.17	0.06	0.08	0.12	0.47	0.56	0.14	0.13	1.00	0.53	0.17	0.18	0.27	0.11	0.17	0.22																							
Male Sample																																															
Reported Ownership	1.00	1.00	1.00	1.00	1.00	0.98	0.95	1.00	0.93	0.98	0.94	0.90	1.00	1.00	1.00	0.99	1.00	1.00	0.98	1.00	0.96	0.97	0.96	1.00	0.99	1.00	1.00	0.96	1.00	1.00	0.83	0.92	0.76	0.86	0.57	1.00											
Documented Ownership	0.32	0.25	0.27	0.31	0.35	0.42	0.25	0.27	0.23	0.31	0.19	0.23	0.46	0.33	0.34	0.48	0.54	0.54	0.39	0.32	0.25	0.42	0.39	0.47																							

Table 23. Overlap Respondent Documented Ownership vs. Reported and Economic Ownership

	Dwelling												Agricultural Land												
	Exclusive Documented Ownership						Joint Documented Ownership						Exclusive Documented Ownership						Joint Documented Ownership						
	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	Overall	TA 1	TA 2	TA 3	TA 4	TA 5	
Overall Sample																									
Reported Ownership	0.99	1.00	1.00	1.00	1.00	1.00	0.96	0.79	0.50	0.73	0.86	0.82	0.83	0.99	1.00	1.00	1.00	0.98	1.00	0.90	0.73	0.80	0.97	0.81	1.00
Economic Ownership	0.97	1.00	1.00	0.96	0.96	0.96	0.89	0.88	0.91	0.73	0.94	0.93	0.99	0.98	1.00	1.00	0.98	0.99	0.93	1.00	0.87	0.87	0.93	0.97	
Female Sample																									
Reported Ownership	0.91	1.00	1.00		1.00	0.67	0.65	0.33	0.57	0.73	0.60	0.76	0.96	1.00	1.00	1.00	0.89	1.00	0.80	0.63	0.73	0.92	0.69	1.00	
Economic Ownership	1.00	1.00	1.00		1.00	1.00	0.82	1.00	0.86	0.55	1.00	0.84	1.00	1.00	1.00	1.00	1.00	1.00	0.89	1.00	0.82	0.85	0.92	0.90	
Male Sample																									
Reported Ownership	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	0.99	1.00	1.00	1.00	0.93	1.00	
Economic Ownership	0.97	1.00	1.00	0.96	0.96	0.96	0.94	0.50	1.00	0.91	0.90	0.96	0.99	0.98	1.00	1.00	0.97	0.99	0.96	1.00	1.00	0.89	0.93	1.00	

Table 24: Hidden Assets

Module	# of Respondents Owning an Asset			# of Owners Reporting a Hidden Asset			
	Overall	Male	Female	Overall		Male	Female
				#	%		
Parcels	833	62.3%	37.7%	25	3.0%		
Large Livestock	1014	53.5%	46.5%	49	4.8%		
Large Agricultural Equipment	102	66.7%	33.3%	0	0.0%		
Non-farm Enterprises	536	42.5%	57.5%	1	0.2%		
Other Real Estate	154	67.1%	32.9%	4	2.6%		
Financial Assets (Accounts)	795	46.9%	53.1%	111	14.0%	16.4%	12.8%
Financial Assets (Loans)	287	56.4%	43.6%	78	27.2%	25.3%	29.6%
Liabilities	410	51.1%	48.9%	93	22.7%	24.6%	17.7%

**Table 25: Differences in DWELLING Reported Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.002 (0.023)	-0.041 (0.044)	0.020 (0.022)
Treatment Arm 3 †	0.034 (0.024)	-0.031 (0.045)	0.060*** (0.021)
Treatment Arm 4 †	0.093*** (0.025)	0.039 (0.041)	0.098*** (0.025)
Treatment Arm 5 †	0.067** (0.027)	-0.108** (0.047)	0.129*** (0.023)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.187	0.838	0.049
Treatment Arms 2 & 4	0.000	0.040	0.001
Treatment Arms 2 & 5	0.023	0.175	0.000
Treatment Arms 3 & 4	0.016	0.111	0.048
Treatment Arms 3 & 5	0.225	0.144	0.000
Treatment Arms 4 & 5	0.365	0.007	0.063

Note: † identifies a binary variable; ***/*** correspond to statistical significance at the 10/5/1 percent level respectively; Control variables are included but not reported.

**Table 26: Differences in DWELLING Reported Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.005 (0.010)	-0.047 (0.036)	0.007 (0.004)
Treatment Arm 3 †	-0.028*** (0.010)	-0.107*** (0.035)	0.001 (0.005)
Treatment Arm 4 †	0.025** (0.010)	0.058* (0.034)	0.006 (0.004)
Treatment Arm 5 †	-0.026** (0.012)	-0.142*** (0.040)	0.010** (0.005)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.027	0.102	0.221
Treatment Arms 2 & 4	0.002	0.001	0.817
Treatment Arms 2 & 5	0.083	0.014	0.403
Treatment Arms 3 & 4	0.000	0.000	0.276
Treatment Arms 3 & 5	0.839	0.388	0.047
Treatment Arms 4 & 5	0.000	0.000	0.257

Note: † identifies a binary variable; ***/*** correspond to statistical significance at the 10/5/1 percent level respectively; Control variables are included but not reported.

**Table 27: Differences in DWELLING Reported Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.009 (0.021)	0.014 (0.022)	0.004 (0.020)
Treatment Arm 3 †	0.055*** (0.020)	0.056*** (0.020)	0.053*** (0.019)
Treatment Arm 4 †	0.093*** (0.023)	0.097*** (0.023)	0.085*** (0.024)
Treatment Arm 5 †	0.113*** (0.022)	0.120*** (0.024)	0.104*** (0.021)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.016	0.030	0.010
Treatment Arms 2 & 4	0.000	0.000	0.000
Treatment Arms 2 & 5	0.000	0.000	0.000
Treatment Arms 3 & 4	0.038	0.025	0.084
Treatment Arms 3 & 5	0.001	0.001	0.001
Treatment Arms 4 & 5	0.197	0.189	0.224

Note: † identifies a binary variable; *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 28: Differences in DWELLING Economic Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.026 (0.030)	0.002 (0.039)	-0.049 (0.036)
Treatment Arm 3 †	-0.014 (0.033)	-0.042 (0.045)	0.007 (0.034)
Treatment Arm 4 †	0.121*** (0.032)	0.103** (0.045)	0.129*** (0.032)
Treatment Arm 5 †	0.109*** (0.033)	-0.011 (0.042)	0.180*** (0.032)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.712	0.302	0.144
Treatment Arms 2 & 4	0.000	0.013	0.000
Treatment Arms 2 & 5	0.000	0.773	0.000
Treatment Arms 3 & 4	0.000	0.002	0.000
Treatment Arms 3 & 5	0.001	0.520	0.000
Treatment Arms 4 & 5	0.747	0.024	0.115

Note: † identifies a binary variable; *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 29: Differences in DWELLING Economic Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.009* (0.005)	0.024 (0.017)	0.000 (0.000)
Treatment Arm 3 †	-0.004 (0.006)	-0.022 (0.020)	0.000 (0.000)
Treatment Arm 4 †	0.022*** (0.006)	0.078*** (0.020)	-0.000 (0.000)
Treatment Arm 5 †	-0.016** (0.007)	-0.076*** (0.025)	0.000 (0.000)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.031	0.019	0.845
Treatment Arms 2 & 4	0.038	0.005	0.389
Treatment Arms 2 & 5	0.001	0.000	0.500
Treatment Arms 3 & 4	0.000	0.000	0.406
Treatment Arms 3 & 5	0.094	0.019	0.404
Treatment Arms 4 & 5	0.000	0.000	0.113

Note: † identifies a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 30: Differences in DWELLING Economic Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.050 (0.032)	-0.038 (0.033)	-0.058 (0.035)
Treatment Arm 3 †	-0.003 (0.033)	-0.002 (0.036)	0.001 (0.033)
Treatment Arm 4 †	0.126*** (0.032)	0.119*** (0.037)	0.134*** (0.032)
Treatment Arm 5 †	0.170*** (0.032)	0.169*** (0.034)	0.170*** (0.032)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.165	0.296	0.129
Treatment Arms 2 & 4	0.000	0.000	0.000
Treatment Arms 2 & 5	0.000	0.000	0.000
Treatment Arms 3 & 4	0.000	0.001	0.000
Treatment Arms 3 & 5	0.000	0.000	0.000
Treatment Arms 4 & 5	0.166	0.158	0.268

Note: † identifies a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 31: Differences in DWELLING Documented Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.004 (0.009)	0.001 (0.018)	0.008 (0.009)
Treatment Arm 3 †	0.007 (0.009)	-0.002 (0.019)	0.013 (0.009)
Treatment Arm 4 †	0.014* (0.008)	0.027 (0.017)	0.007 (0.009)
Treatment Arm 5 †	0.029*** (0.010)	0.037*** (0.017)	0.027*** (0.008)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.739	0.888	0.567
Treatment Arms 2 & 4	0.213	0.099	0.919
Treatment Arms 2 & 5	0.016	0.043	0.010
Treatment Arms 3 & 4	0.408	0.120	0.512
Treatment Arms 3 & 5	0.027	0.033	0.031
Treatment Arms 4 & 5	0.090	0.548	0.009

Note: † identifies a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 32: Differences in DWELLING Documented Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.000 (0.000)	-0.001 (0.002)	
Treatment Arm 3 †	-0.000 (0.000)	-0.001 (0.002)	
Treatment Arm 4 †	0.000 (0.000)	0.004* (0.002)	
Treatment Arm 5 †	-0.000 (0.000)	-0.003 (0.002)	
Observations			
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.782	0.728	
Treatment Arms 2 & 4	0.165	0.026	
Treatment Arms 2 & 5	0.424	0.311	
Treatment Arms 3 & 4	0.183	0.025	
Treatment Arms 3 & 5	0.499	0.437	
Treatment Arms 4 & 5	0.126	0.004	

Note: † identifies a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported. The estimation was not run for the female sub-sample due to the low number of observations.

**Table 33: Differences in DWELLING Documented Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.006 (0.008)	0.007 (0.008)	0.006 (0.010)
Treatment Arm 3 †	0.011 (0.008)	0.007 (0.009)	0.017* (0.009)
Treatment Arm 4 †	0.007 (0.009)	0.008 (0.009)	0.008 (0.010)
Treatment Arm 5 †	0.039*** (0.007)	0.048*** (0.011)	0.031*** (0.009)
Observations	4,090	2,060	1,826
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.460	0.980	0.191
Treatment Arms 2 & 4	0.877	0.911	0.811
Treatment Arms 2 & 5	0.000	0.000	0.002
Treatment Arms 3 & 4	0.551	0.922	0.292
Treatment Arms 3 & 5	0.000	0.000	0.048
Treatment Arms 4 & 5	0.000	0.000	0.004

Note: † identifies a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 34: Differences in DWELLING Right to Sell Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall		Male		Female	
	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional
Treatment Arm 2 †	0.025 (0.016)	0.070* (0.037)	0.019 (0.033)	0.049 (0.032)	0.024* (0.015)	0.115 (0.104)
Treatment Arm 3 †	0.007 (0.019)	0.016 (0.042)	-0.051 (0.035)	-0.022 (0.034)	0.036** (0.015)	0.170 (0.106)
Treatment Arm 4 †	0.067*** (0.017)	0.129*** (0.036)	0.077** (0.032)	0.099*** (0.035)	0.056*** (0.015)	0.205** (0.090)
Treatment Arm 5 †	-0.027 (0.017)	-0.061 (0.037)	-0.102*** (0.033)	-0.045 (0.032)	0.017 (0.015)	-0.037 (0.092)
Observations	4,090	1,462	2,060	1,096	2,030	366
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.304	0.169	0.048	0.042	0.412	0.587
Treatment Arms 2 & 4	0.009	0.081	0.075	0.157	0.022	0.348
Treatment Arms 2 & 5	0.008	0.001	0.001	0.011	0.660	0.054
Treatment Arms 3 & 4	0.001	0.006	0.000	0.001	0.184	0.684
Treatment Arms 3 & 5	0.122	0.106	0.181	0.559	0.265	0.016
Treatment Arms 4 & 5	0.000	0.000	0.000	0.000	0.010	0.001

Note: † identifies a binary variable; * ** *** correspond to statistical significance at the 1, 5 and 10 percent level, respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

**Table 35: Differences in DWELLING Right to Bequeath Across Treatment Arms
Pooled Individual Reporting - Sample: Adult Members of Households with a Couple**

	Overall		Male		Female	
	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional
Treatment Arm 2 †	-0.004 (0.016)	0.008 (0.032)	-0.027 (0.037)	0.008 (0.024)	0.005 (0.016)	-0.007 (0.103)
Treatment Arm 3 †	0.001 (0.019)	-0.023 (0.038)	-0.061 (0.039)	-0.037 (0.027)	0.027** (0.014)	0.085 (0.098)
Treatment Arm 4 †	0.057*** (0.018)	0.080** (0.037)	0.081** (0.037)	0.067** (0.029)	0.038** (0.015)	0.092 (0.087)
Treatment Arm 5 †	-0.024 (0.019)	-0.057 (0.037)	-0.126*** (0.037)	-0.057** (0.028)	0.029* (0.015)	-0.005 (0.088)
Observations	4,090	1,462	2,060	1,096	2,030	366
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.813	0.434	0.440	0.143	0.149	0.377
Treatment Arms 2 & 4	0.000	0.024	0.002	0.024	0.019	0.323
Treatment Arms 2 & 5	0.306	0.063	0.017	0.022	0.123	0.990
Treatment Arms 3 & 4	0.004	0.008	0.001	0.001	0.478	0.943
Treatment Arms 3 & 5	0.258	0.411	0.117	0.465	0.932	0.337
Treatment Arms 4 & 5	0.000	0.000	0.000	0.000	0.537	0.181

Note: † identifies a binary variable; * ** *** correspond to statistical significance at the 1, 5 and 10 percent level, respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

**Table 36: Differences in PARCEL Reported Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
	Treatment Arm 2 †	-0.013 (0.024)	-0.054 (0.046)
Treatment Arm 3 †	0.002 (0.025)	-0.071* (0.043)	0.042* (0.024)
Treatment Arm 4 †	0.102*** (0.026)	0.111*** (0.041)	0.087*** (0.027)
Treatment Arm 5 †	0.045* (0.025)	-0.116*** (0.041)	0.123*** (0.025)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.577	0.731	0.203
Treatment Arms 2 & 4	0.000	0.001	0.006
Treatment Arms 2 & 5	0.046	0.174	0.000
Treatment Arms 3 & 4	0.000	0.000	0.058
Treatment Arms 3 & 5	0.133	0.289	0.001
Treatment Arms 4 & 5	0.046	0.000	0.125

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 37: Differences in PARCEL Reported Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.016 (0.014)	-0.060 (0.037)	0.005 (0.012)
Treatment Arm 3 †	-0.034** (0.014)	-0.095*** (0.035)	-0.004 (0.011)
Treatment Arm 4 †	0.047*** (0.013)	0.116*** (0.035)	0.008 (0.010)
Treatment Arm 5 †	0.043*** (0.016)	-0.056 (0.039)	0.053*** (0.010)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.205	0.364	0.426
Treatment Arms 2 & 4	0.000	0.000	0.792
Treatment Arms 2 & 5	0.000	0.908	0.000
Treatment Arms 3 & 4	0.000	0.000	0.273
Treatment Arms 3 & 5	0.000	0.260	0.000
Treatment Arms 4 & 5	0.822	0.000	0.000

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10/5/1 percent level respectively; Control variables are included but not reported.

**Table 38: Differences in PARCEL Reported Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.017 (0.021)	0.020 (0.024)	0.013 (0.019)
Treatment Arm 3 †	0.041* (0.022)	0.041* (0.024)	0.041** (0.021)
Treatment Arm 4 †	0.085*** (0.024)	0.090*** (0.026)	0.079*** (0.023)
Treatment Arm 5 †	0.079*** (0.022)	0.073*** (0.024)	0.082*** (0.021)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.216	0.328	0.152
Treatment Arms 2 & 4	0.002	0.002	0.003
Treatment Arms 2 & 5	0.004	0.024	0.001
Treatment Arms 3 & 4	0.027	0.027	0.050
Treatment Arms 3 & 5	0.068	0.153	0.038
Treatment Arms 4 & 5	0.726	0.388	0.856

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10/5/1 percent level respectively; Control variables are included but not reported.

**Table 39: Differences in PARCEL Economic Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.040 (0.032)	-0.027 (0.040)	-0.052 (0.035)
Treatment Arm 3 †	-0.021 (0.032)	-0.064 (0.044)	0.011 (0.031)
Treatment Arm 4 †	0.134*** (0.033)	0.136*** (0.041)	0.123*** (0.035)
Treatment Arm 5 †	0.010 (0.030)	-0.058 (0.041)	0.055* (0.032)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.574	0.423	0.057
Treatment Arms 2 & 4	0.000	0.000	0.000
Treatment Arms 2 & 5	0.195	0.480	0.007
Treatment Arms 3 & 4	0.000	0.000	0.000
Treatment Arms 3 & 5	0.353	0.894	0.169
Treatment Arms 4 & 5	0.001	0.000	0.072

Note: † identified a binary variable; *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 40: Differences in PARCEL Economic Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.000 (0.009)	0.003 (0.022)	-0.004 (0.006)
Treatment Arm 3 †	-0.014 (0.009)	-0.041* (0.022)	-0.001 (0.006)
Treatment Arm 4 †	0.037*** (0.008)	0.100*** (0.022)	0.001 (0.006)
Treatment Arm 5 †	-0.012 (0.010)	-0.054* (0.028)	0.006 (0.006)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.120	0.064	0.670
Treatment Arms 2 & 4	0.000	0.000	0.557
Treatment Arms 2 & 5	0.266	0.028	0.154
Treatment Arms 3 & 4	0.000	0.000	0.850
Treatment Arms 3 & 5	0.782	0.614	0.301
Treatment Arms 4 & 5	0.000	0.000	0.365

Note: † identified a binary variable; *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 41: Differences in PARCEL Economic Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.033 (0.033)	-0.030 (0.036)	-0.036 (0.034)
Treatment Arm 3 †	0.005 (0.033)	-0.007 (0.038)	0.021 (0.032)
Treatment Arm 4 †	0.123*** (0.033)	0.116*** (0.036)	0.131*** (0.035)
Treatment Arm 5 †	0.065** (0.029)	0.080** (0.032)	0.049 (0.031)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.209	0.509	0.068
Treatment Arms 2 & 4	0.000	0.000	0.000
Treatment Arms 2 & 5	0.007	0.005	0.022
Treatment Arms 3 & 4	0.000	0.001	0.000
Treatment Arms 3 & 5	0.055	0.015	0.361
Treatment Arms 4 & 5	0.091	0.327	0.025

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 42: Differences in PARCEL Documented Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.040 (0.032)	-0.027 (0.040)	-0.052 (0.035)
Treatment Arm 3 †	-0.021 (0.032)	-0.064 (0.044)	0.011 (0.031)
Treatment Arm 4 †	0.134*** (0.033)	0.136*** (0.041)	0.123*** (0.035)
Treatment Arm 5 †	0.010 (0.030)	-0.058 (0.041)	0.055* (0.032)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.574	0.423	0.057
Treatment Arms 2 & 4	0.000	0.000	0.000
Treatment Arms 2 & 5	0.195	0.480	0.007
Treatment Arms 3 & 4	0.000	0.000	0.000
Treatment Arms 3 & 5	0.353	0.894	0.169
Treatment Arms 4 & 5	0.001	0.000	0.072

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 43: Differences in PARCEL Documented Exclusive Ownership Dynamics Across Treatment Arms - Pooled Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.000 (0.009)	0.003 (0.022)	-0.004 (0.006)
Treatment Arm 3 †	-0.014 (0.009)	-0.041* (0.022)	-0.001 (0.006)
Treatment Arm 4 †	0.037*** (0.008)	0.100*** (0.022)	0.001 (0.006)
Treatment Arm 5 †	-0.012 (0.010)	-0.054* (0.028)	0.006 (0.006)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.120	0.064	0.670
Treatment Arms 2 & 4	0.000	0.000	0.557
Treatment Arms 2 & 5	0.266	0.028	0.154
Treatment Arms 3 & 4	0.000	0.000	0.850
Treatment Arms 3 & 5	0.782	0.614	0.301
Treatment Arms 4 & 5	0.000	0.000	0.365

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 44: Differences in PARCEL Documented Joint Ownership Dynamics Across Treatment Arms Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.033 (0.033)	-0.030 (0.036)	-0.036 (0.034)
Treatment Arm 3 †	0.005 (0.033)	-0.007 (0.038)	0.021 (0.032)
Treatment Arm 4 †	0.123*** (0.033)	0.116*** (0.036)	0.131*** (0.035)
Treatment Arm 5 †	0.065** (0.029)	0.080** (0.032)	0.049 (0.031)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.209	0.509	0.068
Treatment Arms 2 & 4	0.000	0.000	0.000
Treatment Arms 2 & 5	0.007	0.005	0.022
Treatment Arms 3 & 4	0.000	0.001	0.000
Treatment Arms 3 & 5	0.055	0.015	0.361
Treatment Arms 4 & 5	0.091	0.327	0.025

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 45: Differences in PARCEL Right to Sell Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	0.013 (0.019)	0.058* (0.034)	-0.001 (0.036)	0.061* (0.031)	0.014 (0.018)	0.005 (0.099)
Treatment Arm 3 †	-0.011 (0.020)	0.011 (0.046)	-0.074** (0.036)	-0.035 (0.032)	0.022 (0.018)	0.158 (0.112)
Treatment Arm 4 †	0.081*** (0.019)	0.086** (0.037)	0.113*** (0.035)	0.073** (0.034)	0.052*** (0.017)	0.099 (0.094)
Treatment Arm 5 †	-0.027 (0.017)	-0.032 (0.034)	-0.101*** (0.031)	-0.013 (0.030)	0.017 (0.018)	-0.094 (0.095)
Observations	4,090	1,409	2,060	1,053	2,030	356
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.264	0.244	0.066	0.003	0.657	0.126
Treatment Arms 2 & 4	0.001	0.447	0.004	0.719	0.029	0.299
Treatment Arms 2 & 5	0.072	0.009	0.006	0.022	0.865	0.238
Treatment Arms 3 & 4	0.000	0.064	0.000	0.000	0.109	0.515
Treatment Arms 3 & 5	0.487	0.264	0.445	0.485	0.782	0.001
Treatment Arms 4 & 5	0.000	0.001	0.000	0.012	0.036	0.006

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based only on the individuals that are reported to be owners.

Table 46: Differences in PARCEL Right to Bequeath Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	-0.021 (0.020)	-0.052* (0.030)	-0.052 (0.037)	-0.019 (0.025)	-0.006 (0.019)	-0.149 (0.098)
Treatment Arm 3 †	-0.016 (0.019)	-0.035 (0.035)	-0.085** (0.037)	-0.052** (0.025)	0.018 (0.017)	0.079 (0.108)
Treatment Arm 4 †	0.055*** (0.019)	-0.004 (0.029)	0.091** (0.038)	0.010 (0.024)	0.027 (0.017)	-0.073 (0.098)
Treatment Arm 5 †	-0.028 (0.019)	-0.056 (0.034)	-0.125*** (0.036)	-0.051* (0.027)	0.026 (0.018)	-0.064 (0.096)
Observations	4,090	1,409	2,060	1,053	2,030	356
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.818	0.612	0.439	0.156	0.194	0.033
Treatment Arms 2 & 4	0.001	0.086	0.001	0.175	0.081	0.452
Treatment Arms 2 & 5	0.783	0.899	0.061	0.199	0.102	0.337
Treatment Arms 3 & 4	0.001	0.345	0.000	0.005	0.656	0.139
Treatment Arms 3 & 5	0.620	0.561	0.296	0.970	0.696	0.089
Treatment Arms 4 & 5	0.000	0.098	0.000	0.016	0.963	0.902

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based only on the individuals that are reported to be owners.

**Table 47: Differences in NFE Reported Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.011 (0.014)	-0.005 (0.021)	-0.020 (0.015)
Treatment Arm 3 †	-0.034** (0.014)	-0.025 (0.020)	-0.045*** (0.015)
Treatment Arm 4 †	0.018 (0.013)	0.012 (0.018)	0.016 (0.015)
Treatment Arm 5 †	-0.015 (0.013)	-0.053** (0.021)	0.013 (0.014)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.095	0.302	0.089
Treatment Arms 2 & 4	0.030	0.382	0.018
Treatment Arms 2 & 5	0.769	0.022	0.038
Treatment Arms 3 & 4	0.000	0.063	0.000
Treatment Arms 3 & 5	0.173	0.225	0.000
Treatment Arms 4 & 5	0.011	0.002	0.812

Note: † identified a binary variable; ******* correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 48: Differences in NFE Reported Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.006 (0.010)	-0.000 (0.016)	-0.012 (0.012)
Treatment Arm 3 †	-0.026** (0.012)	-0.014 (0.018)	-0.041*** (0.014)
Treatment Arm 4 †	0.026** (0.010)	0.020 (0.016)	0.024** (0.012)
Treatment Arm 5 †	-0.014 (0.011)	-0.046*** (0.017)	0.009 (0.012)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.058	0.409	0.024
Treatment Arms 2 & 4	0.004	0.203	0.007
Treatment Arms 2 & 5	0.472	0.007	0.126
Treatment Arms 3 & 4	0.000	0.051	0.000
Treatment Arms 3 & 5	0.336	0.086	0.001
Treatment Arms 4 & 5	0.000	0.000	0.203

Note: † identified a binary variable; ******* correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 49: Differences in NFE Reported Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.005 (0.007)	-0.005 (0.009)	-0.006 (0.006)
Treatment Arm 3 †	-0.004 (0.007)	-0.006 (0.009)	-0.003 (0.005)
Treatment Arm 4 †	-0.001 (0.007)	-0.001 (0.008)	-0.001 (0.005)
Treatment Arm 5 †	0.001 (0.006)	-0.003 (0.008)	0.002 (0.005)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.915	0.887	0.609
Treatment Arms 2 & 4	0.566	0.719	0.401
Treatment Arms 2 & 5	0.402	0.823	0.164
Treatment Arms 3 & 4	0.649	0.633	0.729
Treatment Arms 3 & 5	0.496	0.735	0.357
Treatment Arms 4 & 5	0.835	0.878	0.622

Note: † identified a binary variable; * * * * correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 50: Differences in NFE Economic Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.015 (0.016)	-0.009 (0.019)	-0.022 (0.016)
Treatment Arm 3 †	-0.016 (0.015)	-0.012 (0.018)	-0.023 (0.015)
Treatment Arm 4 †	0.019 (0.015)	0.017 (0.019)	0.014 (0.015)
Treatment Arm 5 †	0.004 (0.013)	-0.025 (0.019)	0.024 (0.015)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.919	0.861	0.955
Treatment Arms 2 & 4	0.017	0.128	0.020
Treatment Arms 2 & 5	0.173	0.374	0.006
Treatment Arms 3 & 4	0.017	0.112	0.017
Treatment Arms 3 & 5	0.155	0.497	0.003
Treatment Arms 4 & 5	0.261	0.029	0.497

Note: † identified a binary variable; * * * * correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 51: Differences in NFE Economic Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.015* (0.008)	-0.009 (0.012)	-0.019** (0.008)
Treatment Arm 3 †	-0.021** (0.010)	-0.014 (0.014)	-0.028*** (0.009)
Treatment Arm 4 †	0.012 (0.009)	0.010 (0.013)	0.007 (0.008)
Treatment Arm 5 †	0.013 (0.008)	-0.013 (0.014)	0.021*** (0.008)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.534	0.720	0.342
Treatment Arms 2 & 4	0.001	0.109	0.004
Treatment Arms 2 & 5	0.001	0.775	0.000
Treatment Arms 3 & 4	0.001	0.084	0.002
Treatment Arms 3 & 5	0.001	0.916	0.000
Treatment Arms 4 & 5	0.881	0.092	0.065

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 52: Differences in NFE Economic Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.002 (0.010)	0.001 (0.011)	0.003 (0.009)
Treatment Arm 3 †	0.004 (0.009)	0.003 (0.010)	0.003 (0.008)
Treatment Arm 4 †	0.012 (0.010)	0.012 (0.011)	0.010 (0.009)
Treatment Arm 5 †	-0.010 (0.011)	-0.005 (0.011)	-0.016 (0.011)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.879	0.838	0.960
Treatment Arms 2 & 4	0.265	0.235	0.360
Treatment Arms 2 & 5	0.209	0.589	0.056
Treatment Arms 3 & 4	0.382	0.383	0.411
Treatment Arms 3 & 5	0.168	0.468	0.044
Treatment Arms 4 & 5	0.042	0.138	0.013

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 53: Differences in NFE Right to Sell Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	0.001 (0.014)	0.012 (0.032)	0.008 (0.021)	0.006 (0.029)	-0.007 (0.013)	0.006 (0.057)
Treatment Arm 3 †	-0.023* (0.014)	-0.006 (0.039)	-0.018 (0.020)	0.005 (0.039)	-0.028** (0.014)	-0.038 (0.066)
Treatment Arm 4 †	0.029** (0.012)	0.025 (0.033)	0.028 (0.019)	-0.001 (0.034)	0.022 (0.014)	0.075 (0.049)
Treatment Arm 5 †	-0.001 (0.012)	0.073** (0.032)	-0.037* (0.020)	0.071* (0.042)	0.022* (0.012)	0.083* (0.048)
Observations	4,090	645	2,060	362	2,030	283
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.076	0.623	0.180	0.980	0.139	0.473
Treatment Arms 2 & 4	0.032	0.680	0.316	0.812	0.039	0.219
Treatment Arms 2 & 5	0.867	0.106	0.032	0.144	0.034	0.184
Treatment Arms 3 & 4	0.000	0.416	0.018	0.878	0.001	0.046
Treatment Arms 3 & 5	0.102	0.044	0.396	0.160	0.000	0.055
Treatment Arms 4 & 5	0.015	0.171	0.003	0.110	0.980	0.868

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based only on the individuals that are reported to be owners.

Table 54: Differences in NFE Right to Bequeath Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	-0.003 (0.013)	0.025 (0.035)	0.004 (0.019)	0.024 (0.026)	-0.011 (0.013)	-0.002 (0.071)
Treatment Arm 3 †	-0.026* (0.014)	-0.005 (0.040)	-0.015 (0.019)	0.020 (0.036)	-0.037** (0.015)	-0.067 (0.083)
Treatment Arm 4 †	0.027** (0.011)	0.051 (0.036)	0.025 (0.018)	0.004 (0.031)	0.022* (0.013)	0.138** (0.059)
Treatment Arm 5 †	-0.001 (0.011)	0.115*** (0.041)	-0.035* (0.019)	0.091** (0.043)	0.021* (0.012)	0.130* (0.069)
Observations	4,090	645	2,060	362	2,030	283
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.068	0.451	0.317	0.915	0.072	0.424
Treatment Arms 2 & 4	0.016	0.503	0.279	0.512	0.020	0.037
Treatment Arms 2 & 5	0.850	0.058	0.048	0.119	0.020	0.125
Treatment Arms 3 & 4	0.000	0.180	0.040	0.658	0.000	0.009
Treatment Arms 3 & 5	0.051	0.011	0.336	0.113	0.000	0.046
Treatment Arms 4 & 5	0.027	0.141	0.008	0.035	0.931	0.903

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based only on the individuals that are reported to be owners.

**Table 55: Differences in LIVESTOCK Reported Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.044* (0.027)	0.065* (0.037)	0.024 (0.033)
Treatment Arm 3 †	0.034 (0.030)	0.025 (0.037)	0.040 (0.034)
Treatment Arm 4 †	0.149*** (0.028)	0.147*** (0.038)	0.146*** (0.031)
Treatment Arm 5 †	0.111*** (0.026)	0.035 (0.033)	0.168*** (0.031)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.735	0.349	0.589
Treatment Arms 2 & 4	0.000	0.026	0.000
Treatment Arms 2 & 5	0.015	0.403	0.000
Treatment Arms 3 & 4	0.000	0.002	0.001
Treatment Arms 3 & 5	0.008	0.806	0.000
Treatment Arms 4 & 5	0.153	0.002	0.434

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 56: Differences in LIVESTOCK Reported Exclusive Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.010 (0.020)	0.020 (0.031)	0.000 (0.025)
Treatment Arm 3 †	-0.033 (0.020)	-0.052* (0.031)	-0.017 (0.025)
Treatment Arm 4 †	0.097*** (0.021)	0.124*** (0.032)	0.069*** (0.023)
Treatment Arm 5 †	0.035* (0.021)	-0.030 (0.030)	0.079*** (0.023)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.028	0.030	0.450
Treatment Arms 2 & 4	0.000	0.001	0.003
Treatment Arms 2 & 5	0.273	0.141	0.002
Treatment Arms 3 & 4	0.000	0.000	0.000
Treatment Arms 3 & 5	0.003	0.519	0.000
Treatment Arms 4 & 5	0.001	0.000	0.618

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 57: Differences in LIVESTOCK Reported Joint Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	0.032 (0.021)	0.031 (0.021)	0.032 (0.021)
Treatment Arm 3 †	0.066*** (0.021)	0.069*** (0.021)	0.062*** (0.022)
Treatment Arm 4 †	0.088*** (0.019)	0.084*** (0.019)	0.089*** (0.020)
Treatment Arm 5 †	0.066*** (0.018)	0.049*** (0.019)	0.081*** (0.021)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.097	0.066	0.157
Treatment Arms 2 & 4	0.001	0.002	0.001
Treatment Arms 2 & 5	0.069	0.331	0.024
Treatment Arms 3 & 4	0.229	0.394	0.150
Treatment Arms 3 & 5	0.985	0.311	0.332
Treatment Arms 4 & 5	0.199	0.032	0.673

Note: † identified a binary variable; *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 58: Differences in FINANCIAL ACCOUNTS Reported Ownership Dynamics Across Treatment Arms
Pooled Individual Reporting - Sample: Adults Members of Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.016 (0.021)	-0.043 (0.029)	0.016 (0.027)
Treatment Arm 3 †	-0.009 (0.023)	-0.037 (0.030)	0.028 (0.027)
Treatment Arm 4 †	0.068*** (0.020)	0.035 (0.026)	0.104*** (0.024)
Treatment Arm 5 †	-0.008 (0.020)	-0.077*** (0.027)	0.061*** (0.022)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.097	0.066	0.157
Treatment Arms 2 & 4	0.001	0.002	0.001
Treatment Arms 2 & 5	0.069	0.331	0.024
Treatment Arms 3 & 4	0.229	0.394	0.150
Treatment Arms 3 & 5	0.985	0.311	0.332
Treatment Arms 4 & 5	0.199	0.032	0.673

Note: † identified a binary variable; *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 59: Differences in FINANCIAL ACCOUNTS Reported Exclusive Ownership Dynamics Across Treatment Arms Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.023 (0.019)	-0.051* (0.028)	0.011 (0.025)
Treatment Arm 3 †	-0.004 (0.021)	-0.029 (0.028)	0.029 (0.024)
Treatment Arm 4 †	0.055*** (0.019)	0.029 (0.024)	0.083*** (0.022)
Treatment Arm 5 †	-0.042** (0.020)	-0.076*** (0.025)	-0.005 (0.023)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.071	0.060	0.103
Treatment Arms 2 & 4	0.350	0.488	0.219
Treatment Arms 2 & 5	0.129	0.119	0.146
Treatment Arms 3 & 4	0.006	0.010	0.004
Treatment Arms 3 & 5	0.002	0.001	0.004
Treatment Arms 4 & 5	0.493	0.324	0.759

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 60: Differences in FINANCIAL ACCOUNTS Reported Joint Ownership Dynamics Across Treatment Arms Pooled Individual Reporting - Sample: Adults Members of Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.004 (0.011)	0.006 (0.010)	-0.000 (0.011)
Treatment Arm 3 †	-0.005 (0.010)	-0.001 (0.010)	-0.011 (0.011)
Treatment Arm 4 †	0.020** (0.009)	0.017* (0.008)	0.020** (0.010)
Treatment Arm 5 †	0.029*** (0.009)	0.016* (0.008)	0.038*** (0.010)
Observations	4,090	2,060	2,030
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.386	0.484	0.325
Treatment Arms 2 & 4	0.113	0.262	0.050
Treatment Arms 2 & 5	0.002	0.226	0.000
Treatment Arms 3 & 4	0.020	0.073	0.009
Treatment Arms 3 & 5	0.000	0.071	0.000
Treatment Arms 4 & 5	0.209	0.930	0.019

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 61: Differences in DWELLING Reported Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.052 (0.052)	-0.029 (0.044)	-0.022 (0.052)
Treatment Arm 3 †	-0.067 (0.045)	-0.042 (0.039)	0.007 (0.043)
Treatment Arm 4 †	-0.049 (0.045)	-0.049 (0.040)	0.035 (0.045)
Treatment Arm 5 †	0.065 (0.043)	0.008 (0.044)	0.133*** (0.042)
Observations	2,220	1,068	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.708	0.776	0.468
Treatment Arms 2 & 4	0.952	0.609	0.180
Treatment Arms 2 & 5	0.009	0.399	0.000
Treatment Arms 3 & 4	0.620	0.813	0.436
Treatment Arms 3 & 5	0.000	0.246	0.000
Treatment Arms 4 & 5	0.004	0.156	0.002

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 62: Differences in DWELLING Reported Exclusive Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.039 (0.037)	-0.066 (0.058)	0.005 (0.009)
Treatment Arm 3 †	-0.136*** (0.028)	-0.183*** (0.046)	-0.012 (0.009)
Treatment Arm 4 †	-0.079** (0.032)	-0.086 (0.054)	-0.009 (0.009)
Treatment Arm 5 †	-0.038 (0.035)	-0.058 (0.066)	0.006 (0.008)
Observations	2,220	1,068	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.001	0.017	0.064
Treatment Arms 2 & 4	0.154	0.681	0.105
Treatment Arms 2 & 5	0.981	0.893	0.894
Treatment Arms 3 & 4	0.014	0.017	0.688
Treatment Arms 3 & 5	0.001	0.023	0.023
Treatment Arms 4 & 5	0.154	0.569	0.057

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 63: Differences in DWELLING Reported Joint Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.015 (0.032)	0.046 (0.039)	-0.031 (0.045)
Treatment Arm 3 †	0.075*** (0.028)	0.118*** (0.031)	0.024 (0.037)
Treatment Arm 4 †	0.044 (0.028)	0.038 (0.035)	0.049 (0.041)
Treatment Arm 5 †	0.090*** (0.027)	0.059 (0.043)	0.114*** (0.038)
Observations	2,220	1,068	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.040	0.022	0.136
Treatment Arms 2 & 4	0.302	0.811	0.045
Treatment Arms 2 & 5	0.006	0.718	0.000
Treatment Arms 3 & 4	0.213	0.001	0.456
Treatment Arms 3 & 5	0.531	0.048	0.001
Treatment Arms 4 & 5	0.030	0.470	0.022

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 64: Differences in DWELLING Economic Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.067 (0.044)	-0.022 (0.049)	-0.098* (0.059)
Treatment Arm 3 †	-0.066 (0.044)	-0.100** (0.045)	0.020 (0.055)
Treatment Arm 4 †	-0.059 (0.041)	-0.072 (0.045)	-0.006 (0.047)
Treatment Arm 5 †	0.026 (0.039)	0.021 (0.051)	0.054 (0.047)
Observations	2,220	1,071	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.978	0.091	0.019
Treatment Arms 2 & 4	0.847	0.281	0.066
Treatment Arms 2 & 5	0.015	0.404	0.003
Treatment Arms 3 & 4	0.857	0.429	0.521
Treatment Arms 3 & 5	0.017	0.008	0.403
Treatment Arms 4 & 5	0.025	0.039	0.127

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 65: Differences in DWELLING Economic Exclusive Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.001 (0.016)	0.018 (0.041)	0.000 (0.001)
Treatment Arm 3 †	-0.040*** (0.015)	-0.086** (0.040)	-0.001 (0.001)
Treatment Arm 4 †	-0.029* (0.017)	-0.027 (0.043)	-0.005* (0.003)
Treatment Arm 5 †	-0.031* (0.016)	-0.088** (0.045)	0.000 (0.001)
Observations	2,220	1,068	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.007	0.008	0.360
Treatment Arms 2 & 4	0.085	0.293	0.054
Treatment Arms 2 & 5	0.087	0.021	0.862
Treatment Arms 3 & 4	0.418	0.105	0.086
Treatment Arms 3 & 5	0.510	0.944	0.307
Treatment Arms 4 & 5	0.910	0.154	0.064

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 66: Differences in DWELLING Economic Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.053 (0.037)	-0.039 (0.048)	-0.088 (0.057)
Treatment Arm 3 †	0.026 (0.039)	0.015 (0.046)	0.040 (0.053)
Treatment Arm 4 †	0.006 (0.033)	-0.034 (0.049)	0.042 (0.044)
Treatment Arm 5 †	0.084*** (0.032)	0.118** (0.049)	0.062 (0.046)
Observations	2,220	1,071	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.044	0.256	0.011
Treatment Arms 2 & 4	0.109	0.937	0.006
Treatment Arms 2 & 5	0.000	0.002	0.004
Treatment Arms 3 & 4	0.530	0.236	0.959
Treatment Arms 3 & 5	0.071	0.011	0.580
Treatment Arms 4 & 5	0.011	0.001	0.595

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 67: Differences in DWELLING Documented Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.011 (0.025)	0.016 (0.055)	0.000 (0.019)
Treatment Arm 3 †	-0.002 (0.022)	0.008 (0.044)	-0.013 (0.018)
Treatment Arm 4 †	0.018 (0.023)	0.064 (0.046)	-0.013 (0.018)
Treatment Arm 5 †	0.058*** (0.022)	0.115** (0.047)	0.013 (0.016)
Observations	2,253	1,080	1,173
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.532	0.856	0.403
Treatment Arms 2 & 4	0.710	0.283	0.444
Treatment Arms 2 & 5	0.044	0.042	0.388
Treatment Arms 3 & 4	0.252	0.134	0.994
Treatment Arms 3 & 5	0.002	0.004	0.045
Treatment Arms 4 & 5	0.031	0.189	0.054

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 68: Differences in DWELLING Documented Exclusive Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.002 (0.011)	0.002 (0.047)	0.000 (0.000)
Treatment Arm 3 †	-0.007 (0.009)	-0.018 (0.038)	-- --
Treatment Arm 4 †	0.012 (0.009)	0.048 (0.039)	0.000 (0.000)
Treatment Arm 5 †	0.007 (0.010)	0.026 (0.041)	0.000 (0.000)
Observations			
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.285	0.592	0.698
Treatment Arms 2 & 4	0.305	0.244	0.935
Treatment Arms 2 & 5	0.624	0.565	0.700
Treatment Arms 3 & 4	0.019	0.053	0.697
Treatment Arms 3 & 5	0.075	0.152	0.976
Treatment Arms 4 & 5	0.608	0.537	0.691

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 69: Differences in DWELLING Documented Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.013 (0.017)	0.028 (0.027)	-0.001 (0.018)
Treatment Arm 3 †	0.012 (0.017)	0.035* (0.021)	-0.005 (0.018)
Treatment Arm 4 †	0.013 (0.018)	0.044* (0.023)	-0.010 (0.018)
Treatment Arm 5 †	0.068*** (0.015)	0.114*** (0.023)	0.017 (0.016)
Observations	2,253	1,080	1,124
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.975	0.728	0.789
Treatment Arms 2 & 4	0.984	0.466	0.536
Treatment Arms 2 & 5	0.000	0.000	0.202
Treatment Arms 3 & 4	0.954	0.536	0.693
Treatment Arms 3 & 5	0.000	0.000	0.074
Treatment Arms 4 & 5	0.000	0.000	0.032

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 70: Differences in DWELLING Right to Sell Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall		Male Sample		Female Sample	
	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional
Treatment Arm 2 †	-0.014 (0.034)	-0.010 (0.050)	-0.035 (0.050)	-0.029 (0.044)	0.009 (0.024)	0.048 (0.123)
Treatment Arm 3 †	-0.056* (0.033)	-0.041 (0.044)	-0.120** (0.048)	-0.087** (0.040)	0.014 (0.020)	0.132 (0.120)
Treatment Arm 4 †	-0.025 (0.031)	0.018 (0.046)	-0.036 (0.048)	0.016 (0.045)	0.010 (0.020)	0.101 (0.117)
Treatment Arm 5 †	-0.063* (0.034)	-0.113** (0.048)	-0.066 (0.051)	-0.093** (0.042)	-0.019 (0.022)	-0.103 (0.108)
Observations	2,220	1,083	1,068	805	1,149	278
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.234	0.522	0.096	0.171	0.822	0.408
Treatment Arms 2 & 4	0.723	0.516	0.980	0.319	0.983	0.613
Treatment Arms 2 & 5	0.206	0.043	0.572	0.165	0.233	0.085
Treatment Arms 3 & 4	0.331	0.211	0.049	0.014	0.823	0.763
Treatment Arms 3 & 5	0.853	0.154	0.254	0.880	0.117	0.009
Treatment Arms 4 & 5	0.259	0.003	0.551	0.014	0.151	0.025

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

Table 71: Differences in DWELLING Right to Bequeath Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall		Male Sample		Female Sample	
	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional
Treatment Arm 2 †	-0.054 (0.039)	-0.013 (0.045)	-0.028 (0.049)	-0.009 (0.029)	-0.023 (0.024)	-0.036 (0.129)
Treatment Arm 3 †	-0.096** (0.040)	-0.066 (0.041)	-0.105** (0.048)	-0.059** (0.024)	-0.008 (0.021)	0.027 (0.119)
Treatment Arm 4 †	-0.058 (0.037)	0.018 (0.038)	-0.006 (0.047)	0.044* (0.025)	-0.025 (0.021)	-0.029 (0.114)
Treatment Arm 5 †	-0.058 (0.041)	-0.062 (0.041)	-0.021 (0.053)	-0.029 (0.026)	-0.014 (0.020)	-0.091 (0.103)
Observations	2,220	1,083	1,068	805	1,149	278
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.325	0.269	0.148	0.098	0.485	0.588
Treatment Arms 2 & 4	0.917	0.469	0.652	0.087	0.953	0.951
Treatment Arms 2 & 5	0.924	0.279	0.903	0.514	0.646	0.610
Treatment Arms 3 & 4	0.302	0.046	0.032	0.001	0.417	0.609
Treatment Arms 3 & 5	0.321	0.916	0.072	0.236	0.790	0.234
Treatment Arms 4 & 5	0.998	0.036	0.751	0.011	0.580	0.492

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

Table 72: Differences in PARCEL Reported Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.054 (-0.049)	-0.102* (-0.058)	0.023 (-0.050)
Treatment Arm 3 †	-0.100** (-0.040)	-0.117** (-0.047)	-0.023 (-0.045)
Treatment Arm 4 †	-0.051 (-0.040)	-0.045 (-0.053)	-0.012 (-0.044)
Treatment Arm 5 †	0.027 (-0.039)	-0.008 (-0.052)	0.075* (-0.041)
Observations	2,220	1,071	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.286	0.789	0.218
Treatment Arms 2 & 4	0.958	0.319	0.427
Treatment Arms 2 & 5	0.050	0.072	0.209
Treatment Arms 3 & 4	0.175	0.080	0.790
Treatment Arms 3 & 5	0.000	0.009	0.008
Treatment Arms 4 & 5	0.029	0.364	0.023

Note: † identified a binary variable; ***/*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 73: Differences in PARCEL Reported Exclusive Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.047 (0.038)	-0.081 (0.058)	0.004 (0.019)
Treatment Arm 3 †	-0.131*** (0.031)	-0.177*** (0.047)	-0.021 (0.018)
Treatment Arm 4 †	-0.064* (0.036)	-0.052 (0.058)	-0.029 (0.018)
Treatment Arm 5 †	0.004 (0.036)	-0.014 (0.063)	0.021 (0.017)
Observations	2,220	1,071	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.014	0.078	0.091
Treatment Arms 2 & 4	0.612	0.615	0.043
Treatment Arms 2 & 5	0.141	0.217	0.306
Treatment Arms 3 & 4	0.020	0.006	0.614
Treatment Arms 3 & 5	0.000	0.001	0.005
Treatment Arms 4 & 5	0.016	0.388	0.002

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 74: Differences in PARCEL Reported Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.029 (0.030)	0.031 (0.037)	0.026 (0.042)
Treatment Arm 3 †	0.057* (0.029)	0.112*** (0.035)	0.006 (0.036)
Treatment Arm 4 †	0.028 (0.030)	0.032 (0.040)	0.024 (0.038)
Treatment Arm 5 †	0.039 (0.028)	0.051 (0.045)	0.034 (0.033)
Observations	2,220	1,071	1,149
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.310	0.017	0.548
Treatment Arms 2 & 4	0.968	0.977	0.975
Treatment Arms 2 & 5	0.725	0.620	0.815
Treatment Arms 3 & 4	0.269	0.014	0.547
Treatment Arms 3 & 5	0.473	0.065	0.327
Treatment Arms 4 & 5	0.623	0.545	0.757

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 75: Differences in PARCEL Economic Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.093** (0.046)	-0.072 (0.059)	-0.089* (0.053)
Treatment Arm 3 †	-0.089** (0.044)	-0.123** (0.051)	-0.018 (0.044)
Treatment Arm 4 †	-0.040 (0.039)	-0.014 (0.051)	-0.034 (0.042)
Treatment Arm 5 †	-0.102*** (0.034)	0.014 (0.051)	-0.152*** (0.043)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.932	0.341	0.123
Treatment Arms 2 & 4	0.202	0.281	0.259
Treatment Arms 2 & 5	0.811	0.121	0.215
Treatment Arms 3 & 4	0.158	0.004	0.690
Treatment Arms 3 & 5	0.730	0.001	0.001
Treatment Arms 4 & 5	0.060	0.517	0.004

Note: † identified a binary variable; ***/**/* correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

**Table 76: Differences in PARCEL Economic Exclusive Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.015 (0.025)	-0.015 (0.052)	-0.007 (0.014)
Treatment Arm 3 †	-0.074*** (0.022)	-0.128*** (0.042)	-0.018 (0.012)
Treatment Arm 4 †	-0.030 (0.023)	-0.006 (0.047)	-0.030** (0.013)
Treatment Arm 5 †	-0.018 (0.022)	-0.040 (0.051)	-0.000 (0.012)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.009	0.018	0.418
Treatment Arms 2 & 4	0.501	0.855	0.087
Treatment Arms 2 & 5	0.884	0.630	0.585
Treatment Arms 3 & 4	0.024	0.002	0.321
Treatment Arms 3 & 5	0.005	0.050	0.112
Treatment Arms 4 & 5	0.569	0.475	0.010

Note: † identified a binary variable; ***/**/* correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 77: Differences in PARCEL Economic Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.054 (0.042)	-0.064 (0.060)	-0.055 (0.048)
Treatment Arm 3 †	0.013 (0.041)	0.005 (0.053)	0.013 (0.042)
Treatment Arm 4 †	-0.005 (0.034)	-0.032 (0.054)	0.016 (0.039)
Treatment Arm 5 †	-0.024 (0.031)	0.127** (0.050)	-0.151*** (0.038)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.063	0.167	0.093
Treatment Arms 2 & 4	0.169	0.555	0.109
Treatment Arms 2 & 5	0.417	0.001	0.044
Treatment Arms 3 & 4	0.575	0.414	0.928
Treatment Arms 3 & 5	0.263	0.005	0.000
Treatment Arms 4 & 5	0.558	0.002	0.000

Note: † identified a binary variable; ***/** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 78: Differences in PARCEL Documented Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.003 (0.028)	-0.011 (0.051)	-0.002 (0.020)
Treatment Arm 3 †	-0.011 (0.025)	0.020 (0.046)	-0.032 (0.021)
Treatment Arm 4 †	0.046* (0.026)	0.117** (0.050)	0.003 (0.016)
Treatment Arm 5 †	0.047* (0.024)	0.134*** (0.051)	-0.009 (0.017)
Observations	2,251	1,079	1,172
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.727	0.461	0.071
Treatment Arms 2 & 4	0.030	0.005	0.798
Treatment Arms 2 & 5	0.039	0.001	0.650
Treatment Arms 3 & 4	0.008	0.016	0.067
Treatment Arms 3 & 5	0.008	0.004	0.234
Treatment Arms 4 & 5	0.996	0.656	0.469

Note: † identified a binary variable; ***/** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 79: Differences in PARCEL Documented Exclusive Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.013 (0.017)	-0.026 (0.044)	-0.010 (0.012)
Treatment Arm 3 †	-0.019 (0.017)	-0.024 (0.044)	-0.030** (0.014)
Treatment Arm 4 †	0.032** (0.015)	0.097** (0.043)	0.001 (0.008)
Treatment Arm 5 †	0.029* (0.015)	0.086** (0.043)	0.003 (0.009)
Observations	2,251	1,079	924
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.665	0.961	0.127
Treatment Arms 2 & 4	0.002	0.002	0.282
Treatment Arms 2 & 5	0.002	0.002	0.166
Treatment Arms 3 & 4	0.000	0.002	0.017
Treatment Arms 3 & 5	0.000	0.002	0.007
Treatment Arms 4 & 5	0.860	0.744	0.848

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 80: Differences in PARCEL Documented Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	0.014 (0.016)	0.019 (0.028)	0.006 (0.018)
Treatment Arm 3 †	0.017 (0.014)	0.051** (0.020)	-0.011 (0.018)
Treatment Arm 4 †	0.023 (0.015)	0.053** (0.022)	0.004 (0.016)
Treatment Arm 5 †	0.035*** (0.012)	0.087*** (0.021)	-0.016 (0.015)
Observations	2,251	1,079	994
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.869	0.140	0.259
Treatment Arms 2 & 4	0.549	0.153	0.871
Treatment Arms 2 & 5	0.132	0.002	0.168
Treatment Arms 3 & 4	0.611	0.882	0.346
Treatment Arms 3 & 5	0.136	0.007	0.782
Treatment Arms 4 & 5	0.311	0.018	0.182

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 81: Differences in PARCEL Right to Sell Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	-0.036 (0.037)	0.007 (0.041)	-0.070 (0.053)	0.004 (0.038)	0.011 (0.038)	0.064 (0.112)
Treatment Arm 3 †	-0.084** (0.034)	-0.034 (0.040)	-0.144*** (0.047)	-0.086** (0.038)	0.008 (0.031)	0.184* (0.107)
Treatment Arm 4 †	-0.013 (0.031)	-0.014 (0.036)	-0.009 (0.050)	-0.021 (0.041)	0.013 (0.028)	0.099 (0.109)
Treatment Arm 5 †	-0.026 (0.030)	-0.060 (0.038)	-0.010 (0.051)	-0.041 (0.038)	-0.006 (0.031)	-0.042 (0.107)
Observations	2,218	1,038	1,067	774	1,148	264
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.235	0.327	0.172	0.019	0.925	0.218
Treatment Arms 2 & 4	0.532	0.572	0.279	0.490	0.944	0.740
Treatment Arms 2 & 5	0.790	0.098	0.233	0.231	0.613	0.222
Treatment Arms 3 & 4	0.033	0.617	0.002	0.090	0.845	0.352
Treatment Arms 3 & 5	0.089	0.539	0.002	0.255	0.628	0.005
Treatment Arms 4 & 5	0.676	0.187	0.981	0.620	0.464	0.096

Note: † identified a binary variable; ***** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

Table 82: Differences in PARCEL Right to Bequeath Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	-0.097** (0.040)	-0.046 (0.037)	-0.081 (0.053)	-0.016 (0.035)	-0.055 (0.038)	-0.137 (0.107)
Treatment Arm 3 †	-0.116*** (0.036)	-0.037 (0.031)	-0.132*** (0.049)	-0.059** (0.029)	-0.027 (0.032)	0.017 (0.106)
Treatment Arm 4 †	-0.050 (0.034)	-0.008 (0.026)	0.022 (0.049)	0.024 (0.026)	-0.056** (0.028)	-0.100 (0.095)
Treatment Arm 5 †	-0.020 (0.038)	-0.025 (0.036)	0.005 (0.054)	-0.026 (0.031)	-0.007 (0.030)	-0.071 (0.101)
Observations	2,218	1,038	1,067	774	1,148	264
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.655	0.805	0.347	0.161	0.411	0.109
Treatment Arms 2 & 4	0.246	0.258	0.056	0.181	0.976	0.692
Treatment Arms 2 & 5	0.053	0.545	0.111	0.734	0.140	0.441
Treatment Arms 3 & 4	0.031	0.325	0.000	0.002	0.308	0.175
Treatment Arms 3 & 5	0.010	0.704	0.002	0.306	0.464	0.219
Treatment Arms 4 & 5	0.365	0.581	0.684	0.050	0.058	0.669

Note: † identified a binary variable; ***** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

Table 83: Differences in NFE Reported Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.050* (0.028)	-0.007 (0.040)	-0.104*** (0.034)
Treatment Arm 3 †	-0.101*** (0.026)	-0.074** (0.036)	-0.142*** (0.032)
Treatment Arm 4 †	-0.038 (0.029)	-0.084** (0.040)	-0.008 (0.034)
Treatment Arm 5 †	-0.028 (0.025)	-0.060 (0.041)	-0.007 (0.032)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.045	0.071	0.235
Treatment Arms 2 & 4	0.661	0.061	0.002
Treatment Arms 2 & 5	0.425	0.170	0.006
Treatment Arms 3 & 4	0.014	0.795	0.000
Treatment Arms 3 & 5	0.002	0.697	0.000
Treatment Arms 4 & 5	0.698	0.534	0.962

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 84: Differences in NFE Reported Exclusive Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.026 (0.024)	0.005 (0.033)	-0.057** (0.028)
Treatment Arm 3 †	-0.081*** (0.023)	-0.052 (0.033)	-0.127*** (0.027)
Treatment Arm 4 †	-0.019 (0.023)	-0.057* (0.032)	-0.005 (0.026)
Treatment Arm 5 †	-0.020 (0.021)	-0.045 (0.033)	-0.013 (0.024)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.006	0.074	0.004
Treatment Arms 2 & 4	0.768	0.058	0.046
Treatment Arms 2 & 5	0.820	0.129	0.129
Treatment Arms 3 & 4	0.002	0.851	0.000
Treatment Arms 3 & 5	0.004	0.818	0.000
Treatment Arms 4 & 5	0.955	0.692	0.734

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 85: Differences in NFE Reported Joint Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.014 (0.011)	0.000 (0.016)	-0.028** (0.014)
Treatment Arm 3 †	-0.008 (0.010)	-0.005 (0.016)	-0.004 (0.009)
Treatment Arm 4 †	-0.014 (0.011)	-0.012 (0.017)	-0.012 (0.011)
Treatment Arm 5 †	-0.007 (0.010)	-0.005 (0.016)	-0.004 (0.010)
Observations	2,187	1,048	1,120
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.597	0.706	0.069
Treatment Arms 2 & 4	0.991	0.381	0.298
Treatment Arms 2 & 5	0.496	0.690	0.073
Treatment Arms 3 & 4	0.600	0.625	0.468
Treatment Arms 3 & 5	0.938	0.986	0.953
Treatment Arms 4 & 5	0.509	0.596	0.501

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 86: Differences in NFE Economic Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.060** (0.026)	0.005 (0.037)	-0.148*** (0.035)
Treatment Arm 3 †	-0.060*** (0.023)	-0.055* (0.033)	-0.071*** (0.027)
Treatment Arm 4 †	-0.048* (0.028)	-0.088** (0.044)	-0.024 (0.030)
Treatment Arm 5 †	0.001 (0.023)	-0.031 (0.037)	0.015 (0.029)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.982	0.057	0.034
Treatment Arms 2 & 4	0.661	0.013	0.002
Treatment Arms 2 & 5	0.011	0.289	0.000
Treatment Arms 3 & 4	0.662	0.395	0.084
Treatment Arms 3 & 5	0.008	0.443	0.001
Treatment Arms 4 & 5	0.065	0.145	0.189

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 87: Differences in NFE Economic Exclusive Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.044*** (0.017)	0.002 (0.017)	-0.081*** (0.022)
Treatment Arm 3 †	-0.066*** (0.016)	-0.030* (0.018)	-0.092*** (0.020)
Treatment Arm 4 †	-0.034* (0.019)	-0.039** (0.019)	-0.022 (0.018)
Treatment Arm 5 †	0.027* (0.015)	0.002 (0.019)	0.030* (0.016)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.223	0.064	0.637
Treatment Arms 2 & 4	0.606	0.045	0.005
Treatment Arms 2 & 5	0.000	0.993	0.000
Treatment Arms 3 & 4	0.092	0.632	0.001
Treatment Arms 3 & 5	0.000	0.058	0.000
Treatment Arms 4 & 5	0.000	0.028	0.002

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 88: Differences in NFE Economic Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.003 (0.015)	0.013 (0.022)	-0.021 (0.015)
Treatment Arm 3 †	0.006 (0.013)	0.003 (0.017)	0.008 (0.012)
Treatment Arm 4 †	-0.004 (0.014)	-0.010 (0.022)	-0.002 (0.013)
Treatment Arm 5 †	-0.035** (0.016)	-0.013 (0.020)	-0.049*** (0.016)
Observations	2,187	1,067	1,120
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.478	0.517	0.017
Treatment Arms 2 & 4	0.922	0.128	0.125
Treatment Arms 2 & 5	0.028	0.149	0.094
Treatment Arms 3 & 4	0.381	0.482	0.314
Treatment Arms 3 & 5	0.004	0.316	0.000
Treatment Arms 4 & 5	0.043	0.895	0.001

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 89: Differences in NFE Right to Sell Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	-0.017 (0.029)	-0.022 (0.031)	0.011 (0.041)	-0.000 (0.001)	-0.052 (0.032)	0.004 (0.073)
Treatment Arm 3 †	-0.077*** (0.025)	-0.031 (0.028)	-0.072** (0.036)	-0.001 (0.002)	-0.089*** (0.027)	-0.063 (0.072)
Treatment Arm 4 †	-0.016 (0.029)	-0.008 (0.026)	-0.062 (0.041)	-0.001 (0.002)	0.006 (0.030)	0.031 (0.054)
Treatment Arm 5 †	-0.005 (0.024)	0.044 (0.029)	-0.051 (0.041)		0.018 (0.025)	0.060 (0.059)
Observations	2,218	462	1,067	95	1,148	225
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.021	0.767	0.027	0.759	0.219	0.342
Treatment Arms 2 & 4	0.965	0.596	0.061	0.740	0.062	0.689
Treatment Arms 2 & 5	0.646	0.039	0.109	0.773	0.027	0.428
Treatment Arms 3 & 4	0.018	0.383	0.789	0.827	0.001	0.118
Treatment Arms 3 & 5	0.002	0.009	0.561	0.722	0.000	0.057
Treatment Arms 4 & 5	0.647	0.064	0.763	0.729	0.655	0.560

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

Table 90: Differences in NFE Right to Bequeath Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall		Male Sample		Female Sample	
	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>	<i>Unconditional</i>	<i>Conditional</i>
Treatment Arm 2 †	-0.022 (0.029)	0.006 (0.041)	0.011 (0.040)	.	-0.063* (0.033)	-0.026 (0.094)
Treatment Arm 3 †	-0.087*** (0.024)	-0.056 (0.036)	-0.074** (0.035)	.	-0.112*** (0.028)	-0.122 (0.093)
Treatment Arm 4 †	-0.024 (0.027)	-0.022 (0.029)	-0.078* (0.040)	.	-0.001 (0.027)	0.027 (0.072)
Treatment Arm 5 †	-0.009 (0.023)	0.056* (0.030)	-0.056 (0.041)	.	0.007 (0.023)	0.073 (0.065)
Observations	2,218	462	1,067	192	1,148	225
Tests of Equality of Coefficients						
Treatment Arms 2 & 3	0.011	0.095	0.021	.	0.108	0.263
Treatment Arms 2 & 4	0.946	0.472	0.031	.	0.035	0.525
Treatment Arms 2 & 5	0.624	0.230	0.087	.	0.035	0.265
Treatment Arms 3 & 4	0.009	0.297	0.916	.	0.000	0.053
Treatment Arms 3 & 5	0.000	0.002	0.648	.	0.000	0.033
Treatment Arms 4 & 5	0.512	0.017	0.607	.	0.775	0.513

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported; Conditional regressions are based on the individuals that are reported to be owners.

**Table 91: Differences in LIVESTOCK Reported Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.112*** (0.041)	-0.119* (0.061)	-0.097** (0.047)
Treatment Arm 3 †	-0.090** (0.036)	-0.117** (0.054)	-0.075* (0.041)
Treatment Arm 4 †	-0.040 (0.036)	-0.088* (0.053)	-0.002 (0.042)
Treatment Arm 5 †	-0.034 (0.038)	-0.077 (0.055)	-0.009 (0.041)
Observations	2,218	1,067	1,121
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.578	0.974	0.660
Treatment Arms 2 & 4	0.051	0.562	0.067
Treatment Arms 2 & 5	0.045	0.424	0.092
Treatment Arms 3 & 4	0.160	0.508	0.100
Treatment Arms 3 & 5	0.115	0.400	0.093
Treatment Arms 4 & 5	0.859	0.811	0.859

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

**Table 92: Differences in LIVESTOCK Reported Exclusive Ownership Dynamics Across Treatment Arms
Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple**

	Overall	Male	Female
Treatment Arm 2 †	-0.108*** (0.039)	-0.140** (0.056)	-0.076* (0.043)
Treatment Arm 3 †	-0.076** (0.032)	-0.108** (0.050)	-0.058 (0.036)
Treatment Arm 4 †	-0.049 (0.034)	-0.084* (0.048)	-0.021 (0.042)
Treatment Arm 5 †	-0.088** (0.039)	-0.092* (0.053)	-0.095** (0.043)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.360	0.507	0.712
Treatment Arms 2 & 4	0.102	0.283	0.273
Treatment Arms 2 & 5	0.591	0.345	0.715
Treatment Arms 3 & 4	0.388	0.535	0.347
Treatment Arms 3 & 5	0.730	0.733	0.378
Treatment Arms 4 & 5	0.176	0.853	0.067

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 93: Differences in LIVESTOCK Reported Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.002 (0.014)	0.012 (0.008)	-0.032 (0.021)
Treatment Arm 3 †	-0.013 (0.014)	0.006 (0.007)	-0.032* (0.019)
Treatment Arm 4 †	0.008 (0.011)	0.005 (0.008)	0.006 (0.016)
Treatment Arm 5 †	0.033*** (0.011)	0.015** (0.007)	0.039** (0.016)
Observations	2,187	1,048	1,120
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.427	0.323	0.987
Treatment Arms 2 & 4	0.455	0.281	0.074
Treatment Arms 2 & 5	0.001	0.565	0.000
Treatment Arms 3 & 4	0.136	0.869	0.047
Treatment Arms 3 & 5	0.000	0.099	0.000
Treatment Arms 4 & 5	0.003	0.063	0.009

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 94: Differences in FINANCIAL ACCOUNTS Reported Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.112*** (0.041)	-0.119* (0.061)	-0.097** (0.047)
Treatment Arm 3 †	-0.090** (0.036)	-0.117** (0.054)	-0.075* (0.041)
Treatment Arm 4 †	-0.040 (0.036)	-0.088* (0.053)	-0.002 (0.042)
Treatment Arm 5 †	-0.034 (0.038)	-0.077 (0.055)	-0.009 (0.041)
Observations	2,218	1,067	1,121
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.578	0.974	0.660
Treatment Arms 2 & 4	0.051	0.562	0.067
Treatment Arms 2 & 5	0.045	0.424	0.092
Treatment Arms 3 & 4	0.160	0.508	0.100
Treatment Arms 3 & 5	0.115	0.400	0.093
Treatment Arms 4 & 5	0.859	0.811	0.859

Note: † identified a binary variable; *|**|*** correspond to statistical significance at the 10\5\1 percent level respectively; Control variables are included but not reported.

Table 95: Differences in FINANCIAL ACCOUNTS Reported Exclusive Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.108*** (0.039)	-0.140** (0.056)	-0.076* (0.043)
Treatment Arm 3 †	-0.076** (0.032)	-0.108** (0.050)	-0.058 (0.036)
Treatment Arm 4 †	-0.049 (0.034)	-0.084* (0.048)	-0.021 (0.042)
Treatment Arm 5 †	-0.088** (0.039)	-0.092* (0.053)	-0.095** (0.043)
Observations	2,218	1,067	1,148
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.360	0.507	0.712
Treatment Arms 2 & 4	0.102	0.283	0.273
Treatment Arms 2 & 5	0.591	0.345	0.715
Treatment Arms 3 & 4	0.388	0.535	0.347
Treatment Arms 3 & 5	0.730	0.733	0.378
Treatment Arms 4 & 5	0.176	0.853	0.067

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 96: Differences in FINANCIAL ACCOUNTS Reported Joint Ownership Dynamics Across Treatment Arms Respondents' Reporting Regarding Their Ownership/Rights - Sample: Adult Respondents in Households with a Couple

	Overall	Male	Female
Treatment Arm 2 †	-0.002 (0.014)	0.012 (0.008)	-0.032 (0.021)
Treatment Arm 3 †	-0.013 (0.014)	0.006 (0.007)	-0.032* (0.019)
Treatment Arm 4 †	0.008 (0.011)	0.005 (0.008)	0.006 (0.016)
Treatment Arm 5 †	0.033*** (0.011)	0.015** (0.007)	0.039** (0.016)
Observations	2,187	1,048	1,120
Tests of Equality of Coefficients			
Treatment Arms 2 & 3	0.427	0.323	0.987
Treatment Arms 2 & 4	0.455	0.281	0.074
Treatment Arms 2 & 5	0.001	0.565	0.000
Treatment Arms 3 & 4	0.136	0.869	0.047
Treatment Arms 3 & 5	0.000	0.099	0.000
Treatment Arms 4 & 5	0.003	0.063	0.009

Note: † identified a binary variable; * ** *** correspond to statistical significance at the 10 \5 \1 percent level respectively; Control variables are included but not reported.

Table 97: Overlap Between Respondents' Reporting & Proxy Respondents' Reporting on Respondents' Ownership/Right Holder Status, By Gender, in TA4 Households with 2+ Respondents

<i>Respondents' Status According to Proxy Respondents</i>	<i>Respondents' Status According to Respondents</i>																	
	Reported Ownership						Economic Ownership						Right to Bequeath					
	Exclusive Owner		Joint Owner		Not Owner		Exclusive Owner		Joint Owner		Not Owner		Exclusive Right		Joint Right		No Right	
Dwelling	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.67	0.29	0.65	0.07	0.10	0.00	0.48	1.00	0.33	0.01	0.10	0.00	0.68	0.43	0.39	0.05	0.10	0.00
Joint Owner (Right Holder)	0.32	0.14	0.30	0.14	0.02	0.09	0.49	1.00	0.56	0.52	0.19	0.25	0.16	0.29	0.22	0.25	0.03	0.05
Not Owner (Right Holder)	0.06	0.57	0.10	0.81	0.89	0.91	0.08	0.00	0.14	0.48	0.74	0.75	0.20	0.43	0.39	0.76	0.87	0.95
Observations	111	7	20	42	63	172	63	1	63	75	68	145	106	7	18	21	70	193
Agricultural Land	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.63	0.33	0.62	0.08	0.18	0.02	0.42	0.33	0.36	0.03	0.17	0.01	0.65	0.30	0.52	0.00	0.21	0.01
Joint Owner (Right Holder)	0.31	0.00	0.35	0.18	0.18	0.10	0.49	0.33	0.56	0.49	0.30	0.26	0.16	0.10	0.19	0.28	0.03	0.05
Not Owner (Right Holder)	0.18	0.67	0.15	0.78	0.68	0.88	0.17	0.50	0.18	0.51	0.60	0.73	0.25	0.60	0.38	0.72	0.76	0.94
Observations	115	9	26	40	57	167	71	6	66	70	60	140	114	10	21	18	62	188
Non-Farm Enterprise	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.81	0.45	0.44	0.40	0.08	0.01	0.69	0.41	0.23	0.20	0.07	0.01	0.72	0.45	0.40	0.40	0.10	0.02
Joint Owner (Right Holder)	0.00	0.07	0.22	0.50	0.02	0.00	0.06	0.15	0.23	0.40	0.05	0.02	0.03	0.10	0.00	0.00	0.02	0.02
Not Owner (Right Holder)	0.19	0.50	0.44	0.30	0.90	0.99	0.25	0.52	0.62	0.53	0.88	0.97	0.28	0.50	0.60	0.60	0.88	0.97
Observations	26	42	9	10	157	162	16	27	13	15	163	172	32	40	5	5	155	169
Financial Account	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.47	0.40	0.60	0.21	0.05	0.11												
Joint Owner (Right Holder)	0.06	0.05	0.40	0.14	0.04	0.01												
Not Owner (Right Holder)	0.50	0.58	0.20	0.64	0.91	0.89												
Observations	62	60	5	14	126	142												

Table 98:Overlap Between Respondents' Reporting & Proxy Respondents' Reporting on Respondents' Ownership/Rights Status, By Gender, in TA5 Households with 2+ Respondents

<i>Respondents' Status According to Proxy Respondents</i>	<i>Respondents' Status According to Respondents</i>																	
	Reported Ownership						Economic Ownership						Right to Bequeath					
	Exclusive Owner		Joint Owner		Not Owner		Exclusive Owner		Joint Owner		Not Owner		Exclusive Right		Joint Right		No Right	
Dwelling	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Joint Owner (Right Holder)	0.35	0.13	0.50	0.20	0.05	0.06	0.52	0.50	0.54	0.46	0.11	0.31	0.13	0.15	0.15	0.14	0.03	0.03
Not Owner (Right Holder)	0.65	0.87	0.50	0.80	0.95	0.94	0.48	0.50	0.46	0.54	0.89	0.69	0.87	0.85	0.85	0.86	0.97	0.97
Observations	122	15	26	59	58	150	58	6	92	87	56	131	115	13	20	21	71	190
Agricultural Land	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Joint Owner (Right Holder)	0.27	0.05	0.21	0.10	0.06	0.08	0.27	0.29	0.33	0.57	0.14	0.31	0.10	0.06	0.24	0.18	0.01	0.02
Not Owner (Right Holder)	0.73	0.95	0.79	0.90	0.94	0.92	0.73	0.71	0.67	0.43	0.86	0.69	0.90	0.94	0.76	0.82	0.99	0.98
Observations	122	19	29	41	52	147	67	14	89	37	59	160	115	17	17	17	67	177
Non-Farm Enterprise	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Joint Owner (Right Holder)	0.09	0.06	0.25	0.27	0.01	0.01	0.06	0.05	0.00	0.00	0.01	0.01	0.06	0.06	0.11	0.25	0.01	0.02
Not Owner (Right Holder)	0.91	0.94	0.75	0.73	0.99	0.99	0.94	0.95	1.00	1.00	0.99	0.99	0.94	0.94	0.89	0.75	0.99	0.98
Observations	35	31	12	11	148	165	34	37	11	3	150	166	36	33	9	4	149	170
Financial Account	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Exclusive Owner (Right Holder)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Joint Owner (Right Holder)	0.08	0.08	0.00	0.00	0.02	0.02	0.08	0.08	0.00	0.00	0.02	0.02	0.08	0.08	0.00	0.00	0.02	0.02
Not Owner (Right Holder)	0.92	0.92	1.00	1.00	0.98	0.98	0.92	0.92	1.00	1.00	0.98	0.98	0.92	0.92	1.00	1.00	0.98	0.98
Observations	63	48	10	15	128	151												

Table 99: Implementation Cost Estimates by Treatment Arm

(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Treatment Arm	Number of Households	Number of Interviews	Total Duration (Minutes)	Average Within-EA Interview Day Spread		Augmented Total Duration (Minutes)	Shortfall in Households Compared to Expectations	Augmented Total Burden	Percentage	Estimated Cost	Cost Per Household	% Difference in Cost Per Household Compared to Arm 1	
				Value	Value/ Arm 1 Value								
1	495	495	35,145	2.91	1.00	35,145	0%	35,145	20%	28,707	58	--	
2	304	304	21,584	2.99	1.03	22,201	0%	22,201	13%	18,579	61	5%	
3	272	272	20,400	2.93	1.01	20,568	9%	22,419	12%	17,213	63	9%	
4	475	770	44,230	3.15	1.08	47,961	3%	49,400	28%	40,138	85	46%	
5	481	773	39,252	3.24	1.11	43,731	2%	44,605	26%	36,598	76	31%	

Notes: **Column 4 - Total Interview Duration** is inclusive of household questionnaire and individual questionnaire administration. **Column 5 - Average Within-EA Interview Day Spread Value** is an across-EA average of average within-EA interview day spread among households assigned to a specific treatment arm in that EA. **Column 7 - Augmented Total** is calculated by multiplying Columns 4 and 6. **Column 8 - Shortfall in Households Compared to Expectations** is sourced from Table 2 of the report, and is included to further capture, beyond the adjustment in Column 6, the differential effort expended by the survey teams to cover households in specific treatment arms. **Column 9 - Augmented Total Burden** is Column 7 value compounded by Column 8 percentage point value. **Column 10 - Percentage** is calculated by dividing treatment arm-specific augmented total burden by the sum of augmented total burden across treatment arms. **Column 11 - Estimated Cost** distributes the total implementation cost of USD 141,940 (in 2014 prices) across the treatment arms in accordance with Column 10. **Column 12 - Unit Cost Per Household** is computed by dividing Column 11 by Column 2.