How Market Access Shapes Wellbeing and Values Experimental Evidence from the D.R. Congo

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July 22, 2026

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Motivation

- **Urban markets: important for economic development**
  - Connect local to regional trade networks (Braudel 1949)
  - Shift production for subsistence to production for exchange (Smith 1776)
  - Facilitate knowledge spillovers and technology diffusion (Lucas 1988)

European/Mediterranean Examples

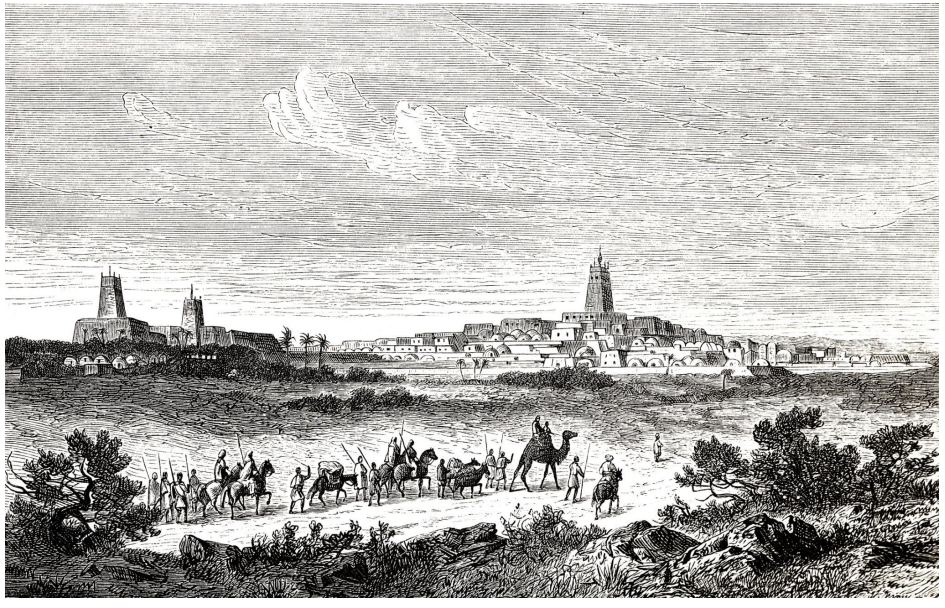




- **Entrepots (antiquity)**: Piraeus, Alexandria, Carthage, Antioch
- **Fairs (Medieval period)**: Bruges, Champagne, Frankfurt
- **Market cities (early modern period)**: Venice, Antwerp, Amsterdam

African Examples





- **Timbuktu**: trans-Saharan entrepot, seasonal trade fairs
- **Mombasa**: hub for Swahili traders exchanging gold, ivory, slaves
- **M'banza-Kongo**: exchange of raffia cloth, copper, ivory, slaves

Economic Effects of Urban Market Access

- **Economic effects**: access to urban markets thought to:

  1. ↑ Income and consumption: ↑ demand for products spurs production for exchange and shift from subsistence production (Fafchamps 2004, Donaldson 2018)

  2. ↑ Inequality: can lead to differential gains for some (Schumpeter 1942), esp. more productive firms (Verhoogen 2008)

- **Effects on values and perceived wellbeing?** alongside these effects, scholars argue that access to markets shapes people's values, worldview, and perceived wellbeing

Markets, Values, and Wellbeing: Two Views

1. **'Doux-Commerce' Thesis**: the rosy view
   - Markets promote wellbeing, trust, prosociality, and 'bourgeois values'
   - Proponents: Montesquieu, Smith, Hume, Paine, Hirschman
     - Hume (1752): "Commerce changes the manners of men. It renders them more industrious, more frugal, more liberal"

2. **'Homo Economicus' Thesis**: the critical view
   - Markets promote selfish materialism, erode religious/traditional communities, and fuel alienation / anomie (lower wellbeing)
   - Proponents: Rousseau, Marx, Durkheim, Weber, Polanyi
     - Marx (1848): market society "drowned the most heavenly ecstasies of religious fervour... in the icy water of egotistical calculation."

Field Experiment: Shocking Urban Access (Village Level)

- **Treatment**: provide villagers in Congo with free motorbike transportation to largest urban market in the province one day per week for 6 months
- **Control groups**: villages with (1) no access to transport, (2) access to city environment and social network but not market
- **Preview of the results**:
  - Markets erode religious moral values and instead promote 'bourgeois' values (income, productivity, saving) and worldview (self-efficacy)
  - Behaviors change in accordance with these new values
  - Subjective wellbeing falls on average
    - New importance of income as a value outstrips earning potential $\rightarrow$ people feel worse off

Literature: Impacts of Markets on Moral Values and Prosociality

- **Lab experimental literature**
  - Falk and Szech (2013), Bartling et al (2015): markets make people more likely to impose negative externalities on others
  - Benistrant et al (2022), Chen et al (2024), Choi et al (2020): markets/competition shape honesty, moral views, trust
- **Emerging literature outside the lab**
  - Henrich et al (2001): market integration correlated with prosociality
  - Enke (2023): market exposure correlated with trust, universal morals
  - Rustagi (2023): historical market exposure $\uparrow$ trust and civic values
- **This paper**: credible causal estimates of the effects of market access in contemporary DRC

Literature: Markets and Religiosity

- **Cross-sectional and descriptive work**:
  - Barro and McCleary (2003), Becker and Woessman (2013), Hirschle (2020): income negatively correlated with religious participation (but unclear effects on religious values)
- **Quasi-experimental work**:
  - Gruber and Hungerman (2008): US repeal of blue laws $\downarrow$ attendance
  - Chen (2010): financial crisis in Indonesia $\uparrow$ religiosity
  - Buser (2015): govt cash transfers $\uparrow$ church attendance in Ecuador
- **This paper**: experimental evidence on effects of urban market access

Literature: Market Access and Development

- Large literature on **reductions in transport/trade costs**
  - Emran and Zhaoyang (2013), Bryan et al (2014), Aggarwal (2018), Donaldson (2018), Franklin (2018), Asher and Novosad (2020) Banerjee et al. (2020), Brooks and Donovan (2020), Sotelo (2020), Abebe et al. (2021), Shamdasani (2021), Lagakos et al (2023), Aggarwal et al. (2024)
- **This paper**: comparison of urban *market* v. urban *social networks* (church), rich data to explore mechanisms (e.g., specialization in profitable crops)

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The 'Treatment' City: Kananga, DRC





- Fourth most populated city in the DRC
  - Population $\approx$ 1.6 million
- Provincial capital (of Kasai-Central Province)

Why is Access to Cities is Limited in DRC?

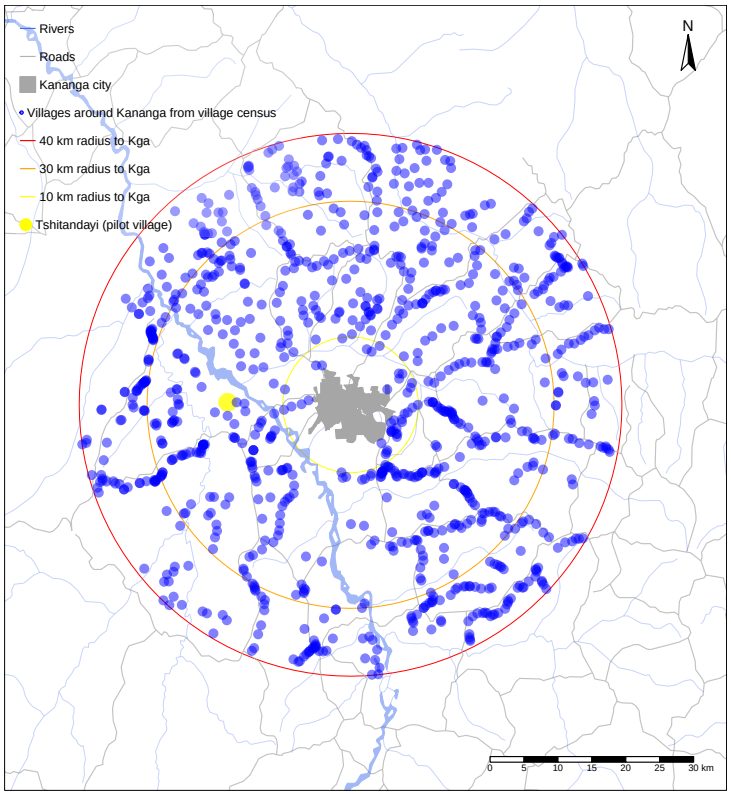






- Transport infrastructure in severe disrepair, due to heavy rain and lack of maintenance
- Limited access to the city, even for 4x4 vehicles
- Most common transport is walking or mototaxi (if can afford it)

Villages in the Sample



- 300 permanent villages 10 to 40 kilometers from Kananga Chars
  - Not remote, autarkic villages!
  - Average: ≈5 visits city visits / year
- High demand for urban access: 94% of villagers believe selling in city would increase their income Go Why?
  - Average expected increase: 49%
- Reason for not selling in city: transport cost (or walking time) too high

Treatment: Weekly Access to Largest Market in Province for 6 Months

- Weekly motorbike transport (Thu, Fri, or Sat) to Kananga's *grand marché* + extra motorbike for goods, provided by NGO Congo Helping Hands (CHH)
- ↑ **Commercial activity**: participants were almost all farmers Go
  - <5% spend more than 5 hours per week selling at baseline

- **Urban v. Rural Markets**:
  - As a seller:
    1. More customers Go
    2. Higher prices for ag. produce
    3. Higher earnings Go
  - As a consumer:
    1. More goods available Go
    2. Lower prices for manufactures

Urban Market



Rural Market



Pure Control Group & Church Arm

Weekly Access to one of 30 Largest Churches in Kananga for 6 Months







- **Pure control group**: no transportation
- **Church arm**: Invitation + transport to one of 30 largest churches in Kananga (randomly determined), with no extra motorbike for goods
  - Churches representative of religious landscape (except no Catholics)
  - Congregations of hundreds of individuals, large building, electricity, etc
  - Invitations to different churches common

  → Control for urban exposure and urban social network

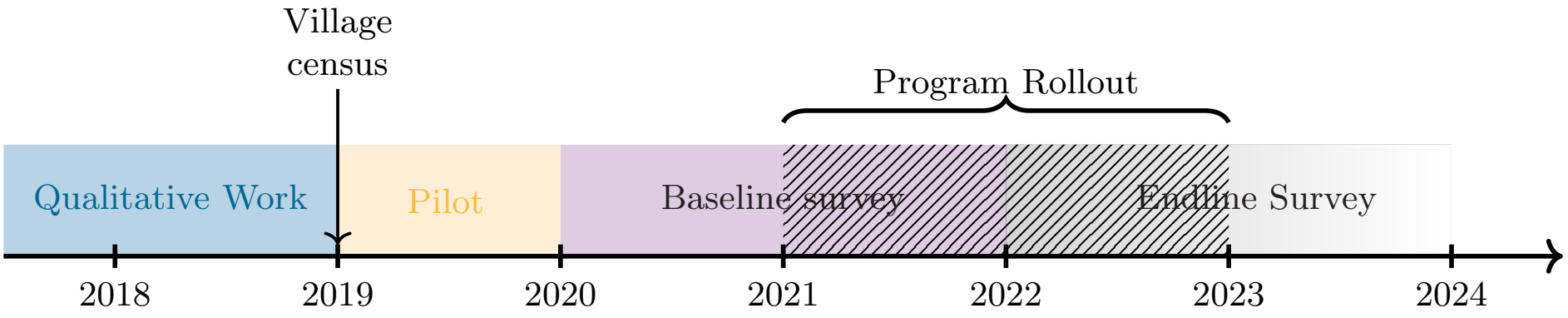
Assignment, Sampling, and Data

	Villages	Main Respondents	Other Respondents
Market	100	600	800
Church	100	600	800
Pure control	100	600	800
Total	300	1,800	2,400

- **Treatment assignment**: the village level Inside v. Outside
- **Stratification** by *village size* $\times$ *geographical area*
- **Randomization** achieved good balance Go
- **Sampling**: 6 respondents (3 couples) per village + 6 network respondents (friends) + 2 non-network respondents Go
- **Data**: baseline + endline surveys, program data from NGO Go

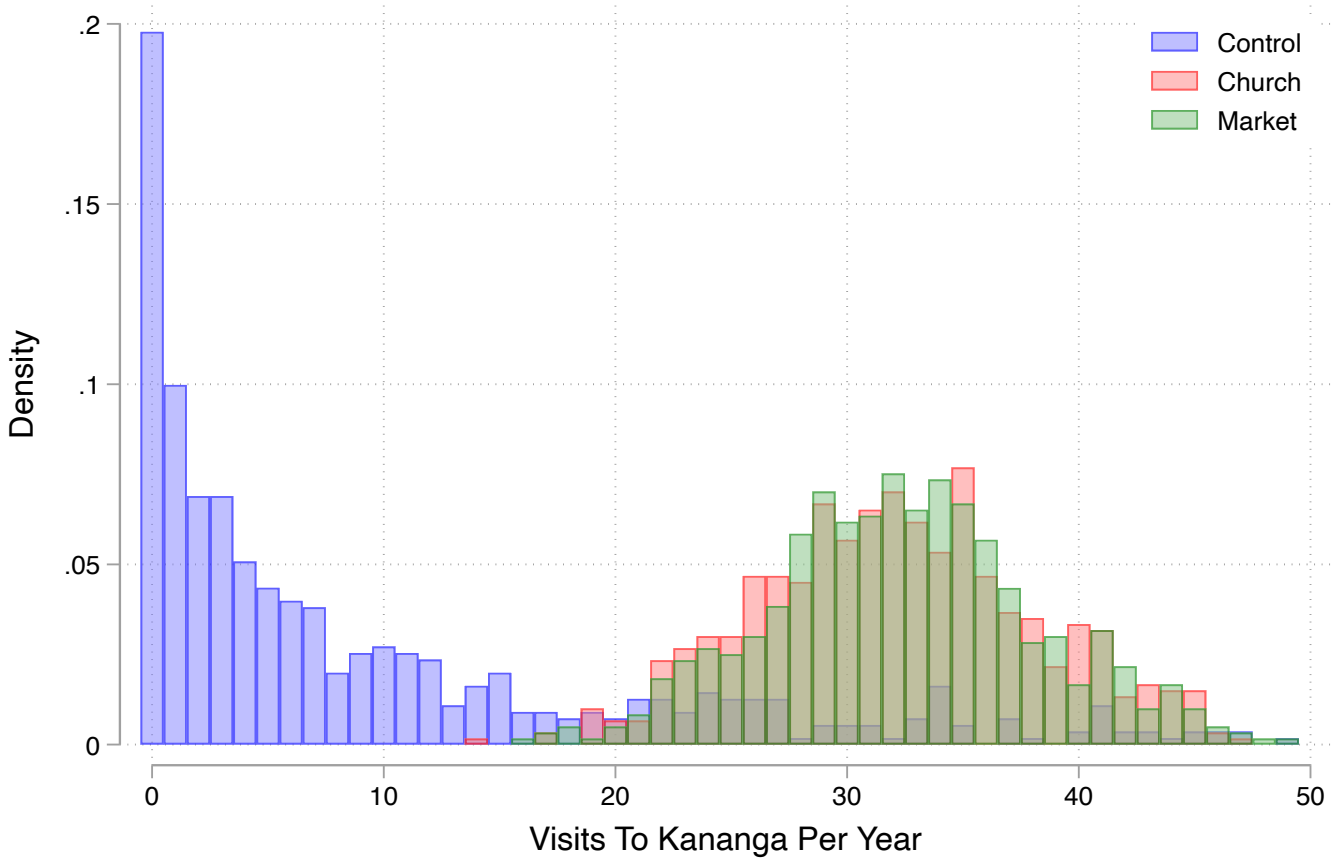
Timeline

Staggered Rollout to Avoid Congestion



- Market: max of 30 participants per market-day (less than 5% total sellers)
- Church: max of 6 participants per church (less than 3% total congregants)

Zero Stage: ≈ 22 More Trips to Kananga



- Treatments not first exposure to city → large intensive-margin increase
- According to CHH program data:
  - Market: participants bring goods, spend most time selling, buy sometimes
  - Church: participants attend church then return to village; very few cases of selling before/after the service

Estimation

$$Y_{ihvs} = \beta_0 + \beta_1 \mathbb{1}_{vs}^{Church} + \beta_2 \mathbb{1}_{vs}^{Market} + \alpha_s + \boldsymbol{X}_{ihvs}\boldsymbol{\Gamma} + \epsilon_{ihvs}$$

- i indexes individuals, h households, v villages, and s randomization strata (20 total)
- α_s are stratum FE
- $\boldsymbol{X}_{ihvs}$ includes individual-level baseline covariates, including baseline Y_{ihvs} when available
- SEs clustered by village (300 total)
- Outcomes measured $\approx$ 9 months after conclusion of the program (min = 6 months, max = 12 months) Time Gap

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The Good Life: Allocation of Ten Tokens

Eliciting the components of human flourishing

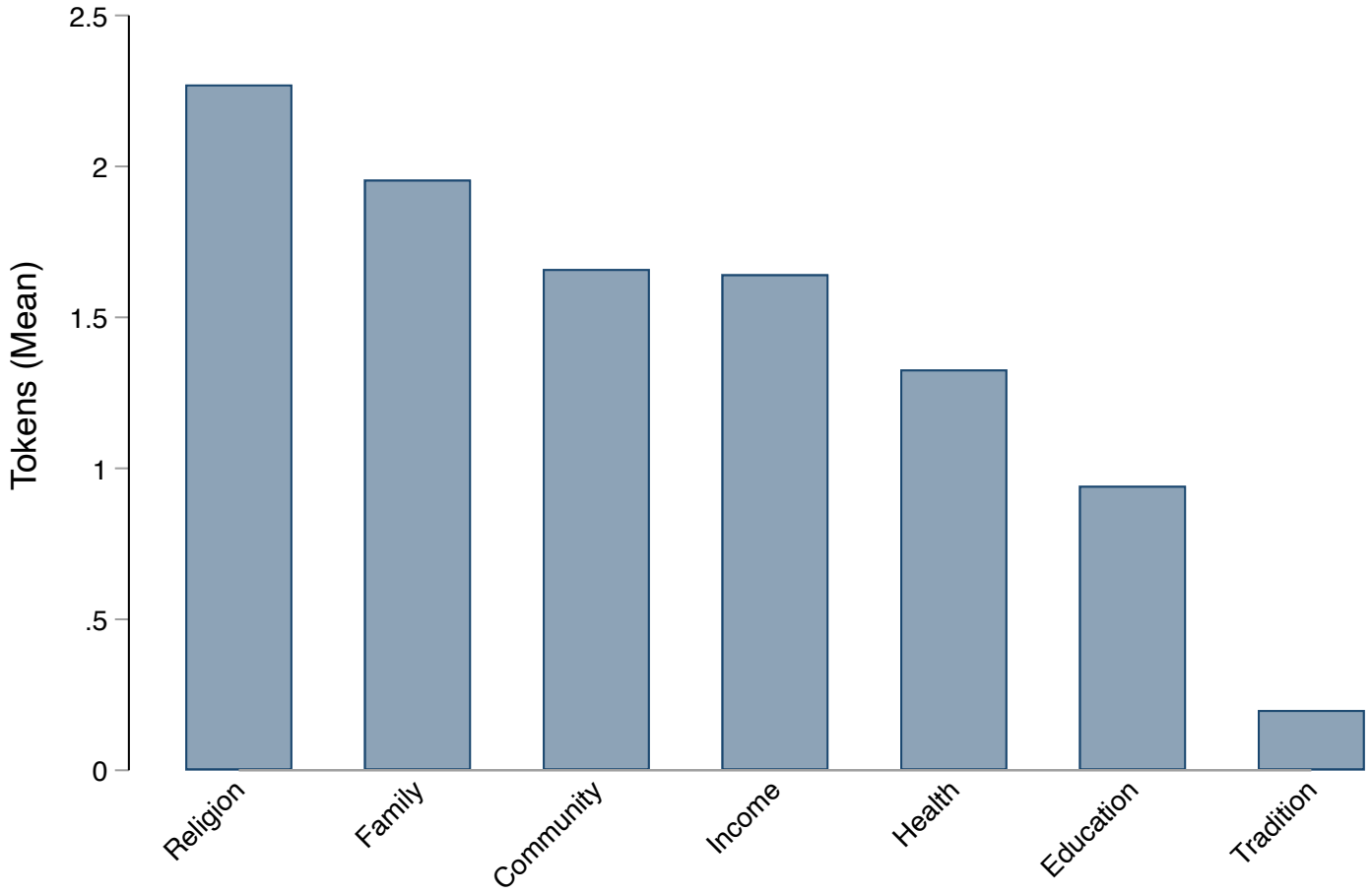
- "I would like to ask you questions about what a 'good life' means for you... in all domains of life. In your opinion, which factors are most important for living a good life?"
  - Family, Health, Community, Education, Religion, Income, Tradition
  - "**Allocate the ten tokens** on the board to the values that are most important to you. You can allocate multiple tokens to each category."

- Additional questions with similar measurement:
  1. What are the qualities of a good person?
  2. What values do you hope to inculcate in your children?



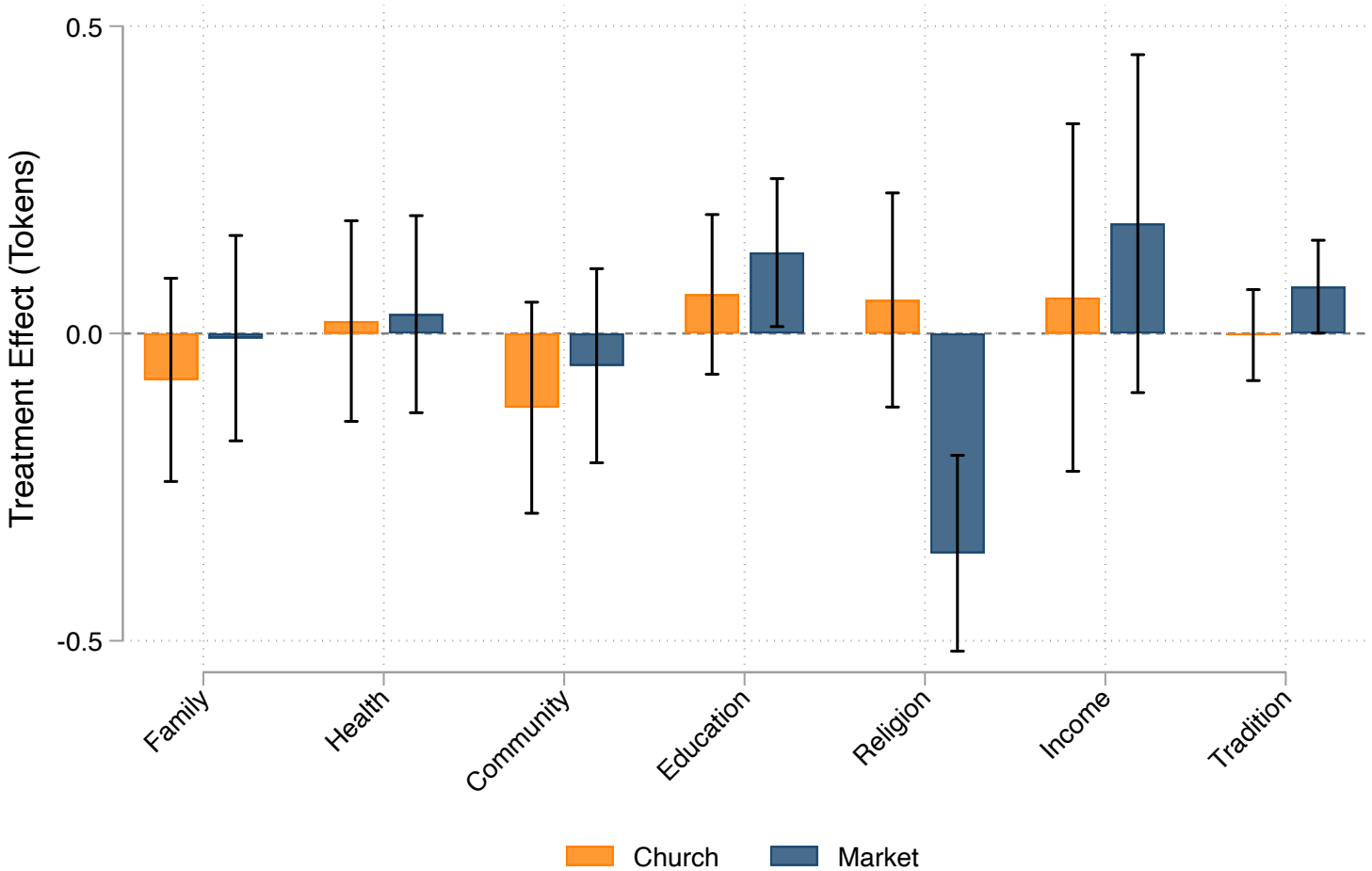
The Good Life: Allocation of Ten Tokens

Control group averages



- Religion the most common value at baseline across all measures

The Good Life: Treatment Effects



- Magnitude: 0.24 SD decrease in tokens on "religion"

Heterogeneity

Summary of Values Results (Indices)

	Religion	Money	Productivity
Church	-0.026	0.045	0.030
	(0.068)	(0.067)	(0.065)
Market	-0.297***	0.205***	0.140**
	(0.061)	(0.069)	(0.063)
Stratum FE	Y	Y	Y
Controls	Y	Y	Y
Observations	1724	1724	1724
R^2	0.054	0.076	0.032
Clusters	300	300	300
Control_Mean	0	0	0
Market_v_Church	.000028	.017	.089

	Good Life	Good Person	Child Values
Religion	Religion	Religious	Religious
Money	Income	Thrifty	Thrifty
Productivity	Education	Productive	Productive

Good Person Child Values No Indices Mechanisms

Why does Market Access Erode Religious Values?

1. **Income effect**: higher opportunity cost of time reduces religious participation (Barro & McCleary 2003)
   - × Positive income shocks in market arm uncorrelated with importance of religious values Go
2. **Socialization**: meeting more secular people in the urban market
3. **Insurance effect**: ↓ demand for church-based informal insurance
4. **Agency**: market has higher return to effort → participants update beliefs toward self-efficacy (not divine control) (Bénabou & Tirole, 2002)

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Why does Market Access Erode Religious Values?

1. **Income effect**: higher opportunity cost of time reduces religious participation (Barro & McCleary 2003)

2. **Socialization**: meeting more secular people in the urban market

   × Effects not more pronounced among market respondents Go who exogenously had more contact with urban customers/vendors Go

3. **Insurance effect**: ↓ demand for church-based informal insurance

4. **Agency**: market has higher return to effort → participants update beliefs toward self-efficacy (not divine control) (Bénabou & Tirole 2002)

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2. **Socialization**: meeting more secular people in the urban market

3. **Insurance effect**: ↓ demand for church-based informal insurance

   × No less agreement with "I go to church to be part of a community that supports me in difficult times" Go

   × No (significant) decrease in church-based ROSCA participation Go

4. **Agency**: market has higher return to effort → participants update beliefs toward self-efficacy (not divine control) (Bénabou & Tirole 2002)

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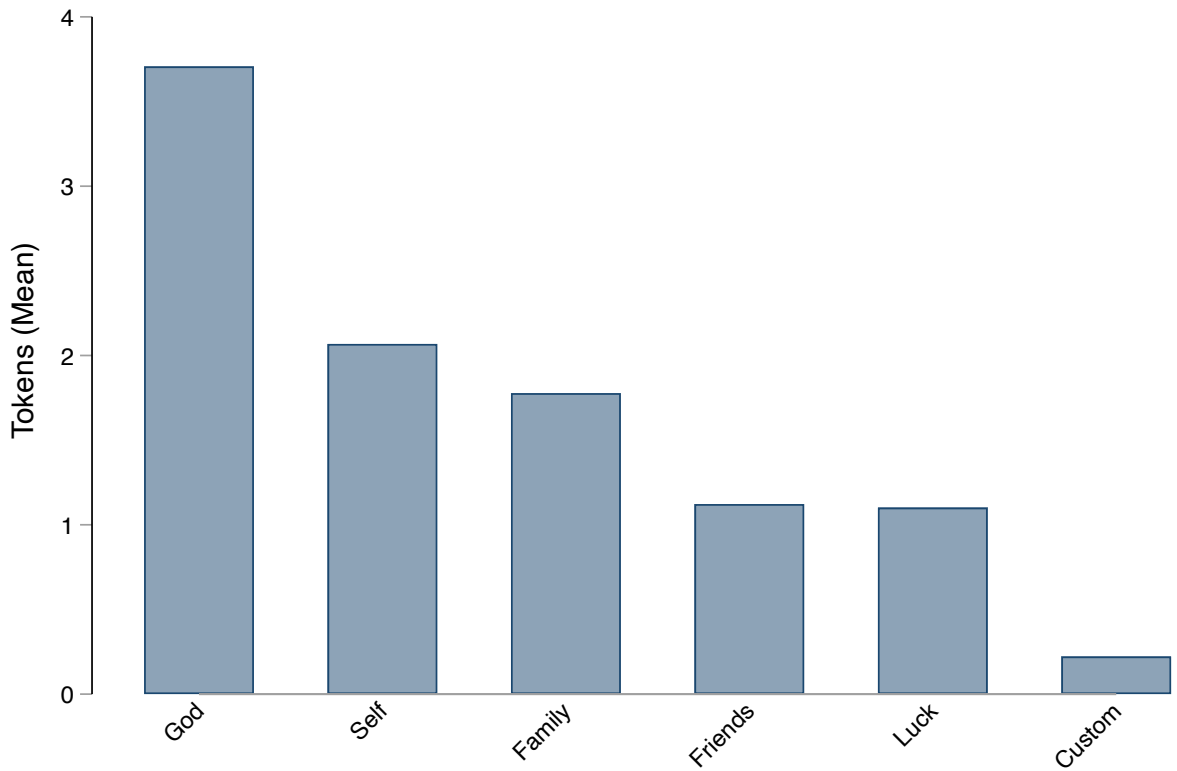
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1. **Income effect**: higher opportunity cost of time reduces religious participation (Barro & McCleary 2003)
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Perceived Agency: What Forces Influence Our Lives?

- "Now I want to talk about the forces that shape our lives. Please allocate these tokens according to the forces that were most important in shaping your life. What determines:
  - the choice of work and amount of income that you have today?
  - the happiness and harmony you experience in your marriage and in your family?"



Perceived Agency: What Forces Influence Our Lives?

	Self	Family	Friends	God	Custom	Luck
Church	0.041	0.039	0.065	-0.045	-0.045	-0.031
	(0.066)	(0.060)	(0.060)	(0.062)	(0.061)	(0.071)
Market	0.163**	-0.023	0.102*	-0.204***	0.107*	0.051
	(0.074)	(0.057)	(0.060)	(0.054)	(0.063)	(0.071)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1720	1720	1720	1720	1720	1720
R^2	0.058	0.037	0.068	0.106	0.098	0.059
Clusters	300	300	300	300	300	300
Control_Mean	0	0	0	0	0	0
Market_v_Church	.087	.31	.55	.0074	.018	.24

- "God" decreases in both work and family domains
- "Self" increases more in family; "friends/community" increases more in work
- Market also increases locus of control and grit Go

Family Work

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Effects on Behavior: Outcomes Summary

1. **Religious values:**
   - Religion participation (self-reported)
   - Dictator game giving to members of church/denomination
     - More than cheap talk?
2. **'Bourgeois' values:**
   - Income
   - Commercial activity

Market: ↓ Non-essential Religious Participation

- **Religious participation results:**
  - Less private prayer and participation in weekday church activities (bible study, prayer groups, etc) Go
  - No change in attendance at Sunday services
    - Strong social norm: almost everyone attends
    - But *reasons* for attendance change: market participants have more extrinsic motivation (social support, friendship) Go

Market: ↓ DG Contributions to Co-Religionists

	Average	Religious Ties				Ethnic Ties	
	All	Christian	Own Church	Own Denom.	Other Denom.	Own Tribe	Other Tribe
Church	0.016	0.039	-0.027	-0.004	0.041	0.054	-0.049
	(0.075)	(0.067)	(0.067)	(0.067)	(0.071)	(0.071)	(0.067)
Market	-0.081	-0.148**	-0.187***	-0.108*	-0.022	-0.054	-0.104
	(0.069)	(0.062)	(0.060)	(0.062)	(0.067)	(0.068)	(0.065)
Stratum FE	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	1720	1720	1668	1668	1669	1720	1720
R^2	0.037	0.036	0.038	0.029	0.033	0.039	0.036
Clusters	300	300	300	300	300	300	300
Control_Mean	0	0	0	0	0	0	0
Market_v_Church	.2	.0029	.015	.12	.36	.13	.43

- Similar decrease in choosing 'Christians' in Rank Your Dictator game Go
- No change in average (prosociality) or moral universalism Go

Gender Heterogeneity Inside v. Outside

Market: ↑ Income and Sales 9 Months Later

	Total		Sales in Kananga	
	Income	Sales	Direct	Through Partner
Church	0.057	-0.027	-0.010	-0.002
	(0.073)	(0.060)	(0.025)	(0.015)
Market	0.200***	0.156**	0.032	0.032**
	(0.074)	(0.060)	(0.023)	(0.016)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	N	N
Controls	Y	Y	Y	Y
Observations	1720	1727	1727	1727
Control_Mean	0	0	.14	.049
R2				
Market_v_Church	.056	.0049	.06	.058

- Income magnitude: 0.2 SDs $\approx$ 16%
- Mechanism: selling cash crops in Kananga, often through partners Go
- No average effect on employment or asset ownership Go

Heterogeneity and Robustness Spillovers / GE

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Measuring Subjective Wellbeing

- **Subjective Wellbeing (SRQ-20)**: 20 questions to measure physical, emotional, and functional wellbeing, for example:

  1. "Do you often have headaches?"
  2. "Do you sleep badly?"
  3. "Do you feel unhappy?"
  4. "Do you feel that you are a worthless person?"
  5. "Do you find it difficult to make decisions?"
  6. "Are you unable to play a useful part in life?"

  $\rightarrow$ Measure of "depression": total score > 10 (WHO 1994)

Markets: ↓ Subjective Wellbeing on Average

	SRQ >10	SRQ Total	Q1	Q2	Q3	Q4
Church	0.046	0.351	0.117	0.394	0.748**	0.526**
	(0.030)	(0.322)	(0.238)	(0.325)	(0.314)	(0.254)
Market	0.056**	0.366	0.176	0.670**	0.676**	0.576**
	(0.028)	(0.318)	(0.334)	(0.288)	(0.306)	(0.235)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1727	1727	1727	1727	1727	1727
Control_Mean	.48	10	10	10	10	10
R2	.16	.26	.16	.19	.18	.14
Market_v_Church	.71	.96	.86	.35	.82	.84

- Erosion of subjective wellbeing driven by functional measures: e.g., Go
  1. "Do you find it difficult to make decisions?"
  2. "Are you unable to play a useful part in life?"

Why Does Average Subjective Wellbeing Decline?

1. **Income effect**: more responsibility? Go
   - × Income increases associated with *better* subjective wellbeing Go
2. **Stress of commercial work**: stressful to engage in commerce or have more variance in weekly income
3. **Lost fortune**: participants might miss the program period
4. **New reference point**: participants updated their values and expectations in line with higher urban standard of living and now feel relatively worse off

Why Does Average Subjective Wellbeing Decline?

1. **Income effect**: more responsibility and pressure

2. **Stress of commercial work**: stressful to engage in commerce or have more variance in weekly income? Go

   × Market participants view commercial work as 0.237 SDs more satisfying 0.209 SDs easier Go

3. **Lost fortune**: participants might miss the program period

4. **New reference point**: participants updated their values and expectations in line with higher urban standard of living and now feel relatively worse off

Why Does Average Subjective Wellbeing Decline?

1. **Income effect**: more responsibility and pressure
2. **Stress of commercial work**: stressful to engage in commerce or have more variance in weekly income
3. **Lost fortune**: participants might miss the program period Go
   - × Effects not larger for those who more recently "lost" program Go
   - × Δ Income from program to endline: uncorrelated with wellbeing Go
4. **New reference point**: participants updated their values and expectations in line with higher urban standard of living and now feel relatively worse off

Why Does Average Subjective Wellbeing Decline?

1. **Income effect**: more responsibility and pressure
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Measuring Reference Points

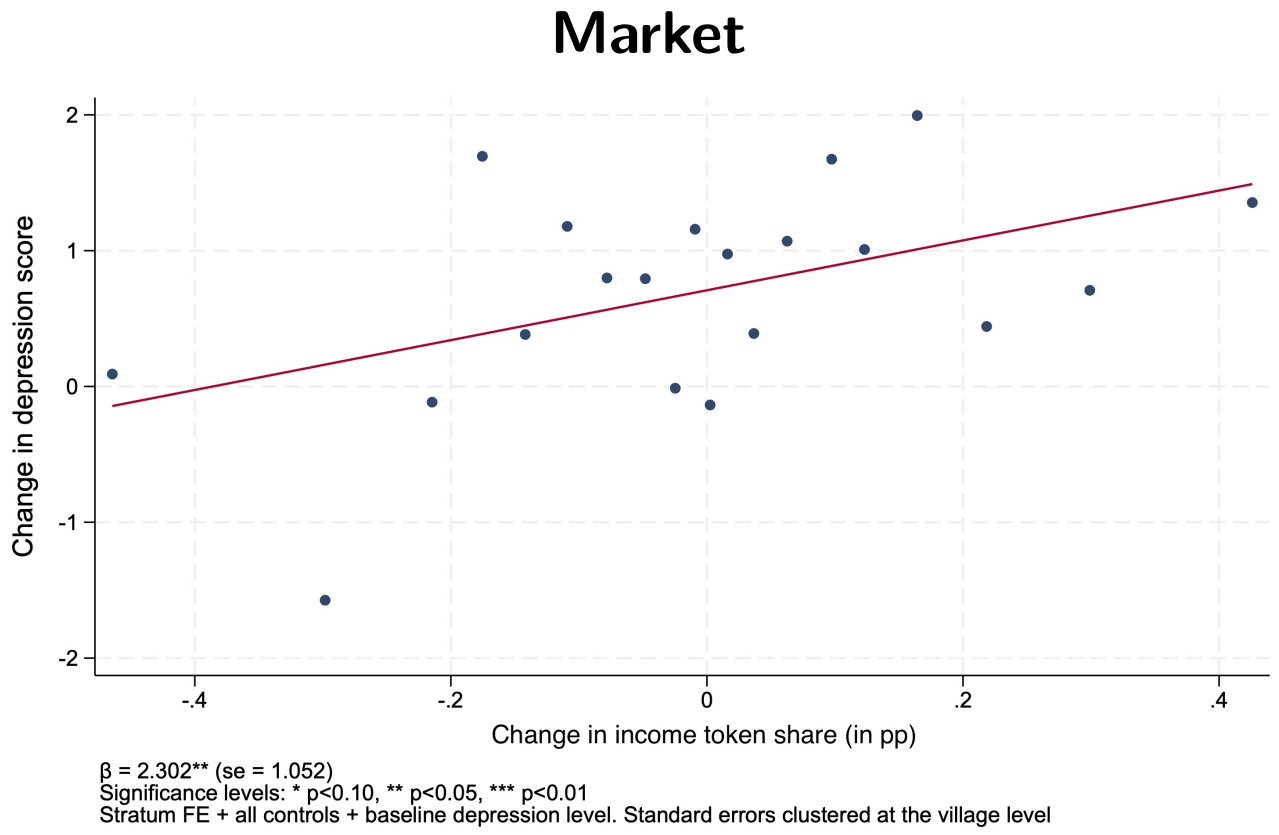
- **Money Needed for Happiness**: (Rousseau 1752) Go
  - Do markets multiply the number of "needs" we perceive?
  - Survey: "How much money does your family need to be happy?"

Effects on Money Needed to be Happy

	Income	Income to be Happy	Gap: Income to be Happy - Income
Church	0.057	0.065	0.063
	(0.073)	(0.062)	(0.062)
Market	0.200***	0.153**	0.141**
	(0.074)	(0.061)	(0.060)
Baseline Outcome	Y	N	N
Controls	Y	Y	Y
Observations	1720	1725	1719
R^2	0.149	0.056	0.055
Clusters	300	300	300
Control_Mean	0	0	0
Market_v_Church	.056	.18	.24

- Market: people feel they need 0.15 SDs more income to be happy
- Not simply a reflection of the treatment effect on income: gap between actual and desired income increases by 0.14 SD

Market: Correlation b/w Value Changes and Wellbeing



- Market: individuals who value income more exhibit lower wellbeing
  - No such relationship in Church (β=-0.404, SE=0.849) or Control (β=-0.454, SE=0.806)

Conclusion

- **Summary of the results**:
  1. Markets erode religious moral values and instead promote 'bourgeois' values (income, productivity, saving) and worldview (self-efficacy)
  2. Behaviors change in accordance with these new values
  3. Subjective wellbeing falls on average
     - Higher reference points & greater perceived importance of income outpace earnings potential $\rightarrow$ people *feel* worse off
- **Taking stock**: results align more with "homo economicus" view
  - The shift toward bourgeois values consistent with both
  - Fall in religion and wellbeing more consistent with HE

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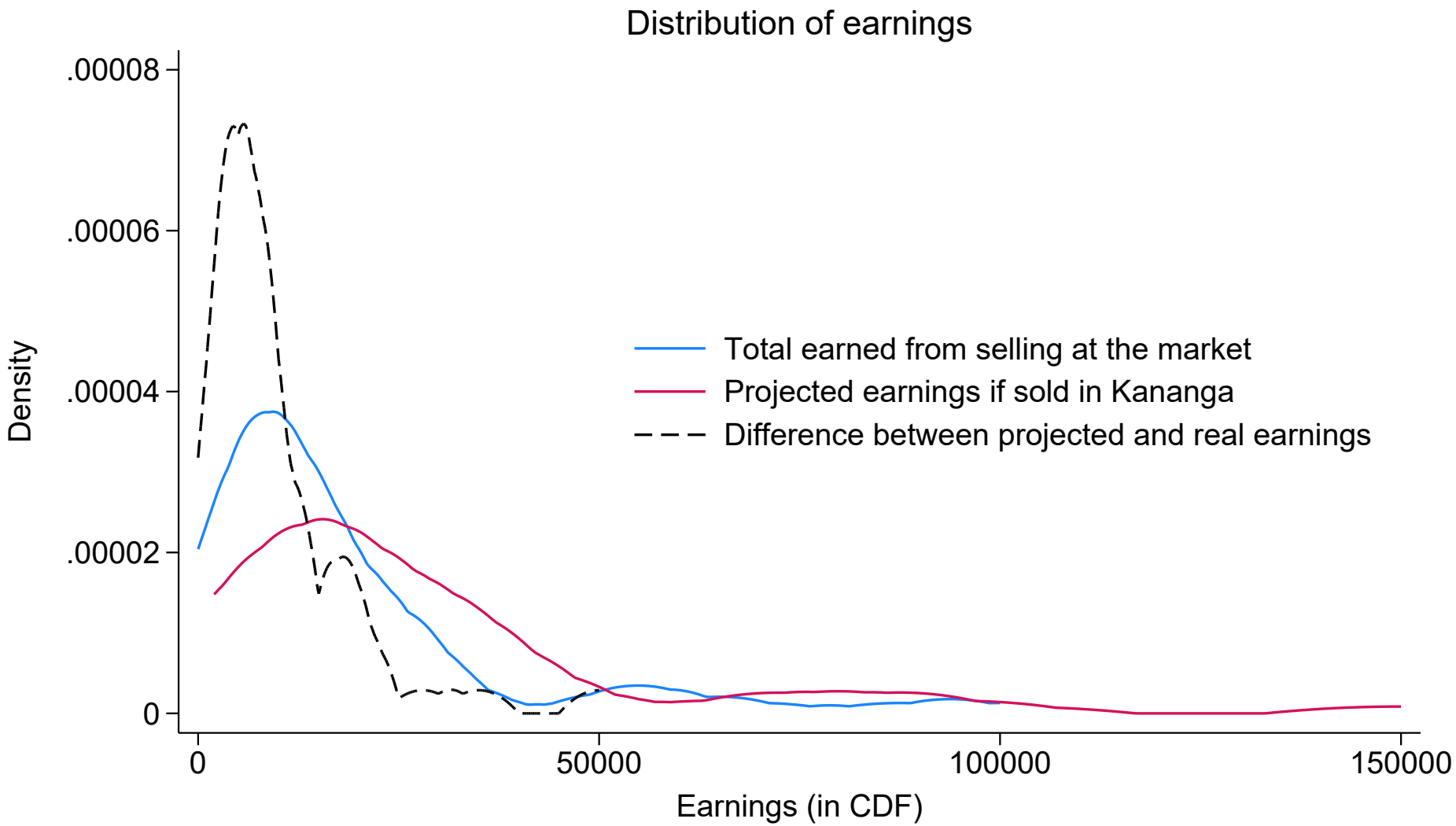
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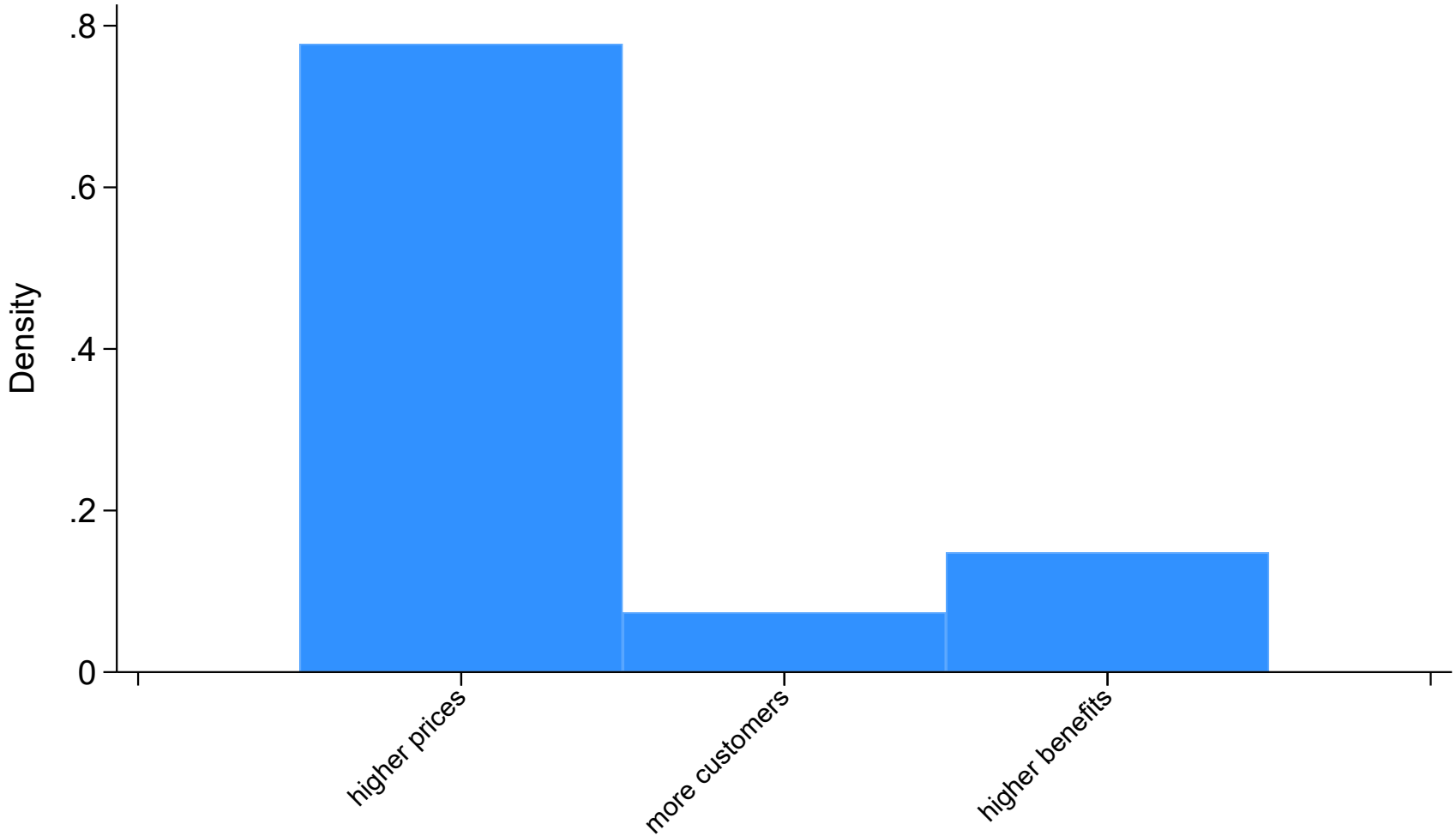
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Actual Daily Earnings and Expected Urban Earnings



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Why Villages Expect Urban Sales to be Profitable



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Goods Available in Kananga Demanded by Villagers



Village Description Market Overview

Baseline Village-Level Characteristics

Variable	Mean	Std. dev.	Min	Max	N	J
Number of hhs per village	99.74	69.48	10	300	300	300
Villages has a market	0.08	0.27	0	1	300	300
Village has a church	0.88	0.33	0	1	300	300
Household monthly income (USD)	54.64	52.18	0	560	1,800	300
Work in agriculture	0.92	0.27	0	1	1,798	300
Salaried employment	0.12	0.32	0	1	1,800	300

Village Description

Village Markets



- $\approx$ 8% of villages have markets (small, once per week)
- Selling is an uncommon activity for baseline sample
  - 43% of baseline sample reported any time selling goods in last week
  - 5% reported more than 5 hours selling in last week
  - 0.6% said "seller" was primary occupation at baseline

Comparing Markets: Urban v. Rural

	Urban Market	Rural Market	Difference
Number of customers	5.23	2.19	3.04***
Number of people they speak with	7.35	5.82	1.53**
Number of products sold	1.48	1.42	.06
Total earnings (USD)	8.46	6.31	2.15***
Number of products bought	2.24	3.69	-1.45***
Number of vendors bought from	2.14	3.54	-1.4***
Share of these vendors known	0.19	0.35	-.16***

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Urban Markets: Inside v. Outside



Inside



Outside

- **Inside** $\approx$ grocery store
  - More customers and interactions
  - Slightly higher prices and earnings
- **Outside** $\approx$ sprawling open-air market
  - Sell larger quantities to fewer customers (wholesale)

Table Design

Urban Markets: Inside v. Outside

	Inside Market	Outside Market	Difference
Number of customers	6.39	4.10	2.29***
Share of customers known	0.39	0.26	.13***
Number of people spoken with	9.01	5.78	3.23***
Mean sale price of products (USD)	6.57	5.32	.72
Total earnings (USD)	9.12	7.87	1.25**
Number of products bought	2.11	2.36	-.25**
Number of vendors bought from	2.03	2.25	-.23***
Share of these vendors known	0.28	0.11	.17***

Gender Heterogeneity Inside v. Outside Religion Mechanisms

Comparing Markets: Heterogeneity by Gender

	Inside Market			Outside Market		
	Female	Male	Diff	Female	Male	Diff
Number of customer	8.13	4.19	-3.93***	4.77	3.34	-1.43***
Share of customers known	0.34	0.45	.11***	0.26	0.26	.01***
Number of people they speak with	9.83	8.60	-1.23	6.38	5.18	-1.2
Number of products sold	1.58	1.27	-.31***	1.65	1.35	-.3***
Total earnings (USD)	7.46	11.20	3.75***	7.35	8.74	1.39***
Total earnings (Log)	1.91	2.27	.36***	1.89	2.04	.15***
Number of products bought	2.20	1.99	-.2	2.41	2.30	-.11
Number of vendors bought from	2.15	1.87	-.27**	2.31	2.18	-.13**
Share of these vendors known	0.25	0.30	.05	0.09	0.13	.04
Feeling happy	1.18	1.20	.02	1.13	1.12	-.01

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Data Sources

Back

1. **Baseline and Endline Surveys**
   - Total respondents: N=4,200
     - 1,800 main
     - 1,800 network
     - 600 non-network

2. **Program data on the City Access Program**
   - Weekly survey data collected by CHH
   - Data on attendance, goods bought, sold, profits

3. **Weekly Market Price Survey**
   - High-frequency data on market prices for range of goods

4. **Village census**
   - Location and amenities in all villages around Kananga

5. **Chief village survey**
   - Information about village and its history

Sampling Approach

Back

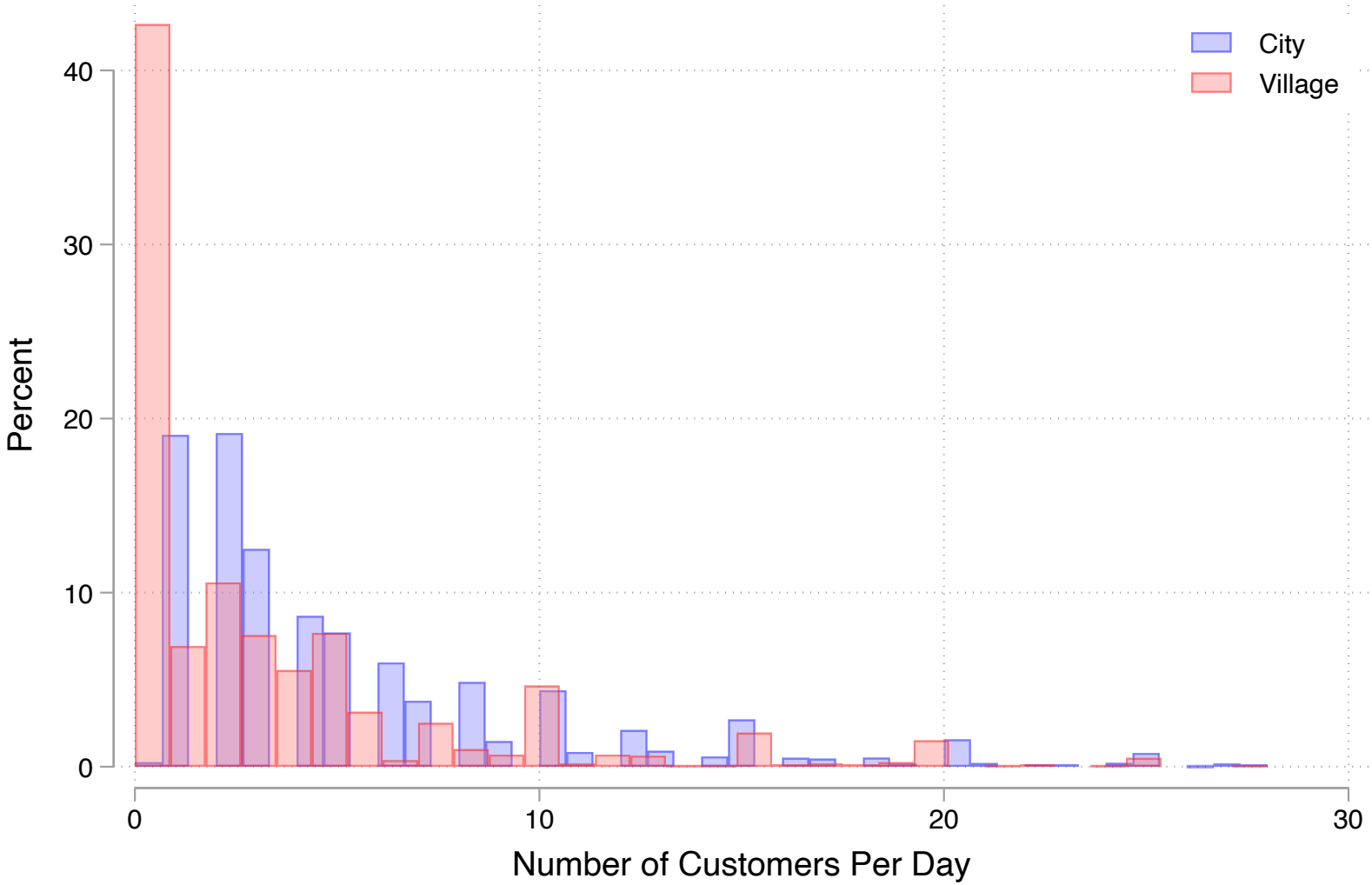
1. **Main respondents:** couples
   - Heterogeneity by gender: (i) different economic roles + (ii) different roles promoted by urban churches

     → 3 couples, 6 main respondents per village
2. **Network respondents**
   - One "friend" for each main respondent
   - Test spillover effects on respondent's network

     → 6 network respondents per village
3. **Non-network respondents**
   - Test spillover effects on unrelated individuals

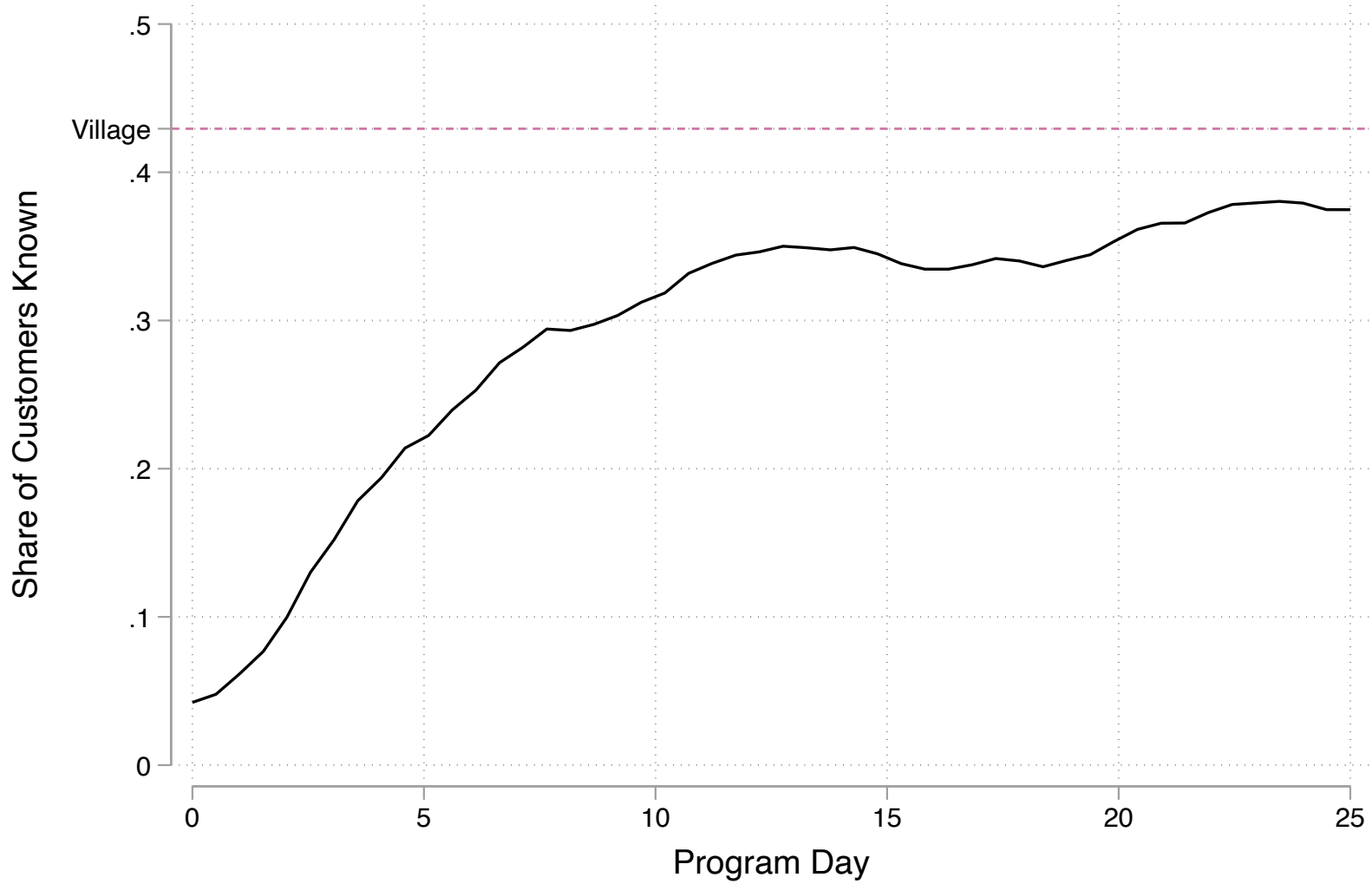
     → 2 non-network respondents per village

Total Customers: Village v. City



Back

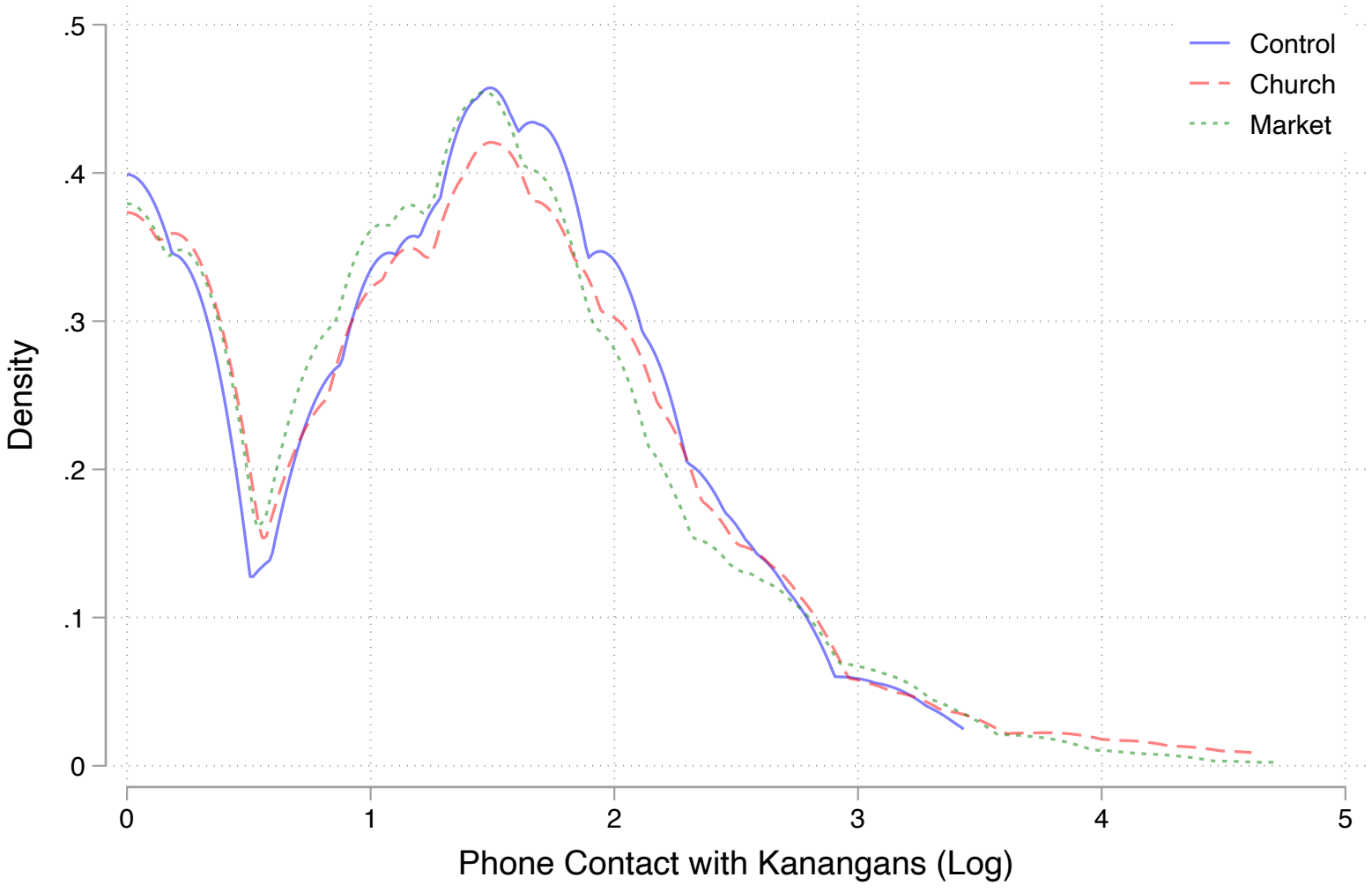
Share of Customers Known Over Time



Back

Phone Contact Frequency with Kanangans (Log)

Back



Invitation Text Back

- **Common**:
  - "I am delighted to inform you that your village has been selected to take part in a project focused on providing urban access organized by Congo Helping Hands. CHH is a non-profit organization founded in 2004. CHH's main goal is to respond to critical needs in the province and to promote the wellbeing of its inhabitants. Past projects have focused on health and sanitation. The current project aims to facilitate access through providing transportation to Kananga for villagers in Kasai Central."

- **Treatment-specific**:
  - Church: "The reason to go to Kananga is that CHH and the church [name] would like to invite you and your spouse to attend their Sunday services in Kananga for the next six months. The NGO CHH will provide transportation for you and your partner in the morning and back to the village in the afternoon."
  - Market: "go to the main market in Kananga to buy and sell goods as you please for the next six months."

Balance Table

	Church		Market		All	
	β_1	p_1	β_2	p_2	N	y
Age	0.288	0.747	0.413	0.637	1800	36.368
Years of education	0.005	0.905	0.005	0.913	1800	2.448
Frequency in Kananga	-0.023	0.800	-0.008	0.926	1800	3.977
Income	2718.383	0.686	793.417	0.901	1799	68300.000
Nights hungry (month)	0.053	0.652	0.038	0.724	1800	1.308
Market in village	-0.010	0.792	-0.020	0.588	1800	0.090
Calories purchased	0.063	0.601	0.038	0.743	1800	4.345
Ingroup preference	-0.200	0.803	-0.272	0.735	1800	54.847
Moral parochialism	-0.023	0.411	-0.019	0.509	1800	0.494
Church position	0.002	0.949	0.002	0.947	1800	0.217
Religiosity	0.002	0.972	0.013	0.841	1734	3.420
Religiosity (intrinsic)	0.042	0.518	0.017	0.819	1734	-0.370
Religiosity (extrinsic)	0.015	0.698	0.003	0.933	1734	0.385
Number of pastors in village	-0.020	0.879	-0.070	0.578	1800	1.090
Attrition	0.002	0.960	0.005	0.877	1800	0.328

Back

Economic Effects: Results Summary

- How does access to bigger markets impact economic outcomes?
  - **Monthly income**: ↑ by 0.20 SD
    - Market participants have higher income from selling cash crops in city via new middlemen
  - **Agricultural and commercial labor time**: no average effect
    - Reduction in housework (by 1.5 hours) in outside market arm Go
  - **Employment**: no average effect
    - Men in outside market arm report a 7.9ppt increase in salaried jobs, esp. as drivers Go
  - **Wealth / asset ownership**: no average effect Go

Back

Income Effect: Heterogeneity and Robustness Back

- Larger effects:
  - Among men in outside market
  - In top quantiles of endline income distribution Go
  - Among bigger villages Table Figure
  - Among closer villages Go
- Persistence up to 12 months after end of program Go
- Variation by season of program Go and year of program Go
- Effects on new and experienced sellers similar Go BL Income Het
- Robustness: IHS Village FE
- Benchmarks: Cash Transfers

Income: GE effects?

Spillovers on Network and non-Network Respondents

- No evidence of average spillovers:
  - Labor or market income, possessions, formal job Go Dose
  - Frequency or location of commercial work Go
  - Overall time use Go
- But evidence of business-stealing from cash-crop sellers:
  - Lower cash crop sales among network & non-network respondents Go
  - Lower income among baseline network cash crop sellers Go

Income in the Past Month (Log) Back

	No Controls	Controls	Controls (full)	Men	Women
Church	0.041	0.022	0.022	0.031	0.013
	(0.090)	(0.090)	(0.090)	(0.107)	(0.116)
Market	0.151*	0.155*	0.155*	0.251**	0.070
	(0.084)	(0.082)	(0.082)	(0.099)	(0.100)
Stratum FE	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	N	N	N
Baseline Outcome (no missing)	N	N	Y	Y	Y
Controls	N	Y	Y	Y	Y
Observations	1720	1720	1721	856	865
R^2	0.093	0.110	0.110	0.108	0.144
Clusters	300	300	300	300	300
ControlMean	11	11	11	11	11
Ftest	.21	.14	.14	.035	.64

Persistent Effect on Income

	Income	Income	Income
Church	0.057	0.057	0.057
	(0.073)	(0.073)	(0.073)
Market	0.200***		
	(0.074)		
Market - Inside		0.140	0.222*
		(0.099)	(0.131)
Market - Outside		0.258***	0.434***
		(0.086)	(0.117)
Market - Inside × Woman			-0.163
			(0.138)
Market - Outside × Woman			-0.350***
			(0.123)
Woman			0.042
			(0.063)
Baseline Outcome	Y	Y	Y
Controls	Y	Y	Y
Observations	1720	1720	1720
R^2	0.149	0.149	0.153
Clusters	300	300	300
Control_Mean	0	0	0
Market_v_Church	.056		
Inside_v_Outside		.28	.18
Inside_v_Church		.4	.2
Outside_v_Church		.021	.0012

- Magnitudes: 0.2 SDs $\approx$ 16%

Heterogeneity & Robustness

Income: Robustness

	Main	No Baseline Outcome Control	No Other Controls	Log	IHS
Church	0.057	0.045	0.072	0.021	0.017
	(0.073)	(0.081)	(0.073)	(0.090)	(0.092)
Market - Inside	0.140	0.144	0.137	0.099	0.101
	(0.099)	(0.109)	(0.100)	(0.102)	(0.103)
Market - Outside	0.258***	0.250***	0.259***	0.210**	0.210**
	(0.086)	(0.095)	(0.088)	(0.098)	(0.100)
Stratum FE	Y	Y	Y	Y	Y
Baseline Outcome	Y	N	Y	Y	Y
Controls	Y	Y	N	Y	Y
Observations	1720	1721	1720	1720	1720
Control_Mean	0	0	0	11	11
R2	.15	.054	.14	.11	.11
Inside_v_Outside	.28	.38	.27	.33	.35
Inside_v_Church	.4	.36	.51	.47	.44
Outside_v_Church	.021	.033	.033	.071	.072

Back

Income: Quantile Treatment Effects

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
Church	0.004	0.010	0.011	0.024	0.019	0.008	0.006	0.006	0.218
	(0.007)	(0.015)	(0.022)	(0.022)	(0.031)	(0.043)	(0.053)	(0.059)	(0.163)
Market	0.023***	0.017	0.012	0.027	0.074**	0.101*	0.168***	0.215**	0.519***
	(0.008)	(0.014)	(0.020)	(0.026)	(0.035)	(0.055)	(0.053)	(0.086)	(0.145)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1720	1720	1720	1720	1720	1720	1720	1720	1720
Control_Mean	11	11	11	11	11	11	11	11	11
R2	.033	.031	.041	.062	.073	.1	.11	.14	.16
Market_v_Church	.019	.63	.96	.89	.12	.097	.0047	.015	.11

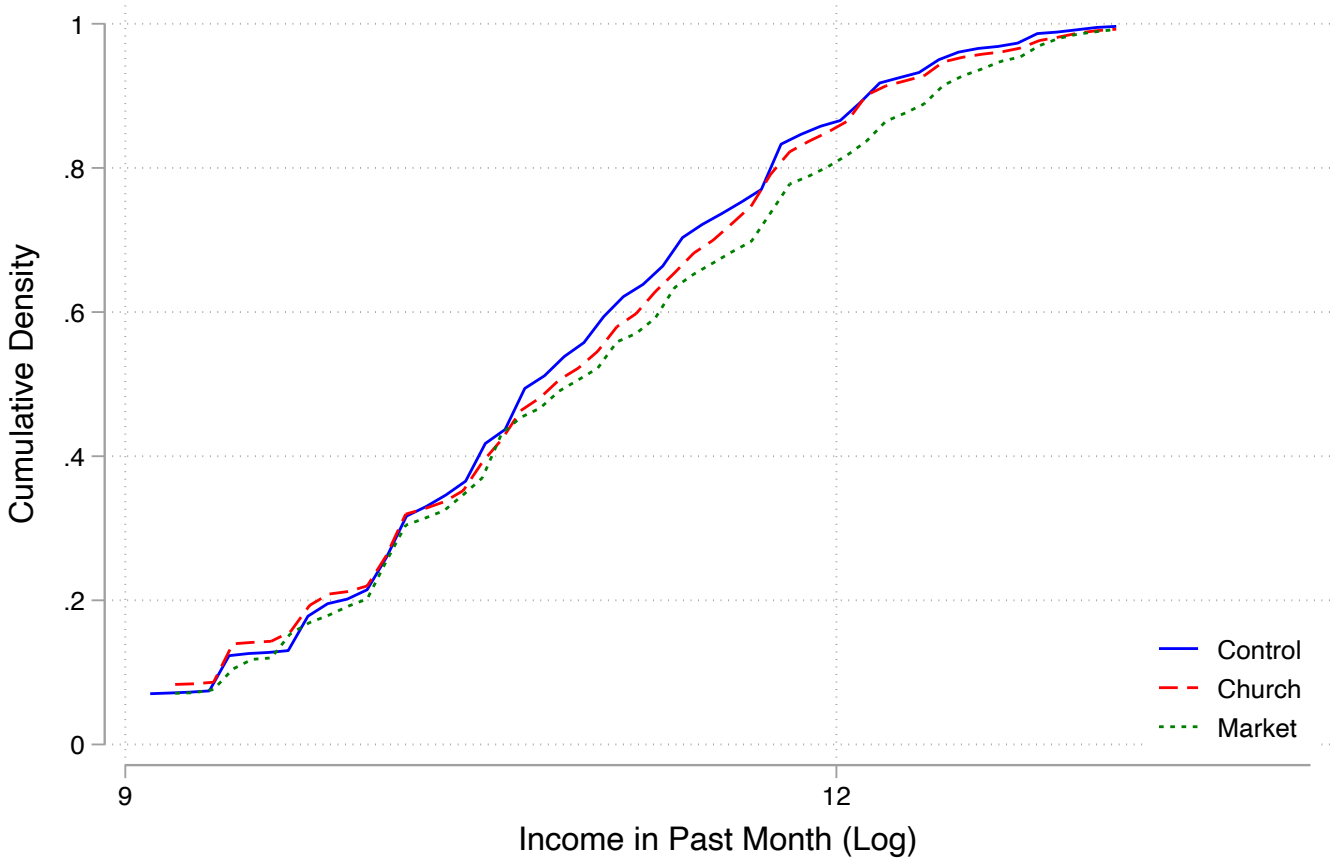
Back

Income: Persistence?

	6-7 Months	8 Months	9 Months	10-12 Months
Church	0.260*	-0.030	-0.070	0.092
	(0.135)	(0.153)	(0.175)	(0.146)
Market	0.358***	0.177	-0.020	0.324**
	(0.117)	(0.163)	(0.182)	(0.160)
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	416	429	440	435
R^2	0.164	0.192	0.243	0.135
Clusters	75	75	76	74
Control_Mean	-.18	.077	.17	-.043
Market_v_Church	.51	.21	.73	.14

Back

Effects on Income 9 Months Later



- Market effect: 0.2 SDs ($p = 0.008$) $\approx$ 16%
- Church effect: 0.057 SDs ($p = 0.44$)
- Difference: $p = 0.056$

Income Effect: Mechanism

- 9 months later, market participants more likely to:
  - Report **higher sales income** (by 0.16 SDs or 92%) Go
  - Continue **selling in Kananga** Go with new trade partners Go
  - **Sell palm oil** Plot Table
    - More profitable than 95% of crops in our data Go All
  - **Sell new products** in last 6 months Go, especially **coffee** Go
    - Also one of most profitable crops in data

Main Results

Income: Effects by Season of Program

	March - August	June - October	August - January	November - April	February - July
Church	-0.189	-0.154	0.245	-0.076	0.386*
	(0.168)	(0.138)	(0.158)	(0.156)	(0.220)
Market - Inside	-0.076	0.183	0.646**	0.153	0.135
	(0.201)	(0.185)	(0.292)	(0.209)	(0.254)
Market - Outside	-0.055	0.208	0.682***	0.543**	0.323
	(0.206)	(0.202)	(0.206)	(0.207)	(0.207)
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	348	348	232	398	394
R^2	0.230	0.197	0.158	0.152	0.192
Clusters	60	60	41	69	70
Control_Mean	.13	.081	-.32	.002	-.058
Inside_v_Outside	.93	.92	.89	.1	.51
Inside_v_Church	.55	.071	.14	.31	.37
Outside_v_Church	.52	.072	.028	.0063	.79

Back

Income: Effects by Year

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Church	-0.096	0.013	0.062	-0.010	0.275*
	(0.140)	(0.169)	(0.212)	(0.138)	(0.159)
Market - Inside	0.093	0.142	-0.009	0.500**	-0.003
	(0.141)	(0.217)	(0.297)	(0.230)	(0.123)
Market - Outside	0.121	0.397*	-0.206	0.529***	0.476***
	(0.149)	(0.216)	(0.237)	(0.181)	(0.164)
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	350	352	346	342	330
R^2	0.230	0.122	0.222	0.178	0.189
Clusters	60	60	60	60	60
Control_Mean	-.02	.075	.14	-.05	-.16
Inside_v_Outside	.87	.32	.52	.91	.012
Inside_v_Church	.22	.53	.8	.028	.13
Outside_v_Church	.17	.077	.19	.0031	.31

Back

Income: Effects by Endline Season

	Rainy (Jan-Apr)	Dry (May-Aug)	Rainy (Sep-Dec)
Church	0.169	-0.083	0.175*
	(0.179)	(0.109)	(0.101)
Market - Inside	0.302	0.074	0.130
	(0.284)	(0.136)	(0.128)
Market - Outside	0.309	0.111	0.411***
	(0.214)	(0.139)	(0.114)
Baseline Outcome	Y	Y	Y
Controls	Y	Y	Y
Observations	406	714	600
R^2	0.192	0.170	0.150
Clusters	81	137	121
Control_Mean	.028	.079	-.12
Inside_v_Outside	.98	.82	.069
Inside_v_Church	.62	.23	.76
Outside_v_Church	.48	.16	.069

By Month Back

Income: Effects by Endline Date

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Church	-0.935	0.376	0.066	0.354	-0.209	-0.177	-0.085	0.223	0.234	0.124	0.305*	1.375
	(0.561)	(0.221)	(0.413)	(0.241)	(0.252)	(0.266)	(0.178)	(0.256)	(0.191)	(0.161)	(0.174)	(1.773)
Market	-0.707	0.863***	0.361	0.061	-0.192	0.287	0.408**	0.030	0.957***	-0.008	0.190	1.078
	(0.604)	(0.229)	(0.415)	(0.216)	(0.244)	(0.224)	(0.198)	(0.208)	(0.264)	(0.227)	(0.140)	(1.199)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	63	102	90	151	246	91	250	127	104	153	320	23
R^2	0.398	0.268	0.432	0.338	0.262	0.303	0.176	0.292	0.267	0.293	0.136	0.955
Clusters	23	26	31	40	54	32	60	50	27	31	71	15
Control_Mean	.74	-.34	.27	-.075	.26	.03	.008	-.041	-.35	-.18	-.038	-.067
Market_v_Church	.69	.12	.55	.18	.94	.12	.01	.43	.0022	.58	.5	.9

Back

Income: Effects by Distance

	10-18km	18-28km	28-40km
Church	-0.019	-0.002	0.120
	(0.120)	(0.157)	(0.114)
Market	0.290**	0.017	0.196
	(0.129)	(0.153)	(0.129)
Baseline Outcome	Y	Y	Y
Controls	Y	Y	Y
Observations	589	571	560
R^2	0.217	0.168	0.148
Clusters	101	100	99
Control_Mean	-.033	.089	-.07
Market_v_Church	.0065	.9	.6

Back

Sales: Effects by Travel Time

	Travel Time Terc. 1	Travel Time Terc. 2	Travel Time Terc. 3
Market	1.683**	0.547	0.203
	(0.648)	(0.567)	(0.721)
Church	1.184*	-0.589	-0.749
	(0.673)	(0.581)	(0.668)
Baseline Outcome	Y	Y	Y
Controls	Y	Y	Y
Observations	599	575	553
R^2	0.157	0.222	0.198
Clusters	102	101	97
Control_Mean	4	4.5	5.4
Market_v_Church	.39	.094	.21

Back

Income – Heterogeneity by Baseline Selling

	Income	Income	Income
Church	0.002	0.002	0.077
	(0.083)	(0.083)	(0.078)
Market	0.188**	0.188**	0.182**
	(0.083)	(0.083)	(0.074)
Any Baseline Selling	0.057		
	(0.083)		
Church × Any Baseline Selling	0.111		
	(0.122)		
Market × Any Baseline Selling	0.028		
	(0.126)		
Top Half Seller		0.057	
		(0.083)	
Church × Top Half Seller		0.111	
		(0.122)	
Market × Top Half Seller		0.028	
		(0.126)	
Top Quartile Seller			0.187*
			(0.107)
Church × Top Quartile Seller			-0.071
			(0.152)
Market × Top Quartile Seller			0.088
			(0.152)
Baseline Outcome Control	Y	Y	Y
Controls	Y	Y	Y
Observations	1720	1720	1720
R^2	0.151	0.151	0.155
Clusters	300	300	300
Control_Mean	.46	.46	.27
Market_v_Church	.038	.038	.22

Back

Heterogeneity by Baseline Income

	Income	Income	Income	Income
Church	0.140*	0.115	0.038	0.048
	(0.078)	(0.073)	(0.076)	(0.077)
Market	0.154*	0.246***		
	(0.080)	(0.072)		
Church × Top Half Income (BL)	-0.195			
	(0.125)			
Market × Top Half Income (BL)	0.061			
	(0.133)			
Top Half Income (BL)	0.604***		0.507***	
	(0.090)		(0.063)	
Church × Top Quartile Income (BL)		-0.306		
		(0.216)		
Market × Top Quartile Income (BL)		-0.172		
		(0.228)		
Top Quartile Income (BL)		0.788***		0.634***
		(0.160)		(0.114)
Market - Inside			0.020	0.175*
			(0.107)	(0.102)
Market - Outside			0.179*	0.249***
			(0.103)	(0.091)
Market - Inside × Top Half Income (BL)			0.188	
			(0.149)	
Market - Outside × Top Half Income (BL)			0.137	
			(0.149)	
Market - Inside × Top Quartile Income (BL)				-0.122
				(0.261)
Market - Outside × Top Quartile Income (BL)				0.088
				(0.242)
Controls	Y	Y	Y	Y
Observations	1721	1721	1721	1721
R^2	0.116	0.105	0.116	0.104
Clusters	300	300	300	300
Control_Mean	.52	.22	.52	.22
Market_v_Church	.88	.12		
Inside_v_Outside			.22	.54
Inside_v_Church			.87	.23
Outside_v_Church			.19	.039

Back

Income Effects Robustness: Village Fixed Effects

	Main	Friends	Non-Friends	All	Village FE
Church	0.072	-0.008	-0.010		
	(0.073)	(0.073)	(0.108)		
Market	0.199***	-0.070	-0.031		
	(0.076)	(0.075)	(0.117)		
Church - Participant				0.003	-0.023
				(0.054)	(0.055)
Market - Participant				0.128**	0.141**
				(0.058)	(0.065)
Stratum FE	Y	Y	Y	N	N
Baseline Outcome Control	Y	Y	Y	Y	Y
Observations	1720	1695	560	3975	3975
R^2	0.135	0.138	0.188	0.133	0.268
Clusters	300	300	297	300	1460
ControlMean	2.4e-09	.081	.044	.041	.055
Church_v_Market	.092	.38	.85	.1	.052
Church_and_Market	.033	.57	.96		

Back

Spillovers: Economics Effects

	Income	Market Sales	Any Salary	House Quality	Possessions
Church × Participant	0.069	-0.013	-0.025	0.050	-0.113*
	(0.073)	(0.061)	(0.019)	(0.056)	(0.065)
Church × Network	-0.008	0.005	-0.020	0.046	-0.065
	(0.074)	(0.063)	(0.021)	(0.052)	(0.059)
Church × Non-Network	-0.022	0.012	-0.003	0.043	-0.056
	(0.110)	(0.094)	(0.033)	(0.087)	(0.082)
Market × Participant	0.202***	0.150**	0.014	-0.060	-0.063
	(0.077)	(0.065)	(0.021)	(0.053)	(0.067)
Market × Network	-0.063	-0.001	0.020	0.020	-0.091
	(0.076)	(0.057)	(0.021)	(0.051)	(0.060)
Market × Non-Network	-0.026	0.010	0.037	0.004	-0.016
	(0.120)	(0.090)	(0.035)	(0.087)	(0.082)
Network	0.108	0.026	0.025	0.026	0.074
	(0.067)	(0.051)	(0.018)	(0.040)	(0.052)
Non-Network	0.106	0.001	-0.017	0.031	0.058
	(0.092)	(0.071)	(0.028)	(0.071)	(0.067)
Stratum FE	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	3975	3998	3997	4001	4001
Control_Mean	.041	-.011	.17	.13	.099

Back

Spillovers: Effects on Sales / Commerce

	Hours Selling	New Items Sold	Selling in City	Selling City Freq.	No. Customers
Church × Participant	-0.538	-0.014	-0.005	-0.021	-0.430
	(0.545)	(0.015)	(0.025)	(0.076)	(0.904)
Church × Network	0.000	-0.025	0.015	0.024	-0.758
	(0.568)	(0.017)	(0.022)	(0.061)	(0.637)
Church × Non-Network	0.404	0.025	0.019	0.066	1.566
	(0.683)	(0.030)	(0.030)	(0.086)	(1.283)
Market × Participant	-0.126	0.043**	0.033	0.062	0.220
	(0.578)	(0.019)	(0.024)	(0.072)	(0.941)
Market × Network	0.153	-0.018	-0.016	-0.065	-0.140
	(0.609)	(0.017)	(0.020)	(0.056)	(0.764)
Market × Non-Network	0.383	0.008	0.030	0.081	1.641
	(0.713)	(0.027)	(0.033)	(0.097)	(1.394)
Network	-0.131	0.030*	0.002	-0.002	-0.012
	(0.426)	(0.017)	(0.019)	(0.061)	(0.840)
Non-Network	-0.690	0.022	-0.031	-0.081	-0.701
	(0.655)	(0.023)	(0.025)	(0.075)	(0.800)
Stratum FE	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	3998	3997	4001	3995	3987
Control_Mean	3.1	.076	.13	-.01	3.9

Back

Spillovers: Effects on Time Use

	Agriculture	Commerce	Housework	Formal Job
Church × Participant	-0.375	-0.085	0.737	-0.216
	(1.124)	(0.512)	(0.669)	(0.338)
Church × Network	0.690	0.105	0.433	-0.970**
	(0.977)	(0.493)	(0.625)	(0.454)
Church × Non-Network	-1.733	-0.447	0.048	-0.476
	(1.624)	(0.875)	(1.025)	(0.837)
Market × Participant	-0.366	0.424	-0.852	0.296
	(1.093)	(0.525)	(0.619)	(0.358)
Market × Network	0.659	-0.059	0.182	-0.775
	(1.088)	(0.424)	(0.595)	(0.481)
Market × Non-Network	-0.472	-0.635	-0.074	-0.272
	(1.491)	(0.843)	(1.049)	(0.884)
Network	-2.472***	0.014	-0.470	0.979**
	(0.873)	(0.433)	(0.460)	(0.387)
Non-Network	-2.324*	0.529	-0.993	0.929
	(1.333)	(0.839)	(0.879)	(0.692)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	3998	3998	3996	3998
Control_Mean	24	2.9	12	1.9

Back

Spillovers: Sales of Cash Crops

	Coffee (Conditional)	Coffee (Unconditional)	Palm Oil
Church × Participant	-0.002	-0.003	-0.010
	(0.016)	(0.008)	(0.017)
Church × Network	-0.031	-0.017	0.005
	(0.019)	(0.011)	(0.017)
Church × Non-Network	0.044	0.022	-0.003
	(0.035)	(0.018)	(0.025)
Market × Participant	0.054***	0.035***	0.042**
	(0.020)	(0.012)	(0.020)
Market × Network	-0.043**	-0.022**	0.016
	(0.018)	(0.010)	(0.017)
Market × Non-Network	0.037	0.016	-0.045**
	(0.034)	(0.017)	(0.021)
Network	0.034*	0.018*	-0.003
	(0.019)	(0.010)	(0.017)
Non-Network	0.003	0.002	0.002
	(0.023)	(0.011)	(0.021)
Stratum FE	Y	Y	Y
Controls	Y	Y	Y
Observations	1952	3678	4001
Control_Mean	.053	.027	.078

Back

Spillovers: Baseline Cash Crops Sellers — Income

	Outcome: Income (Standardized)	
	Coffee	Palmoil
Church × Participant	0.058	0.067
	(0.074)	(0.073)
Church × Network	-0.010	-0.008
	(0.074)	(0.075)
Church × Non-Network	-0.010	-0.022
	(0.110)	(0.109)
Market × Participant	0.190**	0.207***
	(0.077)	(0.078)
Market × Participant × Baseline Seller	-0.038	-0.053
	(0.355)	(0.170)
Market × Network	-0.041	-0.053
	(0.075)	(0.078)
Market × Network × Baseline Seller	-0.819**	-0.127
	(0.358)	(0.165)
Market × Non-Network	-0.056	-0.018
	(0.115)	(0.123)
Market × Non-Network × Baseline Seller	0.952	-0.234
	(0.754)	(0.215)
Friend	0.103	0.107
	(0.067)	(0.067)
Non-Friend	0.088	0.105
	(0.093)	(0.092)
Baseline Seller	0.509***	-0.015
	(0.172)	(0.074)
Stratum FE	Y	Y
Baseline Outcome	Y	Y
Controls	Y	Y
Observations	3974	3974
Control_Mean	.042	.042

Back

Spillovers: Baseline Cash Crops Sellers — Wellbeing

	SRQ20 Total	SRQ20 $>$ 10
Church $\times$ Participant	0.363	0.048
	(0.320)	(0.030)
Church $\times$ Network	-0.101	0.027
	(0.318)	(0.029)
Church $\times$ Non-Network	0.172	0.024
	(0.436)	(0.045)
Market $\times$ Participant	0.340	0.053*
	(0.322)	(0.028)
Market $\times$ Participant $\times$ Baseline Seller	0.927	0.150
	(1.011)	(0.108)
Market $\times$ Network	0.290	0.060**
	(0.306)	(0.028)
Market $\times$ Network $\times$ Baseline Seller	-0.053	0.062
	(1.174)	(0.121)
Market $\times$ Non-Network	-0.894**	-0.046
	(0.444)	(0.047)
Market $\times$ Non-Network $\times$ Baseline Seller	-1.459	-0.133
	(1.011)	(0.094)
Friend	0.160	0.000
	(0.287)	(0.028)
Non-Friend	0.466	0.032
	(0.338)	(0.038)
Baseline Seller	-0.757	-0.054
	(0.509)	(0.049)
Stratum FE	Y	Y
Baseline Outcome	Y	Y
Controls	Y	Y
Observations	3997	3997
Control_Mean	11	.48

Back

Spillovers: Villages with Cash Crops at Baseline

	Income	Income	Income	Income
Church	0.071	0.072		
	(0.073)	(0.074)		
Market	0.198**	0.065		
	(0.077)	(0.114)		
Market × Baseline Seller	-0.004			
	(0.165)			
Market × Selling Village		0.195		
		(0.141)		
Church × Participant			0.066	0.065
			(0.074)	(0.074)
Church × Network			-0.007	-0.011
			(0.074)	(0.074)
Church × Non-Network			-0.026	-0.025
			(0.109)	(0.110)
Market × Participant			0.212***	0.127
			(0.077)	(0.105)
Market × Participant × Baseline Seller			-0.090	
			(0.151)	
Market × Participant × Selling Village				0.103
				(0.128)
Market × Network			-0.029	-0.103
			(0.078)	(0.088)
Market × Network × Baseline Seller			-0.307*	
			(0.171)	
Market × Network × Selling Village				0.052
				(0.109)
Market × Non-Network			-0.063	-0.129
			(0.118)	(0.145)
Market × Non-Network × Baseline Seller			0.526	
			(0.454)	
Market × Non-Network × Selling Village				0.146
				(0.184)
Network			0.109	0.108
			(0.067)	(0.067)
Non-Network			0.108	0.105
			(0.093)	(0.092)
				(0.184)
Baseline Seller	0.018		0.102	
	(0.103)		(0.074)	
Selling Village		-0.007		0.059
		(0.091)		(0.072)
Stratum FE	N	N	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	N	N	Y	Y
Observations	1720	1720	3975	3975
Control_Mean	0	0	.041	.041

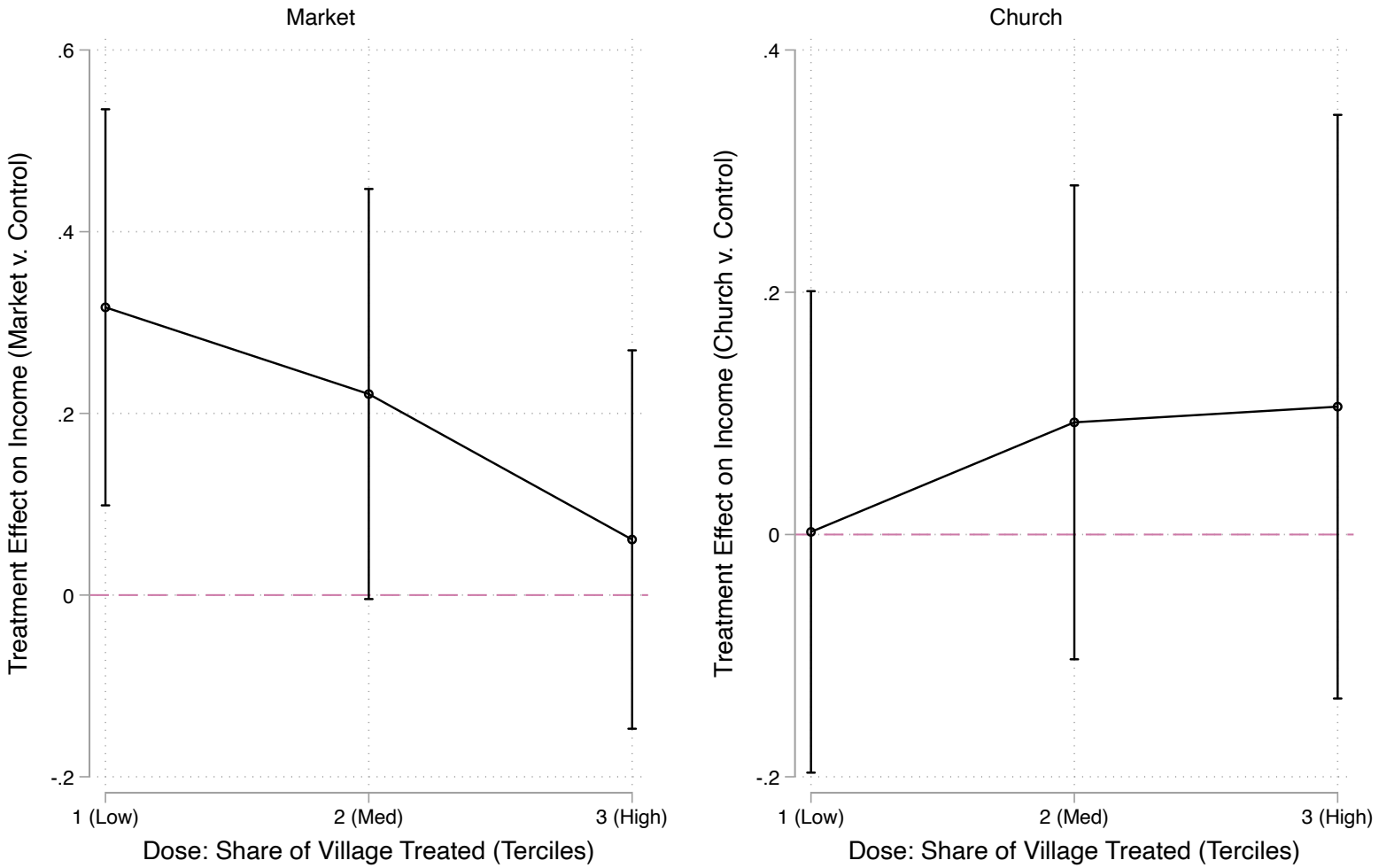
Back

Dosage Analysis: Het. by Share of Village Treated

	Income	Income	Income	Income
Market Tercile 1	0.330***	0.291**		
	(0.109)	(0.113)		
Market Tercile 2	0.216**	0.221**		
	(0.109)	(0.110)		
Market Tercile 3	0.047	0.069		
	(0.101)	(0.108)		
Market Tercile 1 × Participant			0.321***	0.317***
			(0.113)	(0.111)
Market Tercile 2 × Participant			0.221*	0.221*
			(0.114)	(0.115)
Market Tercile 3 × Participant			0.059	0.061
			(0.101)	(0.106)
Market Tercile 1 × Network			-0.038	-0.042
			(0.105)	(0.108)
Market Tercile 2 × Network			-0.130	-0.129
			(0.092)	(0.092)
Market Tercile 3 × Network			-0.030	-0.028
			(0.112)	(0.116)
Market Tercile 1 × Non-Network			0.013	0.009
			(0.188)	(0.189)
Market Tercile 2 × Non-Network			-0.040	-0.039
			(0.143)	(0.144)
Market Tercile 3 × Non-Network			-0.057	-0.055
			(0.186)	(0.190)
Network			0.108	0.108
			(0.067)	(0.067)
Non-Network			0.106	0.106
			(0.092)	(0.092)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Village Size Control	N	Y	N	Y
Church Tercile Dummies	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1720	1720	3975	3975
Control_Mean	0	0	.041	.041
Tercile1_v_Tercile2	.39	.62	.48	.5
Tercile1_v_Tercile3	.035	.15	.051	.072
Tercile2_v_Tercile3	.2	.26	.23	.24

Income Summary GE

Dosage Analysis: Het. by Share of Village Treated



Back

Dosage

	SRQ>10	SRQ>10	SRQ>10	SRQ>10
Market Tercile 1	0.107***	0.091**		
	(0.036)	(0.038)		
Market Tercile 2	0.050	0.052		
	(0.044)	(0.044)		
Market Tercile 3	0.007	0.016		
	(0.040)	(0.042)		
Market Tercile 1 × Participant			0.100***	0.088**
			(0.036)	(0.038)
Market Tercile 2 × Participant			0.045	0.047
			(0.045)	(0.045)
Market Tercile 3 × Participant			0.019	0.026
			(0.038)	(0.039)
Market Tercile 1 × Network			0.100***	0.088**
			(0.036)	(0.038)
Market Tercile 2 × Network			0.001	0.003
			(0.039)	(0.039)
Market Tercile 3 × Network			0.075**	0.082**
			(0.035)	(0.036)
Market Tercile 1 × Non-Network			-0.021	-0.032
			(0.064)	(0.065)
Market Tercile 2 × Non-Network			-0.116*	-0.114*
			(0.067)	(0.067)
Market Tercile 3 × Non-Network			-0.025	-0.018
			(0.069)	(0.070)
Network			-0.002	-0.002
			(0.028)	(0.028)
Non-Network			0.028	0.028
			(0.038)	(0.038)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Village Size Control	N	Y	N	Y
Church Tercile Dummies	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1727	1727	3998	3998
Control_Mean	.48	.48	.48	.48
Tercile1_v_Tercile2	.26	.46	.29	.44
Tercile1_v_Tercile3	.04	.18	.079	.21
Tercile2_v_Tercile3	.39	.48	.6	.67

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Effects on Selling Goods in the Past 6 Months

	Hours Selling (Log)	New Items Sold	Selling in City	Selling City Freq.
Church	-0.040	-0.016	-0.010	-0.027
	(0.069)	(0.015)	(0.024)	(0.073)
Market	0.103	0.043**	0.037*	0.073
	(0.071)	(0.018)	(0.022)	(0.067)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	N	N	N
Controls	Y	Y	Y	Y
Observations	1551	1727	1800	1796
R^2	0.154	0.039	0.078	0.070
Clusters	271	300	300	300
Control_Mean	.75	.061	.13	0
Market_v_Church	.025	.00078	.03	.11

Back

Effects on New Trading Partners

Inside v. Outside Market Heterogeneity

	Any New Partner	New City Partner	Number New Partners
Church	-0.026	-0.002	-0.033
	(0.023)	(0.015)	(0.070)
Market	0.014	0.032**	0.075
	(0.025)	(0.016)	(0.082)
Controls	Y	Y	Y
Observations	1727	1727	1725
R^2	0.043	0.038	0.036
Clusters	300	300	300
Control_Mean	.14	.049	.35
Market_v_Church	.11	.058	.17

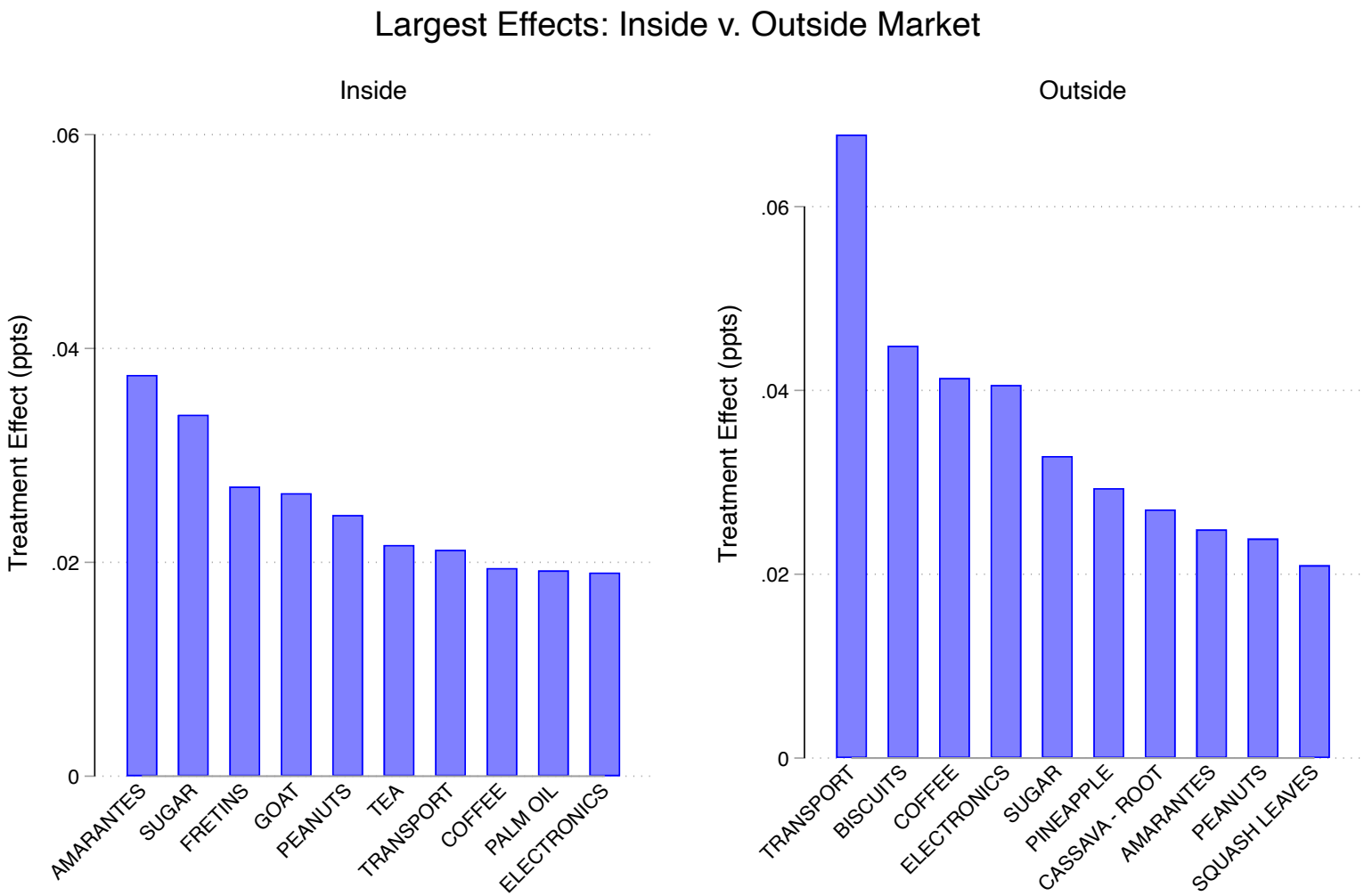
Selling or Buying Goods Back

New Trading Partners: Summary Statistics



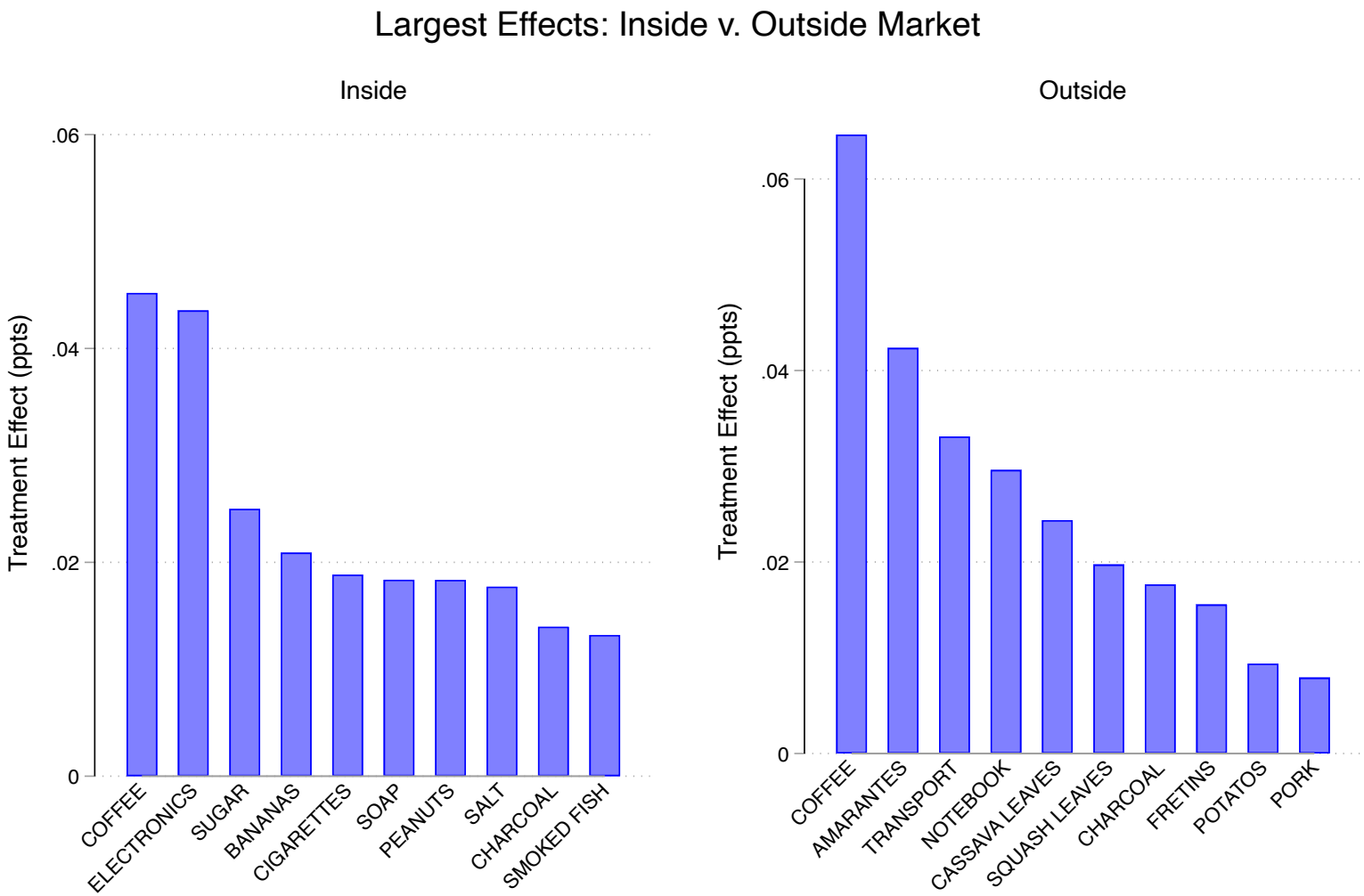
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New Trading Partners: Goods Exchanged



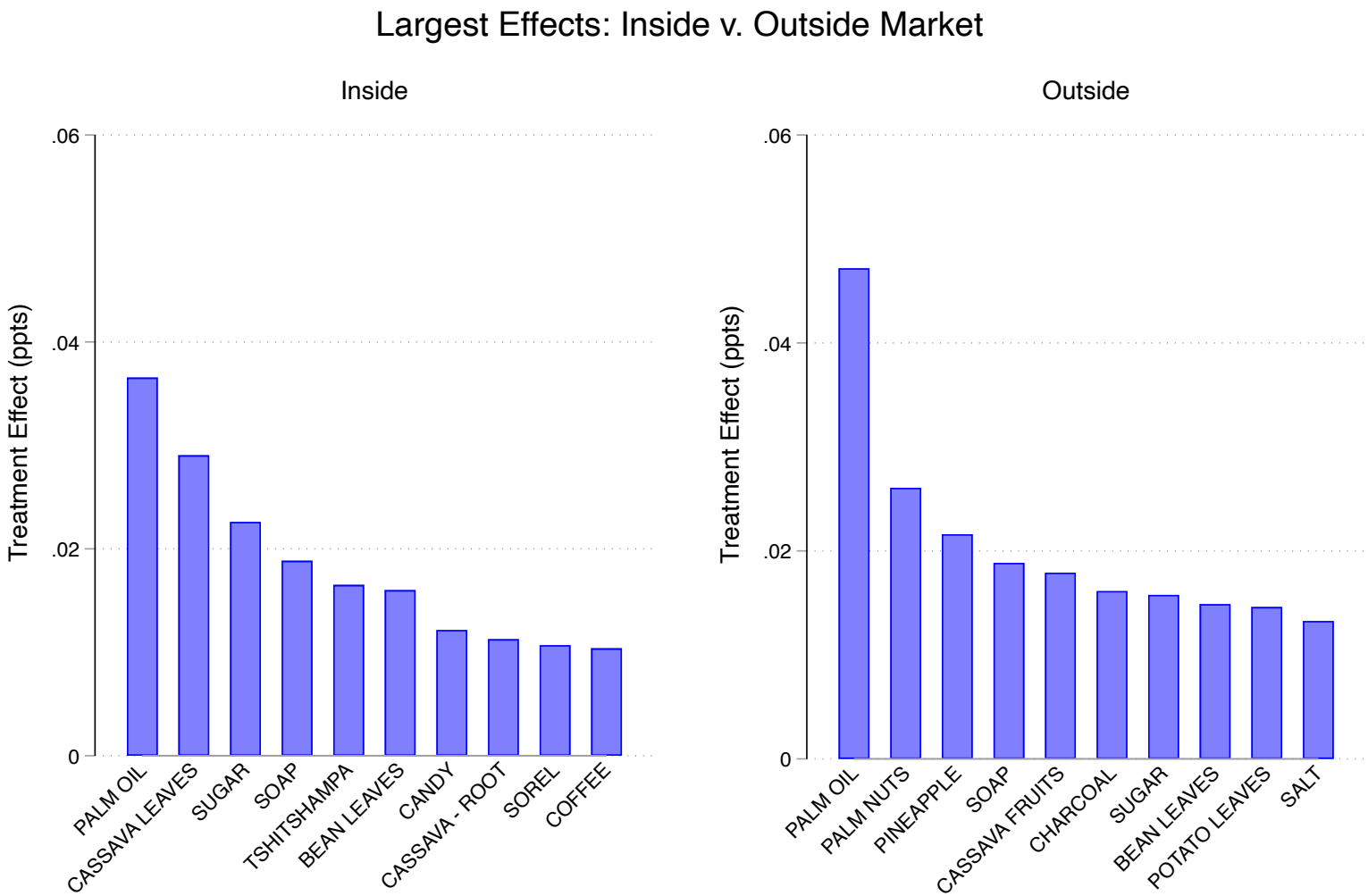
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New Crops Sold: Largest Treatment Effects



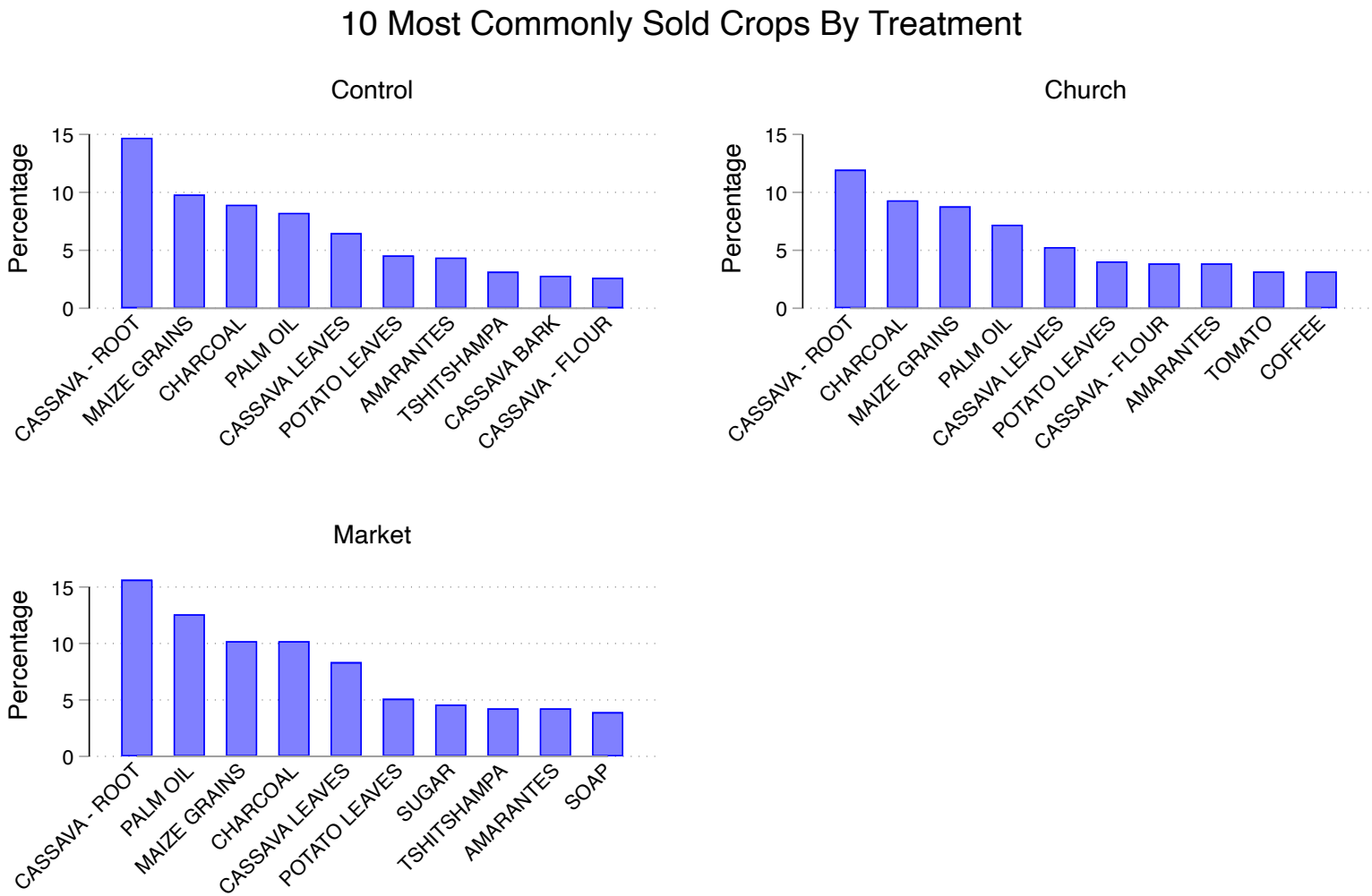
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Inside v. Outside Market Heterogeneity



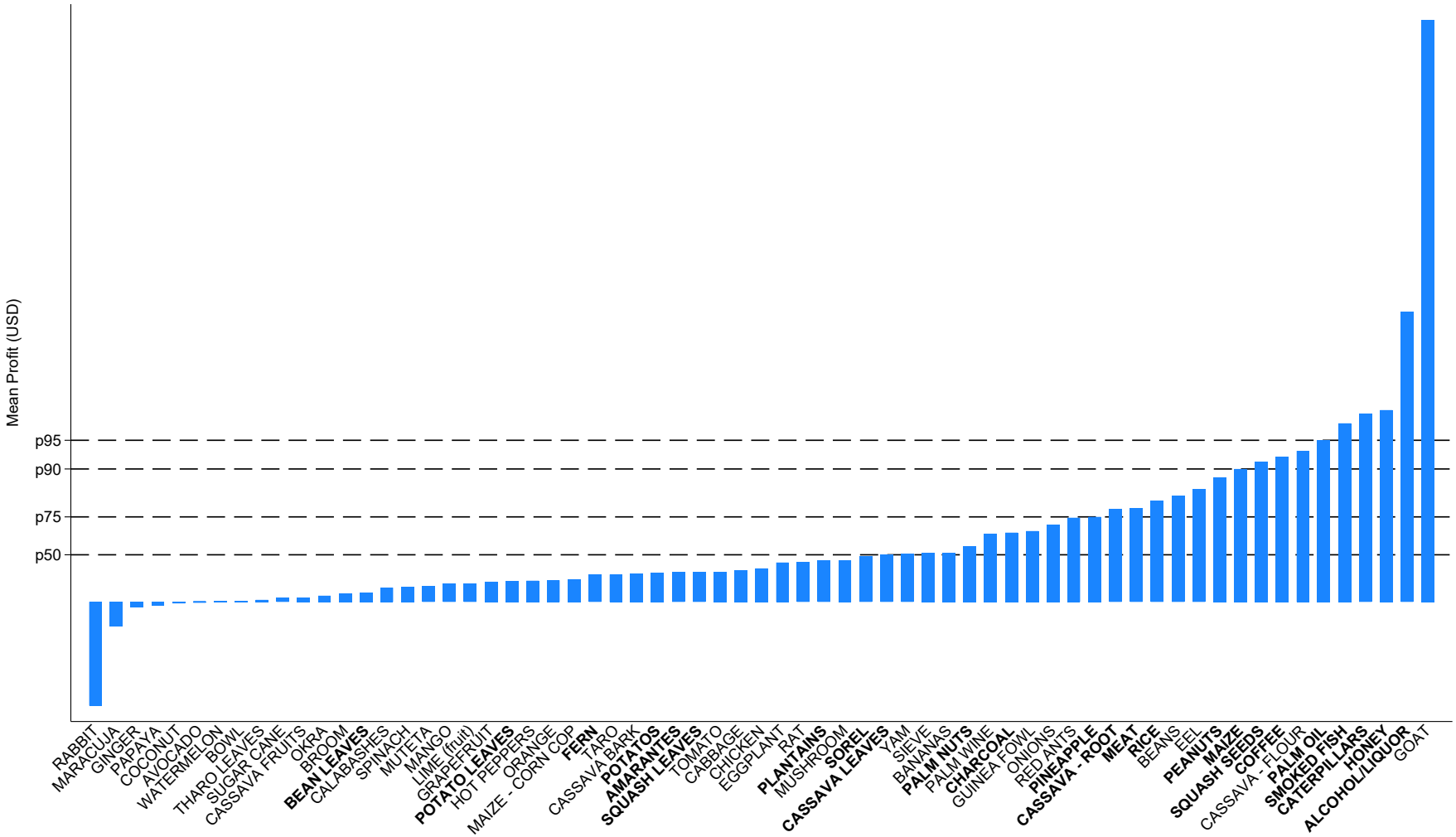
Palm Oil Table Averages Back

Most Common Crops Sold by Treatment Group



Back

Profits: All Crops



Back

Effects on Palm Oil Sales

	Palm Oil Sales	Palm Oil Sales
Church	-0.010	-0.010
	(0.017)	(0.017)
Market	0.042**	
	(0.019)	
Market - Inside		0.037
		(0.025)
Market - Outside		0.047**
		(0.023)
Controls	Y	Y
Observations	1728	1728
R^2	0.030	0.030
Clusters	300	300
Control_Mean	.082	.082
Market_v_Church	.0062	
Inside_v_Outside		.72
Inside_v_Church		.06
Outside_v_Church		.014

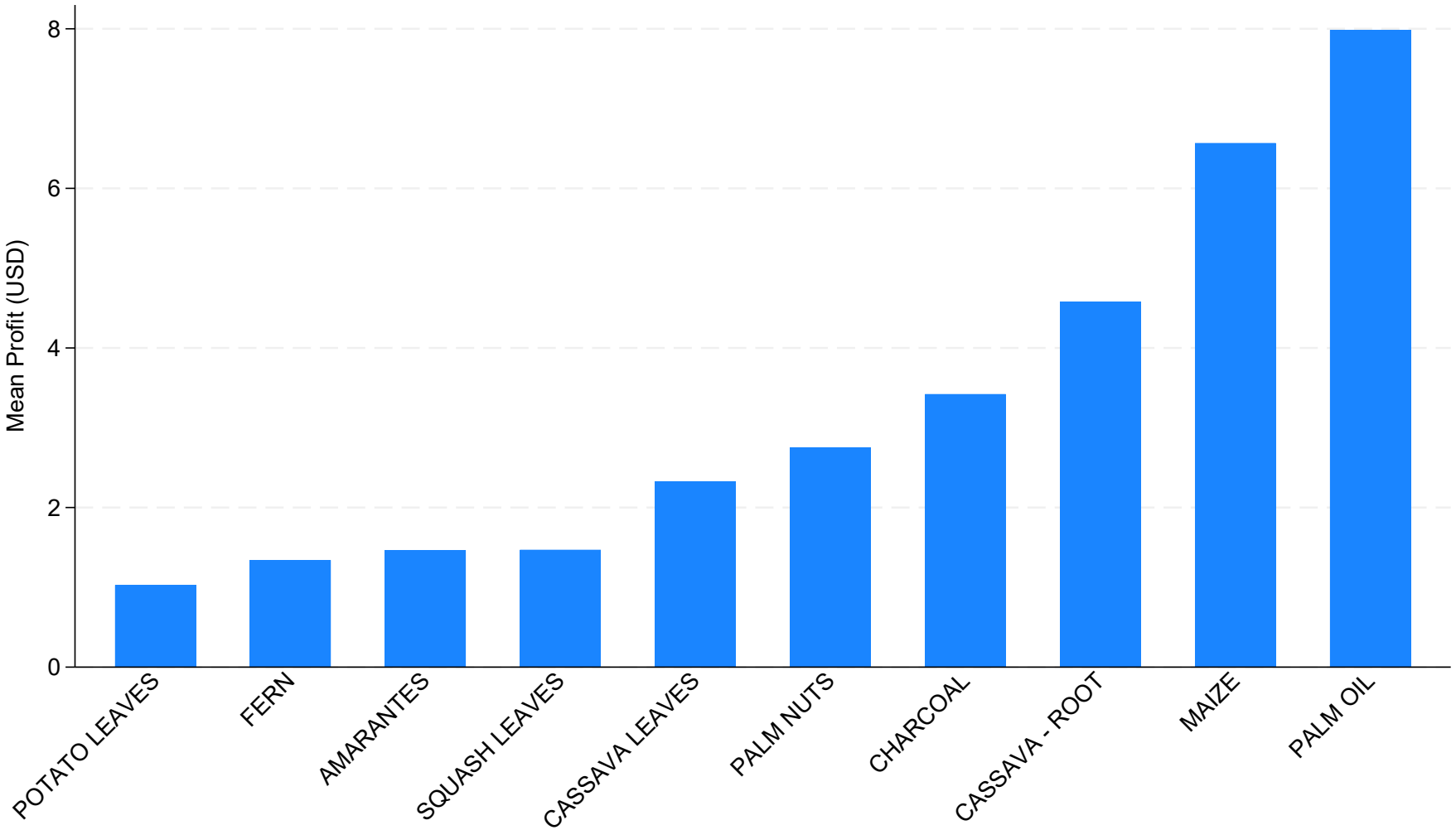
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Effects on New Coffee Sales

	New Coffee Sales (cond.)	New Coffee Sales (uncond.)	New Coffee Sales (cond.)	New Coffee Sales (uncond.)
Church	-0.001	-0.004	-0.000	-0.004
	(0.016)	(0.009)	(0.016)	(0.009)
Market	0.055***	0.035***		
	(0.019)	(0.012)		
Market - Inside			0.045*	0.027*
			(0.024)	(0.015)
Market - Outside			0.065**	0.042**
			(0.027)	(0.016)
Controls	Y	Y	Y	Y
Observations	871	1586	871	1586
R^2	0.071	0.040	0.072	0.041
Clusters	269	300	269	300
Control_Mean	.037	.019	.037	.019
Market_v_Church	.0033	.0013		
Inside_v_Outside			.56	.45
Inside_v_Church			.052	.035
Outside_v_Church			.014	.0059

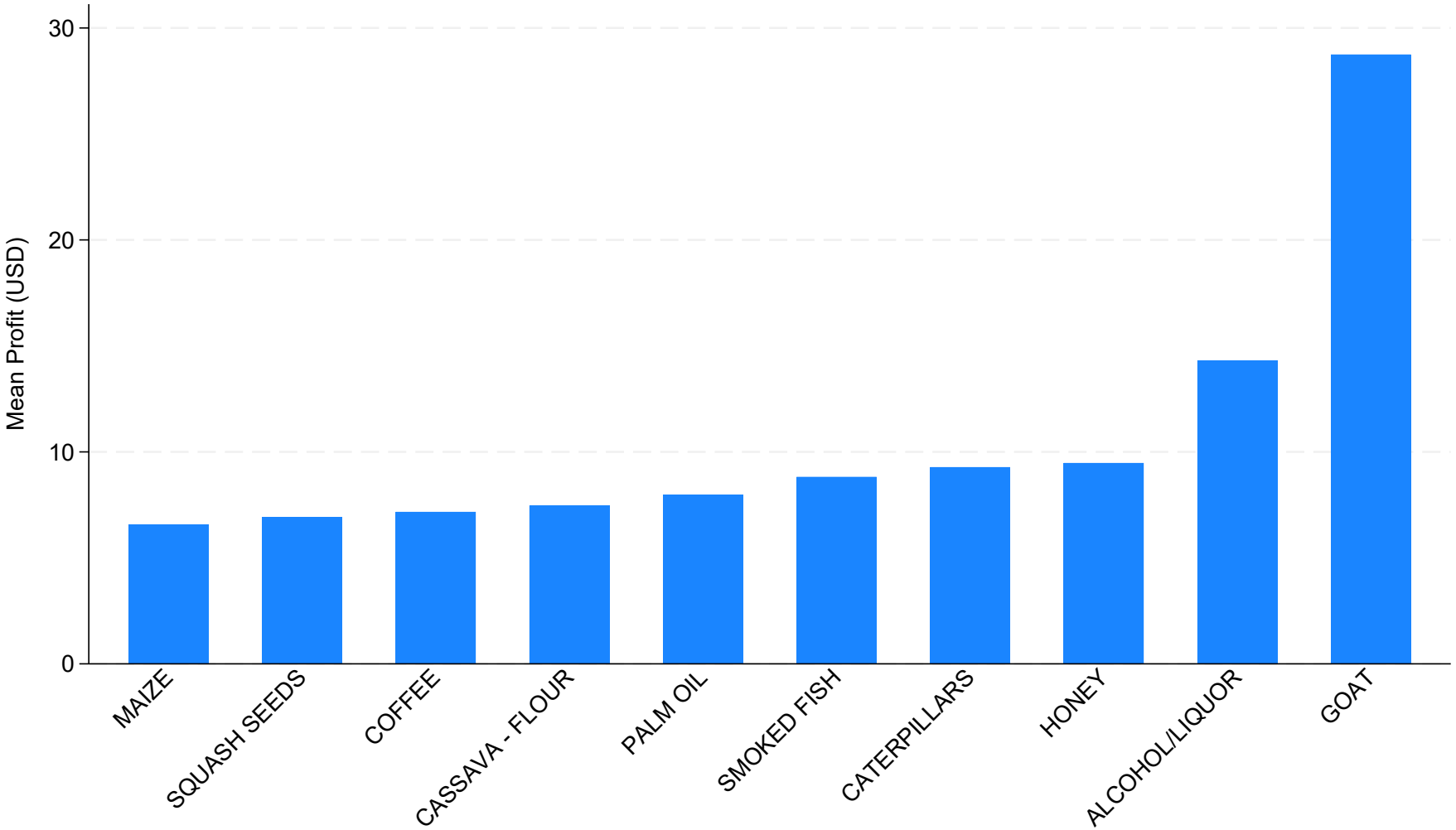
Back

Urban-Rural Profit Margins: Most Commonly Sold



Back

Urban-Rural Profit Margins: Top Ten



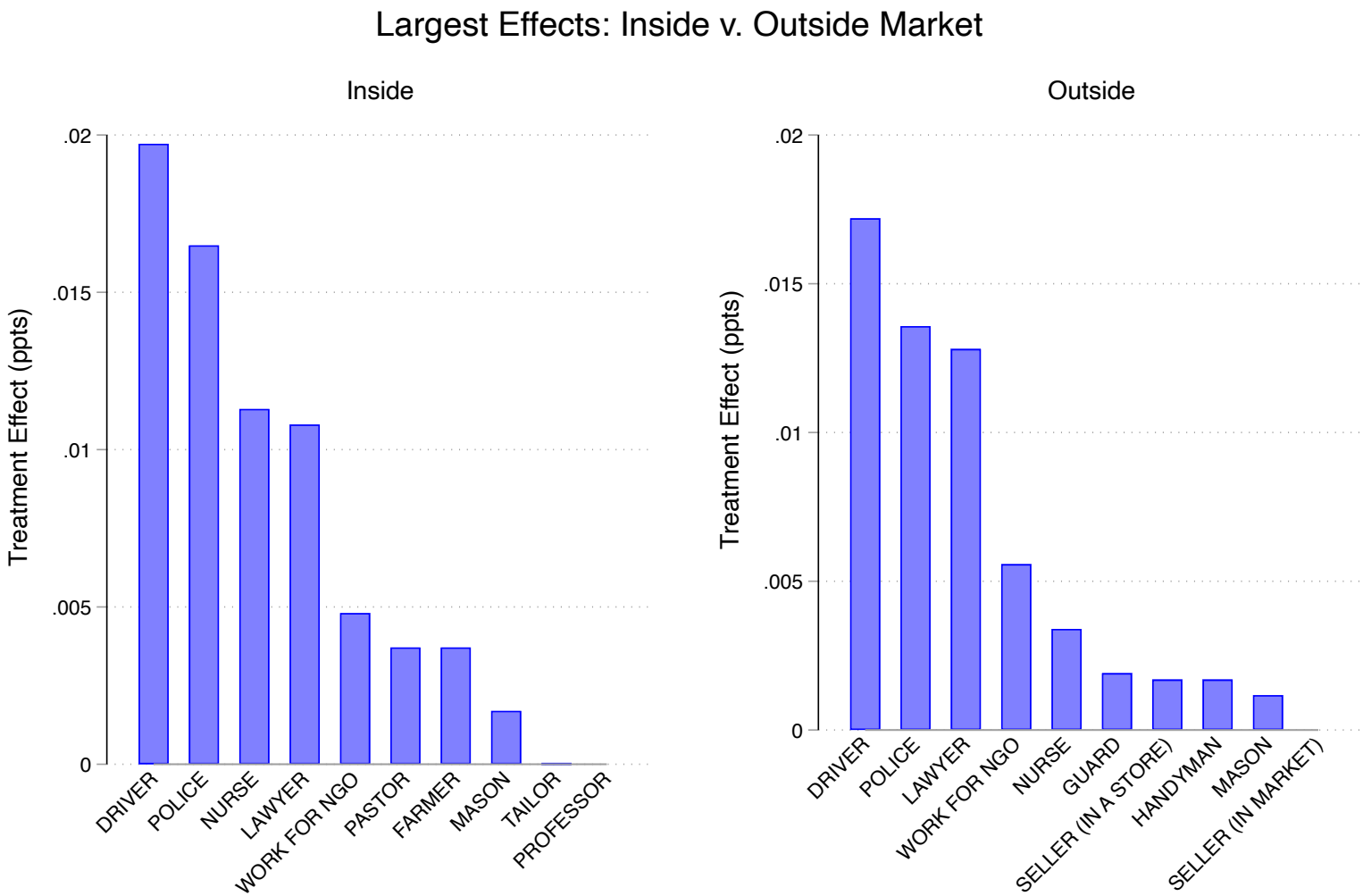
Back

Effects on Employment

	Farmer	Farmer	Salaried Job	Salaried Job	Has Business	Has Business
Church	0.018	0.033	-0.026	0.020	-0.007	-0.037*
	(0.016)	(0.024)	(0.019)	(0.028)	(0.015)	(0.021)
Market - Inside	-0.025	-0.022	0.005	0.030	0.052**	0.032
	(0.020)	(0.034)	(0.027)	(0.037)	(0.022)	(0.034)
Market - Outside	0.012	0.030	0.019	0.079**	0.005	0.023
	(0.017)	(0.029)	(0.023)	(0.035)	(0.021)	(0.033)
Church X Woman		-0.030		-0.090**		0.059**
		(0.028)		(0.038)		(0.027)
Market - Inside X Woman		-0.006		-0.050		0.039
		(0.042)		(0.053)		(0.043)
Market - Outside X Woman		-0.035		-0.118***		-0.037
		(0.038)		(0.045)		(0.035)
Woman		0.060***		0.037		-0.020
		(0.022)		(0.028)		(0.022)
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1725	1725	1727	1727	1727	1727
R^2	0.250	0.251	0.109	0.113	0.078	0.082
Clusters	300	300	300	300	300	300
Control_Mean	.89	.89	.15	.15	.065	.065
Inside_v_Outside	.057	.16	.64	.27	.078	.83
Inside_v_Church	.023	.098	.24	.78	.0074	.03
Outside_v_Church	.73	.92	.04	.096	.56	.059

Back Which jobs?

Treatment Effects on Salaried Jobs



Back

Persistent City Connections?

	Visit City	Visit Freq.	Family Moved	Ever Call Kanangans	Call Frequency	Plan Move	Plan Children Move
Church	0.018	0.071	0.014	-0.019	0.224**	0.052	0.061
	(0.031)	(0.073)	(0.029)	(0.027)	(0.110)	(0.065)	(0.059)
Market	-0.031	-0.019	-0.007	0.007	0.113	0.107*	0.030
	(0.031)	(0.066)	(0.030)	(0.027)	(0.081)	(0.063)	(0.057)
Stratum FE	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	1727	1720	1727	1727	1727	1727	1727
R^2	0.150	0.138	0.063	0.123	0.067	0.159	0.097
Clusters	300	300	300	300	300	300	300
Control_Mean	.5	0	.29	.73	0	0	0
Market_v_Church	.1	.21	.45	.35	.36	.43	.61

Inside v. Outside Phone Contact Densities Back

Persistent City Connections?

	Visit City	Visit Freq.	Family Moved	Ever Call Kanangans	Call Frequency	Plan Move	Plan Children Move
Market - Inside	-0.036	-0.004	0.021	0.016	0.178	0.169**	0.082
	(0.037)	(0.077)	(0.036)	(0.035)	(0.110)	(0.083)	(0.077)
Market - Outside	-0.027	-0.034	-0.035	-0.003	0.050	0.046	-0.021
	(0.039)	(0.085)	(0.037)	(0.033)	(0.104)	(0.076)	(0.064)
Church	0.018	0.071	0.014	-0.019	0.224**	0.052	0.061
	(0.031)	(0.073)	(0.029)	(0.027)	(0.110)	(0.064)	(0.058)
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	1727	1720	1727	1727	1727	1727	1727
R^2	0.150	0.138	0.064	0.124	0.068	0.160	0.098
Clusters	300	300	300	300	300	300	300
Control_Mean	.5	0	.29	.73	0	0	0
Inside_v_Outside	.84	.75	.19	.63	.36	.2	.23
Inside_v_Church	.14	.36	.84	.31	.74	.18	.79
Outside_v_Church	.23	.23	.17	.62	.22	.95	.23

Phone Contact Densities Back

Connections by Season of the Program

	March - August	June - October	August - January	November - April	February - July
Church	0.711	0.562*	0.241	0.028	0.018
	(0.442)	(0.287)	(0.199)	(0.176)	(0.143)
Market	0.285	0.116	0.427	0.054	0.165
	(0.238)	(0.179)	(0.314)	(0.229)	(0.155)
Stratum FE	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	349	351	232	399	396
R^2	0.122	0.088	0.139	0.076	0.154
Clusters	60	60	41	69	70
Control_Mean	.13	.081	-.32	.002	-.058
Market_v_Church	.25	.14	.51	.91	.37

Back

Connections by Season of the Program: Heterogeneity

	March - August	June - October	August - January	November - April	February - July
Market - Inside	0.549*	0.254	0.493	-0.324*	0.376*
	(0.286)	(0.289)	(0.409)	(0.172)	(0.208)
Market - Outside	0.016	-0.021	0.361	0.430	-0.042
	(0.227)	(0.163)	(0.257)	(0.344)	(0.182)
Church	0.711	0.561*	0.246	0.007	0.017
	(0.441)	(0.287)	(0.201)	(0.172)	(0.143)
Controls	Y	Y	Y	Y	Y
Observations	349	351	232	399	396
R^2	0.127	0.090	0.140	0.089	0.161
Clusters	60	60	41	69	70
Control_Mean	.13	.081	-.32	.002	-.058
Inside_v_Outside	.046	.38	.64	.025	.1
Inside_v_Church	.65	.41	.5	.15	.11
Outside_v_Church	.092	.061	.63	.22	.75

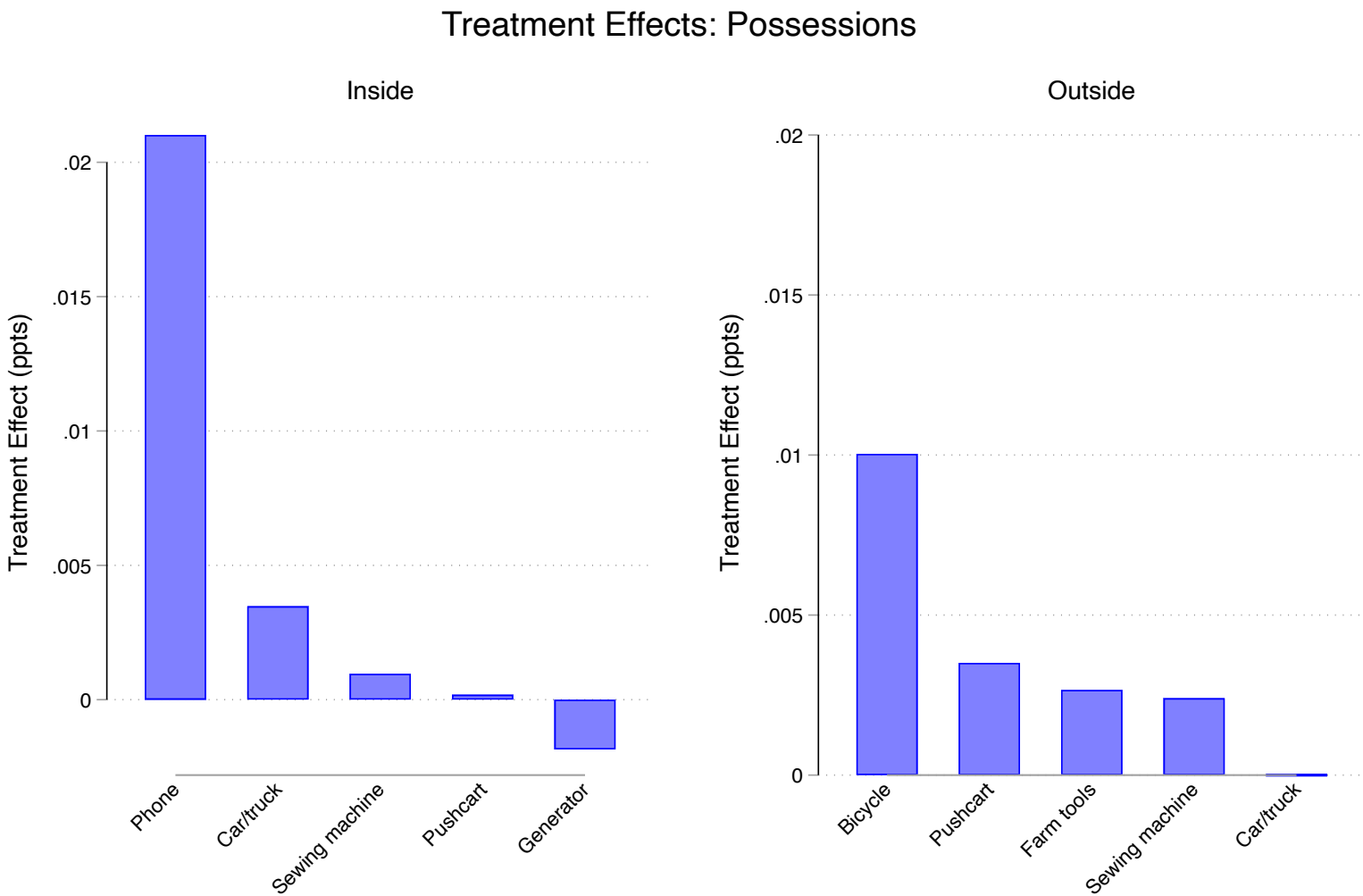
Back

Effect on Income from Sales

	Any Sales	Log Sales	Sales (levels, z-score)	Market Het.	Gender Het.
Church	-0.004	-0.069	-0.027	-0.027	-0.027
	(0.037)	(0.371)	(0.060)	(0.060)	(0.060)
Market	0.086**	0.916**	0.156**		
	(0.037)	(0.369)	(0.060)		
Market - Inside				0.118*	0.025
				(0.071)	(0.103)
Market - Outside				0.192**	0.284**
				(0.079)	(0.130)
Market - Inside × Woman					0.188
					(0.124)
Market - Outside × Woman					-0.182
					(0.128)
Woman					-0.178***
					(0.049)
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	1727	1727	1727	1727	1727
R^2	0.156	0.151	0.169	0.169	0.172
Clusters	300	300	300	300	300
Control_Mean	.47	4.7	0	0	0
Market_v_Church	.011	.0055	.0049		
Inside_v_Outside				.41	.081
Inside_v_Church				.053	.62
Outside_v_Church				.008	.019

Back

Largest Treatment Effects on Possessions



Back

Effect on Labor Time Allocation

	Agriculture	Commerce	Housework	Formal Job
Church	-0.469	-0.149	0.590	-0.198
	(1.093)	(0.417)	(0.629)	(0.279)
Market	-0.343	0.419	-0.840	0.318
	(1.078)	(0.423)	(0.588)	(0.295)
Baseline Outcome Control	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1727	1727	1727	1727
R^2	0.102	0.149	0.303	0.165
Clusters	300	300	300	300
Control_Mean	26	2.7	13	1.1
Market_v_Church	.9	.13	.022	.081

Gender Heterogeneity Back

Effect on Labor Time Allocation: Gender Heterogeneity

	Agriculture	Commerce	Housework	Formal Job
Church	-0.686	-0.958	0.529	-0.429
	(1.524)	(0.747)	(0.888)	(0.634)
Market - Inside	-1.837	0.277	0.004	0.285
	(1.838)	(0.980)	(1.191)	(0.636)
Market - Outside	0.625	0.397	-1.084	0.909
	(1.708)	(0.895)	(0.930)	(1.055)
Church X Woman	0.397	1.665*	0.269	0.469
	(1.899)	(0.874)	(1.231)	(0.740)
Market - Inside X Woman	1.618	0.666	-0.116	-0.142
	(2.103)	(1.224)	(1.681)	(0.731)
Market - Outside X Woman	-0.783	-0.160	-1.033	-1.024
	(2.050)	(1.055)	(1.187)	(1.158)
Woman	-2.846**	-0.214	8.727***	-0.905**
	(1.377)	(0.713)	(0.952)	(0.428)
Baseline Outcome Control	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1727	1727	1727	1727
R^2	0.101	0.129	0.290	0.159
Clusters	300	300	300	300
Control_Mean	26	2.9	13	1.2
Inside_v_Outside	.2	.9	.38	.56
Inside_v_Church	.52	.1	.66	.27
Outside_v_Church	.43	.068	.086	.22

Back

Effects on Satisfaction from Agricultural Work

	Ease of Work	Ease of Work	Satisfaction of work	Satisfaction of work
Church	-0.043	-0.043	0.010	0.010
	(0.075)	(0.075)	(0.060)	(0.060)
Market	-0.055		0.049	
	(0.075)		(0.067)	
Market - Inside		-0.094		0.040
		(0.098)		(0.078)
Market - Outside		-0.017		0.058
		(0.089)		(0.092)
Controls	Y	Y	Y	Y
Observations	1377	1377	1376	1376
R^2	0.035	0.035	0.023	0.023
Clusters	243	243	243	243
Control_Mean	0	0	0	0
Market_v_Church	.88		.56	
Inside_v_Outside		.49		.86
Inside_v_Church		.61		.7
Outside_v_Church		.78		.6

Back

Satisfaction from Commercial Work: Survey Questions

- How physically tiring and strenuous do you find [agricultural/commercial] work? (Not at all = 1, ... , Very = 4)
- How much satisfaction and fulfillment do you get from [agricultural/commercial] work? (None = 1, ... , Very much = 4)

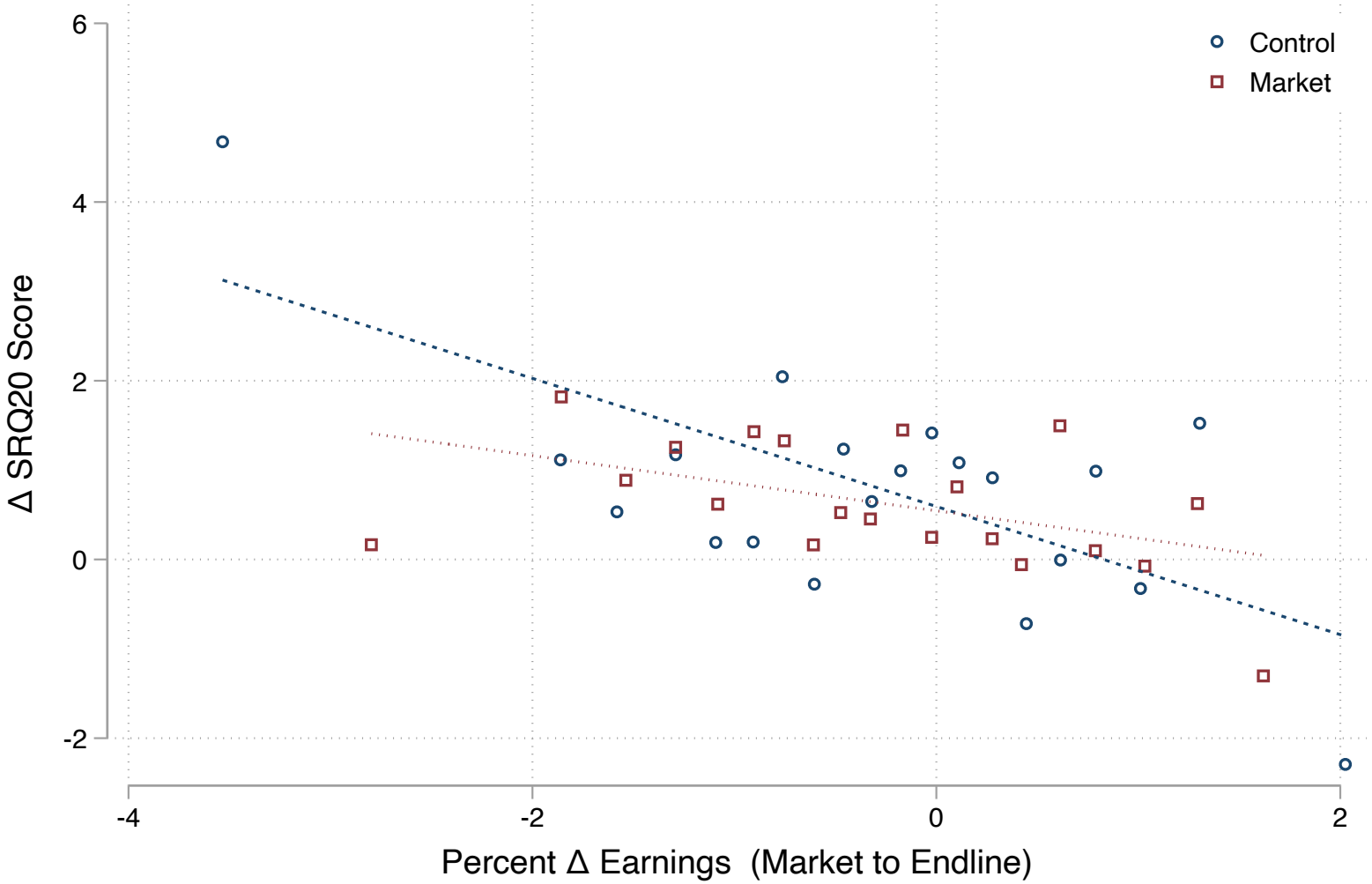
Back

Market ↑ Participants in Village Income Ranking

	Δ Rank	|Δ Rank|	Increase Rank	Decrease Rank
Church × Participant	0.133	0.255	-0.019	0.005
	(0.265)	(0.191)	(0.028)	(0.029)
Church × Friend	-0.066	0.041	-0.020	0.047*
	(0.269)	(0.196)	(0.027)	(0.028)
Church × Non-Friend	-0.170	-0.251	-0.002	0.013
	(0.474)	(0.319)	(0.050)	(0.050)
Market × Participant	0.542**	0.271	0.059**	-0.057**
	(0.247)	(0.179)	(0.027)	(0.029)
Market × Friend	-0.013	0.042	-0.016	0.020
	(0.261)	(0.205)	(0.027)	(0.027)
Market × Non-Friend	-0.470	0.226	-0.016	0.048
	(0.467)	(0.336)	(0.046)	(0.049)
Friend	0.616*	0.180	0.068*	-0.098***
	(0.340)	(0.184)	(0.035)	(0.036)
Non-Friend	0.867**	-0.131	0.055	-0.086**
	(0.394)	(0.274)	(0.038)	(0.042)
Stratum FE	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	3975	3975	3975	3975
Control_Mean	-.37	4	.42	.47
Market_v_Church_Main	.11	.94	.0027	.019
Market_v_Church_Network	.83	1	.86	.28
Market_v_Church_Nonnetwork	.54	.13	.78	.5

Back

(Insignificant) Neg. Relationship b/w Δ Income & Δ SRQ20 Scores

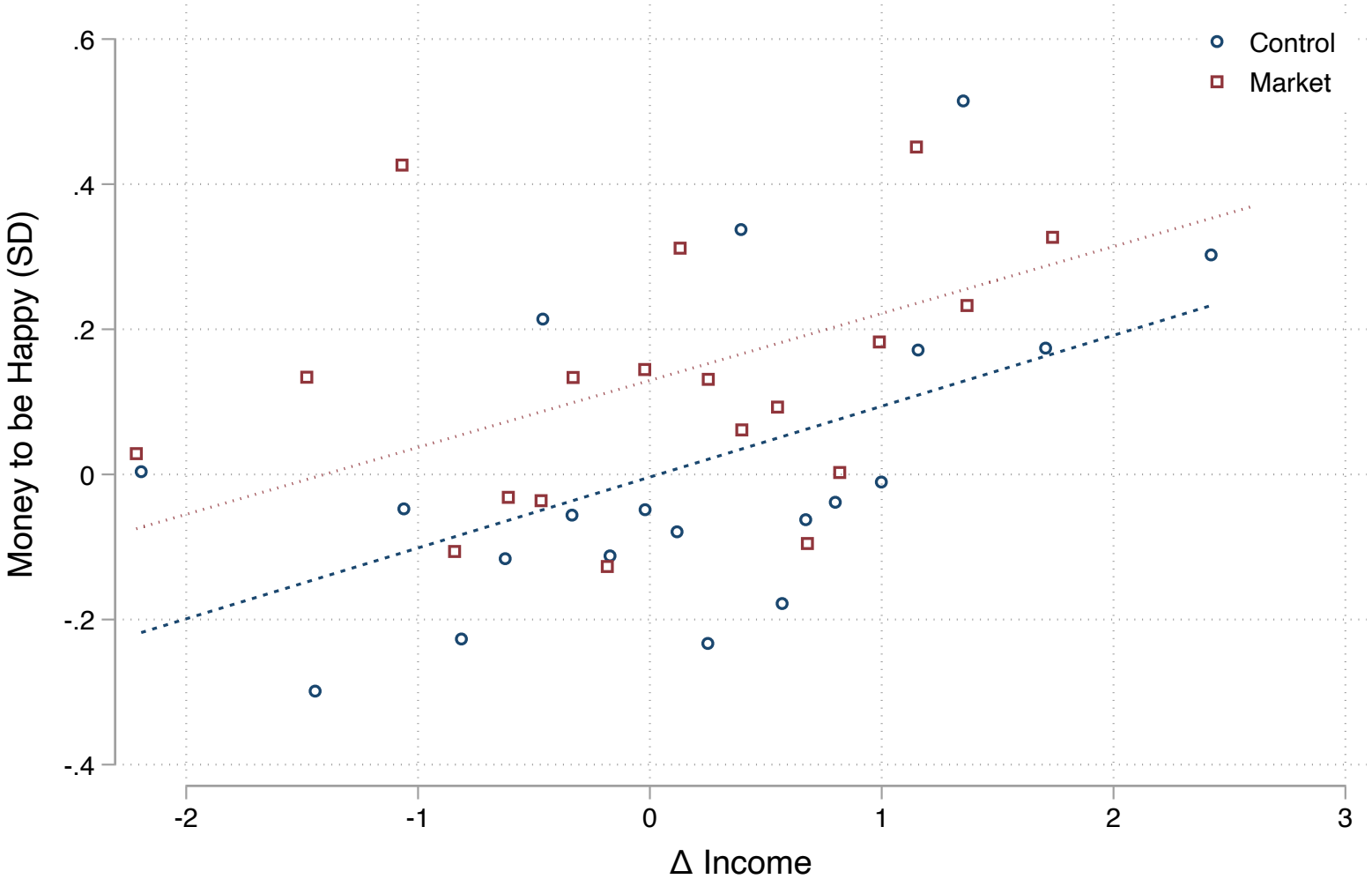


Back

Assessing Income Effect Mechanism

- **Empirical implications**:
  1. Within market arm, expect correlation between:
     - Income increases from baseline to endline
     - Perceived money to be happy

Δ Income and Money to be Happy: Market v. Control



Crop heterogeneity Back

Assessing Inequality Mechanism

- **Empirical implications**: vis-a-vis people in village

    1. Correlation between increases in income variance within a village and perceived amount of money to be happy

Δ Income Variance Correlated with Money to be Happy

	Money to be Happy	Money to be Happy
Δ Income Variance	0.045*	
	(0.027)	
Increase in Income Variance (1-0)		0.128
		(0.098)
Controls	Y	Y
Observations	587	587
Control_Mean	.69	.69

Back

Assessing Inequality Mechanism

- **Empirical implications**: vis-a-vis people in Kananga

    1. Expect effect of program to be more pronounced where people were exposed to richer urban church congregants

No Heterogeneity By Urban Congregant Wealth

	Income to be Happy	Income to be Happy	Income to be Happy	Income to be Happy
Church	0.065	0.059	0.141	0.039
	(0.062)	(0.086)	(0.092)	(0.074)
Market	0.153**	0.153**	0.153**	0.153**
	(0.061)	(0.061)	(0.061)	(0.061)
Church × Wealth ≥ p50		0.010		
		(0.096)		
Church × Edu ≥ p50			-0.144	
			(0.094)	
Church × Income ≥ p50				0.054
				(0.101)
Controls	Y	Y	Y	Y
Observations	1725	1725	1725	1725
Control_Mean	0	0	0	0
Market_v_Church	.18	.29	.9	.15

Back

Depression: Quantile Treatment Effects

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
Church	-0.167	0.001	0.251	0.458	0.521*	0.627*	0.539*	0.457	0.316
	(0.259)	(0.234)	(0.323)	(0.320)	(0.308)	(0.330)	(0.301)	(0.281)	(0.353)
Market	-0.056	0.146	0.578**	0.692**	0.514*	0.677**	0.494	0.440*	0.018
	(0.342)	(0.318)	(0.255)	(0.291)	(0.291)	(0.321)	(0.322)	(0.266)	(0.369)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1728	1728	1728	1728	1728	1728	1728	1728	1728
ControlMean	10	10	10	10	10	10	10	10	10
R2	.13	.16	.17	.19	.19	.18	.17	.14	.096
Ftest	.74	.64	.34	.45	.98	.87	.89	.95	.21

Back

Depression: Effects on Each Question (1-10)

	Do you often have headeaches?	Is your appetite poor?	Do you sleep badly?	Do your hands shake?	Are you easily frightened?	Do you feel nervous, tense or worried?	Is your digestion poor?	Do you have trouble thinking clearly?	Do you feel unhappy?	Do you cry more than usual?
Church	0.013	0.010	0.034	0.028	-0.013	0.023	0.021	0.029	0.000	-0.003
	(0.024)	(0.027)	(0.030)	(0.031)	(0.027)	(0.027)	(0.031)	(0.031)	(0.023)	(0.031)
Market	0.030	0.010	0.016	0.006	0.013	-0.016	0.029	0.016	-0.008	0.028
	(0.023)	(0.027)	(0.028)	(0.030)	(0.026)	(0.028)	(0.030)	(0.029)	(0.023)	(0.029)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1722	1724	1722	1723	1719	1727	1722	1723	1720	1721
R^2	0.128	0.068	0.090	0.121	0.100	0.128	0.094	0.084	0.081	0.121
Clusters	300	300	300	300	300	300	300	300	300	300
ControlMean	.79	.72	.59	.34	.25	.64	.38	.48	.82	.45
Ftest	.46	.98	.55	.44	.3	.16	.79	.68	.69	.28

Back

Depression: Effects on Each Question (11-20)

	Do you find it difficult to enjoy your daily activities?	Do you find it difficult to make decisions?	Has your work recently declined in quality?	Are you unable to play a useful part in life?	Have you lost interest in things?	Do you feel that you are a worthless person?	Has the thought of ending your life been on your mind?	Do you feel tired all the time?	Do you have uncomfortable feelings in your stomach?	Are you easily tired?
Church	-0.020	0.009	0.036	0.066**	-0.006	0.034	0.018	0.018	0.059**	0.044
	(0.030)	(0.030)	(0.030)	(0.031)	(0.021)	(0.028)	(0.024)	(0.031)	(0.030)	(0.030)
Market	0.027	0.060**	0.018	0.070**	-0.001	0.088***	0.024	0.027	0.035	-0.021
	(0.030)	(0.029)	(0.027)	(0.029)	(0.021)	(0.030)	(0.024)	(0.030)	(0.030)	(0.030)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1724	1723	1724	1722	1726	1722	1726	1724	1725	1727
R^2	0.083	0.119	0.092	0.084	0.077	0.110	0.204	0.158	0.141	0.137
Clusters	300	300	300	300	300	300	300	300	300	300
ControlMean	.56	.4	.59	.48	.84	.53	.25	.44	.46	.45
Ftest	.11	.078	.52	.88	.85	.041	.81	.77	.42	.026

Back

Depression: Effects on Each Question (1-10) - Men

	Do you often have headeaches?	Is your appetite poor?	Do you sleep badly?	Do your hands shake?	Are you easily frightened?	Do you feel nervous, tense or worried?	Is your digestion poor?	Do you have trouble thinking clearly?	Do you feel unhappy?	Do you cry more than usual?
Church	0.027	0.005	0.022	-0.014	0.020	0.051	0.043	0.030	0.016	-0.024
	(0.036)	(0.037)	(0.040)	(0.040)	(0.035)	(0.039)	(0.041)	(0.042)	(0.031)	(0.039)
Market	0.019	0.017	0.009	-0.009	0.035	-0.004	0.010	0.014	-0.036	0.038
	(0.036)	(0.034)	(0.038)	(0.040)	(0.031)	(0.040)	(0.038)	(0.039)	(0.031)	(0.039)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	854	854	853	854	849	856	855	854	851	852
R^2	0.139	0.089	0.114	0.110	0.117	0.113	0.104	0.079	0.116	0.119
Clusters	300	300	300	300	300	300	300	300	300	300
ControlMean	.72	.69	.6	.32	.17	.52	.35	.44	.82	.39
Ftest	.81	.72	.76	.9	.65	.16	.41	.69	.098	.12

Back

Depression: Effects on Each Question (1-10) - Women

	Do you often have headeaches?	Is your appetite poor?	Do you sleep badly?	Do your hands shake?	Are you easily frightened?	Do you feel nervous, tense or worried?	Is your digestion poor?	Do you have trouble thinking clearly?	Do you feel unhappy?	Do you cry more than usual?
Church	0.007	0.020	0.040	0.070*	-0.050	-0.007	0.000	0.027	-0.014	0.028
	(0.030)	(0.036)	(0.039)	(0.040)	(0.038)	(0.034)	(0.040)	(0.040)	(0.032)	(0.041)
Market	0.038	0.003	0.017	0.024	-0.013	-0.033	0.046	0.016	0.020	0.026
	(0.029)	(0.038)	(0.038)	(0.040)	(0.039)	(0.034)	(0.039)	(0.039)	(0.029)	(0.037)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	868	870	869	869	870	871	867	869	869	869
R^2	0.093	0.088	0.092	0.152	0.084	0.090	0.110	0.111	0.081	0.140
Clusters	300	300	300	300	300	300	300	300	300	300
ControlMean	.85	.75	.59	.35	.34	.76	.42	.52	.81	.51
Ftest	.27	.64	.56	.24	.31	.45	.25	.79	.25	.96

Back

Depression: Effects on Each Question (11-20) - Men

	Do you find it difficult to enjoy your daily activities?	Do you find it difficult to make decisions?	Has your work recently declined in quality?	Are you unable to play a useful part in life?	Have you lost interest in things?	Do you feel that you are a worthless person?	Has the thought of ending your life been on your mind?	Do you feel tired all the time?	Do you have uncomfortable feelings in your stomach?	Are you easily tired?
Church	-0.054	0.005	0.011	0.047	-0.024	-0.027	0.024	0.024	0.074*	0.071*
	(0.041)	(0.039)	(0.039)	(0.044)	(0.030)	(0.038)	(0.033)	(0.039)	(0.041)	(0.040)
Market	0.015	0.100**	0.005	0.074*	0.020	0.071*	0.025	0.027	0.059	0.025
	(0.040)	(0.039)	(0.039)	(0.041)	(0.029)	(0.039)	(0.031)	(0.038)	(0.039)	(0.040)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	854	854	855	854	855	854	856	855	855	856
R^2	0.108	0.136	0.113	0.117	0.099	0.131	0.174	0.154	0.162	0.129
Clusters	300	300	300	300	300	300	300	300	300	300
ControlMean	.55	.33	.56	.45	.86	.54	.2	.37	.39	.35
Ftest	.073	.012	.89	.53	.14	.0092	.98	.93	.7	.22

Back

Depression: Effects on Each Question (11-20) - Women

	Do you find it difficult to enjoy your daily activities?	Do you find it difficult to make decisions?	Has your work recently declined in quality?	Are you unable to play a useful part in life?	Have you lost interest in things?	Do you feel that you are a worthless person?	Has the thought of ending your life been on your mind?	Do you feel tired all the time?	Do you have uncomfortable feelings in your stomach?	Are you easily tired?
Church	0.025	0.018	0.065*	0.086**	0.017	0.095**	0.015	0.014	0.053	0.033
	(0.042)	(0.042)	(0.037)	(0.042)	(0.032)	(0.039)	(0.036)	(0.042)	(0.039)	(0.037)
Market	0.047	0.035	0.034	0.070*	-0.021	0.105**	0.024	0.032	0.012	-0.063
	(0.041)	(0.042)	(0.037)	(0.039)	(0.031)	(0.041)	(0.035)	(0.041)	(0.039)	(0.040)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	870	869	869	868	871	868	870	869	870	871
R^2	0.103	0.123	0.100	0.084	0.083	0.119	0.237	0.159	0.138	0.153
Clusters	300	300	300	300	300	300	300	300	300	300
ControlMean	.58	.46	.61	.52	.81	.52	.29	.52	.53	.54
Ftest	.61	.71	.41	.7	.24	.8	.81	.65	.28	.013

Back

SRQ20: Inside v. Outside Market

	Nights Hungry	SRQ Score	Depression (>10)	Q1	Q2	Q3	Q4
Church	0.097	0.351	0.046	0.093	0.437	0.737**	0.464*
	(0.066)	(0.322)	(0.030)	(0.231)	(0.318)	(0.312)	(0.270)
Market - Inside	-0.034	0.546	0.066*	0.497	0.764***	0.636*	0.589**
	(0.071)	(0.381)	(0.035)	(0.438)	(0.284)	(0.352)	(0.292)
Market - Outside	-0.056	0.192	0.047	0.066	0.619*	0.686*	0.461
	(0.070)	(0.390)	(0.033)	(0.459)	(0.368)	(0.369)	(0.313)
Stratum FE	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	1727	1727	1727	1727	1727	1727	1727
Control_Mean	0	10	.48	10	10	10	10
R2	.12	.26	.16	.16	.19	.18	.14
Inside_v_Outside	.78	.42	.63	.45	.68	.9	.69
Inside_v_Church	.079	.6	.57	.33	.28	.78	.68
Outside_v_Church	.043	.68	.96	.95	.63	.89	.99

Back

Unpacking Wellbeing

	Emotional	Emotional	Physical	Physical	Functional	Functional
Church	0.024	0.024	0.079	0.079	0.070	0.070
	(0.057)	(0.057)	(0.059)	(0.059)	(0.061)	(0.061)
Market	0.052		0.040		0.109*	
	(0.056)		(0.059)		(0.058)	
Market - Inside		0.057		0.076		0.162**
		(0.067)		(0.072)		(0.070)
Market - Outside		0.046		0.004		0.057
		(0.071)		(0.072)		(0.068)
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1727	1727	1727	1727	1727	1727
Control_Mean	0	0	0	0	0	0
Market_v_Church	.62		.49		.49	
Inside_v_Outside		.89		.37		.16
Inside_v_Church		.61		.97		.18
Outside_v_Church		.76		.29		.84

Back

SRQ20: Gender Heterogeneity

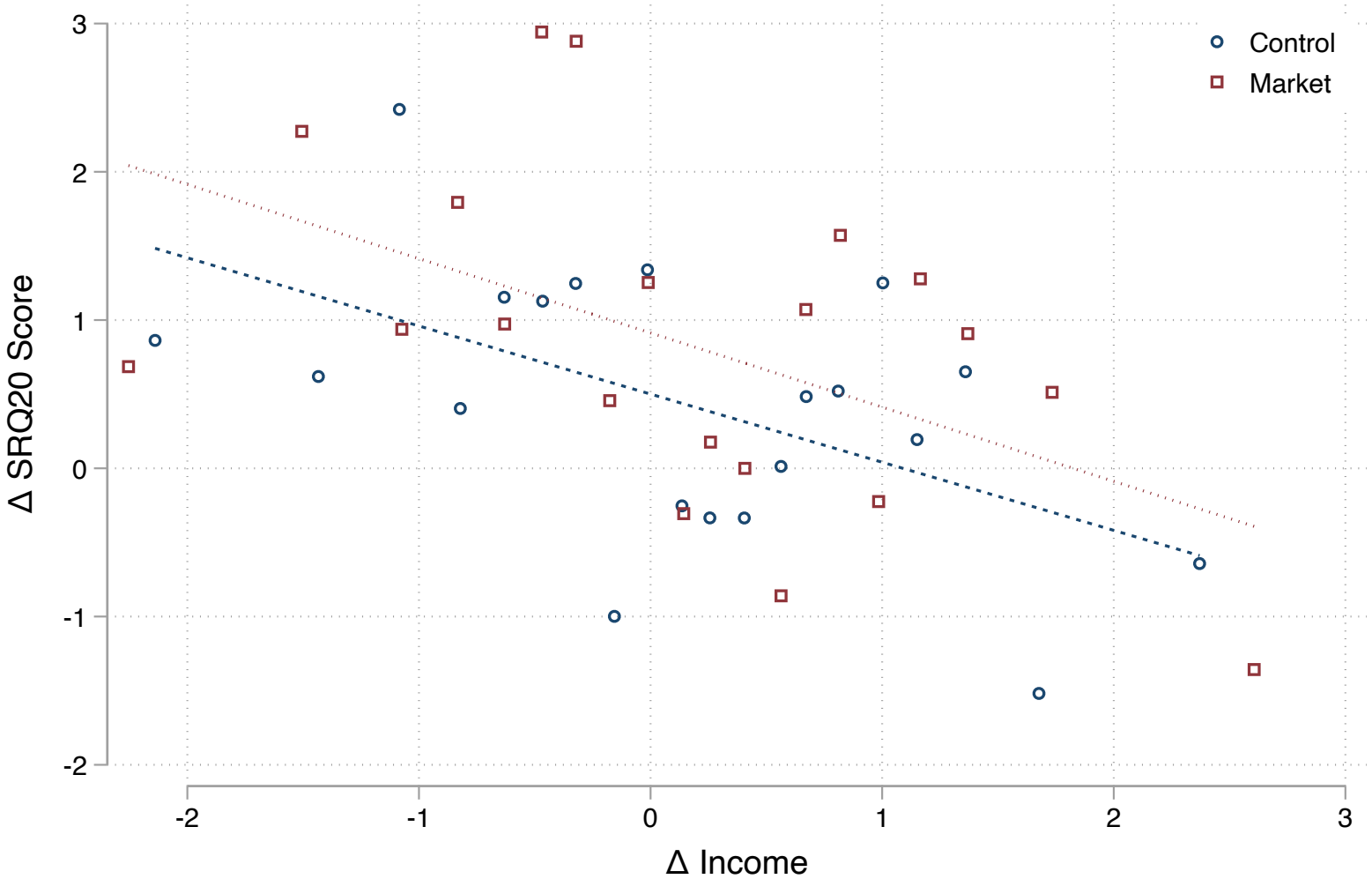
	SRQ Score	SRQ Score	Depression (>10)	Depression (>10)
Church	0.351	0.352	0.046	0.046
	(0.322)	(0.322)	(0.030)	(0.030)
Market - Inside	0.546	0.696	0.066*	0.082*
	(0.381)	(0.481)	(0.035)	(0.045)
Market - Outside	0.192	0.176	0.047	0.034
	(0.390)	(0.476)	(0.033)	(0.046)
Market - Inside X Woman		-0.300		-0.033
		(0.620)		(0.057)
Market - Outside X Woman		0.030		0.027
		(0.567)		(0.064)
Woman		1.386***		0.135***
		(0.311)		(0.030)
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1727	1727	1727	1727
R^2	0.255	0.255	0.163	0.164
Clusters	300	300	300	300
Control_Mean	10	10	.48	.48
Inside_v_Outside	.42	.36	.63	.37
Inside_v_Church	.6	.47	.57	.42
Outside_v_Church	.68	.72	.96	.8

Back

Assessing Income Effect Mechanism

- **Empirical implications**:
  1. Changes in income positively associated with worse subjective wellbeing?

Income Increases Associated with *Better* Wellbeing



Assessing Stress of Commercial Work Mechanism

- **Empirical implications**:
  1. Market participants report stress from commercial work?
  2. Within-individual market income volatility associated with worse subjective wellbeing?

Increase in Satisfaction from Commercial Work

	Ease of Work	Ease of Work	Satisfaction of work	Satisfaction of work
Church	0.010	0.010	-0.032	-0.032
	(0.073)	(0.073)	(0.069)	(0.069)
Market	0.209***		0.237***	
	(0.067)		(0.070)	
Market - Inside		0.156*		0.232***
		(0.086)		(0.083)
Market - Outside		0.261***		0.242***
		(0.077)		(0.086)
Controls	Y	Y	Y	Y
Observations	1377	1377	1377	1377
R^2	0.050	0.051	0.056	0.056
Clusters	243	243	243	243
Control_Mean	0	0	0	0
Market_v_Church	.0058		.000069	
Inside_v_Outside		.27		.92
Inside_v_Church		.1		.0013
Outside_v_Church		.0023		.0011

- No change in satisfaction from agricultural work Go Survey Questions

Back

Assessing Stress of Commercial Work Mechanism

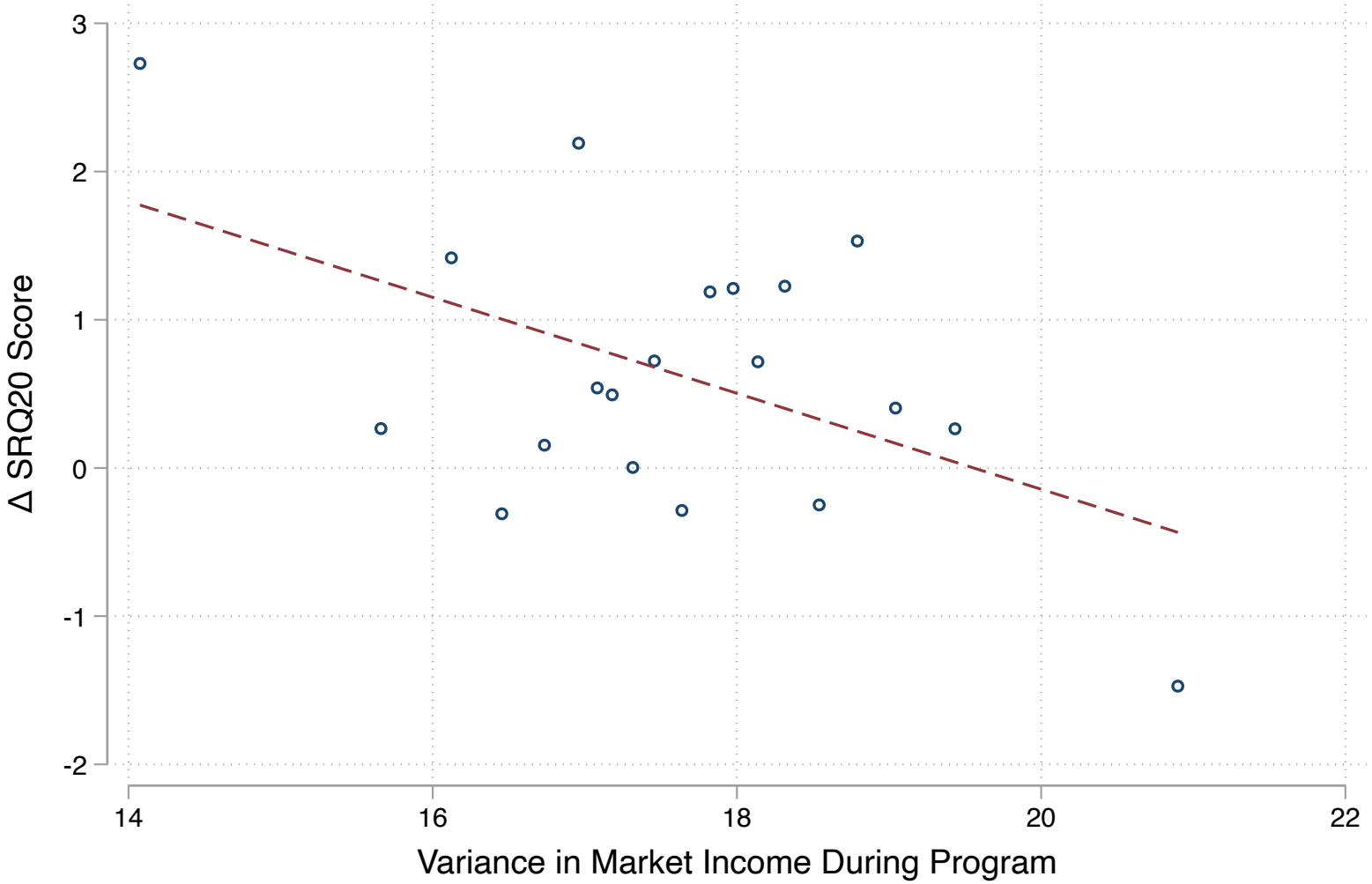
- **Empirical implications**:

  1. Market participants report stress from commercial work?

     × The opposite: increases in perceived ease / satisfaction Go

  2. Within-individual market income volatility associated with worse subjective wellbeing?

Discontent Not Increasing in Market Income Volatility



Back

Assessing Inequality Mechanism

- **Inequality**: observing others with more material possessions changes reference point $\rightarrow$ feel worse off

  1. vis-à-vis people in village
  2. vis-à-vis people in Kananga

vis-à-vis spouse Back

Assessing Inequality Mechanism

- **Empirical implications**: vis-à-vis people in village

  1. Does market treatment increase within-village income variance? Is variance associated with worse subjective wellbeing?

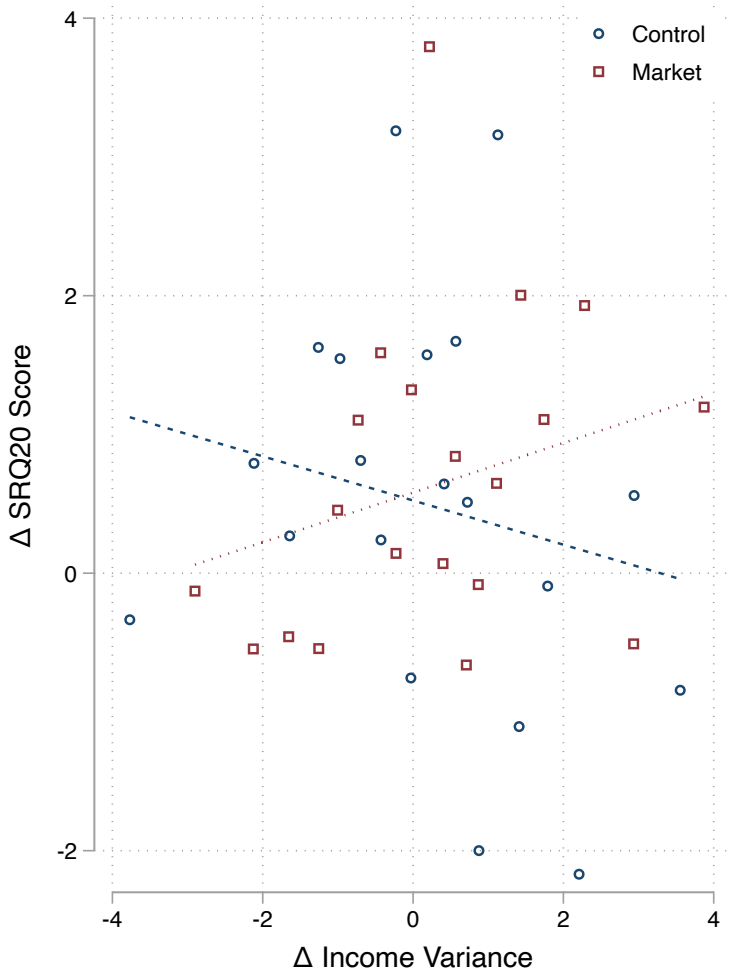
Markets ↑ Income Inequality, and Inequality ↓ Wellbeing

	All Treatments		Market Arm Only			
	Income Variance	Increase in Income Variance (1-0)	Δ SRQ20		Money to be Happy	
Church	0.102	0.008				
	(0.073)	(0.066)				
Market	0.262***	0.184***				
	(0.071)	(0.064)				
Δ Income Variance			0.091		0.084**	
			(0.150)		(0.038)	
Increase in Income Variance (1-0)				1.184**		0.073
				(0.571)		(0.103)
Baseline Outcome	Y	N	N	N	N	N
Controls	Y	Y	Y	Y	Y	Y
Observations	1727	1727	588	588	587	587
Control_Mean	.71	.47	.68	.68	.69	.69
Market_v_Church	.044	.0095				

- Market access increases income variance
- Increases in income variance positively correlated with worsening wellbeing

Crop heterogeneity Back

Within-Village Inequality Associated with Worse Wellbeing in Market



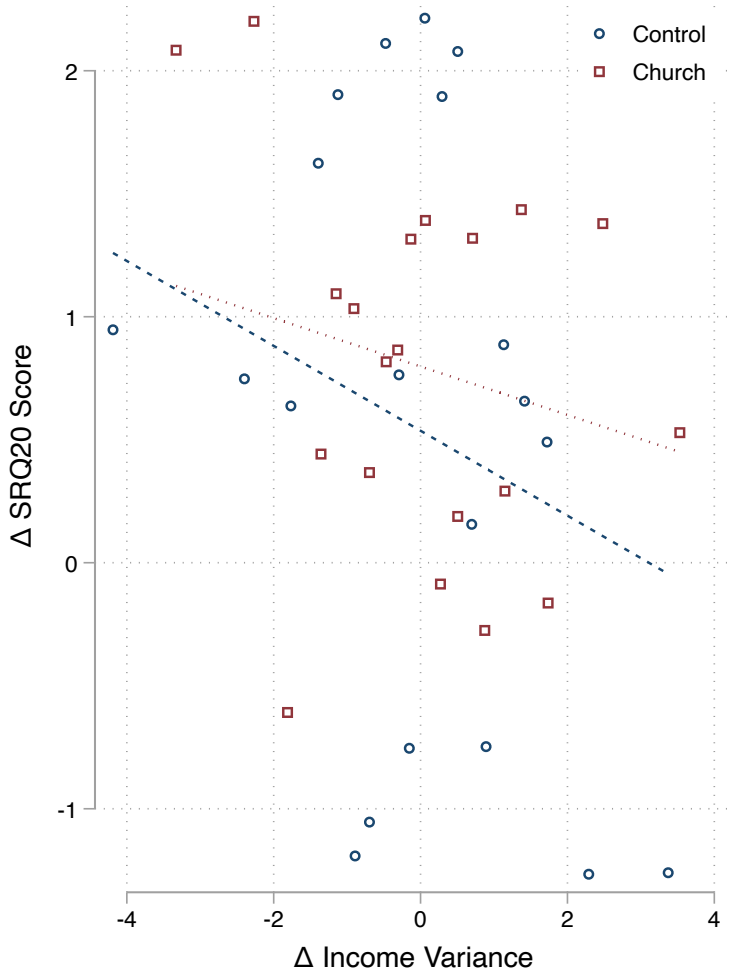


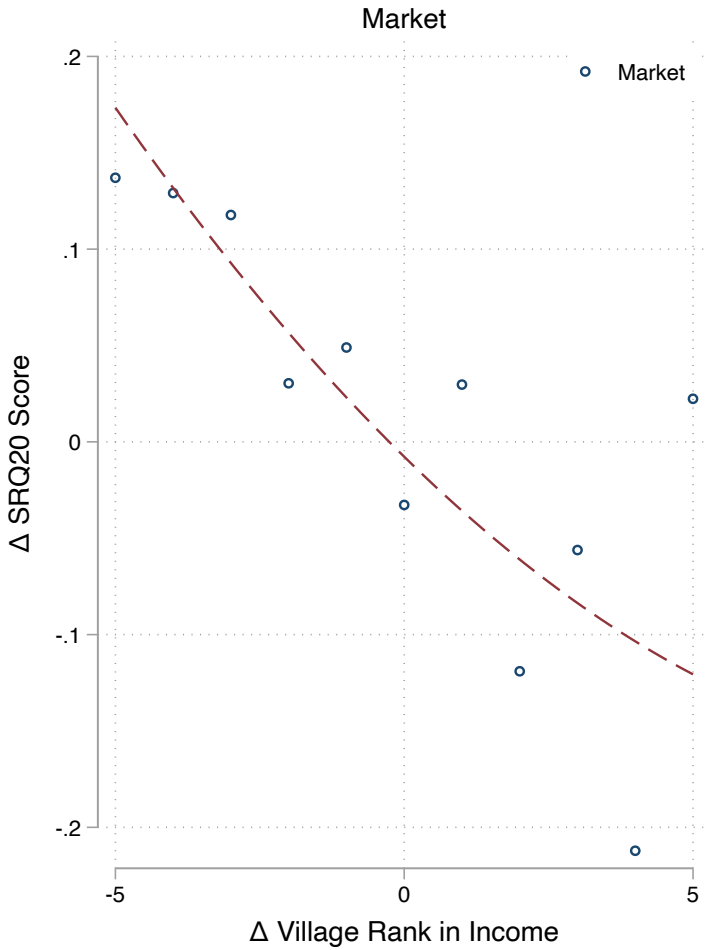
Table Crop heterogeneity Back

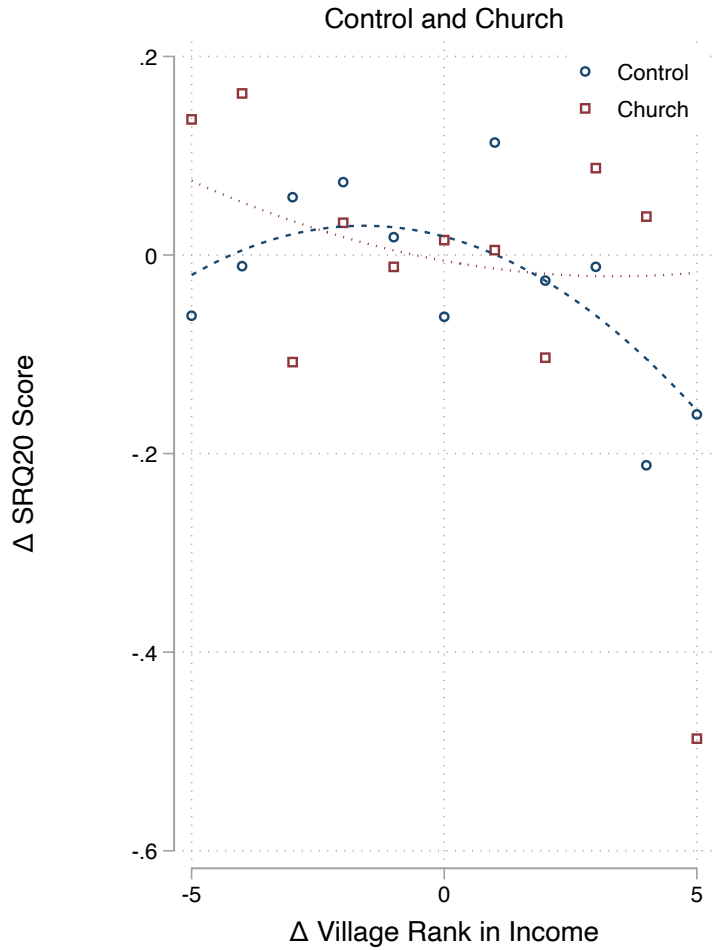
Assessing Inequality Mechanism

- **Empirical implications**: vis-à-vis people in village

  2. Income rank relative to others in village may be what matters.
     - Do changes in relative income rank in village co-move with wellbeing?
     - Is this differentially the case in the market arm?

Δ Income Rank in Village and Δ Wellbeing





- Slope difference w/r/t control (p=0.088) Table

Graphs - All Back

Assessing Inequality Mechanism

- **Empirical implications**: vis-à-vis people in village

  3. Spillovers on subjective wellbeing of participants' networks?

Spillovers on Wellbeing of "Network" Respondents

	Income	Depression
Church × Participant	0.069	0.045
	(0.073)	(0.030)
Church × Network	-0.008	0.026
	(0.074)	(0.029)
Church × Non-Network	-0.022	0.025
	(0.110)	(0.045)
Market × Participant	0.202***	0.056**
	(0.077)	(0.028)
Market × Network	-0.063	0.062**
	(0.076)	(0.028)
Market × Non-Network	-0.026	-0.051
	(0.120)	(0.047)
Network	0.108	-0.002
	(0.067)	(0.028)
Non-Network	0.106	0.029
	(0.092)	(0.038)
Baseline Outcome	Y	Y
Controls	Y	Y
Observations	3975	3998
Control_Mean	.041	.48

Heterogeneity Back

Assessing Inequality Mechanism

- **Empirical implications**: vis-à-vis people in Kananga

  1. Effects on discontent concentrated among participants exogenously exposed to richer people in Kananga?

     - We do not observe whom market participants interact with
     - But, we observe this in the Church arm, where effects on subjective wellbeing are similar

Heterogeneity by Wealth of Church Network

	Depression	Depression	Depression	Depression
Church	0.046	0.064	0.065*	0.061
	(0.030)	(0.040)	(0.036)	(0.037)
Market	0.056**	0.056**	0.056**	0.056**
	(0.028)	(0.028)	(0.028)	(0.028)
Church × Wealth ≥ p50		-0.031		
		(0.046)		
Church × Edu ≥ p50			-0.038	
			(0.045)	
Church × Income ≥ p50				-0.032
				(0.047)
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1727	1727	1727	1727
Control_Mean	.48	.48	.48	.48
Market_v_Church	.71	.84	.8	.91

- Reduction in wellbeing not more pronounced in churches with urban congregants of above-median wealth (possessions), education, or income

Back

Inequality within the Household?

- **Empirical implications**: does the market arm fuel inequality within the household, thereby fueling discontent?

  1. Treatment effects on within-household income differences

  2. Correlation between gender income gaps and SRQ20 scores

Income: Household-Level Analysis

	Individual-level		Household-level			
	Mean Income	Mean Income	Mean Income	Total Income	Male-Female Income	Abs(Male-Female Income)
Church	0.072	0.007	0.078	0.140	-0.151	0.027
	(0.073)	(0.091)	(0.072)	(0.140)	(0.105)	(0.081)
Market	0.199***	0.302***	0.203***	0.391***	0.204*	0.194**
	(0.076)	(0.102)	(0.075)	(0.148)	(0.109)	(0.087)
Church × Woman		0.128				
		(0.106)				
Market × Woman		-0.208*				
		(0.110)				
Woman		-0.048				
		(0.072)				
Baseline Outcome	Y	Y	Y	Y	Y	Y
Observations	1720	1720	885	886	835	835
Control_Mean	0	0	-.012	0	.13	.78
Market_v_Church	.092	.0029	.095	.089	.0015	.052

- Market increases male-female income gap (as well as overall dispersion in income within the household)

Back

Gender Income Gap and Wellbeing

	Market Arm		Church Arm		Control Arm	
	Female SRQ	Male SRQ	Female SRQ	Male SRQ	Female SRQ	Male SRQ
Income Gap (M - F)	-0.003	-0.712***	0.119	-0.041	0.710**	-0.406
	(0.252)	(0.220)	(0.205)	(0.241)	(0.294)	(0.283)
Observations	290	290	274	274	271	271
Outcome_Mean	12	10	12	9.8	11	9.7

- Larger male-female income gaps $\rightarrow$ men happier in the market arm and make women unhappier in the control arm

Back

Gender Income Asymmetry and Wellbeing

	Market Arm		Church Arm		Control Arm	
	Female SRQ	Male SRQ	Female SRQ	Male SRQ	Female SRQ	Male SRQ
Male > Female	0.842		0.518		1.920**	
	(0.742)		(0.662)		(0.840)	
Total HH Income	0.087	-0.364**	0.146	0.043	0.109	0.020
	(0.176)	(0.173)	(0.154)	(0.224)	(0.191)	(0.197)
Female > Male		1.269*		0.934		1.157*
		(0.718)		(0.701)		(0.676)
Observations	290	290	274	274	271	271
Outcome_Mean	12	10	12	9.8	11	9.7

- In general, the partner that makes less has lower wellbeing
- Higher total income only correlated with greater happiness among men in market arm

Back

Assessing Lost Fortune Mechanism

- **Empirical implications**:
  1. Within market arm, expect correlation between:
     - Drops in income from market program to endline, and
     - Worse subjective wellbeing

Do Changes in Income from Treatment to Endline Predict Discontent?

Within-Market Arm Analysis

	Endline Income		SRQ20		
Average Market Earnings	0.145**	-0.358			
	(0.068)	(0.290)			
Percent Earnings Change (BL to Mkt.)			-0.610***		
			(0.215)		
Percent Earnings Change (Mkt. to EL)				-0.072	
				(0.196)	
Lower Weekly Earnings (Mkt. to EL)					0.238
					(0.505)
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	527	527	527	527	527
Dep_Var_Mean	0.04	11	11	11	11

- Income gains from treatment → better wellbeing
- Income decreases (from treatment to endline) → weakly associated with worse wellbeing (insignificant) Table

Back

Heterogeneity by Time Gap between Program and Endline

	SRQ >10	SRQ >10	SRQ Total	SRQ Total
Church	0.046	0.025	0.351	0.169
	(0.030)	(0.044)	(0.322)	(0.470)
Market	0.056**	0.037	0.366	0.149
	(0.028)	(0.039)	(0.318)	(0.459)
Above Median Time Gap		-0.067		-0.831
		(0.062)		(0.653)
Church × Above Median Time Gap		0.044		0.417
		(0.063)		(0.658)
Market × Above Median Time Gap		0.042		0.478
		(0.057)		(0.650)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1727	1727	1727	1727
Control_Mean	.48	.48	10	10
R2	.16	.16	.26	.26
Market_v_Church	.71	.79	.96	.97

Back

Spillovers: Income, Depression, Income to be Happy

	Income	Income	Depression	Depression	Income to be Happy	Income to be Happy
Church × Participant	0.069	0.069	0.045	0.045	0.064	0.064
	(0.073)	(0.073)	(0.030)	(0.030)	(0.061)	(0.061)
Church × Friend	-0.008	-0.008	0.026	0.026	-0.052	-0.052
	(0.074)	(0.074)	(0.029)	(0.029)	(0.068)	(0.068)
Church × Non-Friend	-0.022	-0.022	0.025	0.025	-0.058	-0.058
	(0.110)	(0.110)	(0.045)	(0.045)	(0.108)	(0.108)
Market × Participant	0.202***		0.056**		0.152**	
	(0.077)		(0.028)		(0.061)	
Market × Friend	-0.063		0.062**		0.003	
	(0.076)		(0.028)		(0.081)	
Market × Non-Friend	-0.026		-0.051		-0.026	
	(0.120)		(0.047)		(0.111)	
Friend	0.108	0.108	-0.002	-0.002	0.088	0.088
	(0.067)	(0.067)	(0.028)	(0.028)	(0.058)	(0.058)
Non-Friend	0.106	0.106	0.029	0.029	0.057	0.057
	(0.092)	(0.092)	(0.038)	(0.038)	(0.097)	(0.097)
Inside × Participant		0.139		0.070**		0.198**
		(0.101)		(0.036)		(0.087)
Inside × Friend		-0.049		0.052		0.064
		(0.097)		(0.032)		(0.112)
Inside × Non-Friend		0.103		-0.044		0.109
		(0.157)		(0.058)		(0.154)
Outside × Participant		0.264***		0.043		0.106
		(0.089)		(0.033)		(0.068)
Outside × Friend		-0.076		0.071**		-0.056
		(0.085)		(0.033)		(0.089)
Outside × Non-Friend		-0.157		-0.058		-0.164*
		(0.142)		(0.056)		(0.096)
Baseline Outcome	Y	Y	Y	Y	N	N
Controls	Y	Y	Y	Y	Y	Y
Observations	3975	3975	3998	3998	3976	3976
Control_Mean	.041	.041	.48	.48	.043	.043

Back

Markets and the Multiplication of Artificial "Needs"

- Do markets increase what we feel we "need" to be happy?
  - **Rousseau** (1752): "Since these conveniences by becoming habitual had almost entirely ceased to be enjoyable, and at the same time degenerated into true needs, it became much more cruel to be deprived of them than to possess them was sweet, and men were unhappy to lose them without being happy to possess them."
- Survey question: "How much money per month does your family need to be happy?"

Back

Heterogeneity: Money Needed to be Happy

	Income to be Happy	Income to be Happy	Income to be Happy
Church	0.065	0.065	0.065
	(0.062)	(0.062)	(0.062)
Market	0.153**		
	(0.061)		
Market - Inside		0.203**	0.282**
		(0.085)	(0.140)
Market - Outside		0.104	0.180
		(0.069)	(0.117)
Market - Inside X Woman			-0.157
			(0.149)
Market - Outside X Woman			-0.150
			(0.122)
Woman			-0.288***
			(0.072)
Controls	Y	Y	Y
Observations	1725	1725	1725
R^2	0.056	0.057	0.058
Clusters	300	300	300
Control_Mean	0	0	0
Market_v_Church	.18		
Inside_v_Outside		.3	.53
Inside_v_Church		.12	.13
Outside_v_Church		.59	.33

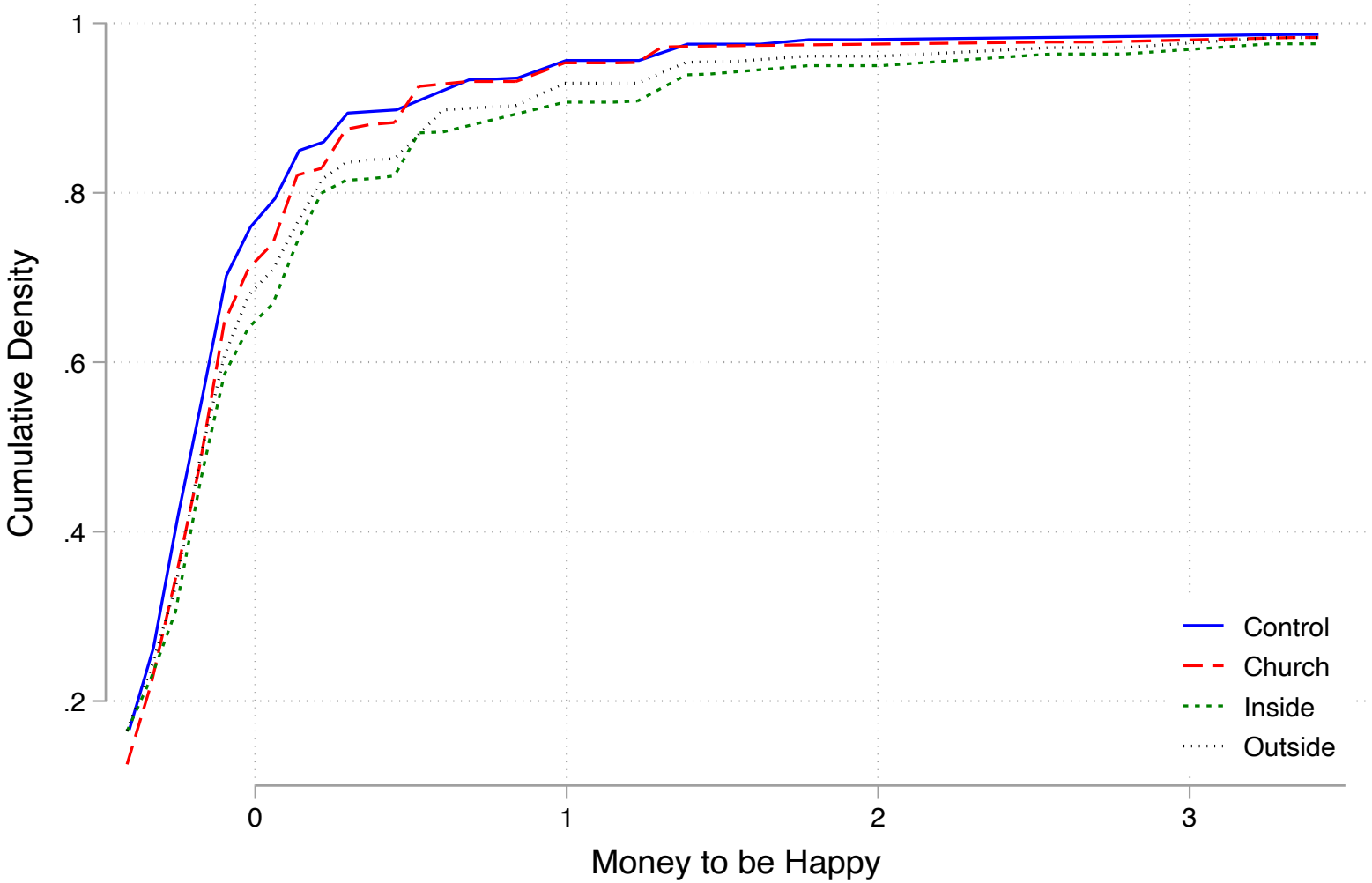
Back

Money Needed to be Happy: IHS

	Income to be Happy	Income to be Happy	Income to be Happy
Church	0.150*	0.150*	0.150*
	(0.077)	(0.077)	(0.077)
Market	0.184**		
	(0.093)		
Market - Inside		0.221	0.384***
		(0.135)	(0.137)
Market - Outside		0.147	0.191
		(0.105)	(0.130)
Market - Inside X Woman			-0.325*
			(0.193)
Market - Outside X Woman			-0.087
			(0.143)
Woman			-0.440***
			(0.075)
Controls	Y	Y	Y
Observations	1725	1725	1725
R^2	0.082	0.083	0.085
Clusters	300	300	300
Control_Mean	13	13	13
Market_v_Church	.72		
Inside_v_Outside		.63	.24
Inside_v_Church		.6	.093
Outside_v_Church		.98	.75

Back

Money Needed to be Happy: CDFs



Back

Discontent – Heterogeneity by Baseline Selling

	Depression	Depression	Depression	Income to be Happy	Income to be Happy	Income to be Happy
Church	0.020	0.020	0.034	0.199**	0.199**	0.258***
	(0.039)	(0.039)	(0.034)	(0.099)	(0.099)	(0.089)
Market	0.039	0.039	0.050	0.175	0.175	0.154
	(0.037)	(0.037)	(0.033)	(0.118)	(0.118)	(0.109)
Any Baseline Selling	-0.028			0.125		
	(0.038)			(0.097)		
Church × Any Baseline Selling	0.054			-0.105		
	(0.054)			(0.136)		
Market × Any Baseline Selling	0.039			0.024		
	(0.052)			(0.156)		
Top Half Seller		-0.028			0.125	
		(0.038)			(0.097)	
Church × Top Half Seller		0.054			-0.105	
		(0.054)			(0.136)	
Market × Top Half Seller		0.039			0.024	
		(0.052)			(0.156)	
Top Quartile Seller			-0.004			0.285**
			(0.047)			(0.114)
Church × Top Quartile Seller			0.042			-0.393**
			(0.062)			(0.160)
Market × Top Quartile Seller			0.024			0.142
			(0.065)			(0.171)
Baseline Outcome Control	Y	Y	Y	N	N	N
Controls	Y	Y	Y	Y	Y	Y
Observations	1727	1727	1727	1725	1725	1725
R^2	0.164	0.164	0.164	0.084	0.084	0.092
Clusters	300	300	300	300	300	300
Control_Mean	.48	.48	.48	13	13	13
Market_v_Church	.62	.62	.64	.84	.84	.35

Back

Relative Status of Self and Future Generations

	Self	Self	Children	Children	Grandchildren	Grandchildren
Church	-0.067	-0.067	-0.099	-0.098	-0.090	-0.090
	(0.065)	(0.065)	(0.066)	(0.066)	(0.071)	(0.071)
Market - Inside	0.010	-0.010	0.120	0.229**	0.150*	0.148
	(0.081)	(0.085)	(0.087)	(0.098)	(0.090)	(0.103)
Market - Outside	0.077	0.005	-0.056	0.020	-0.040	0.022
	(0.082)	(0.104)	(0.079)	(0.098)	(0.084)	(0.098)
Market - Inside X Woman		0.038		-0.215		0.005
		(0.123)		(0.133)		(0.140)
Market - Outside X Woman		0.143		-0.152		-0.123
		(0.135)		(0.122)		(0.124)
Woman		-0.029		-0.074		-0.159**
		(0.057)		(0.061)		(0.065)
Controls	Y	Y	Y	Y	Y	Y
Observations	1727	1727	1655	1655	1635	1635
R^2	0.060	0.061	0.066	0.068	0.073	0.074
Clusters	300	300	300	300	300	300
Control_Mean	1.9	1.9	0	0	0	0
Inside_v_Outside	.49	.9	.073	.074	.076	.3
Inside_v_Church	.35	.51	.013	.0011	.013	.027
Outside_v_Church	.085	.49	.6	.24	.58	.28

- Despite income gains, market participants don't *feel* richer than peers
- Inside market: higher aspirations for future generations?

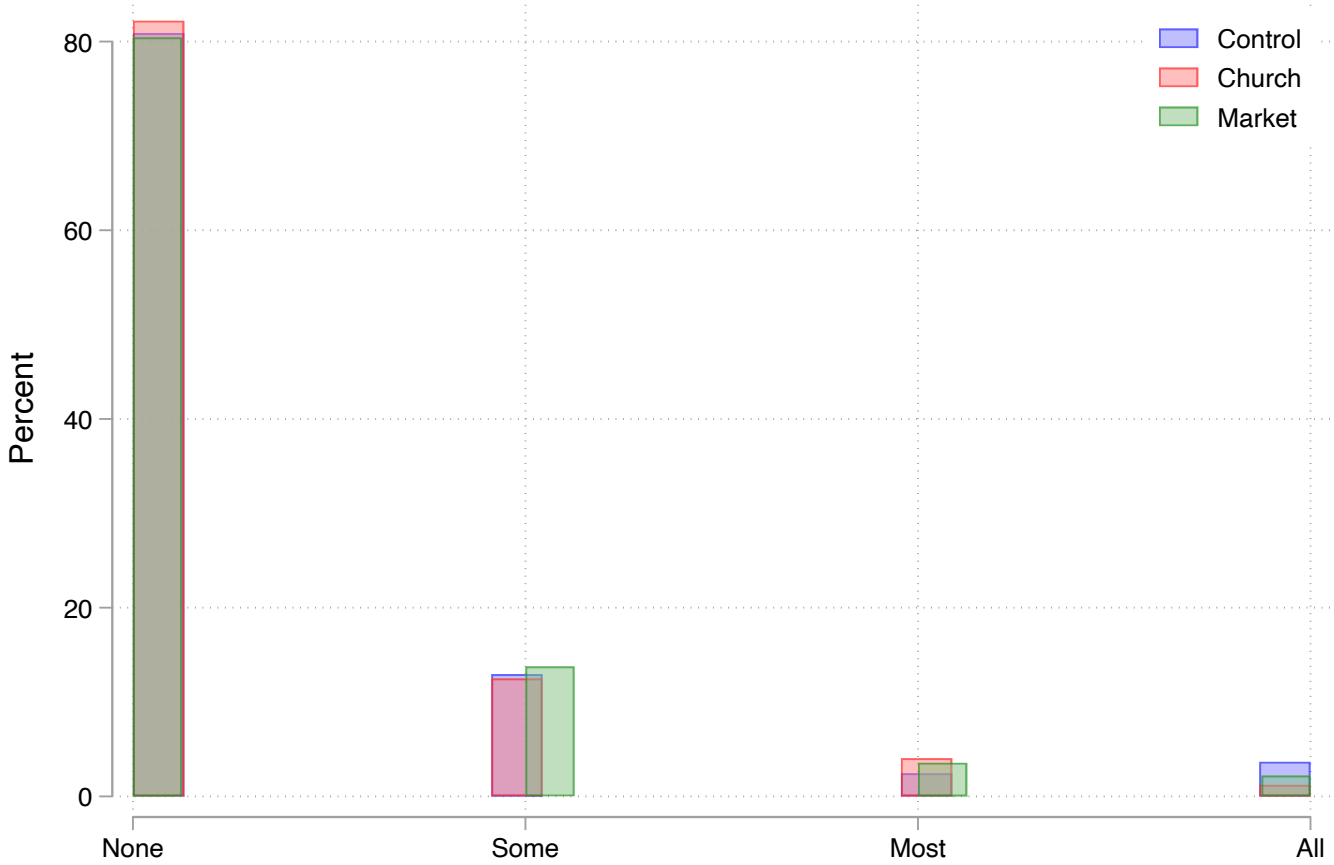
Back

Relative Status of Self and Future Generations

	Self (Village)	Self (Village)	Self (Province)	Self (Province)	Kids	Kids	Grandkids	Grandkids
Church	-0.024	-0.024	-0.080	-0.080	-0.098	-0.099	-0.089	-0.090
	(0.067)	(0.067)	(0.061)	(0.061)	(0.066)	(0.066)	(0.071)	(0.071)
Market	0.062		0.041		0.029		0.052	
	(0.068)		(0.063)		(0.068)		(0.070)	
Market - Inside		0.007		0.038		0.120		0.150*
		(0.082)		(0.074)		(0.087)		(0.090)
Market - Outside		0.116		0.044		-0.056		-0.040
		(0.086)		(0.081)		(0.079)		(0.084)
Baseline Outcome	Y	Y	N	N	N	N	N	N
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1727	1727	1727	1727	1655	1655	1635	1635
Control_Mean	0	0	0	0	0	0	0	0
Market_v_Church	.22		.054		.068		.07	
Inside_v_Outside		.28		.95		.073		.076
Inside_v_Church		.71		.11		.013		.013
Outside_v_Church		.11		.13		.6		.58

Do you have the money needed to be happy?

Back



Hedonic Adaptation?

- Study **gap** between income you have and what you need to be happy

	Income to be Happy	Income to be Happy	Income to be Happy
Church	0.063	0.063	0.063
	(0.062)	(0.062)	(0.062)
Market	0.141**		
	(0.060)		
Market - Inside		0.194**	0.271*
		(0.083)	(0.139)
Market - Outside		0.088	0.154
		(0.069)	(0.118)
Market - Inside X Woman			-0.154
			(0.149)
Market - Outside X Woman			-0.130
			(0.122)
Woman			-0.287***
			(0.072)
Controls	Y	Y	Y
Observations	1719	1719	1719
R^2	0.055	0.056	0.057
Clusters	300	300	300
Control_Mean	0	0	0
Market_v_Church	.24		
Inside_v_Outside		.26	.46
Inside_v_Church		.14	.14
Outside_v_Church		.73	.44

Back

Why Does Average Subjective Wellbeing Decline?

1. **Income effect**: more responsibility? "hedonic treadmill"?
2. **Stress of commercial work**: stressful to engage in commerce or have more variance in weekly income
3. **Inequality effect**: observing others with more material possessions changes reference point $\rightarrow$ feel worse off
4. **Lost fortune**: if participants made more income during the program and then lost it, they might miss the past

Summary: Heterogeneous Impacts of Markets on Wellbeing

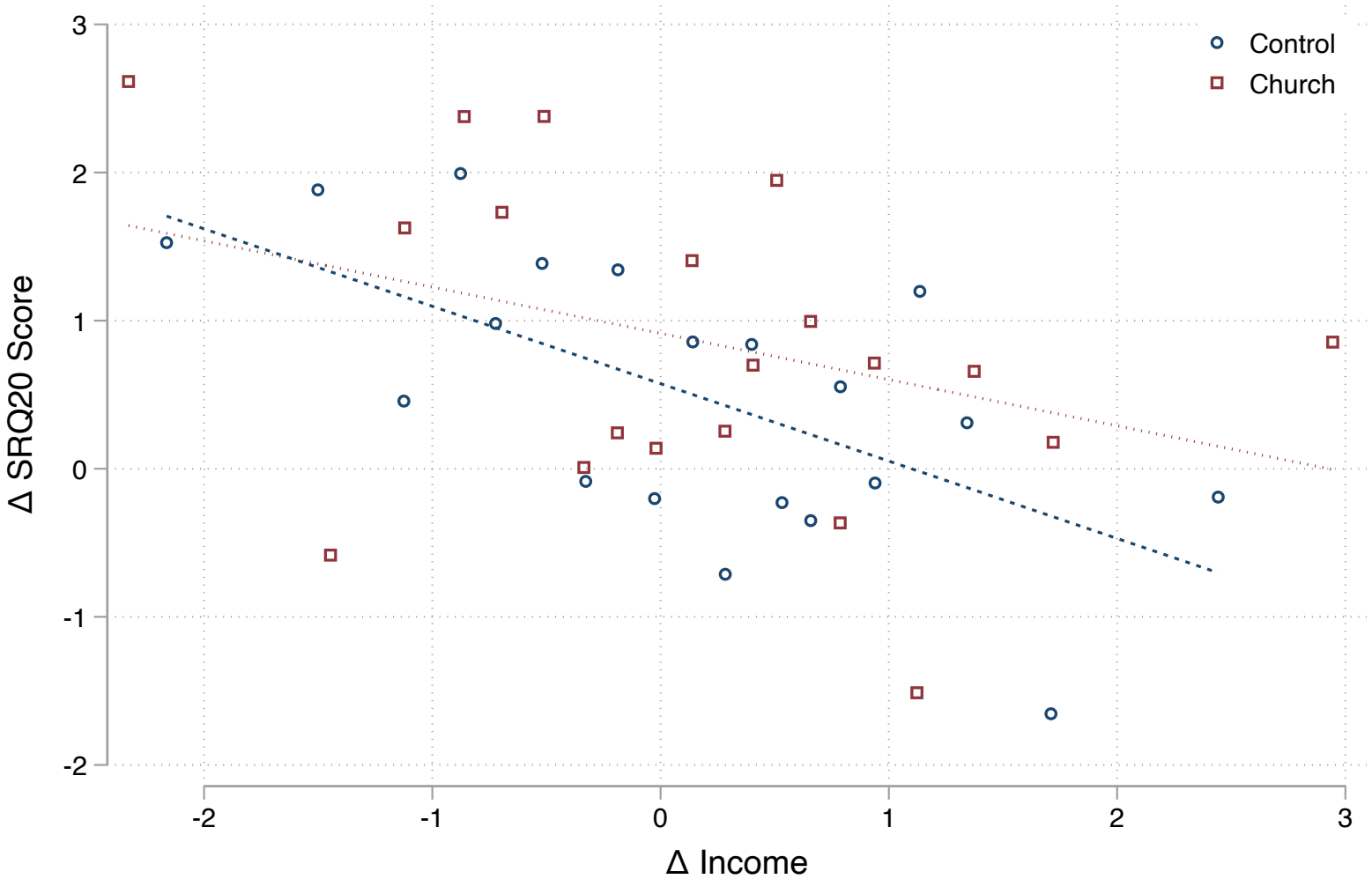
- Despite average income gains and satisfaction with new commercial activities, the market:
  1. $\downarrow$ **Subjective wellbeing** on average:
     - Driven, in part, by greater inequality within villages
     - Market 'winners' appear happier, but non-winners resentful
  2. $\uparrow$ **Money needed to be happy** on average:
     - More pronounced in market villages with larger increases in inequality $\rightarrow$ explained by new reference point?

Discontent and Income Shocks (Endline-Baseline)

	Depression	Depression	Income to be Happy	Income to be Happy
Percent Income Change	-0.555***	-0.302***	0.071**	0.041**
	(0.151)	(0.108)	(0.035)	(0.019)
Church	0.323	0.372	0.064	0.058
	(0.319)	(0.317)	(0.062)	(0.063)
Market	0.400		0.142**	
	(0.324)		(0.060)	
Church × Percent Income Change	0.361*		-0.043	
	(0.195)		(0.041)	
Market × Percent Income Change	0.131		-0.012	
	(0.225)		(0.047)	
Market - Inside		0.605		0.194**
		(0.385)		(0.083)
Market - Outside		0.196		0.087
		(0.404)		(0.069)
Market - Inside × Percent Income Change		-0.335		0.018
		(0.262)		(0.054)
Market - Outside × Percent Income Change		0.122		0.021
		(0.270)		(0.047)
Baseline Outcome	Y	Y	N	N
Controls	Y	Y	Y	Y
Observations	1720	1720	1718	1718
Control_Mean	.48	.48	.002	.002
Market_v_Church	.81		.23	
Inside_v_Outside		.37		.26
Inside_v_Church		.53		.12
Outside_v_Church		.66		.69

Figure: Depression

Income Changes Associated with *Improved* Wellbeing



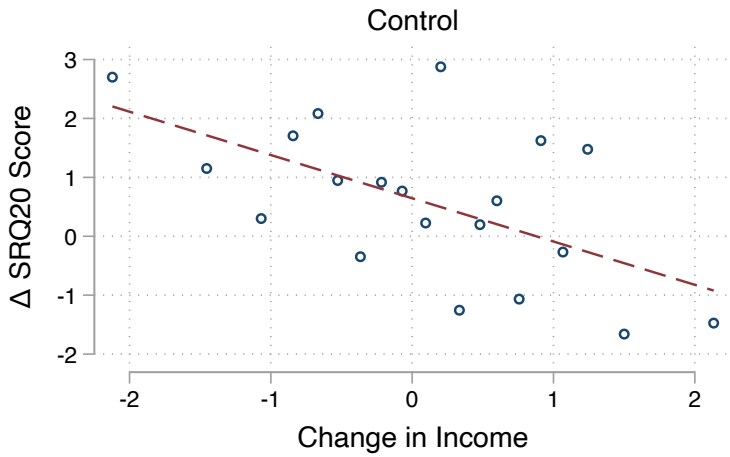
Back

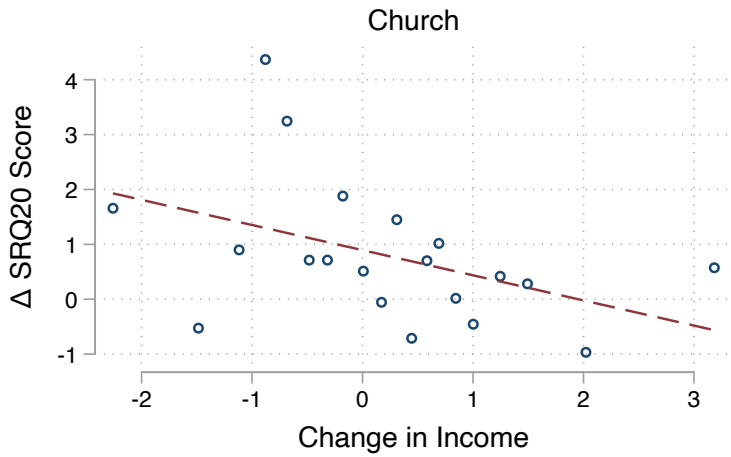
Comparing Effects on Income and Discontent

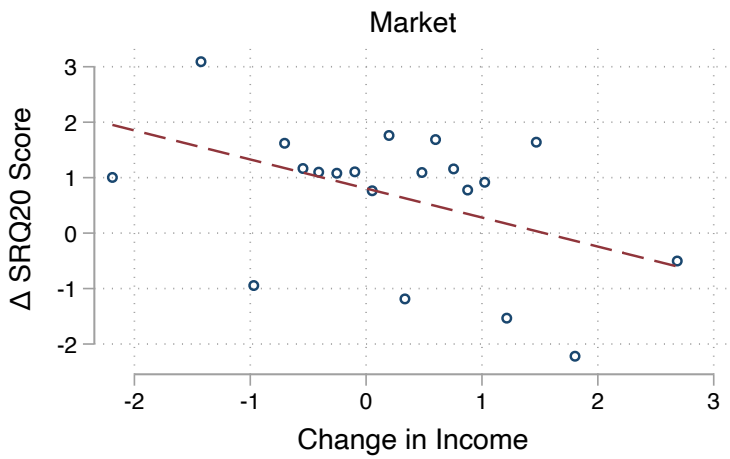
	Income	Income	Income to be Happy	Income to be Happy	Depression	Depression
Church	0.057	0.045	0.065	0.065	0.046	0.053
	(0.073)	(0.081)	(0.062)	(0.062)	(0.030)	(0.033)
Market	0.200***		0.153**		0.056**	
	(0.074)		(0.061)		(0.028)	
Market - Inside		0.144		0.203**		0.075*
		(0.109)		(0.085)		(0.039)
Market - Outside		0.250***		0.104		0.043
		(0.095)		(0.069)		(0.034)
Baseline Outcome	Y	N	N	N	Y	N
Controls	Y	Y	Y	Y	Y	Y
Observations	1720	1721	1725	1725	1727	1727
Control_Mean	0	0	0	0	.48	.48
Market_v_Church	.056		.18		.71	
Inside_v_Outside		.38		.3		.44
Inside_v_Church		.36		.12		.58
Outside_v_Church		.033		.59		.79

Back

Percent Changes in Income v. Changes in Depression







Back

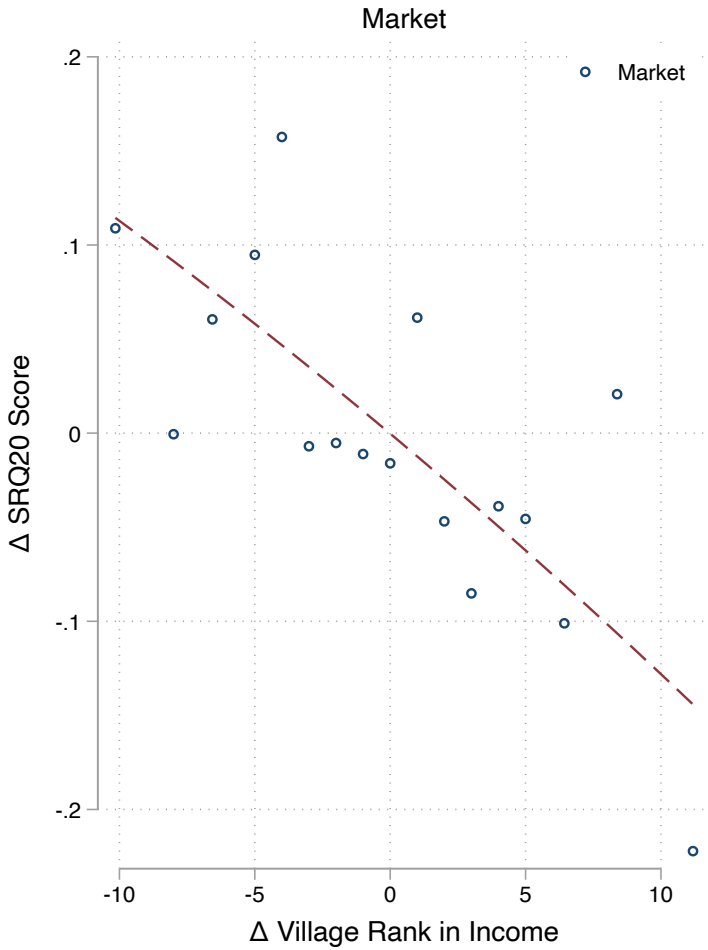
Δ Income Rank in Village and Δ Wellbeing

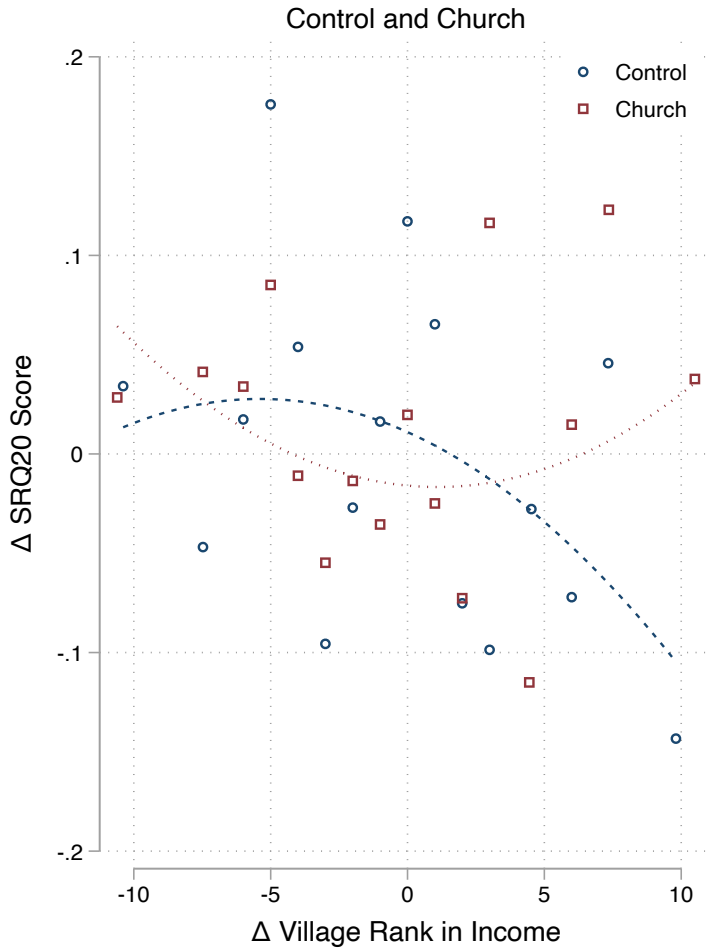
	Main Respondents			All Respondents		
	Δ Depression	Δ Depression	Δ Depression	Δ Depression	Δ Depression	Δ Depression
Δ Village Income Rank	-0.011	-0.007	-0.000	-0.004	-0.001	-0.000
	(0.009)	(0.011)	(0.013)	(0.002)	(0.003)	(0.004)
Church	0.045	0.047		0.029	0.030	
	(0.030)	(0.030)		(0.021)	(0.021)	
Market	0.054*	0.056**		0.040**	0.040**	
	(0.028)	(0.028)		(0.020)	(0.020)	
Church × Δ Village Income Rank	-0.002	-0.001	-0.000	-0.002	-0.002	-0.003
	(0.014)	(0.014)	(0.015)	(0.004)	(0.004)	(0.004)
Market × Δ Village Income Rank	-0.022*	-0.021*	-0.020	-0.007**	-0.007**	-0.007**
	(0.013)	(0.013)	(0.014)	(0.003)	(0.003)	(0.003)
Controls	Y	Y	Y	N	N	N
Baseline Outcome Control	Y	Y	Y	Y	Y	Y
Δ Income Control	N	Y	Y	N	Y	Y
Stratum FE	Y	Y	N	Y	Y	N
Village FE	N	N	Y	N	N	Y
Observations	1720	1720	1720	3975	3975	3975
Control_Mean	.48	.48	.48	.48	.48	.48
Church_v_Control (Interactions)	.87	.92	.99	.5	.51	.49
Market_v_Control (Interactions)	.088	.093	.16	.021	.022	.032
Market_v_Church (Interactions)	.16	.15	.19	.16	.16	.21

CDF - Increase in Churn Crop heterogeneity Back

Δ Income Rank in Village and Δ Wellbeing

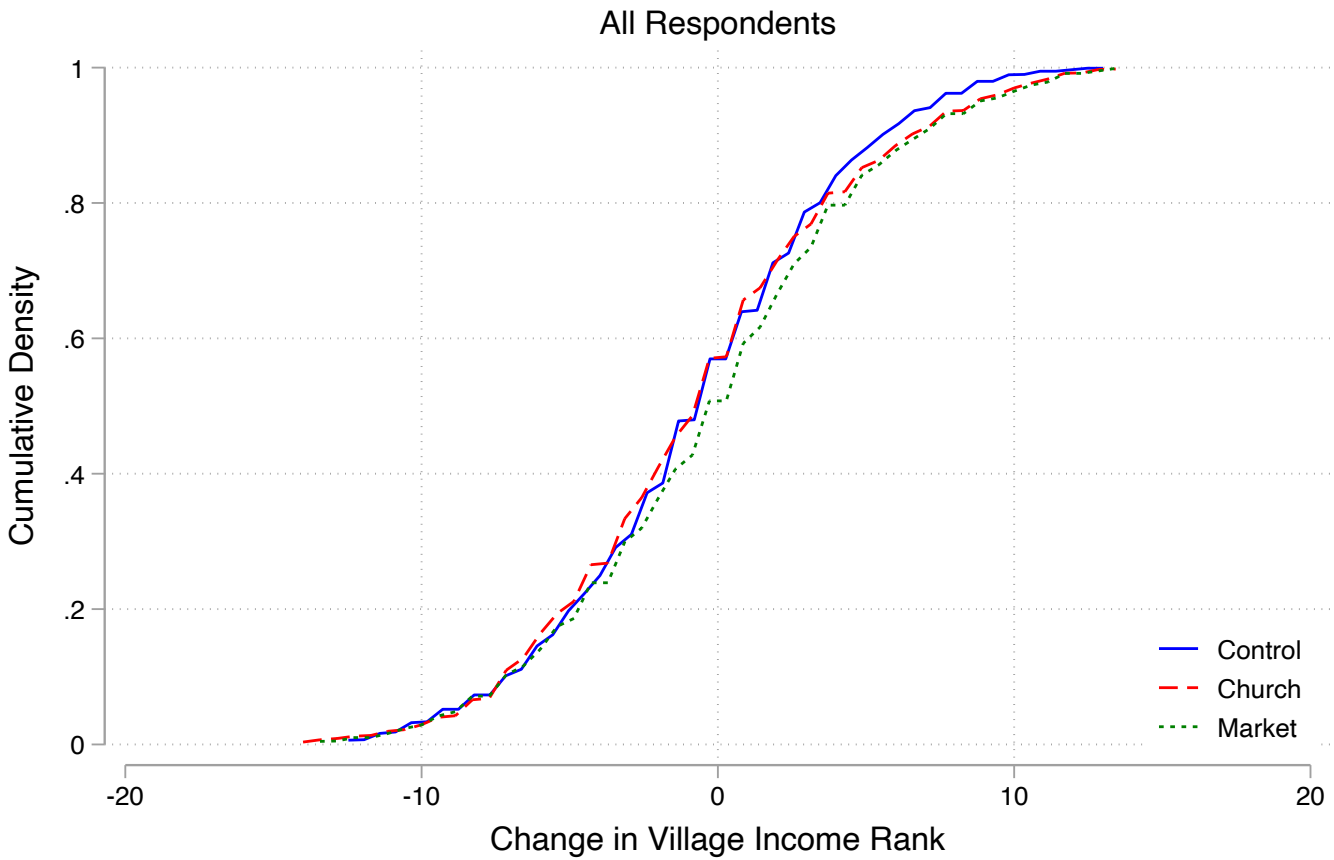
All Respondents – Spillover Sample





Crop heterogeneity Back

Market Increases Participants' Village Income Rank



- Market: participants 5.9 ppts more likely to increase in village ranking w.r.t. all respondents Go

Crop heterogeneity Back

Inequality Within Village: Variance in Endline Income

	Δ Depression	Δ Depression
Δ Income Variance	-0.107	
	(0.122)	
Church	0.365	-0.007
	(0.322)	(0.467)
Market	0.310	-0.291
	(0.332)	(0.539)
Church × Δ Income Variance	0.081	
	(0.175)	
Market × Δ Income Variance	0.216	
	(0.174)	
Increase in Income Variance (1-0)		-0.463
		(0.496)
Church × Increase in Income Variance (1-0)		0.764
		(0.671)
Market × Increase in Income Variance (1-0)		1.141
		(0.704)
Baseline Control	Y	Y
Controls	Y	Y
Observations	1727	1727
Control_Mean	.68	.68
Market_v_Church	.87	.59

Back

Summary: Values Results

	Good Life			Good Person			Child Values		
	Religion	Education	Income	Religion	Productivity	Thrift	Religion	Diligence	Thrift
Church	0.054	0.064	0.059	-0.142	0.054	-0.015	-0.027	0.117	0.061
	(0.089)	(0.066)	(0.144)	(0.131)	(0.076)	(0.071)	(0.121)	(0.074)	(0.078)
Market	-0.358***	0.132**	0.179	-0.437***	0.239***	0.218***	-0.338***	0.031	0.121
	(0.081)	(0.061)	(0.140)	(0.121)	(0.072)	(0.066)	(0.107)	(0.071)	(0.084)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	N	N	N	N	N	N
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1724	1724	1724	1721	1721	1721	1727	1727	1727
R^2	0.069	0.071	0.105	0.052	0.034	0.038	0.037	0.069	0.064
Clusters	300	300	300	300	300	300	300	300	300
Control_Mean	2.3	.94	1.6	2.4	.96	1	3.1	.53	.74
Market_v_Church	6.5e-07	.3	.35	.0077	.016	.00082	.0089	.29	.49

Good Person Child Values Back

The Good Life: Treatment Effects by Gender

	Religion	Family	Income	Equality	Health	Education	Tradition
				Panel A: Men			
Church	0.015	-0.036	0.060	-0.087	0.037	0.043	-0.028
	(0.120)	(0.121)	(0.167)	(0.109)	(0.100)	(0.085)	(0.048)
Market	-0.291***	-0.089	0.027	-0.056	0.070	0.252***	0.086
	(0.112)	(0.119)	(0.168)	(0.105)	(0.099)	(0.082)	(0.057)
Observations	855	855	855	855	855	855	855
R^2	0.072	0.060	0.100	0.057	0.067	0.112	0.079
Clusters	300	300	300	300	300	300	300
Control_Mean	2.3	1.9	1.9	1.6	1.2	.91	.18
Market_v_Church	.0057	.64	.83	.77	.73	.018	.029
				Panel B: Women			
Church	0.111	-0.132	0.060	-0.148	0.001	0.086	0.017
	(0.119)	(0.104)	(0.161)	(0.113)	(0.109)	(0.091)	(0.051)
Market	-0.400***	0.058	0.302*	-0.038	-0.013	0.032	0.066
	(0.104)	(0.109)	(0.160)	(0.104)	(0.104)	(0.083)	(0.052)
Observations	869	869	869	869	869	869	869
R^2	0.115	0.084	0.123	0.072	0.081	0.075	0.086
Clusters	300	300	300	300	300	300	300
Control_Mean	2.2	2	1.4	1.7	1.4	.98	.21
Market_v_Church	3.1e-06	.087	.11	.32	.89	.52	.36
Stratum FE	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y

The Good Life

	Family	Health	Equality	Education	Religion	Income	Tradition
Church	-0.075	0.020	-0.121	0.064	0.054	0.059	-0.003
	(0.084)	(0.083)	(0.088)	(0.066)	(0.089)	(0.144)	(0.038)
Market - Inside	-0.027	-0.003	-0.028	0.104	-0.353***	0.250	0.053
	(0.104)	(0.100)	(0.102)	(0.077)	(0.100)	(0.175)	(0.046)
Market - Outside	0.012	0.065	-0.076	0.158**	-0.362***	0.109	0.098**
	(0.105)	(0.098)	(0.093)	(0.073)	(0.093)	(0.161)	(0.050)
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	1724	1724	1724	1724	1724	1724	1724
R^2	0.053	0.066	0.050	0.071	0.069	0.106	0.065
Clusters	300	300	300	300	300	300	300
Control_Mean	2	1.3	1.7	.94	2.3	1.6	.2
Inside_v_Outside	.74	.54	.66	.54	.93	.45	.44
Inside_v_Church	.64	.82	.37	.61	.000072	.24	.25
Outside_v_Church	.4	.65	.64	.22	8.8e-06	.74	.045

Back

The Good Life: Men

	Family	Health	Equality	Education	Religion	Income	Tradition
Church	0.015	-0.036	0.060	-0.087	0.037	0.043	-0.028
	(0.120)	(0.121)	(0.167)	(0.109)	(0.100)	(0.085)	(0.048)
Market	-0.291***	-0.089	0.027	-0.056	0.070	0.252***	0.086
	(0.112)	(0.119)	(0.168)	(0.105)	(0.099)	(0.082)	(0.057)
Stratum FE	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	855	855	855	855	855	855	855
R^2	0.072	0.060	0.100	0.057	0.067	0.112	0.079
Clusters	300	300	300	300	300	300	300
Control_Mean	2.3	1.9	1.9	1.6	1.2	.91	.18
Market_v_Church	.0057	.64	.83	.77	.73	.018	.029

Back

The Good Life: Women

	Family	Health	Equality	Education	Religion	Income	Tradition
Church	0.111	-0.132	0.060	-0.148	0.001	0.086	0.017
	(0.119)	(0.104)	(0.161)	(0.113)	(0.109)	(0.091)	(0.051)
Market	-0.400***	0.058	0.302*	-0.038	-0.013	0.032	0.066
	(0.104)	(0.109)	(0.160)	(0.104)	(0.104)	(0.083)	(0.052)
Stratum FE	Y	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	869	869	869	869	869	869	869
R^2	0.115	0.084	0.123	0.072	0.081	0.075	0.086
Clusters	300	300	300	300	300	300	300
Control_Mean	2.2	2	1.4	1.7	1.4	.98	.21
Market_v_Church	3.1e-06	.087	.11	.32	.89	.52	.36

Back

The Good Life: Heterogeneity by Baseline Income

	All	Men	Women	All	Men	Women
Church	0.007	-0.033	0.056	-0.014	-0.034	0.019
	(0.112)	(0.165)	(0.144)	(0.099)	(0.137)	(0.123)
Market	-0.218*	-0.281*	-0.108	-0.291***	-0.246*	-0.317***
	(0.115)	(0.166)	(0.148)	(0.093)	(0.134)	(0.111)
Church × Top Half Income (BL)	0.088	0.090	0.117			
	(0.169)	(0.227)	(0.229)			
Market × Top Half Income (BL)	-0.262	-0.015	-0.574***			
	(0.162)	(0.223)	(0.217)			
Top Half Income (BL)	0.047	-0.071	0.211			
	(0.129)	(0.173)	(0.172)			
Church × Top Quartile Income (BL)				0.317	0.197	0.525
				(0.225)	(0.299)	(0.337)
Market × Top Quartile Income (BL)				-0.329*	-0.231	-0.444
				(0.197)	(0.276)	(0.313)
Top Quartile Income (BL)				0.032	-0.058	0.129
				(0.163)	(0.223)	(0.265)
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1724	855	869	1724	855	869
Control_Mean	2.3	2.3	2.2	2.3	2.3	2.2

Back

The Good Life: Tokens on Religion – Heterogeneity

	Tokens on Religion	Tokens on Religion
Church	0.054	0.062
	(0.089)	(0.091)
Market - Inside	-0.353***	-0.190
	(0.100)	(0.141)
Market - Outside	-0.362***	-0.394***
	(0.093)	(0.115)
Market - Inside × Woman		-0.315**
		(0.156)
Market - Outside × Woman		0.061
		(0.144)
Woman		-0.044
		(0.090)
Baseline Outcome	Y	N
Controls	Y	Y
Observations	1724	1724
R^2	0.069	0.053
Clusters	300	300
Control_Mean	2.3	2.3
Inside_v_Outside	.93	.17
Inside_v_Church	.000072	.078
Outside_v_Church	8.8e-06	.00012

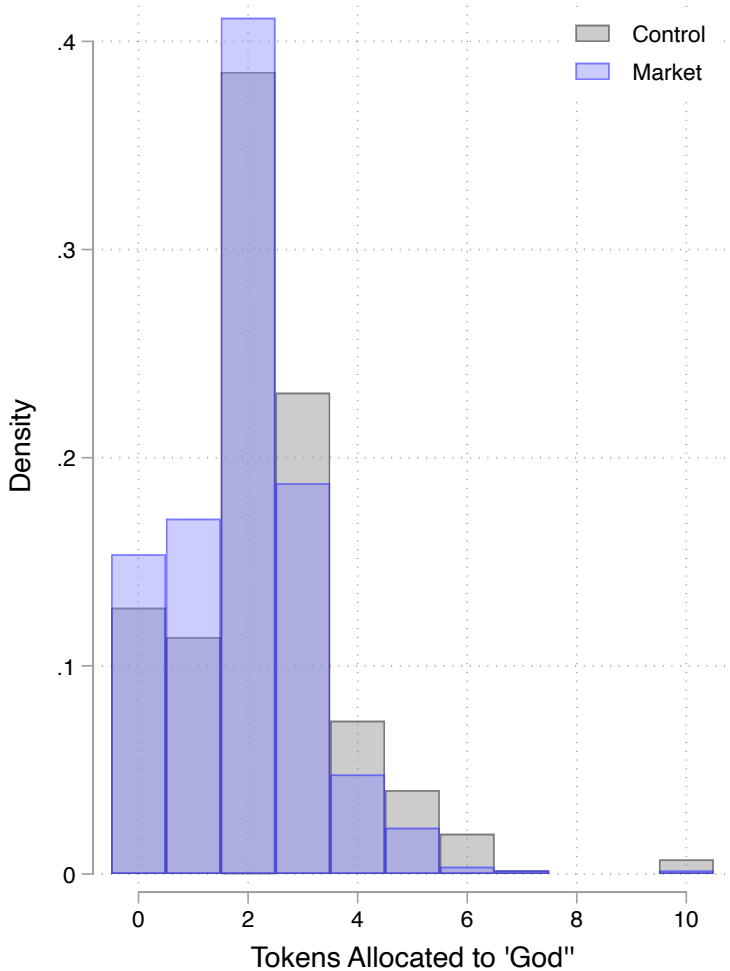
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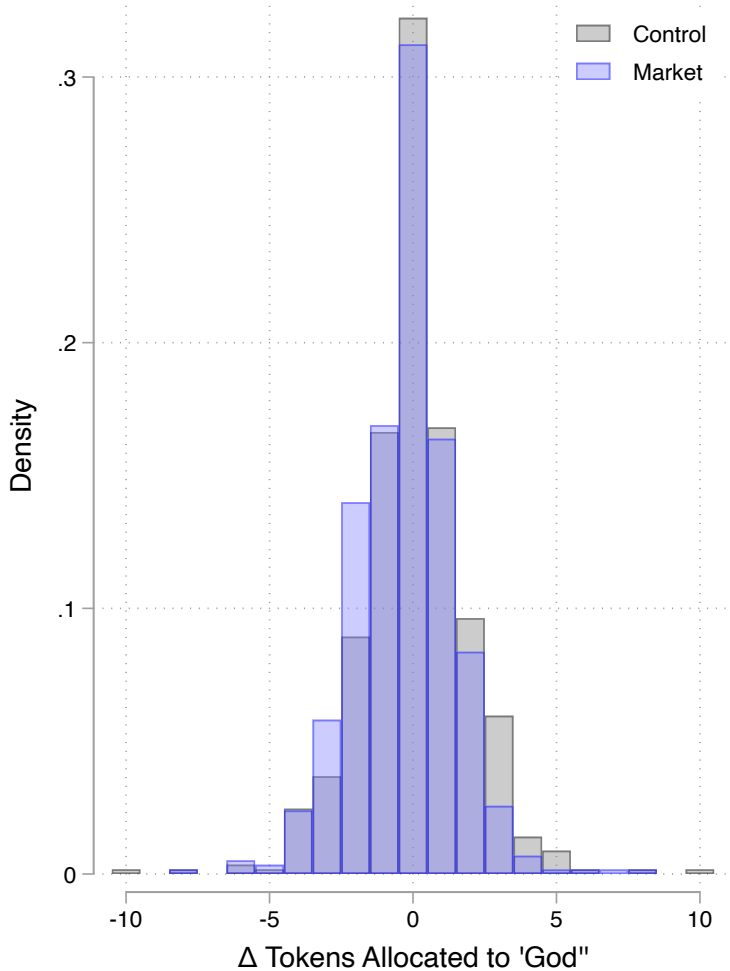
Comparing Religiosity of Sellers v. non-Sellers in Kananga

	Share of income given to church	
Market seller	-0.02	-0.02
	(0.02)	(0.02)
Controls	No	Yes
Constant	0.09***	0.13***
	(0.00)	(0.02)
Observations	3194.00	3193.00

Back

Token Allocations to "God"





Back

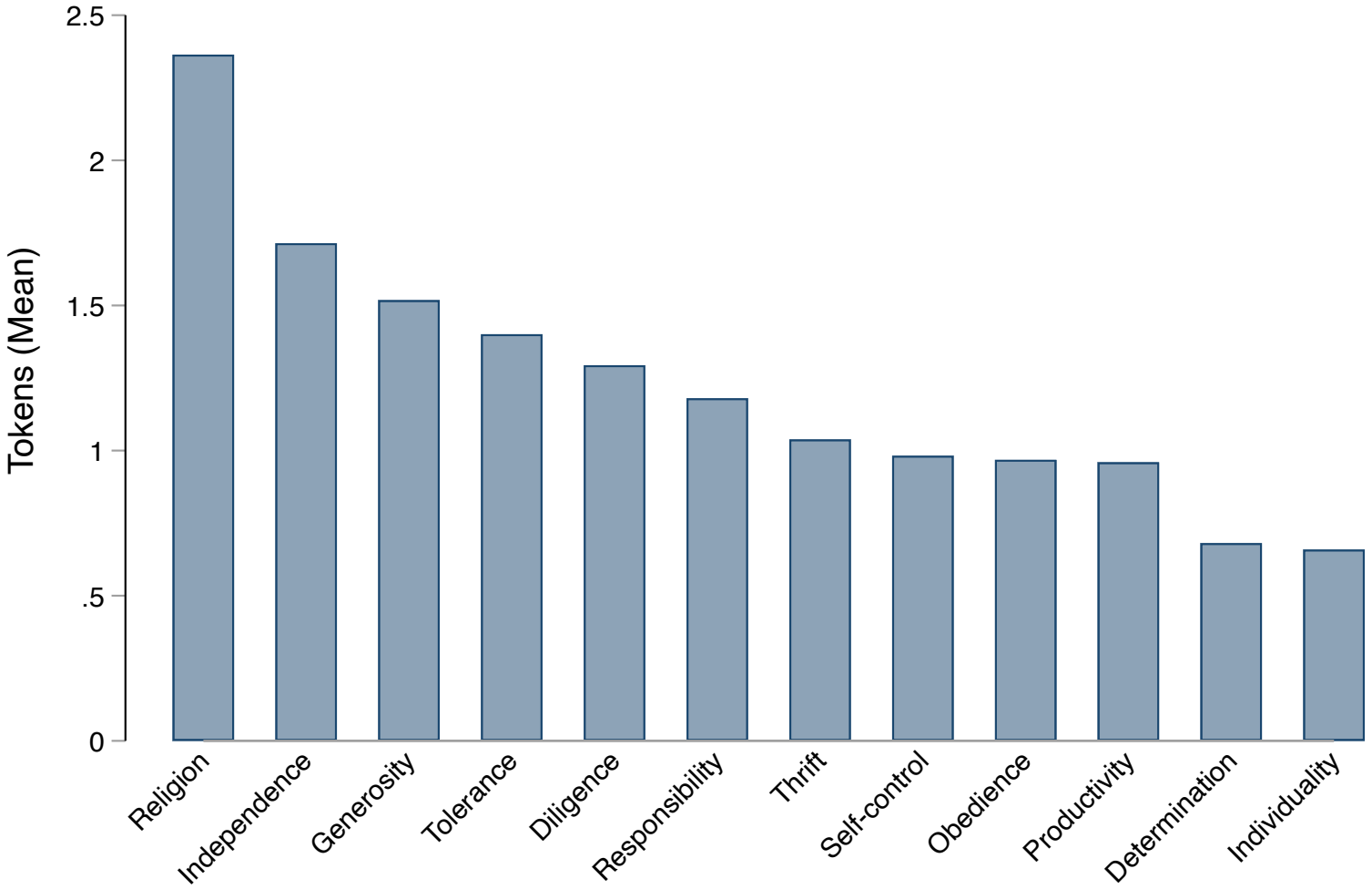
The Good Person: Allocation of Ten Tokens

- "I would like to ask you questions about what a 'good person' means for you. Please consider what qualities are the most important to have in life. In your opinion, which factors are **most important for being a good person**?"
  - Independence, Diligence, Responsibility, Productivity, Tolerance, Thrift, Determination, Religion, Generosity, Obedience, Individuality, Self-Control

- "In this exercise, you will allocate the **fifteen tokens** on the board to the values that are most important to you. You can allocate multiple tokens to each category."

Back

The Good Person: Allocation of Ten Tokens



Back

The Good Person

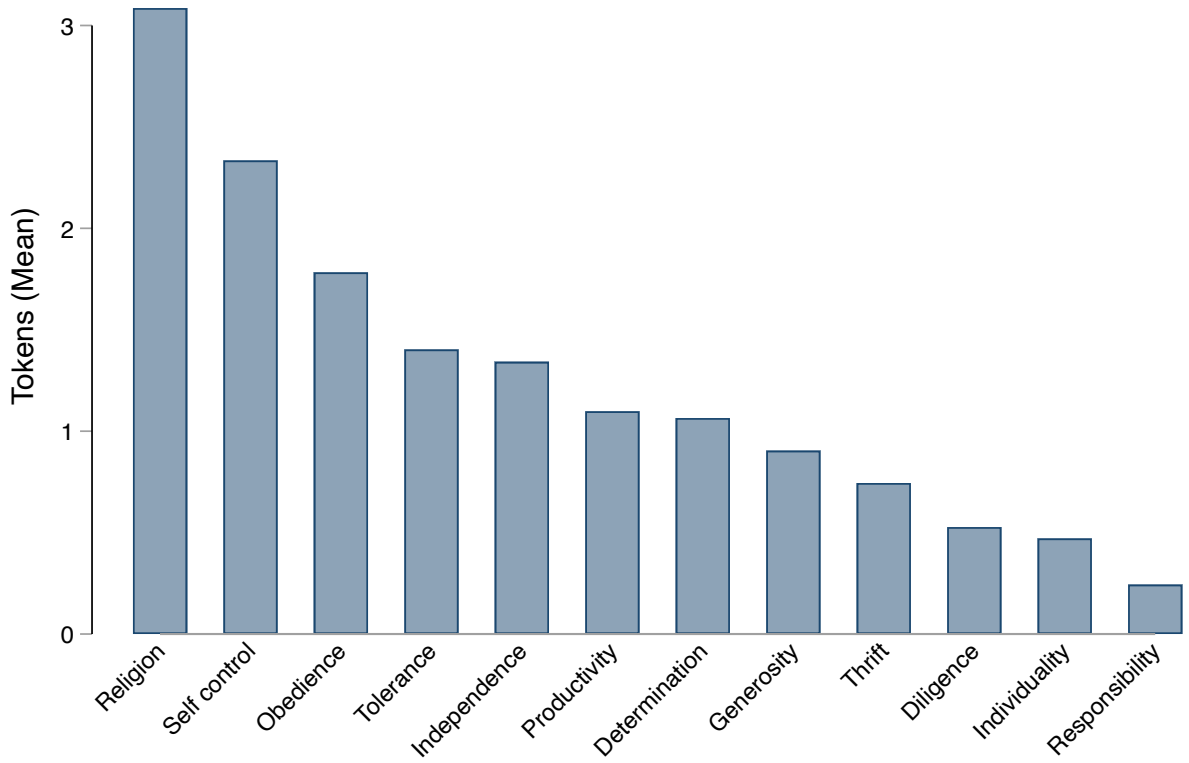
	Religiosity	Independence	Generosity	Tolerance	Diligence	Responsibility	Thrift	Productivity
				Panel A: Men				
Church	-0.268	0.196	-0.122	0.321***	0.041	-0.090	-0.006	0.050
	(0.167)	(0.180)	(0.115)	(0.114)	(0.107)	(0.110)	(0.104)	(0.100)
Market	-0.633***	0.041	-0.068	0.106	0.048	0.026	0.211**	0.330***
	(0.144)	(0.168)	(0.116)	(0.103)	(0.102)	(0.098)	(0.100)	(0.105)
Observations	854	854	854	854	854	854	854	854
R^2	0.066	0.066	0.057	0.048	0.046	0.063	0.064	0.056
Clusters	300	300	300	300	300	300	300	300
Control_Mean	2.5	1.8	1.6	1.3	1.2	1.1	1	.9
Market_v_Church	.0097	.33	.63	.045	.95	.25	.041	.0064
				Panel B: Women				
Church	-0.010	-0.152	0.033	0.248**	0.021	-0.163	-0.031	0.042
	(0.156)	(0.165)	(0.115)	(0.111)	(0.118)	(0.105)	(0.096)	(0.098)
Market	-0.229	-0.083	-0.101	-0.001	0.207*	-0.106	0.220**	0.149
	(0.152)	(0.154)	(0.109)	(0.111)	(0.114)	(0.106)	(0.090)	(0.092)
Observations	867	867	867	867	867	867	867	867
R^2	0.072	0.103	0.059	0.045	0.035	0.048	0.040	0.042
Clusters	300	300	300	300	300	300	300	300
Control_Mean	2.2	1.7	1.4	1.5	1.4	1.3	1	1
Market_v_Church	.099	.65	.21	.02	.13	.58	.011	.29
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y

- Magnitude: average 0.25 SD decrease in tokens on "religiosity"

Back

Child Values

- "Here is a list of **qualities that children can be encouraged to learn at home**. Please first **pick the five** that are most important in your opinion. Then, please rank them in the order of importance."



Back

Child Values

	Religiosity	Self Control	Obedience	Tolerance	Independence	Generosity	Thrift	Diligence
				Panel A: Men				
Church	-0.154	0.014	0.060	0.042	0.080	-0.078	0.094	0.245***
	(0.157)	(0.171)	(0.144)	(0.143)	(0.166)	(0.119)	(0.125)	(0.093)
Market	-0.328**	0.165	-0.018	-0.012	0.063	0.085	0.215*	0.104
	(0.151)	(0.162)	(0.142)	(0.142)	(0.157)	(0.113)	(0.128)	(0.097)
Observations	856	856	856	856	856	856	856	856
R^2	0.048	0.056	0.069	0.063	0.093	0.048	0.047	0.091
Clusters	300	300	300	300	300	300	300	300
Control_Mean	3.2	2.3	1.6	1.4	1.3	.9	.93	.46
Market_v_Church	.26	.36	.59	.71	.91	.15	.33	.19
				Panel B: Women				
Church	0.128	0.147	-0.467***	0.206	-0.113	0.210*	0.039	-0.026
	(0.163)	(0.167)	(0.144)	(0.159)	(0.130)	(0.121)	(0.101)	(0.095)
Market	-0.336**	0.015	-0.113	-0.032	0.219	0.269**	0.029	-0.060
	(0.153)	(0.160)	(0.159)	(0.154)	(0.136)	(0.119)	(0.109)	(0.098)
Observations	871	871	871	871	871	871	871	871
R^2	0.060	0.064	0.048	0.040	0.103	0.078	0.062	0.094
Clusters	300	300	300	300	300	300	300	300
Control_Mean	3	2.4	2	1.4	1.3	.91	.57	.59
Market_v_Church	.0025	.41	.022	.12	.011	.65	.92	.73
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y

- Magnitude: 0.19 SD decrease in ranking of "religious faith"

No Spillovers Back

The Good Person: Men

	Religion	Independence	Generosity	Tolerance	Dilligence	Responsibility	Thrift	Productivity
Church	-0.268	0.196	-0.122	0.321***	0.041	-0.090	-0.006	0.050
	(0.167)	(0.180)	(0.115)	(0.114)	(0.107)	(0.110)	(0.104)	(0.100)
Market	-0.633***	0.041	-0.068	0.106	0.048	0.026	0.211**	0.330***
	(0.144)	(0.168)	(0.116)	(0.103)	(0.102)	(0.098)	(0.100)	(0.105)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Observations	854	854	854	854	854	854	854	854
R^2	0.066	0.066	0.057	0.048	0.046	0.063	0.064	0.056
Clusters	300	300	300	300	300	300	300	300
Control_Mean	2.5	1.8	1.6	1.3	1.2	1.1	1	.9
Market_v_Church	.0097	.33	.63	.045	.95	.25	.041	.0064

The Good Person: Women

	Religion	Independence	Generosity	Tolerance	Dilligence	Responsibility	Thrift	Productivity
Church	-0.010	-0.152	0.033	0.248**	0.021	-0.163	-0.031	0.042
	(0.156)	(0.165)	(0.115)	(0.111)	(0.118)	(0.105)	(0.096)	(0.098)
Market	-0.229	-0.083	-0.101	-0.001	0.207*	-0.106	0.220**	0.149
	(0.152)	(0.154)	(0.109)	(0.111)	(0.114)	(0.106)	(0.090)	(0.092)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Observations	867	867	867	867	867	867	867	867
R^2	0.072	0.103	0.059	0.045	0.035	0.048	0.040	0.042
Clusters	300	300	300	300	300	300	300	300
Control_Mean	2.2	1.7	1.4	1.5	1.4	1.3	1	1
Market_v_Church	.099	.65	.21	.02	.13	.58	.011	.29

Child Values: Men

	Religiosity	Self Control	Obedience	Tolerance	Independence	Generosity	Thrift	Diligence
Church	-0.154	0.014	0.060	0.042	0.080	-0.078	0.094	0.245***
	(0.157)	(0.171)	(0.144)	(0.143)	(0.166)	(0.119)	(0.125)	(0.093)
Market	-0.328**	0.165	-0.018	-0.012	0.063	0.085	0.215*	0.104
	(0.151)	(0.162)	(0.142)	(0.142)	(0.157)	(0.113)	(0.128)	(0.097)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Observations	856	856	856	856	856	856	856	856
R^2	0.048	0.056	0.069	0.063	0.093	0.048	0.047	0.091
Clusters	300	300	300	300	300	300	300	300
Control_Mean	3.2	2.3	1.6	1.4	1.3	.9	.93	.46
Market_v_Church	.26	.36	.59	.71	.91	.15	.33	.19

Back

Child Values: Women

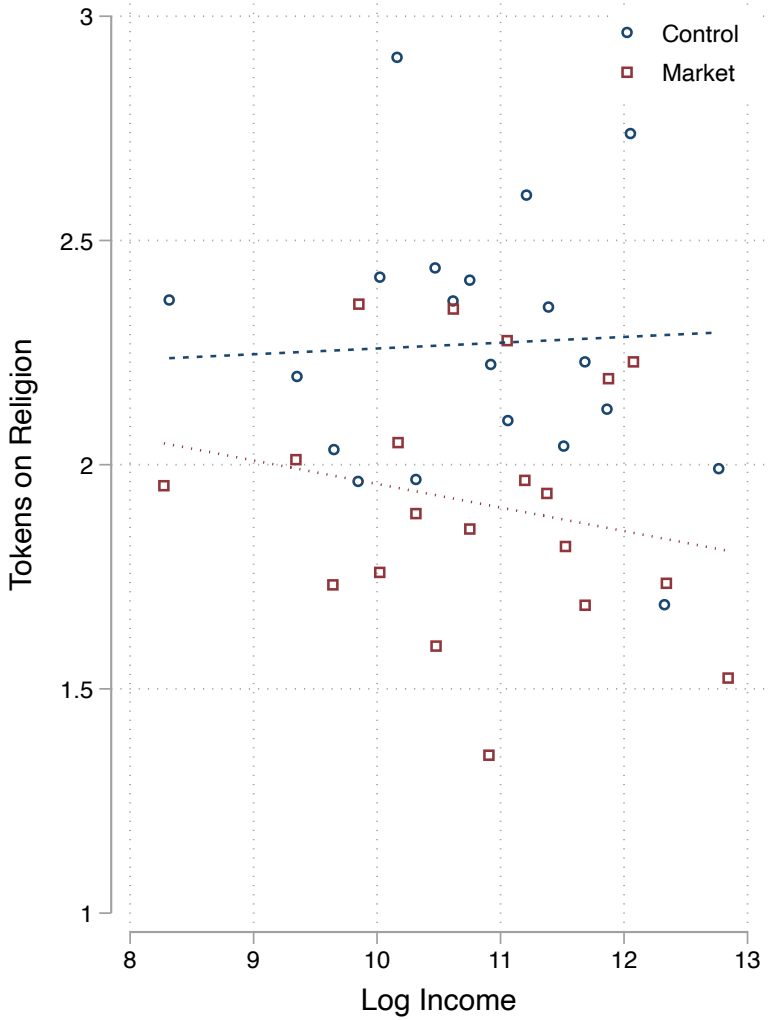
	Religiosity	Self Control	Obedience	Tolerance	Independence	Generosity	Thrift	Diligence
Church	0.128	0.147	-0.467***	0.206	-0.113	0.210*	0.039	-0.026
	(0.163)	(0.167)	(0.144)	(0.159)	(0.130)	(0.121)	(0.101)	(0.095)
Market	-0.336**	0.015	-0.113	-0.032	0.219	0.269**	0.029	-0.060
	(0.153)	(0.160)	(0.159)	(0.154)	(0.136)	(0.119)	(0.109)	(0.098)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Observations	871	871	871	871	871	871	871	871
R^2	0.060	0.064	0.048	0.040	0.103	0.078	0.062	0.094
Clusters	300	300	300	300	300	300	300	300
Control_Mean	3	2.4	2	1.4	1.3	.91	.57	.59
Market_v_Church	.0025	.41	.022	.12	.011	.65	.92	.73

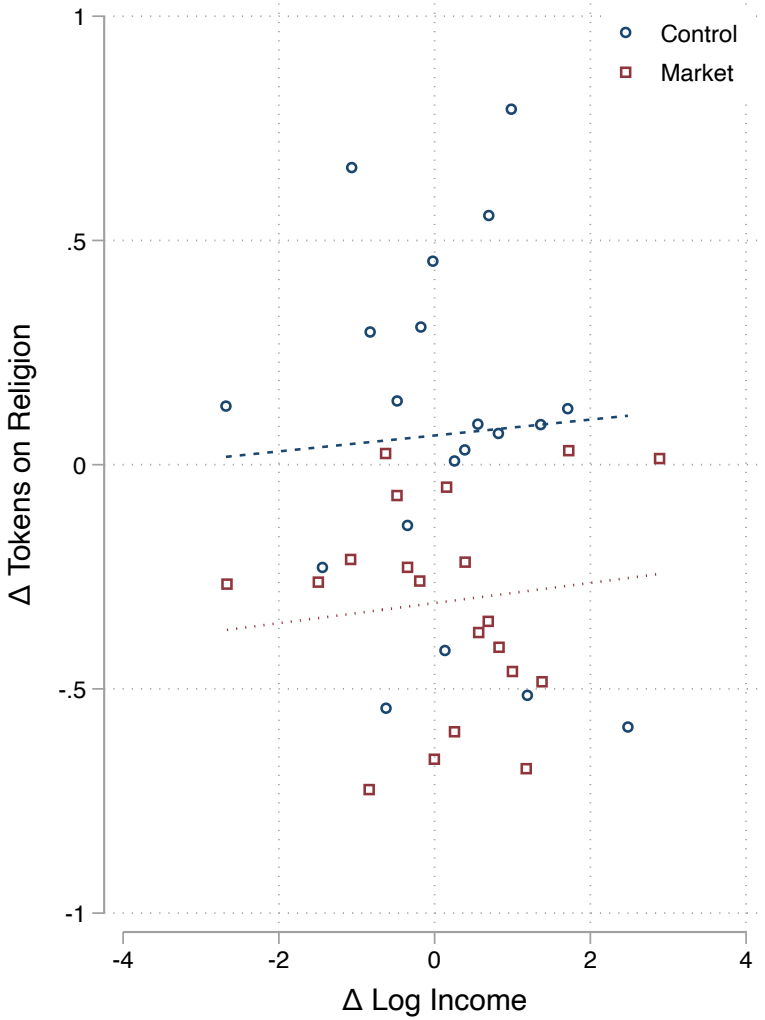
Back

Moral Values – Summary

- Access to markets causes:
  1. **Crowd out of religious values** and shift toward "bourgeois" values: income, education, thrift, productivity, diligence
  2. No effects on average prosociality
  3. Consistent with an **agency mechanism**:
     - Market participants view god as playing a smaller role in shaping success in life $\rightarrow$ self, friends, and luck more important
     - Also have stronger locus of control and more grit

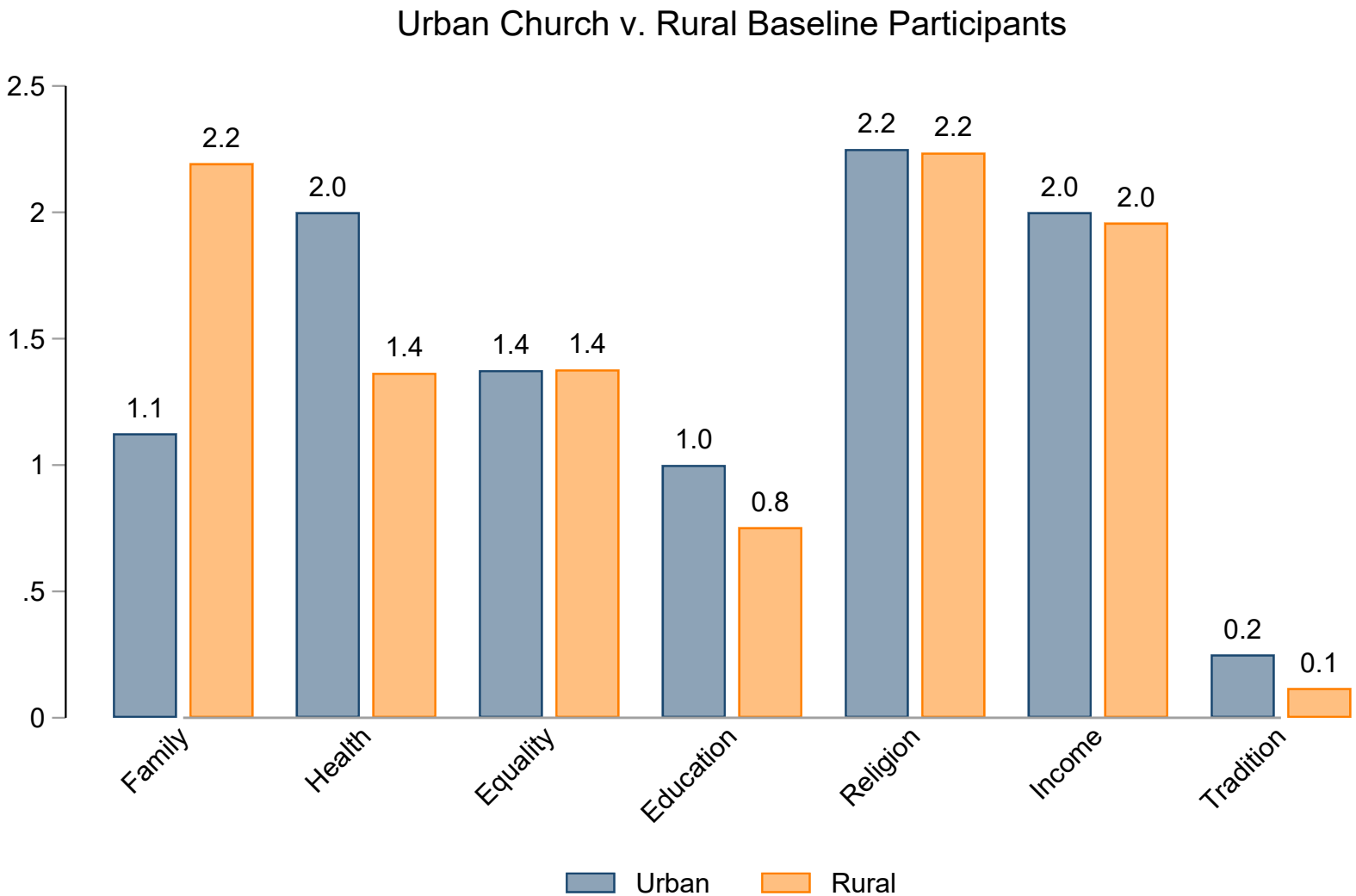
Does Income Explain the ↓ Importance of Religious Values?





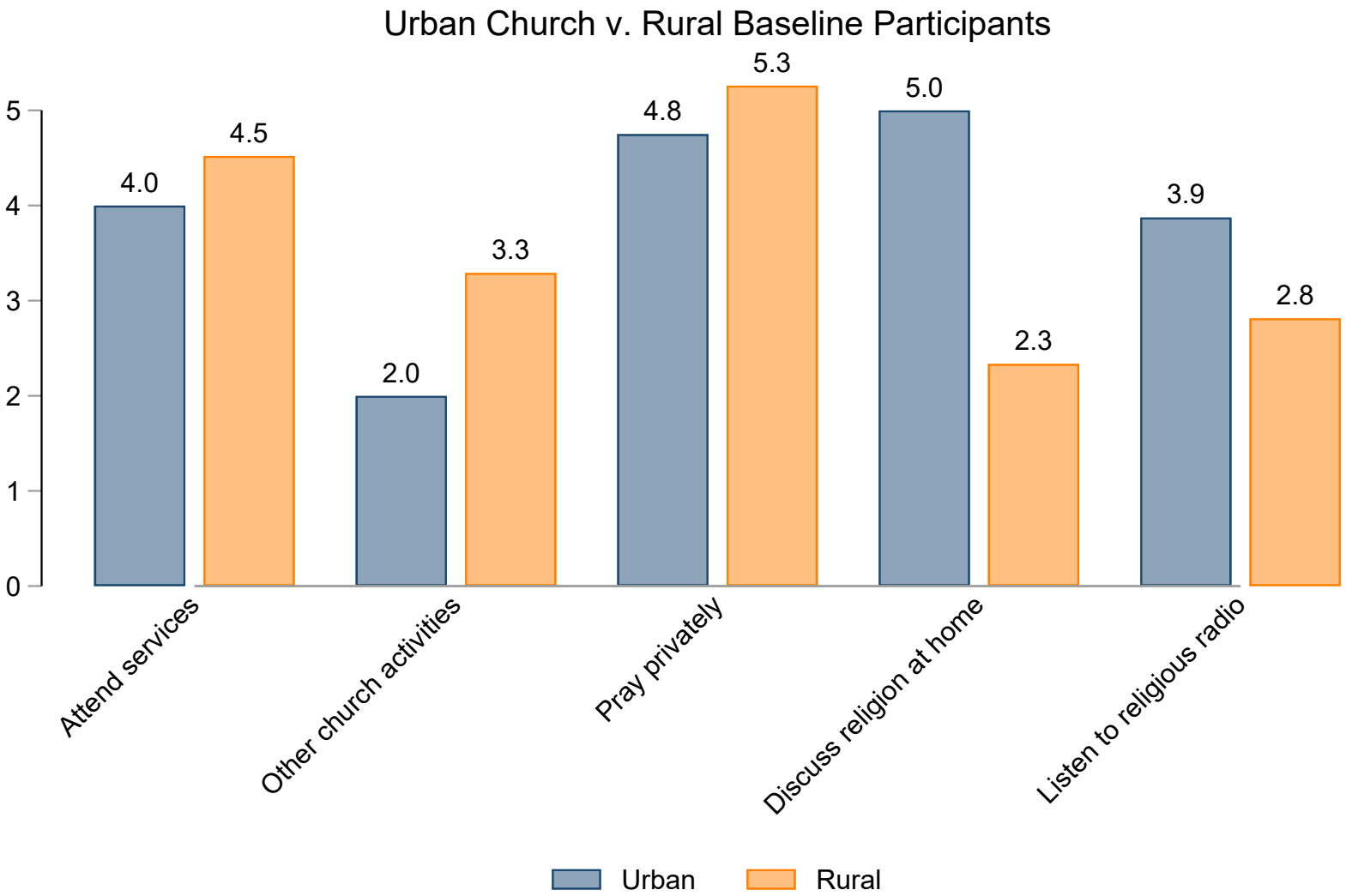
Back

Baseline Participants v. Urban Vendors: Good Life



Back

Baseline Participants v. Urban Vendors: Participation



Back

Religious Participation

	Attend services	Other church activities	Pray privately	Discuss religion at home	Listen to religious radio
			Panel A: Men		
Church	-0.051	-0.244	0.036	0.177	0.106
	(0.068)	(0.164)	(0.071)	(0.127)	(0.134)
Market	0.011	-0.342**	0.014	0.054	0.017
	(0.060)	(0.167)	(0.069)	(0.126)	(0.127)
Observations	782	781	782	782	782
R^2	0.110	0.114	0.049	0.084	0.111
Clusters	300	300	300	300	300
Control_Mean	4.6	3.8	5.3	2.9	3.5
Market_v_Church	.28	.57	.75	.34	.53
			Panel B: Women		
Church	-0.031	0.228	-0.041	0.299**	0.016
	(0.056)	(0.160)	(0.063)	(0.120)	(0.139)
Market	0.041	-0.098	-0.176***	0.082	0.059
	(0.048)	(0.174)	(0.064)	(0.110)	(0.138)
Observations	843	842	843	841	843
R^2	0.111	0.123	0.095	0.095	0.089
Clusters	300	300	300	300	300
Control_Mean	4.6	3.5	5.3	2.4	2.6
Market_v_Church	.22	.052	.056	.08	.77
Stratum FE	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y

Dictator Game (Men) Back

	Nuc. Fam	Ext. Fam	Village	Kananga	Christian	Witch	Own Tribe	Other Tribe	Own Denom.	Other Denom.	Own Church	Avg
Church	-4.909	-10.841	-20.951*	-17.688	-22.876	1.801	-4.571	-32.551***	-17.983	-18.582	-16.896	-14.733
	(13.066)	(12.540)	(11.901)	(12.424)	(14.291)	(12.479)	(12.807)	(12.371)	(13.975)	(13.442)	(15.343)	(10.347)
Market	-4.284	4.465	-0.751	13.437	-23.591	5.802	-2.140	-19.450	-17.280	-3.885	-28.996*	-6.557
	(13.066)	(13.245)	(12.482)	(13.946)	(14.687)	(11.794)	(13.925)	(13.585)	(14.359)	(14.804)	(15.114)	(10.960)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	854	854	854	854	854	854	854	854	817	817	817	854
R^2	0.052	0.049	0.046	0.049	0.050	0.030	0.053	0.055	0.045	0.046	0.047	0.049
Clusters	300	300	300	300	300	300	300	300	300	300	300	300
ControlMean	308	271	222	232	318	107	246	237	305	246	322	255
Ftest	.96	.22	.092	.023	.96	.76	.86	.32	.96	.29	.46	.46

Dictator Game (Women) Back

	Nuc. Fam	Ext. Fam	Village	Kananga	Christian	Witch	Own Tribe	Other Tribe	Own Denom.	Other Denom.	Own Church	Avg
Church	6.232	32.424**	19.879*	22.092	36.124**	-14.224	18.972	16.011	14.237	28.638*	5.700	17.097
	(13.112)	(13.109)	(11.899)	(14.862)	(15.268)	(13.725)	(14.229)	(14.366)	(15.216)	(14.743)	(15.299)	(11.061)
Market	-3.302	7.723	-1.035	-11.196	-25.112*	-18.835	-11.932	-12.197	-18.112	-2.968	-36.154***	-11.941
	(13.205)	(11.265)	(10.665)	(13.029)	(13.426)	(13.001)	(13.003)	(13.430)	(13.910)	(13.300)	(13.730)	(9.713)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	866	866	866	866	866	866	866	866	851	852	851	866
R^2	0.071	0.053	0.060	0.057	0.062	0.044	0.045	0.052	0.041	0.046	0.069	0.058
Clusters	300	300	300	300	300	300	300	300	300	300	300	300
ControlMean	303	261	202	238	297	155	261	218	298	214	328	252
Ftest	.49	.051	.069	.019	.000038	.71	.029	.046	.03	.023	.0045	.0072

Self-interest: Average Giving in DG

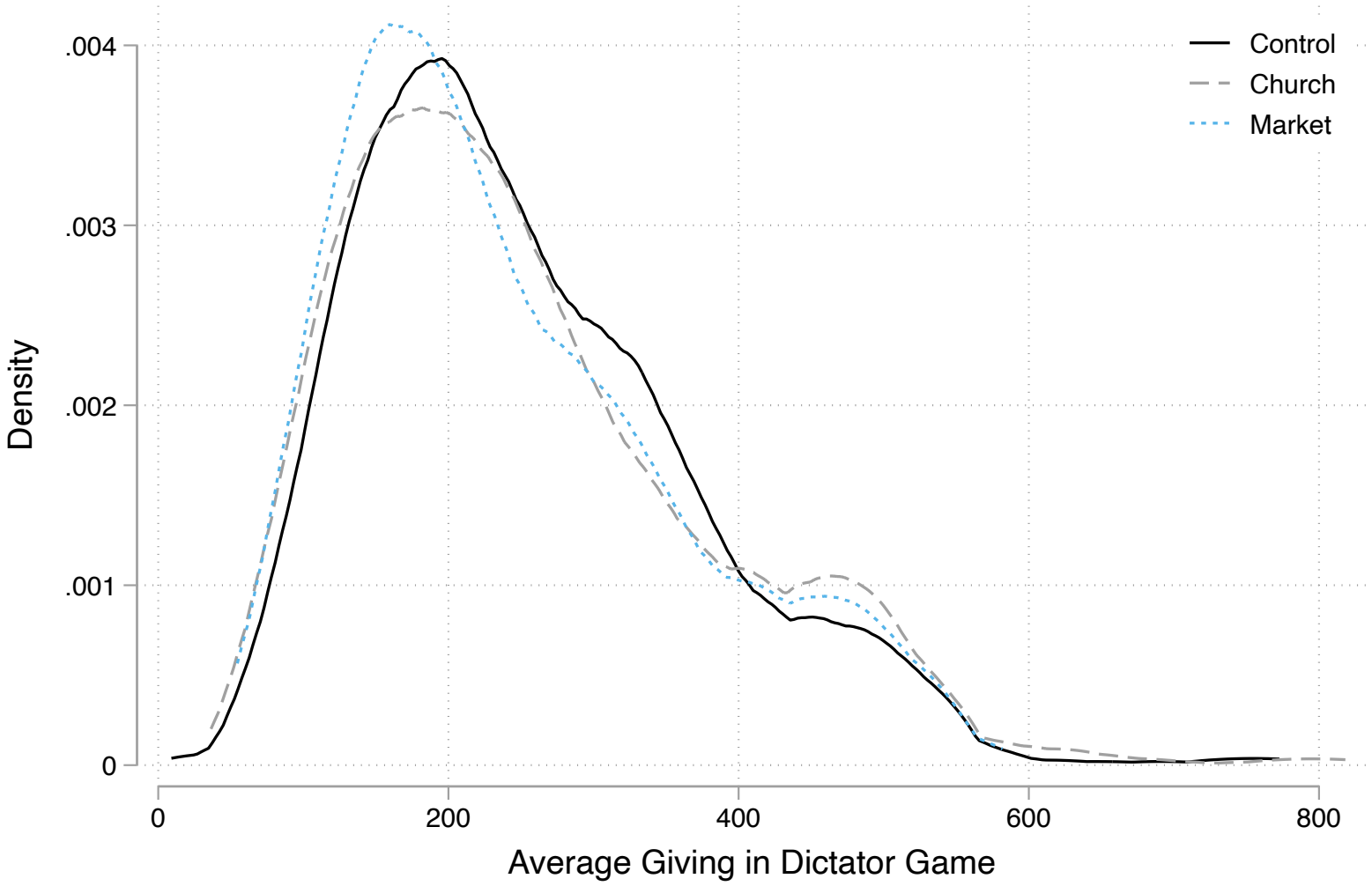
- Average dictator game allocation: 1,000 CF to self or player 2

	Average DG Giving	Average DG Giving
Church	1.876	1.935
	(8.626)	(8.625)
Market - Inside	-7.130	6.082
	(9.581)	(13.304)
Market - Outside	-11.464	-2.260
	(9.750)	(13.294)
Market - Inside × Woman		-26.382*
		(15.543)
Market - Outside × Woman		-18.308
		(14.368)
Woman		20.291***
		(7.162)
Controls	Y	Y
Observations	1720	1720
R^2	0.037	0.039
Clusters	300	300
Control_Mean	254	254
Inside_v_Outside	.7	.61
Inside_v_Church	.39	.76
Outside_v_Church	.2	.76

Back Color Game Densities

Average Giving in the DG: Densities

Back



Self-interest: Experimental Measures

- Average dictator game allocation: 1,000 CF to self or player 2
- Average "win" rate in color game: 100 CF to self or player 2

	DG - All	DG - Men	DG - Women	Color - All	Color - Men	Color - Women
Church	1.603	-14.733	17.097	-0.003	0.020	-0.022
	(8.617)	(10.347)	(11.061)	(0.014)	(0.019)	(0.019)
Market	-9.378	-6.557	-11.941	0.014	0.026	0.005
	(7.889)	(10.960)	(9.713)	(0.013)	(0.019)	(0.019)
Stratum FE	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1720	854	866	1720	854	866
R^2	0.036	0.049	0.058	0.032	0.046	0.045
Clusters	300	300	300	300	300	300
ControlMean	254	255	252	.64	.61	.66
Ftest	.21	.46	.0072	.23	.73	.18

Densities

Rank Your Dictator Game (Men)

	Nuc. Fam	Ext. Fam	Christian	Own Tribe	Other Tribe	Own Denom.	Other Denom.	Own Church	Witch	Village	Kananga
Church	0.666**	0.207	0.013	0.220	-0.015	-0.318	-0.067	0.469	-0.210	0.357	0.571**
	(0.260)	(0.252)	(0.262)	(0.211)	(0.208)	(0.254)	(0.220)	(0.359)	(0.216)	(0.224)	(0.235)
Market	0.784***	0.367	-0.155	0.055	0.041	-0.445*	-0.246	-0.330	-0.031	0.610***	0.489**
	(0.262)	(0.252)	(0.281)	(0.205)	(0.212)	(0.243)	(0.210)	(0.342)	(0.222)	(0.221)	(0.247)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	856	856	856	856	856	856	856	856	856	856	856
R^2	0.079	0.071	0.055	0.049	0.062	0.065	0.091	0.077	0.102	0.059	0.052
Clusters	300	300	300	300	300	300	300	300	300	300	300
ControlMean	8.3	7.3	7.6	4.7	3.8	5.7	3.9	6.6	2.6	6	5.6
Ftest	.6	.52	.51	.37	.77	.58	.38	.015	.39	.22	.74

Back

Rank Your Dictator Game (Women)

	Nuc. Fam	Ext. Fam	Christian	Own Tribe	Other Tribe	Own Denom.	Other Denom.	Own Church	Witch	Village	Kananga
Church	-0.215	-0.190	-0.046	0.016	0.219	-0.381	0.067	0.084	-0.102	-0.571***	-0.021
	(0.231)	(0.242)	(0.233)	(0.197)	(0.185)	(0.243)	(0.200)	(0.334)	(0.204)	(0.219)	(0.251)
Market	-0.132	0.005	-0.570**	-0.254	0.314	0.044	-0.066	0.167	0.071	-0.125	0.548**
	(0.224)	(0.219)	(0.227)	(0.212)	(0.191)	(0.239)	(0.193)	(0.347)	(0.216)	(0.204)	(0.244)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	872	872	872	872	872	872	872	872	872	872	872
R^2	0.101	0.067	0.047	0.051	0.056	0.079	0.108	0.101	0.092	0.065	0.038
Clusters	300	300	300	300	300	300	300	300	300	300	300
ControlMean	9.1	7.9	7.6	5.4	3.6	5.5	3.6	6.6	2.8	6.8	6
Ftest	.74	.41	.028	.17	.61	.08	.5	.79	.44	.043	.02

Back

What forces influence our lives? (Marriage/family) - Men

	Self	Family	Friends	God	Custom	Luck/Destiny
Church	0.275**	0.070	0.083	-0.263	-0.048	-0.112
	(0.134)	(0.124)	(0.105)	(0.203)	(0.048)	(0.129)
Market	0.293**	-0.004	0.001	-0.365*	0.059	0.013
	(0.137)	(0.119)	(0.098)	(0.194)	(0.055)	(0.127)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	766	766	766	766	766	766
R^2	0.066	0.056	0.067	0.084	0.094	0.066
Clusters	270	270	270	270	270	270
ControlMean	2.1	1.8	.96	3.8	.21	1.1
Ftest	.89	.54	.41	.57	.062	.3

Back

What forces influence our lives? (Marriage/family) - Women

	Self	Family	Friends	God	Custom	Luck/Destiny
Church	0.187	0.030	-0.007	-0.094	-0.071	-0.040
	(0.131)	(0.118)	(0.108)	(0.191)	(0.054)	(0.120)
Market	0.362***	-0.013	0.123	-0.529***	0.075	-0.029
	(0.134)	(0.112)	(0.107)	(0.161)	(0.058)	(0.115)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	778	778	778	778	778	778
R^2	0.041	0.040	0.067	0.108	0.119	0.033
Clusters	271	271	271	271	271	271
ControlMean	2	1.8	1.3	3.6	.25	1.1
Ftest	.22	.7	.23	.014	.0041	.92

Back

Identity: All

	Congolese	Kasaien	Christian	Tribe
Church	-0.033	-0.061	0.068	-0.096
	(0.068)	(0.056)	(0.081)	(0.064)
Market	0.084	0.026	0.027	0.081
	(0.065)	(0.056)	(0.075)	(0.061)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1800	1800	1800	1800
R^2	0.086	0.052	0.067	0.056
Clusters	300	300	300	300
ControlMean	2.5	2	2.9	2.1
Ftest	.073	.11	.57	.0034

Identity: Men

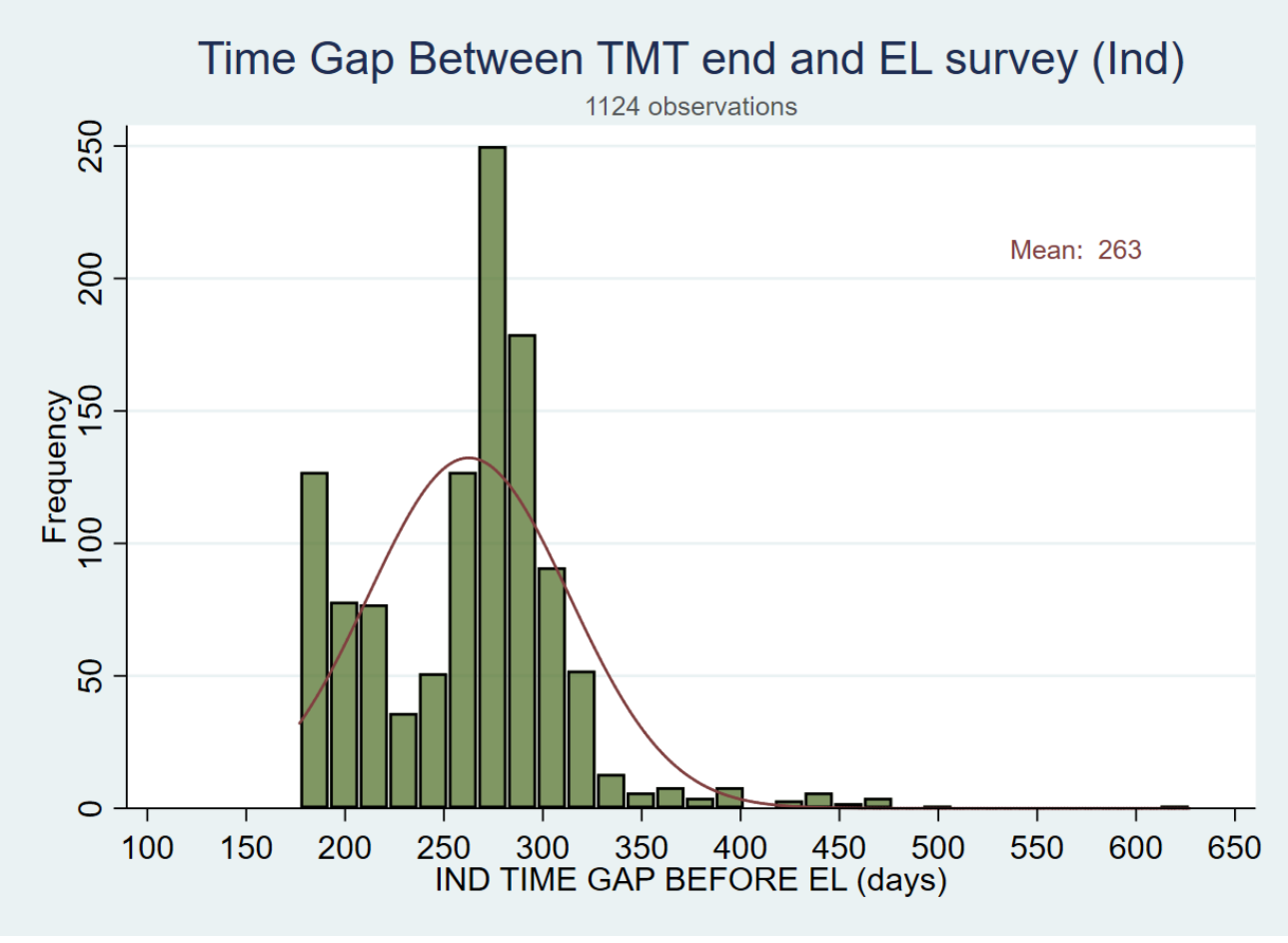
	Congolese	Kasaien	Christian	Tribe
Church	-0.083	0.017	0.059	-0.096
	(0.094)	(0.077)	(0.103)	(0.081)
Market	0.082	0.123*	0.044	0.068
	(0.085)	(0.071)	(0.106)	(0.084)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	900	900	900	900
R^2	0.081	0.088	0.089	0.070
Clusters	300	300	300	300
ControlMean	2.7	1.9	2.9	1.9
Ftest	.074	.14	.89	.044

Identity: Women

	Congolese	Kasaien	Christian	Tribe
Church	0.028	-0.148*	0.092	-0.101
	(0.090)	(0.077)	(0.098)	(0.095)
Market	0.079	-0.083	0.015	0.087
	(0.096)	(0.082)	(0.090)	(0.090)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	900	900	900	900
R^2	0.082	0.063	0.073	0.053
Clusters	300	300	300	300
ControlMean	2.3	2.1	2.9	2.2
Ftest	.58	.42	.39	.044

Time Gap Between Program and Endline (Days)

Back



Experimental Test of Demand Effects

Back

De Quidt et al. AER (2018)

- Allocation of 1,000 CF between self and someone randomly selected in village
- Nudge: "I expect someone like you to be more generous to others in this village."

	No Controls	Controls	Men	Women
Nudge	0.001	-0.003	0.192	-0.185
	(0.129)	(0.129)	(0.204)	(0.168)
Church	0.001	-0.017	-0.033	0.021
	(0.137)	(0.135)	(0.159)	(0.193)
Market	-0.033	-0.022	0.105	-0.157
	(0.125)	(0.126)	(0.167)	(0.182)
Nudge × Church	0.023	0.041	-0.212	0.197
	(0.174)	(0.175)	(0.259)	(0.241)
Nudge × Market	-0.088	-0.099	-0.328	0.127
	(0.168)	(0.167)	(0.270)	(0.241)
Stratum FE	Y	Y	Y	Y
Controls	N	Y	Y	Y
Observations	1630	1630	808	822
R^2	0.035	0.047	0.054	0.080
Clusters	294	294	289	292
ControlMean	3.2	3.2	3.3	3.2
Ftest	.8	.97	.41	.36

Enumerator Perceptions of Respondents

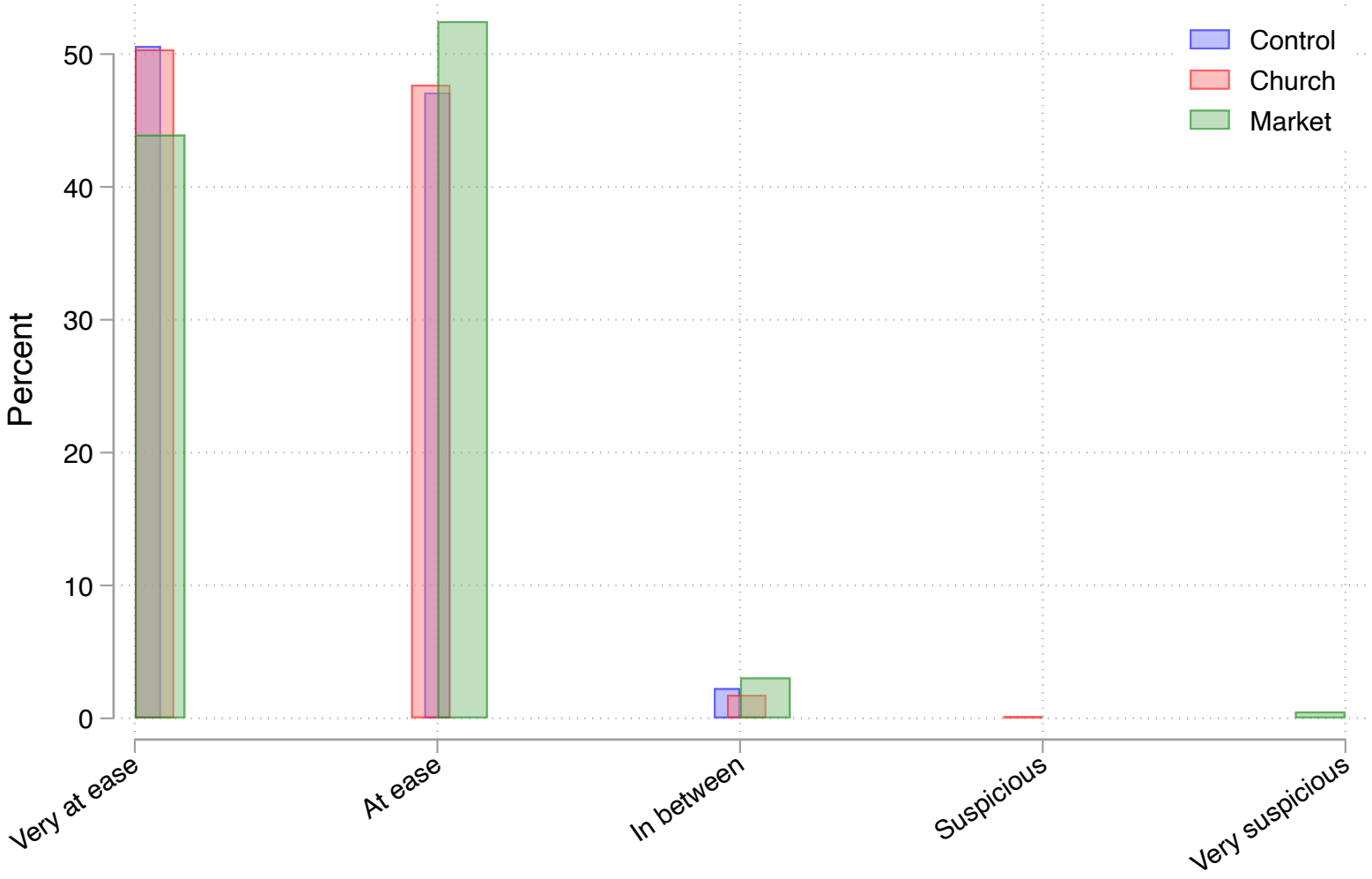
Back

- In your opinion, was the respondent:
  1. Honest or misleading?
  2. At ease or suspicious?
  3. Patient or impatient?

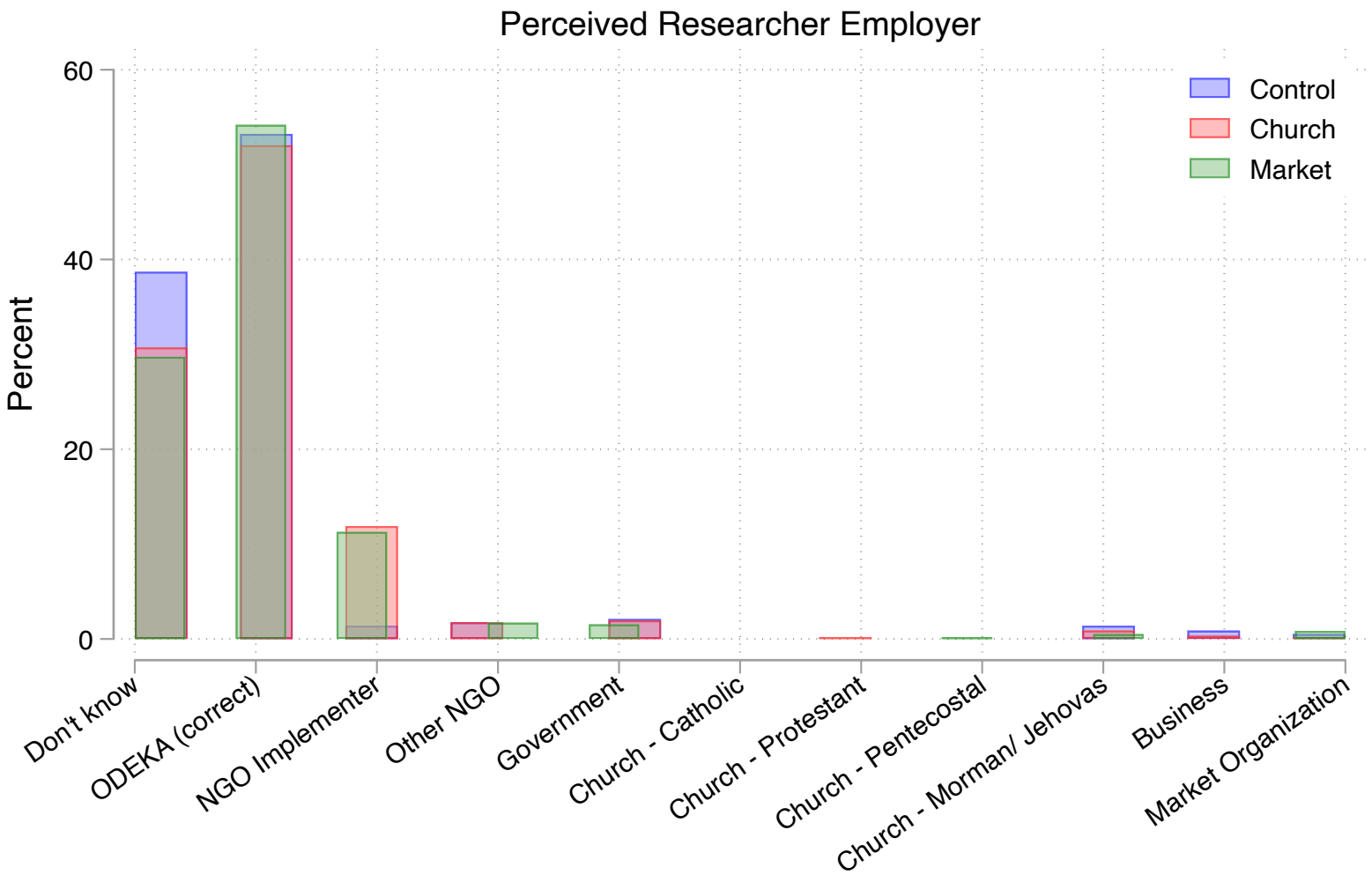
	Honest	Suspicious	Impatient
Church	0.039	-0.001	0.038
	(0.070)	(0.041)	(0.040)
Market	0.034	0.068	0.067*
	(0.072)	(0.041)	(0.040)
Stratum FE	Y	Y	Y
Baseline Outcome	Y	Y	Y
Controls	Y	Y	Y
Observations	1719	1719	1719
R^2	0.127	0.133	0.076
Clusters	300	300	300
ControlMean	3.9	1.5	1.4
Ftest	.93	.1	.48

Enumerator Perceptions of Respondents

Back

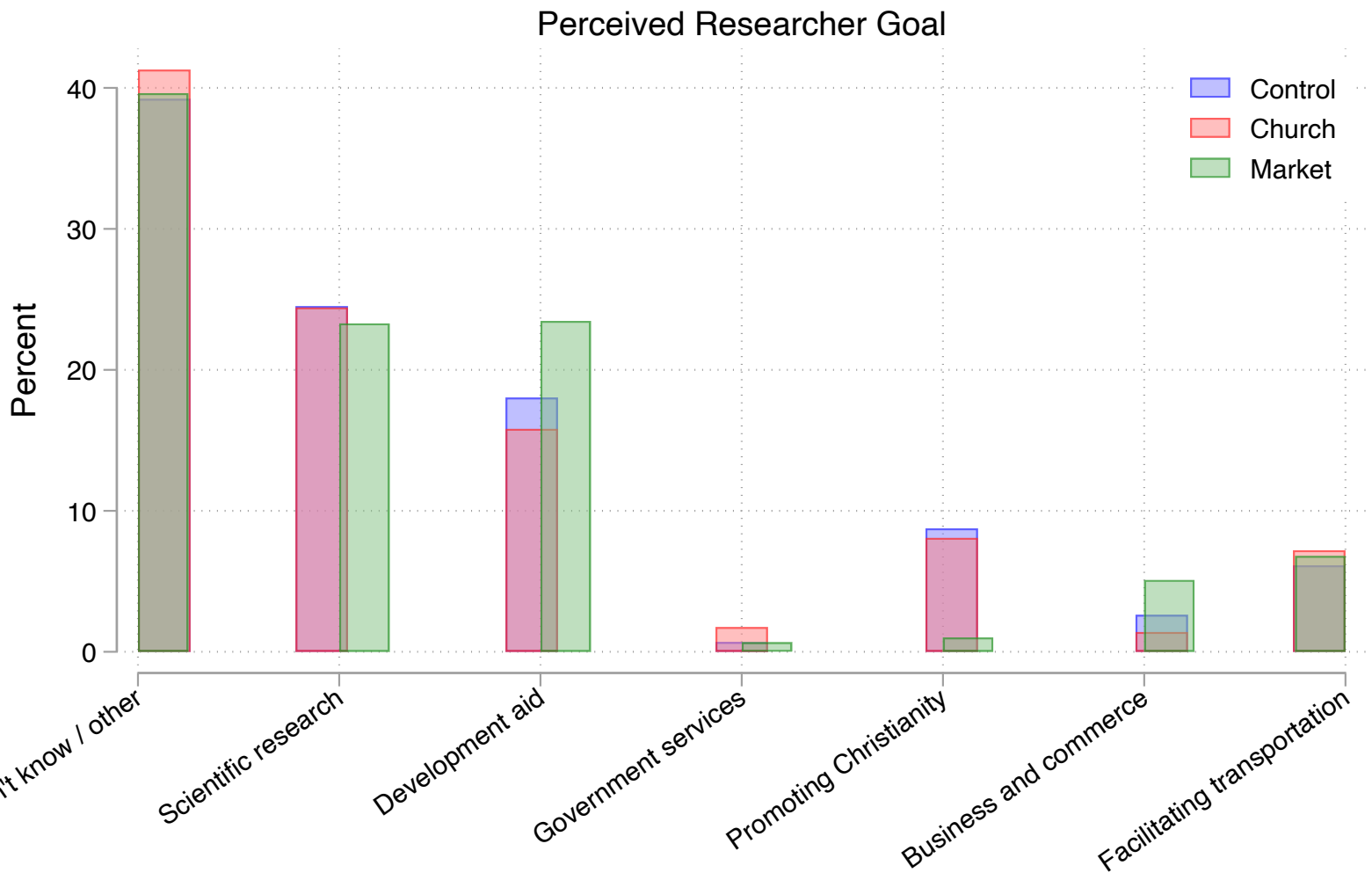


Who do you think I work? Back



What is the goal of the study?

Back



The Good Life: Robustness to Demand Effects

Back

	Main	Religion Topic Controls	All Goal Dummies	All Research Dummies
Church	0.054	0.046	0.054	0.046
	(0.089)	(0.089)	(0.089)	(0.090)
Market	-0.358***	-0.327***	-0.348***	-0.334***
	(0.081)	(0.080)	(0.079)	(0.079)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Religion topic controls	N	Y	N	N
Study Goal FE	N	N	Y	N
Study Topic FE	N	N	N	Y
Observations	1724	1724	1724	1724
R^2	0.069	0.072	0.071	0.073
Clusters	300	300	300	300
ControlMean	2.3	2.3	2.3	2.3
Ftest	6.5e-07	.000012	2.4e-06	

Spillovers: Values and Psychology

	Religious Faith	Thrift	Generosity	Locus of Control
Church × Participant	0.057	0.094	0.120	0.068
	(0.128)	(0.092)	(0.098)	(0.068)
Church × Friend	0.002	-0.056	-0.086	0.024
	(0.125)	(0.097)	(0.112)	(0.063)
Church × Non-Friend	-0.342	0.163	0.189	-0.022
	(0.212)	(0.159)	(0.172)	(0.117)
Market × Participant	-0.412***	0.102	0.197*	0.173**
	(0.118)	(0.096)	(0.105)	(0.069)
Market × Friend	0.035	0.065	-0.065	0.106*
	(0.118)	(0.094)	(0.109)	(0.064)
Market × Non-Friend	-0.023	0.161	0.077	0.036
	(0.205)	(0.169)	(0.176)	(0.121)
Friend	-0.183*	0.051	0.166*	0.113*
	(0.108)	(0.100)	(0.099)	(0.063)
Non-Friend	0.028	-0.041	0.075	0.078
	(0.169)	(0.127)	(0.147)	(0.098)
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	3191	3191	3191	3984
Control_Mean	3	.81	1.1	2.7

Springfield Religiosity Scale

- Five questions for 34-item survey module to measure different activities associated with Christian religiosity (Koenig et al 1988)

1. How often do you attend church services?
2. How often do you participate in other religious group activities (i.e., adult Sunday school classes, Bible study groups, prayer groups, etc.)?
3. How often do you pray privately?
4. How often do you discuss the Bible and religious matters at home?
5. How often do you listen to religious programs on the radio?

Back

Extrinsic Religiosity Scale

- Four questions from survey module of Allport and Ross (1967)
- For the following statements, please indicate if you strongly agree, agree, disagree, or strongly disagree.

1. I go to church to seek comfort in times of trouble and sorrow
2. I pray to gain relief and protection
3. I go to church to be part of a community that supports me in difficult times
4. I go to religious services mostly to spend time with my friends

Back

Extrinsic Religiosity Scale

	Comfort	Relief and protection	Community	Make friends	Index
			Panel A: Men		
Church	-0.039	-0.040	-0.066	0.129	0.074
	(0.065)	(0.059)	(0.118)	(0.115)	(0.089)
Market	0.038	-0.031	0.171	0.147	0.160*
	(0.069)	(0.067)	(0.117)	(0.121)	(0.090)
Observations	782	782	782	778	778
R^2	0.079	0.075	0.128	0.150	0.182
Clusters	300	300	300	300	300
ControlMean	1.3	1.3	.2	-.85	-.15
Market_v_Church	.28	.89	.034	.88	.35
			Panel B: Women		
Church	0.010	0.063	-0.103	0.164	0.020
	(0.064)	(0.063)	(0.109)	(0.119)	(0.085)
Market	0.107*	0.049	0.073	0.202*	0.097
	(0.063)	(0.065)	(0.107)	(0.114)	(0.086)
Observations	843	843	843	843	843
R^2	0.055	0.047	0.075	0.110	0.115
Clusters	300	300	300	300	300
ControlMean	1.2	1.2	.56	-.66	.14
Ftest	.11	.81	.1	.75	.37
Stratum FE	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y

- Index: average increase of 0.124 SDs (p=0.065)

Back - Participation Back - Mechanisms

Intrinsic Religiosity Scale

- Adapted from survey module of Allport and Ross (1967)
- Three sets of conflicting opinions: which of these do you agree with?
  - Set 1
    1. Although I believe in my religion, many other things are more important in my life
    2. Nothing is as important to me as serving God
  - Set 2
    1. I always have a sense of God's presence in my day-to-day life
    2. I am religious, but I seldom have a sense of God's presence in my day-to-day life
  - Set 3
    1. When I make decisions in life, I seldom think of God
    2. I seek God's guidance when making every decision

Back

Intrinsic Religiosity Scale: All

	Serving God	God's Presence	God's Guidance	Index
Church	0.104	0.010	-0.005	0.031
	(0.069)	(0.073)	(0.079)	(0.074)
Market	-0.053	-0.016	0.027	0.009
	(0.074)	(0.075)	(0.073)	(0.070)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y
Controls	Y	Y	Y	Y
Observations	1619	1251	1621	1242
R^2	0.037	0.034	0.042	0.055
Clusters	300	297	300	297
ControlMean	2.8	2.1	2.6	-.031
Ftest	.025	.71	.68	.75

Back

Views of Divine Punishment: All

- How often does God/Jesus/Holy Spirit punish someone who:

1. Steals?
2. Lies?
3. Holds ceremonies for their ancestors?
4. Uses fetiches and witchcraft?
5. Is lazy?

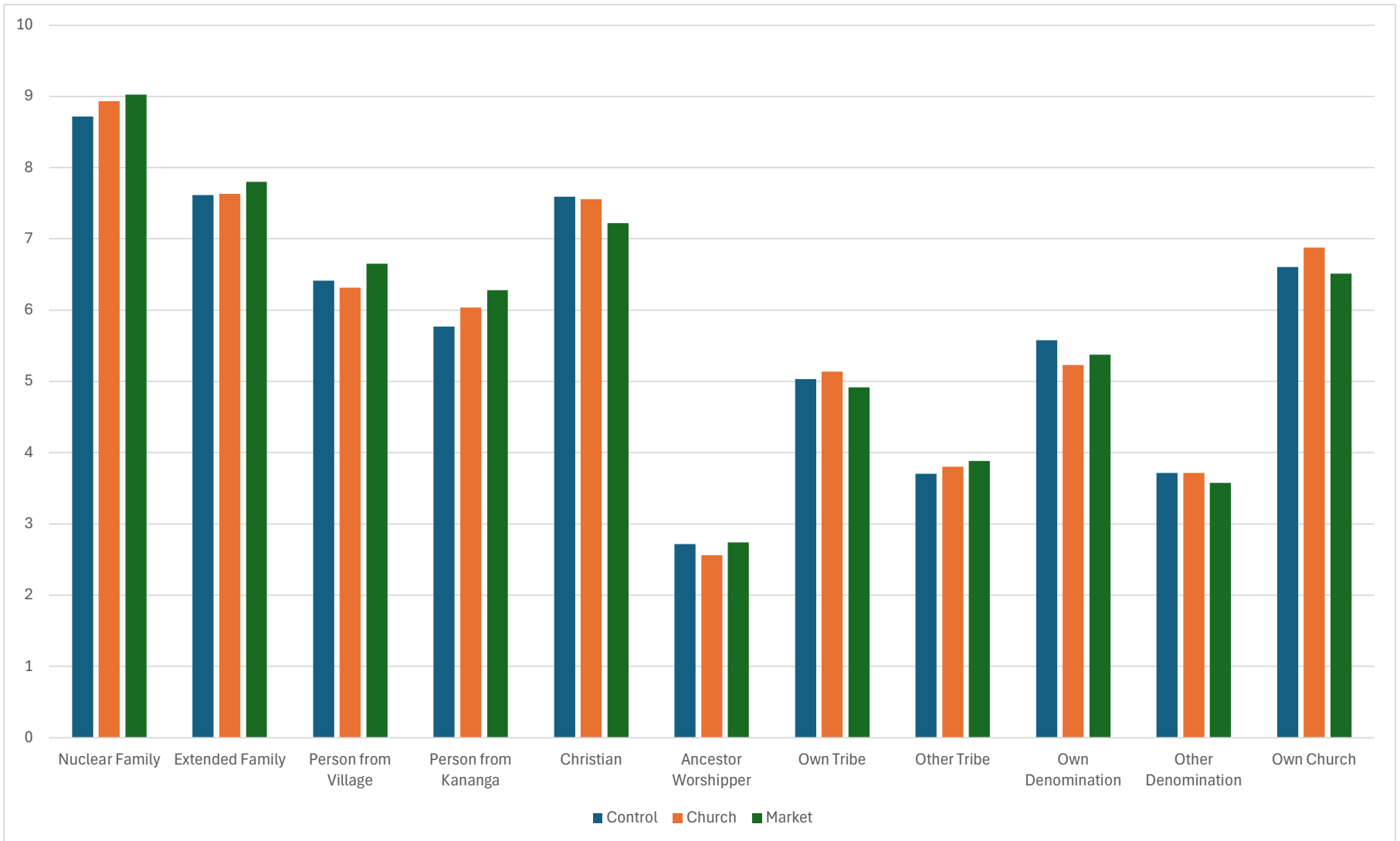
Back

Views of Divine Punishment: All

	Stealing	Lying	Ancestors	Witchcraft	Laziness	Index
Church	0.054	-0.020	0.048	0.015	0.019	0.028
	(0.075)	(0.058)	(0.061)	(0.055)	(0.060)	(0.072)
Market	0.077	0.054	0.107*	0.157***	0.168***	0.176**
	(0.082)	(0.054)	(0.059)	(0.054)	(0.062)	(0.070)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1625	1625	1625	1625	1625	1625
R^2	0.079	0.056	0.063	0.061	0.068	0.092
Clusters	300	300	300	300	300	300
ControlMean	3.2	1.5	1.5	1.6	1.5	-.001
Ftest	.76	.2	.31	.012	.0099	.038

Back

Beliefs in Others' Altruism: Rank Your Dictator



Back

Rank Your Dictator Game (All)

- Outcome: increasing in preference (top rank = 11, bottom rank = 1)

	Nuc. Fam	Ext. Fam	Christian	Own Tribe	Other Tribe	Own Denom.	Other Denom.	Own Church
Church	0.215	0.007	-0.024	0.096	0.093	-0.336*	0.001	0.286
	(0.190)	(0.186)	(0.182)	(0.151)	(0.138)	(0.188)	(0.160)	(0.287)
Market	0.333*	0.190	-0.351*	-0.108	0.184	-0.197	-0.138	-0.090
	(0.191)	(0.182)	(0.186)	(0.145)	(0.155)	(0.184)	(0.148)	(0.289)
Stratum FE	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1728	1728	1728	1728	1728	1728	1728	1728
R^2	0.073	0.057	0.035	0.044	0.033	0.053	0.081	0.072
Clusters	300	300	300	300	300	300	300	300
ControlMean	8.7	7.6	7.6	5	3.7	5.6	3.7	6.6
Ftest	.51	.32	.086	.13	.53	.4	.35	.15

Gender Heterogeneity Back

Moral Universalism: Game Measures

- Series of games played self v. ingroup and self v. outgroup

No.	Ingroup	Outgroup
1	Nuclear family	Extended family
2	Person from village	Person from Kananga
3	Person from own tribe	Person from other tribe
4	Person who is Christian	Person who worships the ancestors
5	Person from own denomination	Person from other denomination

- Universalism measure: ingroup - outgroup
  - Secular domain: 1 to 3
  - Religious domain: 4 to 5

Back

Moral Universalism: Games (Secular Domain)

	DG	RYD	Color	Bystander
Church	0.038	0.075	-0.039	-0.016
	(0.061)	(0.071)	(0.055)	(0.060)
Market	0.010	-0.060	-0.073	-0.026
	(0.064)	(0.072)	(0.054)	(0.064)
Stratum FE	Y	Y	Y	Y
Baseline Outcome	N	N	N	Y
Controls	Y	Y	Y	Y
Observations	1720	1728	1719	1720
R^2	0.043	0.041	0.019	0.077
Clusters	300	300	300	300
ControlMean	-.015	-.0022	.035	.019
Ftest	.63	.059	.55	.87

Back

Moral Universalism: Games (Religious Domain)

	DG	RYD	Color
Church	0.009	0.075	0.014
	(0.060)	(0.071)	(0.057)
Market	-0.131**	-0.060	-0.047
	(0.065)	(0.072)	(0.057)
Stratum FE	Y	Y	Y
Controls	Y	Y	Y
Observations	1668	1728	1668
R^2	0.040	0.041	0.019
Clusters	300	300	300
ControlMean	.049	-.0022	.014
Ftest	.021	.059	.32

Back

Effects on ROSCA Participation?

	Any ROSCA	ROSCA Freq.	Nb. ROSCAs	Members - City	Members - Family	Members - Church
Church	-0.046	1.293	0.076	-0.734*	-0.018	0.184
	(0.031)	(1.916)	(0.138)	(0.385)	(0.285)	(0.526)
Market	0.037	-1.902	0.058	-0.447	-0.070	-0.811
	(0.030)	(1.797)	(0.152)	(0.416)	(0.278)	(0.495)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1727	367	366	367	367	367
R^2	0.170	0.159	0.246	0.181	0.160	0.247
Clusters	300	193	193	193	193	193
Control_Mean	.38	22	-.0034	1.5	1.8	4.2
Market_v_Church	.0047	.083	.88	.49	.84	.036

Back

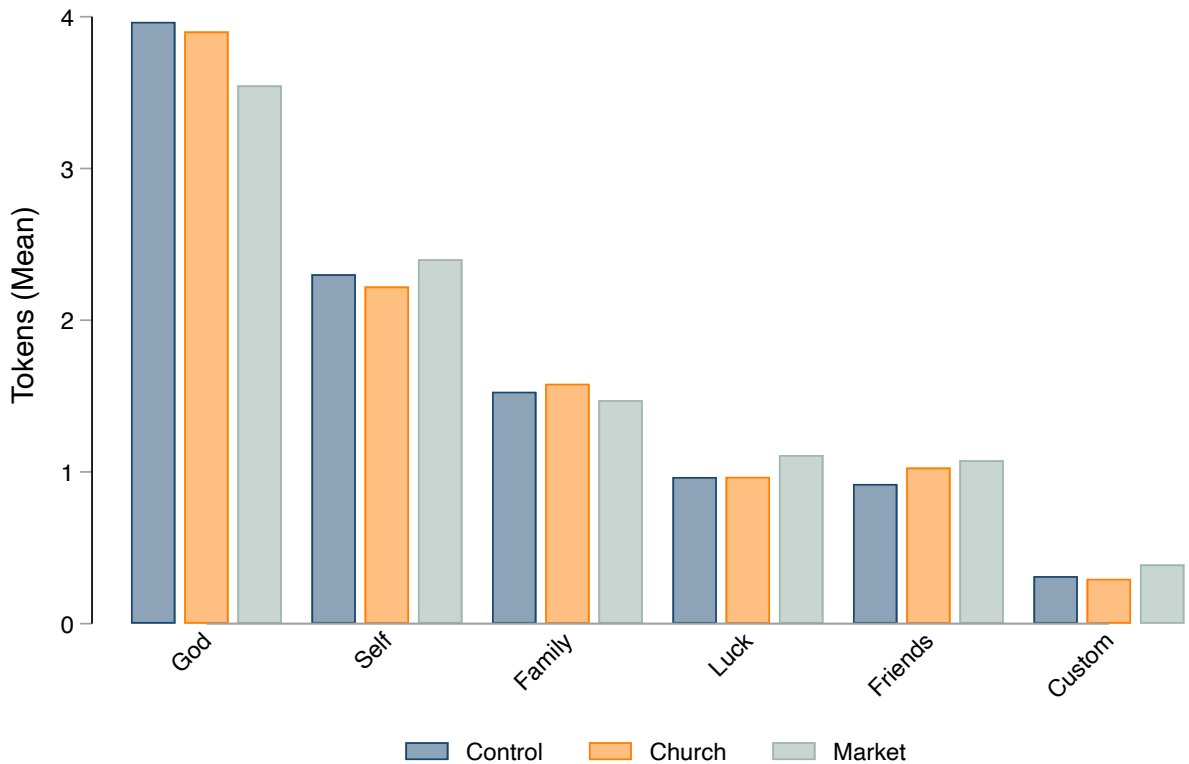
What forces influence our lives? (Personal life)

	Self	Family	Friends	God	Custom	Luck
Church	0.229**	0.062	0.050	-0.196	-0.059	-0.078
	(0.097)	(0.085)	(0.075)	(0.141)	(0.037)	(0.099)
Market	0.330***	0.002	0.068	-0.462***	0.067	-0.009
	(0.107)	(0.084)	(0.077)	(0.124)	(0.041)	(0.097)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1544	1544	1544	1544	1544	1544
R^2	0.040	0.031	0.061	0.081	0.088	0.034
Clusters	271	271	271	271	271	271
Control_Mean	2	1.8	1.1	3.7	.23	1.1
Market_v_Church	.33	.47	.82	.038	.0016	.46

Gender Heterogeneity Back

What forces influence our lives? (Professional life)

- What forces influences the choice of work and amount of income that you have today?



Back

What forces influence our lives? (Professional life)

	Self	Family	Friends	God	Custom	Luck
Church	-0.096	0.032	0.124	-0.101	-0.001	0.058
	(0.116)	(0.089)	(0.078)	(0.148)	(0.053)	(0.089)
Market	0.055	-0.095	0.192***	-0.438***	0.083	0.223**
	(0.121)	(0.084)	(0.074)	(0.134)	(0.052)	(0.091)
Stratum FE	Y	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	1544	1544	1544	1544	1544	1544
R^2	0.057	0.030	0.048	0.093	0.078	0.056
Clusters	271	271	271	271	271	271
Control_Mean	2.3	1.6	.9	4	.33	.96
Market_v_Church	.21	.14	.39	.02	.13	.077

Back

Psychological Traits: Standard Survey-Based Measures

	Locus of Control	Grit	Optimism	Self-Control	Resilience
Church	0.068	0.089	0.026	0.013	0.076
	(0.069)	(0.066)	(0.065)	(0.060)	(0.061)
Market	0.175**	0.127**	0.042	-0.058	-0.069
	(0.069)	(0.060)	(0.066)	(0.060)	(0.064)
Stratum FE	Y	Y	Y	Y	Y
Baseline Outcome	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y
Observations	1717	1719	1676	1665	1368
R^2	0.023	0.053	0.038	0.071	0.025
Clusters	300	300	298	298	240
ControlMean	2.7	-.035	.00016	-.034	-.033
Ftest	.13	.57	.81	.22	.028

Survey Questions

Back

Locus of Control

- Which statement do you agree with?

1. Most of the success or failure in people's lives result from their choices and actions.

2. Most of the success or failure in people's lives result from forces beyond their control.

Back

Grit and Resilience

- **Grit** – focus on goals / projects
  - 1a. In the pursuit of my goals, I often get discouraged when I encounter setbacks.
  - 1b. In the pursuit of my goals, setbacks don't discourage me.
  - 2a. I finish whatever projects I begin no matter how long they take.
  - 2b. I sometimes have trouble finishing projects that take more than a few months.

- **Resilience** – dealing with setbacks more generally
  - 1a. When bad things happen in my life, I know I will be able to endure and find my way again soon.
  - 1b. When bad things happen in my life, I often wonder how I will ever recover and find my way.
  - 2a. I am usually not bothered by stressful events.
  - 2b. I have a hard time coping with stressful events.

Back

Optimism and Self-Control

- **Optimism**
  - 1a. In uncertain times in my life, I usually expect the worst outcome.
  - 1b. In uncertain times, I usually expect the best.

- **Self-Control**
  - 1a. I have a hard time breaking bad habits.
  - 1b. Breaking bad habits is no problem at all for me.
  - 2a. I can always resist temptation.
  - 2b. I sometimes have a hard time resisting temptation.

Back

Cash Transfer Literature Summary

- **Magnitude**: typically $1,000-$1,500
- **Income effect**: not consistently found; typically asset and consumption effects
- **Wellbeing**: short-run 0.26 improvement
- **Spillovers**:
  - Eggers et al: positive impact on consumption
  - Haushofer & Shapiro 2016: decrease in life satisfaction that offsets boost to recipients (unpublished)

Back

Crop Heterogeneity Approach

- **Step 1: Define crop shares.** For each level of aggregation, the share of item *i* is the ratio of the number of times item *i* was mentioned to the total number of crops mentioned.
- **Step 2: Aggregate crops into groups.**
  - *Positive crops* (associated with higher income): Soap, Cassava Fruits, Palm Oil, Amarantes, Maize, Meat/Animal
  - *Negative crops* (associated with lower income): Peanuts, Palm Nuts, Sugar, Miscellaneous, Starches
  - *Insignificant crops*: remaining items
- **Step 3: Income prediction:**
  - Crop dummies indicate whether a crop's share exceeds the average (Distribution of village-level shares and individual-level shares).
  - Crop group indicators are interacted with season dummies, capturing seasonal variation in crop-income relationships.
  - Treatment indicators are interacted with a female dummy since some crops (e.g., cassava leaves) are mainly sold by women.
  - See prediction with village-level shares and individual-level shares

Distribution of village-level shares

	Mean	Median	SD	Min	Q1	Q3	Max
Amarantes	0.072	0	0.130	0	0	0.107	1
Fruit/vegetables	0.083	0.051	0.116	0	0	0.118	0.833
Peanuts	0.019	0	0.037	0	0	0.027	0.200
Miscellaneous	0.022	0	0.054	0	0	0.024	0.500
Processed food	0.006	0	0.020	0	0	0	0.167
Coffee	0.024	0	0.043	0	0	0.037	0.200
Charcoal	0.108	0.058	0.130	0	0	0.176	0.714
Meet/animal	0.007	0	0.027	0	0	0	0.200
Cigarettes	0.015	0	0.038	0	0	0	0.250
Cassava Leaves	0.056	0	0.102	0	0	0.075	0.500
Salted fish	0.029	0	0.052	0	0	0.051	0.333
Cassava fruits	0.028	0	0.078	0	0	0	0.500
Starches	0.032	0	0.054	0	0	0.060	0.444
Oil	0.093	0.081	0.103	0	0	0.143	1
Maize	0.129	0.111	0.131	0	0	0.200	0.667
Cassava root	0.188	0.184	0.148	0	0.073	0.278	1
Palm nuts	0.023	0	0.055	0	0	0	0.353
Soap	0.020	0	0.049	0	0	0	0.500
Sugar	0.026	0	0.045	0	0	0.047	0.200
Tshitshampa	0.020	0	0.049	0	0	0	0.389

Back

Distribution of individual-level shares

	Mean	Median	SD	Min	Q1	Q3	Max
Amarantes	0.063	0	0.184	0	0	0	1
Fruit/vegetables	0.070	0	0.196	0	0	0	1
Peanuts	0.016	0	0.080	0	0	0	1
Miscellaneous	0.019	0	0.109	0	0	0	1
Processed food	0.003	0	0.027	0	0	0	0.500
Coffee	0.018	0	0.084	0	0	0	1
Charcoal	0.127	0	0.281	0	0	0	1
Meet/animal	0.006	0	0.065	0	0	0	1
Cigarettes	0.011	0	0.080	0	0	0	1
Cassava Leaves	0.064	0	0.194	0	0	0	1
Salted fish	0.024	0	0.113	0	0	0	1
Cassava fruits	0.028	0	0.138	0	0	0	1
Starches	0.027	0	0.110	0	0	0	1
Oil	0.096	0	0.229	0	0	0	1
Maize	0.124	0	0.215	0	0	0.250	1
Cassava root	0.214	0	0.304	0	0	0.333	1
Palm nuts	0.030	0	0.141	0	0	0	1
Soap	0.015	0	0.092	0	0	0	1
Sugar	0.016	0	0.067	0	0	0	0.500
Tshitshampa	0.028	0	0.139	0	0	0	1

Back

Predicted income, village-level shares

	Income	Depression score	Depression dummy	Income to be happy	Gap income to be happy vs. EL income
Church	-0.149	0.379	0.063	0.101	0.106
	(0.172)	(0.685)	(0.071)	(0.200)	(0.203)
Market	0.368**	-0.220	0.035	0.069	0.040
	(0.161)	(0.701)	(0.064)	(0.173)	(0.174)
Church × Woman	0.139	0.081	-0.016	0.084	0.077
	(0.108)	(0.567)	(0.055)	(0.124)	(0.124)
Market × Woman	-0.198*	-0.110	-0.012	-0.110	-0.101
	(0.112)	(0.563)	(0.057)	(0.121)	(0.121)
Market × Rainy (Jan-Apr) x Negative	-0.878**	1.326	0.071	0.236	0.303
	(0.375)	(1.498)	(0.122)	(0.235)	(0.232)
Market × Dry (May-Aug) x Negative	-0.266	-0.486	-0.086	0.042	0.067
	(0.229)	(1.110)	(0.095)	(0.229)	(0.224)
Market × Rainy (Sep-Dec) x Negative	-0.352*	-1.119	-0.070	-0.108	-0.091
	(0.191)	(0.849)	(0.081)	(0.195)	(0.194)
Market × Rainy (Jan-Apr) x Positive	0.158	0.358	0.040	0.253	0.260
	(0.316)	(1.323)	(0.108)	(0.201)	(0.198)
Market × Dry (May-Aug) x Positive	-0.002	0.714	0.004	0.222	0.222
	(0.224)	(0.989)	(0.084)	(0.194)	(0.191)
Market × Rainy (Sep-Dec) x Positive	0.438**	0.186	-0.001	0.175	0.163
	(0.219)	(0.901)	(0.092)	(0.167)	(0.164)
Market × Rainy (Jan-Apr) x Insignificant	0.227	0.813	0.053	-0.105	-0.121
	(0.306)	(1.067)	(0.096)	(0.186)	(0.181)
Market × Dry (May-Aug) x Insignificant	-0.221	2.534***	0.207***	0.084	0.106
	(0.213)	(0.876)	(0.079)	(0.191)	(0.189)
Market × Rainy (Sep-Dec) x Insignificant	0.089	0.816	0.051	0.236	0.238
	(0.196)	(0.891)	(0.097)	(0.208)	(0.208)
Church × Rainy (Jan-Apr) x Negative	-0.620	0.847	0.114	0.178	0.236
	(0.416)	(1.531)	(0.128)	(0.298)	(0.300)
Church × Dry (May-Aug) x Negative	0.097	-0.632	-0.085	-0.241	-0.243
	(0.218)	(1.004)	(0.092)	(0.157)	(0.155)
Church × Rainy (Sep-Dec) x Negative	0.261	-1.088	-0.064	-0.217	-0.240
	(0.215)	(0.878)	(0.088)	(0.205)	(0.208)
Church × Rainy (Jan-Apr) x Positive	0.476	0.307	0.070	-0.239	-0.269
	(0.303)	(1.340)	(0.109)	(0.190)	(0.190)
Church × Dry (May-Aug) x Positive	-0.012	-0.095	0.045	-0.091	-0.089
	(0.205)	(0.972)	(0.085)	(0.143)	(0.140)
Church × Rainy (Sep-Dec) x Positive	0.385**	-0.031	-0.047	0.142	0.128
	(0.193)	(0.893)	(0.093)	(0.174)	(0.176)
Church × Rainy (Jan-Apr) x Insignificant	0.339	-0.578	-0.034	-0.032	-0.049
	(0.285)	(1.077)	(0.108)	(0.246)	(0.244)
Church × Dry (May-Aug) x Insignificant	-0.202	1.387	0.064	-0.015	0.008
	(0.201)	(0.913)	(0.086)	(0.141)	(0.141)
Church × Rainy (Sep-Dec) x Insignificant	-0.064	-0.020	-0.033	0.030	0.034
	(0.189)	(1.063)	(0.119)	(0.216)	(0.221)
Baseline Outcome	Y	Y	Y	N	N
Controls	Y	Y	Y	Y	Y
Crop x seasons	Y	Y	Y	Y	Y
Observations	1720	1727	1727	1725	1719
R^2	0.174	0.266	0.174	0.067	0.066
Clusters	300	300	300	300	300
Control_Mean	0	10	.48	0	0
Market_v_Church	.0017	.4	.69	.86	.71

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Predicted income, individual-level shares

	Income	Depression score	Depression dummy	Income to be happy	Gap income to be happy vs. EL income
Church	-0.080	0.054	0.034	0.051	0.055
	(0.095)	(0.505)	(0.052)	(0.137)	(0.138)
Market	0.342***	0.344	0.029	0.140	0.118
	(0.106)	(0.500)	(0.050)	(0.121)	(0.121)
Church × Woman	0.132	0.070	-0.021	0.112	0.103
	(0.108)	(0.563)	(0.055)	(0.123)	(0.123)
Market × Woman	-0.187	-0.161	-0.027	-0.073	-0.066
	(0.116)	(0.567)	(0.058)	(0.119)	(0.119)
Market × Rainy (Jan-Apr) x Negative	0.449	-1.677	-0.147	0.283	0.260
	(0.473)	(2.100)	(0.174)	(0.272)	(0.274)
Market × Dry (May-Aug) x Negative	-0.469	-0.115	0.094	-0.198	-0.163
	(0.305)	(1.140)	(0.135)	(0.205)	(0.201)
Market × Rainy (Sep-Dec) x Negative	0.101	-2.957**	-0.144	0.621*	0.614*
	(0.279)	(1.376)	(0.122)	(0.361)	(0.365)
Market × Rainy (Jan-Apr) x Positive	-0.086	1.884*	0.192	0.187	0.213*
	(0.263)	(1.074)	(0.124)	(0.129)	(0.129)
Market × Dry (May-Aug) x Positive	-0.278	1.287	0.102	-0.027	-0.008
	(0.258)	(1.099)	(0.089)	(0.269)	(0.268)
Market × Rainy (Sep-Dec) x Positive	0.338	-0.268	0.025	-0.112	-0.125
	(0.235)	(1.071)	(0.102)	(0.140)	(0.139)
Market × Rainy (Jan-Apr) x Insignificant	0.005	0.037	0.071	-0.155	-0.151
	(0.378)	(1.365)	(0.135)	(0.391)	(0.394)
Market × Dry (May-Aug) x Insignificant	-0.377*	-0.220	0.116	0.432**	0.457**
	(0.205)	(0.989)	(0.095)	(0.194)	(0.192)
Market × Rainy (Sep-Dec) x Insignificant	-0.067	1.352	0.164	-0.138	-0.130
	(0.272)	(1.446)	(0.117)	(0.164)	(0.161)
Church × Rainy (Jan-Apr) x Negative	0.010	1.268	0.182	0.064	0.057
	(0.341)	(1.743)	(0.167)	(0.192)	(0.195)
Church × Dry (May-Aug) x Negative	0.017	-1.260	-0.132	-0.277	-0.261
	(0.383)	(1.487)	(0.144)	(0.176)	(0.173)
Church × Rainy (Sep-Dec) x Negative	0.727**	-1.257	-0.121	-0.199	-0.245*
	(0.326)	(1.131)	(0.124)	(0.128)	(0.125)
Church × Rainy (Jan-Apr) x Positive	0.404	0.183	-0.021	-0.082	-0.094
	(0.329)	(1.251)	(0.139)	(0.113)	(0.118)
Church × Dry (May-Aug) x Positive	-0.236	1.408	0.116	-0.232	-0.215
	(0.241)	(1.045)	(0.081)	(0.214)	(0.211)
Church × Rainy (Sep-Dec) x Positive	0.273	-0.384	-0.020	0.065	0.052
	(0.225)	(1.096)	(0.097)	(0.168)	(0.170)
Church × Rainy (Jan-Apr) x Insignificant	0.161	0.178	0.045	-0.211	-0.216
	(0.340)	(1.424)	(0.134)	(0.359)	(0.361)
Church × Dry (May-Aug) x Insignificant	-0.196	2.001*	0.148	0.133	0.145
	(0.213)	(1.153)	(0.125)	(0.123)	(0.125)
Church × Rainy (Sep-Dec) x Insignificant	0.250	1.001	0.105	-0.009	-0.022
	(0.281)	(1.451)	(0.117)	(0.160)	(0.160)
Baseline Outcome	Y	Y	Y	N	N
Controls	Y	Y	Y	Y	Y
Crop x seasons	Y	Y	Y	Y	Y
Observations	1720	1727	1727	1725	1719
R^2	0.168	0.268	0.176	0.076	0.074
Clusters	300	300	300	300	300
Control_Mean	0	10	.48	0	0
Market_v_Church	.000053	.56	.92	.49	.62

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Predicted income with individual-level shares, treatment-heterogeneity

- Predicted income is derived from the treatment part only (treatment, Treatment × Woman, and Treatment × Crop × Season coefficients), and is zero by construction for the control group. Prediction

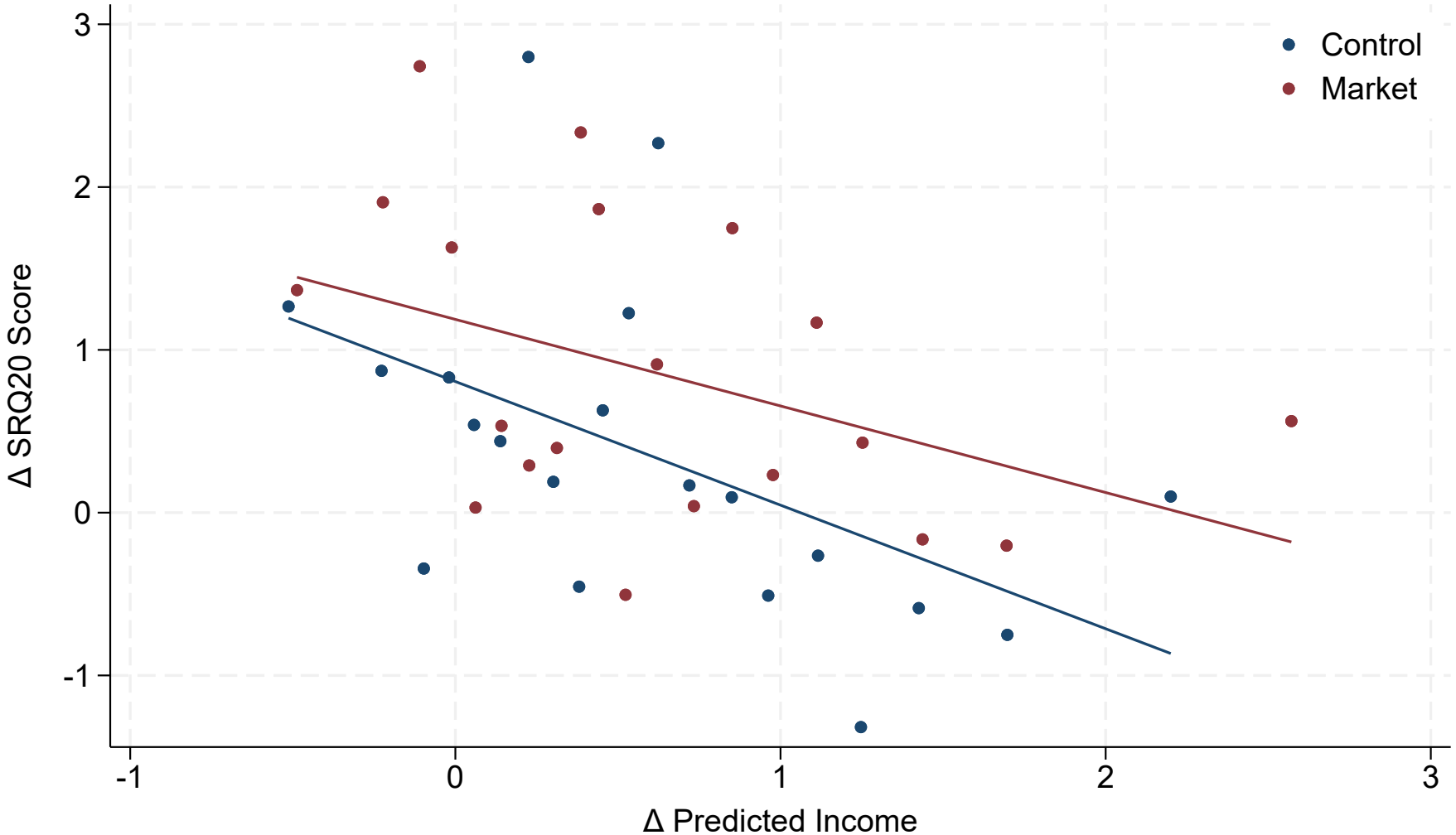
Panel A: Market arm only

	Endline income	Depression	Depression¿10	Income to be happy	Gap income to be happy vs. EL income
Predicted income	0.574**	0.191	-0.183	-0.045	-0.074
	(0.279)	(1.169)	(0.124)	(0.201)	(0.198)
Baseline Outcome	Y	Y	Y	N	N
Controls	Y	Y	Y	Y	Y
Stratum FE	Y	Y	Y	Y	Y
Observations	588	588	588	587	587
R^2	0.192	0.287	0.193	0.107	0.105

Panel B: Church arm only

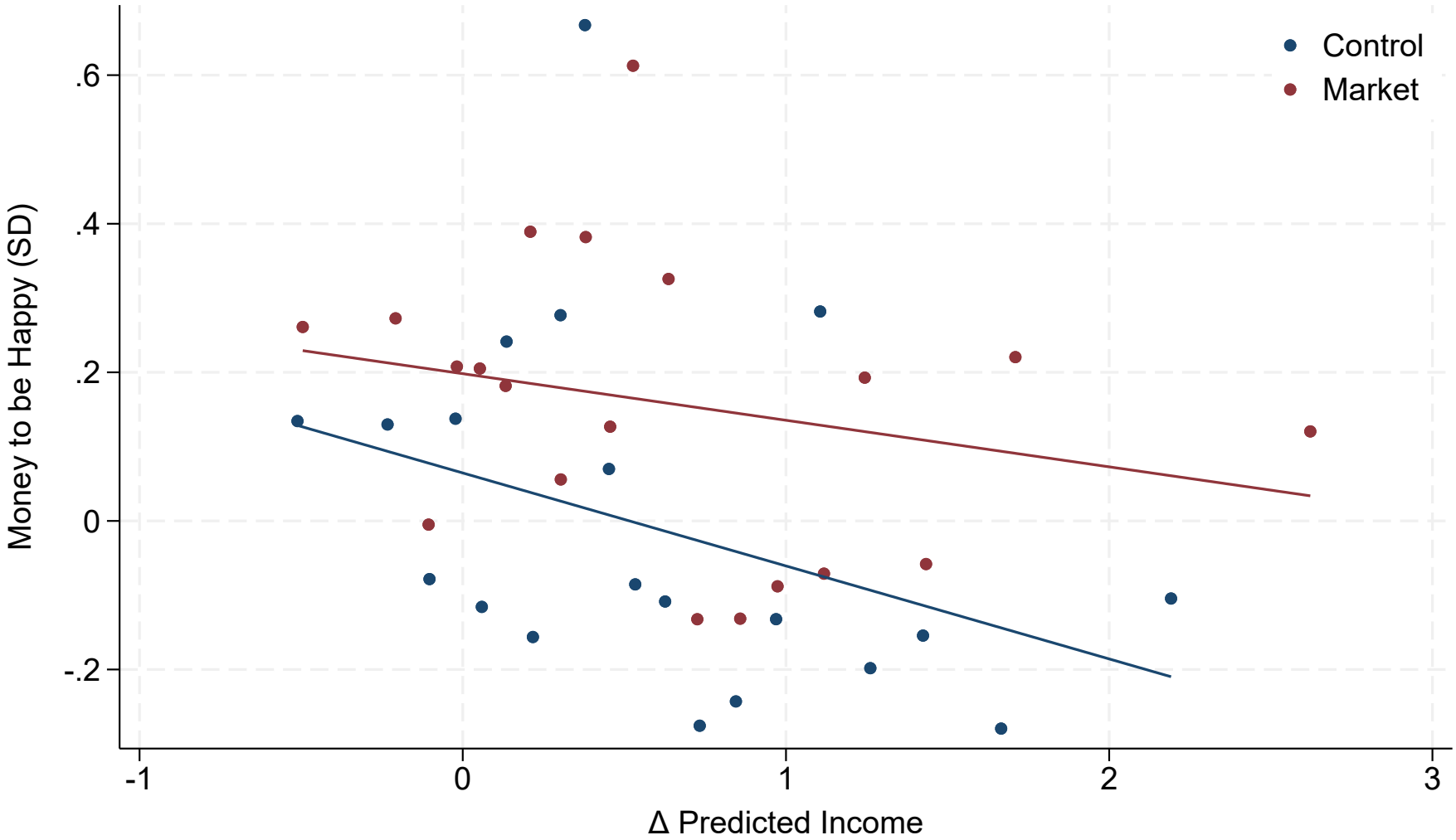
	Endline income	Depression	Depression¿10	Income to be happy	Gap income to be happy vs. EL income
Predicted income	0.578*	-1.086	-0.143	-0.532**	-0.579***
	(0.318)	(1.047)	(0.119)	(0.210)	(0.211)
Baseline Outcome	Y	Y	Y	N	N
Controls	Y	Y	Y	Y	Y
Stratum FE	Y	Y	Y	Y	Y
Observations	565	565	565	565	565
R^2	0.179	0.258	0.164	0.085	0.083

Income Increases Associated with *Better* Wellbeing



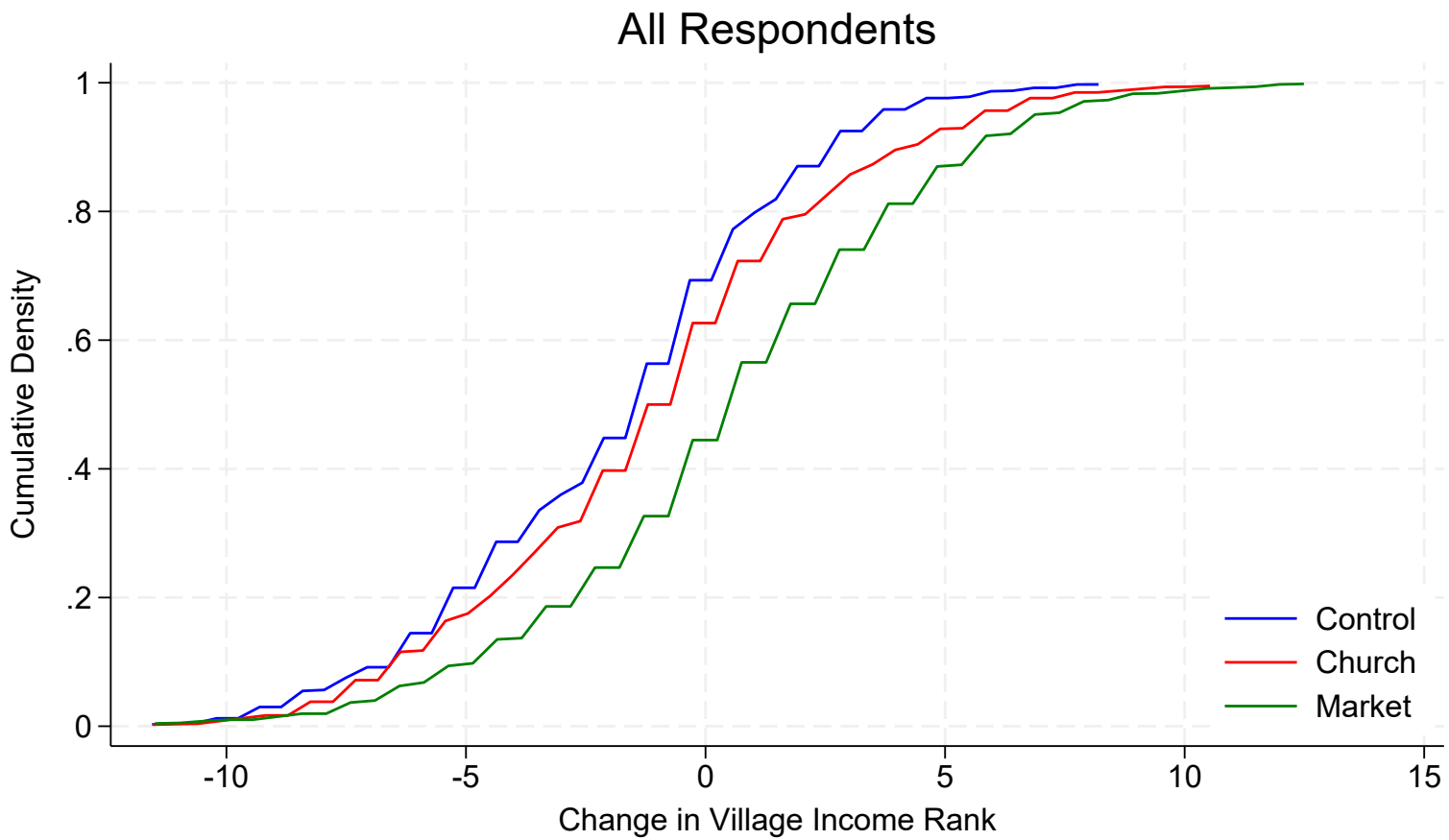
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Δ Predicted Income and Money to be Happy: Market v. Control



Back

Market Increases Participants' Village Predicted Income Rank



Back

Markets ↑ Income Inequality, and Inequality ↓ Wellbeing

	Main Respondents					All Respondents				
	Inc. Rank	Inc. Rank	Δ Dep.	Δ Dep.	Δ Dep.	Inc. Rank	Inc. Rank	Δ Dep.	Δ Dep.	Δ Dep.
Δ Village Inc. Pred. Rank (Resp.)	0.675***	0.525***	0.007	0.010	0.016					
	(0.057)	(0.041)	(0.015)	(0.015)	(0.017)					
Church	0.013	-0.144	0.042	0.046						
	(0.027)	(0.102)	(0.031)	(0.031)						
Market	0.028	-0.139	0.052*	0.057**						
	(0.024)	(0.098)	(0.028)	(0.028)						
Church × Δ Village Inc. Pred. Rank (Resp.)	-0.067	-0.100*	-0.028	-0.027	-0.026					
	(0.085)	(0.056)	(0.022)	(0.022)	(0.025)					
Market × Δ Village Inc. Pred. Rank (Resp.)	-0.009	-0.037	-0.025	-0.024	-0.024					
	(0.083)	(0.053)	(0.020)	(0.020)	(0.023)					
Δ Village Inc. Pred. Rank (All)						0.436***	0.206***	0.004*	0.006***	0.007***
						(0.027)	(0.021)	(0.002)	(0.002)	(0.003)
Church						-0.013	-0.309	0.030	0.032	
						(0.072)	(0.200)	(0.021)	(0.021)	
Market						0.033	-0.013	0.041**	0.042**	
						(0.067)	(0.192)	(0.020)	(0.020)	
Church × Δ Village Inc. Pred. Rank (All)						0.038	0.010	-0.008**	-0.008**	-0.008**
						(0.035)	(0.025)	(0.003)	(0.003)	(0.003)
Market × Δ Village Inc. Pred. Rank (All)						0.048	0.023	-0.007**	-0.007**	-0.006*
						(0.036)	(0.027)	(0.003)	(0.003)	(0.003)
Baseline Outcome Control	N	N	Y	Y	Y	N	N	Y	Y	Y
Δ Income Control	N	Y	N	Y	Y	N	Y	N	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1720	1720	1720	1720	1720	3975	3975	3975	3975	3975
Village FE	N	N	N	N	Y	N	N	N	N	Y
Stratum FE	Y	Y	Y	Y	N	Y	Y	Y	Y	N
Control_Mean	-.15	-.15	.48	.48	.48	-1.9	-1.9	.48	.48	.48
Church_v_Control	.43	.076	.21	.22	.29	.27	.7	.017	.021	.013
Market_v_Control	.91	.49	.22	.24	.29	.19	.4	.037	.045	.06
Market_v_Church	.52	.27	.89	.89	.92	.79	.58	.75	.76	.55

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Markets ↑ Income Inequality, and Inequality ↓ Wellbeing

All Respondents with Increase in Rank

	Main Respondents					All Respondents				
	Inc. Rank	Inc. Rank	Δ Dep.	Δ Dep.	Δ Dep.	Inc. Rank	Inc. Rank	Δ Dep.	Δ Dep.	Δ Dep.
Δ Village Inc. Pred. Rank (Resp.)	0.531***	0.316**	-0.021	-0.017	-0.065					
	(0.166)	(0.137)	(0.044)	(0.045)	(0.135)					
Church	-0.660	-0.708**	-0.047	-0.046						
	(0.452)	(0.349)	(0.122)	(0.123)						
Market	0.051	-0.179	-0.056	-0.051						
	(0.405)	(0.305)	(0.110)	(0.111)						
Church × Δ Village Inc. Pred. Rank (Resp.)	0.335	0.296	0.031	0.031	0.225					
	(0.279)	(0.217)	(0.071)	(0.072)	(0.206)					
Market × Δ Village Inc. Pred. Rank (Resp.)	0.097	0.131	0.011	0.010	0.102					
	(0.235)	(0.177)	(0.061)	(0.061)	(0.175)					
Δ Village Inc. Pred. Rank (All)						0.545***	0.232***	-0.002	0.000	-0.003
						(0.068)	(0.052)	(0.007)	(0.007)	(0.009)
Church						0.120	0.158	0.069	0.069	
						(0.480)	(0.379)	(0.056)	(0.057)	
Market						-0.097	-0.115	-0.016	-0.016	
						(0.483)	(0.348)	(0.053)	(0.054)	
Church × Δ Village Inc. Pred. Rank (All)						0.007	-0.065	-0.012	-0.011	-0.006
						(0.099)	(0.074)	(0.011)	(0.011)	(0.013)
Market × Δ Village Inc. Pred. Rank (All)						0.105	0.078	0.004	0.004	0.002
						(0.101)	(0.072)	(0.010)	(0.010)	(0.013)
Baseline Outcome Control	N	N	Y	Y	Y	N	N	Y	Y	Y
Δ Income Control	N	Y	N	Y	Y	N	Y	N	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	463	463	463	463	463	1712	1712	1712	1712	1712
Village FE	N	N	N	N	Y	N	N	N	N	Y
Stratum FE	Y	Y	Y	Y	N	Y	Y	Y	Y	N
Control_Mean	1.6	1.6	.51	.51	.51	2.6	2.6	.47	.47	.47
Church_v_Control	.23	.17	.67	.66	.27	.94	.38	.27	.3	.63
Market_v_Control	.68	.46	.86	.87	.56	.3	.28	.68	.67	.85
Market_v_Church	.4	.42	.78	.77	.51	.34	.046	.14	.15	.5

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Markets ↑ Income Inequality, and Inequality ↓ Wellbeing

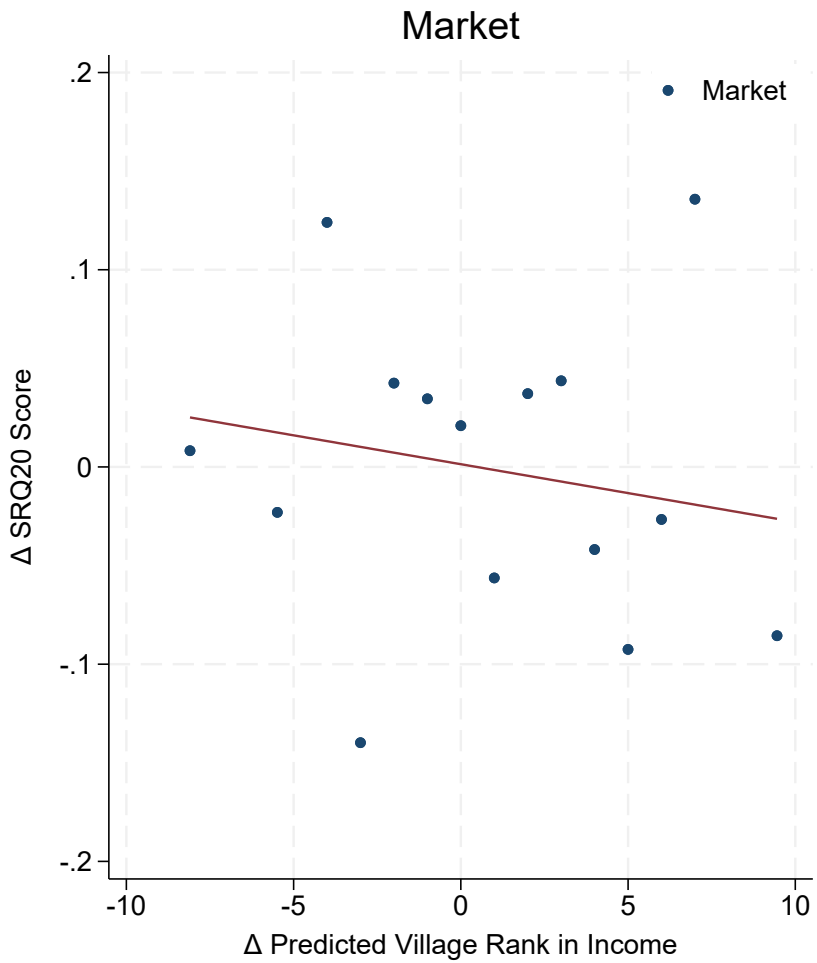
All Respondents with Decrease in Rank

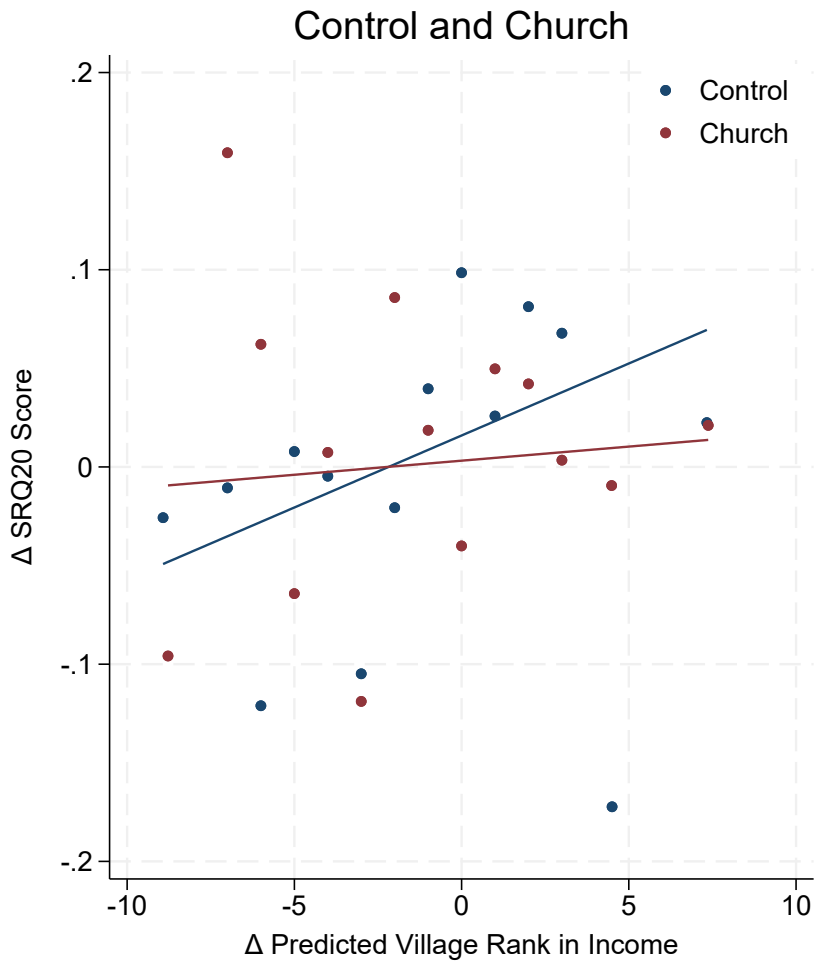
	Main Respondents					All Respondents				
	Inc. Rank	Inc. Rank	Δ Dep.	Δ Dep.	Δ Dep.	Inc. Rank	Inc. Rank	Δ Dep.	Δ Dep.	Δ Dep.
Δ Village Inc. Pred. Rank (Resp.)	0.865***	0.710***	0.042	0.045	0.117					
	(0.138)	(0.089)	(0.041)	(0.041)	(0.079)					
Church	-0.800**	-0.373	0.007	-0.001						
	(0.394)	(0.287)	(0.112)	(0.113)						
Market	-0.222	-0.380	0.050	0.053						
	(0.365)	(0.282)	(0.101)	(0.101)						
Church × Δ Village Inc. Pred. Rank (Resp.)	-0.543**	-0.293**	-0.058	-0.063	-0.098					
	(0.216)	(0.142)	(0.063)	(0.064)	(0.137)					
Market × Δ Village Inc. Pred. Rank (Resp.)	-0.184	-0.235	-0.037	-0.036	-0.139					
	(0.208)	(0.146)	(0.054)	(0.054)	(0.095)					
Δ Village Inc. Pred. Rank (All)						0.465***	0.320***	0.006	0.008	0.012
						(0.052)	(0.036)	(0.006)	(0.006)	(0.007)
Church						-0.748*	-0.949***	0.036	0.038	
						(0.451)	(0.336)	(0.047)	(0.047)	
Market						-0.085	-0.568*	0.028	0.033	
						(0.447)	(0.297)	(0.048)	(0.048)	
Church × Δ Village Inc. Pred. Rank (All)						-0.078	-0.099*	-0.011	-0.010	-0.017
						(0.083)	(0.050)	(0.009)	(0.009)	(0.010)
Market × Δ Village Inc. Pred. Rank (All)						0.003	-0.099**	-0.012	-0.011	-0.008
						(0.082)	(0.047)	(0.009)	(0.009)	(0.010)
Baseline Outcome Control	N	N	Y	Y	Y	N	N	Y	Y	Y
Δ Income Control	N	Y	N	Y	Y	N	Y	N	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	588	588	588	588	588	1857	1857	1857	1857	1857
Village FE	N	N	N	N	Y	N	N	N	N	Y
Stratum FE	Y	Y	Y	Y	N	Y	Y	Y	Y	N
Control_Mean	-1.6	-1.6	.45	.45	.45	-4	-4	.46	.46	.46
Church_v_Control	.013	.04	.36	.32	.47	.35	.051	.24	.25	.1
Market_v_Control	.38	.11	.5	.51	.15	.97	.037	.19	.23	.46
Market_v_Church	.12	.72	.72	.65	.74	.38	.99	.91	.98	.36

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Δ Income Rank in Village and Δ Wellbeing

All Respondents – Spillover Sample

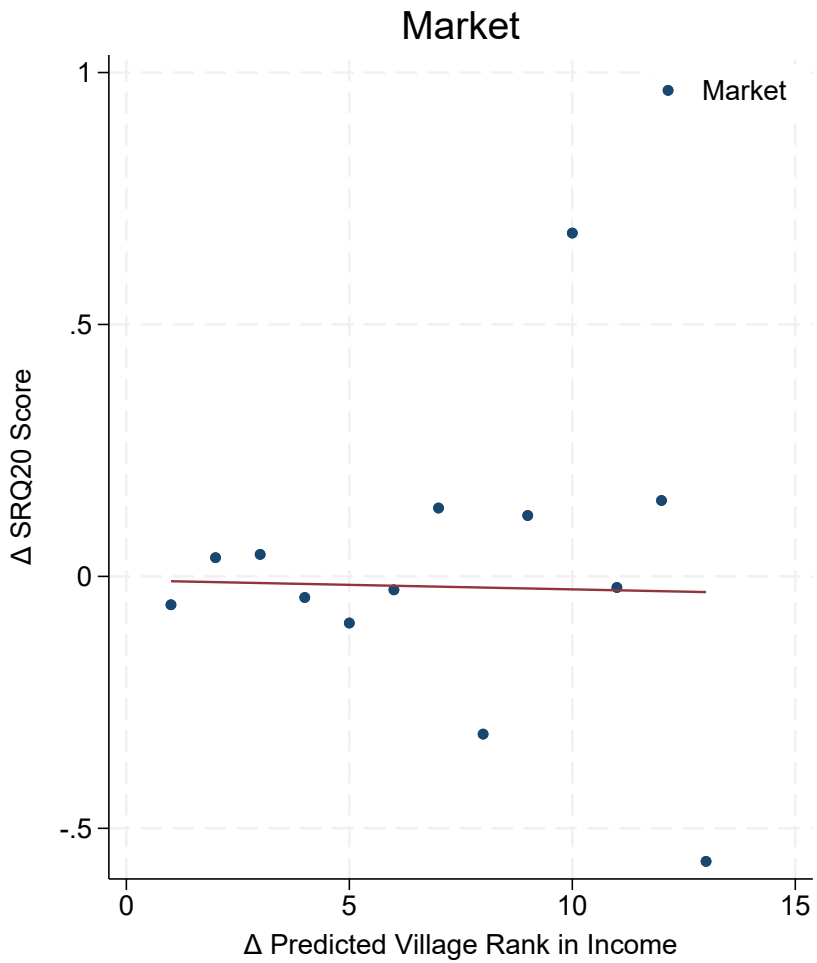


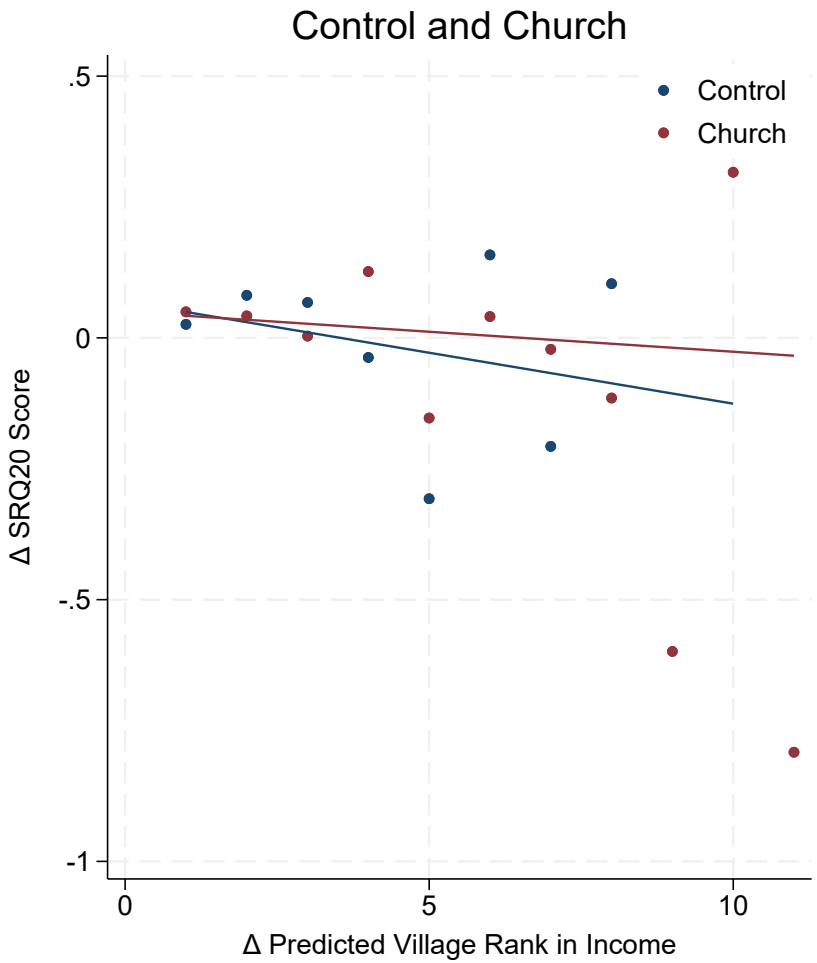


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Δ Income Rank in Village and Δ Wellbeing

All Respondents with Increase in Rank – Spillover Sample

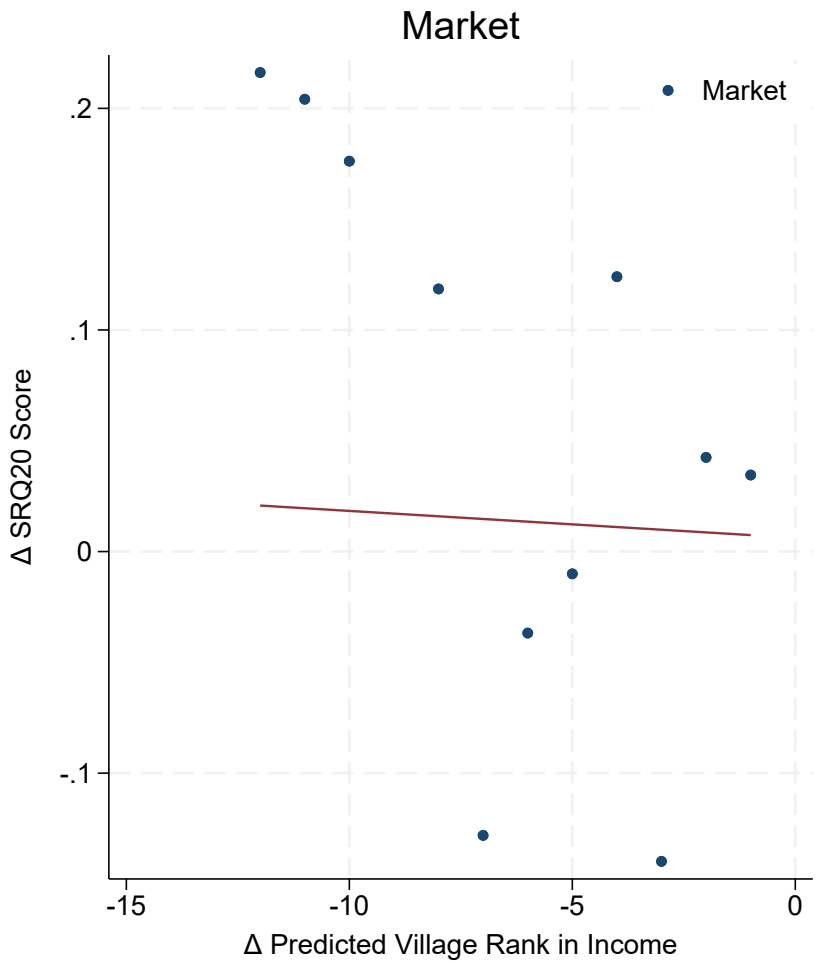


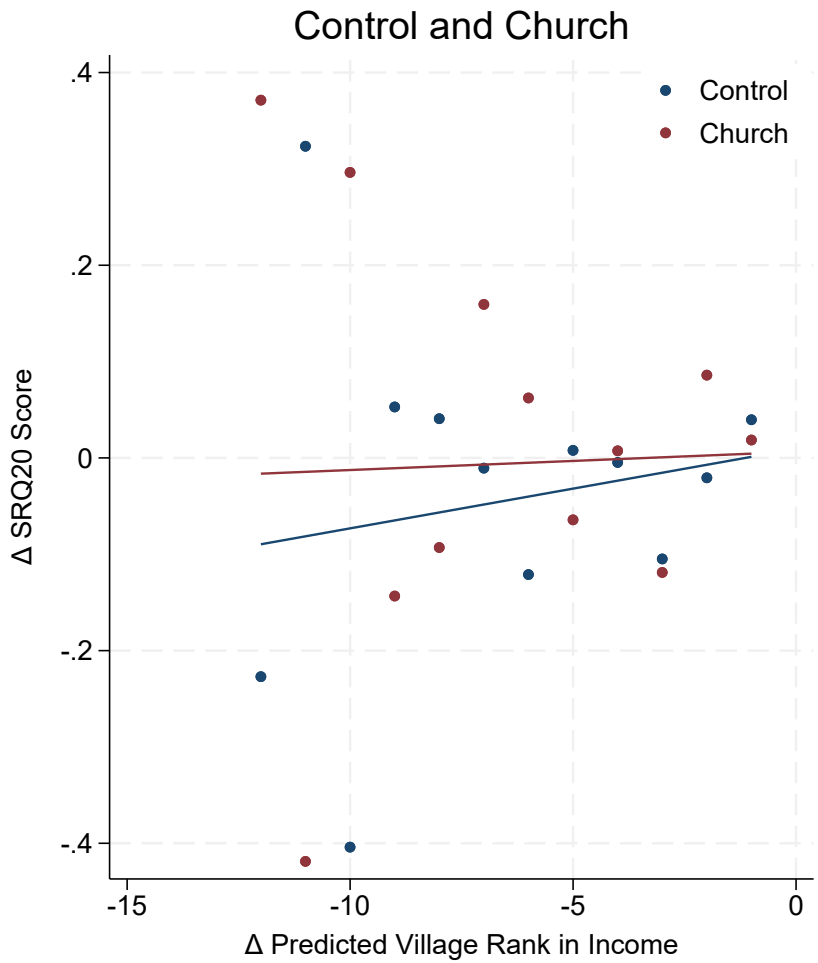


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Δ Income Rank in Village and Δ Wellbeing

All Respondents with Decrease in Rank – Spillover Sample

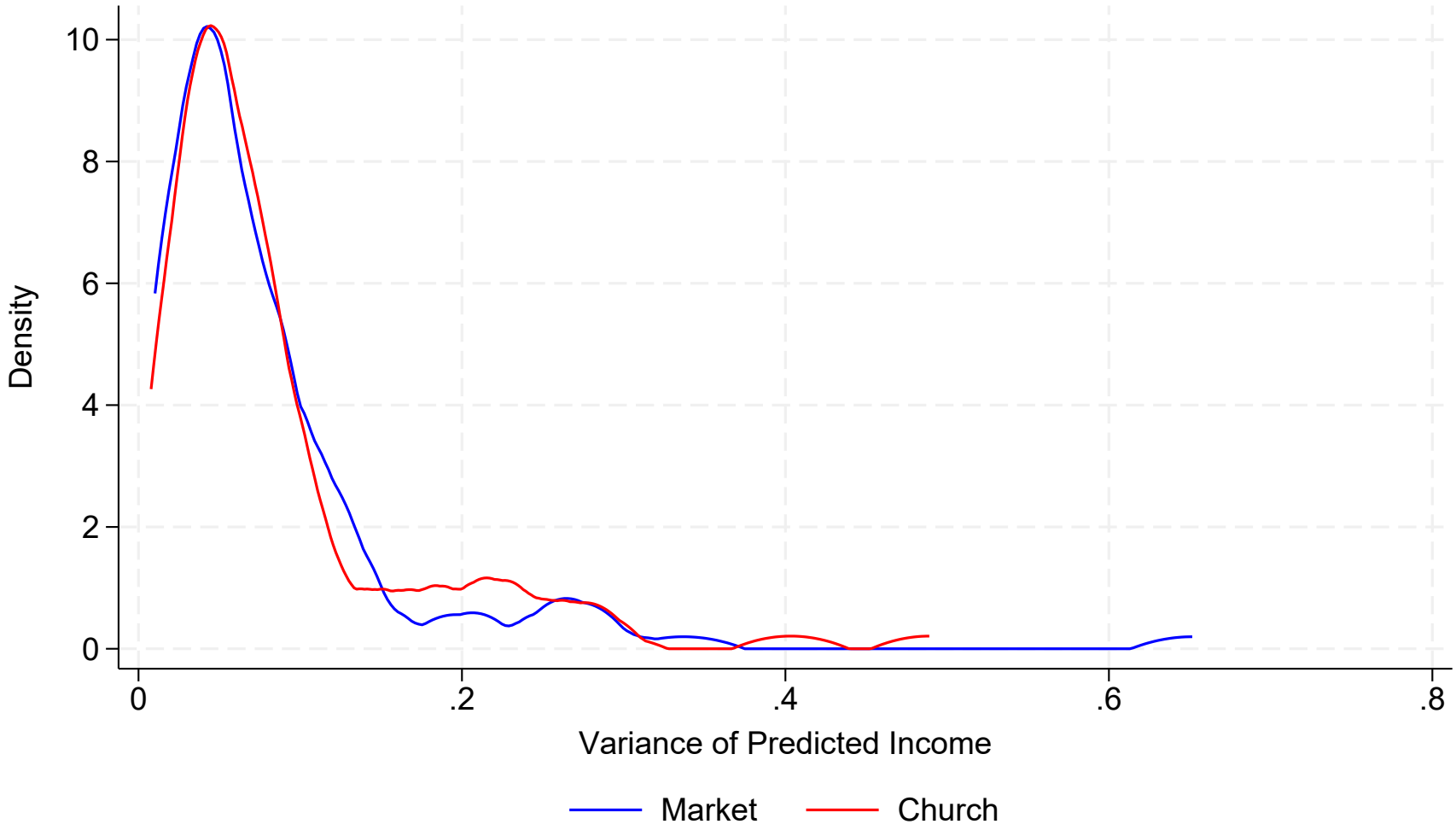




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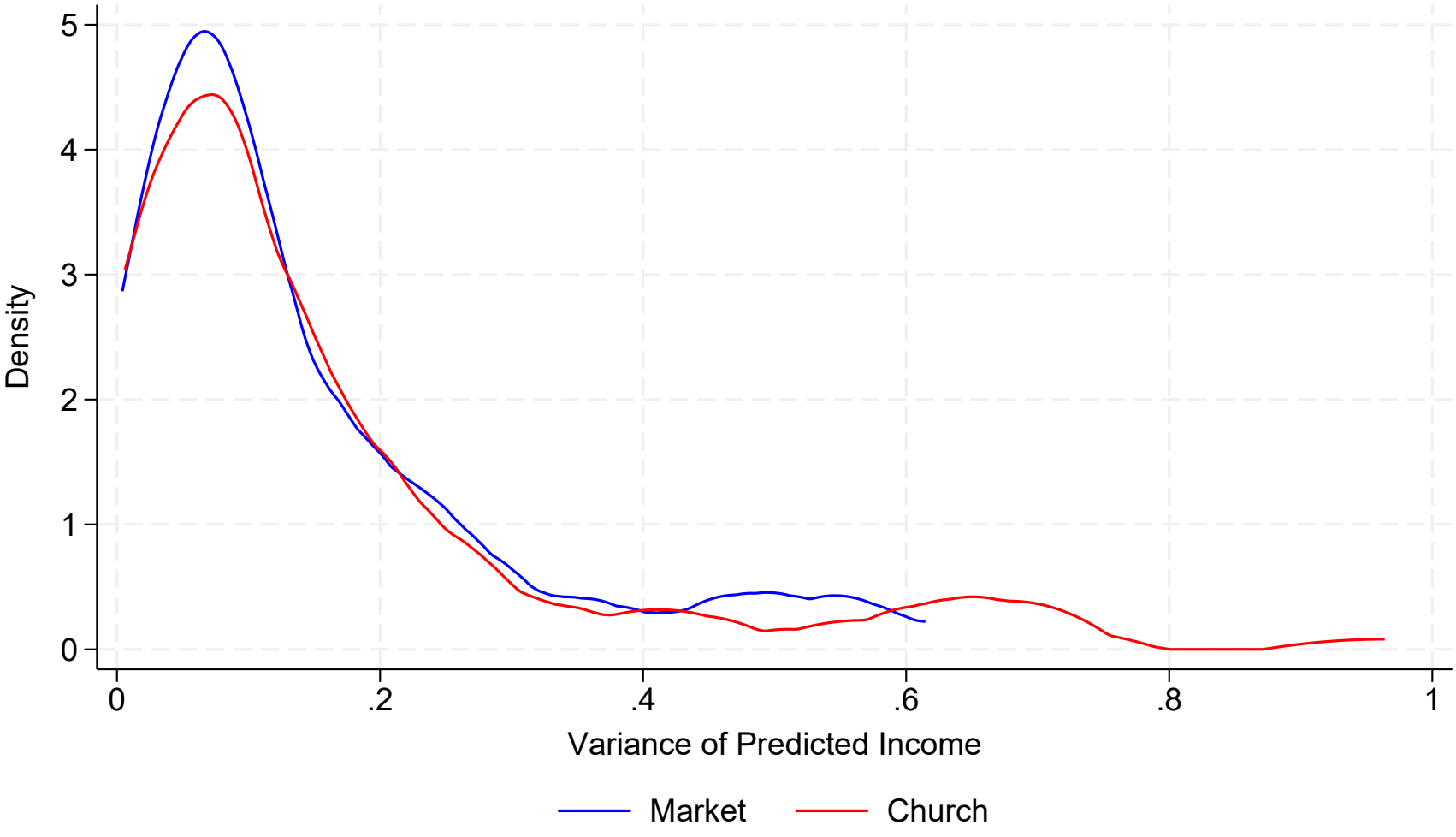
Distribution of variance of predicted income

All Respondents



Distribution of variance of predicted income

Main Respondents



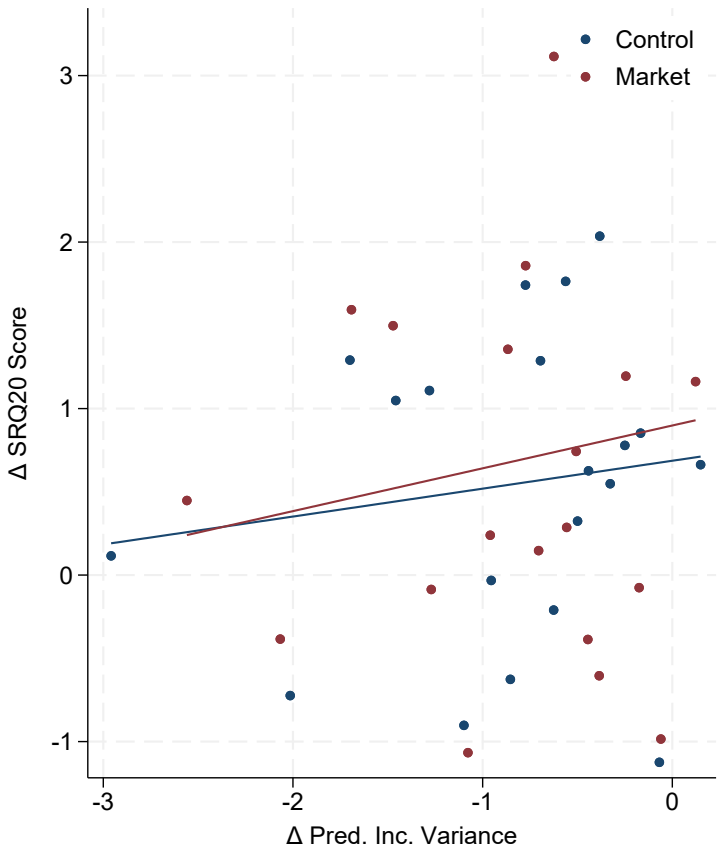
Markets ↑ Income Inequality, and Inequality ↓ Wellbeing

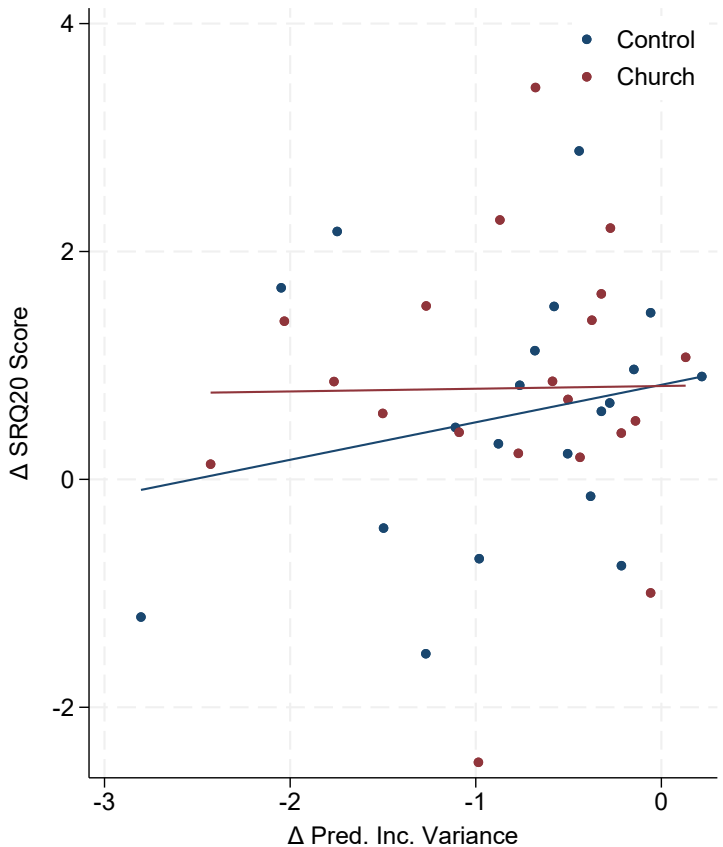
	All treatments		Market Arm Only	
	Δ Variance of Pred. Inc.	Increase in Variance of Pred. Inc. (1-0)	Δ SRQ20	Δ SRQ20
Church	0.028**	-0.013		
	(0.014)	(0.037)		
Market	0.039***	0.027		
	(0.012)	(0.040)		
Δ Variance of Pred. Inc.			0.395	
			(0.280)	
Increase in Variance of Pred. Inc. (1-0)				0.450
				(0.698)
Baseline Outcome	Y	N	N	N
Controls	Y	Y	Y	Y
Observations	1727	1727	588	588
Control_Mean	.32	.47	.68	.68

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Within-Village Inequality Associated with Worse Wellbeing in Market

All respondents

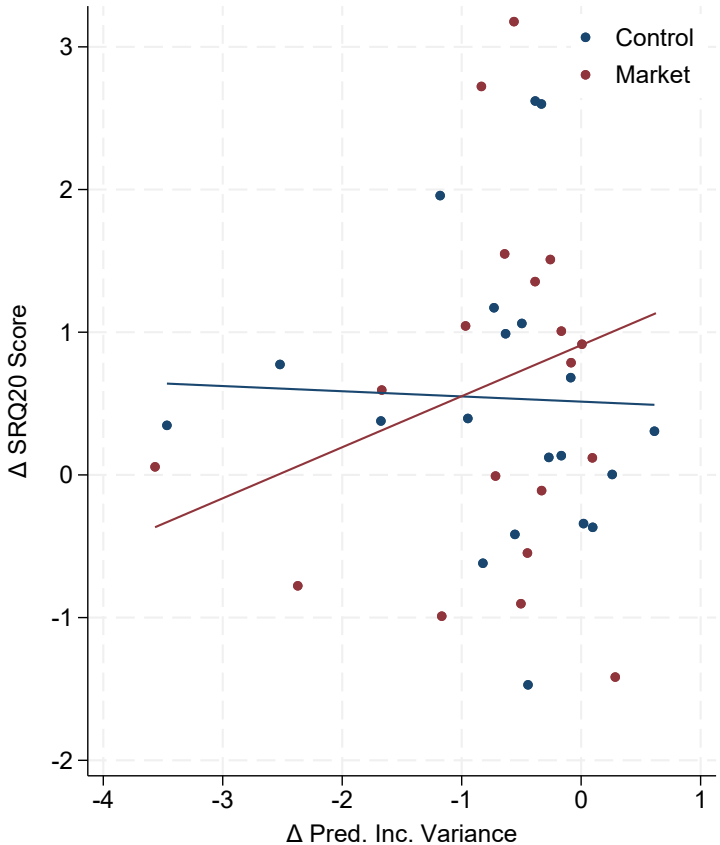


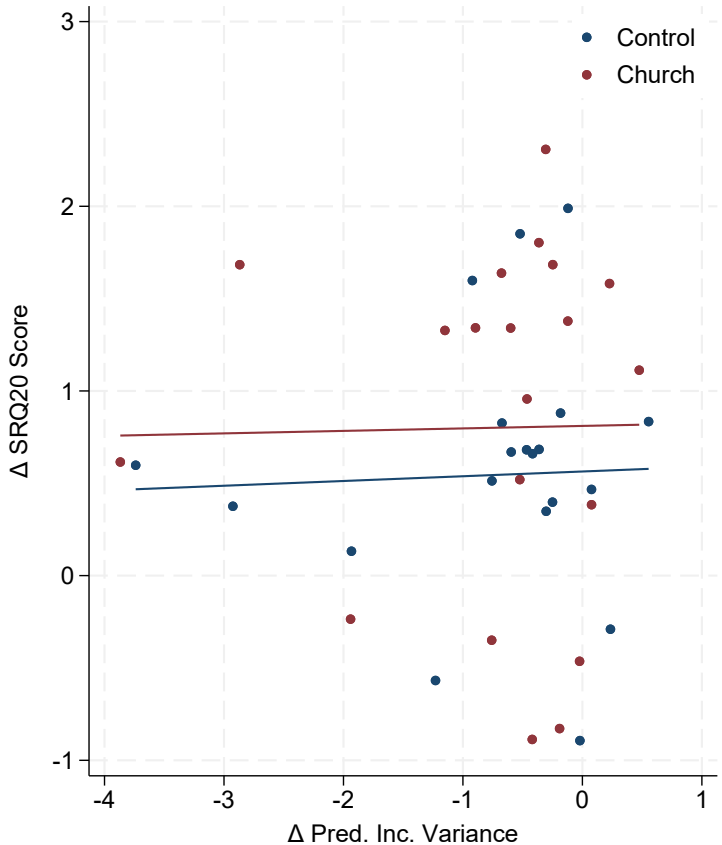


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Within-Village Inequality Associated with Worse Wellbeing in Market

Main respondents





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