Evidence Showcase
Innovations in Financial Capability and Financial Services for the Poor

5 November 2015
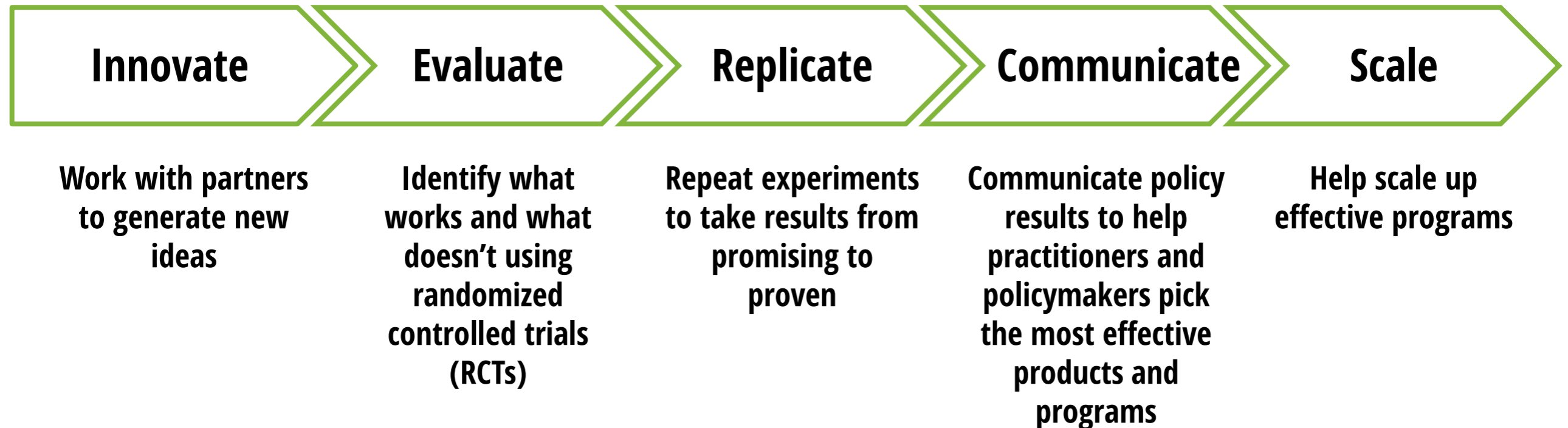
Presented by the IPA Financial Inclusion Program

Innovations for Poverty Action (IPA)

IPA was created in 2002 to discover and promote effective solutions to global poverty problems.

Innovate	Evaluate	Replicate	Communicate	Scale
Work with partners to generate new ideas	Identify what works and what doesn't using randomized controlled trials (RCTs)	Repeat experiments to take results from promising to proven	Communicate policy results to help practitioners and policymakers pick the most effective products and programs	Help scale up effective programs

Financial Inclusion Program (FIP)

- Design & test behaviorally-informed programs and products that encourage healthy financial decisions among the poor
- Financial capability work supported by the Citi Foundation

Citi Foundation

citi®

Today's Speakers

Tarek Ghani
Postdoctoral Fellow
Woodrow Wilson School,
Princeton University

José Tessada
Associate Professor
Pontificia Universidad
Católica de Chile

Marina Dimova
Vice President
ideas42

Questions?

Contact Us

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Want to hear more from FIP?

@2pm: Better Decision-Making with

Randomized Controlled Trials

http://www.poverty-action.org/program-area/financial-inclusion/events

Joshua Blumenstock (University of Washington), Michael Callen (Harvard University), Tarek Ghani (Princeton University)

Mobile-izing Savings with M-Pasandaz:
Research Highlights for FI2020 Evidence Showcase

Tarek Ghani, Princeton University

Joint work with **Joshua Blumenstock (UW) and** Michael Callen (Harvard)

Supported by:

Joshua Blumenstock (University of Washington), Michael Callen (Harvard University), Tarek Ghani (Princeton University)

Motivation: Why Automatic Savings?

Low rates of formal saving in poor countries
- 4% Afghanistan, 13% South Asia, 16% SSA (Findex 2014)

Many constraints to saving…
- Limited infrastructure; Credit and liquidity constraints; Intra-household and intra-family dynamics

…Including several behavioral explanations
- Inattention, forgetfulness, salience; Complexity of financial decision-making; Procrastination, self-control

Can automatic payroll deductions increase savings by the emerging middle class?

Product Design: Introducing "M-Pasandaz"

"M-Pasandaz:" A mobile phone-based savings account, with automatic payroll deduction

Automatic savings contributions
- Up to 10% of salary
- Contributions automatically deducted from regular salary

Simple phone-based interface
- Built on top of M-Paisa mobile money platform
- Easy to check balance, change contribution level

Employer-sponsored matching contributions
- Provided as incentive for employee to contribute
- Based on popular 401(k) plan in U.S.

Research Design: Randomization

949 employees of Afghan firm randomized by:

1. **Default enrollment status**
   - **Default Out:** 0% of salary auto-deposits to M-Pasandaz
   - **Default In**: 5% of salary auto-deposits to M-Pasandaz
   - Note: anyone can change rate, at any time, by calling HR

2. **Matching incentive level**
   - **White Plan**: No matching incentives provided
   - **Blue Plan**: 25% match on all contributions
   - **Red Plan**: 50% match on all contributions
   - Note: employees could not change plan type

Research Design: Project Timeline

Timeline

- ▸ Dec 2014: mandatory training, plan status announced
- ▸ "Open enrollment" until Jan 15, First payday on Jan 21
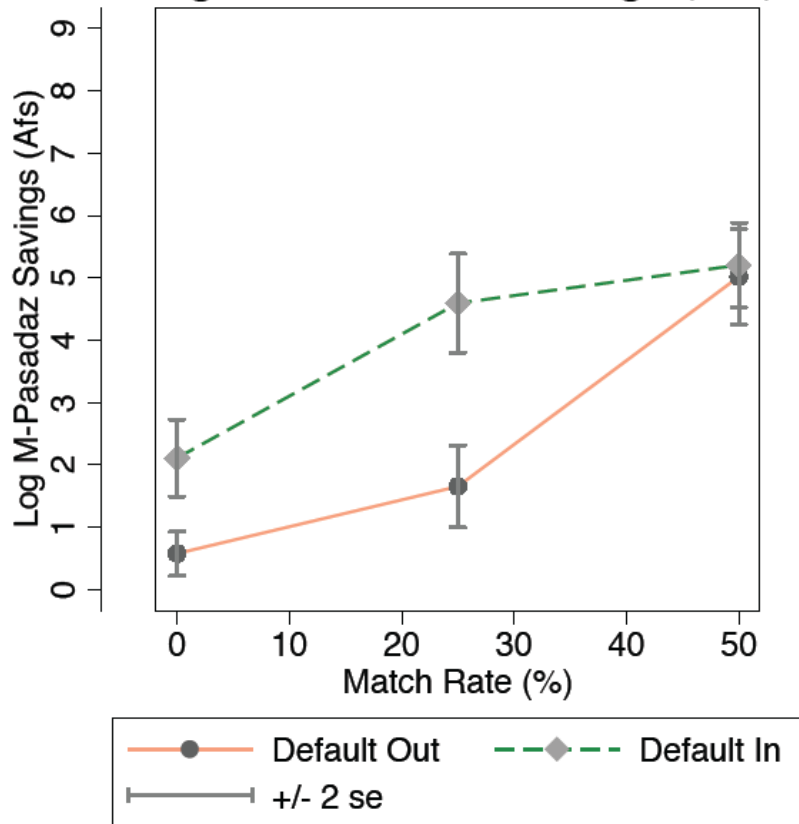- ▸ Last deposits on June 21, Incentives paid on July 23
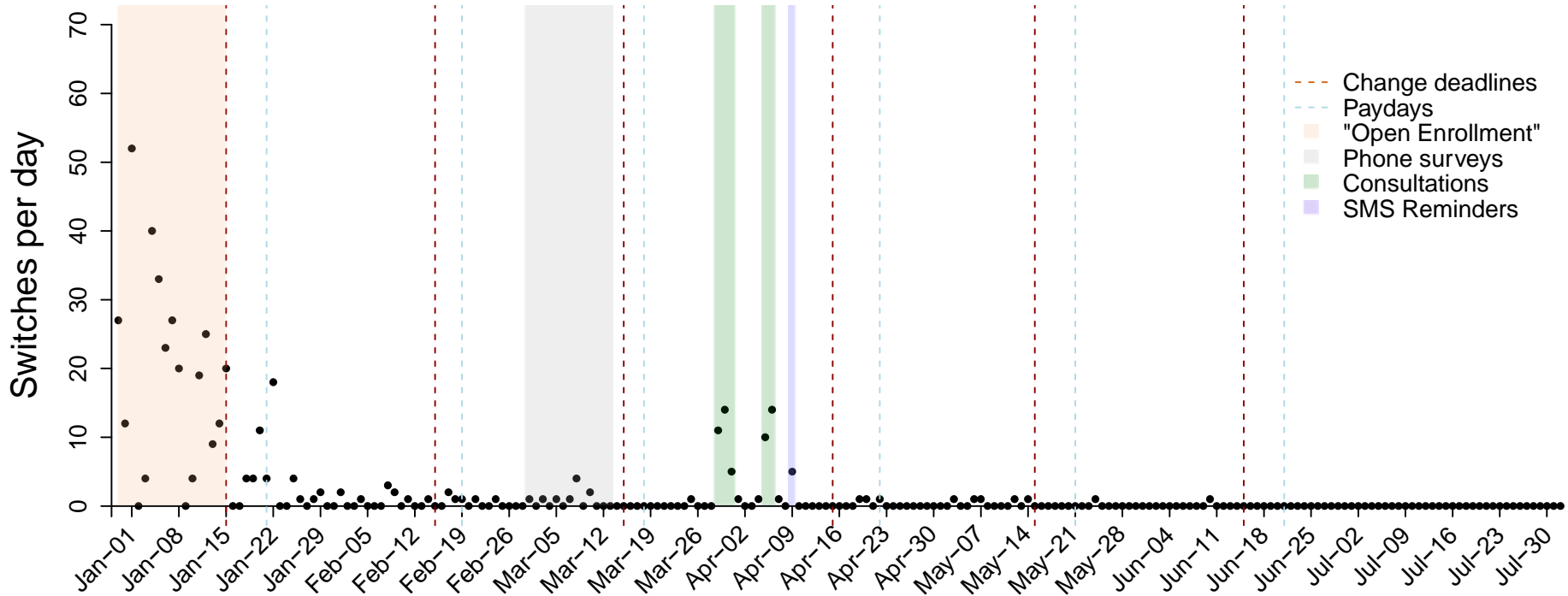
Results: "Pricing the default effect"

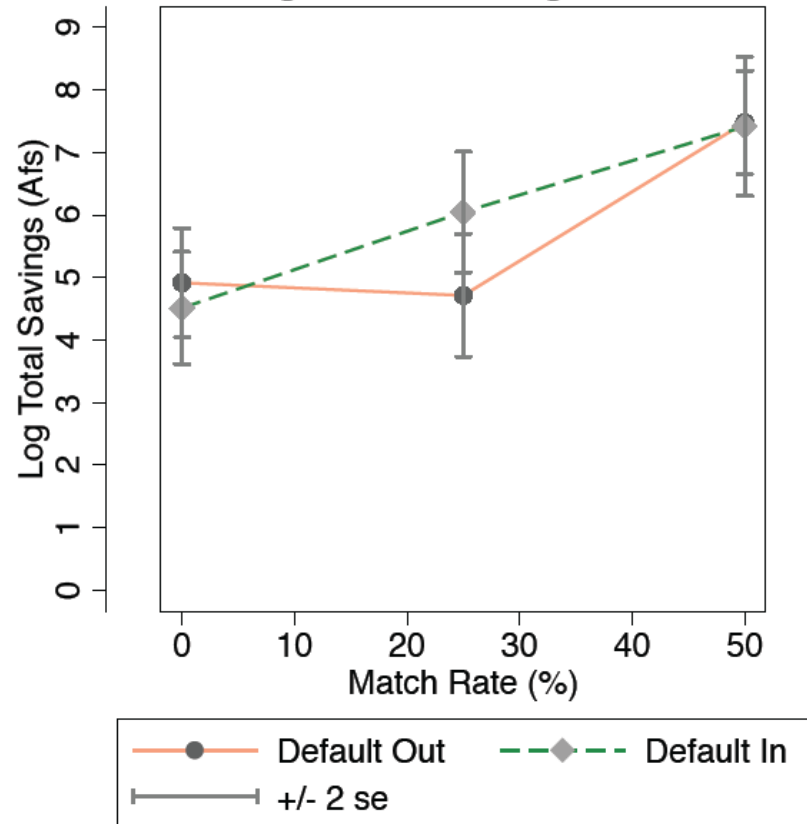## Default is roughly equivalent to a 50% match
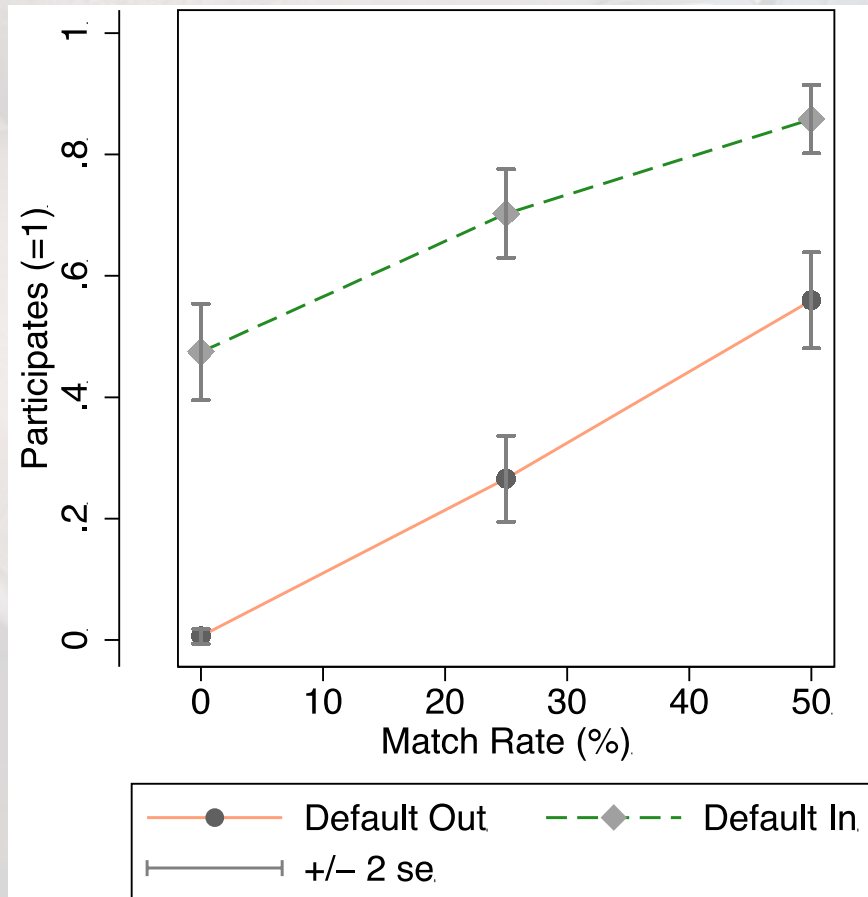
Results: Evidence of New Savings

Practical Implications

Global trends in income & technology adoption

▶ 42% of developing workforce in/above middle-class (ILO 2011)

▶ 200m active mobile money users in 89 countries (GSMA 2015)

Strong demand to continue using M-Pasandaz:

▶ 45% of employees opted to continue under 0% incentives

▶ Employer plans to adopt Red Plan (50% match) and 5% default.

Opportunities to scale automatic savings:

▶ Public pensions and private employer "provident funds"

▶ Integration into cash transfer programs (e.g. GiveDirectly)

PERSONALIZED INFORMATION AS A TOOL TO IMPROVE PENSION SAVINGS

Results from a Randomized Control Trial in Chile

Olga Fuentes   Jeanne Lafortune   Julio Riutort

José Tessada   Felix Villatoro

Acknowledgements

- Superintendencia de Pensiones
- ChileAtiende
- And last but not least…
  - Citi IPA Financial Capability Research Fund

The Challenge – Some Context

- *Defined benefits* pension systems
  - Many have solvency issues and might be costly to implement for some countries
- Several countries have chosen to move to a *defined contribution* system with individual savings accounts…
  - Chile started in 1981
- But… These systems require much more financial knowledge from its participants

The Challenge

- The current situation
  - Low pension savings
  - Large heterogeneity by gender and income
  - Labor market performance has a direct impact on savings
- Why undersaving?
  - One potential explanation: **lack of understanding of the system**
- Thus, our question:

  CAN WE IMPROVE PENSION SAVINGS BY PROVIDING PERSONALIZED INFORMATION TO PARTICIPANTS ON HOW TO INCREASE THEM?

What do we do?

- Bring a pension "simulator" to the people...
  - Complete version available online BUT used mostly by high income workers – not the group we are most worried about
  - *Key: bring the pension simulator to lower income affiliates*
- Simplified version of the Superintendencia's "simulator"
  - Uses administrative data to provide "suggestions" on how to improve pension at retirement
  - Installed self-service modules in "ChileAtiende": government office that centralizes interaction between citizens and the government
  - We expect to reach lower income affiliates

What do we do? CONTROL

What do we do?   TREATMENT

So... What do we do?   TREATMENT

Su pensión esperada es

$130.795.-

En el caso de que usted:
- No haga o no continúe haciendo ahorro voluntario
- Cotice 5 meses al año
- Se retire a los 60 años

¿Qué puede hacer para aumentar su pensión?

Aumentar el número de veces que cotiza en un año
Si en lugar de cotizar 5 veces al año, **cotiza 12 veces al año** , su pensión podría alcanzar: **$303.339.-**

Hacer ahorro voluntario
Si usted hiciera APV por $4.000.- al mes (1% de su sueldo), su pensión podría alcanzar: **$150.425.-**

Postergar la edad de retiro
Si en lugar de retirarse a los 60 años eligiera retirarse a los 61 años, su pensión podría alcanzar: **$141.674.-**
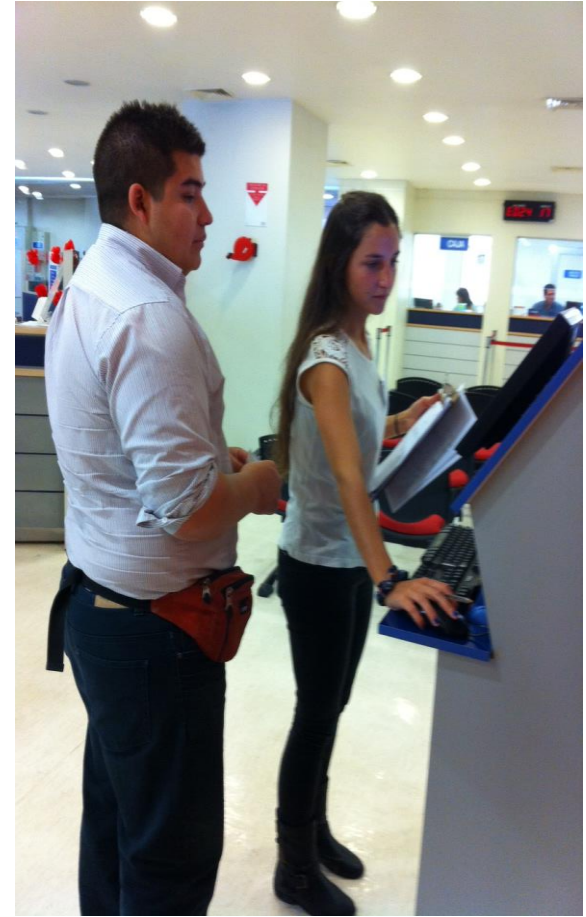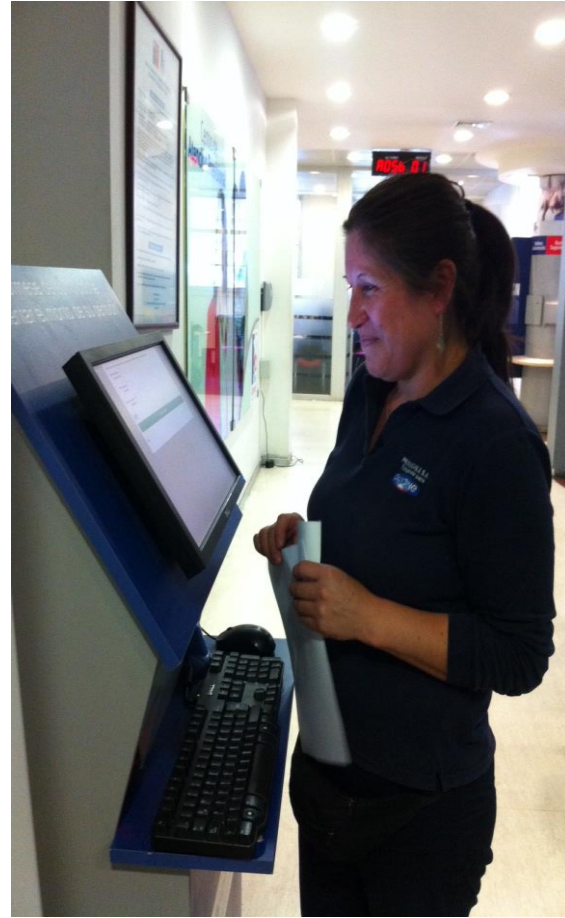
| ¡Quiero ver más! | Imprimir y Enviar | Salir |

Este resultado es una simulación y no constituye un monto garantizado por la Superintendencia de Pensiones.

Supuestos

Who participated?

Gender composition			
	All affiliates	**Participants**	**On-line simulator**
Women	46.67%	51.73%	30.64%
Men	53.33%	48.27%	69.36%

Age composition			
	All affiliates	**Participants**	**On-line simulator**
25%	28	28	34
50%	38	39	48
75%	49	49	58
Average	38.92	38.98	46.20
St. Dev.	12.51	12.21	13.16

People are more knowledgeable than we thought…

Mistake in Expected Pension
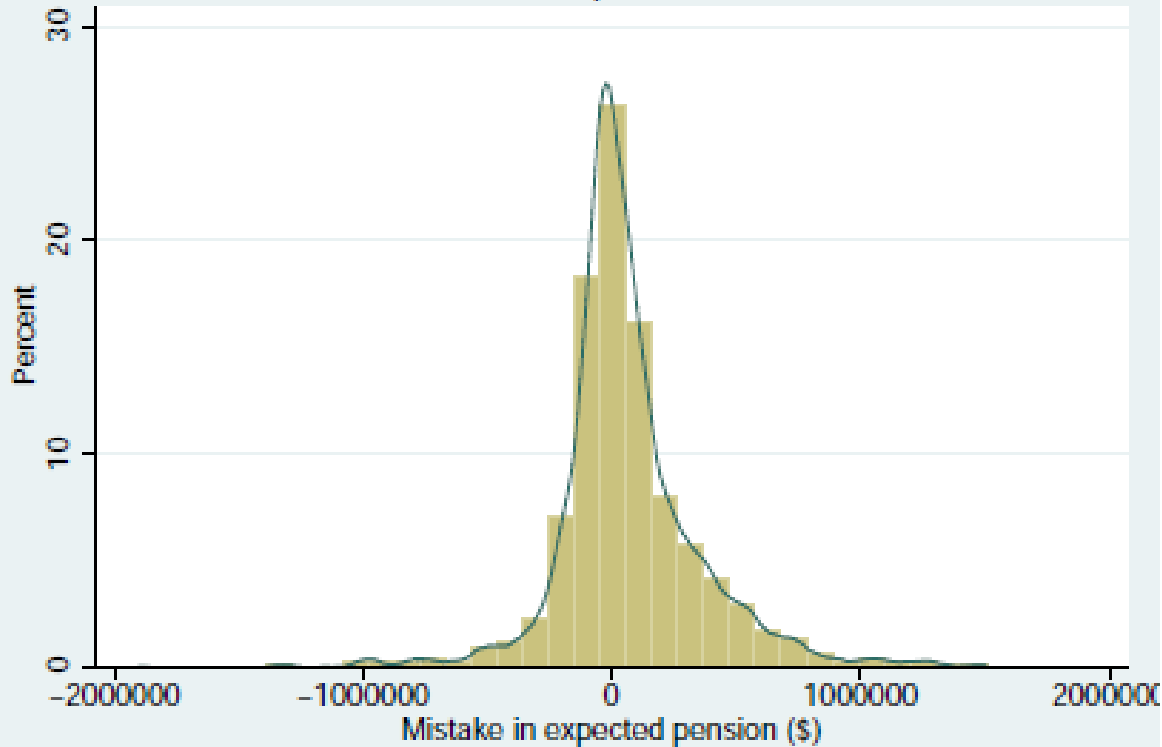
Split our sample into 3 groups:

1: Underestimated their pensions

2: Got it about right

3: Overestimated their pensions

And estimate the treatment effect separately for each group

Responses-Contributing or not

Mandatory
(linked to labor force participation)

VARIABLES	(1) 1 months	(2) 2 months	(3) 3 months
T_1	0.0377	0.0487	0.00422
	(0.0327)	(0.0324)	(0.0343)
T_2	-0.000954	-0.00717	-0.0285
	(0.0388)	(0.0387)	(0.0431)
T_3	-0.0553**	-0.0514**	-0.0456*
	(0.0220)	(0.0234)	(0.0251)
Observations	2,327	2,329	2,012
R-squared	0.228	0.218	0.241

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

Voluntary

VARIABLES	(1) 1 months	(2) 2 months	(3) 3 months
T_1	0.0162***	0.0136**	0.0133*
	(0.00593)	(0.00622)	(0.00716)
T_2	0.0286*	0.0103	0.0142
	(0.0155)	(0.0160)	(0.0186)
T_3	0.00312	0.000652	0.00926
	(0.00851)	(0.00980)	(0.00982)
Observations	2,327	2,329	2,012
R-squared	0.557	0.471	0.444

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

Also increases the probability of retiring for older individuals who had underestimated their pension

Results –Saving Amounts

	Mandatory savings (logs)		
	(1)	(2)	(3)
VARIABLES	1 months	2 months	3 months
T_1	0.245	0.295	-0.357
	(0.334)	(0.333)	(0.358)
T_2	-0.0729	-0.0254	-0.355
	(0.276)	(0.283)	(0.320)
T_3	-0.760***	-0.748**	-0.567*
	(0.269)	(0.300)	(0.330)
Observations	2,158	2,160	1,868
R-squared	0.315	0.282	0.286

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

	Voluntary savings (logs)		
	(1)	(2)	(3)
VARIABLES	1 months	2 months	3 months
T_1	0.127*	0.113	0.105
	(0.0697)	(0.0722)	(0.0854)
T_2	0.280**	0.179	0.184
	(0.126)	(0.135)	(0.144)
T_3	0.0159	-0.0151	0.103
	(0.111)	(0.115)	(0.115)
Observations	2,158	2,160	1,868
R-squared	0.538	0.477	0.456

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

Results were stronger for younger individuals and men for mandatory savings
and for older participants and females for voluntary savings

What do we learn?

- First, self-service modules need somebody there to help or accompany: take up ratio significantly higher!
- Second, it is possible to inform (low income) investors and make them react even without commitment, but…
  - We deliver concrete and personalized information
  - Keep it simple!
  - Expect effects to fade away
- Third, heterogeneous impacts… Desirable? Exploit them? Reduce them?
- Fourth, mix and match treatments?
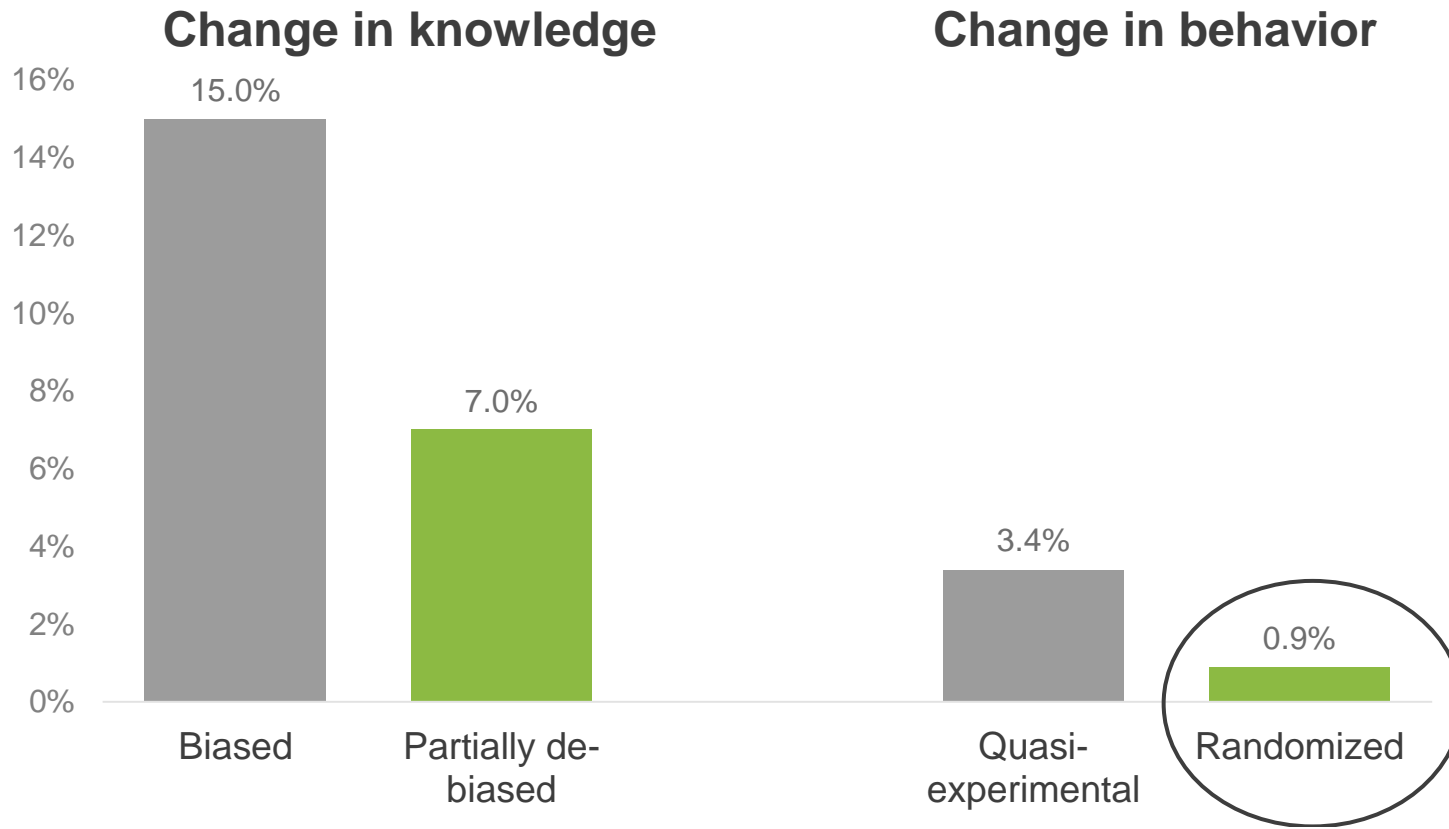
What is ideas42 ?

We use **the theories of behavioral science** to **design solutions** to some of the **world's most persistent social problems.**
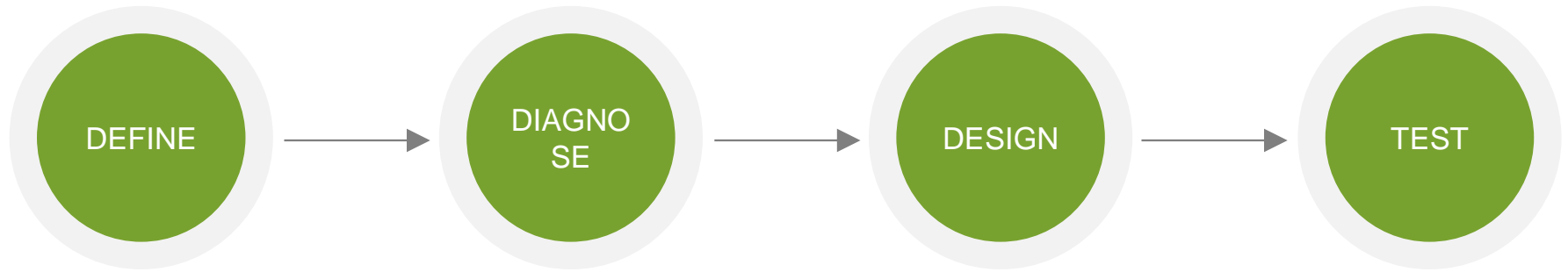
Across domains, across the globe
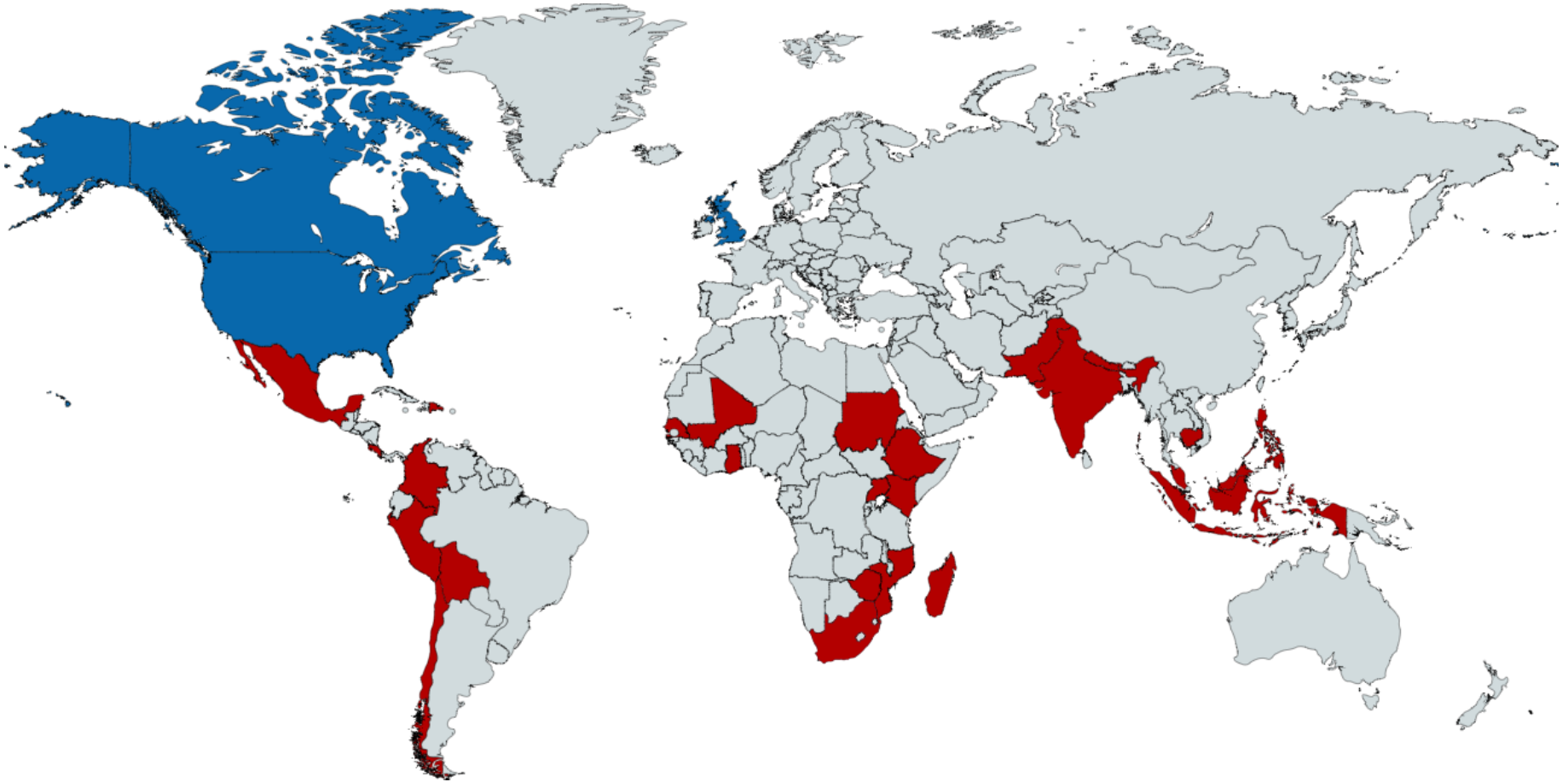
The problem: Financial literacy and counseling don't seem to change behavior

Meta-Analysis of 201 studies

Change in knowledge

Change in behavior

Fernandes, Lynch, and Netemeyer, 2014.

What could explain this behavior? And how it led us to the Financial Heuristics training

DEFINE → DIAGNOSE → DESIGN → TEST

Our solution: Financial Heuristics training over mobile
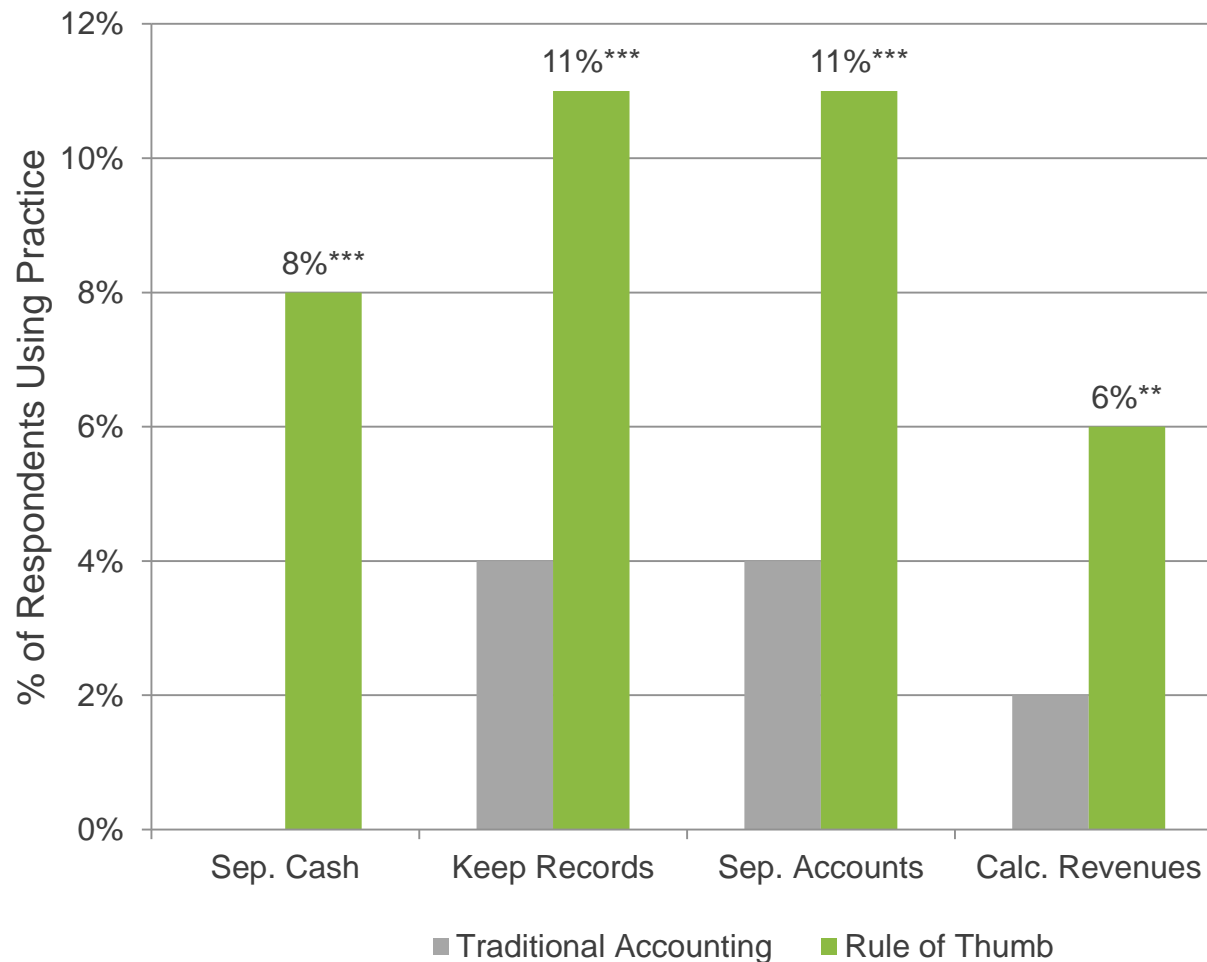
Innovations:

- **Content:** Create behavioral content that results in changes in business practices

- **Delivery channel:** Reach clients where they are, with a phone mini series

Content: The behavioral principle behind Financial Heuristics – Simplicity

Keep two "drawers" – business and household

Assign yourself a weekly salary

If you "borrow" from the business, pay it back

Only give credit to customers if prior credit is paid off

# Financial Heuristics affects behavior: It improves business practices…

Drexler, Fischer and Schoar, 2014.

And more importantly, business revenues

+RD$1168**

Weekly Revenues, RD$

1500 · 1000 · 500 · 0 · -500 · -1000 · -1500

Avg, Week · Last Week · Bad Week

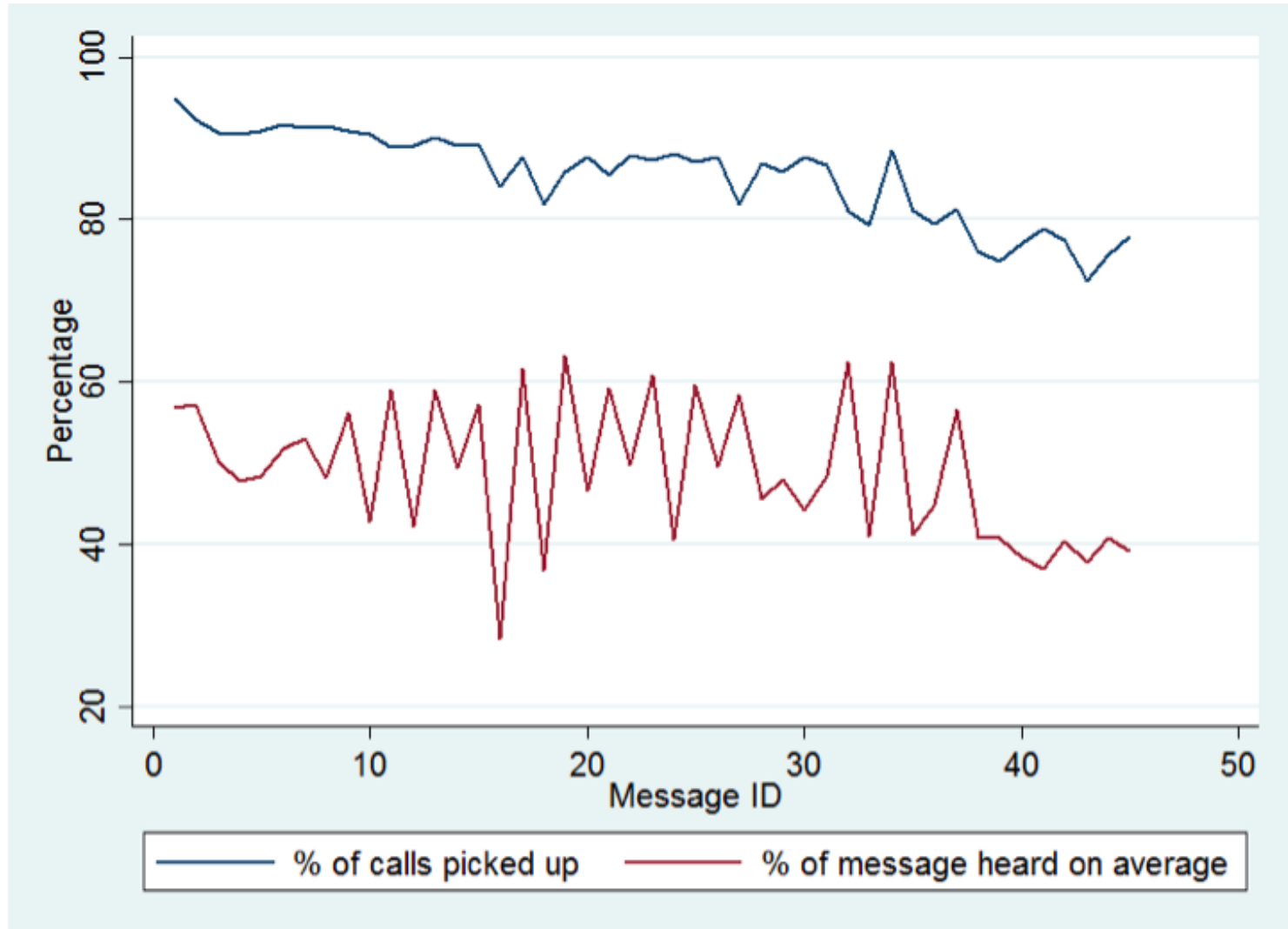■ Traditional Accounting   ■ Rule of Thumb

Drexler, Fischer and Schoar, 2014.

Delivery: Our objective was to reach clients where they are at, cost-effectively
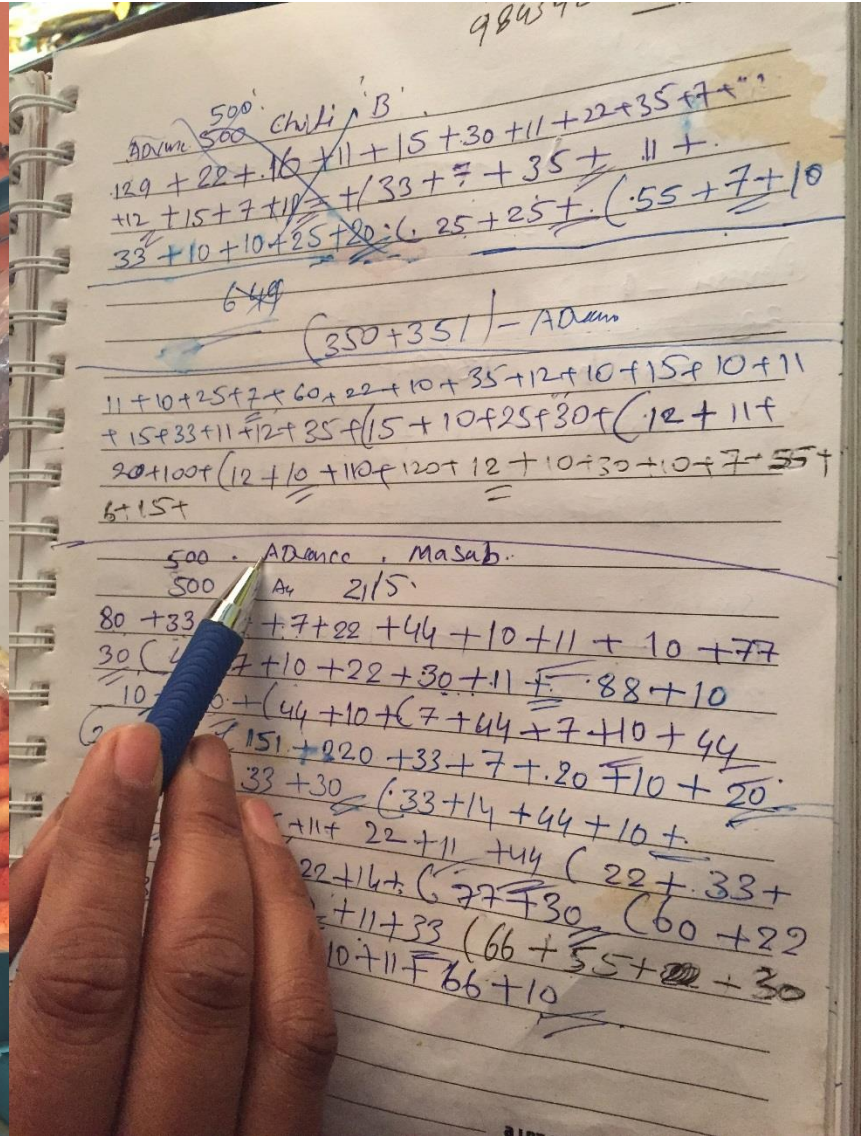
Initial insights: Getting clients to pick up the phone is not enough

Implications and next steps

- Financial Heuristics 2.0 over mobile to launch in April 2016

- Improved features:
    - Shorter content
    - Marketing firm copy-write of content to increase client engagement
    - Improved platform with more automated features

- The importance of **iterative learning** and product adaptation

- The overall objective: Supporting clients to **write their own story**

THANK YOU

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Visit us at: www.ideas42.org