

# BEHAVIOR ECONOMICS 101

**Michael R. Roush, MA, *Manager, Financial Empowerment & Innovation,  
National Disability Institute***

**Wynne Lum, *Philanthropy Manager,  
Bank of America***

**Nicole Truog, MA, *Associate Director,  
Center for Financial Security, University of Wisconsin - Madison***

**Anya C. Samak, PhD, *Assistant Professor,  
University of Wisconsin - Madison***

# Welcome & Introductions



***Michael R. Roush, MA***

**Manager, Financial Empowerment  
& Innovation**

**National Disability Institute**

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# Webinar Objectives

- Define Behavior Economics
- Understand key components
- Look at strategies to use as we work to create positive financial habits for clients we serve.





# National Disability Institute

A national research and development organization with the mission to promote income preservation and asset development for persons with disabilities and to build a better economic future for Americans with disabilities.

[www.realeconomicimpact.org](http://www.realeconomicimpact.org)

# Welcome



*Wynne Lum,*  
**Philanthropy Manager**  
**Bank of America**

# Bank of America Partnership

- Bank of America has been a long time supporter of National Disability Institute
- Bank of America's support has:
  - Assisted 1.5 million taxpayers with disabilities receive more than \$1.5 billion in tax refunds
  - Advocated for building inclusive communities of practice in more than 100 tax/asset building coalitions across the country
  - Educated over 1,600 people in 2012 on economic empowerment strategies for persons with disabilities



## Bank of America's Disability Advocacy Networks Collaboration with NDI

- In 2013, NDI and Bank of America's DAN members will join together to increase awareness on financial wellness for persons with disabilities through two opportunities.
  - Financial Education Training
  - Disability Awareness Training for VITA volunteers, tax and asset building coalitions, debt management partners, IDA and financial education providers.

# Volunteer Opportunities

- Financial Education Training
  - Purpose: Financial education is key to advancing up the economic ladder. Often times, financial education is not offered or delivered to persons with significant disabilities.
  - Communities where DAN has a chapter presence – NDI will connect the DAN chapter leads to the coalition/VITA leads in each market.
  - DAN members and partners will determine training schedule and logistics.
  - DAN members will use FDICs Money Smart Curriculum

# Volunteer Opportunities

- Disability Awareness Training
  - Purpose: Increase awareness for VITA volunteers, tax and asset building coalitions, debt management partners, IDA and financial education providers.
  - Communities where DAN has a chapter presence – NDI will connect the DAN chapter leads to the coalition/VITA leads in each market.
  - DAN members will use NDIs Disability Awareness Training materials.

# Next Steps


- If you are interested in being connected with DAN Volunteers in your community – please send an email to Michael Roush at [mroush@ndi-inc.org](mailto:mroush@ndi-inc.org) with your preference of financial education and/or disability awareness training. In the subject line of the email – please use **Disability Advocacy Network Volunteer Connection**

# BetterMoneyHabits.com

Money in Motion x www.treasury.gov x FDIC: Money Sm x Home | CFSI x DPNavigator.net x DPNavigator.net x JumpStart.org x Learn How to M x

www.bettermoneyhabits.com/en/videos/set-budget-stick-to-it.html?cat=building-solid-financial-foundation#fbid=cuPIWnl\_iG5

Back f t p in Building a Solid Financial Foundation



0:36 -5:14

How to set a budget and stick to it

★★★★★ 233 People Views 1609

Home improvements. Back-to-school clothes. Even a weekend getaway. Whether it's something you need or something you want, creating a budget can help you keep your spending in line to help you reach your goals.

8:46 PM 4/9/2013



# Welcome



*Nicole Truog, MA*  
**Associate Director**  
**Center for Financial Security**  
**University of Wisconsin - Madison**

*Applied* research center at the University of Wisconsin-Madison

Working to build financial capability for families and individuals over the life course

- Measurement of Financial Capability
- Targeting Interventions to Populations at Risk
- Testing Strategies, Products and Services

<http://cfs.wisc.edu>

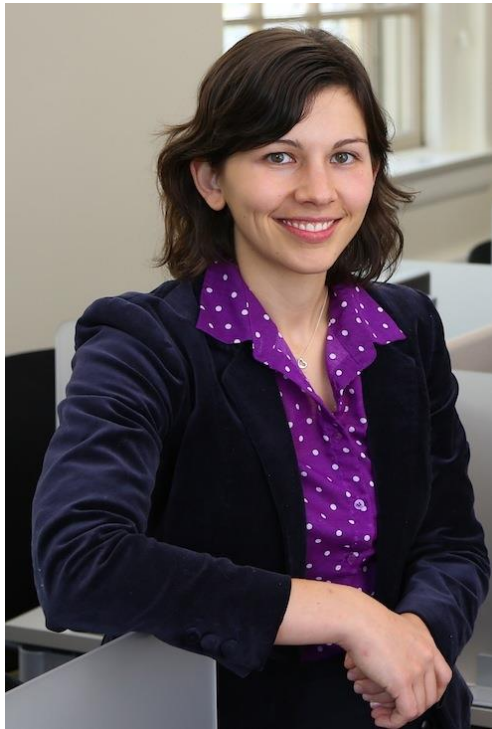
<http://twitter.com/uwmadisoncfs>

Pathways 2013 - <http://pathways2013.wordpress.com>

Nicole Truog, [ntruog@wisc.edu](mailto:ntruog@wisc.edu) - 608-262-6766



# Behavior Economics 101



*Anya C. Samak, PhD*  
**Assistant Professor**  
**University of Wisconsin-Madison**

# BEHAVIORAL ECONOMICS: Insights for the Field

- Prof. Anya Samak  
Center for Financial Security  
The University of Wisconsin-Madison  
[asamak@wisc.edu](mailto:asamak@wisc.edu) | [anyasamak.com](http://anyasamak.com)

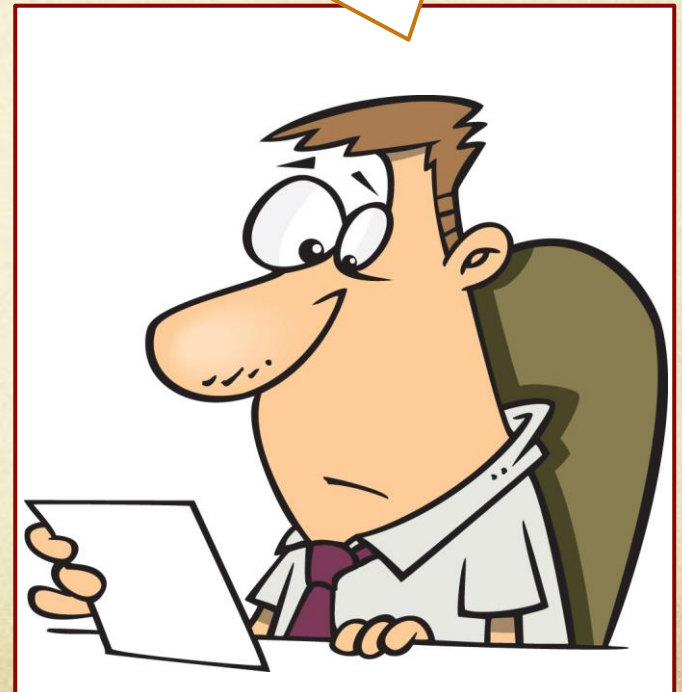
May, 2013



# 3 Big Questions

- 1. What is Behavioral Economics?
- 2. How do Economists study behavior?
- 3. How can insights from Behavioral Economics be applied?

APR, 401(k), 403(b),  
Index Fund...  
What does it mean?!



# [ Economics ]

- **Microeconomics** is the study of how individuals and firms make decisions to “allocate limited resources.”
- Any decision is an “**economic**” one in this sense.
  - Choosing whether to buy a TV or invest in a retirement account
  - Choosing whether to spend time watching TV or exercising
- Two main components of a decision
  - Constraints – tells what the individual **can** do
  - Preferences – tells what the individual **wants** to do – which activities increase his/her satisfaction
- The individual’s objective: **Maximize his/her satisfaction**





# What is Behavioral Economics?

# The Standard Approach: George Invests in a 401(k)

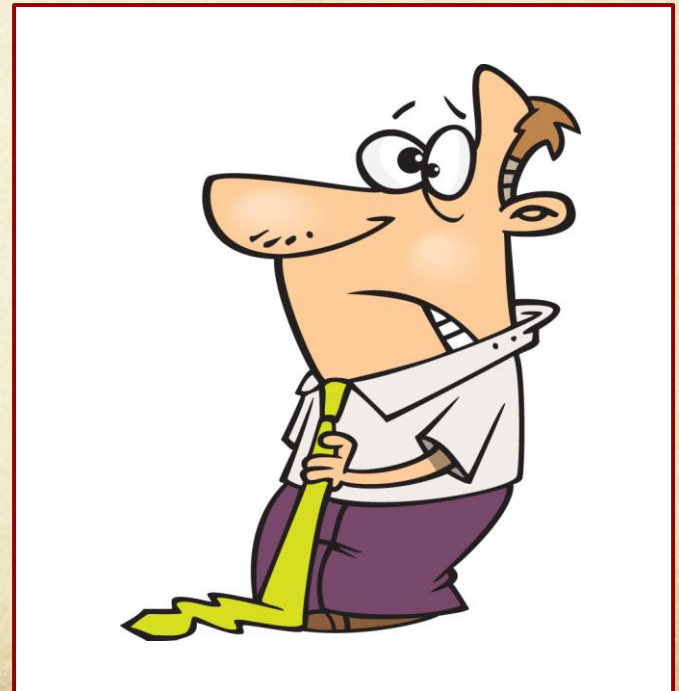
- George carefully considers all information that is given to him
- Using this information, George maximizes his satisfaction over his lifetime
- George does all this, ignoring what his friends and others are doing





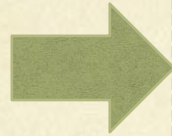
# What Really Happens?

- George ~~carefully considers~~ **glances at** ~~all~~ **some** information that is given to him
- ~~Using this information,~~ George **tries to** maximizes his satisfaction over his lifetime, **but then puts it off for later**
- George does all this, **after checking** ~~ignoring~~ what his **friends, colleagues,** **TV hosts, news...** are doing



# 3 Principles of Bounded-ness

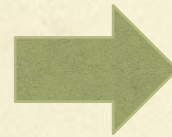
**X** George carefully  
considers all  
information



## **Bounded Rationality:**

Processing information is costly,  
And there are common biases to  
how information is perceived

**X** George  
maximizes  
satisfaction over  
lifetime



## **Bounded Willpower:**

People put off doing things they  
don't like, but believe they'll 'get  
to it later'

**X** George ignores  
his friends



## **Bounded Selfishness:**

People care about others;  
use cues from environment



# “Psychological Underpinnings”

## ○ Bounded rationality

- The brain is limited in its capacity to process information
- “Rules of thumb” often used, strongly dependent on framing
- Leads to: overconfidence, status quo bias, ambiguity aversion, overload of information, loss aversion, subjective measures of probability

## ○ Bounded willpower

- Time preference, Lack self-control
- May not do what is “good” for you

## ○ Bounded selfishness

- People like to help others: warm-glow, altruism.
- People use “cues” from others
- Care about my “in-group” succeeding



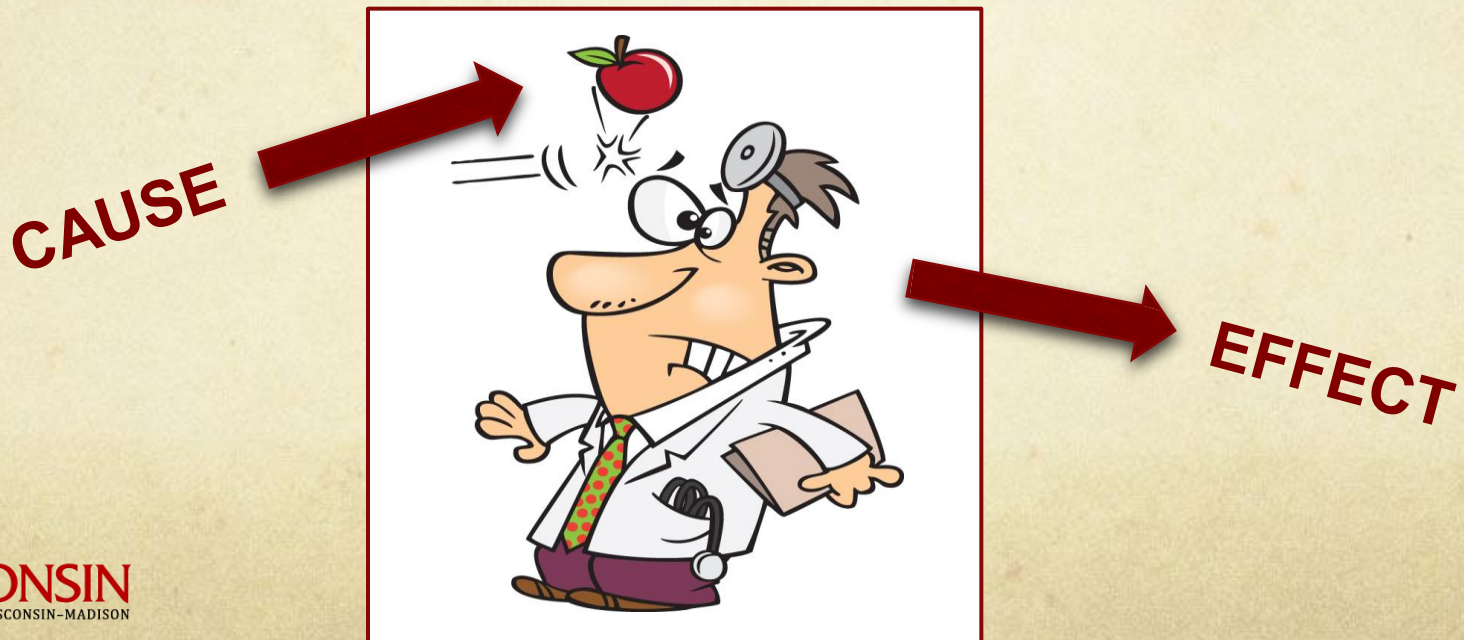
# [ Behavioral Economics ]

- Behavioral Economics uses concepts from psychology – and investigates how **social**, **cognitive** and **emotional** factors motivate decision-making
- Simple assumptions, like... “you prefer \$100 to \$50”
- May not always be true. For example,
  - “you prefer \$50 to \$100 if you can get the \$50 now”
  - “you prefer \$50 to \$100 if getting \$100 requires filling out a form”
  - “you prefer \$50 to \$100, unless getting \$50 means your financial advisor is less well-off”



# Why study Behavior?

- Describe what people *actually* do, and why
- Recommend what individuals *ought* to do
- Recommend what society *ought* to do





# How do Economists Study Behavior?

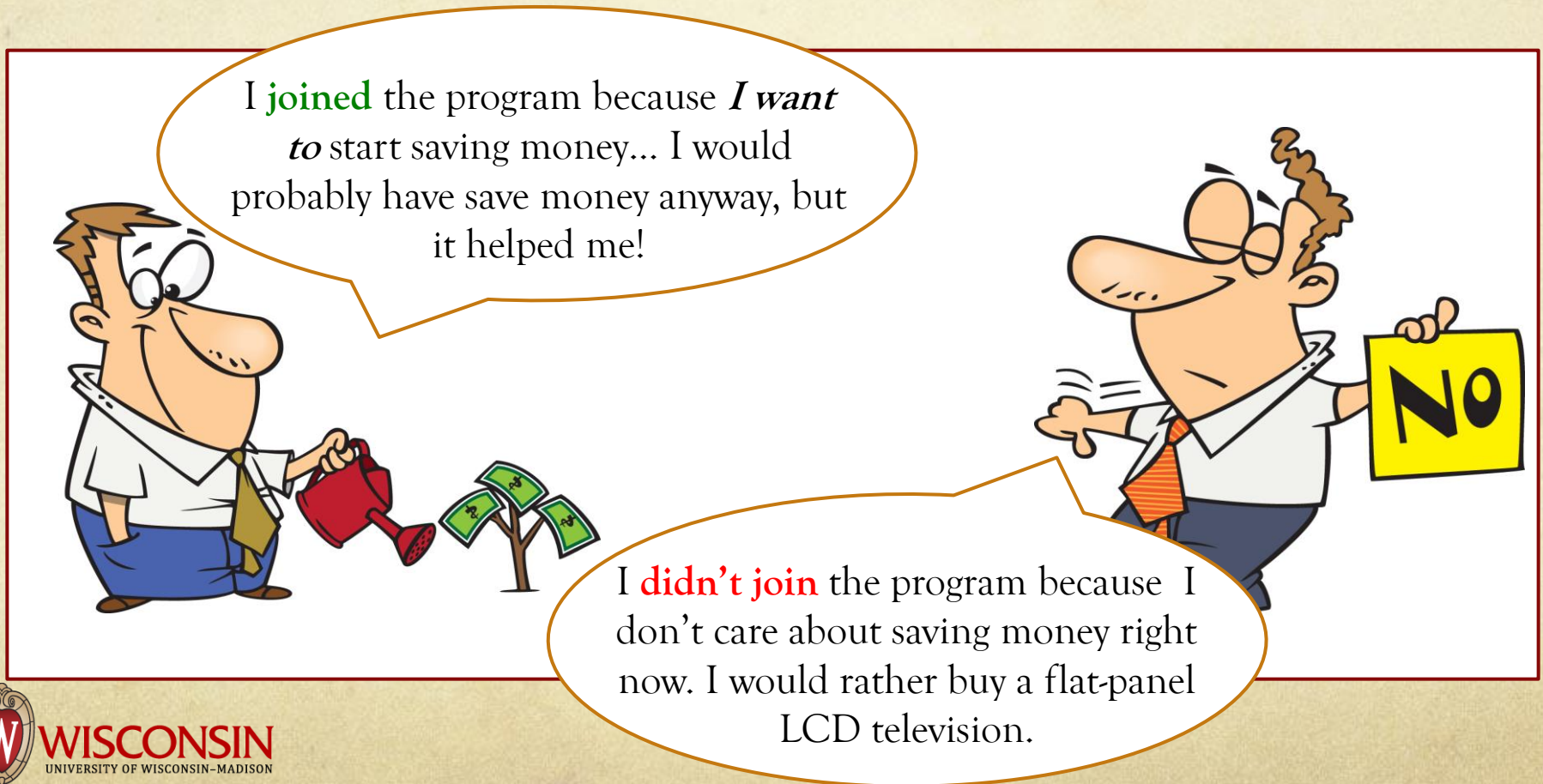


# Case Study on Financial Education

- We study the ability of associates to make better choices about how they manage finances. We advertise a new educational program – *Grow Your Wealth!*. 5,000 qualified associates are invited to join the program, 2,000 **are interested in learning to save money** and decide to participate.
- All 2,000 are invited to join and do very well in the program.
- At the end of the study, we compare the group who has participated (2,000) with the group who hasn't (3,000)
- Our 2,000 have clearly done better!
- **Is the program a success?**

# What Really Happened?

- Selection Bias: Caused our results to be over-stated
- Do not know if the **program** or the **people** cause the effect





# How to Get Cause & Effect

- **This is a Randomized Field Experiment**
- 2,000 chose to participate in the program
- These 2,000 associates are located in 5 different cities
- After associates have expressed their interest, select 2 (A and B) of the 5 cities and offer *Grow Your Wealth!* as a pilot
- Compare all those who wanted to participate in cities A and B with C, D and E
- Now we have removed selection bias – so we know the program caused the effect

# Control is Key

- In a **Field Experiment**, we control who gets offered the intervention
- The “Control group” is the group for comparison
  - They wanted to participate, but were not able to
- The “Treatment group” is the group of interest
  - They wanted to participate, and were able to
- What about non-participants?
  - We may want to learn how the program will affect those who *don't* want to participate
  - But we cannot force people...must use incentives



# Behavioral Interventions

- How to get more participants in the study?

- Now vs. Later – bounded willpower

- Bring “now” incentives to motivate behavior

- Include a commitment

- Social feedback

The consequences of not saving money are far in the future.

I **didn't join** the program because I **don't care about saving money** right now. I would rather have a big-screen TV. **I will save later.**





# How can Insights from Behavioral Economics be Applied?



# Overcoming Boundedness



- People do want to make choices that are optimal for them
- But they must overcome many behavioral biases
  - Bounded Rationality
  - Bounded Willpower
  - Bounded Selfishness
- **How can we use what we know to help?**
  - **Lesson 1: Defaults**
  - **Lesson 2: Cost of Information**
  - **Lesson 3: 'Now' Incentives**
  - **Lesson 4: Demand a Commitment**
  - **Lesson 5: Social Strategies**

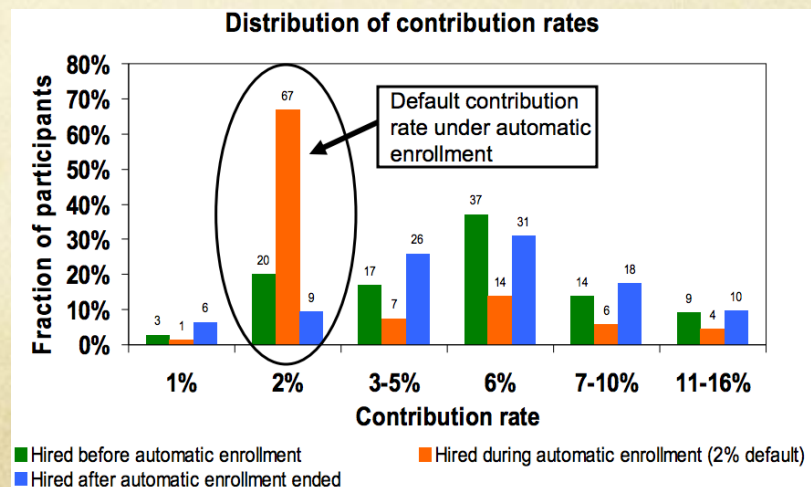
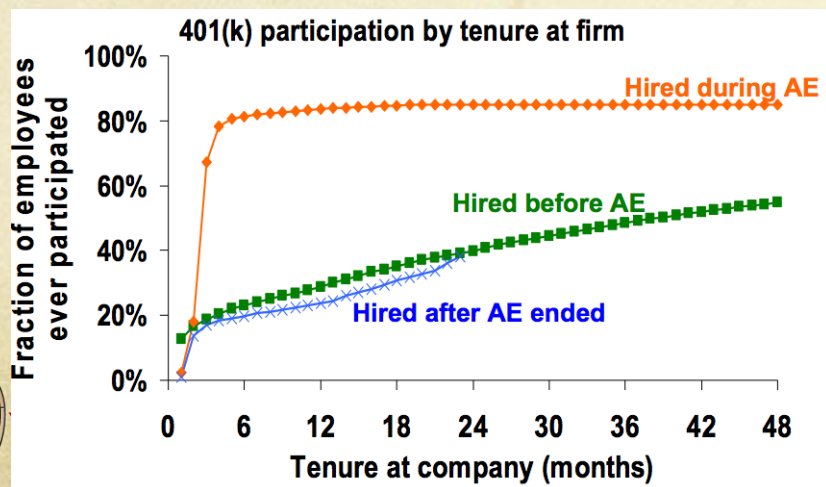
# Lesson 1: Default is a 'Nudge'

- In any decision, **inaction triggers a default result**
  - Not signing up for a health insurance plan – no health insurance
  - Not signing up for a 401(k) – no 401(k)
  - Not signing up to be an organ donor – not an organ donor
- If individuals put off difficult decisions to the future, the default is the most likely outcome
- Now suppose we change the default
  - Not signing up for a 401(k) – automatic enrollment in 401(k)
  - If changing the default changes behavior, **we call this a nudge**



# Lesson 1: Evidence

- Choi, Laibson, Madrian and Metrick (2004) conduct an experiment with an employer
- Employer puts into place auto-enrollment
  - “Opt in”: the worker must elect to participate in the 401(k) and choose an amount to contribute
  - “Opt out”: with a default rate: 1%, 2%, etc. Worker is defaulted into accepting 401(k) participation and rate, or needs to act to opt out. **Significantly increases enrollments, at default rate!**



# Lesson 2: Information Has a Cost

- Bounded Rationality makes processing information difficult
- So, we choose to rely on rules of thumb
- Instead, **simplify information**
  - Graphical representation can be more effective than textual
  - More information creates an overload and is not always better
    - Having too many health plan options causes worse outcomes





# Lesson 2: Evidence

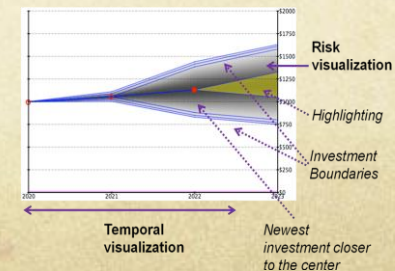
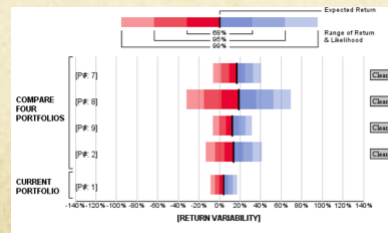
- Too many choices cause indecision
- Providing **visual analytics**, a visual and interactive way to represent information, improves economic choice
  - Improves confidence
  - Reduces decision-time
  - Results in higher quality choices
- Examples
  - SimulSort, FinVis (Samak & Co-authors)

Expected Return

Standard Deviation

Rank 100

Base Number	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1st	88	78	73	68	76	70	65	60	55	50
2nd	87	77	72	67	75	69	64	59	54	49
3rd	86	76	71	66	74	68	63	58	53	48
4th	85	75	70	65	73	67	62	57	52	47
5th	84	74	69	64	72	66	61	56	51	46
6th	83	73	68	63	71	65	60	55	50	45
7th	82	72	67	62	70	64	59	54	49	44
8th	81	71	66	61	69	63	58	53	48	43
9th	80	70	65	60	68	62	57	52	47	42
10th	79	69	64	59	67	61	56	51	46	41
11th	78	68	63	58	66	60	55	50	45	40
12th	77	67	62	57	65	59	54	49	44	39
13th	76	66	61	56	64	58	53	48	43	38
14th	75	65	60	55	63	57	52	47	42	37
15th	74	64	59	54	62	56	51	46	41	36
16th	73	63	58	53	61	55	50	45	40	35
17th	72	62	57	52	60	54	49	44	39	34
18th	71	61	56	51	59	53	48	43	38	33
19th	70	60	55	50	58	52	47	42	37	32
20th	69	59	54	49	57	51	46	41	36	31



# Lesson 3: “Now” Incentives

- **Bounded Willpower** makes it difficult to see the benefits of an action that is ‘good for you’
  - Suppose I know that exercising and eating well will improve my health in the long run
- “Now” Incentives add an immediate benefit to an action
  - This changes my decision problem!
  - Now I consider the cost and benefit of an action with the benefit in the present



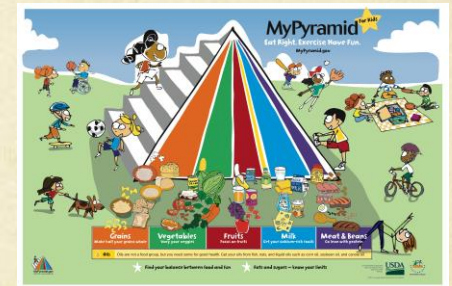


# Lesson 3: Evidence

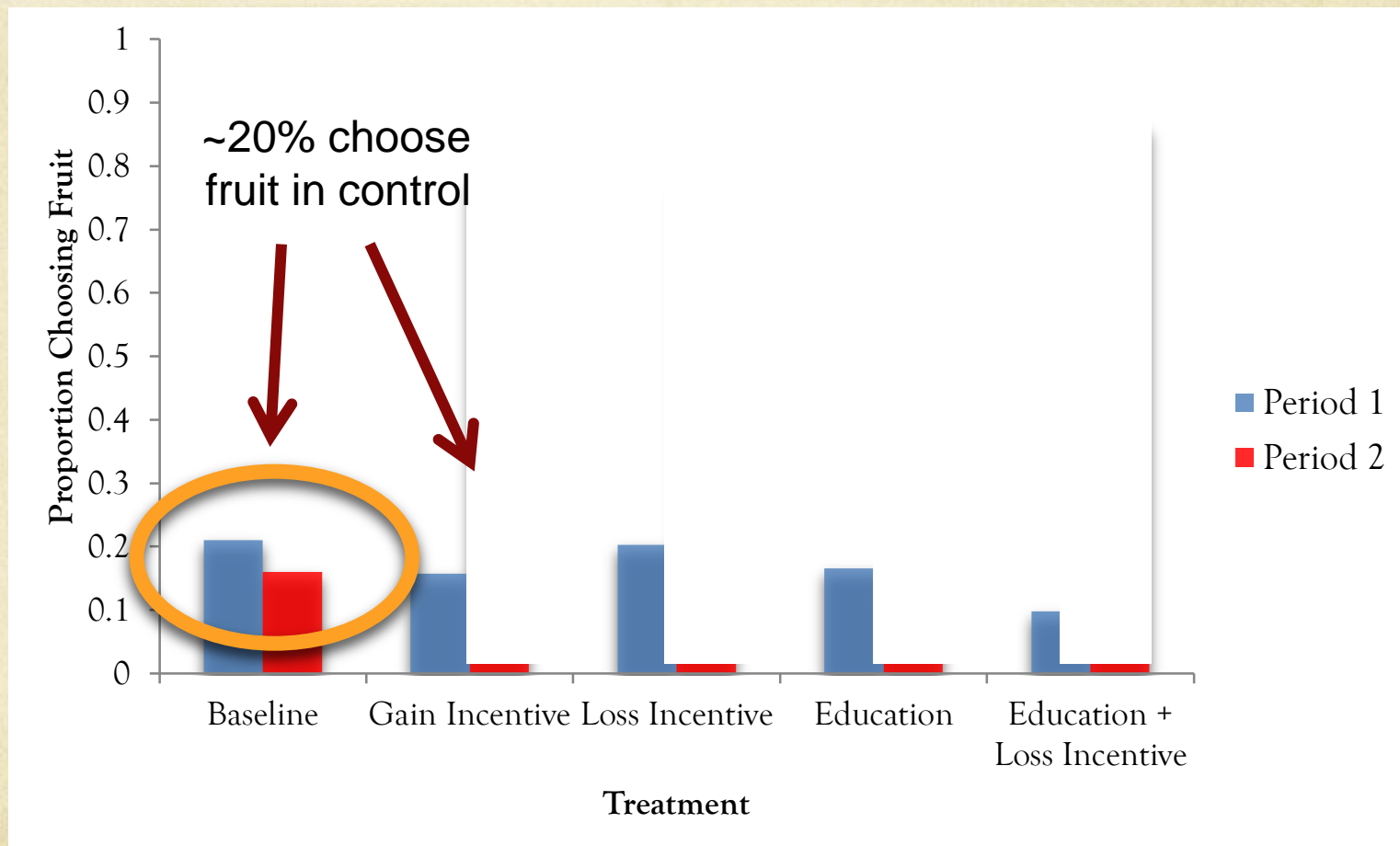
- Eating healthy in the lunchroom (List and Samak, 2013)
  - Over 40% of school lunch content is thrown away
  - Kids are at highest BMI ever
  - Nutrition education has limited effectiveness/is costly
- Effect of providing incentives on child food choice?

- **Choice of cookie or fruit**

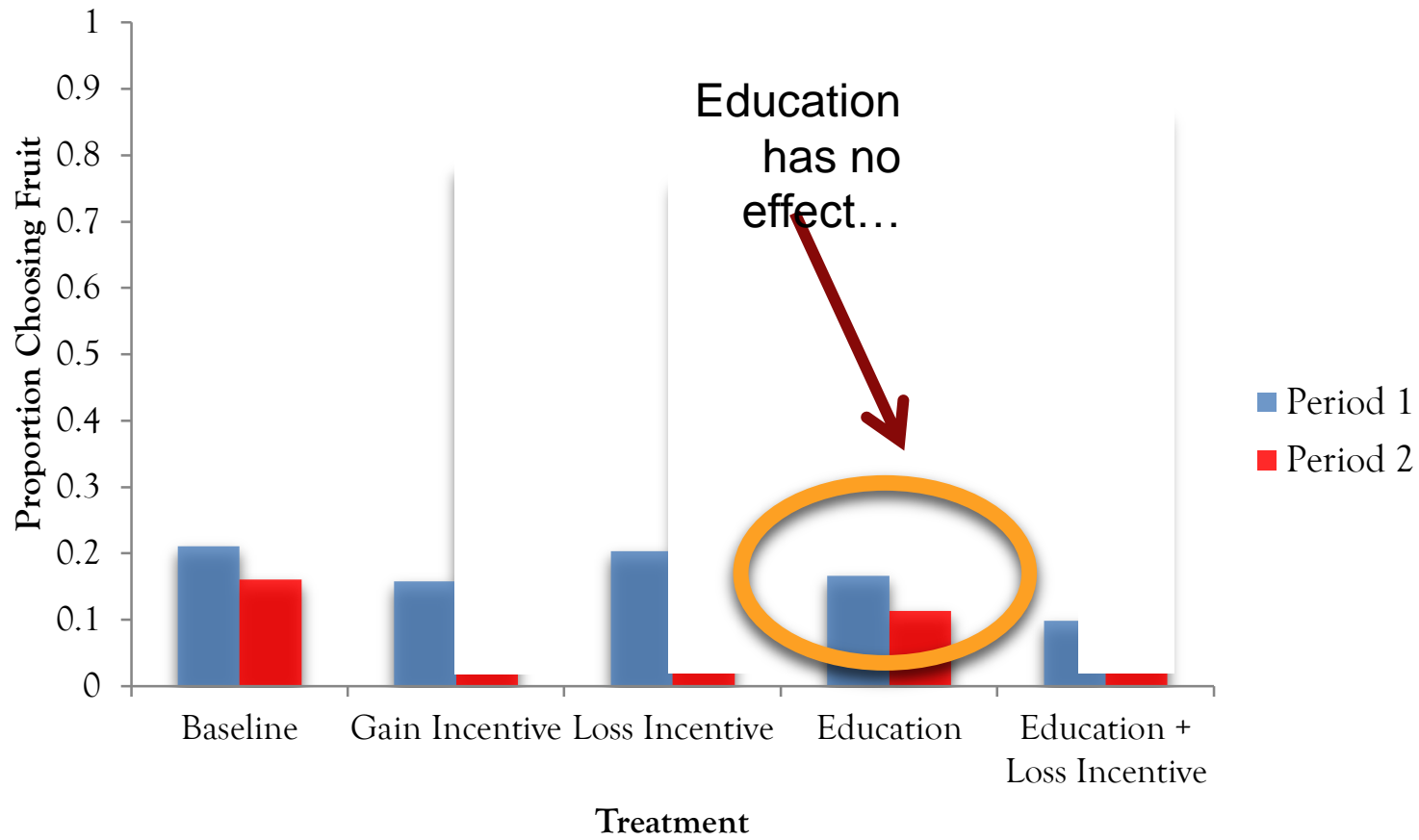
- Can only choose one
  - Control group: choice only
  - Treatment group 1: choice + small toy for fruit
  - Treatment group 2: education + choice



# Lesson 3: Evidence

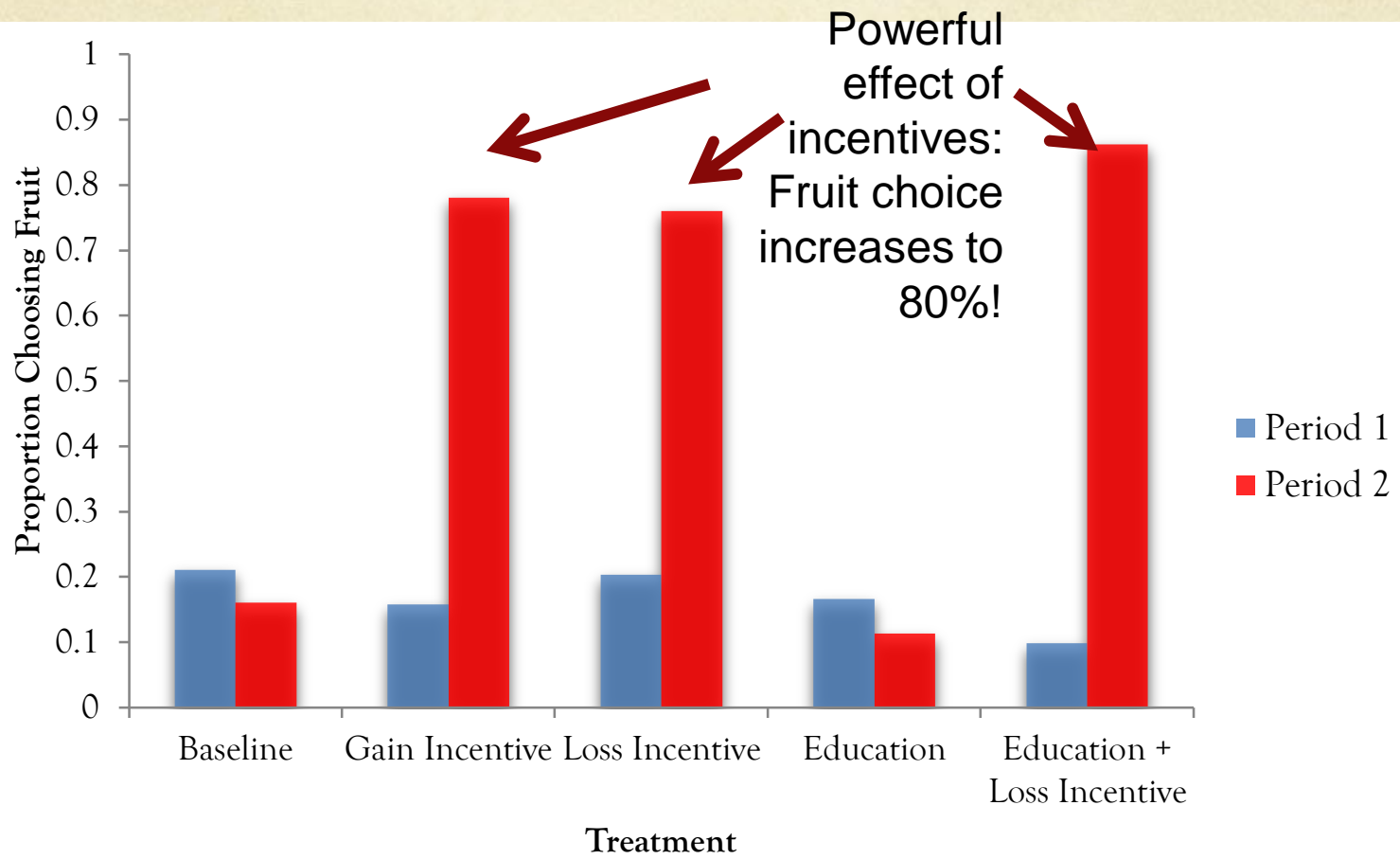


# Lesson 3: Evidence





# Lesson 3: Evidence



# Lesson 4: Demand a Commitment

- Individuals want to do better, but **bounded willpower** prevents doing better in the present
- A commitment device is a way to assure that you follow through with a plan
  - Financial Services
    - CDs
    - Restrictions on withdrawals
  - Subscription services
  - Gym memberships
  - ...credit cards in the freezer



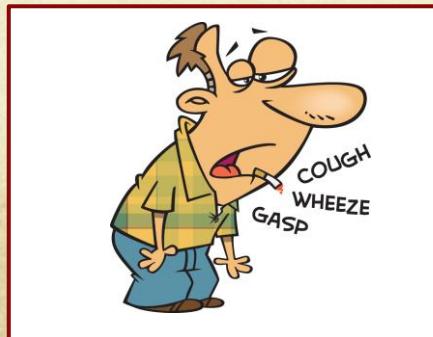
# Lesson 4: Evidence

- Gym membership (Dellavigna and Malmendier (2004, 2006))
- Analyze data from 3 gyms, 7,752 members over 3 years
  - Average cost of gym membership: \$75/mo
  - Average number of visits by members: 4/month
  - Average cost per visit: \$19
  - Drop-in rate: \$10
- The membership is the commitment device
  - Members are foregoing a savings of \$600 annually!
  - **Members willing to pay \$600 for the commitment device**



# Lesson 5: Social Strategies

- Compliance with desirable behaviors can be improved through:
  - Being held accountable to another person
  - Learning one's standing in the social group
  - Learning 'social norms'
  - Receiving 'signal' of benefits based on what role model is doing
  - Tying incentives to group performance
- Evidence:
  - Giving to charity, financial coaching, weight loss programs, AA, new technology adoption



**Thank you!**

*If you have any questions,  
e-mail me at:*

[asamak@wisc.edu](mailto:asamak@wisc.edu)

# Q&A



*Michael R. Roush, MA*  
**National Disability Institute**



# Resources

Visit NDIs website:

[www.realeconomicimpact.org](http://www.realeconomicimpact.org)

To sign-up for the NDI's Real Economic Impact Network  
Listserv

send an email to:

[reitour-list-SUBSCRIBE@lists.reitour.org](mailto:reitour-list-SUBSCRIBE@lists.reitour.org)



**SPECIAL THANK YOU**

**Bank of America**



**IF YOU HAVE ANY ADDITIONAL  
QUESTIONS AFTER THE WEBINAR  
PLEASE CONTACT:**

Michael R. Roush, MA

[mrroush@ndi-inc.org](mailto:mrroush@ndi-inc.org)

727-278-1352



# Next Webinar

## *Integrated Service Delivery*

*June 12, 2013*

*3:00 PM EDT – 4:00 PM EDT*