

Leveraging Postsecondary 'Nudges' During Social Distancing

June 2, 2020

2:00 – 3:00 p.m. ET

CARPE

Center for Applied Research
in Postsecondary Education

at the American Institutes for Research® ■



Introductions



**Alexandria Walton
Radford**

*American Institutes for Research
Director of CARPE
aradford@air.org*



Eric Bettinger

*Stanford University
Professor
ebetting@stanford.edu*



Lindsay Page

*University of Pittsburgh
Associate Professor
lpage@pitt.edu*



Christina LiCalsi

*American Institutes for Research
Principal Researcher
clicalsi@air.org*

Agenda

1. Welcome and Overview
2. In-Person Advising: A Nudging Story with Eric Bettinger
3. Nudging Students to Postsecondary Success with Lindsay Page
4. Text4College Study with Christina LiCalsi
5. Panel Discussion

Introducing CARPE

Grounded in practice. Informed by research. Improving postsecondary education for today's students.

CARPE

Center for Applied Research
in Postsecondary Education

at the American Institutes for Research® ■

What We Do

We tackle postsecondary education's most pressing challenges by generating actionable insights and helping the field implement effective solutions.



How We Do It



We ground our work in practice.



We build the field's capacity to improve outcomes.



We apply our deep research expertise.



We share what we discover.

Bodies of Work

Our work addresses every part of the postsecondary continuum, following students'

- Transition to postsecondary education
- Postsecondary education
- Transition out of postsecondary education



Diverse Partners

- **Foundations** like the Bill & Melinda Gates Foundation, Lumina Foundation, and the William and Flora Hewlett Foundation
- **State education agencies** and K-12 school districts
- **Postsecondary systems and institutions**
- **The U.S. Department of Education**
- **National Science Foundation**
- **National associations** focused on postsecondary education

In-Person Advising: A Nudging Story

Eric Bettinger

Stanford University School of Education

CARPE

Center for Applied Research
in Postsecondary Education

at the American Institutes for Research* ■

Intellectual History

- Hot Topics Around 2010
 - Incentives (Separate work by Fryer and Miguel & Kremer)
 - Simplification (Work by Dynarski & Scott Clayton)
- Important Papers
 - Incentives
 - » Opening Doors, particularly findings in Louisiana
 - » Angrist, Lang, Oreopoulos
 - Simplification
 - » Bettinger, Long, Oreopoulos, Sanbanmatsu
- Key element: Human Contact

Parallel Literature on Advising in High School

- Lit Review by Maynard et al (2014)
 - Most studies do not rely on causal methods
 - Most studies were small scale
- Flood of Randomized Trials
 - Within School Randomization
 - » Avery 2013; Berman, Bos, & Ortiz, 2008; Carrell & Sacerdote, 2016; Oreopoulos, Brown, & Lavecchia, 2017; Phillips & Reber, 2018; Castleman and Goodman 2018
 - Whole School Randomization
 - » Bettinger and Evans 2019; Oreopoulos & Ford 2016
- Overall Results
 - Experimental studies impacts are generally small; Larger on college choice than attendance margins
 - Quasi-experimental results always larger
 - Largest impacts are often the result of bundled treatments (e.g. cash & advising in Dartmouth study)

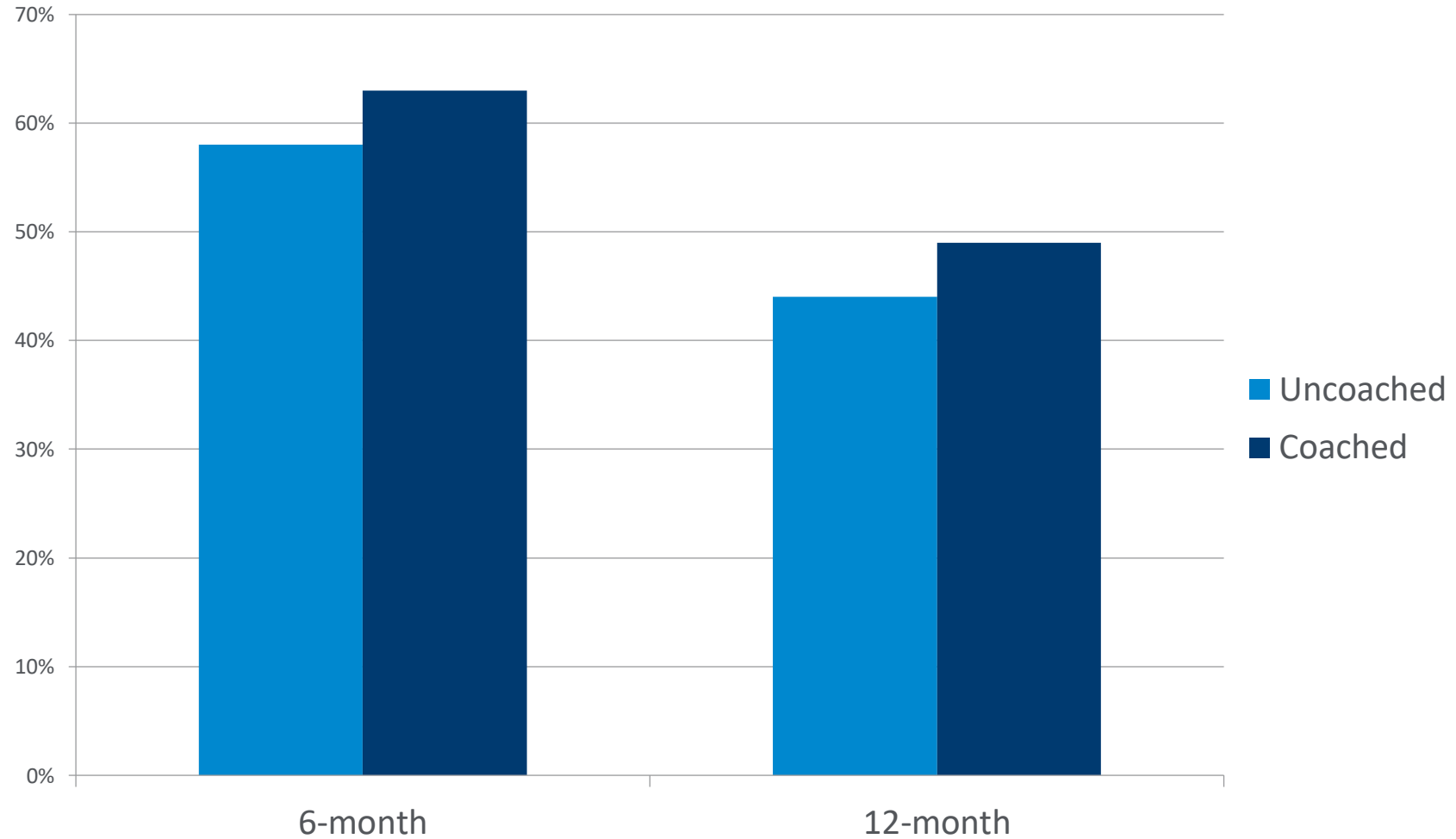
Advising in College

- College Success Programs
 - Bundling advising with orientation, learning communities, summer bridge
 - Positive Correlation between Student Services expenditures & Outcomes (Ehrenberg and Webber 2010)
- Proactive Advising
 - Bettinger and Baker (2016)
 - » Inside Track Coaching
- Improving Advising through Technology (Nudge Architecture)
 - Marathon vs. Episodic
 - Pell Grant Renewal (Castleman and Page 2014), N2FL (Mabel, Castleman, Bettinger and Choe 2019)

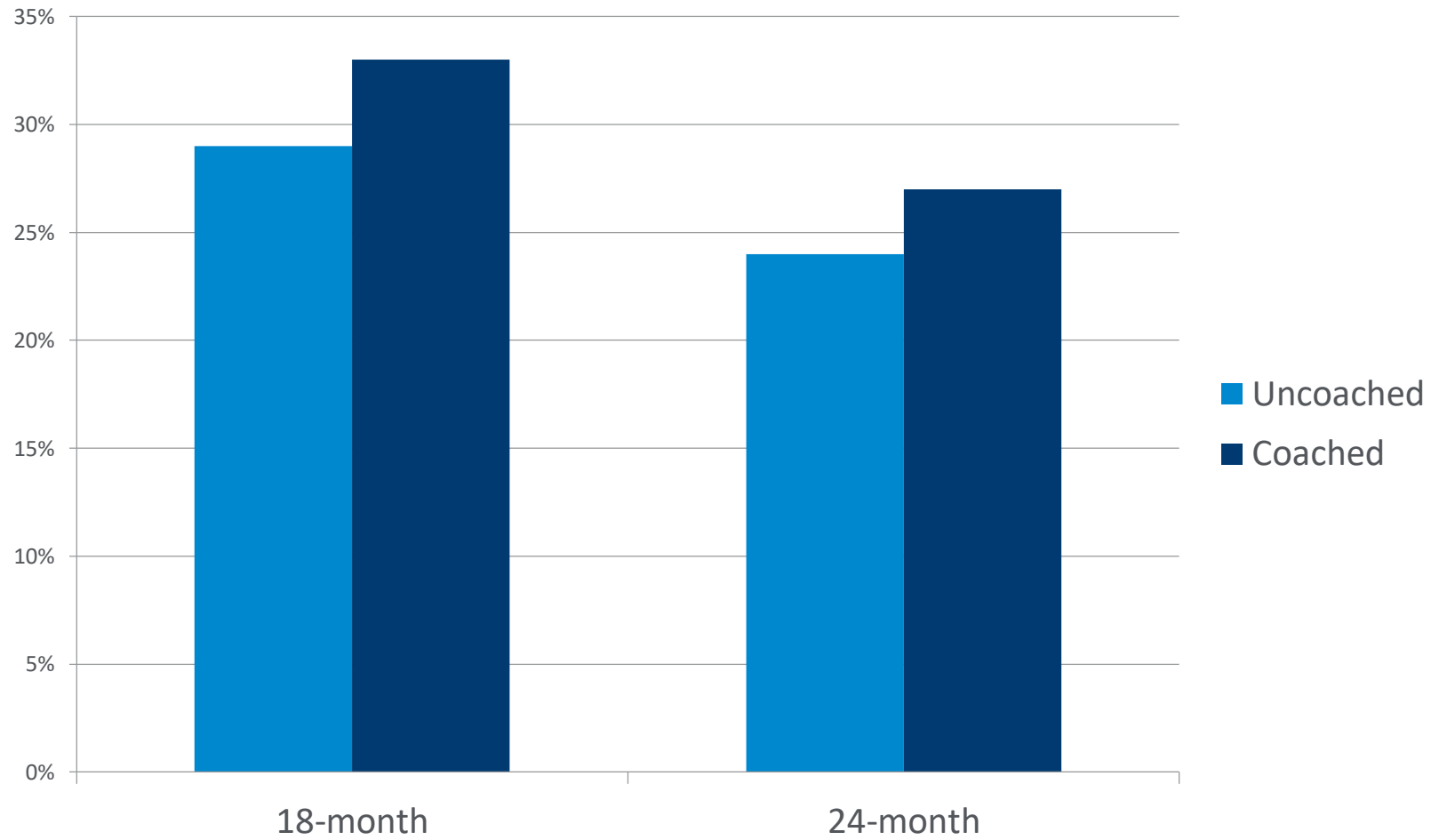
InsideTrack's Coaching

- Emphasis on training and hiring coaches
- Coaching takes place via phone, email, and text.
 - Trained coaches work in phone banks.
 - Proprietary algorithms guide prioritization and software tracks student contacts and progress.
 - Systems are integrated with participating universities to the extent that it is possible.
 - » E.g. Coaches can observe student attendance, performance, and upcoming deadlines where possible.
- Coaching is “Active” not “Passive”
- Coaching was roughly \$1000/student

What were the Results? Retention During Coaching



What About After Coaching?



N2FL - Pilot

- Target Sample: At-risk students who had completed more than 50 percent of coursework
- Intervention: Nudge text messages aimed virtual advising
 - Provided “coaching” on good study methods
 - Combination of marathon (study and advising habits) and sprints (deadlines)
- Setting: 9 broad-access campuses (n=3806)
- Cost: ~\$100/student

- Key result: Completion rates increased from 16 to 22 percent

Unresolved Issues in the Nudging Space

- Dosage and Heterogeneity Across Students
- Targeting & Cost Efficacy
- Content & Heterogeneity of Nature of Advising
- Understanding Counterfactuals
- Widespread Belief in Advising

Auxiliary Other Issues

- Hybrid and/or Virtual Advising
- Homophilia

Dosage & Heterogeneity

- Few studies randomize dosage
- Heterogeneity by race & gender remains underdeveloped

- “Soft Cohort” Studies
 - Low Power
 - Low Compliance (3.6 vs. 5.0 meetings)
 - Treatment/Control Contrast is low

Targeting and Cost Efficacy

- Scaling and cost efficacy remain issues
- Human interaction gets expensive

- BYU Pathways
 - Horserace between automated & advising
 - Advising wins, but overall cost efficacy is low

Content

- Various types of advising
 - Financial
 - Course Taking
 - Study Skills
 - Life Skills
- Bundling with other services
- Some suggestive evidence but nothing causal
 - Fesler (2019)



Understanding Counterfactuals

- Control Students/Schools
- Existing Services
- Compliance issues

Barriers to Rigorous Work

- Longstanding belief in advising at all levels
- Bundling of messages/services
- Heterogeneity in design

Other Considerations

- Nudging into Help
 - N2FL. Pilot results looked promising with one exception
 - » Reduction in dropout rates among most risky students
- Homophilia
 - Characteristics of advisers
 - » Virtual advising => male to male impacts

Final reflections

Cost is key

Nudges are just “too cheap”

- Even small impacts may be more cost effective

Are the true barriers to significant gap-closing “marathon or sprint” issues?

- See recent work by Oreopoulos

NUDGING STUDENTS TO POSTSECONDARY SUCCESS

Lindsay C. Page

University of Pittsburgh School of Education

CARPE

Center for Applied Research
in Postsecondary Education

at the American Institutes for Research* ■

Background

- Text-based nudging can be effective for improving completion of college-going tasks
- Broad scaling of outreach from a centralized sender have proven less effective. Why?
 - Messaging too generic / not well aligned with communication from other sources?
 - Sender unknown and therefore not trusted?
 - Outreach not well targeted?
 - Saturated / wrong channel of communication?
- In Summer 2016, Georgia State University implemented “Pounce,” an AI-enabled chatbot, to reduce summer melt. For GSU-committed admits, outreach:
 - Improved completion of financial-aid related tasks (e.g., completing loan counseling)
 - Improved completion of other tasks (e.g., submitting final HS transcript, attending orientation)
 - Improved timely enrollment at GSU

Can timely and targeted text-based outreach from Pounce improve postsecondary persistence and success for students after they have matriculated?

Pounce implementation details

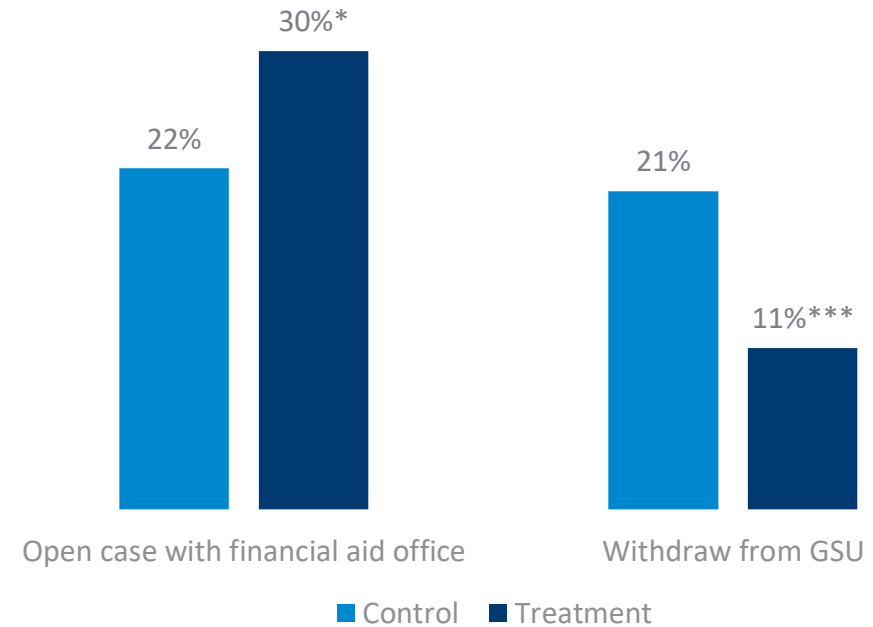


- Built by AdmitHub; run by GSU central administrative team
- Integrated with student information system
- AI draws from constructed information bank & provides automated responses to student inquiries
- Messaging in three domains:
 - **Required administrative processes** → resolving administrative holds; FAFSA refileing; registering for following semester
 - **Academic supplemental supports** → meeting with advisor; attending supplemental instruction
 - **Non-academic supplemental supports** → career services sessions; other community-building events

Findings

Outreach is most effective when it is targeted, and it pertains to administrative processes, especially those for which the consequences of inaction are high.

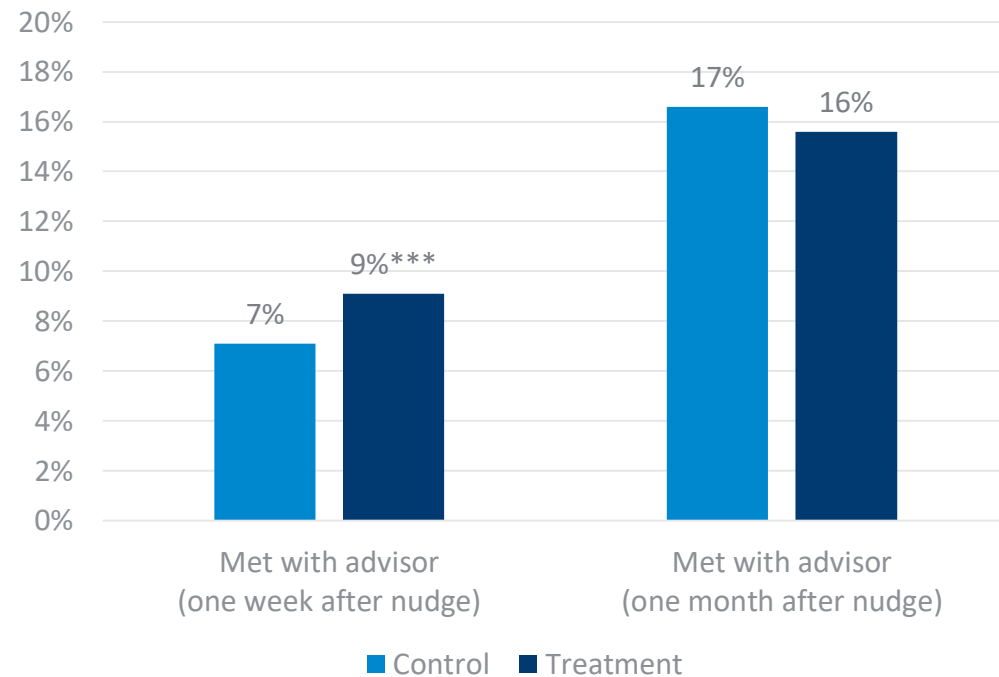
IMPACT OF OUTREACH FOR STUDENTS WITH OUTSTANDING BALANCE AFTER START OF FALL SEMESTER (N = 374)



Findings

Outreach related to academic supplemental supports yields mixed results.

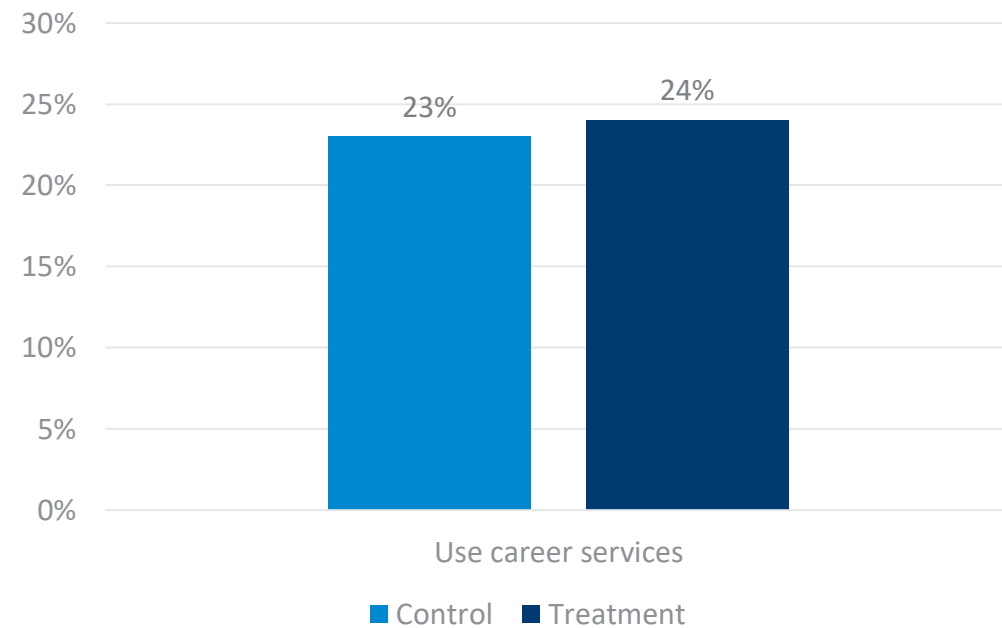
IMPACT OF OUTREACH ON MEETING WITH ACADEMIC ADVISOR (N = 7,581)



Findings

Outreach related to non-academic supplemental supports yields little effect.

IMPACT OF OUTREACH ON USING CAREER SERVICES (N = 7,581)



Hypotheses / learnings on important dimensions of text-based nudging campaigns

The messenger matters.

- First response from students is often “who’s this?” – looking for confirmation that messenger is credible
- Student engagement ↑ and opt out ↓ when outreach is from a trusted source with which student is affiliated
- Trusted source can be an individual or an institution / organization from whom the student would want and expect to hear
- For nudging to improve academic achievement outcomes, course faculty should likely be involved

We can use data to target outreach & increase relevance.

- We should worry about saturation
- By incorporating student data, we can increase credibility, target messages to students if / when they need them, and provide more specific guidance
 - GSU – student information system integration
 - Texas high schools – differentiated messaging regarding student FAFSA status & income verification requirement
- Administrative data also allows us to hone in on where we can expect to see positive effects (e.g., students with outstanding balances)

The consequences of inaction matter.

- Students appear most responsive to messages with a sense of urgency, where consequences of inaction are immediate and tangible
 - Summer melt – failure to act = can't enroll in college
 - Unpaid balance (GSU) – failure to act = must withdrawal
 - FAFSA – failure to act = can't afford college
- Text nudges may be best for encouraging such high-stakes actions OR should help students understand consequences of inaction (e.g., what are consequences of NOT going to a career fair?)

The complexity of the target behavior matters.

- Students most responsive when the target behavior is discrete, with steps to completion well defined (e.g., administrative tasks)
- If we want to use nudging to improve academic outcomes, what are the discrete inputs that we could nudge (e.g., attending office hours, additional study sessions)?

We should be realistic about the power of nudges.

- For their cost, text-based nudges can yield impressive impacts, but these impacts still tend to be modest in absolute terms
- How can nudges be incorporated into multi-pronged systems of student support?

Text4College

Christina LiCalsi

American Institutes for Research

CARPE

Center for Applied Research
in Postsecondary Education

at the American Institutes for Research® ■

Text4College Study Overview

IES Replication: Effectiveness Study (Goal 4)

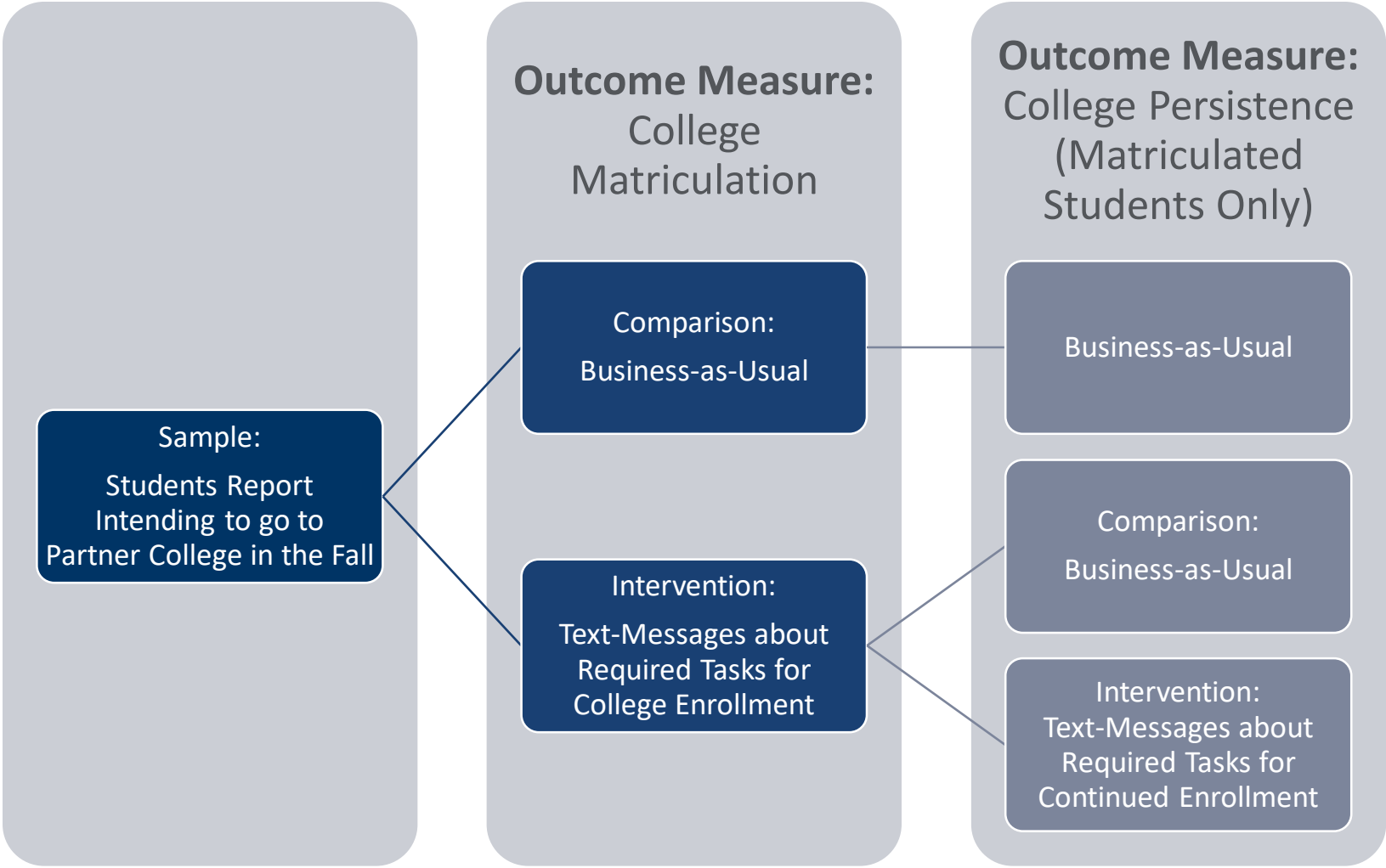
- Conceptually replicate and test whether Castleman and Page’s summer melt text messaging intervention increases college enrollment, persistence, and certificate and degree attainment for students attending high-poverty schools across three states when **implemented at scale through state K–12 and higher education partnerships**
- During the summer between high school and college **students don’t “belong”** to either the K-12 or higher education system
- Includes a **first year persistence addition** to examine whether continuing text messaging into the first year of college improves long-term outcomes above and beyond receiving the summer melt text messages
- Conduct a **cost-benefit analysis** and produce an **implementation guide**

A young Black woman with long braided hair, wearing glasses and a denim jacket, is looking at a smartphone while holding a folder. The background is a blurred outdoor setting.

**Three State Partners:
Alabama,
Connecticut, &
Minnesota**

**Recruiting graduating seniors
in high-poverty public high schools who intend
to go to in-state
public 2-year and 4-year colleges**

Research Design



Early hurdles:

- **Community College Systems not as centralized as they appeared**
- **Four-year colleges already doing similar texting**
- **Different departments to contend with within a college**



**Then....
COVID-19 happened**

**(Why are these people standing so close to one another?
Someone get them some masks!)**

Time to adjust!

- **Virtual survey administration**
- **Who is our sample now?**
- **What is business as usual?**
- **How can texting work during this time?**

Panel Discussion

CARPE

Center for Applied Research
in Postsecondary Education

at the American Institutes for Research® ■

Panel Discussion



**Alexandria Walton
Radford**

*American Institutes for Research
Director of CARPE
aradford@air.org*



Eric Bettinger

*Stanford University
Professor
ebetting@stanford.edu*



Lindsay Page

*University of Pittsburgh
Associate Professor
lpage@pitt.edu*



Christina LiCalsi

*American Institutes for Research
Principal Researcher
clicalsi@air.org*

Keep in touch with CARPE

CARPE
Center for Applied Research
in Postsecondary Education
at the American Institutes for Research

[ABOUT](#) [PROJECTS](#) [EXPERTS](#) [RESOURCES](#) [CONTACT](#)

Grounded in Practice, Informed by Research

Welcome to CARPE, the AIR center committed to improving postsecondary education for today's students by generating rigorous evidence and helping those in the field connect research and practice.



Check out our
resources on
our website:
carpe.air.org

Follow us at
[@AIRInforms](#),
[#AIRCARPE](#)

Sign up for AIR's
newsletter!

Alexandria Walton Radford
202-403-6465
aradford@air.org

1000 Thomas Jefferson Street NW
Washington, DC 20007-3835
202.403.5000
carpe@air.org
carpe.air.org | www.air.org

CARPE

Center for Applied Research
in Postsecondary Education

at the American Institutes for Research® ■



Notice of Trademark: "American Institutes for Research" and "AIR" are registered trademarks. All other brand, product, or company names are trademarks or registered trademarks of their respective owners.

Copyright © 2020 American Institutes for Research®. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, website display, or other electronic or mechanical methods, without the prior written permission of the American Institutes for Research. For permission requests, please use the Contact Us form on www.air.org.

04723_06/2020