

# Administrative checkpoints, burdens and human-centered design:

Increasing interview access to raise SNAP participation

Jae Yeon Kim<sup>1</sup>

Johns Hopkins

July 19, 2024

---

<sup>1</sup>Joint work with Pamela Herd, Sebastian Jilke, Donald Moynihan (Georgetown), and Kerry Rodden (Code for America).

# Plan

- 1 Burdens and administrative checkpoints
- 2 The argument in brief
- 3 Human-centered design
- 4 Results
- 5 Discussions

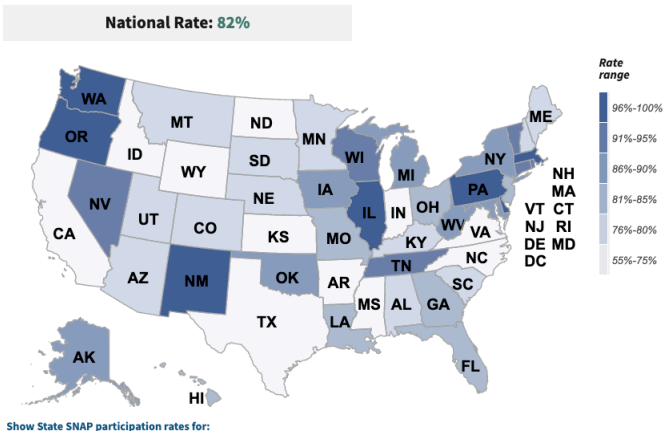
- ▶ Policies do not end when bills become laws (Pressman and Wildavsky, 1984).

- ▶ Policies do not end when bills become laws (Pressman and Wildavsky, 1984).
- ▶ Eligible people are not guaranteed to benefit from safety net programs (e.g., Medicaid, SNAP, WIC, etc).

- ▶ Policies do not end when bills become laws ([Pressman and Wildavsky, 1984](#)).
- ▶ Eligible people are not guaranteed to benefit from safety net programs (e.g., Medicaid, SNAP, WIC, etc).
- ▶ To do so, they must overcome administrative burdens (or barriers) ([Herd and Moynihan, 2018](#)).

- ▶ Policies do not end when bills become laws ([Pressman and Wildavsky, 1984](#)).
- ▶ Eligible people are not guaranteed to benefit from safety net programs (e.g., Medicaid, SNAP, WIC, etc).
- ▶ To do so, they must overcome administrative burdens (or barriers) ([Herd and Moynihan, 2018](#)).
- ▶ Administrative burden → policy take-up problem

## SNAP Participation Rates by State, All Eligible People (FY 2018)



**Figure 1:** SNAP participation rates by state (all eligible people)  
Source: USDA FNS (2018). Note: 41M Americans benefit from SNAP.



THE WHITE HOUSE



## BURDEN REDUCTION INITIATIVE



► OMB

► INFORMATION AND REGULATORY AFFAIRS

Long forms, long lines, and lots of documents – these are the hurdles that can make it difficult and frustrating for individuals and communities to access government programs and services.

Today, the Office of Management and Budget (OMB) is [taking action](#) to cut down on these “administrative burdens” by issuing new guidance for Federal agencies to help them better understand, identify, and reduce the burdens people experience when accessing public benefits programs. The guidance

**Figure 2:** Biden administration’s burden reduction policy infrastructure



- ▶ Burdens are created by design.

- ▶ Burdens are created by design.
- ▶ **Administrative checkpoints**: mandatory requirements that must be satisfied in order to progress in an administrative process (cousin concepts: "stops," "digital cages," and "institutional knots") (Heinrich, 2016; Peeters and Widlak, 2018; Sackett and Lareau, 2023).

- ▶ Burdens are created by design.
- ▶ **Administrative checkpoints**: mandatory requirements that must be satisfied in order to progress in an administrative process (cousin concepts: "stops," "digital cages," and "institutional knots") (Heinrich, 2016; Peeters and Widlak, 2018; Sackett and Lareau, 2023).
- ▶ *Some frictions are more consequential* than others.

- ▶ Empirical example: SNAP interview requirement (within 30 days of application)

- ▶ Empirical example: SNAP interview requirement (within 30 days of application)
  - ▶ Information cost: Many SNAP applicants don't know that they need to take an interview.

- ▶ Empirical example: SNAP interview requirement (within 30 days of application)
  - ▶ Information cost: Many SNAP applicants don't know that they need to take an interview.
  - ▶ Compliance cost: Even if they know the requirement, it's still difficult to comply due to scheduling.

- ▶ Empirical example: SNAP interview requirement (within 30 days of application)
  - ▶ Information cost: Many SNAP applicants don't know that they need to take an interview.
  - ▶ Compliance cost: Even if they know the requirement, it's still difficult to comply due to scheduling.
  - ▶ Psychological cost: People followed all the rules, but still did not receive benefits (= procedural denials)

- ▶ Empirical example: SNAP interview requirement (within 30 days of application)
  - ▶ Information cost: Many SNAP applicants don't know that they need to take an interview.
  - ▶ Compliance cost: Even if they know the requirement, it's still difficult to comply due to scheduling.
  - ▶ Psychological cost: People followed all the rules, but still did not receive benefits (= procedural denials)
  - ▶ More importantly, checkpoints reproduce inequality (big negative effects for lowest income ([Homonoff and Somerville, 2021](#)))



# Plan

- 1 Burdens and administrative checkpoints
- 2 The argument in brief
- 3 Human-centered design
- 4 Results
- 5 Discussions

- ▶ Premise: Administrative checkpoints generate administrative burdens.

---

<sup>2</sup>Code for America, Georgetown's Better Government Lab, and Colorado State and Boulder County Governments.

<sup>3</sup>Boulder started flexible SNAP interview in December 2022. The sample is limited to those who applied to the SNAP program via PEAK (Program Eligibility and Application Kit), Colorado's integrated safety net program website that includes SNAP and other services.

- ▶ Premise: Administrative checkpoints generate administrative burdens.
- ▶ Research question: if these checkpoints are flexible and informative (buffering), applicants may find it easier to learn and comply with the procedures and get safety net benefits.

---

<sup>2</sup>Code for America, Georgetown's Better Government Lab, and Colorado State and Boulder County Governments.

<sup>3</sup>Boulder started flexible SNAP interview in December 2022. The sample is limited to those who applied to the SNAP program via PEAK (Program Eligibility and Application Kit), Colorado's integrated safety net program website that includes SNAP and other services.

- ▶ Premise: Administrative checkpoints generate administrative burdens.
- ▶ Research question: if these checkpoints are flexible and informative (buffering), applicants may find it easier to learn and comply with the procedures and get safety net benefits.
- ▶ We<sup>2</sup> tested this hypothesis using a **field experiment** and a **follow-up survey** based on **SNAP applicants** ( $N = 1,554$ ) in Boulder, Colorado (March 22-2023).<sup>3</sup>

---

<sup>2</sup>Code for America, Georgetown's Better Government Lab, and Colorado State and Boulder County Governments.

<sup>3</sup>Boulder started flexible SNAP interview in December 2022. The sample is limited to those who applied to the SNAP program via PEAK (Program Eligibility and Application Kit), Colorado's integrated safety net program website that includes SNAP and other services.

- ▶ Key findings

---

<sup>4</sup>This is a low-cost intervention as texting costs 1-5 cents depending on service used ([Code for America, 2022](#)).

- ▶ Key findings

- ▶ Control: traditional mailer reminder

▶ Mailer content

---

<sup>4</sup>This is a low-cost intervention as texting costs 1-5 cents depending on service used ([Code for America, 2022](#)).

## ▶ Key findings

- ▶ Control: traditional mailer reminder ▶ Mailer content
- ▶ Treatment: traditional mailer reminder + three text reminders ("call any time" "at your convenience")<sup>4</sup>
  - ▶ Initial message
  - ▶ First reminder
  - ▶ Second reminder

---

<sup>4</sup>This is a low-cost intervention as texting costs 1-5 cents depending on service used ([Code for America, 2022](#)).

## ▶ Key findings

- ▶ Control: traditional mailer reminder ▶ Mailer content
- ▶ Treatment: traditional mailer reminder + three text reminders ("call any time" "at your convenience")<sup>4</sup>
  - ▶ Initial message
  - ▶ First reminder
  - ▶ Second reminder
- ▶ Interview compliance impact: **10pp**

---

<sup>4</sup>This is a low-cost intervention as texting costs 1-5 cents depending on service used ([Code for America, 2022](#)).



## ▶ Key findings

- ▶ Control: traditional mailer reminder ▶ Mailer content
- ▶ Treatment: traditional mailer reminder + three text reminders ("call any time" "at your convenience") <sup>4</sup>
  - ▶ Initial message , ▶ First reminder , ▶ Second reminder
- ▶ Interview compliance impact: **10pp**
  - ▶ Also, the treated applicants tended to attend the interview *earlier*.

---

<sup>4</sup>This is a low-cost intervention as texting costs 1-5 cents depending on service used ([Code for America, 2022](#)).

## ▶ Key findings

- ▶ Control: traditional mailer reminder ▶ Mailer content
- ▶ Treatment: traditional mailer reminder + three text reminders ("call any time" "at your convenience")<sup>4</sup>
  - ▶ Initial message , ▶ First reminder , ▶ Second reminder
- ▶ Interview compliance impact: **10pp**
  - ▶ Also, the treated applicants tended to attend the interview *earlier*.
- ▶ Benefit approval impact: **6-7pp**

---

<sup>4</sup>This is a low-cost intervention as texting costs 1-5 cents depending on service used ([Code for America, 2022](#)).

## ▶ Key findings

- ▶ Control: traditional mailer reminder ▶ Mailer content
- ▶ Treatment: traditional mailer reminder + three text reminders ("call any time" "at your convenience")<sup>4</sup>
  - ▶ Initial message
  - ▶ First reminder
  - ▶ Second reminder
- ▶ Interview compliance impact: **10pp**
  - ▶ Also, the treated applicants tended to attend the interview *earlier*.
- ▶ Benefit approval impact: **6-7pp**
- ▶ Post-experiment survey shows that the text **reduced learning costs** about the interview requirement.

---

<sup>4</sup>This is a low-cost intervention as texting costs 1-5 cents depending on service used ([Code for America, 2022](#)).

# Plan

- 1 Burdens and administrative checkpoints
- 2 The argument in brief
- 3 Human-centered design**
- 4 Results
- 5 Discussions

- ▶ Human-centered design (HCD) informed our research design (i.e., problem definition, intervention design, sampling, and outcome measures)

- ▶ Human-centered design (HCD) informed our research design (i.e., problem definition, intervention design, sampling, and outcome measures)
  - ▶ HCD in policy contexts: a set of techniques to understand administrative processes from the user perspective ([Norman, 2023](#); [Herd, Moynihan and Widman, 2023](#); [Sullivan and Soka, 2022](#); [General Services Administration and The Lab at OPM, n.d.](#))

- ▶ Human-centered design (HCD) informed our research design (i.e., problem definition, intervention design, sampling, and outcome measures)
  - ▶ HCD in policy contexts: a set of techniques to understand administrative processes from the user perspective ([Norman, 2023](#); [Herd, Moynihan and Widman, 2023](#); [Sullivan and Soka, 2022](#); [General Services Administration and The Lab at OPM, n.d.](#))
  - ▶ HCD is a common approach in the field of civic tech, a movement that applies technology, data, and human-centered design to improve policy implementation with a social justice focus ([Pahlka, 2023](#); [McGuinness and Schank, 2021](#))

- ▶ Human-centered design (HCD) informed our research design (i.e., problem definition, intervention design, sampling, and outcome measures)
  - ▶ HCD in policy contexts: a set of techniques to understand administrative processes from the user perspective ([Norman, 2023](#); [Herd, Moynihan and Widman, 2023](#); [Sullivan and Soka, 2022](#); [General Services Administration and The Lab at OPM, n.d.](#))
  - ▶ HCD is a common approach in the field of civic tech, a movement that applies technology, data, and human-centered design to improve policy implementation with a social justice focus ([Pahlka, 2023](#); [McGuinness and Schank, 2021](#))
  - ▶ *Listening* (people) first: Delivery (evaluation) is grounded in discovery (user-centered research)





privacy interests, and transparent, the Federal Government can build public trust. Further, the Federal Government's management of its customer experience and service delivery should be driven fundamentally by the voice of the customer through human-centered design methodologies; empirical customer research; an understanding of behavioral science and user testing, especially for digital services; and other mechanisms of engagement.

**Figure 3:** HCD in the U.S. government: Customer Experience Executive Order (2023)

- ▶ Before the nudge experiment (March-May 2023), Code for America researchers made field trips to the state in July and September of 2022:

- ▶ Before the nudge experiment (March-May 2023), Code for America researchers made field trips to the state in July and September of 2022:
  - ▶ Observed how clients used digital tools, shadowed caseworkers, visited county offices, and interviewed community members (clients as well as case workers)

- ▶ Before the nudge experiment (March-May 2023), Code for America researchers made field trips to the state in July and September of 2022:
  - ▶ Observed how clients used digital tools, shadowed caseworkers, visited county offices, and interviewed community members (clients as well as case workers)
  - ▶ Identified the key pain points (administrative checkpoints are a subcategory of pain points): policy communication (causing confusion and lack of confidence)

- ▶ Before the nudge experiment (March-May 2023), Code for America researchers made field trips to the state in July and September of 2022:
  - ▶ Observed how clients used digital tools, shadowed caseworkers, visited county offices, and interviewed community members (clients as well as case workers)
  - ▶ Identified the key pain points (administrative checkpoints are a subcategory of pain points): policy communication (causing confusion and lack of confidence)
  - ▶ Quant analysis based on admin data shows that missed interviews are the biggest reason for denials

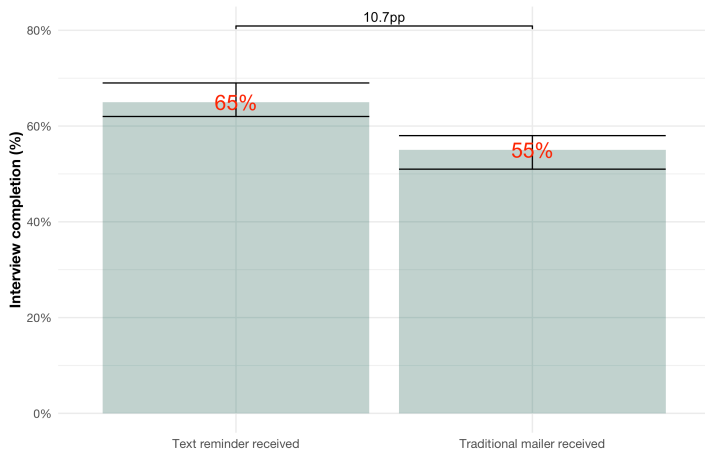
- ▶ Before the nudge experiment (March-May 2023), Code for America researchers made field trips to the state in July and September of 2022:
  - ▶ Observed how clients used digital tools, shadowed caseworkers, visited county offices, and interviewed community members (clients as well as case workers)
  - ▶ Identified the key pain points (administrative checkpoints are a subcategory of pain points): policy communication (causing confusion and lack of confidence)
  - ▶ Quant analysis based on admin data shows that missed interviews are the biggest reason for denials
  - ▶ *Co-designed* solutions for improving communication between the county and benefit applicants

# Plan

- 1 Burdens and administrative checkpoints
- 2 The argument in brief
- 3 Human-centered design
- 4 Results**
- 5 Discussions

### Effect of flexible interview option plus texting

N = 1554



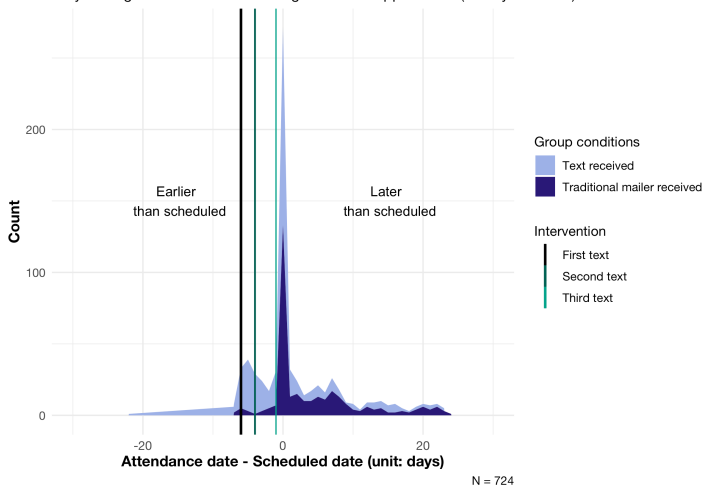
Source: Boulder county data (2023)

**Figure 4:** Effect of flexible interview option plus texting on compliance.



## Effect of flexible interview option plus texting

Only among those interviewed during their initial applications (30 days window)



**Figure 5:** Effect of flexible interview option plus texting on timing (scheduling)

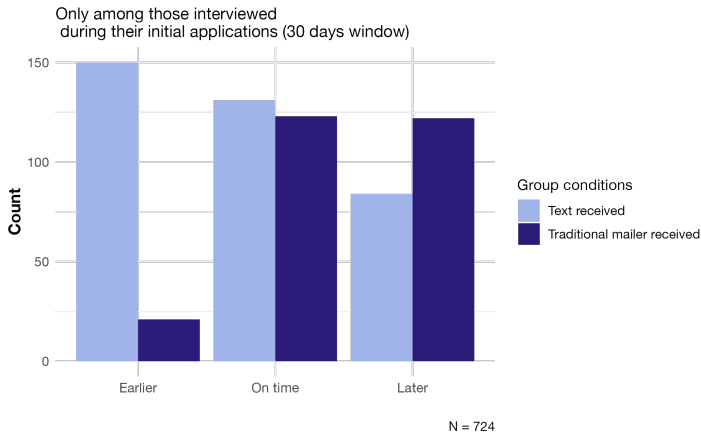


Figure 6: The distribution of SNAP applicants' interview timing

# Plan

- 1 Burdens and administrative checkpoints
- 2 The argument in brief
- 3 Human-centered design
- 4 Results
- 5 Discussions

- ▶ The combination of behavioral (field experiment) and attitudinal evidence (follow-up survey) demonstrates that making administrative checkpoints flexible and informative reduces administrative burden. [▶ Benefit approval table](#), [▶ Heterogenous treatment effect summary](#), [▶ Learning cost \(survey\) table](#)

- ▶ The combination of behavioral (field experiment) and attitudinal evidence (follow-up survey) demonstrates that making administrative checkpoints flexible and informative reduces administrative burden. [▶ Benefit approval table](#), [▶ Heterogenous treatment effect summary](#), [▶ Learning cost \(survey\) table](#)
- ▶ Treated group was more likely to say they (a) knew the interview was required by 9 pp and (b) they knew what to do during the interview by 11 pp.

- ▶ Why did this informational nudge work well?

- ▶ Why did this informational nudge work well?
  - ▶ Timing: text reminders could have arrived earlier than mailers (the default is bad)

- ▶ Why did this informational nudge work well?
  - ▶ Timing: text reminders could have arrived earlier than mailers (the default is bad)
  - ▶ Multiple dosages: text reminders sent three times



- ▶ Why did this informational nudge work well?
  - ▶ Timing: text reminders could have arrived earlier than mailers (the default is bad)
  - ▶ Multiple dosages: text reminders sent three times
  - ▶ Combination of the nudge and flexible interview mode: "call anytime" "at your convenience" (psychological ownership) (De La Rosa et al., 2021)

- ▶ Why did this informational nudge work well?
  - ▶ Timing: text reminders could have arrived earlier than mailers (the default is bad)
  - ▶ Multiple dosages: text reminders sent three times
  - ▶ Combination of the nudge and flexible interview mode: "call anytime" "at your convenience" (psychological ownership) (De La Rosa et al., 2021)
- ▶ Fact: on average, most nudges are not so effective (DellaVigna and Linos, 2022).

- ▶ Why did this informational nudge work well?
  - ▶ Timing: text reminders could have arrived earlier than mailers (the default is bad)
  - ▶ Multiple dosages: text reminders sent three times
  - ▶ Combination of the nudge and flexible interview mode: "call anytime" "at your convenience" (psychological ownership) ([De La Rosa et al., 2021](#))
- ▶ Fact: on average, most nudges are not so effective ([DellaVigna and Linos, 2022](#)).
  - ▶ Light touch → Light outcome

- ▶ Why did this informational nudge work well?
  - ▶ Timing: text reminders could have arrived earlier than mailers (the default is bad)
  - ▶ Multiple dosages: text reminders sent three times
  - ▶ Combination of the nudge and flexible interview mode: "call anytime" "at your convenience" (psychological ownership) ([De La Rosa et al., 2021](#))
- ▶ Fact: on average, most nudges are not so effective ([DellaVigna and Linos, 2022](#)).
  - ▶ Light touch → Light outcome
- ▶ Yet: some nudges are effective due to these contexts and design choices ([Giannella et al., 2024](#); [Chohlas-Wood et al., 2023](#); [Lopoo et al., 2020](#))

- ▶ Some contexts are general, and others are not.

- ▶ Some contexts are general, and others are not.
  - ▶ Federalism: state (designing a website)-local (delivering benefits) tension is common.

- ▶ Some contexts are general, and others are not.
  - ▶ Federalism: state (designing a website)-local (delivering benefits) tension is common.
  - ▶ Policy adoption:

- ▶ Some contexts are general, and others are not.
  - ▶ Federalism: state (designing a website)-local (delivering benefits) tension is common.
  - ▶ Policy adoption:
    - ▶ Boulder adopted this texting intervention.



- ▶ Some contexts are general, and others are not.
  - ▶ Federalism: state (designing a website)-local (delivering benefits) tension is common.
  - ▶ Policy adoption:
    - ▶ Boulder adopted this texting intervention.
    - ▶ Nonetheless, Boulder is not a representative case (more resourceful and motivated than other places).

- ▶ Some contexts are general, and others are not.
  - ▶ Federalism: state (designing a website)-local (delivering benefits) tension is common.
  - ▶ Policy adoption:
    - ▶ Boulder adopted this texting intervention.
    - ▶ Nonetheless, Boulder is not a representative case (more resourceful and motivated than other places).
    - ▶ Texting is cheap, but research investment (human-centered design and rigorous evaluation) is not cheap.

- ▶ Some contexts are general, and others are not.
  - ▶ Federalism: state (designing a website)-local (delivering benefits) tension is common.
  - ▶ Policy adoption:
    - ▶ Boulder adopted this texting intervention.
    - ▶ Nonetheless, Boulder is not a representative case (more resourceful and motivated than other places).
    - ▶ Texting is cheap, but research investment (human-centered design and rigorous evaluation) is not cheap.
    - ▶ Agencies can build the capacity internally, buy, or partner.

- ▶ Some contexts are general, and others are not.
  - ▶ Federalism: state (designing a website)-local (delivering benefits) tension is common.
  - ▶ Policy adoption:
    - ▶ Boulder adopted this texting intervention.
    - ▶ Nonetheless, Boulder is not a representative case (more resourceful and motivated than other places).
    - ▶ Texting is cheap, but research investment (human-centered design and rigorous evaluation) is not cheap.
    - ▶ Agencies can build the capacity internally, buy, or partner.
    - ▶ Yet, showing what's possible is crucial to shift the norm. Political will for change is the key.

# Thank you

Comments or questions?  
E-mail: [jkim638@jhu.edu](mailto:jkim638@jhu.edu)

Chohlas-Wood, Alex, Madison Coots, Joe Nudell, Julian Nyarko, Emma Brunskill, Todd Rogers and Sharad Goel. 2023. "Automated reminders reduce incarceration for missed court dates: Evidence from a text message experiment." *arXiv preprint arXiv:2306.12389* .

Code for America. 2022. "Texting playbook: Basics of texting safety net clients."

**URL:** <https://codeforamerica.org/resources/texting-playbook>

De La Rosa, Wendy, Eesha Sharma, Stephanie M Tully, Eric Giannella and Gwen Rino. 2021. "Psychological ownership interventions increase interest in claiming government benefits." *Proceedings of the National Academy of Sciences* 118(35):e2106357118.

DellaVigna, Stefano and Elizabeth Linos. 2022. “RCTs to scale: Comprehensive evidence from two nudge units.” *Econometrica* 90(1):81–116.

Finkelstein, Amy and Matthew J Notowidigdo. 2019. “Take-up and targeting: Experimental evidence from SNAP.” *The Quarterly Journal of Economics* 134(3):1505–1556.

General Services Administration and The Lab at OPM. n.d. “Human centered design (HCD) discovery stage field guide V.1.”

**URL:** <https://www.gsa.gov/system/files/HCD-Discovery-Guide-Interagency-v12-1.pdf>

Giannella, Eric, Tatiana Homonoff, Genna Rino and Jacob Somerville. 2024. “Administrative burden and procedural denials: Experimental evidence from

SNAP.” *American Economic Journal: Economic Policy*

Heinrich, Carolyn J. 2016. “The bite of administrative burden: A theoretical and empirical investigation.” *Journal of Public Administration Research and Theory* 26(3):403–420.

Herd, Pamela, Donald Moynihan and Amy Widman. 2023. “Identifying and reducing burdens on the public in Administrative proceedings.”.

**URL:**

<https://www.acus.gov/document/identifying-and-reducing-burdens-public-administrative-proceedings>

Herd, Pamela and Donald P Moynihan. 2018. *Administrative burden: Policymaking by other means*. Russell Sage Foundation.



Homonoff, Tatiana and Jason Somerville. 2021.

“Program recertification costs: Evidence from SNAP.”  
*American Economic Journal: Economic Policy*  
13(4):271–298.

Lopoo, Leonard M, Colleen Heflin, Joseph Boskovski  
et al. 2020. “Testing behavioral interventions designed  
to improve on-time SNAP recertification.” *Journal of  
Behavioral Public Administration* 3(2).

McGuinness, Tara Dawson and Hana Schank. 2021.  
*Power to the public: The promise of public interest  
technology*. Princeton University Press.

Norman, Donald A. 2023. *Design for a better world:  
Meaningful, sustainable, humanity centered*. MIT  
Press.

Pahlka, Jennifer. 2023. *Recoding America: why*

*government is failing in the digital age and how we can do better.* Metropolitan Books.

Peeters, Rik and Arjan Widlak. 2018. "The digital cage: Administrative exclusion through information architecture—The case of the Dutch civil registry's master data management system." *Government Information Quarterly* 35(2):175–183.

Pressman, Jeffrey L and Aaron Wildavsky. 1984. *Implementation: How great expectations in Washington are dashed in Oakland; Or, why it's amazing that federal programs work at all, this being a saga of the Economic Development Administration as told by two sympathetic observers who seek to build morals on a foundation.* Vol. 708 Univ of California Press.

Sackett, Blair and Annette Lareau. 2023. "Institutional Entanglements: How Institutional Knots and Reverberating Consequences Burden Refugee Families." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(4):114–132.

Sullivan, K. and S. Soka. 2022. "Starting small with human-centered redesign."

**URL:** <https://beeckcenter.georgetown.edu/wp-content/uploads/2022/11/Small-ScaleHumanCenteredRedesign.pdf>

# Plan

## 6 Appendix

# County mailer content

Dear \_\_\_\_\_,

We have received your application or recertification for assistance. An interview is required for \_\_\_\_\_ (program) \_\_\_\_\_.

You have been scheduled for a phone interview at (time) \_\_\_\_\_ on (date) \_\_\_\_\_. Please call (303) 441-1660 at this time.

Please contact our office at (303) 441-1000 if you like a face-to-face interview instead of a phone interview.

If you miss your appointment or need to reschedule, you must contact us at (303) 441-1660 to reschedule your interview. If you do not complete a required interview for your application or recertification, your benefits will be denied.

# Text reminders

In the text below, Code for America and Boulder couldn't mention SNAP specifically, but instead used PEAK, a broader term, to comply with the FCC guideline on telephone consumer protection (TCP), particularly in the context of human and health services.

# Initial text (sent 24 hours after initial application)

Boulder County:Hi First Name we've processed your PEAK application!

Please call 303-441-1660 in the next week to complete a phone interview. The interview should take about 30 minutes and you'll learn if you qualify for benefits.

Our hours: 8:30am-3pm, Mon-Fri

Learn more about the process here:

<http://www.boco.org/SNAP-FAQ>

# First reminder (sent 3 days after initial application)

Boulder County: Hi First Name reminder that you have the option to complete your interview at your own convenience by calling 303-441-1660 any time between 8:30am-3pm, Mon-Fri.

Learn more about the process here:

[www.boco.org/SNAP-FAQ](http://www.boco.org/SNAP-FAQ)



## Second reminder (24 hours before scheduled interview)

Hi First Name , your PEAK phone interview is tomorrow. This should take about 30 minutes. Call us at 303-441-1660 during your scheduled time to complete your interview.

Can't make it? Just call anytime Monday through Friday between 8:30am-3pm to conduct an unscheduled interview.

Learn more about the process here:

[www.boco.org/SNAP-FAQ](http://www.boco.org/SNAP-FAQ)

# Impact on Benefit Approvals

	Approved	Approved (procedural denials imputed)	Approved during initial applications (procedural denials imputed)
(Intercept)	0.3399*** [0.3057, 0.3741] $p = 0.0000$	0.3355*** [0.3016, 0.3694] $p = 0.0000$	0.2121*** [0.1819, 0.2423] $p = 0.0000$
Treatment status	0.0631* [0.0145, 0.1116] $p = 0.0110$	0.0643** [0.0160, 0.1125] $p = 0.0091$	0.0691** [0.0262, 0.1121] $p = 0.0016$
Num.Obs.	1517	1533	1539
R2	0.004	0.004	0.006
R2 Adj.	0.004	0.004	0.006
AIC	2097.3	2112.4	1771.8
BIC	2113.3	2128.4	1787.8
Log.Lik.	-1045.647	-1053.200	-882.891
RMSE	0.48	0.48	0.43
Std.Errors	HC2	HC2	HC2

# Interview Impact on Benefits Among Compliers

	<b>Approved</b>	<b>Approved (procedural denials imputed)</b>	<b>Approved during initial applications (procedural denials imputed)</b>
(Intercept)	0.0016 [−0.2542, 0.2574] $p = 0.9899$	0.0016 [−0.2443, 0.2474] $p = 0.9899$	−0.1533 [−0.4143, 0.1077] $p = 0.2495$
Interview status	0.6146** [0.1892, 1.0400] $p = 0.0047$	0.6147** [0.2014, 1.0279] $p = 0.0036$	0.6693** [0.2322, 1.1065] $p = 0.0027$
Num.Obs.	1517	1533	1536
R2	0.197	0.202	−0.066
R2 Adj.	0.197	0.201	−0.067

# Impact on Learning Costs

	<b>Know interview</b>	<b>Interview easy (4-point)</b>	<b>Interview easy (binary)</b>	<b>Learning cost index</b>
(Intercept)	0.5171*** [0.4528, 0.5814] $p = 0.0000$	0.4116*** [0.3540, 0.4692] $p = 0.0000$	0.4087*** [0.3180, 0.4994] $p = 0.0000$	0.4362*** [0.3699, 0.5026] $p = 0.0000$
Treatment status	0.0931* [0.0034, 0.1828] $p = 0.0420$	0.1096* [0.0220, 0.1972] $p = 0.0144$	0.1277+ [-0.0031, 0.2584] $p = 0.0556$	0.1335** [0.0370, 0.2299] $p = 0.0069$
Num.Obs.	470	225	225	225
R2	0.009	0.027	0.016	0.032

# Heterogeneous treatment effects

- ▶ The estimand is ITT since we only know who received the texts, not who read them.
- ▶ To estimate heterogeneous treatment effects, we also estimated the ITT conditional on applicants' language preference, gender, homeless status, and household size.
- ▶ ATEs do not reliably vary by language, gender, and homeless status.
- ▶ ATEs vary by household size. Applicants with a larger household who received the treatment show up for the interview at a lower rate than their counterparts ([Finkelstein and Notowidigdo, 2019](#)).