# COMPARING SURVEY RESULTS FROM NON-PROBABILITY ONLINE SAMPLES OF A SUB-NATIONAL POPULATION

David Doherty and Dana Garbarski



#### **CCCS: BACKGROUND**

- Annual survey started Winter, 2021
- Goals:
  - Measure public attitudes about (primarily) local issues in Cook County & inform public debate
  - Engage students in original research (survey design, analysis, presenting findings, scholarly work)
- First 3 years: N = 1,200, provided by Dynata aiming to approximate **Cook County** demographics



## **RESEARCH QUESTIONS**

- Is choice of (convenience) sample provider consequential when surveying sub-national populations?
  - Some better at hitting demographic targets?
  - Do conclusions about attitudes/participation rates depend on sample? Correlates thereof? Treatment effects in survey experiments?
- If so, are weights a "fix"?



## **SAMPLE PROVIDERS / QUALITY CONTROL**



#### **DATA SOURCES**

- Contracted with three providers
  - All asked to do their best to hit demographic targets on gender, race, and age; launched 1/18/2024
    - Dynata (N = 1,000)
    - Qualtrics (N = 1,000)
    - Cint/Lucid (N = 500; indicated 1,000 not feasible)
  - We programmed survey in Qualtrics (basic protections against duplicate respondents implemented)
- Cook County respondents to 2023 Cooperative Election Study (CES; YouGov)
  - Survey designed to be <u>nationally</u> representative



	CIII	Dynata	Qualtrics
Consented (N)	1042	2096	2907
Cook County ZIP Not Entered	5.18%	4.77%	7.95%
(N)	54	100	231
Initial Speeder Check	1.72%	1.75%	0.00%
(N)	17	35	0

Completed consent page, entered ZIP, completed page asking which neighborhood they lived in + what nearest cross-streets were in less than 25 seconds

Dymata

Cint



Qualtrico

#### **ATTENTION CHECK**

This is a simple question. You don't need to have any feelings at all about any of the drinks below. When we ask what your favorite drink is, please select prune juice.

Based on the text above, what is your favorite drink?

- Wine
- Beer
- Water
- Prune juice
- Apple juice
- Orange juice



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395	815	1470
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Cint



Dynata Qualtrica

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Final Speeder Check	11.28%	9.25%	2.32%
(N)	65	106	28

Completed survey in < 6 minutes Median completion times "Non-speeders" = 673 seconds "Speeders" = 294 seconds

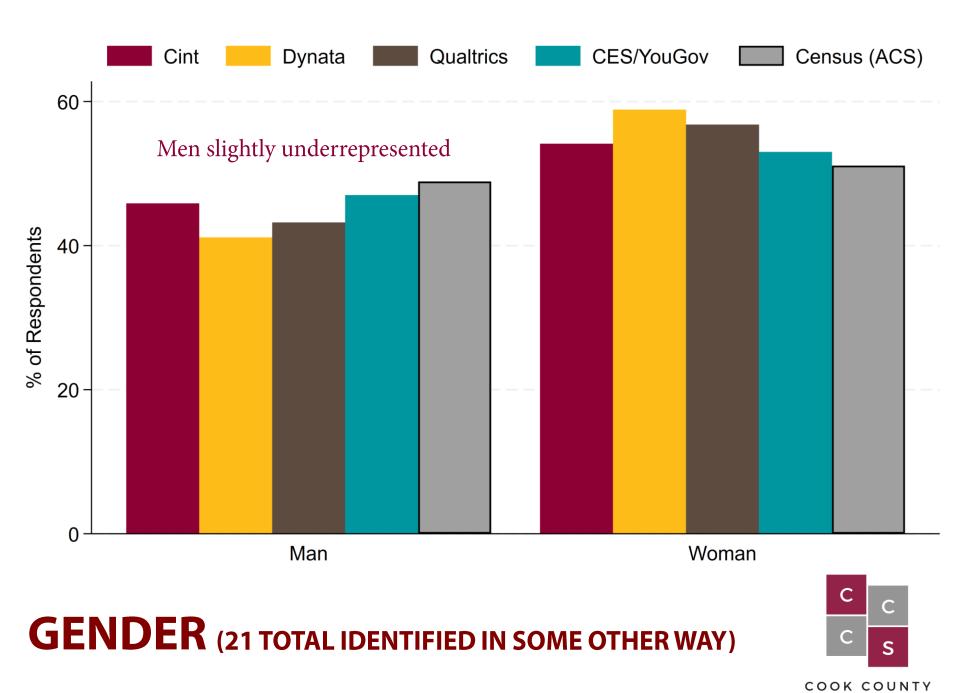


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Qualtrics Scrubbed	0.00%	0.00%	6.39%
(N)	0	0	73
Missing Demographics for Weights	2.35%	2.50%	3.35%
(N)	12	26	37
Final Sample (N)	499	1014	1068
% of Consenting Rs in Sample	47.89%	48.38%	36.74%

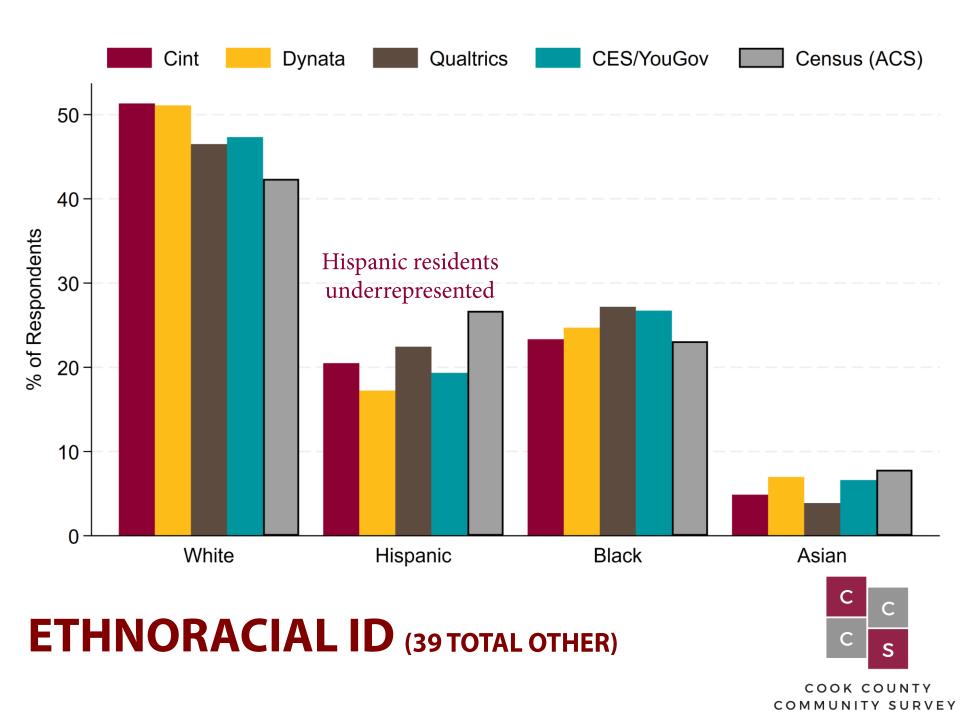


# **DEMOGRAPHICS**





COMMUNITY SURVEY



#### **OTHER DEMOGRAPHICS**

- Dynata sample a bit older than others
- Cint, YouGov, and esp. Qualtrics underrepresent 25+ w/college degree
- Suburban residents underrepresented across providers



## **WEIGHTS** (CALCULATED SEPARATELY FOR EACH PROVIDER)

Census targets: ethnoracial identity x gender (treating non-binary as separate group); age groups; college degree; Chicago v. suburbs

ipfweight (raking) in Stata 18.0 Michael Bergmann, University of Mannheim, michael.bergmann@uni-mannheim.de



## **COMPARING ATTITUDES**

All comparisons pre-registered; CIs/p-values not adjusted for multiple comparisons



#### PARTY IDENTIFICATION

(STANDARD BRANCHING FORMAT)

- Some differences across providers in reported *strength* of identities
  - E.g., 30.1% of Cint respondents identified as "Strong" Democrats, compared to 37.1% in CES
- ~75% Democrats if we exclude pure independents; Biden (actually) won 74% of vote in Cook County in 2020
- Weighting inconsequential

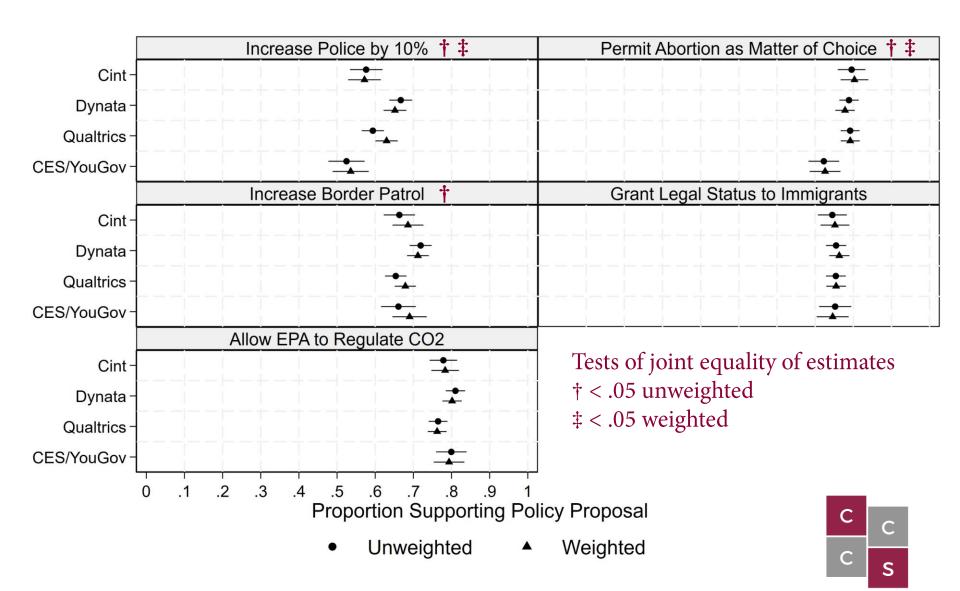


#### **POLICY QUESTIONS (SUPPORT/OPPOSE)**

- Increase the number of police on the street by 10 percent, even if it means fewer funds for other public services
- Always allow a woman to obtain an abortion as a matter of choice
- Give the Environmental Protection Agency power to regulate carbon dioxide emissions
- Increase the number of border patrols on the US-Mexican border
- Grant legal status to all illegal immigrants who have held jobs and paid taxes for at least 3 years, and not been convicted of any felony crimes



#### **ATTITUDE COMPARISONS**



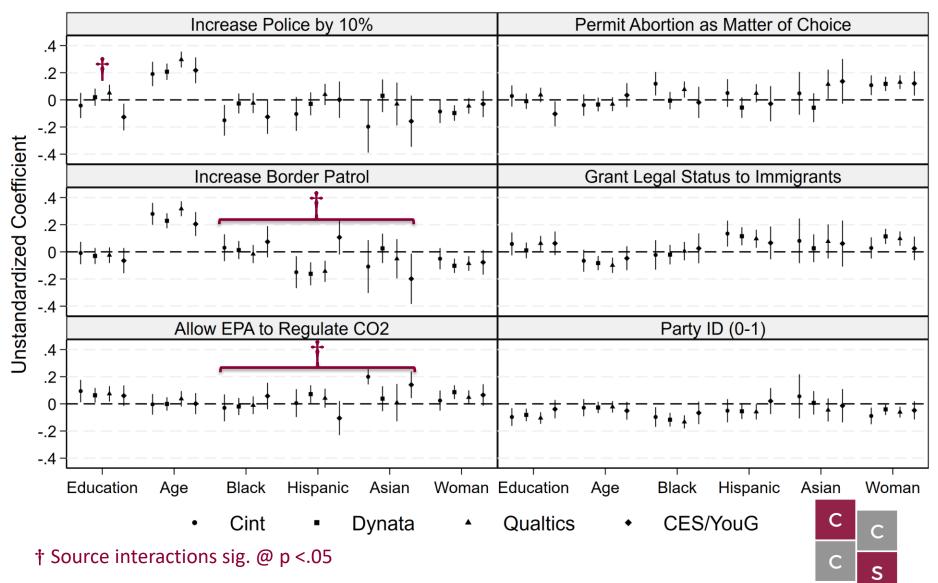
COOK COUNTY
COMMUNITY SURVEY

#### **CORRELATES OF ATTITUDES**

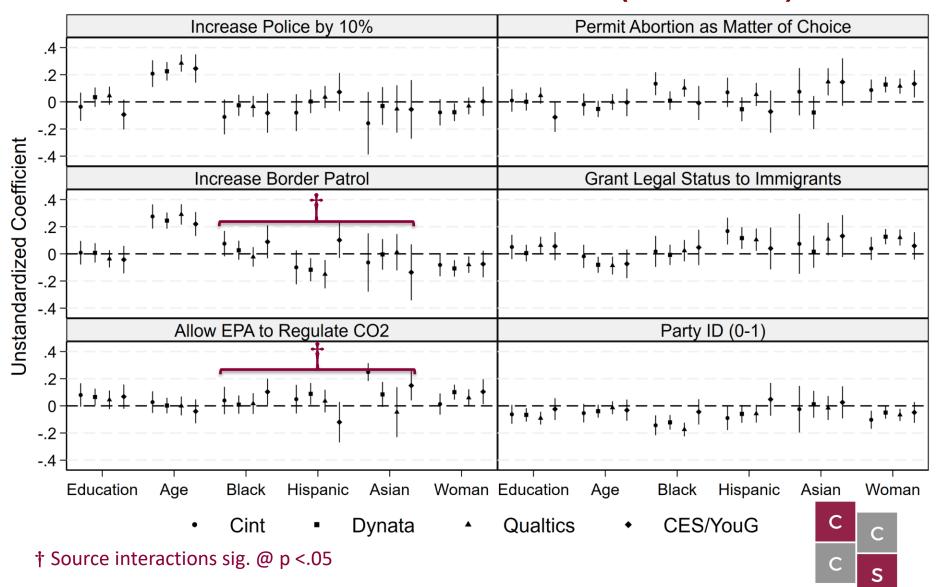
- OLS regression models predicting each attitude with:
  - 1) education [M = 0, SD=1], 2) age [M = 0, SD=1],
    3) race, 4) gender
  - Indicators for sample source
  - Source x demographic interactions (test joint significance of interactions for each of four demographics)
- Unweighted & weighted



## **CORRELATES OF ATTITUDES** (UNWEIGHTED)



## **CORRELATES OF ATTITUDES** (WEIGHTED)

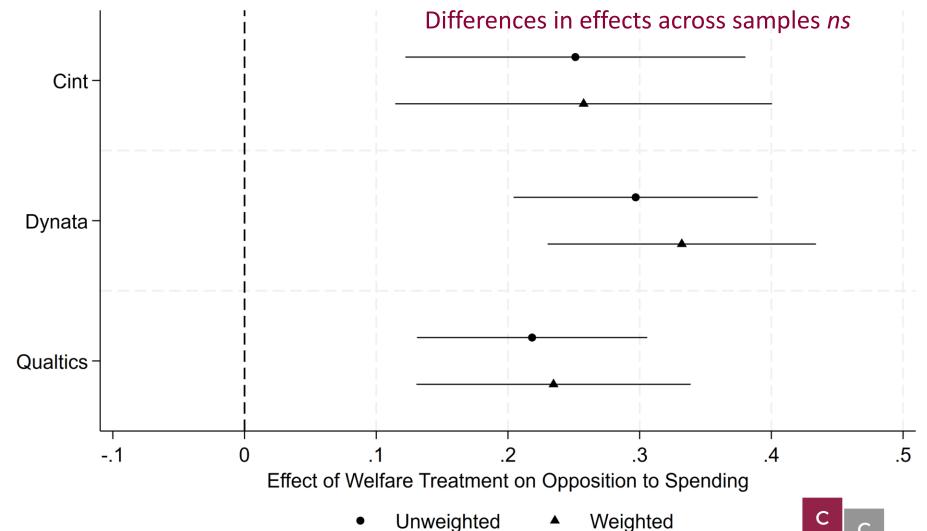


**WE ARE FACED WITH MANY** PROBLEMS IN THIS COUNTRY, NONE OF WHICH CAN BE SOLVED EASILY OR **INEXPENSIVELY. DO YOU THINK WE** ARE SPENDING TOO MUCH, TOO LITTLE, OR ABOUT THE RIGHT **AMOUNT ON [WELFARE/ASSISTANCE** TO THE POOR 1?

- 1) TOO LITTLE
- 2) ABOUT THE RIGHT AMOUNT
- 3) TOO MUCH



# **EXPERIMENT (WELFARE V. AID TO POOR)**



COOK COUNTY
COMMUNITY SURVEY

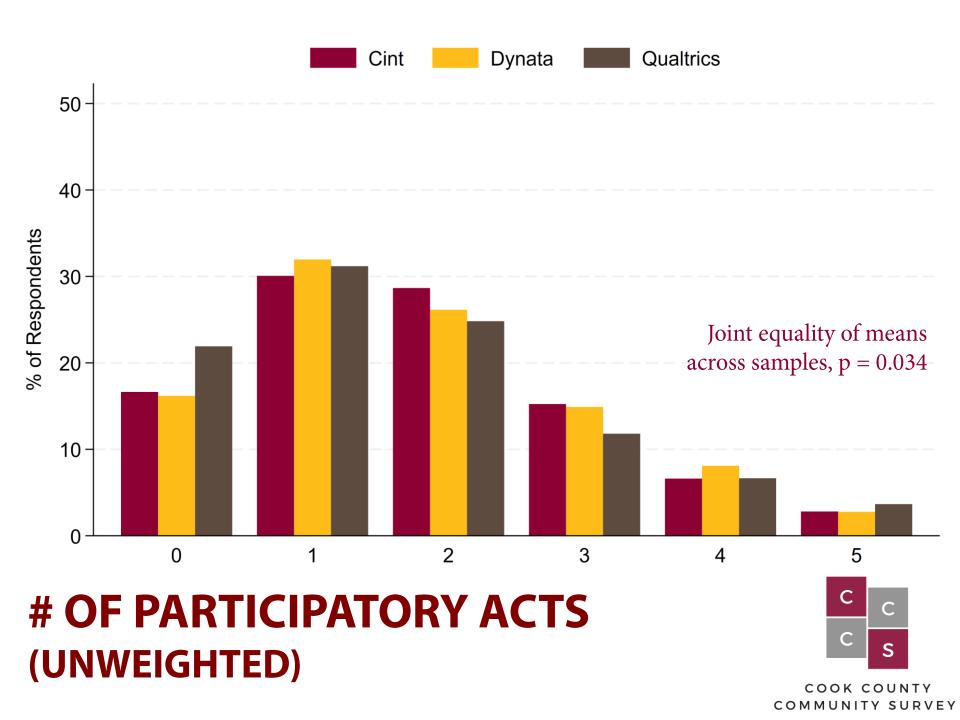
## **LOCAL PARTICIPATION**

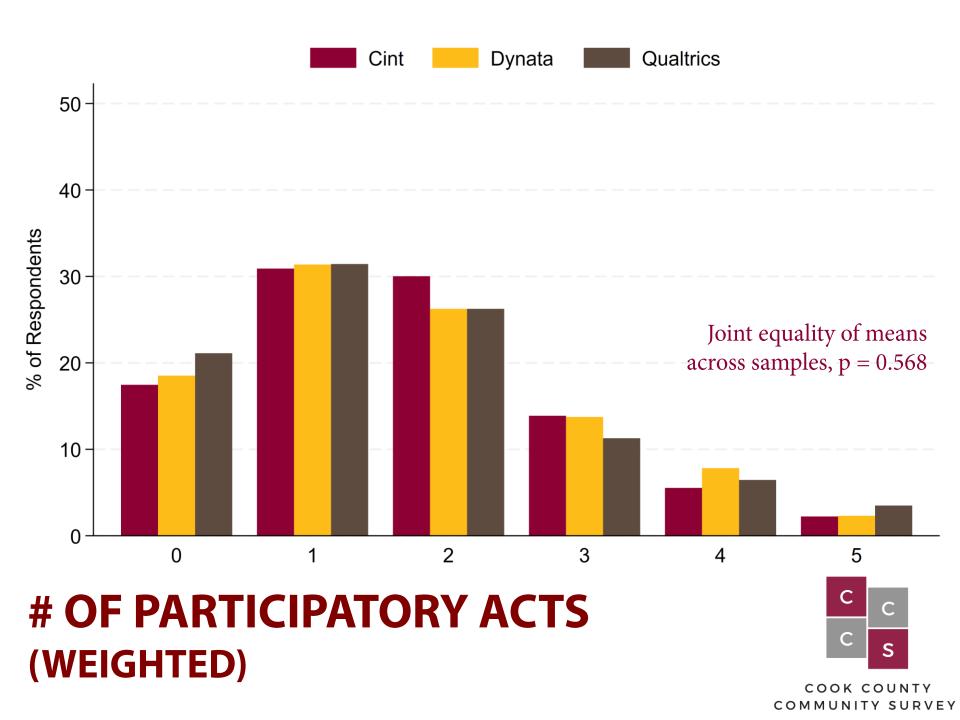
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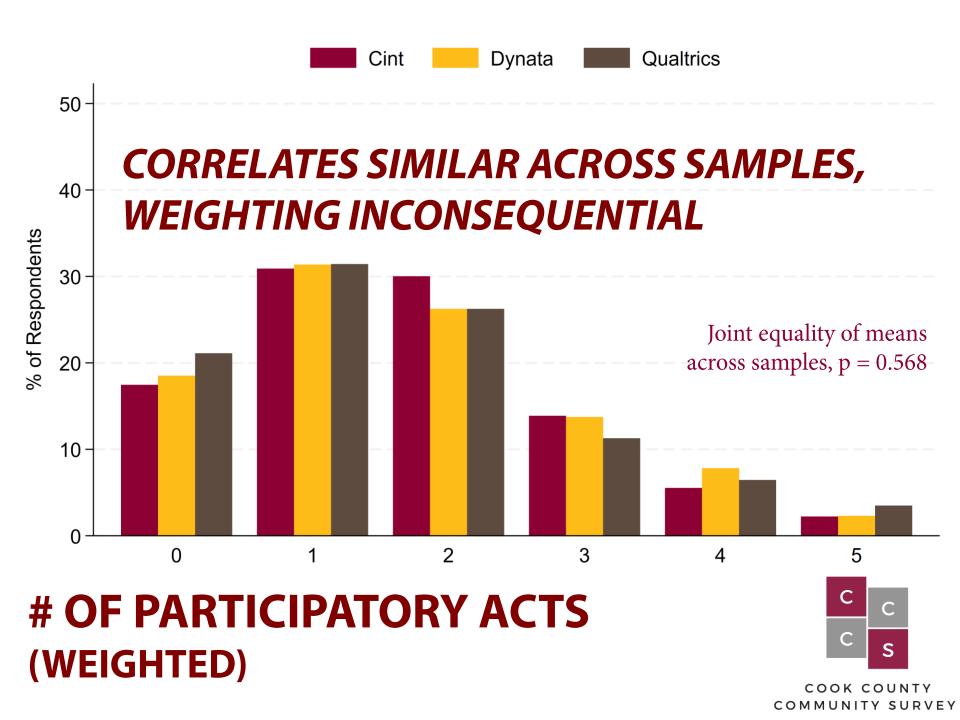


## **LOCAL POLITICAL PARTICIPATION (0-5)**

- Thinking about **local** (city or county) political issues. During the past 12 months, have you...
  - ...joined in a protest march, rally, or demonstration about a **local** political issue.
  - ...discussed a **local** political issue with someone in your neighborhood (either in person on online).
  - ...contacted or tried to contact a **local** political official.
  - ...attended a public meeting about a **local** political issue.
- ... Thinking back specifically to the last **local** election where you live (e.g., election for mayor or city council), which of the following statements best describes you?
  - 0 = I am not eligible to vote; I did not vote; I thought about voting this time, but didn't; I usually vote, but didn't this time; 1 = I am sure I voted







#### **TAKEAWAYS**

- Modest variation in demographics delivered
  - YouGov sample (not designed to be representative of Cook County) similar
  - No Party ID quota, but samples capture party leanings of the county well
- Substantive conclusions about attitudes, participation, correlates of each, and survey exp. treatment effects similar across providers
  - Very few differences would survive adjustments for multiple comparisons
- Consequences of weighting trivial



#### **CAVEATS**

- No "gold standard" benchmarks for outcomes of interest, so decent demographics, consistency across samples not necessarily proof of accuracy
- Focus on Cook County
  - Useful test case—diverse population, second largest county (~same pop. as median U.S. state)
  - But context decidedly urban





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