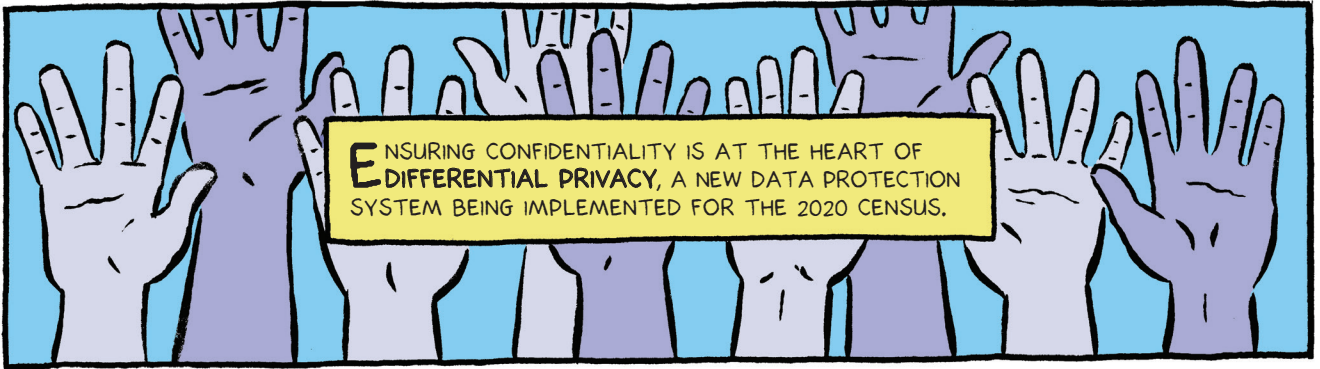


DIFFERENTIAL PRIVACY

A CONFIDENTIALITY PROTECTION PLAN FOR THE 2020 CENSUS

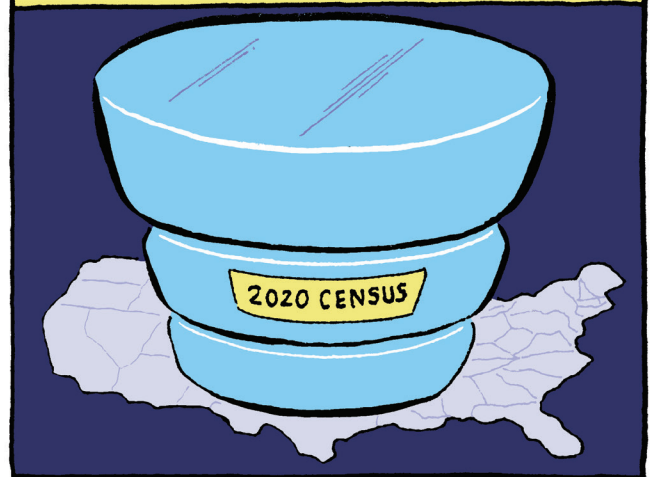
By JOSH NEUFELD



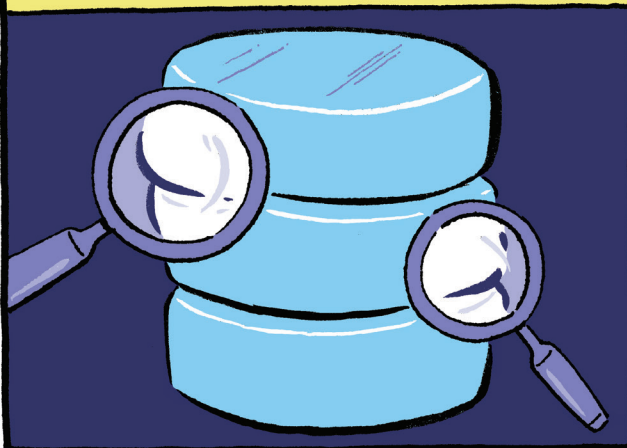
AND SINCE THIS WILL BE THE FIRST DECENNIAL CENSUS PRIMARILY TAKING PLACE **ONLINE**, THERE'S ADDED CONCERN ABOUT THE **SECURITY** OF THE DATA BEING COLLECTED.



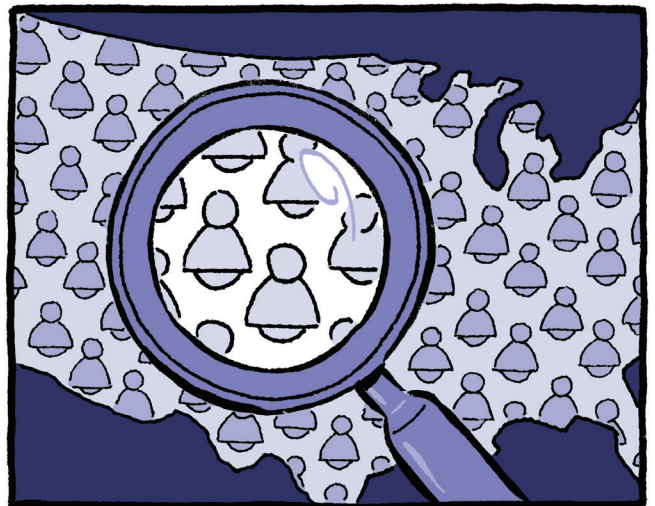
CENSUS RESULTS FORM A VAST DATABASE OF INFORMATION ABOUT US AS A COUNTRY...



...BREAKDOWNS BY **GENDER, AGE, AND RACE/ETHNICITY; HOUSEHOLD SIZE; RENTERS VERSUS HOME-OWNERS; AND REGIONAL POPULATION DENSITY.**



THE ANONYMIZED PATTERNS OF DEMOGRAPHIC GROUPS COLLECTED VIA THE CENSUS IS AN INVALUABLE PUBLIC RESOURCE.



SITUATIONS LIKE THE **CAMBRIDGE ANALYTICA** DATA SCANDAL HAVE RAISED CONCERNS THAT A **BAD ACTOR** COULD THEORETICALLY TAKE THE AGGREGATE **ANONYMOUS** INFORMATION...



...AND **REVERSE-ENGINEER** CENSUS DATA BY COMBINING IT WITH OTHER AVAILABLE RECORDS...

...TO **UNMASK** THE PERSONAL IDENTITIES AND/OR PRIVATE INFORMATION OF ANYONE WHO PARTICIPATED IN THE CENSUS.



IF SOMEONE **COULD** HACK THE CENSUS, IT COULD BE CRITICALLY DAMAGING TO OUR COUNTRY, ESPECIALLY IF THEY RELEASED THAT DATA AS PART OF A **DISINFORMATION** CAMPAIGN.

DIPAYAN GHOSH, PRIVACY EXPERT AND SENIOR RESEARCH FELLOW AT HARVARD KENNEDY SCHOOL'S SHORENSTEIN CENTER

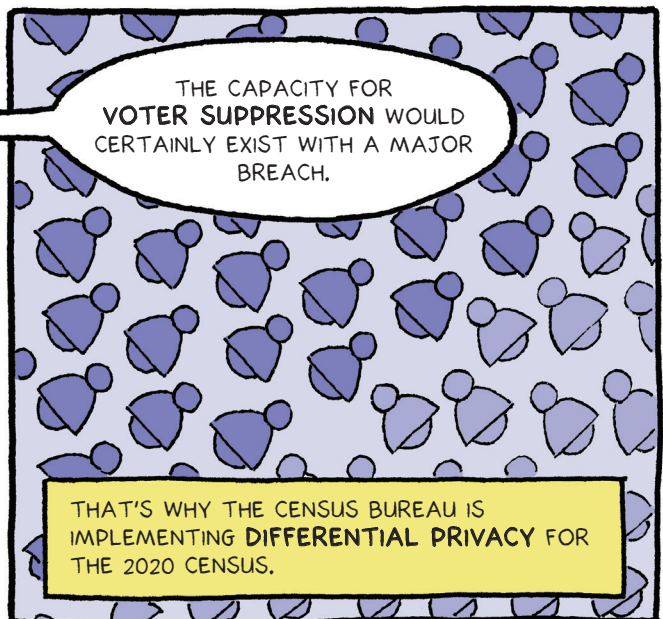


THE CENSUS BUREAU COLLECTS INFORMATION ABOUT RACE, GENDER... SOMEONE COULD EASILY **SEGMENT** OR **SLICE UP** THE ADULT POPULATION AND USE THAT FOR COMMERCIAL OR **POLITICAL** PURPOSES.

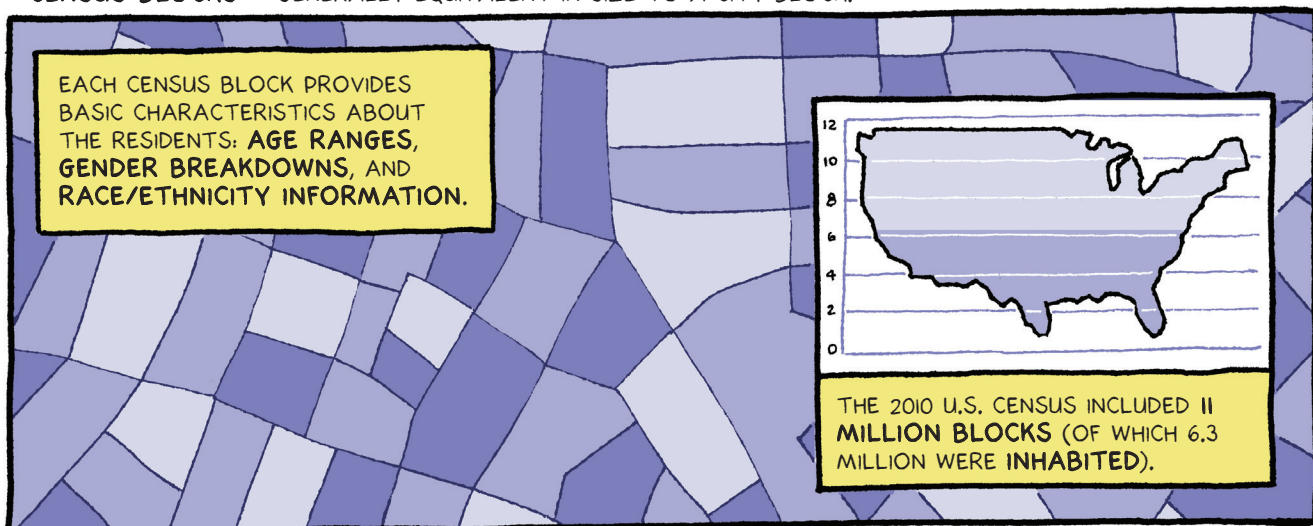


THE CAPACITY FOR **VOTER SUPPRESSION** WOULD CERTAINLY EXIST WITH A MAJOR BREACH.

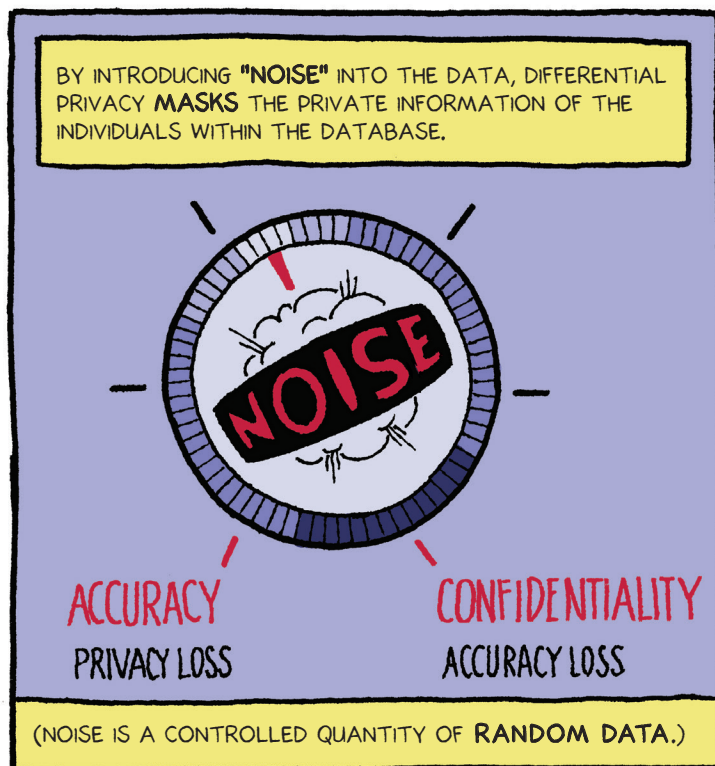
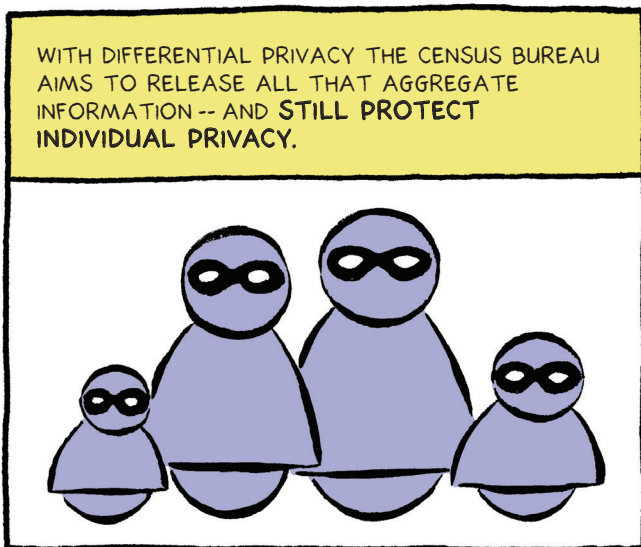
THAT'S WHY THE CENSUS BUREAU IS IMPLEMENTING **DIFFERENTIAL PRIVACY** FOR THE 2020 CENSUS.



HOW DOES DIFFERENTIAL PRIVACY WORK? GEOGRAPHICALLY, **SMALL-AREA CENSUS DATA** IS REPORTED IN **"CENSUS BLOCKS"** -- GENERALLY EQUIVALENT IN SIZE TO A CITY BLOCK.



CENSUS MICRODATA -- WHICH INCLUDES **HOUSEHOLD SIZE** AND THE **RELATIONSHIPS BETWEEN RESIDENTS** -- IS DERIVED FROM THE INDIVIDUAL INFORMATION COLLECTED BY THE CENSUS BUREAU, AND IS REPORTED IN GROUPS OF AT LEAST 100,000 PEOPLE.



THE CHALLENGE WITH IMPLEMENTING DIFFERENTIAL PRIVACY IS MAINTAINING A **BALANCE...**

