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One Hundred Sixteenth Congress
Committee on Homeland Security
U.S. House of Representatives
Washington, DC 20515

December 20, 2019

The Honorable Chad F. Wolf
Acting Secretary
U.S. Department of Homeland Security
Washington, DC 20528

Dear Secretary Wolf:

I write with concern after the National Institute of Standards and Technology (NIST) published a troubling report yesterday that found inaccuracy across demographic groups of algorithms like those the Department of Homeland Security (DHS) uses for facial recognition.

NIST examined 189 facial detection algorithms voluntarily submitted by 99 companies, academic institutions, and other developers.[1] NIST found that black and Asian people were up to 100 times more likely to be misidentified than white people. It also found that children and elderly people were more likely to be misidentified than middle-aged people and that women were more likely to be misidentified than men. Surprisingly, NIST found that even "one-to-one" matching systems where a person's face is matched against a specific photograph (such as that on a passport)—which DHS has highlighted as the most accurate systems—had high error rates.

The results of this study are shocking. They call into question not only DHS's future plans for expanding the use of facial recognition technology, but also the Department's current operations. Customs and Border Protection (CBP) is already using facial recognition to verify the identities of passengers entering or exiting the United States at 26 major domestic airports, including screening of U.S. citizens who do not choose to opt out.[2] Other DHS components, including the Transportation Security Administration and U.S. Secret Service, have piloted additional uses of these technologies, and CBP has announced plans to expand facial recognition screening of passengers further.[3] Given the disparities found by NIST, DHS should conduct an immediate assessment of whether to halt current facial recognition operations and plans for future expansion until such disparities can be fully addressed.

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[1] Grother, Patrick, Mei Ngan, and Kayee Hanaoka, "Face Recognition Vendor Test (FRVT), Part 3: Demographic Effects," National Institute of Standards and Technology, U.S. Department of Commerce (Dec. 2019), https://nvlpubs.nist.gov/nistpubs/ir/2019/NIST.IR.8280.pdf.

[2] "Biometrics," *Customs and Border Protection Website* (Accessed Dec. 20, 2019), https://www.cbp.gov/travel/biometrics.

[3] Bergen, Mark, and Christopher Cornillie, "U.S. Border Agency to Expand Use of Facial Recognition Tech," *Bloomberg* (Aug. 12, 2019), https://www.bloomberg.com/news/articles/2019-08-12/u-s-border-agency-to-expand-use-of-facial-recognition-tech.

At a July 10, 2019, appearance before the Committee, CBP Deputy Executive Assistant Commissioner for Field Operations John Wagner testified that "in a review of our data, we are not seeing any significant error rates that are attributable to a specific demographic."[4] DHS has cited its internal reviews and testing as evidence of the accuracy of facial recognition technologies and has chosen to deploy such technologies despite significant concerns voiced by many Members of Congress and privacy and civil liberties stakeholders. The results of NIST's study raise serious questions as to how DHS's internal reviews could have missed such drastic disparities apparently inherent to these technologies. DHS must explain to the Committee and the American public how it failed to identify such troubling disparities prior to deploying these technologies.

Ensuring that Americans and foreign visitors of all races, ethnicities, genders, and ages receive equitable treatment by DHS is one of my top priorities. I hope you will commit to making it a top priority of the Department under your leadership.

Sincerely,

Bennie G. Thompson
Chairman

[4] Wagner, John, Testimony before the House Committee on Homeland Security at a Hearing titled, "About Face: Examining the Department of Homeland Security's Use of Facial Recognition and Other Biometric Technologies" (July 10, 2019).