OntarioTech Social Science & Humanities

Facial Recognition Technology Use Practices and Policies: Key Things for Police to Consider

Christopher O'Connor and Andrea Slane

Outline for Presentation

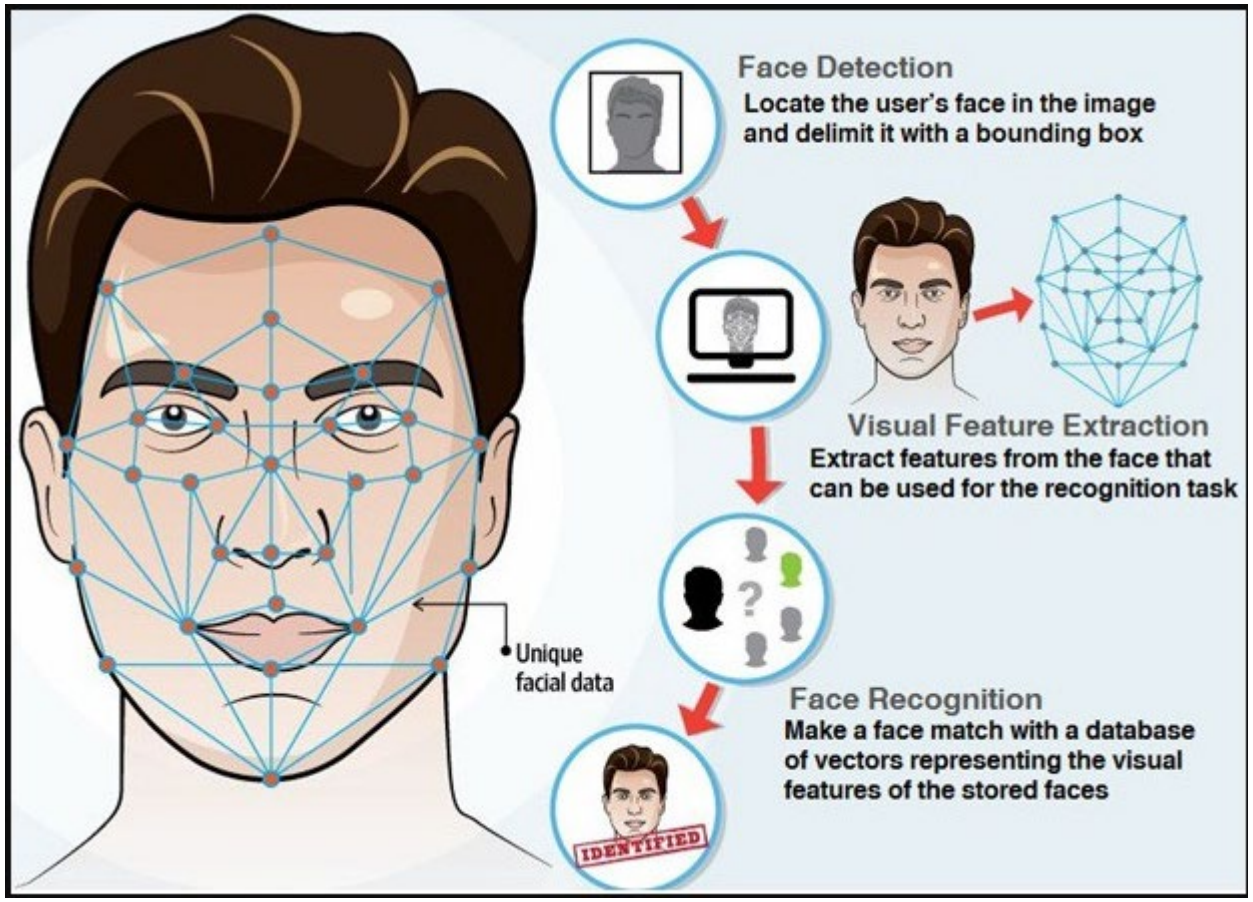
- Our Research and How We Got Here
- How does Facial Recognition Technology Work?
- 10 Key Things Police Services Should Consider About the Use of Facial Recognition Technology (FRT) and other AI techs
- Questions?

Our Research and How We Got Here

Phases of our Research

- **PHASE 1**
  - Survey deployed to n=1010 people
  - Asked about perceptions of facial recognition technology (FRT)
- **PHASE 2**
  - Analysis of AI technology use policies implemented by police
  - Analysis of their transparency measures and public communication about technology use
  - Analysis of public consultation and engagement strategies promised and/or employed
- **PHASE 3**
  - Plans for a second survey examining a range of technologies used by the police and measuring impact of tech use policy features on public perceptions

How does Facial Recognition Technology Work?



- FRT uses algorithms to biometrically identify people
- One-to-One Comparison or One-to-Many Comparison
- One–to-many produces potential matches, which can be used as investigative leads

Key Consideration #1: With Potential Benefits Come Potential Risks

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Potential Harms/Risks

- Bias, misidentification
- Discrimination
- Loss of privacy, anonymity, increased surveillance
- Lack of oversight and transparency
- Inappropriate reliance on technology, automation bias

Potential Benefits

- Enhanced public safety
- Improved ability to identify children in child sexual exploitation material
- Improved ability to find missing or trafficked people
- Improved efficiency of police investigations

Key Consideration #2: The Public Are More Supportive of FRT if it has Practical Value and Clear Objectives

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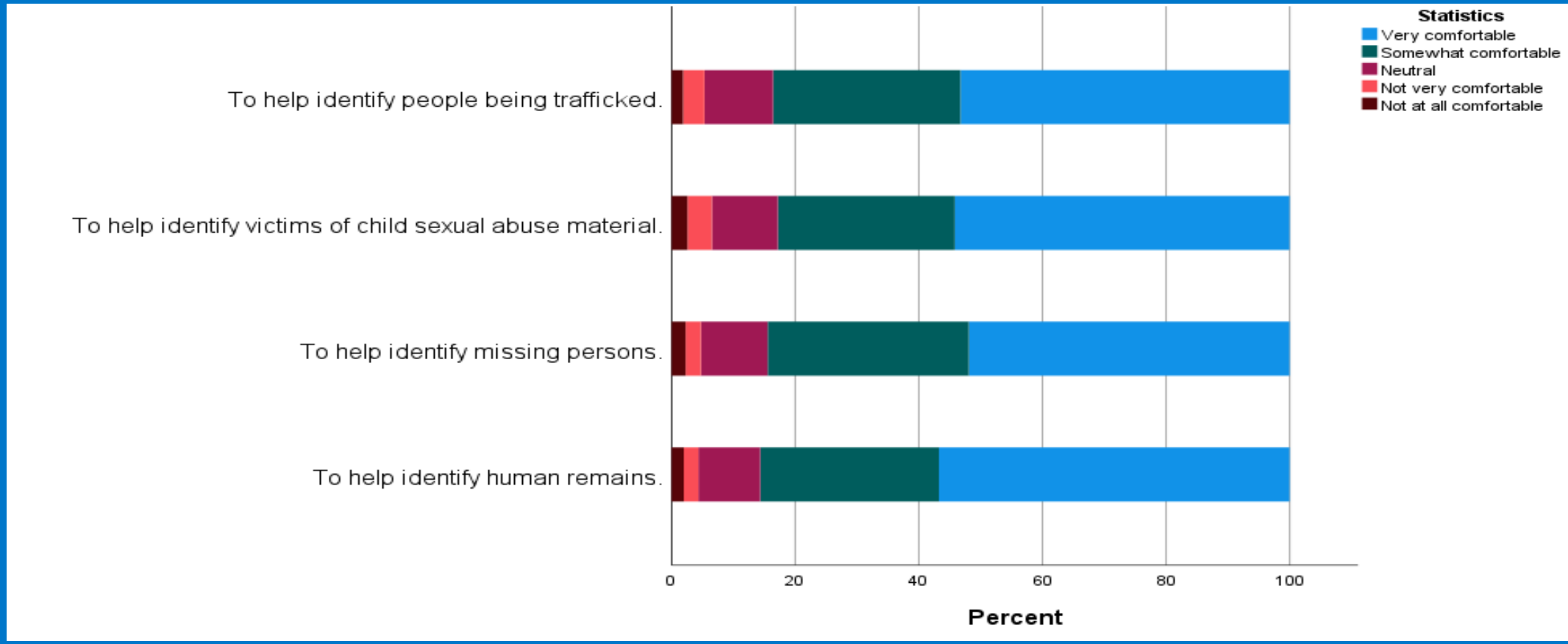

Key Consideration #3: The Public Are More Supportive of FRT if it is not Envisioned being Used Against Them

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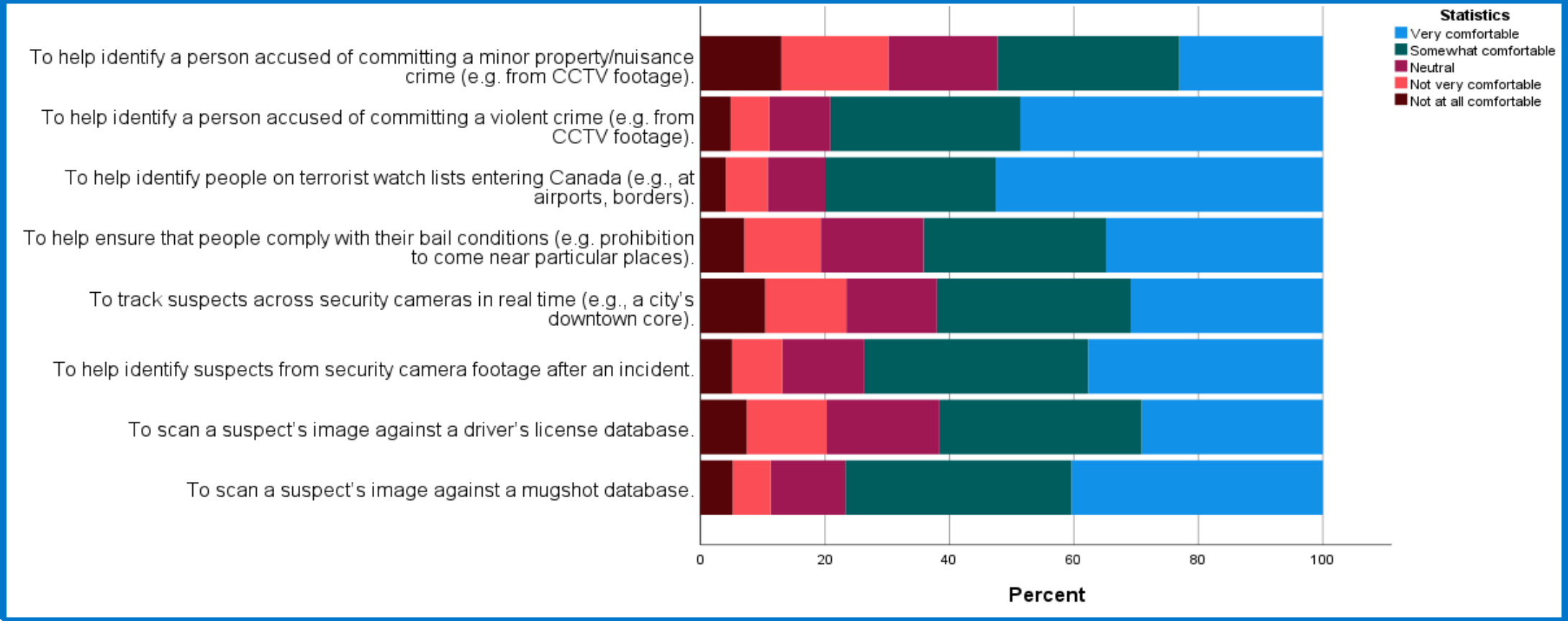

Key Consideration #4: The Public Are Less Supportive of FRT if its Use is Vague or it's Being Used Against Them

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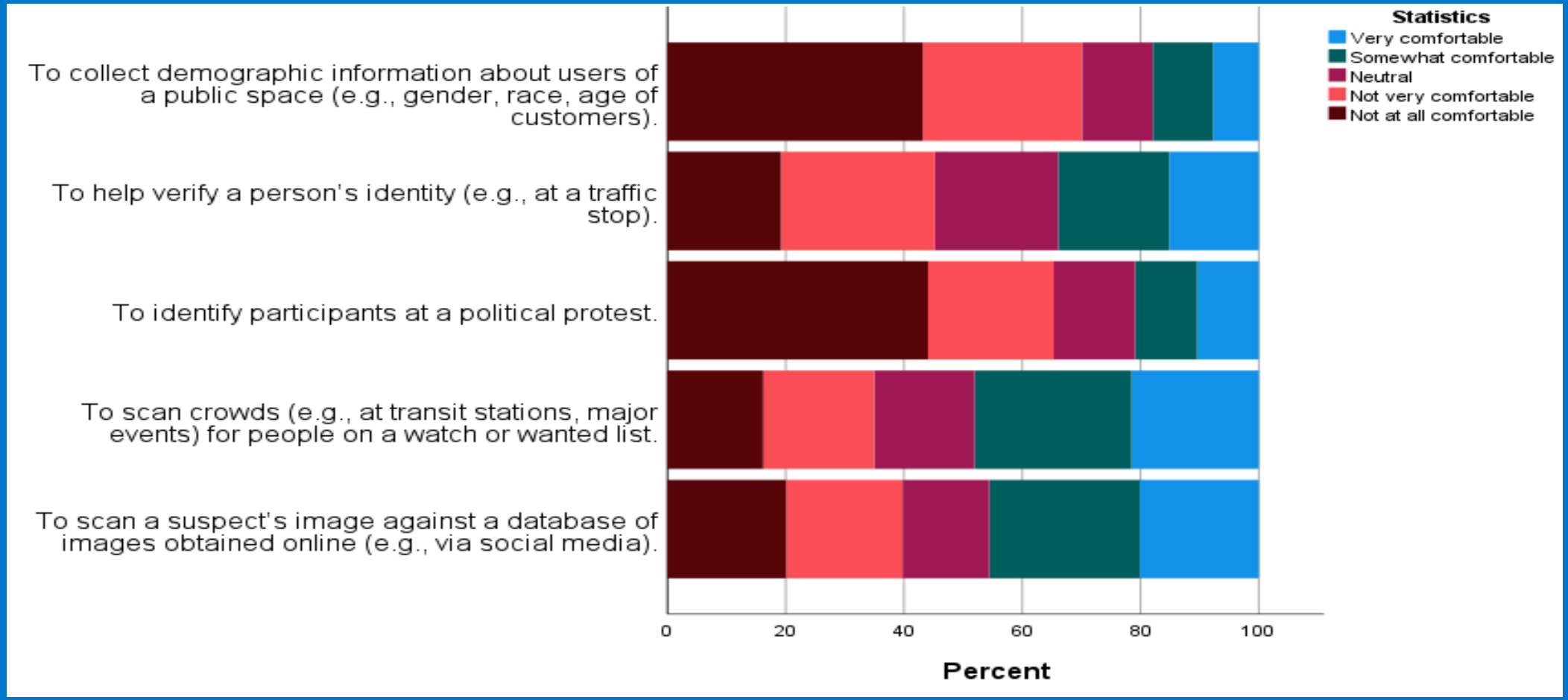

Key Consideration #5: The Public Perceive Few Substantial Benefits of FRT Use by Police

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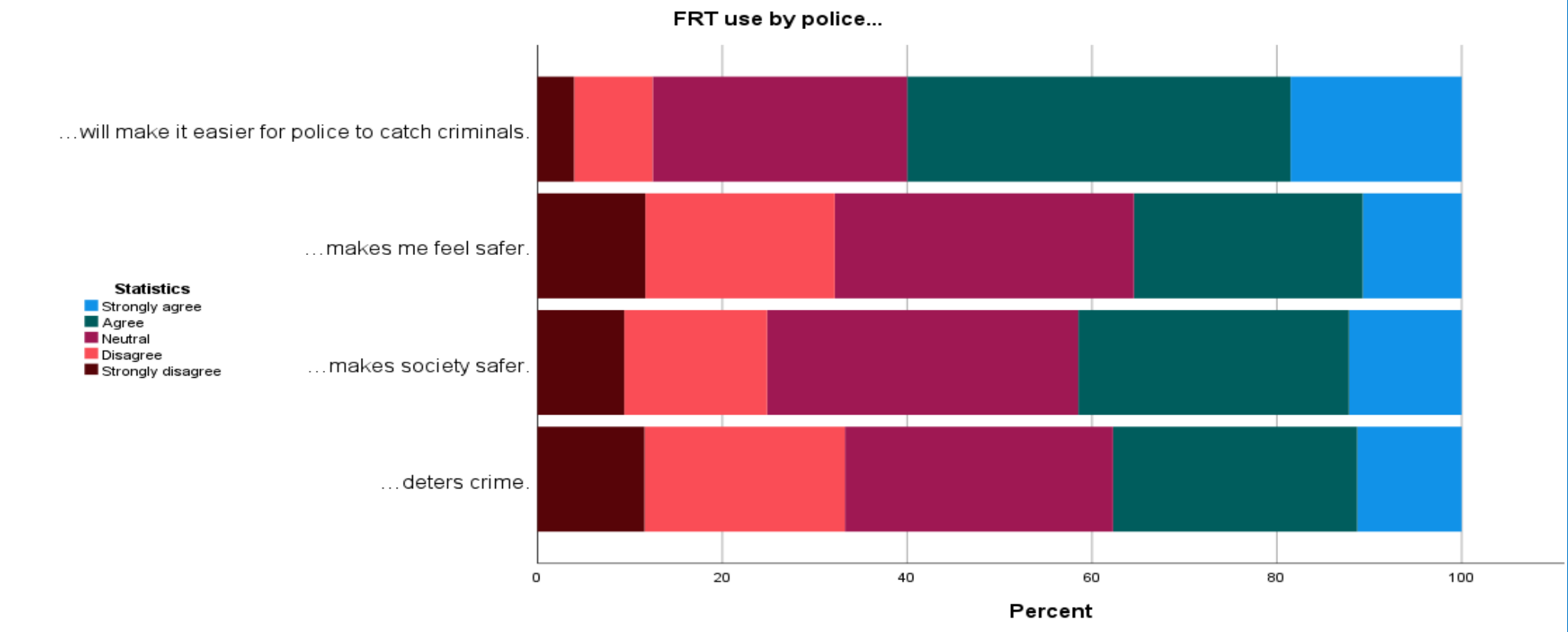

Key Consideration #6: The Public Perceive Substantial Risks of FRT Use by Police

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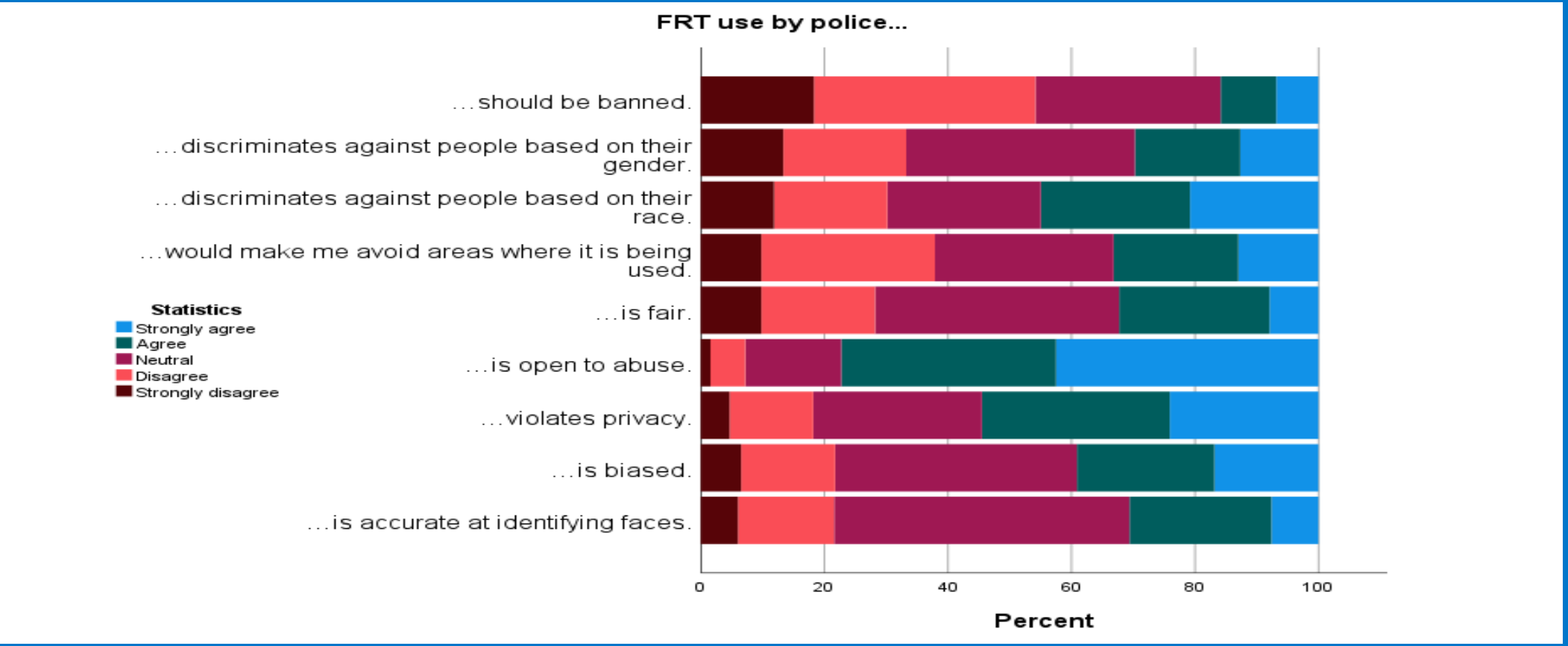

Key Consideration #7: Police Need to Allay Public Concerns about their Tech Use

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Tech covered	How many using	Where policy located	Unclear or could not find policy doc
AI Tech Use (general)	3	1 – PS website 2 – PSB website	
FRT – mugshot database	4	2 – PS website	1 - PS website mentions "stringent operating procedures" – no documents found 1 - PSB meeting presentation mentions "a new policy and associated processes" – no documents found
Video analytics	5	1 – PS website 2* – PSB website	1 - PS website – no mention of policy document[i] [2* – PSB meeting presentations – re specifics of video analytics in use] 1 – Municipal Council presentation

Key Consideration #8: Police Need to Invest in Providing Accessible Public Communication Regarding their Tech Use

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Technology	Dedicated webpage with policy info	PS info re tech use w/o policy info	Tech use info found elsewhere
Artificial Intelligence	1(includes FRT, ALPR, video analytics)		2 via PSB
Facial Recognition	2 (with arrest photo databases)		1 (news media)
Video analytics	1 (not dedicated, but includes policy info)		1 via PSB 1 via municipal council
BWC	13 1 (BWC + ICC)	8 1 (BW mic)	5 (news media) 1 via PSB
ICC	3 1 (ICC + BW mic) 1 (ICC + BW mic + ALPR)	4	2 (news media)
ALPR	17	8	6 (news media)
CCTV - Community	6	6	11 (news media) 11 (municipality)
CCTV – private camera registry	17 (policy info only for camera owners)	2	

Key Consideration #9: Police Need to make Public Consultation on Controversial Technologies Meaningful and Impactful

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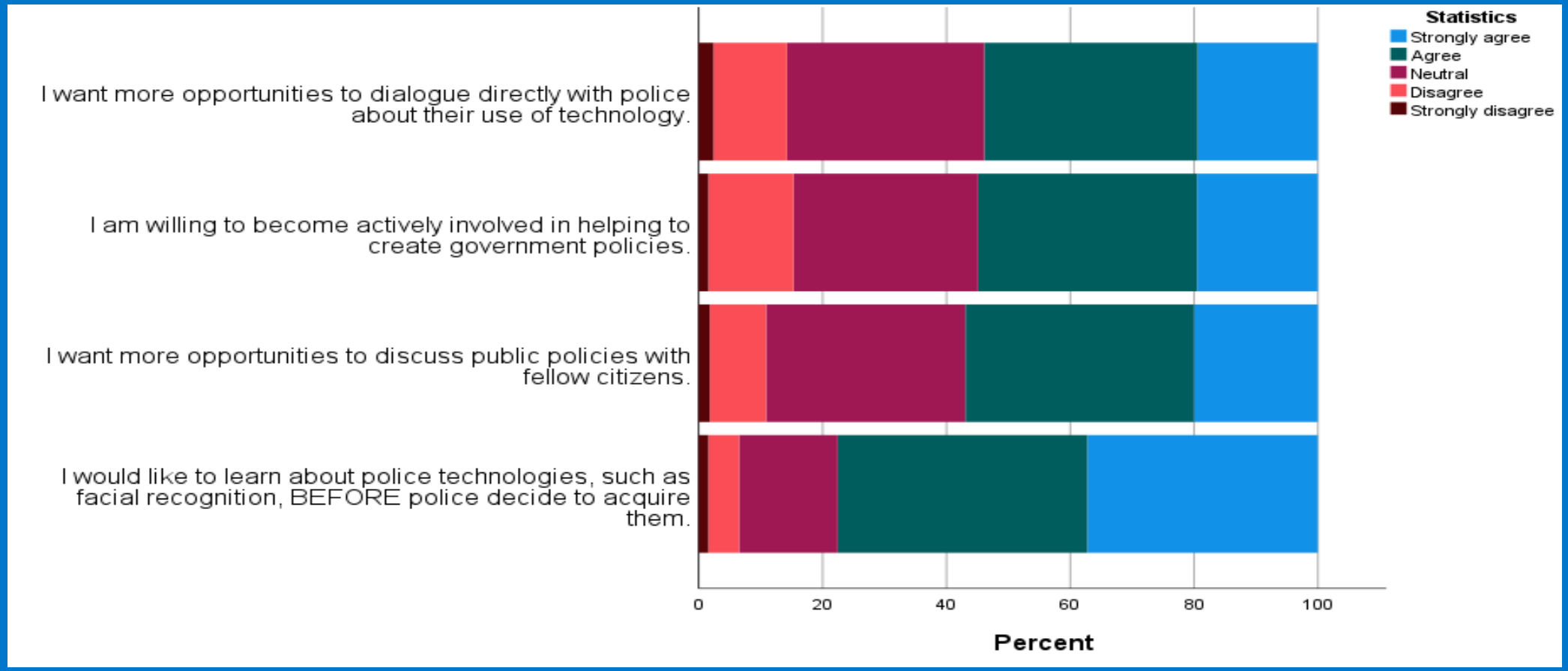
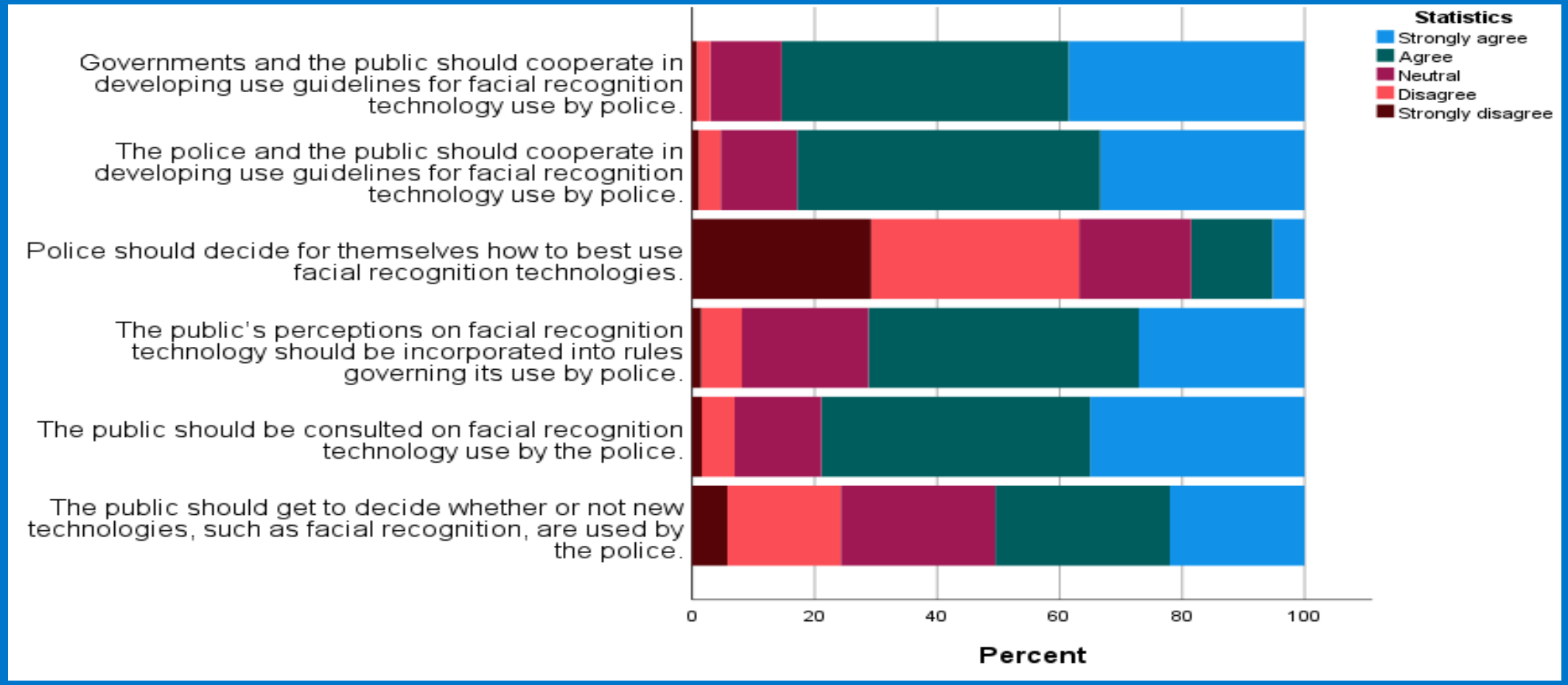


Key Consideration #9 Continued: Police Need to Make Public Consultation on Controversial Technologies Meaningful and Impactful



Key Consideration #10: Holding Positive Views of the Police is Directly linked to Support for Police Use of FRT

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- Age
- Familiarity with FRT

FRT Used in Serious Incidents

1

- Education
- Race/Ethnicity
- Community Safety

FRT Used in Minor Incidents

2

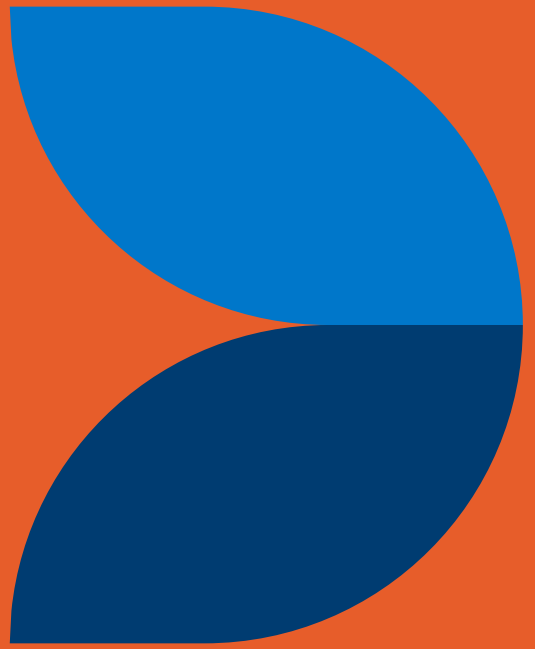
Perceptions of Police

Other Variables

Positive Attitudes toward Police

Perceptions of FRT

Questions?

Andrea Slane
andrea.slane@ontariotechu.ca
Christopher O'Connor
christopher.oconnor1@ontariotechu.net

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