

PROFILED WITHOUT PROTECTION

STUDENTS IN THE NETHERLANDS HIT BY DISCRIMINATORY FRAUD DETECTION SYSTEM

RESEARCH BRIEFING

AMNESTY INTERNATIONAL

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The Dutch government used a discriminatory algorithmic risk profiling system to detect possible abuse of the student grant. Students of racialized groups and those enrolled in vocational education had an increased chance to be flagged as "high risk" and to be selected for an investigation. To prevent harms in the future, Amnesty International calls for strictly regulating algorithmic risk profiling systems.

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GLOSSARY

ALGORITHM	An algorithm is a procedure used to solve a problem or perform a computation. Algorithms act as an exact list of instructions that conduct specific actions step by step. Algorithms are used as specifications for performing calculations and data processing. Algorithmic systems are applications that perform one or more tasks, such as gathering, combining, cleaning, sorting, classifying and inferring data, as well as selection, prioritization, making recommendations and decision-making.
ALGORITHMIC RISK PROFILING	The semi- or fully automated processing of data for statistical assessment and/or predictive modelling to identify the risk that an outcome will occur, either at the individual or community level, or specific to an event or scenario.
ALGORITHMIC RISK PROFILING SYSTEM	An algorithmic risk profiling system that informs a human decision-making process. Often, these systems are used to identify or select cases for human review by providing information and/or suggested outcomes.
ARTIFICIAL INTELLIGENCE (AI)	There is no widely accepted definition of the term "artificial intelligence" or "AI". But one definition defines AI as systems designed to carry out a specific task or process that "learn by doing" – whether that's through supervised learning (a system that is rewarded and corrected by a developer until it learns patterns over time) or newer methods of deep learning (systems programmed to learn in a more sophisticated way, modelled on processes in the human brain).
PROXY	In computer programming, a proxy is a feature correlated to something not included in the algorithm. In algorithmic systems, a seemingly neutral feature (such as a postal code) may be correlated with a protected characteristic (such as nationality or ethnicity).
RISK PROFILING	The assessment, based on a more or less structured set of criteria, to identify the risk that an outcome will occur.
SOCIAL PROTECTION	Social protection refers to a broader range of contributory (those financed through contributions made by an individual or on their behalf) and non-contributory (those that are funded through national tax systems) programmes. Social protection programmes can include (I) social insurance, such as pension insurance; (ii) employment and labour programmes, including unemployment benefits, skills training and job search assistance; and (iii) social assistance and cash benefits for people living in poverty; and (iv) social advantages, such as student grants.

ABBREVIATIONS

AI Act	EU Artificial Intelligence Act
CESCR	UN Committee on Social, Economic and Cultural Rights
CERD	UN Committee on the Elimination of All Forms of Racial Discrimination
CJEU	Court of Justice of the European Union
CRvB	Central Council of Appeal, the highest administrative court of appeal
DPA	Dutch Data Protection Authority
DUO	Dutch Education Executive Agency, responsible for student grants
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
EU	European Union
GDPR	EU General Data Protection Regulation
ICERD	International Convention on the Elimination of All Forms of Racial Discrimination
ICESCR	International Covenant on Economic, Social and Cultural Rights
UN	United Nations
VET	Vocational education and training

EXECUTIVE SUMMARY

"I think it is a shame, disappointing, because it seems as if the government is trying to crack down on discrimination, also in schools and when people discover discrimination. So I think things are getting better here, while, for example, at such a large organization [like DUO] things are going so badly. Yeah, that this is actually not seriously looked into at all, that it seems as if it doesn't really matter." (Maureen, former student)

This briefing analyses a discriminatory algorithmic risk profiling system that was used in the Netherlands. The Education Executive Agency (Dienst Uitvoering Onderwijs, hereafter: DUO), under the responsibility of the Ministry of Education, Culture and Science (hereafter: Ministry of Education), used this system between 2012 and 2023 to select students for an investigation in order to check for possible abuse of the out-of-home grant. It shows how the DUO system discriminated student on the grounds of race and economic and social situation (socio-economic status).

In June 2023, the Minister of Education temporarily halted the system and commissioned external research following allegations in the media of discrimination. After the publication of the external research in March 2024, which confirmed that authorities used a discriminatory risk profiling system, the Dutch government apologized for using a system that "indirectly discriminated" against students of racialized groups.[1] Along with the apologies, the Minister announced plans to redevelop and reintroduce the "risk-based" enforcement approach. In November 2024, the week before the publication of this briefing, the Minister announced that all DUO's decisions that are based on the discriminatory system would be reversed and that impacted students and former students would receive financial restitution.

The DUO case is illustrative of how governmental organizations in the Netherlands continue using algorithmic risk profiling without sufficient safeguards to protect human rights. In recent years, multiple other scandals have been unveiled about discriminatory risk profiling by Dutch governmental organizations. This shows that the Dutch government fails to effectively protect people in the Netherlands against discriminatory risk profiling.

CLEAR STANDARDS FOR RISK PROFILING REQUIRED

The government's swift action to redress the harms caused by discriminatory risk profiling is a positive development. However, the risk of repetition remains high, because the government so far has not conducted a comprehensive and correct test of the DUO system against the prohibition of discrimination, which leaves the standards for risk profiling unclear. Clear standards are required not only because the Ministry of Education intends to redevelop "risk-based" fraud detection, but also because other government organizations in the Netherlands use risk profiling to identify potential fraud or crime. Such systems are also used abroad; Amnesty International has uncovered similar discriminatory algorithmic systems in France and Denmark.

Although the Dutch government has apologized for indirect racial discrimination, it has not explicitly acknowledged that the DUO system entailed discrimination on the grounds of economic and social situation, nor has it conducted or commissioned a human rights analysis of indirect discrimination based on race and economic and social situation. The Dutch Data Protection Authority (DPA) assessed DUO's risk profiling algorithm. In its report, that was also published a week before publication of this briefing, the DPA concludes that the algorithm was discriminatory. However, the DPA did not conduct a comprehensive assessment of the criteria used in the algorithm in view of the protected grounds and the justification test to assess whether there may be an objective justification for differential treatment based on the protected grounds.

Detailed insight into how the system violated the right to non-discrimination is necessary to ensure that the use of risk profiling systems is in line with the right to equality and non-discrimination. This

[1] For Amnesty International's use of the term "racialized groups", see Box 1.

research briefing, therefore, includes a detailed analysis of the different ways in which the DUO system discriminated against students on the grounds of race and economic and social situation. The briefing aims to provide guidance on how governmental organizations should test the use of risk profiling against the prohibition of discrimination.

THE HUMAN RIGHTS HARMS OF DIGITAL TECHNOLOGIES

This briefing is part of Amnesty International's work on technology, inequality, and human rights. This work shows how digital systems are not "neutral" but rather reflect and exacerbate existing structures of inequality and power imbalances. Globally, more and more states are introducing digital technologies into the domain of social protection in ways that can have far-reaching impacts on human rights, with marginalized groups, people who experience structural and systemic racism, and those who come from socio-economically disadvantaged backgrounds experiencing the brunt of the harms. In 2021, Amnesty International published the report *Xenophobic machines* about a discriminatory algorithmic decision-making system which contributed to the childcare benefits scandal. In the report, Amnesty International urged the Dutch government to introduce effective and binding measures to prevent human rights harms.

To analyse how the DUO risk profiling system was designed, how it worked and how it resulted in discrimination, Amnesty International relied on governmental and parliamentary documents and documents from the legal proceedings filed by several students against DUO. In addition, Amnesty International interviewed five former students who claim to have been wrongfully accused of abusing the out-of-home grant in the years before Summer 2023 and spoke to lawyers who represent or had represented one or more students who appealed DUO's decision.

RISK PROFILING AS PART OF A HARSH APPROACH TO TACKLING FRAUD

All students enrolled in tertiary education in the Netherlands are entitled to a student grant provided by the government to support them with their cost of living. Students living away from their parent(s) receive a higher amount, the "out-of-home grant". DUO used an algorithmic risk profiling systems to select students for an investigation of possible abuse of the grant. Such profiling systems for detecting fraud or crime are used by governmental organisations to select people for checks without there being concrete and individualized signals of fraud or crime.

Chapter 1 explains the DUO system and gives a brief overview of the political developments that led to the introduction of the system and the developments that followed after discrimination was unveiled. The algorithmic risk profiling system was part of a broader enforcement policy and practice to tackle fraud. The design of the DUO system dates back to 2009-2011 when the Dutch government introduced a new enforcement approach after signals that students were abusing the out-of-home student grant. A legislative change lowered the burden of proof for DUO, which puts students at risk of being wrongfully accused of abusing the grant. In addition, DUO was allowed to conduct physical address checks (unannounced house visits and neighbourhood investigations) to check whether a student lives at their registered address. The legislative change also gave DUO powers to fine students as a penalty for abusing the grant, in addition to reclaiming the excess grant that students had received.

DISCRIMINATION ON THE GROUNDS OF RACE AND SOCIO-ECONOMIC STATUS

Chapter 2 explains in detail the different ways in which the DUO risk profiling system constituted discrimination based on both race and economic and social situation, or socio-economic status. Discrimination, both direct and indirect, is prohibited by international, European, and Dutch law. Direct discrimination occurs when an individual is treated less favourably than another person in a similar situation for a reason related to a prohibited ground. Indirect discrimination refers to laws, policies, practices or treatment that appear neutral at face value (that is, which makes no explicit distinction) but disproportionately disadvantage a certain group. There can be an objective and reasonable justification for differential treatment that is indirectly based on a protected ground, such as race, provided that it pursues a legitimate aim and the means to achieving that aim are appropriate and necessary. As the European Court of Human Rights (ECtHR) has established that race is a

"suspect" ground, there can only be a justification if there are "very weighty reasons". This test must be interpreted as strictly as possible. In practice, when seemingly neutral criteria result in a differential impact on groups based on race, this almost always constitutes indirect discrimination.

The external research into the system, commissioned by the Minister of Education and DUO after allegations in the media of discrimination, shows that DUO used an algorithmic risk profile as well as additional criteria to select students for an investigation. The external research shows that all three criteria in the algorithmic risk profile – education, age and distance to the parent(s)'s address – were correlated with race. According to the research, this had the effect that students of racialized groups, notably those with a "non-European migration background",[2] were disproportionally more likely to be categorized by the algorithm as "(very) high risk" and less likely to be categorized as "low risk". The additional criteria for manual selection by DUO caseworkers also likely correlated with race, which had the effect that students with a "non-European migration background" were disproportionally often selected for a house visit. DUO did not substantiate or evaluate the risk profiling system, nor did it take into account the adverse impact and stigmatizing effect of targeting racialized groups for investigation. Without an objective and reasonable justification, differential treatment on the grounds of race constitutes racial discrimination, which is prohibited by international, European and Dutch law.

The DUO profiling system also discriminated against students based on their economic and social situation (socio-economic status), because the algorithm was designed to automatically score students enrolled in vocational education and training (VET) as higher risk compared to students enrolled in "higher" education. The assumption that VET students, specifically when enrolled in VET levels 1-2 compared to levels 3-4, are more likely to abuse the out-of-home grant is stigmatizing. The stigmatizing effect should be seen in light of the strongly stratified education system and the disadvantaged position of VET students and graduates, compared to "higher" education students and graduates, in the Netherlands. VET students and graduates are disadvantaged in terms of income, health, life expectancy, and political representation, among other things. Given the actual adverse impact and stigmatizing effect of having a higher chance of being profiled as high risk and being selected for investigation, differential treatment based on the economic and social situation or socio-economic status cannot be objectively and reasonably justified. In addition, DUO caseworkers assessed students based on selection criteria related to their housing situation, such as living in student housing, living alone and square metres of the dwelling relative to the number of residents. This can result in indirect discrimination as it disproportionately impacts students of socio-economically disadvantaged backgrounds or marginalized groups.

THE DUTCH STATE FAILED TO PROTECT STUDENTS AGAINST DISCRIMINATION

States have a duty to eliminate all forms of discrimination, both direct and indirect, and to take special measures to protect marginalized groups. Chapter 3 describes this duty and details the various ways in which DUO and the Ministry of Education failed to fulfil it. The design process of the risk profiling system, based on the "experiences" and "common sense" of the developers, was prone to bias. Between 2010 and 2023, multiple credible signals of discrimination, coming from different sources, were insufficiently investigated by DUO. These included concerns by DUO employees and concerns of lawyers about possible bias. In addition, the use of a risk profile was introduced in 2011 without regulation to guarantee sufficient safeguards. For example, DUO did not evaluate possible unintended effects or the human rights impact of the system. A lack of transparency about the algorithmic risk profiling made it difficult for students and their lawyers to challenge DUO's decisions and to rule out possible discrimination. During the many years that the profiling system was in place, mechanisms for sufficient accountability and oversight were lacking. Courts in legal procedures to appeal DUO's decisions apparently have not actively investigated the risk profiling system or possible discrimination

[2] In the Netherlands, the term "migration background" is a commonly used term in society as well as in governmental policy. Statistics Netherlands categorizes persons as having a "migration background" based on one's birth country and the birth country of both parents. When either the person or one or both of their parents are born outside the Netherlands, the person is categorized as someone with a migration background, regardless of their or their parents' citizenship. Non-European migration background includes persons who are born or whose parent(s) are born in the Caribbean Netherlands.

before October 2024. In October 2024, a District Court annulled DUO's decision to revoke the out-of-home grant because the selection of the student for an investigation was based on a discriminatory risk profile.

Article 22 of the EU General Data Protection Regulation (GDPR) prohibits people from being subjected to solely automated decision-making, including profiling, when a decision significantly affects them. The available information on the DUO system is insufficient for assessing whether the DUO practice was in line with Article 22 of the GDPR. The EU Artificial Intelligence Act (AI Act), that came into effect in August 2024, has been hailed as the first law regulating AI systems. However, it is as of yet unclear whether an algorithm such as the one that was used by DUO will fall under the definition of "AI system" in the AI Act, even though it is clear that such algorithmic systems can be and are used to support decisions about public benefits. If DUO wants to proceed with the use of an algorithmic system for fraud detection, the government will need to examine whether it creates legal obligations under the AI Act. Where algorithmic profiling falls outside the scope of existing regulation, the Dutch government should introduce additional regulations in order to fulfil their obligation to prevent human rights violations.

PREVENTING DISCRIMINATORY RISK PROFILING IN THE FUTURE

The many scandals about discriminatory risk profiling by multiple Dutch governmental organizations in the past years demonstrate the inherent human rights risks of risk profiling. The Dutch government therefore should engage in a fundamental debate with society about risk profiling. To effectively protect people in the Netherlands against discriminatory risk profiling in the future, the starting point for regulation should be that risk profiling is "prohibited, unless". Governmental organizations should be allowed to use risk profiling only if the right to non-discrimination can be guaranteed and the necessary safeguards are in place to ensure the protection of all other rights.

RECOMMENDATIONS

Recommendations to the Minister of Education, Culture and Science:

1. Acknowledge that DUO discriminated against students on the grounds of both race and socio-economic status (education type and housing situation).
2. Ensure swift implementation of the reversal of DUO's decisions and financial restitution to affected persons, as promised on 11 November 2024. Report publicly on the implementation. Delete all information in databases related to individual records on alleged fraud and guarantee that this information will not be used for other decisions or shared with other governmental organizations.
3. Conduct public consultation with key stakeholders, including affected communities, on redeveloping the enforcement policy and practice of DUO, as well as the necessary safeguards and guarantees to effective remedy and redress.
4. Conduct a human rights analysis of the entire enforcement policy and practice of DUO, including the algorithmic risk profiling system, the desk research and the assessment of evidence by DUO caseworkers, the house visits and neighbourhood investigations by external controllers, and the appeal procedure with DUO. Include the insights from this analysis in the redevelopment of the enforcement approach.

Recommendations to the Dutch government:

5. Add socio-economic status to the protected grounds in national anti-discrimination legislation.
6. Establish by law or binding guidelines that the use of race, socio-economic status and other protected characteristics as criteria in algorithmic risk profiling systems is prohibited.

7. Discontinue all algorithmic risk profiling systems that are currently used for welfare fraud detection and reinstate only if the right to non-discrimination can be guaranteed and the necessary safeguards are in place to ensure the protection of all other rights, including the right to privacy and the right to effective remedy.
8. Prohibit algorithmic risk profiling in social protection systems unless the governmental organizations that intend to use such profiling systems can guarantee that the system is in line with international human rights standards. Exceptions to the prohibition should be allowed only if:
    - The use of an algorithmic risk profiling system is regulated by law or binding guidelines, and all safeguards to protect people's rights are in place, including transparency, accountability, oversight, and effective remedy.
    - A mandatory and binding human rights impact assessment is conducted before and during the implementation of the algorithmic risk profiling system. This includes periodically testing for both direct and indirect discrimination.
    - The use of the algorithmic risk profiling system is periodically evaluated, and its human rights impact and other unintended effects are periodically assessed.
    - The algorithmic risk profiling system is transparent to the public and included in a mandatory algorithm register.
    - Comprehensive and independent human rights oversight mechanisms are in place. Oversight bodies should be granted adequate mandate and sufficient power, expertise and capacity to investigate and enforce, both reactively and proactively.
9. Ensure that the enforcement policy and practice in the social protection domain is in line with international human rights standards:
    - Conduct public consultation with key stakeholders, including involved and affected communities, on how governments check people for the detection of possible fraud, administrative omissions and errors with welfare benefits. The stigmatizing impact that these checks might have and how to guarantee effective remedy should be included in the consultation.
    - Ensure that the burden of proof for all aspects of accusations of abuse or fraud always firmly lies with the government, not with those facing investigation.
    - Ensure that all credible signals of discrimination are duly investigated by an independent body in a thorough and timely way.
    - Introduce guidelines to register investigations of alleged fraud and publish anonymized data on these investigations, disaggregated by protected characteristics, in order to periodically monitor potential discrimination.
    - Ensure effective remedy and redress for affected rights holders. Consult impacted communities about appropriate redress.

METHODOLOGY

This briefing is part of Amnesty International's work on technology, inequality, and human rights, which seeks to uncover how digital systems are not "neutral" but rather extensions of existing structures of inequality and power imbalances.[3] When algorithmic or AI systems are used to support decision-making about the enforcement of laws, whether in social protection,[4] policing[5] or border control,[6] they have an enormous impact on the daily lives of people, particularly those from marginalized and racialized groups that historically have more often been subject to heightened scrutiny, profiling and criminalization by authorities.[7]

In recent years, Amnesty International's research has uncovered the human rights impacts of algorithmic systems, used for example, for determining eligibility and the detection of fraud and errors in social protection in the Netherlands,[8] Serbia,[9] France,[10] and Denmark.[11] In 2024, Amnesty International published the briefing *Social protection in the digital age* that looks into the impact of digital technologies on social protection in a range of contexts.[12]

In the Netherlands, Amnesty International has been researching and monitoring the use of algorithmic systems by authorities in the detection of fraud in social protection and policing since 2020. Publications include *We sense trouble. Automated discrimination and mass surveillance in predictive policing in the Netherlands* (2020), *Xenophobic Machines. Discrimination through unregulated use of algorithms in the Dutch childcare benefits scandal* (2021) and *Etnisch profileren is een overheidsbreed probleem* (2024, available in Dutch only).[13] These reports show how the use of algorithmic risk profiling systems by various governmental departments has violated the right to equality and non-discrimination. Amnesty International's work on discriminatory profiling systems includes a campaign with civil rights organization Controle Alt Delete in 2024 to call for effective measures to prevent automated racial profiling by governmental authorities and an advocacy briefing detailing how the government fails to effectively regulate algorithmic systems (2023, available only in Dutch).[14]

This briefing analyses a discriminatory algorithmic risk profiling system that was used in the Netherlands between 2012 and 2023. Students enrolled in tertiary education are entitled to a student grant provided by the government; the amount received is higher for students living away from their parent(s) ("out of home").[15] The Education Executive Agency (Dienst Uitvoering Onderwijs, hereafter: DUO), under the responsibility of the Ministry of Education, Culture and Science (hereafter: Ministry of Education), developed and used an algorithmic risk profiling system to select students for a check, in order to investigate the possible fraud of the out-of-home grant (hereafter: the DUO system). There is

[3] Amnesty International, *Digitally Divided. Technology, inequality and human rights* (Index: POL 40/7108/2023), 2023, https://www.amnesty.org/en/documents/pol40/7108/2023/en/.
[4] Amnesty International, *Social protection in the digital age* (Index: POL 40/7771/2024), 6 March 2024, https://www.amnesty.org/en/documents/pol40/7771/2024/en/.
[5] Amnesty International, *We sense trouble: Automated discrimination and mass surveillance in predictive policing in the Netherlands*, EUR 35/2971/2020, 29 September 2020, https://www.amnesty.org/en/documents/eur35/2971/2020/en/.
[6] Amnesty International, *The Digital Border: Migration, Technology and Inequality* (Index: POL 40/7772/2024), 21 May 2024, https://www.amnesty.org/en/documents/pol40/7772/2024/en/.
[7] For Amnesty International's use of the term "racialized groups", see Box 1.
[8] Amnesty International, *Xenophobic Machines: Discrimination through unregulated use of algorithms in the Dutch childcare benefits scandal* (Index: EUR 35/4686/2021), 25 October 2021, https://www.amnesty.org/en/documents/eur35/4686/2021/en/.
https://www.amnesty.org/en/latest/news/2024/10/france-discriminatory-algorithm-used-by-the-social-security-agency-must-be-stopped/.
[9] Amnesty International, *Trapped by Automation: Poverty and Discrimination in Serbia's Welfare State* (Index: EUR 70/7443/2023), 4 December 2023, https://www.amnesty.org/en/latest/research/2023/12/trapped-by-automation-poverty-and-discrimination-in-serbiaswelfare-state.
[10] Amnesty International, *France: Discriminatory algorithm used by the social security agency must be stopped*, 16 October 2024,
[11] Amnesty International, *Denmark: Coded Injustice, Surveillance and Discrimination in Denmark's automated welfare state* (index: EUR 18/8709/2024), 12 November 2024, https://www.amnesty.org/en/documents/eur18/8709/2024/en/.
[12] See also Amnesty International, *Digitally Divided*, 2023; Amnesty International, *Social protection in the digital age*, 2024.
[13] Amnesty International the Netherlands, *Etnisch profileren is overheidsbreed problem: Nederlandse overheid moet burgers beschermen tegen discriminerende controles* (translation: Racial profiling is a government-wide problem: Dutch government must protect citizens against discriminatory checks), 21 March 2024, https://www.amnesty.nl/actueel/het-kabinet-moet-burgers-beschermen-tegen-etnisch-profileren.
[14] Publications and information on the campaign are available on amnesty.nl/tech and amnesty.nl/etnischprofileren.
[15] DUO uses the term parent(s) in the meaning of legal parent(s), see: https://www.rijksoverheid.nl/onderwerpen/ouderlijk-gezag/vraag-en-antwoord/biologisch-juridisch-ouderschap.

a manual follow-up assessment by DUO caseworkers once a student has been flagged by the algorithm. This briefing examines how this algorithmic profiling system violates the right to equality and non-discrimination.

To analyse how the DUO risk profiling system was designed, how it worked, and how it resulted in discrimination, Amnesty International relied on multiple reports from the government and independent research and consultancy firms.[16] While all reports provide evidence of discrimination, they do not contain a human rights analysis, as they do not test their findings against the right to equality and non-discrimination (see Box 7).

Other sources of information for Amnesty International's analysis are parliamentary and ministerial documents and parliamentary debates. These cover two periods: 2009-2012, when the system was designed and implemented, and the period between June 2023, when the system was discussed in parliament and discontinued after allegations of discrimination in June 2023, and 11 November 2024, when the government announced that it would offer restitution to impacted students.

In addition, Amnesty International interviewed five former students who claimed to be wrongfully accused of abusing the out-of-home grant in the years before Summer 2023. All interviews were conducted one-on-one in August 2024; three were in person, one by video call, and one by phone. The participants were identified and contacted through their lawyers, who forwarded a call to participate in Amnesty International's research to their current and former clients. The participants gave informed consent to have their testimony included in this briefing and related output. Four participants requested anonymity but approved of including information on migration background[17] and the type of education they were enrolled in. One participant, Mohammed Elazizi, gave permission to use his full name. For the other participants, pseudonyms have been used to include their stories. Interviews were conducted with the following five former students:

- Ghizlan, vocational education and training (VET) in personal coaching in social care, Dutch-Moroccan background;
- Karima, academic education in medicine, Dutch-Moroccan background;
- Maureen, VET in hospitality management, Dutch-Surinamese background;
- Mohammed, higher vocational education in commercial economy, Dutch-Moroccan background;
- Tahira, VET as a dental assistant, Dutch-Moroccan background.

All participants had appealed DUO's decision, except Karima, because she missed the deadline of six weeks to appeal. In all appeal procedures, DUO upheld the decision to revoke the grant and/or fine the student. Maureen appealed to the court, and her case is pending. Ghizlan and Tahira appealed at a District Court, but the Court decided in favour of DUO, after which, tiredly, they left it at that. Mohammed appealed DUO's decisions to revoke and fine in two separate court proceedings. The Court decided in favour of DUO in the first proceeding and in favour of Mohammed in the second one on the fine (see Section 1.5). Amnesty International spoke to the lawyers of all participants and had access to the legal documentation that the applicants submitted in these cases, which supported their testimony that they were wrongfully flagged and accused of abusing the out-of-home grant.

Amnesty International also spoke to 10 lawyers who represent or had represented one or more students who appealed DUO's decision that they were abusing the out-of-home grant.

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[16] PricewaterhouseCoopers (PwC), Onderzoek misbruik uitwonendenbeurs, January 2024. Tweede Kamer, vergaderjaar 2022–2023, 24 724, nr. 209; Algorithm Audit, Vooringenomenheid voorkomen (also available in English: Preventing prejudice), February 2024; Algorithm Audit, Addendum vooringenomenheid voorkomen (also available in English: Addendum Preventing prejudice), May 2024; DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek (spoor 1-5), 15 February 2024.

[17] This is a commonly used term in the Netherlands. Amnesty International asked participants to self-identify.

A final source for this briefing is legal documents from the cases filed by several students against DUO, where they stated that they were wrongfully accused of abusing the student grant. Lawyers and students who had filed these cases shared their documents with Amnesty International. These include cases of five students who were alleged to have been wrongfully accused of fraud and appealed their case with DUO or before a court. Amnesty International also searched on the site rechtspraak.nl for relevant court judgements between 2013 and 31 October 2024 and found 14 cases that raised similar concerns.[18]

BOX 1: TERMS IN THIS BRIEFING

Racialized groups

Groups who are "racialized" are contingent on time and space. The term "racialization" refers to processes through which racial meanings are constructed by powerful institutions and groups, and used to justify discrimination, stereotyping, violence, and othering of ethnic and religious groups such as Roma, Muslims, and Black people, as well as of migrants. Michael Omi and Howard Winant employ the term racialization to "signify the extension of racial meaning to a previously racially unclassified relationship, social practice, or group. Racialization is an ideological process, a historically specific one".[19] The person is not self-identifying as racialized but is externally defined. This process triggers systemic discriminatory practices by state institutions, private entities, and individuals.[20] In this way, "racialized groups" often refer to people who are historically and systemically discriminated on racial grounds. However, racialization is not a static process, and it changes depending on context, policies, law, and practices.[21] Racialization also extends beyond legal classifications, such as migrants and refugees. Racialization in the context of mobility across borders has different dynamics and manifestations, with migrants and refugees experiencing particular forms of racial exclusion and discrimination. In addition to race and ethnicity, religion, language, and culture often operate as racialized categories which are used to determine someone's migration status and nationality.[22]

Abuse and fraud

In governmental policy and the societal and political debate in the Netherlands, the terms "abuse" and "fraud" in relation to social benefits are not clearly defined and are used interchangeably.[23] There is no legal definition of "fraud" or "abuse" applicable to this context. Both terms are usually used to indicate that the violation of the law is intentional and not a mistake. The relevant legislation on student grants does not use the terms "abuse" or "fraud". DUO and the Ministry of Education usually speak of "abuse" and "improper use". The decision by DUO that a student is abusing the out-of-home grant or to impose a fine is an administrative decision, not a criminal charge or conviction. In this briefing, Amnesty International uses the terms "fraud" and "abuse" interchangeably.

Amnesty International wrote to the Ministry of Education, Culture and Science on 8 August 2024 to offer the authorities the opportunity to check and, if needed, correct the factual description of the system and to respond to additional questions. The Ministry responded on 3 September and 7 October 2024. On 23 October, Amnesty International wrote to the Minister of Education, Culture and Science asking for a response to the draft version of the briefing, which included the analysis,

[18] Note that the majority of judgements are not published on rechtspraak.nl.
[19] Michael Omi and Howard Winant, eds., *Racial Formation in the United States*, Second Edition, pp. 3-13. "We employ the term racialization to signify the extension of racial meaning to a previously racially unclassified relationship, social practice or group. Racialization is an ideological process, a historically specific one." For an overview of the use and meaning of the term, see Adam Hochman (2019) "Racialization: a defence of the concept", Ethnic and Racial Studies, 42:8, 1245-1262.
[20] Michael Omi and Howard Winant, eds., *Racial Formation in the United States*, Second Edition, pp. 3-13.
[21] Bianca Gonzalez-Sobrino and Devon R. Gross, "Exploring the mechanisms of racialization beyond the black-white binary", 2019, Ethnic and Racial Studies, Volume 42, Issue 4, pp. 505-510.
[22] Amnesty International, Submission to the UN CERD-CMW joint general comment/recommendation: *Obligations of state parties on addressing and eradicating xenophobia and its impact on the rights of migrants, their families, and other non-citizens affected by racial discrimination*, IOR 40/7898/2024, 4 April 2024, https://www.amnesty.org/es/documents/ior40/7898/2024/en/.
[23] Parlementaire enquêtecommissie Fraudebeleid en Dienstverlening (PEFD), Blind voor mens en recht, 2024, p. 36.

conclusions, and recommendations. The Ministry responded on 30 October and 1 November. They pointed out factual inaccuracies and shared additional information. Amnesty International incorporated their comments accordingly. Where Amnesty International's explanation or appreciation of information substantially differs from that of the government, this is explicitly stated in the briefing.

This briefing does not aim to provide a comprehensive overview of all the human rights impacts related to the way DUO detected and responded to potential fraudulent claims of the out-of-home grant, nor does it argue that all the harms that were caused by the policies and practices of DUO relate to the discriminatory nature of the profiling system. This briefing highlights a specific aspect, and that is how the algorithmic risk profiling system used by DUO informed the decisions of DUO caseworkers on which students to select for an investigation into possible fraud. The report focuses on uncovering the different ways in which the design and function of the risk profiling system constitutes discrimination and purports to show that it is very difficult, if not impossible, to build such systems that do not discriminate. This briefing advocates that governments should prohibit the use of algorithmic risk profiling systems unless they can guarantee that these systems are in line with human rights standards and that the necessary safeguards to prevent discrimination and protect other human rights are in place.

Amnesty International is grateful to all former students and lawyers who participated in this research for their time and for sharing their stories.

1. THE DUO CASE: STUDENTS HIT BY DISCRIMINATORY RISK PROFILING

1.1 ALGORITHMIC RISK PROFILING FOR FRAUD DETECTION

Around the world, governments are introducing algorithms and AI systems to detect fraud in their welfare systems, which has a particular impact on people who experience structural and systemic racism and people from socio-economically disadvantaged backgrounds.[24] Human rights bodies and UN Special Rapporteurs have repeatedly called attention to the ways in which algorithmic systems tend to reproduce and exacerbate existing bias, discrimination and inequalities.[25] The UN Special Rapporteur on contemporary forms of racism noted that "because digitalization of welfare systems occurs in societies in which groups are marginalized, discriminated against and excluded on a racial and ethnic basis, these systems are almost guaranteed to reinforce these inequities, unless states actively take preventive steps".[26] In addition, the UN Special Rapporteur on extreme poverty and human rights noted in 2019 that the development of the "digital welfare state" leads to more invasive surveillance of people. He observed that governments are increasingly demanding that people prove their right to social services, while the burden of proof in the case of fraud should lie with the government. People using social protection schemes are not treated as rights holders but as applicants who must convince the decision-maker that they are "deserving".[27]

The combination of automating fraud detection, without adequate safeguards, with harsh and punitive enforcement policies is a serious risk to the rights of the people who rely on social protection

[24] UN Special Rapporteur on extreme poverty and human rights, Report: *Digital welfare states and human rights*, 11 October 2019, UN Doc. A/74/493; Amnesty International, *Social protection in the digital age*, 2024. See also Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*, St. Martin's Press (2018); Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code*, Polity (2019).
[25] Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, Racial discrimination and emerging digital technologies: a human rights analysis, 2020, A/HRC/44/57; Report of the Special Rapporteur on extreme poverty and human rights, 11 October 2019, A/74/493; Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, 2024, A/HRC/56/68; Report of the UN Secretary-General, Question of the realization of economic, social and cultural rights in all countries: the role of new technologies for the realization of economic, social and cultural rights, A/HRC/43/29, 2020, para. 44; CERD, General Recommendation 36, 2020, par. 31; FRA, Big data based decision making and discrimination, 2018; FRA, Bias in algorithms, 2022.
[26] Report of the Special Rapporteur on contemporary forms of racism, 2020, A/HRC/44/57, par. 42.
[27] Report of the Special Rapporteur on extreme poverty and human rights, 11 October 2019, A/74/493.

schemes, with particular risks for people subject to structural and systemic racial discrimination, inequality and marginalization. The UN Secretary-General recommends that states "address discrimination and bias in the development and use of new technologies, particularly in terms of access to products and services that are essential for the enjoyment of economic, social and cultural rights".[28]

BOX 2: WHAT IS RISK PROFILING?

Risk profiling or risk scoring is used to inform the decisions of authorities about which persons they will investigate for potential fraud or crime. This may involve human selection decisions, which may be more or less consciously made, or more structured risk assessments, which may or may not be supported by algorithms. A key characteristic of risk profiling is that individuals are selected for an investigation by authorities without a concrete and individualized signal or suspicion that someone is violating the law or committing fraud. Risk profiling is an assessment or "prediction" based on group characteristics that the authorities consider to be indicative of the likelihood that they will violate a law or rule. Decisions to investigate individuals based on risk profiling thus target individuals based on statistical probabilities, not on actual individual behaviour that indicates fraud or crime. Risk profiling is part of an investigation procedure that is usually embedded in an enforcement approach or policy of authorities to deal with potential fraud or crime.

In the Netherlands, risk profiling for detecting possible abuse of social protection schemes was widely implemented by governmental organizations from the 1990s onward, partly due to the increasing amount of available data and technological developments.[29] The government and bodies such as the Central Council of Appeal (Centrale Raad voor Beroep, CRvB, the highest court of appeal for administrative procedures concerning benefits), the Netherlands Institute for Human Rights (the Dutch national equality body) and the Dutch Data Protection Authority (DPA) assume that the use of risk profiles is necessary and efficient.[30] The CRvB, for example, has ruled that municipalities are allowed to use risk profiles for selecting who to check for fraud in the context of social protection, "with a view to effectiveness, efficiency and cost savings, and because of the great importance of combating incorrect use of social services".[31]

In the past years, multiple scandals about algorithmic risk profiling in the context of social protection, policing and border control by a range of governmental organizations came to light in the Netherlands. This proves that discriminatory profiling is a structural and government-wide problem.[32] The most well-known example is the childcare benefits scandal that impacted tens of thousands of persons, many among whom were people of racialized groups, due to discriminatory characteristics used in the risk assessment algorithm (see Box 3). The scandal led to the fall of the Dutch government and the resignation of the entire Cabinet of Ministers in January 2021, as well as widespread harms experienced by individuals who were wrongfully targeted for investigation and forced to erroneously pay back funds to the state. In the aftermath, the government spoke of "lessons learnt", and the Prime Minister stated that it would be "necessary to take a critical look at the functioning of the entire government. Because we don't want things to go wrong like that again".[33] However, just a few years after this statement, new scandals have already emerged, among them, DUO's discriminatory

[28] Report of the UN Secretary-General, *Question of the realization of economic, social and cultural rights in all countries: the role of new technologies for the realization of economic, social and cultural rights*, A/HRC/43/29, 2020, para. 62, sub i.
[29] Parlementaire enquêtecommissie Fraudebeleid en Dienstverlening (PEFD). Blind voor mens en recht, 2024, p.56; Eerste Kamer, Parlementaire onderzoekscommissie effectiviteit antidiscriminatiewetgeving, Gelijk recht doen, Deelrapport sociale zekerheid, 2022, p. 20.
[30] See for example, Tweede Kamer, vergaderjaar 2021-2022, 31066, nr. 1030; College voor de Rechten van de Mens, Discriminatie door risicoprofielen. Een mensenrechtelijk toetsingskader, 2021, p. 31; Autoriteit Persoonsgegevens, Advies artikel 22 AVG en geautomatiseerde selectie-instrumenten, 10 oktober 2024, p. 14.
[31] CRvB, 14 april 2015, ECLI:NL:CRVB:2015:1228, para. 4.7.1; see generally: https://www.rechtspraak.nl/Organisatie-en-contact/Organisatie/Centrale-Raad-van-beroep/Nieuws/Paginas/Wat-is-toegestaan-bij-onderzoek-naar-bijstandsfraude-in-het-buitenland.aspx.
[32] Amnesty International the Netherlands, *Etnisch profileren is overheidsbreed problem: Nederlandse overheid moet burgers beschermen tegen discriminerende controles*, 2024.
[33] Prime Minister of the Netherlands, Minister of General Affairs, Letter to Parliament in response to the report "Ongekend Onrecht", 15 January 2021, rijksoverheid.nl/documenten/kamerstukken/2021/01/15/kamerbrief-met-reactie-kabinet-op-rapport-ongekend-onrecht.

practice, and the Dutch government has still not implemented effective and binding measures to regulate algorithmic risk profiling.[34]

BOX 3: THE CHILDCARE BENEFITS SCANDAL

The development of a policy to tackle fraud of the out-of-home grant in 2009-2011 ran parallel to political developments that would later lead to the childcare benefits scandal.[35] During these years, concerns about widespread fraud of childcare benefits by parents and caregivers led the Dutch government to introduce increasingly harsh and highly automated enforcement policies and practices. What followed was a "tough on crime" approach that was very harsh on parents and caregivers – even in cases where they had done nothing wrong, had only made minor errors, or had merely made an administrative omission. In 2021, Amnesty International published the report *Xenophobic Machines* about the algorithmic decision-making system for fraud detection that was introduced in 2013 by the tax authorities. Because the risk profiling system included the criterion "non-Dutch nationality", people from racialized groups had an increased chance of being categorized as possibly committing fraud and, therefore, being selected for an investigation. The system also had a self-learning element that caused it to focus on lower-income households. The report concluded that the risk classification model was a form of direct discrimination on the grounds of race.[36] Amnesty International's analysis also showed that single parents and caretakers – and their families – in lower-income households were particularly impacted.

1.2 A NEW DUTCH SCANDAL

In June 2023, a new scandal of a discriminatory risk profiling practice emerged in the Netherlands. A collective of journalists investigated possible discriminatory effects in the way DUO detected and handled students who were possibly abusing the out-of-home student grant (see Box 4).[37] Based on information provided by 32 lawyers, the journalists found that over the past 10 years, almost all students that the lawyers had represented in appealing DUO's decisions had a "migration background" (367 of 376 students, or 97.6%).[38] Journalists reported that over the past decade, almost 10,000 students had been accused by DUO of fraudulently claiming the grant and that, of the over 6,000 students who appealed with DUO, one in five were successful. Furthermore, there were almost 1,500 court cases, with a quarter of students winning their cases. The journalists interviewed several experts who pointed to the possible role of a biased risk profiling system.

In response to public criticism, the Minister of Education immediately discontinued the system and commissioned external research. In the meantime, the Minister ordered DUO to select students for investigation based on random sampling instead.[39] DUO also announced an internal review and commissioned additional external research.[40] The DPA announced an investigation as well.[41]

In March 2024, after the publication of the external research, the government wrote in a letter to the Parliament that DUO's selection method constituted "indirect discrimination" due to the use of various "seemingly neutral selection criteria" in the algorithm and in the subsequent manual selection procedure to select students for house visits.[42] The Minister of Education apologized on behalf of the

[34] Amnesty International the Netherlands, *Algoritmebeleid kan nieuw toeslagenschandaal niet voorkomen* (translation: Algorithm policy cannot prevent new childcare benefits scandal), policy briefing, November 2023.
[35] Amnesty International, *Xenophobic Machines*, 2021.
[36] "Race" is a legal term that is not strictly defined; it includes colour, descent, and national or ethnic origin.
[37] The research was carried out by Hoger Onderwijs Persbureau, Platform Investico, De Groene Amsterdammer, NOS op 3 and Trouw, and resulted in various publications, such as https://www.platform-investico.nl/onderzoeken/de-discriminerende-fraudecontroles-van-duo.
[38] A journalist of Platform Investico informed Amnesty International that they asked lawyers to determine whether their clients have a "migration background".
[39] Tweede Kamer, vergaderjaar 2022–2023, 24 724, nr. 211.
[40] The results of the internal review were published in 2024: Intern onderzoek Controle Uitwonenden Beurs, 19 January 2024, https://www.tweedekamer.nl/kamerstukken/detail?id=2024D07565.
[41] Tweede Kamer, vergaderjaar 2022–2023, 24 724, nr. 211.
[42] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 220.

Dutch government and reported that they are talking to students about the impact of the checks on their lives.[43] In April 2024, the Ministry sent a letter with an apology to approximately 5000 students who received a house visit between 2019 and 2023.[44]

In November 2024, the Minister announced that all DUO's decisions between 2012 and June 2023 that are based on the discriminatory risk profiling system would be reversed and that all impacted students would be offered financial restitution.[45] These are positive steps towards accountability for the serious consequences of discriminatory governmental actions and towards repairing the harms done.

However, the Minister of Education has also announced plans to redevelop and reintroduce a "risk-based" system.[46] As the government currently demonstrates an insufficient understanding of the inherent human rights risk of (algorithmic) risk profiling systems, and in the absence of clear standards and binding regulations for such systems, the risk of discriminatory risk profiling by DUO in the future and by other governmental organizations remains high (see Section 1.6).

BOX 4: THE OUT-OF-HOME GRANT

Students enrolled in tertiary education (see Box 5) in the Netherlands are entitled to a "basic grant" provided by the government to support them with their cost of living.[47] The basic grant is not means-tested, although students whose parents have a low income are entitled to an "additional grant".

- For students enrolled in vocational education and training (VET) levels 1 and 2, the basic grant is nonconditional, meaning it does not have to be paid back.
- For students enrolled in VET levels 3 and 4 and in higher education, the basic grant is a "performance grant": it becomes a grant only if a student graduates within 10 years; otherwise, it is a loan.

The basic grant is higher for students who do not live with their parents – they receive an "out-of-home" grant.[48] In 2024, the out-of-home basic grant is:

- For students enrolled in VET: 296.51 euros per month, compared to 90.85 euros for students living with their parent(s).[49] The means-tested additional grant is approximately 25 euros per month higher for students living out of home.
- For students enrolled in higher education: 274.90 euros, compared to 110.30 euros. The additional grant is the same for all students.

In September 2015, the grant was abolished for students in higher education (higher professional and academic education), and they were only entitled to a governmental loan. For students in VET, the grant was not discontinued. The years after 2015 were a transitional phase, as students in higher education who had enrolled before 2015 maintained their grants. In September 2023, the grant was reinstated for all students in higher education.

DUO is responsible for handling all governmental student grants. DUO is an executing organization working under the responsibility of the Ministry of Education, Culture and Science.

[43] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 240.
[44] The Ministry of Education provided this information in an email to Amnesty International on 3 September 2024. The Ministry explained that this group was selected because only their personal data were still available in accordance with privacy regulations. Amnesty International received the letter from a student organization.
[45] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 243.
[46] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 240, p. 7
[47] Wet studiefinanciering 2000, Article 3.1.
[48] Wet studiefinanciering 2000, Article 3.6, sub 1.
[49] Wet studiefinanciering 2000, Article 3.18.

1.3 HOW THE DUO RISK PROFILING SYSTEM WORKED

The external studies, published in March and May 2024, show that, between 2012 and June 2023, DUO used a risk profiling system to assess which students were at "high risk" to abuse the grant and to inform decisions about which students to select for an investigation, usually a house visit. These studies give a detailed insight into how the DUO risk profiling system worked.

The risk profiling system consisted of two phases: first, all students who received an out-of-home grant were assigned a risk score through an algorithm. Second, a DUO employee manually selected students for a house visit based on the risk score and an additional list of selection and exclusion criteria. The Ministry of Education emphasizes in their response to a draft version of this briefing that the algorithmic risk profiling system in itself did not make decisions about whether or not a student was abusing the grant. This decision was made by DUO caseworkers (see Section 1.5).

PHASE 1: ALGORITHMIC RISK PROFILING

In phase 1, DUO used a rule-based algorithm[50] to calculate a risk score for all students ranging between 0 and 180 points. Based on the risk score, students were assigned to one of five risk categories ranging from "very high risk" (1) to "very low risk" (5), or the category "risk unknown".[51] The profiles with higher points were deemed to have a higher risk of fraud.

The algorithm used three criteria to calculate the risk score: age, distance between the student's address and the address of their parent(s), and education type.[52] Students of a younger age were assigned a higher risk score, as DUO estimated that younger students live away from their parents less often.[53] Students living within a closer distance to their parent(s) were assigned a higher risk score, as DUO estimated that they would more likely actually be living with their parents.[54]

The criterion "education type" was included as DUO estimated that "students with a lower" educational level less often lived out-of-home; in other words, that students with a "lower education level" were more likely to live with their parents.[55] The algorithm assigned different weighting factors to the different education types: factor 1.2 for VET levels 1-2; factor 1.1 for VET levels 3-4; factor 1 for higher professional education and factor 0.8 for academic education.[56] The different weighting factors correspond to the different levels of education, which means that students enrolled in "lower" education levels were automatically assigned a higher risk score than students enrolled in "higher" education levels (see Box 5 on the highly stratified Dutch education system).

PHASE 2: MANUAL SELECTION BY CASEWORKERS BASED ON A LIST OF CRITERIA

In phase 2, the list of students was manually assessed by DUO.[57] Students with a higher risk score had a higher chance of being further assessed by DUO caseworkers.[58] By collecting and assessing additional information, DUO caseworkers assessed which students were either prioritized for or excluded from a house visit. To assess whether to select students for a house visit, DUO focused mainly on students in the three highest-risk categories.[59] Criteria for selecting students included: registered close to the parent(s)" address, living with a family member, living with an older person who was not a family member, having a long travel distance to the education institute from the registered address, a relatively large number of registered residents compared to the square meters of the

[50] A rule-based algorithm is a system that is based on rules defined solely by natural persons to automatically execute operation.
[51] Algorithm Audit, Vooringenomenheid voorkomen, March 2024, p. 20.
[52] The criteria "age" and "distance between the student's registered address and their parent(s)'s address" were included by calculating a score based on specific combinations of age and distance. The criteria "age" was furthermore based on a combination of current age, age of moving out of home and age of registering at the current address. See Algorithm Audit, Vooringenomenheid voorkomen, 2024.
[53] DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 8.
[54] DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 8.
[55] DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 8.
[56] Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 19.
[57] DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 10-12.
[58] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 28.
[59] DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 11.

address, and possible recidivism.[60] Among the criteria for excluding students were: living in student housing, living alone, married students, "couples" (based on similar registration dates), and students living in care institutions.[61] DUO caseworkers had some discretion in deciding whether or not to select a student for a house visit.

Due to a legislative change in 2015, the grant became a loan for all students in higher professional and academic education. Students in VET, however, maintained the grant.[62] DUO considered adjusting the risk profiling system but decided not to.[63] As DUO only checks students who receive a gift or a grant that may be commuted to a gift, after September 2015 DUO eventually focused their checks on VET students only.[64] The risk profile system continued to distinguish between VET levels 1-2 and VET levels 3-4 by applying a weighting factor to the education types, thus automatically assigning a higher risk score to students enrolled in the "lower" VET levels 1-2.[65]

BOX 5: THE HIGHLY STRATIFIED EDUCATION SYSTEM IN THE NETHERLANDS

The Dutch education system is divided into three phases: primary, secondary, and tertiary education. From the secondary phase onwards, the system is strongly stratified based on tracks.[66] In the final year of primary school, at age 12, children receive a track recommendation based on performance and the teacher's assessment. The track recommendation determines their entry level for secondary school. Secondary school, in turn, is divided into three tracks,[67] where each prepares for a type of tertiary education: VET, higher professional education, or academic education. In the public perception, these tracks are levels ordered from "low" to "high" education. The tracks and a person's final tertiary education level are often indicative of future income level. In 2023, people with a higher professional or academic degree had an average personal income of 66,500 euros, compared to an average of 48,200 euros for people with a VET degree level 2, 3 or 4. People with a VET degree level 1 or lower had an average income of 39,300 euros.[68]

In the EU, VET is distinguished from higher education. In the Netherlands, both higher professional education and academic education fall under higher education and under the "bachelor's master's doctorate system" that was introduced in the EU in 2002.[69] This means that the diplomas are equivalent. However, in the Netherlands, it is still customary to value academic education as "higher" than higher professional education, as it was under the old system. This is, for example, reflected in recruitment and salary: five years after graduation, academic graduates have a salary that is 22% higher than that of higher professional graduates.[70]

Over the past few years, there has been public and political debate about the appreciation and recognition of VET students. Historically, it has been customary to speak of "low" (no tertiary education), "middle" (VET) and "higher" education. This terminology is increasingly criticized as it undervalues VET students and misrecognizes the importance of VET-level jobs, notably in health

[60] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 29, DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 11. Note that the lists of criteria in the reports do not match.
[61] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 29, DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 11.
[62] For students in VET levels 1-2, the grant is a nonconditional gift. For all other education types, up to September 2015, the grant was a conditional gift: if the student graduated within 10 years, the grant became a gift; otherwise, it was a loan.
[63] Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 18.
[64] There was a transitional period, as in 2015 and the years after, students enrolled in higher professional and academic education who had already enrolled before 2015 maintained the student grant.
[65] This was confirmed by the Ministry of Education in an email to Amnesty International received on 3 September 2024.
[66] J. Scheerens, A. Timmermans and G. van der Werf, *Socioeconomic inequality and student outcomes in the Netherlands*, Education Policy & Social Inequality 4.
[67] Junior vocational education (vmbo, age 12-16) prepares for vocational education and training (VET, in Dutch: mbo), which is divided into four levels (mbo-1/2/3/4). Senior general secondary education (havo, age 12-17) prepares for higher professional education (hbo) and pre-university education (vwo, age 12-18) prepares for academic education (wo).
[68] E. Denessen, *Onderwijs en sociale ongelijkheid*, 2024, p. 8.
[69] The bachelor's master's doctorate system is an educational system in the EU that is designed to standardize the educational system at European universities in order to harmonize study norms in terms of content, curriculum, syllabus, and course credits.
[70] Maastricht University, Research Centre for Education and the Labour Market, Rendement van bachelor en master diploma's, 2021.

care, construction, education and technical jobs.[71] The Ministry of Education is currently exploring options to replace the hierarchical terms with other terms, such as "practical", "theoretical", and "academic" education. In this briefing, Amnesty International uses the term "education type" while emphasizing the strongly stratified system and the historically undervalued position of VET students.

1.4 'DISCRIMINATION IS THE REALITY'

The external reports show that the risk profiling system disproportionally often categorized students of racialized groups, notably those with a "non-European migration background", as high risk.[72] In addition, the system profiled students enrolled in VET as high risk compared to students enrolled in other "higher" education types. Combined with additional manual selection and exclusion criteria, this led to DUO caseworkers disproportionally often selecting students from racialized groups for an investigation (Section 2 discusses the discriminatory effects in more detail).

Amnesty International spoke to five former students who claimed to be wrongfully accused by DUO of abusing the out-of-home grant in the years preceding the uncovering of the discriminatory risk profiling system. They had all appealed or wanted to appeal the initial decision with DUO and some of them challenged the fact that they were flagged for fraud by DUO in court (see details in Section 1.5). They had only later learned that DUO used a discriminatory risk profile, and some of them had received an apology letter from the government in April 2024.

Maureen told Amnesty International she was disappointed:

"I think it is a shame, disappointing, because it seems as if the government is trying to crack down on discrimination, also in schools and when people discover discrimination. So I think things are getting better here, while, for example, at such a large organization [like DUO] things are going so badly. Yeah, that this is actually not seriously looked into at all, that it seems as if it doesn't really matter."

Upon learning that the risk profiling system was based on education type, Tahira felt insulted:

"Like I'm stupid. Yes, now that I hear this, I feel insulted. As if we are lower on the social ladder than someone who is doing higher professional education or university. Like you're not serious about life."

Mohammed responded that checking students because of their education type is

"100% prejudice. You judge a person without knowing them."

Karima's viewed DUO's practice as one of many incidents of institutional discrimination:

"I felt dispirited. Because you grow up in a system in which, as a minority, you have been told over and over again that you should not have such a thin skin and that everyone has equal rights and that it is not that bad in the Netherlands. And that is true. Of course, I am just Dutch and I am very proud of the Netherlands. But in the meantime, you experience that you are treated differently, systematically, than, well, the blonde kids in your class."

Mohammed also noted the broader pattern:

"When you speak of discrimination, people say you put yourself in a victim role, but discrimination is the reality. It is always the same, look at the Tax Authorities, the banks, now DUO again."[73]

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[71] Tweede Kamer, vergaderjaar 2022–2023, 31 524, nr. 569.

[72] The term "migration background" is a commonly used term in the Netherlands and currently the term that is used in governmental policy. The external researchers use this term as well. The label "migration background" and the distinction between "European" and "non-European" migration background are used by Algorithm Audit in their reports on the DU system, based on data from Statistics Netherlands. Statistics Netherlands categorizes persons as having a "migration background" based on one's birth country and the birth country of both parents. When either the person or one or both of their parents are born outside the Netherlands, the person is categorized as someone with a migration background, regardless of their or their parents' citizenship. Non-European migration background includes persons born or whose parent(s) are born in the Caribbean Netherlands.

[73] Mohammed refers to the childcare benefits scandal (see Box 3) and to the recent uncovering of discrimination by banks that profile clients based on certain "non-Dutch" sounding names, see https://pilp.nu/en/ing-discriminates-against-customers-based-on-their-origin-in-transaction-checks/.

Amnesty spoke to the former students, the Minister had apologized, but had not yet announced that DUO's decisions would be reversed and students would receive financial restitution. For Ghizlan, the apology of the Minister in April 2024 did not make a difference:

"It's kind of late because they have all been doing this for years, and not a single year did they think, okay, this seems undue, every time it was the same group that was checked. And then you get a pathetic apology, I'll tell you honestly about this apology: I think it's professional and sweet that he did that, but that won't give me my years back. I had very big plans, but I won't get that time back."

Mohammed and Maureen both stressed that an apology alone is not enough:

"DUO acknowledges the error, but that's where it ends. Apologies won't help me. And I don't think the apologies are sincere because look at the Tax authorities and the childcare benefits scandal, the government doesn't learn. They have to act on it." (Mohammed)

"I think it's a bit weak, that's what I thought. But yes, I understand you can't do more, well it is possible to do more, but I mean, the easy way is, of course, this way. I'm glad it has at least been recognized. And I hope you see a difference. Not just apologies in words, but also with actions." (Maureen)

1.5 A HARSH ENFORCEMENT POLICY

The DUO risk profiling system was part of an invasive investigation procedure and an overall harsh enforcement approach to tackling fraud. The introduction of the enforcement policy dates back to July 2009, when a Dutch newspaper reported on students abusing the out-of-home grant, which led to political debate. In response, the Minister of Education announced an action plan to counter this alleged fraud.[74] Part of this plan was to scale up the investigations, introduce risk profiles, and amend the legislation in order to enable more effective enforcement.[75] Specifically, the legislation was amended in three ways.

- First, the definition of "living out of home" was changed in order to lower the threshold of the burden of proof for DUO. This means that DUO no longer has to prove that the student actually lives with their parent(s). Rather, if DUO can argue that it is "plausible" that a student does not live at their registered address, DUO is allowed to assume that the student is living with their parent(s) and is thus abusing the out-of-home grant.
- Second, DUO was appointed as an enforcement agency, allowing them to make house visits. Previously, DUO was allowed only to conduct administrative checks.
- Third, the government introduced the option to impose administrative fines for those found to be committing fraud. Previously, the government was allowed only to reclaim the excessive amount that was received by the student.

The amendment came into effect on 10 December 2011.[76]

In addition to checking and comparing various databases, DUO selects students for a physical address check to determine whether the student actually lives at the registered address.[77] A physical address check involves an unannounced house visit. If a house visit is not possible, for example, because no one opens the door, controllers can conduct a "neighbourhood investigation" (see Box 6). DUO has contracted several private companies to conduct these checks. Between 2012 and 2022, 24,000 house visits took place.[78]

[74] Tweede Kamer, vergaderjaar 2008–2009, Aanhangsel Handelingen, nr. 3686.
[75] Tweede Kamer, vergaderjaar 2009–2010, 24 724, nr. 88.
[76] Staatsblad van het Koninkrijk der Nederlanden, jaargang 2011, nr. 579, https://zoek.officielebekendmakingen.nl/stb-2011-579.html.
[77] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 26.
[78] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 26.

After their investigation, the external controllers send a report with a description of the house visit or neighbourhood investigation and their advice to DUO.[79] DUO decides whether there is sufficient information to assume that the student is not living at the registered address and is thus abusing the out-of-home grant. If DUO establishes that the student is abusing the grant, DUO commutes the out-of-home grant to a basic grant and reclaims the excess grant received by the student. The total sum to be repaid would be about 2000 euros for each year. In addition, DUO can impose an administrative fine: up to 50% of the excess grant received for first-time fraud and up to 100% for recidivism.[80] In case of recidivism, DUO can also decide that the student is no longer eligible for any type of student grant.[81]

A student has the right to object to the decision with DUO within six weeks and to appeal the subsequent DUO decision before the District Court.[82] If a student disagrees with the court decision, they may make an appeal against it at the CRvB within six weeks after the ruling.[83]

BOX 6: INVASIVE HOUSE VISITS AND SIGNALS OF BIASED INVESTIGATIONS

A house visit means that the controller not only enters the student's house and living quarters, but also may request the student to open cupboards, show clothing and personal hygiene items and even medication.[84] If a house visit is not possible, controllers may conduct a "neighbourhood investigation" by questioning co-residents and neighbours, as long as their statements are according to the controllers "objective and verifiable".[85]

After allegations of a discriminatory procedure in the media in June 2023, the Minister announced that DUO would change their investigation procedure, allowing students to provide additional information after the house visit, which DUO would have to take into account in its decision.[86] In October 2023, the Minister acknowledged that house visits are an "invasive measure that infringes on the private life of students and possible co-residents".[87] Therefore, the Minister announced to start exploring other investigation methods, among which a pilot with a small sub-sample of students to allow students to submit documental proof prior to the house visit.[88] If students provide evidence that they live at the registered address, DUO may consider omitting the house visit. At the time of writing this briefing, the results of this pilot are not yet publicly available.

External controllers receive instructions from DUO on how to conduct the investigation, but these are not publicly available.[89] House visits and neighbourhood investigations open doors to additional biases that may influence the investigation of the controllers and their report to DUO. A student or their co-residents are not obligated to cooperate with the house visit; controllers can only enter the house with consent. Objecting to a house visit formally does not affect DUO's decision on the continuation of the out-of-home grant. However, it is likely that students feel pressured to consent to the house visit, as a student may be concerned that objecting to a house visit raises "suspicion" with the controller. It is indeed possible that such an objection raises "suspicion" with the controller, as the controller is tasked with assessing whether a student lives at the address or not.

Furthermore, journalists have reported that controllers seem to use standard questions in the neighbourhood investigation, which include whether a "student" lives at the address (see

[79] Between 2012 and 2017, external controllers were municipal employees and private parties, after 2017 only private parties, see PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 28.
[80] Wet studiefinanciering 2000, Article 9.9, sub 1, and Article 9.9a, sub 1.
[81] Wet studiefinanciering 2000, Article 9.9a, sub 3.
[82] https://duo.nl/particulier/oneens-met-duo/bezwaar-maken.jsp.
[83] https://www.rechtspraak.nl/English/Dutch-legal-proceedings/Benefits-appeal.
[84] This appeared from the interviews by Amnesty International with Ghizlan and Tahira and from interviews with students by Platform Investico, https://www.platform-investico.nl/onderzoeken/de-discriminerende-fraudecontroles-van-duo.
[85] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 29.
[86] Tweede Kamer, vergaderjaar 2022–2023, 24 724, nr. 212, p. 2.
[87] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 217, p. 2.
[88] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 217, p. 2.
[89] Amnesty International filed a Freedom of Information request with the Ministry of Education on 10 September 2024 to obtain insight into the instructions. At the time of writing of this briefing, the Ministry had not yet decided on the request.

Mohammed's case below)[90]. An expert in witness statements told journalists that the word "student" is suggestive, as people have different ideas about what a student looks like and how they behave or live.[91] Students who are working a lot or students of racialized groups may not fit the stereotypical image of a "student" that many people may have.

In response to questions from Amnesty International, the Ministry of Education informed that the practices of external controllers have not been evaluated at any moment.[92] This means that bias or discrimination in the investigation itself cannot be ruled out.

HARSH DECISIONS

Lowering the burden of proof means that DUO no longer has to prove that a student is in fact living with their parent(s). Rather, if DUO finds that there is sufficient information to assume that a student does not live at their registered address, DUO is allowed to assume that the student is living with their parent(s) and is thus abusing the out-of-home grant. This could result in harsh decisions that left no room for mistakes or individual circumstances, as the stories of Karima and Maureen demonstrate.

Karima had studied in Belgium for two years before she moved back in 2009 to the Netherlands and settled in Amsterdam to study medicine. Her parents lived in Rotterdam, and whilst she was studying, she never lived with them. When moving to Amsterdam, she formally registered there but forgot to change her address in the student registration system (Studielink). Therefore, on the student registration system, she was still listed as living in Belgium. In 2013, she received a letter from DUO noting the registrations did not match and that, therefore, DUO decided that she was not living where she stated she lived. Because DUO does not have to prove that she actually lives with her parents, this was sufficient to revoke the out-of-home grant and reclaim the excess grant she had received for about three years. It is clear that even though Karima had forgotten to update her records, she was indeed eligible to receive the out-of-home grant, even if she had lived in Belgium. However, DUO still decided that Karima was abusing the grant:

"While, if they had looked at where my parents live, they would have seen that it was not the same address, and moreover, while I lived in Belgium I was also entitled to an out-of-home grant. So the fact that I would actually live at home is a very strange conclusion."

Because Karima missed the deadline to appeal DUO's decision within six weeks, DUO told her they could not correct the mistake because the term had expired. Once the term expires, there is no other procedure available for appeal or redress.

Maureen was in the final year of her vocational education and training in hospitality management when DUO selected her for an investigation. She told Amnesty International that she was not at home when the controllers came by for a house visit. While she was studying between 2018 and 2021, she lived with her grandmother in Rotterdam. Her mother lives in a nearby town. In November 2021, controllers came by unannounced several times to conduct a house visit. After a couple of attempts, her grandmother felt pressured to let the controllers do the house visit, even though Maureen was not at home. Because it was just five days before she was leaving to Curaçao for a five-month internship, she was staying with her mother at the time. Most of Maureen's personal things – such as clothing and her laptop – were already packed, and because her mother would take her to the airport, she had her suitcases at her mother's house. Because the controllers had found few personal items at the address, DUO concluded that she was not living with her grandmother and decided that she was abusing the out-of-home grant. "They just came at a very unfortunate moment, as I was preparing to leave, and they didn't take that into account", Maureen said. At the time, it was standard procedure that DUO would not give a student the opportunity to clarify the situation before the decision was made, even when they had never spoken with the controllers or DUO caseworkers. Maureen thus did

[90] https://www.platform-investico.nl/onderzoeken/de-discriminerende-fraudecontroles-van-duo.
[91] https://www.platform-investico.nl/onderzoeken/de-discriminerende-fraudecontroles-van-duo.
[92] Email from the Ministry of Education received by Amnesty International on 3 September 2024.

not have an opportunity to clarify her situation to DUO before the decision was made. DUO decided to revoke Maureen's out-of-home grant.

Maureen had to repay the out-of-home grant to DUO, an amount of 3,500 euros, and her grant was commuted to a lower grant for students living with their parents. This led to financial problems during her internship in Curaçao:

"Because if you do an internship outside Europe, all costs are yours, and I chose to do that myself, because I knew that I could manage with the out-of-home grant [that continues during an internship abroad], so I had already calculated that it would turn out fine. But when DUO revoked the grant in December [after DUO's decision], it really caused me problems. I have a credit card but just for emergencies, but I had to overuse it a bit, which meant that when I came back from Curaçao I simply had too much debt. And I was just able to make it, but in the end, it just wasn't possible anymore, so I had to borrow money, too, and it took a very long time to pay it back. And actually, to this day, my credit card balance is still not where I want it to be."

It was often difficult for students to prove to DUO or the court that they were actually living at the registered address, as Maureen's case illustrates. Mohammed also had great difficulty proving to the court that he lived at the registered address.[93] Their stories also raise the question of whether the burden of proof is not lowered but, in effect, reversed.

In the final year of his studies, Mohammed moved in with his uncle to support him in caring for his grandmother. This meant he was eligible for the out-of-home grant. External controllers attempted a house visit four times during the daytime, but because Mohammed combined his studies, a full-time internship and a job as a taxi driver, he was often away. His uncle also worked during the day. The controllers did a neighbourhood investigation, collecting three testimonies by neighbours stating that they had never seen "a student" at Mohammed's address (see Box 6). Mohammed noted that he was home irregularly, had never introduced himself to his neighbours and that he may not fit some people's preconceived ideas of what a student should look like. However, DUO found the neighbours' testimonies sufficient evidence that he was not living there and decided to revoke the out-of-home grant (an amount of 1,269.60 euros) and fined him an amount of 634.80 euros. Mohammed himself never met with any controllers or DUO caseworkers. He appealed both decisions separately at the District Court. On revoking the grant, the court judged that DUO had sufficiently established that it was "plausible" that Mohammed did not live there and that he had not provided "irrefutable evidence" that he lived there, ruling in favour of DUO. However, in the case about the fine, the court judged that, because an administrative fine is a "burdensome decision" and a "punitive sanction", DUO is required to conduct a more thorough investigation. The court ruled that DUO could not sufficiently "demonstrate" that Mohammed did not live there, ruling in favour of Mohammed. Mohammed's case demonstrates that for a decision to revoke the grant, DUO merely needed to establish that it was "plausible" that a student didn't live at the address, even if the information that DUO had was insufficient to draw that conclusion.

The very low burden of proof in favour of DUO made students vulnerable to wrongful decisions confirming "fraud", resulting in financial harm to them. In effect, being selected for a house visit in itself increased the chance that a student was wrongfully accused of abusing the grant, due to the difficulties for students to disprove the DUO's findings based on the house visit or neighbourhood investigation.[94] Because of the discriminatory way in which DUO selected students for a house visit, based on the risk scoring and other selection and exclusion criteria, students of racialized groups and students enrolled in VET, specifically VET levels 1-2, had an even higher chance of being wrongfully accused of fraud.

Being wrongfully accused of fraud and the consequences had a serious impact on students. For Maureen, it was more than just the financial impact:

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[93] Mohammed told his story to journalists in 2023: https://www.trouw.nl/onderwijs/student-mohammed-elazizi-ik-begrijp-niet-waarom-duo-mij-als-fraudeur-ziet~b43c599e/. Amnesty International verified the information with Mohammed and his lawyer and received the court judgements.
[94] The cases of Ghizlan and Tahira also testify to this. Amnesty International had insight into the legal documents of their case.

"The financial aspect also had a mental impact because, for example, I had to bother my mother. While I made the choice to go abroad, because I was ready. And then it actually seemed like I'm not ready. While I'm a grown woman, so I could do it. But because of DUO, I could no longer do it. So that did affect me."

Karima noted how being falsely flagged as someone who had committed fraud made her worry that this would impact other aspects of her life:

"Also, what kind of list am I on? I have no idea, am I a fraud now? I remember graduating and having to apply for the Certificate of Good Conduct for my first job as a doctor. I was nervous, am I a fraud now? I don't know. Mortgage applications were also something I thought, yes, this is going to pop up. I don't know, you have no insight into that at all, am I on some list now?"

Tahira said that she had suffered health problems that resulted in her requiring medical treatment due to the severe stress caused by the wrongful accusation and resultant penalties. She had to work hard for her training, which was stressful in itself, and being wrongfully accused and fined added to that. She worried a lot and had sleepless nights:

"Because you think, you know, I can't just rest for a day or take a week off, because I had to pay 600 or 700 euros in fixed costs of living. And a dental assistant gets minimum wage, a side job is also not very much, so it was really double, double hard work to be able to keep up with that every month. That went on for 1.5 years, that really had an impact, also on my physical health."

Ghizlan prematurely terminated her education to become a personal coach in social care because she feared being checked and wrongfully accused again. She later picked up her education but continued to be afraid of checks. She felt that her landlord pressured her to move and that her co-residents were bothered by the checks by DUO. It also had a wider impact:

"For a while, I was really turned off by the Netherlands and the government, and I thought, yes, I don't really want anything to do with you. I thought, what am I doing here, I don't belong here, but well, I was born here, and I can't suddenly emigrate to another country. Look, you're also just creating citizens who loathe the government, and that's not right. You all live here together. You help society by studying and working."

Mohammed also noted the impact of being treated this way by the government:

"It's not about the money, but it is frustrating. DUO gets the benefit of the doubt, while they should have to prove that I am wrong. The citizen is always punished so hard, but when they make a mistake, you only get a lame excuse. You are distrusted purely because of who you are."

1.6 PLANS TO REINTRODUCE RISK PROFILING

In March 2024, along with the apology, the Minister announced plans to redevelop and reintroduce a "risk-based" enforcement approach. In his letter, the Minster stated that the current selection procedure based on random sampling is "not effective" and that, therefore, it is "necessary to search for a new, effective form of risk-based enforcement, that involves only a differential treatment which is acceptable".[95] The Minister did not further explain this. According to the Ministry of Education, the ineffectiveness of random selection would appear from "a low percentage of detected abuse of the grant since Summer 2023 [when the system was discontinued]", namely 0.54%.[96] The Ministry further refers to the PwC report that indicates that risk profiling was more effective than random selection.[97] In addition, the Ministry refers to the report by Algorithm Audit, which states "the

[95] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 240, p. 7. "[…] acht ik het noodzakelijk om op zoek te gaan naar een nieuwe, effectieve vorm van risicogericht toezicht, waarbij alleen verantwoord onderscheid wordt gemaakt."
[96] The Ministry of Education provided this information by email on 3 September and 1 November 2024 in response to questions from Amnesty International. The percentage is based on internal data from DUO on the number of cases in which DUO revoked the grant, compared to the investigated cases. Note that after June 2023, the decision-making procedure changed as well, allowing students to provide additional information after the house visit that DUO should take into account, see Box 6.
[97] The Ministry of Education provided this information in an email to Amnesty International on 1 November 2024 and refers to PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 35 and 42.

effectiveness is evident from the fact that more improper use of the out-of-home grant has been identified with application of the [risk profiling system] than with random samples".[98] The Ministry concludes that checks based on the risk profiling system "thus appear to be approximately 10 times more effective compared to checks based on random selection".[99] (See more on the role of effectiveness in assessing criteria in risk profiling in Section 2.2.)

The Ministry of Education has informed Amnesty International that the Ministry and DUO have started working on a plan to redevelop the risk-based enforcement system in September 2024, but that there are currently no concrete plans for reintroducing a risk-based system.[100] The Minister, in addition, stated that "I intend to develop a new vision on enforcement of the out-of-home grant with a matching approach to checking [students]. In doing so, I will take into account the recommendations from the PwC report and the lessons learned from the internal investigation by DUO, as well as the results of the investigation that the DPA is currently conducting".[101]

However, the risk of repetition remains high because the government so far has not conducted a comprehensive and correct test of the DUO system against the prohibition of discrimination, which means that the standards for risk profiling remain unclear. Clear standards are necessary not only because the Ministry of Education wants to redevelop the risk-based fraud detection but also because other government organizations in the Netherlands use risk profiling to identify potential fraud or crime. Although the Dutch government has apologized for indirect racial discrimination, it has not explicitly acknowledged that the DUO system entailed discrimination on the grounds of economic and social situation, nor has it conducted or commissioned a detailed human rights analysis of indirect discrimination based on race and economic and social situation, nor of intersectional and multiple discrimination. The DPA, in its report of November 2024, concludes that DUO's risk profiling algorithm was discriminatory, but also did not test against, nor explain in detail, the prohibition of discrimination, including the justification test to assess whether there may be an objective justification for differential treatment based on protected grounds.

Detailed insight into how the DUO system violated the right to non-discrimination is necessary to ensure that the redevelopment of the system, as well as the use of similar risk profiling systems by other governmental agencies, are in line with the right to equality and non-discrimination. This research briefing, therefore, includes a detailed analysis of the different ways in which the DUO system discriminated against students on the grounds of race and economic and social situation.

2. DISCRIMINATORY PROFILING IN DIFFERENT WAYS

2.1 HUMAN RIGHTS FRAMEWORK FOR EQUALITY AND NON-DISCRIMINATION

Discrimination is prohibited by international human rights law.[102] The International Covenant on Economic, Social and Cultural Rights (ICESCR) obligates state parties to guarantee that economic, social and cultural rights "will be exercised without discrimination of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status".[103] The UN Committee on Economic, Social, and Cultural Rights (CESCR) has emphasized that the

[98] The Ministry of Education refers to Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 8: "This concerns 3.6% and 3.8% effectiveness respectively in the random samples of 2014 and 2017 and 38.9% and 35.3% effectiveness respectively when applying the CUB process in 2014 and 2019 in which the risk profile was used."
[99] The Ministry of Education provided this information in an email of 1 November 2024 in response to questions from Amnesty International.
[100] In-person conversation between Amnesty International and the Ministry of Education on 15 October 2024.
[101] The Ministry of Education provided this information in an email of 30 October 2024 in response to questions from Amnesty International. See also Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 220, p. 7.
[102] Universal Declaration of Human Rights (UDHR), Art. 1, 2 and 7; International Covenant on Civil and Political Rights (ICCPR), Art. 2 and 26; International Covenant on Economic, Social and Cultural Rights (ICESCR), Art. 2; International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), Art. 1.
[103] ICESCR, Art. 2, par. 2.

principle of non-discrimination applies to all rights in the ICESCR, including the right to social security.[104] The CESCR notes that "discrimination constitutes any distinction, exclusion, restriction or preference or other differential treatment that is directly or indirectly based on the prohibited grounds of discrimination and which has the intention or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of Covenant rights".[105] Direct discrimination occurs when an individual is treated less favourably than another person in a similar situation for a reason related to a prohibited ground.[106] Indirect discrimination refers to "laws, policies or practices which appear neutral at face value, but have a disproportionate impact on the exercise of Covenant rights as distinguished by prohibited grounds of discrimination".[107] The CESCR notes that there may be a reasonable and objective justification for the differential treatment, provided that the aim and effects of the measures are legitimate and that there is a clear and reasonable relationship of proportionality between the aim sought to be realized and the measures or omissions and their effects.[108]

The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) prohibits racial discrimination of all forms, including in the exercise of economic, social and cultural rights.[109] Racial discrimination is defined in ICERD as "any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms".[110] The Committee on the Elimination of All Forms of Racial Discrimination (CERD) has established that the prohibition extends to indirect racial discrimination: "In seeking to determine whether an action has an effect contrary to the Convention, it will look to see whether that action has an unjustifiable disparate impact upon a group distinguished by race, colour, descent, or national or ethnic origin".[111]

Discrimination, both direct and indirect, is also prohibited in European human rights law.[112] The European Convention on Human Rights (ECHR) prohibits discrimination "on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status". The Netherlands has ratified Protocol 12 (2000) to the ECHR, which expands the scope of the prohibition of discrimination to the enjoyment of any right, including rights under national law. Under European human rights law, there can be an objective and reasonable justification for differential treatment that is based on protected grounds, provided that it pursues a legitimate aim and that the means to achieving that aim are appropriate and necessary.[113] The European Court of Human Rights (ECtHR) has established that it must be shown that there is a reasonable relationship of proportionality between the means employed and the aim pursued.[114] To determine whether the differential treatment is proportionate, it must be shown that there are no other means available that impose less of an interference with the right to equal treatment and that the aim to be achieved is important enough to justify this level of interference.

For a differential treatment, whether direct or indirect, based on a "suspect ground", the ECtHR has developed an additional test: there can be an objective and reasonable justification only if there are

[104] UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment no. 20 (non-discrimination), para. 7. UN Doc. E/C.12/GC/20 (2009); UN CESCR, General Comment no. 19 (the right to social security).
[105] CESCR, General Comment no. 20 (non-discrimination), para. 7. See also ICERD, Art. 1, para 1.
[106] CESCR, General Comment no. 20 (non-discrimination), para. 10, sub a.
[107] CESCR, General Comment no. 20 (non-discrimination), para. 10, sub b.
[108] CESCR, General Comment no. 20 (non-discrimination), para. 13.
[109] ICERD, Art. 1, para 1 and art 5, sub e.
[110] ICERD, Art. 1, para 1.
[111] CERD, General Recommendation No. 14 on Article 1, paragraph 1, of the Convention, 1993, para 2; in the context of criminal justice see CERD, General Recommendation No. 31, 2005, para. 4 and 5; in the context of algorithmic risk profiling by law enforcement see CERD, General Recommendation No. 36, 2020, para. 32.
[112] European Convention on Human Rights (ECHR), Art. 14 and Protocol 12; See also European Commission against Racism and Intolerance (ECRI), General Policy Recommendation No. 7 on national legislation to combat racism and racial discrimination, 2002, amended in 2017, para. 1 and 4.
[113] ECtHR, 29 April 2008, No. 13378/05 (Burden v. the United Kingdom), para. 60; ECtHR, 22 March 2016, No. 23682/13 (Guberina v. Croatia), para. 69.
[114] ECtHR, 29 April 2008, No. 13378/05 (Burden v. the United Kingdom), para. 69.

"very weighty reasons" for the differential treatment.[115] Some protected grounds are "suspect" because they are immutable personal characteristics, irrelevant for performing in society, and/or go hand in hand with historical or social discrimination and stigmatization.[116] Suspect grounds include race and ethnicity. The ECtHR has also established that the very weighty reasons test must be interpreted "as strictly as possible".[117] In practice, these requirements will not easily be met. The test is thus "strict in theory, fatal in practice": when seemingly neutral criteria result in a differential impact on groups based on race, this practically always constitutes indirect discrimination on the grounds of race.[118]

Within the European Union, the Charter of Fundamental Rights of the EU prohibits discrimination on an open list of grounds.[119] However, the prohibition on discrimination applies only where the matter falls within the scope of EU law, and the nature and scope of the right to non-discrimination differs greatly for various protected grounds. Exceptions to direct discrimination are justified only if they are explicitly specified in EU law, while indirect differential treatment may be generally justified, provided that it pursues a legitimate aim and the means of achieving that aim are appropriate and necessary.[120] In the context of social protection, among which student benefits, the EU Racial Equality Directive (RED) prohibits discrimination based on "racial or ethnic origin".[121]

While the onus is normally on the person bringing the claim to prove differential treatment based on a protected ground, European non-discrimination law allows the burden of proof to be shared.[122] That means that once the claimant brings sufficient evidence to suggest that discrimination may have occurred, the burden of proof shifts, and it falls on the defendant to prove otherwise or to prove that there is an objective and reasonable justification for the differential treatment.

In the Netherlands, Article 1 of the Dutch Constitution prohibits discrimination on the grounds of "religion, belief, political opinion, race, sex, disability, sexual orientation or on any other grounds whatsoever". The Equal Treatment Act prohibits direct and indirect discrimination on a limited number of grounds, including race, but not socio-economic status or education type, and in the context of social protection, only discrimination on the grounds of race is prohibited.[123] The Act specifies that an indirect differential treatment may be objectively justified by a legitimate aim, provided that the means to achieve that aim are appropriate and necessary.[124] The Act also specifies the shift in the burden of proof when a claimant provides sufficient evidence for discrimination.[125]

BOX 7: EXTERNAL RESEARCH INTO THE DUO SYSTEM

Amnesty International's analysis of the discriminatory nature of the DUO risk profiling system is based on three reports on the DUO system commissioned by the government that were published in 2024 by PwC and Algorithm Audit. The researchers had access to relevant documentation as provided by DUO and the Ministry of Education and interviewed (former) employees.[126] A report by PwC, commissioned by the Minister of Education, includes a qualitative analysis of the enforcement policy and the risk profile, as well as a quantitative analysis of the disparate effect of the risk

[115] ECtHR, 24 May 2016, No. 38590/10 (Biao v. Denmark), para. 114. See J. Gerards, "The Margin of Appreciation Doctrine, the Very Weighty Reasons Test and Grounds of Discrimination", in: M. Balboni (red.), The ECHR and the Principle of Non-discrimination. Napoli: Editoriale Scientifica, 2017, p. 9. When a ground is "suspect" there is an a priori suspicion that the difference in treatment cannot be justified and this suspicion can be removed only by showing very weighty reasons supporting the unequal treatment.
[116] J. Gerards, "Intensity of Judicial Review in Equal Treatment Cases", 51 Netherlands International Law Review.
[117] ECtHR, 13 November 2007, No. 57325/00 (D.H. and Others v. the Czech Republic), para. 196; see also ECtHR, 10 November 2022, Nos. 49636/14 and 65678/14 (Bakirdzi and E.C. v. Hungary), para. 50.
[118] Gerards, 2017, p. 9.
[119] Charter of Fundamental Rights of the European Union, Art. 20 and 21.
[120] CJEU, 16 July 2015, C-83/14 ("CHEZ Raspredelenie Bulgaria" AD v. Komisia za zashtita ot diskriminatsia; EU Racial Equality Directive (2000/43/EC), Art. 2, para. 2.
[121] EU Directive 2000/43 on equal treatment on grounds of racial or ethnic origin, Art. 3, sub e.
[122] ECtHR, Timishev v. Russia, Nos. 55762/00 and 55974/00, 13 December 2005, paras 40-44; Racial Equality Directive (2000/43/EC), Art. 8.
[123] Algemene wet gelijke behandeling (Awgb), Art. 1(1) sub c and 7a (1).
[124] Awgb, Art. 2, sub 1.
[125] Awgb, Art. 10, sub 1.
[126] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 17-18; Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 16.

profiling system on students with a "migration background".[127] One of the research questions was whether the system resulted in, or could result in, direct or indirect discrimination in each of the steps in the selection and investigation procedure.[128] While PwC did not have access to individual-level data on the background of students, PwC established that the risk-based protocol very likely disproportionally often targeted students with a "migration background".[129] Algorithm Audit was commissioned by DUO to analyse the algorithmic system and published two reports. The first includes a qualitative and quantitative analysis of the risk profile and risk criteria, and the second includes a quantitative analysis of the disparate effect on students with a "(non-European) migration background" using individual-level data provided by Statistics Netherlands.[130] The latter report confirmed and refined PwC's findings that students with a "non-European migration background" were disproportionately often categorized as (very) high risk and selected for a house visit.

While the PwC and Algorithm Audit reports give insight into how the system disproportionally targeted racialized groups, do not contain a human rights analysis as they do not they test their findings against the right to equality and non-discrimination, nor do they draw conclusions about whether or not the differential treatment amounts to prohibited discrimination. PwC explicitly states that their research "does not judge the legitimacy" of the risk-based selection protocol.[131] While the Algorithm Audit report refers to the right to non-discrimination in national and European laws, it explicitly states that their research "is not [...] a research into the question whether the risk profile and/or the selection protocol were discriminatory. This is a legal question [...] that cannot be answered as such in this report."[132]

2.2 RISK PROFILING BY DUO CONSTITUTES RACIAL DISCRIMINATION

In risk profiling, using criteria that refer directly to race, colour, descent, or national or ethnic origin constitutes direct racial discrimination, which violates the right to equality and non-discrimination. As explained in Section 2.1, in the context of social protection, among which student benefits, the EU Racial Equality Directive (RED) prohibits racial discrimination. Furthermore, the ECtHR has established that a differential treatment that is to a decisive extent based on race cannot be objectively justified.[133] This means that using race as a criterion in risk profiling, regardless of whether other criteria are also included, always constitutes racial discrimination and is thus prohibited.[134] The DUO system did not include criteria that referred directly to race, colour, descent, or national or ethnic origin.

However, racial discrimination may occur even when seemingly neutral characteristics or data are used as risk criteria to assess the likelihood of persons committing fraud. In algorithmic systems, a seemingly neutral characteristic may serve as a "proxy" for race or ethnicity when this characteristic

[127] PwC, Onderzoek misbruik uitwonendenbeurs, 2024.
[128] Tweede Kamer, vergaderjaar 2022–2023, 24 724, nr. 211.
[129] PwC did not have sufficient data to analyze discrimination on an individual level and instead used the composition of the neighbourhood where a student lives as a proxy for a student's migration background. PwC found that students living in neighbourhoods with a high proportion of residents with a migrant background were more likely to be selected for a house visit.
[130] Tweede Kamer, vergaderjaar 2023–2024, 24 724, nr. 240. Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024. This analysis is based on individual-level data on students' migration background, using data from Statistics Netherlands (CBS). Non-European migration background includes persons who are born or whose parent(s) are born in the Caribbean Netherlands.
[131] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 38.
[132] Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 4.
[133] ECtHR, 13 December 2005, Nos. 55762/00 and 55974/00 (Timishev v. Russia), para. 58: "In any event, the Court considers that no difference in treatment which is based exclusively or to a decisive extent on a person's ethnic origin is capable of being objectively justified in a contemporary democratic society built on the principles of pluralism and respect for different cultures."
[134] In a case brought by Amnesty International against the State of the Netherlands about racial profiling by the Dutch border police, the Dutch Court of Appeal confirmed in line with the ECtHR that there can never be an objective and reasonable justification for race as a criterion in risk profiling. Court of Appeal of The Hague, 14 February 2023, ECLI:NL:GHDHA:2023:173, para. 8.20 (English translation: https://www.amnesty.nl/content/uploads/2023/04/Ruling-Court-of-Appeal-Amnesty-International-c.s.-v-The-State-of-the-Netherlands-14-Feb-2023-ECLI-NL-GHDHA-2023-173-translation.pdf?x12922).

statistically correlates with race, colour, descent, or national or ethnic origin. When seemingly neutral criteria result in a disparate adverse impact on individuals or groups based on race or ethnicity without an objective and reasonable justification, this constitutes indirect racial discrimination.

SEEMINGLY NEUTRAL RISK CRITERIA ARE PROXIES FOR RACE

For the DUO system, all three risk criteria in the algorithmic risk profile turned out to be proxy characteristics for race. This was established by statistical analysis by external researchers, published in 2024, of the effect of the DUO profiling system on students' risk scores and students' selection for a house visit.[135] The external researchers analysed the disparate effect for students with a "migration background", distinguishing between "European" and "non-European" migration background, versus students with a "Dutch" background for the years 2014 and 2019.[136]

Statistical analysis of the DUO system shows that in both years (2014 and 2019), education type was a "strong proxy" for students with a non-European migration background.[137] In 2014, 22% of students receiving an out-of-home grant had a non-European migration background.[138] Within the group receiving the out-of-home grant, students with a non-European migration background are strongly overrepresented in VET levels 1-2 (63.3%) and VET levels 3-4 (40.2%) and underrepresented in academic education (13.2%).[139] In 2019, 47.7% of students receiving an out-of-home grant had a non-European migration background.[140] Almost all students receiving the grant in 2019 were VET students; as of September 2015, the student grant was phased out for students enrolled in higher education due to a legislative change. In 2019, 72% of the students enrolled in VET levels 1-2 had a non-European migration background, compared to 38.5% of students enrolled in VET levels 3-4.[141]

The external research furthermore shows that the distance between a student's address and the address of their parent(s) was also a "strong proxy" for students with a non-European migration background.[142] One reason for this correlation may be that children of Turkish-Dutch and Moroccan-Dutch parents, and to a lesser extent children of Surinamese-Dutch parents, statistically, on average, live closer to their parents compared to children of parents with a "Dutch" background.[143] The correlation between distance and migration background may be reinforced because children with a VET degree are more likely to live close to their parent(s) compared to children with a "higher" professional or academic education.[144]

The statistical analysis also shows that age was an "inverse proxy" for students with a non-European migration background, which means students with a non-European migration background were likely to be older than students with a Dutch background.[145] They would thus be less likely to be flagged as high risk on this basis as the algorithm treated younger students as being more high risk.[146] However, the analysis by the external researchers further shows that the inverse character of age does not cancel out the strong proxy effects of education type and distance.[147] One reason for this inverse correlation may be that the educational careers of students of racialized groups more often take longer due to structural barriers that they face in education. For example, pupils with a "non-European

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[135] The statistical analysis was conducted by Algorithm Audit, an independent research and advice bureau hired by DUO. See Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024.
[136] The label "migration background" and the distinction between "European" and "non-European" migration background are used by Algorithm Audit based on data from Statistics Netherlands. Statistics Netherlands categorizes persons as having a "migration background" based on one's birth country and the birth country of both parents. When either the person or one or both of their parents are born outside the Netherlands, the person is categorized as someone with a migration background, regardless of their or their parents" citizenship. Non-European migration background includes persons who are born or whose parent(s) are born in the Caribbean Netherlands.
[137] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 28.
[138] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 19.
[139] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 30.
[140] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 19.
[141] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 33.
[142] Algorithm Audit, Addendum Vooringenomenheid voorkomen, May 2024, p. 28.
[143] Sociaal en Cultureel Planbureau (SCP), Jaarrapport Integratie, 2020, p. 205. A migration or Dutch background is, according to the categorization of Statistics Netherlands, dependent on the country where a person and their parents are born, see footnote 2. According to this definition, people with a Dutch background are born in the Netherlands, or at least one parent is born in the Netherlands. They could still also belong to a racialized group.
[144] SCP, Jaarrapport Integratie, 2020, p. 209-210.
[145] SCP, Jaarrapport Integratie, 2020, p. 28.
[146] SCP, Jaarrapport Integratie, 2020.
[147] SCP, Jaarrapport Integratie, 2020.

background" more often start in a "lower" school level compared to their capabilities and are more likely to achieve upward mobility by diploma stacking and switching between levels.[148]

Finally, several selection and exclusion criteria used in the manual selection phase also likely correlate with race. As shown above, distance to the address of the parent(s) is correlated to migration background and was in the manual selection phase again a reason to select students for a house visit, thus likely reinforcing the disparity. Furthermore, as multiple criteria refer to housing circumstances, it is relevant to note that, in general, in the Netherlands, people of racialized groups face racial discrimination in the housing market.[149] Research shows that students from racialized groups face difficulties when housing involves a selection procedure where candidates are interviewed and selected by sitting tenants (often other students).[150] International students also face discrimination, making it more difficult for them to access certain types of student housing.[151] In addition, anecdotal evidence suggests that living with a family member is more common for young people among some cultural groups than others.[152] Excluding students living alone will more often apply to students with more income or wealth or with financial support from parents, thus sifting out certain social groups.

A DISCRIMINATORY EFFECT

Further statistical analysis of the outcomes of the DUO system shows that in 2014 and 2019, the algorithm disproportionally impacted students of racialized groups. In 2014, students with a "non-European migration background" were overrepresented in the categories "very high risk" and "high risk" and underrepresented in the low-risk categories. While students with a "non-European migration background" made up 22% of the group who received an out-of-home grant, they made up 36% of the (very) high-risk category.[153] A comparison of the probability for different groups to be classified by the algorithm as high risk shows that students with a "non-European migration background" were twice as likely to be classified as high risk compared to students with a "Dutch background".[154] In 2019, students with a "non-European migration background" were underrepresented in the lower risk categories: while they made up 39% of the group who received an out-of-home grant, they made up 25.2% and 22.8% in the "low risk" and "very low risk" categories respectively.[155]

The subsequent manual selection procedure conducted by DUO caseworkers, based on a list of selection and exclusion criteria, further reinforced the disproportionate outcome. The external researchers found that in 2014 and 2019, students with a "non-European migration background" were more likely to be selected by DUO for a house visit, regardless of their risk category.[156] In 2014, within the "high risk" category, students with a "non-European migration background" were 5.5 times more likely to be selected for a house visit compared to students with a "Dutch background".[157] Within the "low risk" category, students with a "non-European migration background" were 1.8 times more likely to be selected. In 2019, within the "high risk" category, students with a "non-European migration background" were 3.6 times more likely to be selected for a house visit, and within the "low risk", 4.2 times more likely.[158]

NO OBJECTIVE AND REASONABLE JUSTIFICATION

As discussed in Section 3.1, there may be an objective and reasonable justification for differential treatment that is indirectly based on race, provided that it pursues a legitimate aim and that the

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[148] Sociaal en Cultureel Planbureau, Integratie en samenleven 2022, 2022, p. 91-92.
[149] Hoogenbosch, A. and Fiere, B., Gelijke Kansen op een huurwoning in Nederland? Monitor discriminatie bij woningverhuur. Rotterdam: Art.1/RADAR, 2021; Kromhout, S., Wittkämper, L. and Cozijnsen, E., Rapport: Discriminatie op de Amsterdamse woningmarkt. Praktijktesten in de particuliere huursector. Amsterdam: RIGO, 2020; Gielkens, D. and Wegkamp, F., Onderzoeksrapport: Discriminatie op de Utrechtse woningmarkt. Utrecht: Academie van de Stad & Gemeente Utrecht, 2019; Dibbets, A., Jak, L. and Hoogenbosch, A., Discriminatie bij woningverhuur in Rotterdam: een praktijktest. Rotterdam: RADAR, 2020.
[150] SSH, Notitie – Onderzoek naar uitsluiting bij hospiteren, 2023.
[151] C. Fang and I. van Liempt, We prefer our Dutch: International students' housing experiences in the Netherlands, Housing Studies, 2021, p. 822-842; LSV, Annual international student survey, 2021.
[152] https://nos.nl/op3/artikel/2483097-duo-negeerde-signalen-over-etnisch-profileren-bij-fraudeonderzoek
[153] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 39.
[154] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 24.
[155] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 27.
[156] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 38.
[157] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 38.
[158] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 38.

means to achieving that aim are appropriate and necessary. As there is sufficient evidence to suggest that discrimination has occurred, the onus is on the state to prove that there is an objective and reasonable justification. This should be assessed as strictly as possible.

The available external research into the DUO system shows no ground for justification: DUO did not substantiate or explain the risk criteria, did not scientifically validate or evaluate the system and did not conduct a human rights impact assessment (see Section 3). DUO thus had no data or information to show that this practice was appropriate and necessary. As DUO lacks detailed insight into not only the effectiveness but also the possible unintentional discriminatory effects and human rights impacts of the system, there is, by definition, no objective and reasonable justification for the distinction made. Without an objective and reasonable justification, the differential treatment constitutes indirect racial discrimination, which is prohibited under international human rights law.

In order to assess whether the differential treatment is appropriate and necessary, authorities would need detailed insight into the intended and unintended effects, including the discriminatory effects and the human rights impact, and into alternative measures. A measure that is not effective cannot, by definition, be appropriate or necessary. While effectiveness can be understood in many ways, often it is narrowly assessed as the "predictive accuracy" of the risk profile. The assessment of the DUO system illustrates this. In 2011, the Minister of Education reported that a pilot showed that the risk profile correctly identified fraud with the out-of-home grant among students in 41% of the cases, which was an improvement compared to a pilot in 2010 in which the risk profile correctly identified fraud in 28% of the cases.[159] The Minister did not compare these results with the percentage of fraud found in a random sample of those years.[160] Based on the results of the pilots, the Minister concluded in 2011 that "the defined risk profile greatly increased the efficiency of the enforcement of fraud. The chosen risk profile, therefore, appears adequate".[161] It thus appears that DUO and the Ministry of Education have omitted to carefully assess whether the risk profile was appropriate and necessary and have failed to consider alternative measures.

In 2024, external researchers concluded that DUO's risk profiling system was effective, as it identified more fraudulent claims of the grant compared to random sampling.[162] In 2014 and 2017, DUO selected students for an investigation based on random sampling and found that almost 4% of students fraudulently claimed the out-of-home grant. In 2014 and 2019, external researchers found that, based on the DUO risk profiling system, 38.9% and 35.3%, respectively, of students were found to fraudulently claim the grant.[163] It is likely that these percentages include cases where students were wrongfully accused of fraud, because of the lowered burden of proof (see Section 1.5). But even if these percentages would correctly reflect fraud, they provide a questionable ground for arguing that risk profiling is "effective". While in absolute terms, the DUO risk profiling system appears more effective for identifying fraud compared to randomly selecting students, these results also demonstrate that DUO and the Ministry accepted that in the majority of cases (59% in 2011 and 65% in 2019) students were wrongfully identified as possibly abusing the grant.

This is questionable on its own terms, but especially if weighed against the unintended effects and human rights impact of the risk profile. The conclusion of external researchers that the risk profile was effective did not take into account the harms and human rights impact of the risk profiling. To assess the proportionality of differential treatment, authorities must also take into account the actual adverse impact of having a higher chance of being selected for an investigation – specifically given that the burden of proof for DUO was very low – and the stigmatizing effect of profiling people for fraud based

[159] In 2010, based on the risk profile, 1000 addresses were selected for a house visit; in 28% of the cases, the student was found to actually live with their parent(s). Tweede Kamer, vergaderjaar 2010–2011, 24 724, nr. 95. In 2011, based on an adjusted version of the risk profile, 2000 addresses were selected for a house visit; in 41% of the cases, the student was found to actually live with their parent(s).; Tweede Kamer, vergaderjaar 2011–2012, 24 724, nr. 100.
[160] The external review mentions that a random sample was taken in 2010, but the results are not documented. Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 18.
[161] Tweede Kamer, vergaderjaar 2010–2011, 32 770, nr. 3, p.12.
[162] Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 8: 3.6% and 3.8% in 2014 and 2017, respectively.
[163] Note that these percentages likely include cases where a student was wrongfully accused of fraud.

on or related to their race or ethnicity.[164] Given the historically disadvantaged and marginalized position of racialized groups in the Netherlands, the adverse impact and stigmatizing effect should weigh heavily in assessing the proportionality. Furthermore, authorities should take into account the societal harms of discriminatory government policies and practices. Racial profiling undermines people's trust in authorities and can strain relations between authorities and impacted communities.[165] Discriminatory treatment thus affects the legitimacy of the government and undermines the social contract.

Finally, in order to assess whether the differential treatment is proportionate, it is necessary to assess whether there is a method available that imposes less interference with human rights. Before deciding to use a risk profiling system, authorities should investigate other selection methods that impose less of an interference with the right to equality and non-discrimination, such as random selection. Strictly random selection by definition does not discriminate against groups.

In short, while fraud detection may serve a legitimate aim, it is highly unlikely that indirect differential treatment based on race or ethnicity can ever be deemed appropriate and necessary and pass the "very weighty reasons test".

2.3 RISK PROFILING BY DUO CONSTITUTES DISCRIMINATION BASED ON SOCIO-ECONOMIC STATUS

Article 2(2) of the ICESCR provides a non-exhaustive list of protected grounds, and the CESCR has stated that the "economic and social situation" falls under "other status".[166] The CESCR gives a broad and unspecified definition of economic and social situation: "[i]ndividuals and groups of individuals must not be arbitrarily treated on account of belonging to a certain economic or social group or strata within society". Under the ECHR, there is also an open-ended list of protected grounds. While the ECtHR has not yet explicitly acknowledged social or economic status as a protected ground, it has taken some initial steps in this direction.[167]

Equinet, the European Network of Equality Bodies, recommended in 2021 that national legislators should extend the list of protected grounds to include socio-economic status. Equinet notes that "people living in a disadvantaged socio-economic situation are subjected to stereotyping, prejudice, stigma, and discrimination because of their socio-economic situation".[168] In 2022, the Parliamentary Assembly of the Council of Europe adopted a resolution calling member states to include socio-economic status as grounds for discrimination in national equal treatment legislation.[169] In 2024, the Dutch equality body urged the Dutch government to investigate the possibility of doing so.[170]

Like the ICESCR and the ECHR, the prohibition on discrimination in the Dutch Constitution provides an open list of protected grounds. In 2022, the Minister of Education acknowledged, in relation to discrimination of VET students in society, that discrimination on the grounds of education level is prohibited. The Minister stated that "Article 1 of the Constitution prohibits all possible forms of discrimination, including discrimination based on educational level".[171] However, in response to the

[164] See in the context of racial profiling in policing: ECRI, General policy recommendation No. 11 on combating racism and racial discrimination in policing, 2007, para. 34.
[165] CERD, General Recommendation No. 36, 2020, par. 26; EU Agency for Fundamental Rights, Preventing unlawful profiling today and in the future: a guide, 2018, para. 1.3.1; ECRI, General policy recommendation No. 11 on combating racism and racial discrimination in policing, 2007, para. 34; Amnesty International and Open Society Justice Initiative, Gelijkheid onder druk (Equality under pressure), 2013.
[166] CESCR, General Comment No. 20 on non-discrimination, 2009, para. 15 and 35.
[167] See T. Kadar, *An analysis of the introduction of socioeconomic status as a discrimination ground*, Equality & Rights Alliance, 2016, p. 9.
[168] Equinet, *Expanding the List of Protected Grounds within Anti-Discrimination Law in the EU*, 2021, p. vi.
[169] PACE Resolution 2022/2432, 26 April 2022, para. 12.2.
[170] College voor de Rechten van de Mens, Wetgevingsadvies mogelijkheid tot opname van de grond "opleidingsniveau" in de Algemene wet gelijke behandeling, 28 August 2024.
[171] Tweede Kamer, vergaderjaar 2021–2022, 3933, Aanhangsel, p. 2; see also Tweede Kamer, vergaderjaar 2023–2024, 30 950, nr. 410, p. 12.

unveiling of the discriminatory risk profiling practice in March 2024, the government has not explicitly apologized to students for discrimination by DUO based on their education type.[172]

A DISCRIMINATORY EFFECT

The algorithmic risk profile that DUO used included education type as a risk criterion by adding a weighting factor to the different education types (see Section 2). This resulted in automatically scoring VET students as higher risk compared to students enrolled in higher education and within VET, levels 1-2 as higher risk than levels 3-4. Students enrolled in academic education were scored as lower risk compared to all other types. This may constitute discrimination on the grounds of economic and social situation or socio-economic status, as students studying in a particular type of education may be considered a specific "economic or social group or strata within society", and hence a protected group for the purposes of assessing discrimination.

In addition, using risk criteria that refer to the housing circumstances of students may also constitute indirect discrimination on the grounds of socio-economic status or economic and social situation. Students whose parent(s) have a low income will have more limited access to housing options that are generally more expensive, such as living alone and living in bigger accommodations with fewer co-residents. Using selection criteria such as student housing, living alone and square metres relative to the number of residents can result in indirect discrimination as it disproportionately impacts students of socio-economically disadvantaged backgrounds or marginalized groups.

A STIGMATIZING EFFECT

The CESCR has noted that there may be an objective and reasonable justification for differential treatment based on prohibited grounds, provided that it pursues a legitimate aim and that there is a reasonable relationship of proportionality between the measure and the aim.[173] In assessing whether a differential treatment constitutes prohibited discrimination or whether there may be an objective and reasonable justification for the differential treatment, authorities should take into account whether the treatment has an adverse impact on people and consider whether stereotypes and stigma play a role in the distinction made.[174] In the context of risk profiling for detecting potential fraud, including education type as a risk factor means that students enrolled in "lower" types of education have a higher chance of being flagged as "high risk" and to be selected by DUO for an investigation. It also means that, because of the low burden of proof for DUO, they had a higher chance of being wrongfully accused of abusing the out-of-home-grant. Moreover, including education as a risk factor reveals the assumption of the creator of the risk profile that a person's education type says something about the likelihood that a person will commit fraud. The implication is that VET students, specifically those enrolled in levels 1-2 (according to the highly stratified Dutch education system, the "lowest" educational levels, see Box 5), are more likely to violate the law, in this case, abuse the out-of-home grant, is stigmatizing.

This stigmatizing effect should be seen in light of the strongly stratified educational system (see Box 5) and the generally disadvantaged position of VET students and VET graduates in Dutch society. VET graduates are disadvantaged in many aspects, including income and wealth, health and life expectancy, and representation in politics and administration, compared to higher education graduates.[175] This disadvantaged position is intergenerational, as children of parents of low socio-economic status are more likely to enrol in "lower" levels of education, such as VET, and less in

[172] In response to questions received by Amnesty International by email on 3 September 2024, the Ministry of Education said that the apologies of the Minister to students extended to "all groups that had a disproportionate chance of receiving a house visit, such as mbo-students [VET] and young students".
[173] CESCR, General comment No. 20, 2009, para. 13.
[174] J. Gerards, The Discrimination Grounds of Article 14 of the ECHR, Human Rights Law Review, 2013, 13:1, p. 114-115.
[175] Tweede Kamer, vergaderjaar 2023–2024, 31 288, nr. 1111; E. Denessen, Onderwijs en sociale ongelijkheid, 2024.

"higher" education.[176] In addition, VET students face discrimination[177], for example, in accessing student housing,[178] student cafes,[179] and student organizations and activities.[180]

Following signals of discrimination and exclusion, the Dutch government recently acknowledged the disadvantaged position of VET students and graduates, and the Ministry of Education has announced policies to promote the equal treatment of VET students, including by the government itself.[181] For example, up until 2020, VET students were legally not called "students" like other students in tertiary education but referred to as "participants", which limited their access to student housing and made them ineligible for financial aid for participation in cultural and sports institutions. In 2020, legislation was changed, and VET students since enjoy the same legal status as students in "higher" education, but they continue to face discrimination in society. In 2023, the Dutch government requested advice from the Netherlands Institute for Human Rights about adding education to the discrimination grounds in national anti-discrimination legislation.[182] In August 2024, the Institute advised that there is indeed "reason to provide legal protection against discrimination on the basis of education (level) in the area of supply and delivery of goods and services".[183]

Given the historically disadvantaged position of VET students and given the adverse impact and stigmatizing effect of profiling VET students based on their education type, the differential treatment of VET students cannot be deemed proportionate and thus cannot be objectively and reasonably justified. Without an objective and reasonable justification, the differential treatment based on education type constitutes discrimination on the grounds of socio-economic status or, in any case, on the grounds of economic and social situation as defined by the CESCR.

3. FAILING TO PROTECT STUDENTS AGAINST DISCRIMINATION

3.1 THE DUTY TO PREVENT DISCRIMINATION

Under international law, states have the duty to not only respect but also protect the right to equality and non-discrimination.[184] This is both a positive and negative obligation. The prohibition of discrimination requires states to ensure that laws, regulations, circulars, guidelines or policies do not permit or result in discrimination. There should also be no discrimination in the policies and practices of all public institutions and civil servants when implementing legislation, providing services or fulfilling other functions.

The ICESCR obligates states to guarantee non-discrimination in the exercise of each of the economic, social and cultural rights enshrined in the Covenant.[185] The CESCR draws specific attention to systemic discrimination, as discrimination against some groups is often "pervasive and persistent and deeply entrenched in social behaviour and organization, often involving unchallenged or indirect

[176] E. Denessen, Onderwijs en sociale ongelijkheid, 2024, p. 10.
[177] College voor de Rechten van de Mens, Wetgevingsadvies mogelijkheid tot opname van de grond "opleidingsniveau" in de Algemene wet gelijke behandeling, 28 August 2024.
[178] https://www.trouw.nl/nieuws/studentenhuizen-laten-mbo-ers-buiten-staan~bd1f0c2a/; https://www.utoday.nl/news/73351/mboers-weigeren-bij-studentencomplexen-kan-echt-niet.
[179] https://www.mboraad.nl/nieuws/verbied-discriminatie-op-onderwijsniveau.
[180] https://www.jobmbo.nl/mboers-hebben-behoefte-aan-studentenactiviteiten-maar-worden-vaak-uitgesloten/.
[181] Tweede Kamer, vergaderjaar 2022–2023, 31 524, nr. 569.
[182] Tweede Kamer, vergaderjaar 2022–2023, 31 524, nr. 569, p. 8. Following a parliamentary resolution in 2022, Tweede Kamer 36200-VIII-91.
[183] College voor de Rechten van de Mens, Wetgevingsadvies mogelijkheid tot opname van de grond "opleidingsniveau" in de Algemene wet gelijke behandeling, 28 August 2024.
[184] Amnesty International, *Dealing with difference. A framework to combat racism in Europe*, 2009, p. 31-52.
[185] ICESCR, Art. 2, para. 2; CESCR General comment No. 20 on non-discrimination, para. 7.

discrimination".[186] The ICERD obligates each state party to this Covenant to "undertake to engage in no act or practice of racial discrimination against persons, groups of persons or institutions and to ensure that all public authorities and public institutions, national and local, shall act in conformity with this obligation".[187] In addition, states are obliged to both prohibit and eliminate all forms of racial discrimination – both direct and indirect.[188] States are also required to take effective measures to review governmental, national and local policies and to amend, rescind or nullify any laws and regulations which have the effect of creating or perpetuating racial discrimination wherever it exists.[189] Finally, the treaty requires that states provide effective remedies against any acts of racial discrimination, including the right to seek just and adequate reparation for any damage suffered as a result of the discrimination.[190]

The UN Special Rapporteur on contemporary forms of racism notes that "[states] must address not only explicit racism and intolerance in the use and design of emerging digital technologies" but also, "just as seriously, indirect and structural forms of racial discrimination that result from the design and use of such technologies".[191] The UN Special Rapporteur on extreme poverty and human rights, in the context of the "digital welfare state", has stated that:

"predictive analytics, algorithms and other forms of AI are highly likely to reproduce and exacerbate biases reflected in existing data and policies. In-built forms of discrimination can fatally undermine the right to social protection for key groups and individuals. There therefore needs to be a concerted effort to identify and counteract such biases in designing the digital welfare state. This, in turn, requires transparency, and broad-based inputs into policy-making processes. The public, and especially those directly affected by the welfare system, need to be able to understand and evaluate the policies that are buried deep within the algorithms".[192]

With regard to the use of algorithmic risk profiling by law enforcement officers, the CERD recommends that states "adopt legislative, administrative and other measures to determine the purpose of their use and to regulate as accurately as possible the parameters and guarantees that prevent human rights breaches", in particular, to prevent discrimination.[193] States should further ensure that algorithmic profiling systems are transparent and their human rights impact is continuously assessed and monitored.[194] States should also adopt measures to ensure that independent oversight bodies have a mandate to monitor the use of such systems by the public sector.[195] The CERD also recommends that states ensure that all instances of algorithmic bias are duly investigated and sanctioned.[196]

The guidelines and recommendations of human rights bodies such as the CERD, the European Commission against Racism and Intolerance (ECRI) and the EU Agency for Fundamental Rights (FRA) in relation to (automated) risk profiling are still in development, and so far, mainly focused on profiling by the police or border control officers within the classic law enforcement and security domain. Algorithmic risk profiling within other areas, such as social protection, has so far received less attention. The UN Special Rapporteur on Extreme Poverty in 2019 expressed concern about discriminatory algorithmic profiling in the context of the "digital welfare state" and called for the regulation of digital technologies but only briefly addressed the use of technologies for fraud prevention and detection.[197] The ECtHR and the Court of Justice of the European Union (CJEU) have not yet ruled on a case that explicitly concerned discrimination as a result of (algorithmic) risk profiling. However, the absence of explicit guidelines or case law on risk profiling and algorithms in the context of social protection does not mean that policies and practices of governments that aim or, in

[186] CESCR, General comment No. 20 on non-discrimination, para. 12.
[187] ICERD, Art. 2, sub 1 under a.
[188] ICERD, Art. 5.
[189] ICERD, Art. 2, sub 1 under c.
[190] ICERD, Art. 6.
[191] UN Special Rapporteur on contemporary forms of racism, *Racial discrimination and emerging digital technologies: a human rights analysis*, 18 June 2020, A/HRC/44/57, para. 48.
[192] Report of the UN Special Rapporteur on extreme poverty and human rights, 11 October 2019, A/74/493, para 82.
[193] CERD General Recommendation No. 36, para. 58.
[194] CERD General Recommendation No. 36, para. 60, 61.
[195] CERD General Recommendation No. 36, para. 62.
[196] CERD General Recommendation No. 36, para. 65.
[197] Report of the Special Rapporteur on extreme poverty and human rights, 11 October 2019, A/74/493, para. 26, 28, 77.

effect, are discriminatory are in any way allowed. Government organizations that monitor, profile and check people receiving benefits through the social protection system must always respect human rights and act in line with the developed guidelines and standards to ensure that laws, policies and practices do not lead to discrimination.

3.2 A DESIGN PROCESS PRONE TO PREJUDICE

The risk profiling system was developed by the Ministry of Education and DUO in 2010-2011. Documents show that in March 2010, the Ministry of Education, DUO, several municipalities and several other governmental agencies "exchanged ideas" about possible risk criteria for a risk profile during a "workshop 'risk profiling'".[198] This workshop resulted in the first version of the risk profile. External researchers in 2024 reported that they did not find any documents that provided an analysis of risk factors or other information about whether or not there is a causal relationship between the risk criteria and fraud.[199] Instead, the risk criteria were arrived at based on what designers thought to be relevant and by manually looking for patterns in the data.[200] In 2010, the risk profile was tested in a small pilot (80 addresses). DUO reviewed the outcome based on "experiences, results and conversations" and made some adjustments to the risk profile.[201] External research found that the developers assessed the risk profile based on "common sense" reflections such as "asking themselves whether they thought it was logical how the risk profile and control procedure functioned based on their feeling and experience".[202] There also is no documented substantiation for the weighting factors of the criteria used in the risk profile nor for the selection and exclusion criteria used during the manual selection phase.[203] DUO did not engage students in the development process.[204] Procedures to prevent bias were lacking.[205]

A design process based on the "experiences" and "common sense" of the developers and users is highly vulnerable to bias, prejudice, stereotyping and discrimination, whether implicit or explicit. This risk is particularly high where racialized people and other marginalized groups are underrepresented among developers and decision-makers.[206] The UN Special Rapporteur on contemporary forms of racism, in her report on AI, notes that:

"Sometimes, the backgrounds or perspectives of algorithm designers may cause them to embed unconscious biases, including racial biases, in their algorithm designs. This lack of diversity in digital technology sectors is reportedly exacerbated by the absence of inclusive consultation processes in the development of artificial intelligence systems, which contributes to algorithmic design issues".[207]

The Netherlands Institute for Human Rights notes the danger of using data based on experience as they can reinforce stigmatization and discrimination against certain groups.[208] People tend to confuse a correlation between a factor and behaviour for a causal relationship, and "as a result, prejudice and presuppositions are often reflected in data based on experience". In addition, relying too much on experience encourages a self-fulfilling prophecy, often referred to as "feedback loops", as profiling results in more intensive monitoring of certain groups, thus confirming the biased assumptions.

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[198] Tweede Kamer, vergaderjaar 2009–2010, 24 724, nr. 93. See also PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 31.
[199] PwC, Onderzoek misbruik uitwonendenbeurs. 2024, p. 30; Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 57.
[200] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 31; Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 17.
[201] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 31.
[202] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 31.
[203] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 36; Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 18.
[204] Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 57.
[205] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, Chapter 3; Algorithm Audit, Vooringenomenheid voorkomen, 2024, p. 59.
[206] Racial discrimination and emerging digital technologies: a human rights analysis, report of the UN Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, 18 June 2020, A/HRC/44/57, para. 17; Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, 2024, A/HRC/56/68, para. 17.
[207] Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, 2024, A/HRC/56/68, para. 17.
[208] College voor de rechten van de mens, Discriminatie door risicoprofielen, een mensenrechtelijke toetsingskader, 2021, p. 14.

In their internal review, DUO explains how the risk criteria were developed - that they "estimated" that younger students and students of a "lower education level" will less often live out-of-home, and were therefore assigned a higher risk score.[209] However, the fact that a certain group is more likely to live with their parents is not in any way indicative of the likelihood of this group abusing the out-of-home grant.

Governmental employees may develop a procedure for fraud detection based on a racialized conception of fraud.[210] Even if they are aware that it is prohibited to select individuals based on their race or ethnicity, they could design a discriminatory selection procedure that targets or disparately impacts individuals based on their race or ethnicity using seemingly neutral criteria. They could do so intentionally or unintentionally. Intent is not a necessary element for proving racial discrimination, and even when done unintentionally, an act can constitute direct or indirect racial discrimination. However, insight into the reasons for using certain risk criteria is important to ensure transparency and accountability in the system and reduce the chances of future wrongdoing. Either way, authorities have a responsibility to investigate the potentially discriminatory effects of a risk profiling system and of enforcement policies and practices more generally.

3.3 NO INVESTIGATION OF SIGNALS OF DISCRIMINATION

On multiple instances between 2010 and 2023, DUO failed to investigate credible signals of discrimination. The external research by PwC found that four "clear signals" between 2010 and June 2023 about possible discrimination against "VET students with a non-Dutch-sounding surname" and "bias" were not handled with sufficient care.[211]

In 2017, the childcare benefits scandal (see Box 3) led to questions within the Ministry of Education about the use of race in risk models. The internal conclusion was the DUO risk profile included "objective criteria such as age, education type and distance between the student's address and parent(s) address" and that race was not used in the risk profile nor in the manual selection, and that "therefore there can be no question of institutional racism or discrimination".[212] In 2021, a parliamentary request to make an inventory of the use of race in risk models in order to prevent discrimination led to a similar conclusion that race, ethnicity and nationality were not used in the risk profile.[213]

At least two lawyers have raised concerns about bias or discrimination.[214] In one case, in 2020, a student had received an email from DUO that DUO had accidentally sent to 28 other students without hiding their email addresses. The student noticed that all but a few had a "non-Dutch surname".[215] The student decided to contact a lawyer, who, in his notice of objection to DUO and in the subsequent proceedings before the court, raised concerns about possible bias in the risk profile. According to the lawyer, DUO responded "indignantly" to the suggestion of discrimination and replied that the risk profile was based on "objective criteria".[216] The lawyer repeated his concerns to a District Court in the subsequent appeal procedure, but the courts did not investigate the risk profile (see more on this in Section 4.1).

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[209] DUO, Rapport inventarisatie werkprocessen Controle Uitwonende Beurs (CUB), intern onderzoek, 2024, p. 8.
[210] For example, concepts of "gang", "terrorism" and "mobile banditry", see Amnesty International, *Trapped in the Matrix*, 2018; Amnesty International, *"This is the thought police", The Prevent duty and its chilling effect on human rights* (Index: EUR 45/7368/2023), November 2023; Amnesty International, *We sense trouble*, 2020.
[211] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, para. 5.7.
[212] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 44.
[213] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 44.
[214] This information is publicly available: https://nos.nl/op3/artikel/2483097-duo-negeerde-signalen-over-etnisch-profileren-bij-fraudeonderzoek; https://www.trouw.nl/onderwijs/duo-negeerde-waarschuwingen-over-discriminatie-in-fraudeonderzoek~b11cd364. Amnesty International has verified this information with the lawyers.
[215] https://www.trouw.nl/onderwijs/duo-negeerde-waarschuwingen-over-discriminatie-in-fraudeonderzoek~b11cd364.
[216] https://nos.nl/op3/artikel/2483097-duo-negeerde-signalen-over-etnisch-profileren-bij-fraudeonderzoek.

3.4 INSUFFICIENT TRANSPARENCY

Transparency is a key principle of the rule of law and of good governance. Transparency is necessary for meaningful accountability and for effective access to justice. Due to a lack of transparency about the algorithmic profiling system, the risk criteria and other relevant information, it is impossible for students and their lawyers to clearly establish whether the DUO policies and practices do or do not violate the right to non-discrimination.

DUO was not sufficiently transparent to students about how they were selected for an investigation and the role of the risk profiling system in the selection decision. During a house visit, students received a leaflet with reference to the privacy statement published on DUO's website. The Central Government Audit Service, the internal auditor of the government, noted in 2023 that the privacy statement lacked information about the use of automated decision-making and profiling and about the right to object to automated decision-making and profiling.[217] This is not in line with the EU General Data Protection Regulation.[218] The Central Government Audit Service concludes that "this means that data subjects cannot adequately exercise their rights".[219]

Most lawyers that Amnesty International spoke to said that, when they represented their students in appealing DUO's decision, they were not aware that DUO used a risk profiling system to select students for an investigation. For most lawyers, this became clear only after it was revealed in the press in June 2023. This indicates that DUO, in their decision about the out-of-home grant, did not always inform students that they were selected for an investigation based on a risk profile. Amnesty International knows of at least two cases in which DUO, in its decision on appeal, did inform the student of the use of a risk profile but did not provide complete information: notably, DUO did not mention that the algorithm included the criterion "education type" and omitted many manual selection and exclusion criteria.[220] The Ministry of Education told Amnesty International that this description was at least partly based on the Explanatory Memorandum to the legislative amendment of 2011 (see Section 1.4).[221] According to the Ministry, DUO used the following standard text from 2022 onwards, until the system was discontinued in June 2023, to inform students about the risk profile:

"For selecting students who qualify for such an investigation [a house visit], DUO uses a risk profile. Based on a number of factors consisting of age, distance from parental address to BRP address, distance from the educational institution to BRP address, living with family and surface area of the home where the student is registered in relation to the number of registered persons, it is assessed whether there is reason to doubt the actual living situation".[222]

This text also does not list the risk criterion "education type", nor does it list most other selection and exclusion criteria that were used by caseworkers in the manual selection phase. The Ministry states that "afterwards it turned out that the description was not complete" and that the text is no longer used in correspondence with students.[223]

3.5 LACK OF ACCOUNTABILITY

The algorithmic risk profiling system and subsequent manual selection procedure were in place for more than 10 years, from 2012 to June 2023. The selection procedure had not been evaluated after 2012, not even following the childcare benefits scandal. Up to 2017, DUO conducted an annual evaluation of the selection and control procedure, which was limited to the costs and benefits of

[217] Auditdienst Rijk, Onderzoeksrapport DUO. Beheersing privacyaspecten proces uitwonendencontrole, 14 september 2023, para. 2.7.1 and 2.11.1.
[218] Auditdienst Rijk, Onderzoeksrapport DUO. 2023, para. 2.7.1 and 2.11.1; GDPR, Art. 14, sub 2 under g.
[219] Auditdienst Rijk, Onderzoeksrapport DUO, 2023, p. 24.
[220] Amnesty International received these documents from lawyers. The DUO decisions are dated in 2022.
[221] Email from the Ministry of Education, received by Amnesty International on 3 September 2024.
[222] Emails from the Ministry of Education, received by Amnesty International on 3 September and 7 October 2024. BRP refers to Personal Records Database, a governmental registration system.
[223] Emails from the Ministry of Education, received by Amnesty International on 3 September and 7 October 2024.

enforcement.[224] Accountability was limited only to the financial aspects, and DUO did not work according to systematic quality assurance.[225]

During the development of the risk-based selection procedure in 2009-2011, the Ministry of Education reported regularly to the Dutch parliament about the development of the risk profiles and two pilots (see Section 2.2).[226] However, the pilot evaluation was limited to assessing the percentage of correctly and wrongly identified students who were possibly abusing the student grant. During the development and use phase, DUO and the Ministry of Education did not evaluate whether the algorithmic risk profile or the list of criteria for manual selection resulted in adverse outcomes for racialized or marginalized groups. Neither DUO nor the Ministry of Education conducted a human rights impact assessment.

3.6 UNREGULATED RISK PROFILING

A lack of regulation resulted in the continuation of a discriminatory risk profiling system for over a decade. In 2011, the Explanatory Memorandum to the legislative amendment and other governmental documents described that DUO would use a risk profile to select students for a house visit.[227] However, the Dutch government failed to guarantee and establish safeguards such as a human rights impact assessment prior to introducing the profiling system, continuous evaluation of the system and its intended and unintended effects, sufficient transparency, mechanisms for accountability, and oversight.

Article 22 of the EU General Data Protection Regulation (GDPR) regulates that people have the right not to be subjected to a decision that is based solely on the automated processing of personal data, including profiling if the decision has legal effects or significantly affects persons.[228] Even in the case that the risk profiling by DUO did not result in further investigation, a house visit or a decision, the fact that students may be categorized as "high risk" should be considered as a decision that significantly affects persons.[229] The decision-making cannot be classified as solely automated if there is meaningful human intervention, but this may not be a mere "token gesture".[230] Based on the currently available information about the DUO profiling system, it may seem that the decision to select a student for a house visit was not solely based on automated processing or profiling, as DUO caseworkers would manually assess the case by gathering additional information and using additional exclusion and selection criteria.

However, it is not evident from the available information that the intervention by the DUO caseworker was, in fact, "meaningful". First, the external research found that the manual for DUO caseworkers contains basic practical instructions for using the software, but there are no instructions or guidelines on how DUO caseworkers should weigh the facts of a case in order to reach a decision.[231] Second, whether the intervention is meaningful or not would depend on how the caseworkers handled an individual case, for example, how much time they spent on gathering and weighing information.[232] Furthermore, in 2023, the CJEU ruled that the establishment of a risk score can constitute automated decision-making if the decision-maker "draws strongly on" the risk score.[233] The external research

[224] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 31.
[225] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 32.
[226] See several "Voortgangsrapportages Actieplan misbruik uitwonendenbeurs", Tweede Kamer dossier no. 24 724.
[227] Tweede Kamer, vergaderjaar 2010–2011, 32 770, nr. 3.
[228] GDPR, Article 22, sub 1. Article 4, sub 4, defines "profiling" as: "any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that natural person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements".
[229] CJEU, C-634/21, 7 December 2023, SCHUFA Holding (Scoring), para. 46; District Court The Hague, 5 February 2020, ECLI:NLRBDHA:2020:865 (SyRI), para. 6.59.
[230] Article 29 Data Protection Working Party, Guidelines on Automated individual decision-making and Profiling for the purposes of Regulation 2016/679, 2017, p. 20.
[231] PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 32.
[232] Court of Appeal Amsterdam, 4 April 2023, ECLI:NL:GHAMS:2023:793 (Uber II), para. 3.24.
[233] CJEU, C-634/21, 7 December 2023, SCHUFA Holding (Scoring).

does not confirm whether this is the case or not. Third, instead of providing a safeguard against the biased algorithmic risk profile, the intervention of DUO caseworkers in the manual procedure exacerbated the discriminatory effects against students with a "non-European migration background", according to external research.[234] Further insight into the selection practice and the role of the risk profile, as well as the role of the DUO caseworkers, is needed to establish whether the DUO practice is in line with Article 22 of the GDPR.

The Ministry of Education has informed Amnesty International that it has not yet decided whether the redeveloped risk-based fraud detection system will be based on, or include an algorithmic risk profile.[235] In the case that the system will include AI for evaluating the risk of abuse, the system must comply with the EU Artificial Intelligence Act (AI Act) that came into effect in August 2024. The AI Act classifies as "high-risk" AI systems that are used by public authorities to evaluate the eligibility of persons for essential public assistance benefits and services, as well as to grant, reduce, revoke, or reclaim such benefits and services.[236] The AI Act obligates developers and users of high-risk AI systems to comply with specific requirements such as a fundamental human rights impact assessment, registration in the EU database for high-risk AI systems, record-keeping, sufficient transparency, human oversight and appropriate level of accuracy, robustness, and cybersecurity.[237] Furthermore, affected persons subjected to a decision that is made by the deployer on the basis of the output from a high-risk AI system have the right to a clear and meaningful explanation of the role of the AI system in the decision-making procedure.[238]

The AI Act defines an AI system as "a machine-based system designed to operate with varying levels of autonomy, that may exhibit adaptiveness after deployment and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments".[239] Recital 12 to the AI Act states that this definition "should not cover systems that are based on the rules defined solely by natural persons to automatically execute operations". It is as of yet unclear whether an algorithm such as the one that was used by DUO will fall under the definition of "AI system" in the AI Act, even though it is clear that such algorithmic systems can also be used to support decisions about public benefits. If the authorities do proceed with the use of an algorithmic system to determine fraud, it will need to be examined whether it creates legal obligations under the AI Act. The use of algorithmic systems for the purpose of fraud detection in the social protection domain shows an urgent need for the European Commission to ensure clear guidance on the definition of an AI system in accordance with Article 96 sub 1 under (f) of the AI Act.

In any case, for algorithmic risk profiling systems that fall outside the scope of the GDPR and the AI Act or national regulation, governments need to implement additional regulations to guarantee that algorithmic risk profiling systems, including systems that are combined with human decision-making, are in line with human rights.

3.7 NO PROACTIVE OVERSIGHT

The proactive role of national oversight bodies, independent of the government, is essential for the protection of human rights. However, when the algorithmic risk profiling system was developed and used between 2009 and June 2023, oversight bodies seemed to have played no active role in monitoring and enforcing compliance with human rights. This was the case despite there being moments when concerns were raised about discrimination in the system (as mentioned above).

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[234] Algorithm Audit, Addendum Vooringenomenheid voorkomen, 2024, p. 55; PwC, Onderzoek misbruik uitwonendenbeurs, 2024, p. 46.
[235] Email from the Ministry of Education to Amnesty International on 3 September 2024.
[236] EU Regulation 2024/1689 (Artificial Intelligence Act), Annex III, para. 5, sub (a); see also Article 6.2.
[237] AI Act, Articles 8-15, 26, 27, 49.
[238] AI Act, Art. 86.
[239] AI Act, Art. 3, para. 1.

Only after allegations of possible discrimination in the press in June 2023, did the DPA announce an investigation into DUO. The DPA published its report on 11 November 2024.[240] The report focuses exclusively on the algorithm and not on the larger risk profiling system that consists of an algorithm and additional criteria (see Section 1.3). The DPA concludes that "a differential treatment based on each of the three criteria (education type, distance and age) without an objective justification […] constitutes direct discrimination".[241] This leads DPA to conclude that the processing of personal data by DUO is discriminatory and unlawful.[242]

A proactive role in oversight also means providing guidance to organizations on how to comply with regulations and prevent human rights harms, specifically discrimination. The DPA states in their report that it intends to provide such guidance.[243] The DPA correctly points out that organizations, prior to using an algorithm for risk profiling, are always obligated to provide an objective justification for the criteria. However, in its report, the DPA did not conduct a comprehensive assessment of the criteria used in the algorithm in view of the protected grounds and the justification test to assess whether there may be an objective justification for differential treatment based on the protected grounds. The DPA fails to fully explain the right to non-discrimination and does not discuss how the criteria and disparate impact on certain groups of students relate to the protected grounds, among which race (a "suspect" ground) and economic and social situation.

The DPA further states that differential treatment may be justified by "scientific or legal substantiation or statistical analysis", but does not explain how this should be weighed in the broader justification test developed by the European Court for Human Rights in its case law on non-discrimination (see Section 2). The DPA's assessment could thus be understood incorrectly as stating that scientific or legal substantiation or statistical analysis is sufficient to justify a differential treatment based on a protected ground. Especially given the unwavering belief of governmental organizations that risk profiling would be "necessary" and "effective", it is essential that the DPA emphasizes that this is merely one aspect of the justification test. As explained in Section 2, the justification test requires that governmental organizations carefully weigh whether a differential treatment on protected grounds pursues a legitimate aim, is suitable, necessary and proportionate, taking into account the possible harms and stigmatizing effects. Moreover, for "suspect" grounds such as race, this test is very strict. In short, the DPA, in its report on the DUO algorithm, fails to provide clear guidance to governmental organizations to prevent discrimination.

3.8 NO JUDICIAL INVESTIGATION INTO DISCRIMINATION

Journalists in June 2023 reported that, since 2012, almost 10,000 students have been labelled as fraudulently claiming the out-of-home grant. Two-thirds of them appealed against this decision. Subsequently, according to the journalists, of almost 1,500 students who challenged DUO's decision in courts, "DUO was reprimanded in more than a quarter of the cases".[244] However, it appears that in none of these cases did the courts investigate possible bias or discrimination. Currently, twenty-six cases are with the CRvB, still awaiting a decision, the hearing in the first six cases took place on 14 November 2024.[245]

While the risk profile was mentioned in some court cases and sometimes explicitly questioned by lawyers, it appears that, until October 2024, the judiciary did not actively investigate the discriminatory nature of the risk profiling system. In the cases that are publicly available or were shared with Amnesty International, District Courts seemed to follow the information that DUO provided without

[240] Autoriteit Persoonsgegevens (DPA), Onderzoeksrapport, DUO, Gebruik van geautomatiseerde risicoclassificering op basis van een risicoprofiel bij Controleproces Uitwonende Beurs (CUB), 11 November 2024.
[241] Autoriteit Persoonsgegevens, Onderzoeksrapport, DUO 2024, p. 4.
[242] The DPA concludes that the Minister of Education, being responsible for DUO, has violated Article 5, paragraph 2 of the GDPR.
[243] Autoriteit Persoonsgegevens, 2024, p. 4.
[244] https://www.platform-investico.nl/onderzoeken/de-discriminerende-fraudecontroles-van-duo. The statistics are based on data from DUO.
[245] Amnesty International verified this with the CRvB on 15 October 2024. The case management conference took place in May 2024.

requesting further insight into the workings or evaluations of the system. The CRvB, the highest court for appealing decisions about student benefits, was informed about the risk profile at least three times in 2014 and 2015, but in all three cases, it did not ask further about how the risk profile functioned.[246] Students and their lawyers thus had no meaningful opportunity to address possible discriminatory effects and no access to effective remedy. Moreover, in probably most cases, the algorithmic risk profiling system was not addressed at all, as students and lawyers were at the time unaware that DUO used a risk profiling system (Section 3.4).

Between 2013 and 2023, there were at least 11 cases during which a District Court was informed by DUO about the risk profile.[247] In three cases, the court briefly assessed some of the risk criteria, referring to the Explanatory Memorandum of the proposed legislation amendment of 2011 (see Section 1.2).[248] However, the Explanatory Memorandum only gives an indication of possible risk criteria and does not provide a definitive overview of the risk criteria and the weighting factors that were used to calculate the risk score, nor of the manual selection and exclusion criteria that were used as of 2012. In one case, DUO explained that education type is a risk criterion because "it is known to DUO that VET students are more often not living away from their parents than students enrolled in higher professional and academic education".[249] The court concluded that this was "not unreasonable". These cases show that the District Courts did not have complete knowledge of how the risk profiling system worked. The court rulings suggest that in these cases, the District Courts did not question DUO about the objective substantiation for the criteria used or the justification for differential treatment, nor did the courts seemingly raise questions about possible bias or discrimination. The District Courts judged, apparently without having complete information and without having insight into the substantiation of the risk criteria, that the risk profile was based on "objective criteria" and that "such an objectifiable and non-discriminatory risk profile as a possible start of an investigation is not in itself contrary to any rule of law".[250]

In one case that was brought before a District Court in 2022, the lawyer raised concerns about the possibly biased nature of the selection procedure due to the use of a "checklist" and noted that it was not possible to verify the objectivity of the criteria and the profile.[251] The lawyer also drew comparisons with the childcare benefits scandal (see Box 3) that had led to much societal and political debate about the risks of algorithmic risk profiling in the years before 2022. DUO had provided information to the student about the risk criteria, although this information was incomplete. Without requesting further information from DUO about the risk profiling system, the court judged that "DUO uses a risk profile with several objective factors" and that DUO is permitted to do so, with reference to the Explanatory Memorandum and a Court judgement of 2015.[252] The court concluded that there was no bias.

Only very recently, in October 2024, did a District Court investigate the concerns about possible discrimination.[253] In this case, the Minister of Education explained in their defence the risk profiling system and stated that the student was selected for a house visit based on their "high-risk coding" based on the short distance between the student's address and the address of their parent, the young age of the student, and the fact that she was enrolled in VET levels 1-2. In its judgement, the District Court referred to the external research by Algorithm Audit that found that DUO did not substantiate

[246] In all three cases, the CRvB confirmed the ruling of the District Courts. In one case, the District Court had ruled in favour of the student and had considered about the risk profile that "there was no reasonable ground for the house visit as the house visit was based solely on the fact that the person concerned met one or more risk profiles" (ECLI:NL:CRVB:2014:633, para. 2). The CRvB does not address this in its ruling. In the two other cases, the District Court had ruled in favour of DUO (ECLI:NL:CRVB:2014:3419; ECLI:NL:CRVB:2015:4192).
[247] This is based on nine judgements that are published on the website of the judicial system (www.rechtspraak.nl) and information about two cases that lawyers told Amnesty International about.
[248] ECLI:NL:RBLIM:2013:11417, para. 11; ECLI:NL:RBGEL:2014:1517, para. 7; ECLI:NL:RBAMS:2018:9659, para. 4.3.2.
[249] ECLI:NL:RBAMS:2018:9659, para. 4.3.2.
[250] ECLI:NL:RBLIM:2013:11417, para. 11; ECLI:NL:RBGEL:2014:1517, para. 7.
[251] These documents were shared with Amnesty International by a lawyer but are not publicly available.
[252] As this judgement is not publicly available, Amnesty International has no knowledge of this case.
[253] ECLI:NL:RBOVE:2024:5627. In another recent case that was brought before a District Court (ECLI:NL:RBGEL:2024:5992), the student raised concerns about discrimination as well, but because the court judged in favour of the student based on other aspects of the case, it did not address the question of possible discrimination.

the risk factors (see Section 3.2) and that the risk profiling system was biased against students with a "non-European migration background" (see Section 2.2). The court, therefore, concluded, referring to the justification test of the ECtHR (see Section 2.1), that:

"there is no reasonable relationship of proportionality between the use of this risk profile and its aim. In view of this, the difference in treatment in selecting students for a house visit between students living out of home with and without a migration background is not objectively justified. DUO, on behalf of the Minister, therefore acted in violation of the prohibition of discrimination. Therefore, the selection of the claimant [student] for a check is unlawful."[254]

With regard to DUO's decision to revoke the out-of-home grant, the Minister argued in their defence that the discriminatory risk profiling has no further consequences for this decision:

"The risk profile used by DUO served only as a selection tool. On closer inspection, this selection tool was not well thought out and led to indirect discrimination. However, the selection method did not influence the results of the individual investigation into the living situation [of the student]. The decision-making was not based on the risk model, but only on the results of the investigation into the living situation."[255]

In other words, the Minister considered the selection decision to be separate from the investigation. With this reasoning, the Minister ignored the fact that the discriminatory risk profiling system, consisting of an algorithmic profile as well as a manual selection procedure, increased the chance that students of racialized groups, VET students and young students were selected for an investigation. Moreover, once they were selected, students faced a lowered burden of proof for DUO (see Section 1.5), which increased the chance that they were wrongfully accused of abusing the out-of-home grant.

However, the District Court did not agree with the Minister's defence. In line with the standing case law of the CRvB[256], the court concluded that the evidence gathered through the house visit should be considered unlawfully obtained. The court explained:

"the court considers it evident that it is important not to be discriminated against and that, certainly by government agencies, no prohibited distinction is made on the grounds of migration background. Therefore, in this case, it is not sufficient to merely establish that the evidence is unlawful. This would also deprive the prohibition of discrimination, as laid down in [Article 14 of the ECHR, Article 1 of Protocol 12 to the ECHR and Article 26 of the International Covenant on Civil and Political Rights], of all force. The court considers exclusion of evidence appropriate as a constitutional safeguard and to prevent a similar situation from occurring again in the future. The court will proceed to do so. The evidence was obtained in a manner that is so contrary to what may be expected of a properly acting government that this use must be considered inadmissible under all circumstances."[257]

This led the court to rule that DUO's decision to revoke the out-of-home grant is annulled.

It is unclear from the ruling whether the court took discrimination on the grounds of education into account in its judgment.

Aleid Wolfsen, president of the DPA, in June 2024, pleaded for an active role of judges in assessing the impact of algorithms, even when impacted people or lawyers do not explicitly ask to investigate the role of algorithms.[258] According to Wolfsen, "it could have prevented much harm if organizations [like the tax authorities and DUO] had been more transparent about these algorithms. And if judges had been more active and curious. […] If there was discrimination in the procedure preceding a decision, this would almost always have consequences for the legitimacy of the decision that follows."

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[254] ECLI:NL:RBOVE:2024:5627, para. 4.3.4.
[255] ECLI:NL:RBOVE:2024:5627, para. 2.4; see also ECLI:NL:RBGEL:2024:5992, para. 6. In addition to the published rulings of two District Courts, Amnesty International knows of one other pending case of a student who appealed DUO's decision to revoke the out-of-home grant with the District Court in which the Minister offered a similar defence argument. Amnesty International received the legal documents in this case from a lawyer who represents the student.
[256] The District Court refers to ECLI:NL:CRVB:2020:3294.
[257] ECLI:NL:RBOVE:2024:5627, para. 4.6.
[258] https://www.autoriteitpersoonsgegevens.nl/actueel/kritische-rol-van-rechter-nodig-bij-algoritmegebruik/.

4. TOWARDS EFFECTIVE REMEDY AND REDRESS

"In the context of effective remedies for racial discrimination in the design and use of emerging digital technologies, States must ensure the full spectrum of effective remedies, including access to justice, protection against possible violations, and guarantees of cessation and non-recurrence of violations, while also combating impunity."[259]

When human rights violations occur, international law requires that individuals are guaranteed the right to effective remedy and redress.[260] Effective remedy and redress – or measures to repair the harms caused to victims of human rights violations – can take various forms and depend on the nature of the right violated, the harms suffered and the wishes of those affected.[261] Remedy and redress for victims of discriminatory technologies may include five elements: restitution, compensation, rehabilitation, satisfaction and guarantees of non-repetition.[262]

The onus is on states to make the use of algorithmic systems in the public domain visible, to allow decisions and impacts to be queried and appealed, and to create accessible and practical routes for remedy and redress when human rights are negatively impacted. States should ensure that all instances of algorithmic bias are duly investigated and that sanctions are imposed.[263]

4.1 FIRST STEPS TOWARDS REDRESS

The Dutch government has taken several first steps to redress the harms of the discriminatory risk profiling system. In March 2024, the government concluded that DUO's selection method constituted "indirect discrimination" due to the use of various "seemingly neutral selection criteria" in the algorithm and in the subsequent manual selection procedure to select students for house visits.[264] The Minister of Education apologized on behalf of the government for "not carefully enough considering and maintaining the process for checking the out-of-home grant by the Ministry of Education and DUO" and for discrimination: "In particular, I apologize for the related disproportionate chance of a house visit for specific groups, amongst whom students with a migration background".[265] In response to questions from Amnesty International, the Ministry of Education specified that "specific groups" are also meant to include "all groups that had a disproportionately large chance to receive a house visit, such as VET students and young students".[266]

In April 2024, the Ministry sent a letter with the apology to approximately 5000 students who received a house visit between 2019 and 2023.[267] In this letter, the Minister apologized to students and invited them to participate in a group conversation to share their experiences and the impact of the house visit. A total of 83 students participated in various cities in April and May.[268] The Ministry told Amnesty International that the insights from these conversations would be used as input for the Ministry's "next steps".[269]

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[259] *Racial discrimination and emerging digital technologies: a human rights analysis*, report of the UN Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, 18 June 2020, A/HRC/44/57, para. 65.
[260] Universal Declaration of Human Rights Art. 8 and 10; International Covenant on Economic, Social and Cultural Rights, Art. 2; International Convention on the Elimination of All Forms of Racial Discrimination, Art. 6; International Covenant on Civil and Political Rights, Art. 2(3) and 14; European Convention for Human Rights, Art. 6 and 13; EU Charter of Fundamental Rights, Art. 47.
[261] EU Agency for Fundamental Rights and Council of Europe, Handbook on European law relating to access to justice, January 2016, p. 101.
[262] *Racial discrimination and emerging digital technologies: a human rights analysis*, report of the UN Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, 18 June 2020, A/HRC/44/57, para. 65-67.
[263] CERD, General Recommendation No. 36 on preventing and combating racial profiling by law enforcement officials, 17 December 2020, CERD/C/GC/36, para. 65.
[264] Tweede Kamer, vergaderjaar 2023—2024, 24 724, nr. 220.
[265] Tweede Kamer, vergaderjaar 2023—2024, 24 724, nr. 220, p. 3.
[266] Email from the Ministry of Education to Amnesty International on 3 September 2024.
[267] This information was provided by the Ministry of Education in an email received by Amnesty International on 3 September 2024, the Ministry explained that this group was selected because only their personal data were still available in accordance with privacy regulations.
[268] Amnesty International received this information from the Ministry by email on 7 October 2024.
[269] Amnesty International received this information from the Ministry by email on 7 October 2024.

On 11 November 2024, a week prior to the publication of this briefing, the Minister of Education announced in a letter to the Parliament that he would reverse all decisions by DUO made between 2012 and June 2023 which were based on the risk profiling system, and would offer financial restitution to all impacted students.[270] This includes reversing the decisions to reclaim the excess grant that students received as well as the decisions to fine students. Students whose out-of-home grant was revoked will retroactively receive it, if they, during their study, had continued living at the address after DUO's decision to revoke the grant. The Minister expects that this will concern 10,000 students and former students.

The decision note attached to the letter to the Parliament states that all impacted students will receive 250 euros because DUO did not act in line with privacy regulations.[271] This decision is not included in the letter to the Parliament. The Ministry of Education has informed Amnesty International that this is not part of the decision to offer redress.[272]

The Minister gives several reasons for his decision to offer redress. First, the conversations that the Ministry and DUO had in April and May with students and former students about the way DUO checks for possible fraud. Second, lessons learned from mistakes made in prior procedures for remedy and redress.[273] Third, an internal legal analysis of the Ministry. According to the Minister, the legal analysis shows that "the evidence gathered during the house visits and neighbourhood investigations should likely be excluded because of indirect discrimination in the selection procedure, for which there was no objective justification".[274] The Minister, therefore, expects that DUO's decisions will not be upheld in court.[275] Furthermore, the Minister states that the government stands for "good governance" and "restoring trust in the government", which requires taking "resolute action when we establish that mistakes have been made."

These are important steps towards repairing the harms of a discriminatory governmental policy and practice that was in place for more than ten years. In addition to restitution and financial compensation for impacted students, it is important that DUO and the Ministry of Education ensure that all information in databases related to individual records on alleged fraud is deleted and that this information is not available to, shared with or used by other governmental organizations. All impacted persons must be able to trust that all information that refers to alleged fraud will in no way be used in governmental decisions at a later date or shared with other governmental organizations.

4.2 PREVENTING DISCRIMINATORY RISK PROFILING IN THE FUTURE

It is positive that, after allegations of discrimination in June 2023, the government quickly halted the DUO system, commissioned external research and reviewed it internally. This indicates a growing understanding that algorithmic risk profiling systems are prone to bias and discrimination. Furthermore, the government's apology for discrimination and the announcement to redress the harms is an encouraging development that shows that the government acknowledges the severe impact of discriminatory governmental actions.

However, the government's response and the immediate announcement of the intention to redevelop the "risk-based" approach by DUO, also show that the government does not properly understand the inherent human rights risks and fundamental problems of risk profiling. The unwavering belief that risk profiling would be "necessary" and "effective" for detecting potential fraud and crime is neither critically questioned nor weighed against the impact of checks on persons about whom there are no concrete signals of violation of the law. Institutions such as the DPA, the Human Rights Institute, and

[270] Tweede Kamer, vergaderjaar 2023—2024, 24 724, nr. 243.
[271] Beslisnota bij Kamerbrief Vervolgstappen controle uitwonendenbeurs, bijlage bij Tweede Kamer, vergaderjaar 2023—2024, 24 724, nr. 243.
[272] Phone conversation on 20 November 2024 between Amnesty International and the Ministry.
[273] As described by the National Ombudsman in its report *Herstel bieden: een vak apart* (24 October 2023, No 2023/147).
[274] Tweede Kamer, vergaderjaar 2023—2024, 24 724, nr. 243.
[275] The Minister refers to the ruling of a District Court of October 2024, see Section 3.8.

the CRvB do not critically challenge this common belief. At the same time, the government lacks a clear understanding of how to test risk profiling against the right to equality and non-discrimination. Dutch oversight bodies currently provide incomplete or inadequate guidance to test risk profiling against the prohibition of discrimination.[276]

The many scandals about discriminatory risk profiling by multiple Dutch governmental organizations in the past years demonstrate the inherent human rights risks of risk profiling. The Dutch government therefore should engage in a fundamental debate with society about risk profiling. To effectively protect people in the Netherlands against discriminatory risk profiling in the future, the starting point for regulation should be that risk profiling is "prohibited, unless". Governmental organizations should be allowed to use risk profiling only if the right to non-discrimination can be guaranteed and the necessary safeguards are in place to ensure the protection of all other rights.

5. RECOMMENDATIONS

Recommendations to the Minister of Education, Culture and Science:

1. Acknowledge that DUO discriminated against students on the grounds of both race and socio-economic status (education type and housing situation).
2. Ensure swift implementation of the reversal of DUO's decisions and financial restitution to affected persons, as promised on 11 November 2024. Report publicly on the implementation. Delete all information in databases related to individual records on alleged fraud and guarantee that this information will not be used for other decisions or shared with other governmental organizations.
3. Conduct public consultation with key stakeholders, including affected communities, on redeveloping the enforcement policy and practice of DUO, as well as the necessary safeguards and guarantees to effective remedy and redress.
4. Conduct a human rights analysis of the entire enforcement policy and practice of DUO, including the algorithmic risk profiling system, the desk research and the assessment of evidence by DUO caseworkers, the house visits and neighbourhood investigations by external controllers, and the appeal procedure with DUO. Include the insights from this analysis in the redevelopment of the enforcement approach.

Recommendations to the Dutch government:

5. Add socio-economic status to the protected grounds in national anti-discrimination legislation.
6. Establish by law or binding guidelines that the use of race, socio-economic status and other protected characteristics as criteria in algorithmic risk profiling systems is prohibited.
7. Discontinue all algorithmic risk profiling systems that are currently used for welfare fraud detection and reinstate only if the right to non-discrimination can be guaranteed and the necessary safeguards are in place to ensure the protection of all other rights, including the right to privacy and the right to effective remedy.
8. Prohibit algorithmic risk profiling in social protection systems unless the governmental organizations that intend to use such profiling systems can guarantee that the system is in line

[276] Amnesty International the Netherlands, *Etnisch profileren is overheidsbreed problem: Nederlandse overheid moet burgers beschermen tegen discriminerende controles*, 21 March 2024, para. 3.3.

with international human rights standards. Exceptions to the prohibition should be allowed only if:

- The use of an algorithmic risk profiling system is regulated by law or binding guidelines, and all safeguards to protect people's rights are in place, including transparency, accountability, oversight, and effective remedy.
- A mandatory and binding human rights impact assessment is conducted before and during the implementation of the algorithmic risk profiling system. This includes periodically testing for both direct and indirect discrimination.
- The use of the algorithmic risk profiling system is periodically evaluated, and its human rights impact and other unintended effects are periodically assessed.
- The algorithmic risk profiling system is transparent to the public and included in a mandatory algorithm register.
- Comprehensive and independent human rights oversight mechanisms are in place. Oversight bodies should be granted adequate mandate and sufficient power, expertise and capacity to investigate and enforce, both reactively and proactively.

9. Ensure that the enforcement policy and practice in the social protection domain is in line with international human rights standards:
    - Conduct public consultation with key stakeholders, including involved and affected communities, on how governments check people for the detection of possible fraud, administrative omissions and errors with welfare benefits. The stigmatizing impact that these checks might have and how to guarantee effective remedy should be included in the consultation.
    - Ensure that the burden of proof for all aspects of accusations of abuse or fraud always firmly lies with the government, not with those facing investigation.
    - Ensure that all credible signals of discrimination are duly investigated by an independent body in a thorough and timely way.
    - Introduce guidelines to register investigations of alleged fraud and publish anonymized data on these investigations, disaggregated by protected characteristics, in order to periodically monitor potential discrimination.
    - Ensure effective remedy and redress for affected rights holders. Consult impacted communities about appropriate redress.

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