

Monitoring and Assessing the Impact of National Action Plans Against Racism



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Foreword

This report marks the OECD's first standalone analysis of whether racism undermines the lives of significant segments of national populations and explores which data can be used to measure its impact and assess the effectiveness of anti-racism efforts. It was developed in collaboration with the European Commission, as part of a broader EU initiative to combat racism, launched with the EU Anti-Racism Action Plan 2020-25 encouraging EU countries to implement National Action Plans Against Racism (NAPARs). In this context, the report aims to support countries in monitoring and evaluating their NAPARs, building on previous ELS work focused on the rigorous impact evaluation of anti-discrimination policies, including school-based initiatives to combat homo- and transphobia (*Fighting Homophobia and Transphobia in Schools*, 2023) and efforts to promote freedom of conscience and religion – an essential step in reducing discrimination against religious minorities (*The Benefits of Learning the Difference Between Facts and Faith*, 2024).

The report begins with a comprehensive review of academic research, examining how bias-driven discrimination against visible minorities restricts opportunities in education, school-to-work transition, employment, housing, and health. It then proposes indicators to measure this discrimination and offers guidance on expanding data collection on visible minorities to enhance the monitoring of anti-racism efforts.

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Executive summary

Visible minorities, defined as groups perceived as distinct from the majority population based on physical or cultural characteristics, make up a significant share of the population in EU countries. Focusing only on a subset of these minorities – namely immigrants and their immediate descendants of non-European background, for whom data are most available – their average share already ranges between 5% and 10% of the total population and is on the rise.

Yet, this subgroup faces substantial disadvantages. Some may stem from factors unrelated to racism, as non-European immigrants often come from lower-income countries and encounter greater barriers to language acquisition, recognition of foreign qualifications and citizenship compared to their peers of European descent. These challenges create disparities that often persist into the next generation. However, racism likely plays a significant role as well, which is unacceptable from a human rights perspective. Visible minorities, whether long-standing or recently arrived, are at risk of being “racialised” – not just seen as distinct, but as inherently “other” – a process that fuels racism and racial/ethnic bias.

In a context where evidence suggests that such bias is widespread and thus can lead to pervasive discrimination, this report seeks to determine whether bias-driven discrimination against visible minorities is a reality and, if so, how its impact can be monitored.

How does racism impact the lives of visible minorities?

A comprehensive review of academic research reveals that bias-driven racial/ethnic discrimination obstructs key pillars of well-being, including education, school-to-work transition, employment, housing, and health.

- In education, bias can hinder the trajectories of visible minority students in three ways: underrepresentation in children’s books and secondary school textbooks, bias among teachers and career counsellors, and bias among classmates. For instance, visible minority students who perform equally well as majority students on blindly graded tests receive lower scores in non-blind assessments – a pattern seen across several EU countries, including Italy, where the gap widens with higher teacher bias. Likewise, even visible minority students with similar abilities as majority students are more likely to be steered toward lower-tier secondary tracks.
- Low educational attainment and hiring discrimination at entry level are major obstacles to a smooth school-to-work transition. However, visible minority youth face additional barriers, including discrimination in access to work-based learning opportunities during formal education, such as internships and apprenticeships, and disproportionate exposure to disciplinary actions, including by law enforcement. In Denmark, for example, immediate descendants of immigrants are nearly 50% more likely than their Danish-born peers to be arrested without subsequent conviction, with this gap widening for those of non-European descent.
- In employment, bias-driven racial/ethnic discrimination occurs both during and after hiring. A plethora of correspondence studies confirm strong hiring discrimination against non-White applicants, with the gap persisting even when fictitious applicants include reassuring information about their employability and productivity in their CVs, suggesting that bias, not just risk

assessment, is at play. In France, White applicants receive 45%, 80%, and 100% more interview invitations than those with similar CVs with Asian, North African/Middle Eastern, or sub-Saharan African names, respectively. Discrimination also limits visible minorities' promotion prospects – not only disadvantaging them despite similar performance but also restricting their ability to reach their full potential. A study in a French grocery chain found that visible minority employees performed worse under biased managers but outperformed their majority peers under unbiased supervision. Finally, tentative evidence from Germany suggests that visible minorities may also face firing discrimination.

- Bias-driven racial/ethnic discrimination is a reality in housing, particularly in the private rental market. In Ireland, Irish applicants are 15% more likely than Polish, and Polish 40% more likely than Nigerian applicants to be invited for apartment viewings. While no correspondence study in Europe has examined discrimination in the private sale housing market, evidence suggests that bias hinders visible minorities' access to homeownership through discrimination in mortgage lending.
- In health, extensive evidence links discrimination to poorer mental health among visible minorities, with US research confirming a causal impact. This, in turn, can harm physical health by triggering stress pathways. Bias among healthcare providers may exacerbate these effects, but further research, especially in Europe, is needed to confirm this.

How to monitor the impact of racism on the lives of visible minorities?

Developing precise indicators that isolate the full impact of bias-driven discrimination on visible minorities, and nothing else, is challenging. There is a trade-off between measurement precision and the availability (and cost) of the required data, resulting in two categories of indicators.

- The first category consists of “core indicators”, which offer high availability but limited precision. These rely on EU-wide surveys, notably allowing for comparisons of disparities between native-born individuals with two native-born parents and those with at least one foreign-born parent of non-European background. While these indicators can be adjusted for key socio-economic factors that influence disparities independently of discrimination, sample size constraints limit the scope of adjustments, leaving several unobserved factors out of the analysis, which may either underestimate or overestimate the impact of bias-driven racial/ethnic discrimination.
- The second category is composed of “advanced indicators”, divided into two subgroups. First, “enhanced indicators”, which offer greater precision than core indicators but require specific administrative data that are available in at most half of EU countries. Second, “exploratory indicators”, which provide the highest precision but are limited in availability due to their reliance on original data collection methods, such as field experiments, including correspondence and audit studies.

The proposed indicators primarily focus on recently arrived populations of non-European background, as they form a visible minority group common to many EU countries and for which cross-EU comparable data are most readily available. However, this group only partially represents the full spectrum of visible minorities in the EU who are at risk of racialisation. Many have deeper roots, at least in some EU countries, including third-generation EU citizens of non-European descent, Black populations from overseas territories, and Roma people. To ensure a comprehensive assessment of antiracism efforts, it is essential to extend indicators to these long-established visible minorities. This report concludes by outlining options for countries to better incorporate these minorities in national statistics.

1 How does racism impact the lives of visible minorities?

This chapter examines the literature regarding the impact of racism on visible minorities. Racism, as defined by the European Commission against Racism and Intolerance, is at the origin not only of the overtly discriminatory actions of a few isolated individuals but also of more subtle, often unconscious biased behaviours that can cumulate and obstruct key life areas. The literature review suggests that bias in textbooks, discriminatory behaviour among educators, and peer bullying can hinder educational trajectories. Discrimination in accessing work-based learning opportunities during formal education, such as internships and apprenticeships, along with bias in law enforcement, may impede effective school-to-work transition. Pervasive discrimination in hiring and employment, as well as in the housing market, further exacerbates these challenges. Moreover, discrimination can negatively impact mental and physical health, possibly affecting individuals from *in utero* to old age, with bias among healthcare providers potentially worsening health disparities.

Main findings

- Academic analyses find that racism can impede the educational trajectories of visible minority students through multiple channels. Notably, these include underrepresentation in children's books and secondary school textbooks, bias among educators, and bias among classmates.
 - Studies find that although there has been progress in addressing the quantitative and qualitative underrepresentation of visible minorities in children's literature, there is evidence suggesting that it remains a prevalent issue, including in Europe. This problem appears to extend to textbooks used in secondary education. History education curricula and textbooks have been criticised for their Eurocentric perspective, as seen, for instance, in Austria.
 - Research has identified that bias among teachers, which appears to be as prevalent as in the broader population, can result in visible minority students receiving lower grades in non-blind teacher assessments, even when they perform comparably to majority students on blindly graded standardised tests, a pattern observed in several countries, including Finland, Italy, and Sweden. This bias extends to career counselling, where educators tend to be more likely to recommend lower-tier educational tracks for visible minority students with similar abilities as their majority counterparts, and are also more likely to ignore visible minority students' counselling requests, as documented in France.
 - Evidence from Europe reveals that having a minority background is associated with a higher risk of being bullied at school.
- Low educational attainment and hiring discrimination at entry level are major obstacles to a smooth school-to-work transition. However, visible minority youth face additional barriers that are partly driven by bias.
 - As shown in Germany, visible minority youth are discriminated against in access to work-based learning opportunities during formal education, such as internships and apprenticeships, limiting their ability to gain practical experience and employability.
 - Visible minority youth are also disproportionately subjected to disciplinary actions in school and by law enforcement, increasing dropout risks and the likelihood of a disciplinary record that deters employers. Evidence points to bias playing a role, with strong US-based research on school discipline (lacking in Europe) and studies from both the United States and Europe, notably Denmark, on law enforcement interactions.
- Research conducted in a range of both EU and non-EU countries reveals that discrimination against visible minorities occurs both during and after hiring.
 - Correspondence studies provide compelling evidence of hiring discrimination against visible minority job candidates on both sides of the Atlantic, including in all EU countries where such studies have been conducted. These studies reveal that non-White natives, including individuals of Asian, Middle Eastern/North African, and sub-Saharan African descent, are up to twice as likely to be denied a job interview compared to their White native counterparts with equivalent CVs. Age seems to further exacerbate these disparities. Importantly, this discrimination is driven, at least in part, by bias rather than solely by employers' expectations that visible minorities, on average, come from lower socio-economic backgrounds, which could adversely affect their human capital – a rational economic calculation more commonly referred to as “statistical discrimination”.
 - Promotion bias has been documented in the United States, where Black employees face disparities despite comparable performance, though similar research is lacking for Europe. However, a major study in France reveals that bias-driven racial/ethnic discrimination in managerial supervision hinders visible minorities' career progression – not only

disadvantaging them despite similar performance but also curbing their ability to reach their full potential. Additionally, US research highlights discrimination in wage negotiations, though no equivalent studies are available in Europe.

- Preliminary evidence from Germany exploring the disparate impact of the COVID-19 pandemic on migrants and their descendants within the German labour market suggests that visible minorities may face firing discrimination – dismissal not justified by productivity differences. They are up to three times more likely to be dismissed in sectors most severely impacted by the pandemic, even when productivity is accounted for.
- Evidence from the United States and Europe underscores pervasive discrimination against visible minorities in the housing market.
 - Field experiments reveal significant discrimination against visible minorities in both the rental and sale private housing markets in the United States and in the rental market across multiple EU countries – no study in Europe has examined the sale market. In Europe, while some differential treatment may stem from landlords’ and real estate agents’ perceptions that visible minorities, on average, come from lower socio-economic backgrounds and may be less reliable in making regular rental payments, evidence suggests that statistical discrimination is not the sole factor at work. Bias also plays a significant role in the disparities observed between majority and minority applicants in accessing rental properties and in the price they pay, persisting even when applicants provide extensive financial information. Additionally, research in Europe indicates that bias extends to neighbours, contributing to patterns of White avoidance, where White residents tend to avoid neighbourhoods once the visible minority population surpasses a certain threshold.
 - While no correspondence study in Europe has examined discrimination in the private sale housing market, evidence indicates that bias limits visible minorities’ access to homeownership through discriminatory mortgage lending practices. This pattern has been documented in several European countries, including Austria, Germany, Belgium, the Netherlands, Denmark, Sweden, and Finland.
- Racism can impact health through two primary channels. First, the cumulative psychological burden of repeated racist incidents can lead to deteriorating mental and subsequently physical health, affecting individuals throughout their lives. Second, bias among healthcare providers may exacerbate health disparities.
 - Extensive research links discrimination to poorer mental health among visible minorities, with US studies confirming a causal impact. This, in turn, can harm physical health by triggering stress pathways, increasing heart rate and blood pressure (risk factors for cardiovascular disease), elevating blood glucose levels and central fat accumulation (raising diabetes risk), and causing systemic inflammation (which may contribute to cancer). These effects can be further intensified by maladaptive coping responses, such as substance abuse and eating disorders.
 - Further research is needed to assess the role of healthcare providers in these disparities. Evidence on discrimination in medical appointment scheduling is mixed – confirmed in the United States but not in Germany, the only EU country where correspondence studies on this issue have been conducted. Additionally, tentative evidence from the United States suggests that bias in patient-provider interactions may be at play, although it doesn’t manifest as overt hostility towards visible minority patients but rather as lower cultural competency in dealing with them.

1.1. Introduction

Visible minorities, defined as groups perceived as distinct from the majority population based on physical or cultural characteristics, make up a significant share of the population in EU countries (Box 1.1). Focusing only on a subset of these minorities – namely immigrants and their immediate descendants of non-European background, for whom data are most available – their share already ranges between 5% and 10% of the total population and is on the rise (OECD/European Commission, 2023^[1]).

Yet, this subgroup faces substantial disadvantages. Some may stem from factors unrelated to racism, as non-European immigrants often come from lower-income countries and encounter greater barriers to language acquisition, recognition of foreign qualifications and citizenship compared to their peers of European descent. These challenges create disparities that often persist into the next generation.

However, racism likely plays a significant role as well, which is unacceptable from a human rights perspective. This chapter aims to provide a comprehensive overview of the available empirical evidence on the impact of racism.

Visible minorities, whether long-standing or recently arrived, are at risk of being “racialised” – not just seen as distinct, but as inherently “other” – even though this categorisation process has no biological basis, since there is only one human race (ECRI, 2021^[2]). As such, racialisation reinforces the social constructs of race and ethnicity and sustains racism, “the belief that a ground such as “race”, colour, language, religion, nationality or national or ethnic origin justifies contempt for a person or a group of persons, or the notion of superiority of a person or a group of persons” (ECRI, 2017^[3]), as emphasised in the EU anti-racism action plan 2020-25 (European Commission, 2020^[4]). Racism, in turn, fuels bias against visible minorities, including negative stereotypes and prejudice. When such bias influences behaviour, then it leads to bias-driven racial/ethnic discrimination – the unequal treatment of otherwise similar individuals, solely based on prejudiced and stereotypical attitudes, whether conscious or unconscious, towards people of a particular race or ethnicity.

Racialisation is not just a possibility; it is also likely, as evidence suggests that racial/ethnic bias is widespread. Racism and racial/ethnic bias are difficult to assess based on self-reported attitudes. First, such reports capture only conscious bias, failing to account for unconscious prejudice. Second, even measuring conscious bias presents challenges due to social desirability – people’s reluctance to admit socially unacceptable views. An alternative is to use the Implicit Association Test (IAT), which is designed to disclose automatic mental associations that individuals cannot easily conceal. Studies analysing IAT results reveal that one-fourth of EU respondents exhibit a strong pro-White bias (Box 1.2). This means they are significantly slower to associate blackness with positive words like “good” or “nice” and quicker to associate blackness with negative concepts such as “bad” or “mean”, suggesting that racism may not only fuels the overtly discriminatory actions of a few individuals but also drive more subtle, often unconscious bias that can become pervasive and obstruct key areas of life (ECRI, 2017^[5]).

Although racial/ethnic bias is widespread, it may not necessarily translate into bias-driven discrimination, as many individuals may successfully control their bias. However, survey-based reports of perceived discrimination suggests that bias does manifest in real-life discriminatory behaviour, either because individuals fail to fully regulate their conscious bias or because a significant share of this bias is unconscious and beyond their control. The Eurobarometer surveys from 2012, 2015, 2019, and 2023 consistently show that racial/ethnic discrimination is viewed as the most prevalent form of discrimination within the EU. In 2023, around 60% of respondents perceived discrimination based on skin colour and/or ethnic origin as frequent (European Commission, 2023^[6]) – an increase of 4 percentage points since 2012. The widespread perception of racial/ethnic discrimination among the general public is corroborated by insights from racial/ethnic minorities themselves. For example, while the 2023 Eurobarometer survey indicates that 21% of the general EU-27 population reported to have experienced discrimination over the last year, this figure rises to 36% among people of African descent, as presented in the 2023 “Being Black

in the EU” report (Box 1.3). This population declares experiencing racial discrimination across various aspects of life, with conditions having deteriorated since the 2018 edition of the report.

Box 1.1. The concept of “visible minorities”

In this report, the term “visible minorities” refers to groups perceived as distinct from the majority population based on either physical characteristics, such as skin colour, hair texture, and facial features, or cultural characteristics, including language, religion, and traditions. The former traits are commonly associated with the social construct of “race”, while the latter fall under the social construct of “ethnicity”.

The definition of visible minorities used in this report therefore differs slightly from that sometimes used in national contexts. For example, the Canadian Government defines them exclusively based on physical characteristics. According to the *Employment Equity Act*, visible minorities are described as “persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour”. While it is true that cultural attributes are not always immediately visible in the same way as physical traits, they may still be rapidly perceived through basic social interactions, and in some societies, this may lead to discrimination. A person’s name, for example, may signal cultural or religious heritage. Similarly, celebrating specific festivals can highlight cultural distinctions and attract bias. By including cultural attributes in the definition of visible minorities, a broader spectrum of ways in which individuals may be marginalised is recognised.

These preliminary findings suggest that visible minorities face discrimination from birth onwards. To effectively monitor and combat racism, a deep understanding of its consequences is crucial. This chapter examines how bias-driven racial/ethnic discrimination creates barriers across key pillars of well-being, including education, school-to-work transition, employment, housing, and health.

To ensure a robust and evidence-based approach, the analysis prioritises empirical research over anecdotal accounts. It draws on an extensive review of social sciences literature – primarily in economics, management, political science, social psychology, and sociology – focusing on studies based on large datasets and sound impact evaluation methods. Particular attention is given to research published in top peer-reviewed journals or prestigious working paper series, as well as to analyses centred on Europe.

Before proceeding to the chapter’s main sections, four caveats are worth noting. First, our analysis focuses on bias-driven racial/ethnic discrimination, also known as taste-based discrimination in economic literature. This means we do not examine forms of discrimination that arise from factors unrelated to bias – such as the lower socio-economic status of visible minorities, which, as previously discussed, is partly shaped by factors beyond contemporary racism, at least in the case of recently arrived groups, i.e. immigrants and their immediate descendants of non-European background. By narrowing our focus to discrimination driven by bias, we exclude indirect discrimination, where seemingly neutral practices disproportionately disadvantage visible minorities. A key example is employee referrals, where individuals tend to recommend candidates from similar backgrounds, inadvertently excluding equally qualified individuals from disadvantaged groups who are often outside these networks. We also exclude what economists refer to as statistical discrimination, where decisions are based on risk assessment rather than bias. For instance, a landlord may reject a visible minority applicant not out of prejudice, but due to an assumption of higher financial risk. Even when applicants appear equally solvent on paper, landlords may interpret these signals as incomplete and associate visible minorities with a greater likelihood of irregular payments.

Second, we may be underestimating the full impact of bias-driven racial/ethnic discrimination by focusing only on its direct effects within each life area studied, without accounting for its broader ripple effects. Discrimination in one domain can trigger negative consequences in others. For instance, discrimination in housing can exacerbate the concentration of visible minorities in underprivileged areas, which in turn negatively affects their educational, employment opportunities, and even health outcomes, since these

areas typically suffer from high levels of violence, pollution, and noise (Liebig and Spielvogel, 2021^[7]). Moreover, while we attempt to capture the cumulative effects of discrimination by examining successive life stages – education, school-to-work transition, and employment – we may still fall short of fully reflecting how these disadvantages compound over time. For instance, lifelong exposure to discrimination can result in severe financial instability in old age due to inadequate retirement savings.

Third, while the focus is on Europe, many seminal studies in this field have originated in the United States, providing valuable insights that are reported in this chapter. Furthermore, in some instances, evidence is available only from the United States, requiring caution when generalizing these findings to Europe, as the histories of visible minorities in both regions differ significantly.

Fourth, while many Europe-focused studies examine discrimination against immigrants and their immediate descendants, some extend their scope to individuals of non-European background regardless of migration history, potentially capturing visible minorities who have been settled in Europe for generations. Importantly, the limited research specifically addressing long-established visible minorities in Europe confirms that these populations also face discrimination. For instance, individuals from French overseas territories experience discrimination in the French labour market (Anne et al., 2024^[8]). A study found that candidates born in Guadeloupe, Martinique, or La Réunion – bearing names typical of these regions and having completed their education and entire professional experience in mainland France – were 20% less likely to receive a callback for waiter positions in mainland France than candidates born and raised in mainland France with traditionally French-sounding names, despite submitting identical CVs. This disadvantage persists even when the situation is reversed: mainland-born candidates applying for positions in Guadeloupe, Martinique, or La Réunion still fare better, despite potentially being perceived as more of an outsider than their overseas-born peers. Similarly, extensive evidence confirms that Roma people face discrimination (Bartoš et al., 2016^[9]). In Czechia, even when applicants for a rental have a college degree and stable employment, an individual with a Czech-sounding name is more than one-third more likely to be invited for an apartment viewing than an applicant with a Roma-sounding name. This discrimination extends to the labour market. When two candidates with similar CVs – both overqualified for the position – apply for a job, the applicant with a Czech-sounding name is nearly 80% more likely to receive an interview invitation than their Roma peer.

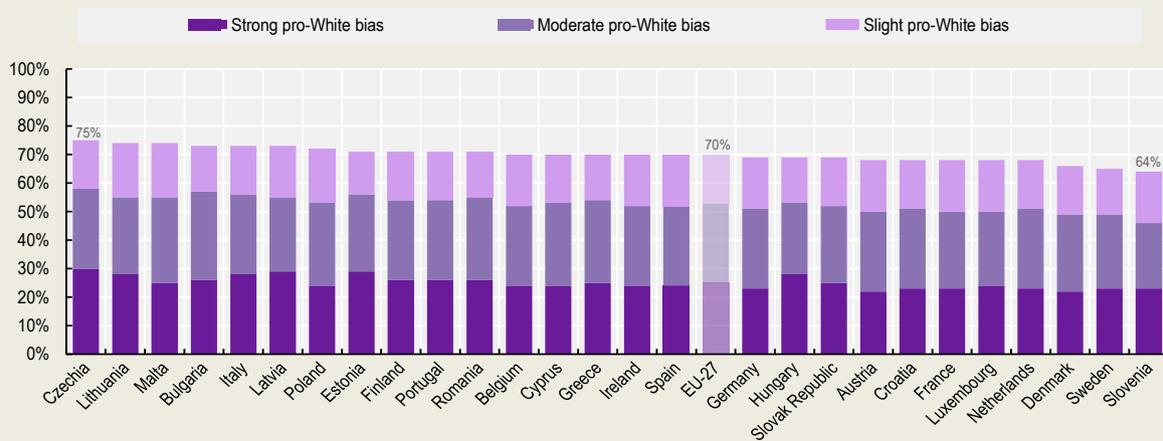
Box 1.2. Measuring racial/ethnic bias through the Implicit Association Test

Implicit association tests (IATs) were developed in the 1990s by social scientists Anthony Greenwald, Debbie MacGhee, and Jordan Schwartz to uncover conscious and unconscious associations between different concepts (Greenwald, McGhee and Schwartz, 1998^[10]). The IAT's most prominent application is in assessing implicit stereotypes and prejudice, revealing the bias individuals may hold, including unconsciously, regarding various racial or ethnic groups.

For instance, to measure bias against Black people, the Race IAT presents pictures of Black and White individuals alongside descriptive words on a computer screen. These words are either positive (e.g. good, pleasant, hardworking) or negative (e.g. bad, unpleasant, lazy). In the first IAT session, participants are instructed to pair pictures of White people with positive words and pictures of Black people with negative words. In the second session, the instructions are reversed: pictures of White people are paired with negative words and pictures of Black people with positive words. The IAT operates on the premise that individuals with negative bias about Black people and/or positive bias about White people will respond more quickly in the first session (associating Black people with negative words and White people with positive words) than in the second session.

Figure 1.1. According to data compiled on the “Project Implicit” website, one in four IAT takers in the EU appear to exhibit a strong pro-White bias

Share of the population with any pro-White bias (2010-19)



Note: The Race IAT score can take any value between -2 and +2. The more positive it is, the slower (resp. quicker) are individuals to associate blackness (resp. whiteness) with positive words like “good” or “nice” and the quicker (resp. slower) they are to associate blackness (resp. whiteness) with negative words such as “bad” or “mean”. An IAT score between 0.15 and 0.35 indicates a slight pro-White bias, while a score between 0.35 and 0.65 reveals a moderate pro-White bias. Scores exceeding 0.65 are considered to reflect a strong pro-White bias.

Source: Data from the Race IAT compiled on the Project Implicit website by (Coutts, 2023^[11]).

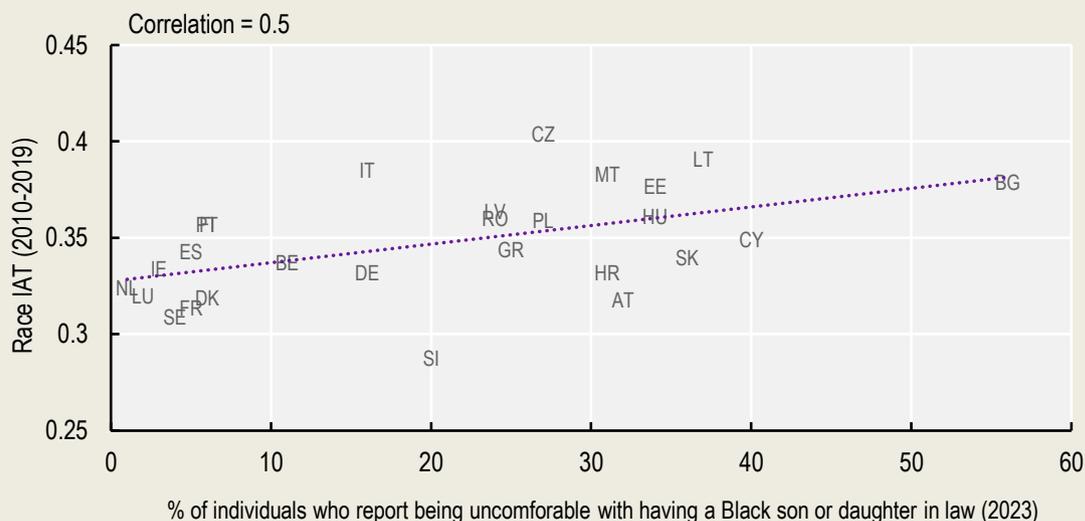
IATs have been, and continue to be, administered online through the Project Implicit website. This virtual laboratory, co-founded by a team of social scientists including Anthony Greenwald, facilitates extensive research on implicit cognition. Specifically, between 2010 and 2019, nearly 3.7 million individuals took the Race Implicit Association Test. In a recent paper, economist Alexander Coutts compiled data for countries with at least 100 observations (Coutts, 2023^[11]). When restricted to EU countries, his analysis reveals that, on average, nearly 7 out of 10 EU residents exhibit some form of pro-White bias, being slower at associating blackness with positive words, but quicker at associating whiteness with these concepts (Figure 1.1). While these findings do not provide evidence of the actual prevalence of racist attitudes (see for example (Meissner et al., 2019^[12])), they are nevertheless a useful starting point for assessing some of the resulting bias.

Notwithstanding these caveats, it is worth emphasising two points. First, these numbers may underestimate what would be the bias if the tests were taken by a nationally representative sample of individuals in each country. Indeed, those who take the test on the Project Implicit website do so on a voluntary basis and are younger and hold more liberal political views which, according to (Coutts, 2023^[11]), are two characteristics associated with lower racial bias.

Second, the IAT is considered by researchers to capture bias more accurately than explicit measures of attitudes (Bertrand and Duflo, 2017^[13]). It correlates with these measures while reducing the opportunity for underreporting (see also Figure 1.2).

Figure 1.2. Race IAT scores correlate with explicit measures of attitudes towards Blacks

Relationship between Race IAT scores and the share of individuals who report being uncomfortable with having a Black son or daughter in law



Note: The Race IAT score can take any value between -2 and +2. The more positive it is, the slower (resp. quicker) are individuals to associate blackness (resp. whiteness) with positive words like “good” or “nice” and the quicker (resp. slower) they are to associate blackness (resp. whiteness) with negative words such as “bad” or “mean”. The share of individuals who report being uncomfortable with having a Black son or daughter in law is computed based on the following question from the 2023 Eurobarometer on discrimination: “Regardless of whether you have children or not, please tell me, using a scale from 1 to 10, how comfortable you would feel if one of your children was in a love relationship with a person from one of the following groups? “1” means that you would feel “not at all comfortable” and “10” that you would feel “totally comfortable”: A Black person”. Total “uncomfortable” is calculated by summing responses of 1 to 4, on the 1 to 10 scale. Source: Data from the Race IAT compiled on the Project Implicit website by (Coultts, 2023^[11]) and the 2023 Eurobarometer on discrimination.

1.2. What is the evidence on racial/ethnic discrimination in education?

According to the 2023 “Being Black in the EU” report (Box 1.3), approximately 18% (resp. 13%) of respondents who interacted with educational institutions reported experiencing racial discrimination in these settings in the past five years (resp. in the past year).

This section explores the evidence on three primary mechanisms through which racism impedes the educational trajectories of racial/ethnic minority students: quantitative and qualitative underrepresentation of visible minorities in children’s books and secondary school textbooks, bias among teachers and career counsellors, and bias among classmates.

Box 1.3. The 2023 “Being Black in the EU” report

The 2022 EU Survey on Immigrants and Descendants of Immigrants collected comprehensive data across 15 EU Member States, based on probability sampling: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Spain, and Sweden. A total of 16 124 individuals, either originating from or with at least one parent from North Africa, sub-Saharan Africa, Syria, and Türkiye, participated. Depending on the country, the survey targeted one, two, or three specific groups. All respondents were at least 16 years old, had resided in the survey country for a minimum of 12 months, and lived in private households.

The 2023 “Being Black in the EU” report narrows its focus to a subset of these survey data, analysing responses from a sample of 6 752 immigrants and direct descendants of immigrants of African descent residing in 13 Member States: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Poland, Portugal, Spain, and Sweden.

Source: (FRA, 2023^[14]), *Being black in the EU – Experiences of people of African descent*, <https://fra.europa.eu/en/publication/2023/being-black-eu>.

1.2.1. Bias in (text)books

This section provides an overview of the literature on bias in children’s books and textbooks.

A well-documented phenomenon in the United States

Despite advances since the seminal study of (Larrick, 1965^[15]),¹ evidence suggests that children’s literature in the United States continues to depict a predominantly white world. A recent analysis by a group of researchers reviewed 1 130 award-winning children’s books published in the United States from 1923 to 2019 (Adukia et al., 2023^[16]). These books were categorised into two groups: “Mainstream”, recognised for their literary or artistic merit and widely used in educational settings such as schools and libraries; and “Diversity”, highlighting the experiences of underrepresented groups including women, visible minorities, and the LGBTIQ+ community.

While there has been an increase in the representation of diverse characters, the typical portrayal across both categories still features predominantly White individuals. A detailed examination of the skin tones in the illustrations of these books found a gradual shift towards including more characters with darker skin over the decades. For instance, the range of skin tones in Mainstream books from 2010-19 closely mirrors that found in Diversity books from 1970-79. Perhaps not surprisingly, mainstream books continue to depict lighter-skinned characters more frequently than those in the Diversity collection. Additionally, children are more often depicted with lighter skin than adults in both collections, a distinction without clear biological rationale.

The research team expanded their investigation beyond mere visual representations to also analyse how famous non-White individuals are depicted in the text of these books. In the Mainstream collection, the analysis reveals that more than 90% of the portrayed famous figures are white. The study also tracks the representation of famous individuals across different racial groups over time, in comparison to their respective population shares. Findings indicate that Black individuals and those of Latin American descent have historically been underrepresented in both the Mainstream and Diversity collections, while White individuals have been consistently overrepresented. However, the last three decades have witnessed a gradual movement toward a stronger representation of famous individuals of racial/ethnic minority background.

The researchers complement their analysis of the representation of dark skin colours and famous individuals from visible minorities by examining market dynamics that contribute to the perpetuation of marginalisation. Drawing on economic theories related to media markets, the researchers empirically test and confirm that books featuring non-dominant social identities are underproduced relative to the demand for them, due to fixed costs and other market frictions. As a result, these books are priced higher than others. On the demand side, the study utilises consumer demographics linked to book purchase data and library checkout statistics to explore consumption patterns. The data reveal a tendency among consumers to select books that reflect their own identities. Specifically, White consumers predominantly choose books with characters of lighter skin tones, whereas Black and Latin American consumers more frequently opt for books depicting darker-skinned characters. Further, by correlating local book consumption data with local consumer attitudes towards race and immigration, the researchers demonstrate a strong association between the representations in children's books and societal views. Given that books used to educate children significantly shape their attitudes as adults, the documented patterns in children's book purchases could explain the perpetuation of bias in books.

A phenomenon that extends beyond the United States

The issue of underrepresentation of visible minorities in children's literature transcends national boundaries, although the evidence for Europe is very limited. In France, for example, the 40 leading publishers specializing in children's books released, on average, just five books featuring a non-White child character over the entire decade from 2010 to 2020 – though the situation has gradually improved since 1980 (Ghelam, 2024^[17]; Ghelam, 2021^[18]; Thiery and Francis, 2015^[19]).

Beyond mere numerical presence, the roles and activities portrayed in children's literature are also marked by stereotyping and a downplaying of the agency and voice granted to minority characters. A study in Croatia analysing 85 children's books used to train future preschool and primary school teachers found a relatively fair numerical presence of non-White characters, with 12 books featuring them – remarkable in a country where immigrants and their immediate descendants of non-European background make up less than 1% of the population (Butković and Vidović, 2021^[20]). However, representation alone does not ensure visibility or empowerment: among these 12 books, only one features a character of colour as the protagonist.

There is also some evidence of lower representation of visible minorities in textbooks used in secondary schools. Luke Terra and Patricia Bromley conducted an analysis of 600 secondary social science textbooks to assess the incorporation of multicultural content from 1950 to 2010 (Terra and Bromley, 2012^[21]). While they observed a worldwide increase in the representation of visible minorities, significant bias persists on other fronts. For example, although outdated racist or colonial terms have been removed from Finnish social science, geography, and history textbooks, such materials appear to continue to promote Western superiority, misaligning with curricular principles of equality (Mikander, 2023^[22]). A similar pattern emerged in the analysis of geography textbooks in Flanders, where Western-centric perspectives prevail, reinforcing unequal portrayals of cultures (Schuermans, 2013^[23]). Likewise, a review of 24 textbooks currently used in Austrian classrooms across history, political education, geography, and economic education – conducted as part of the project “Advancing Equality Within The Austrian School System” (AEWTASS) – identified bias in the representation of the African continent and its diaspora (Aping et al., 2024^[24]).

In history education, curricula and textbooks have faced particularly strong criticism for promoting a Eurocentric perspective that marginalises non-European civilisations (Araújo and Maeso, 2012^[25]), as evidenced, for instance, by the analysis of history textbooks in England (Nagre, 2023^[26]). This marginalisation is exemplified by the scant attention given to the rich histories, achievements, and contributions of African civilisations. Additionally, history education resources frequently downplay the harmful effects of colonialism, including its role in entrenching racism and racial/ethnic bias.

The detrimental impact of bias in (text)books

The underrepresentation of visible minorities in children’s books and educational materials can hinder their educational success and broader life opportunities, by undermining their self-esteem and reinforcing negative stereotypes among the majority population.

The lack of relatable role models in educational texts can distort minority students’ view of the path from present action to future outcomes. Not seeing such examples may effectively lower their expected returns on educational efforts. If that change in expectation were then to reduce actual effort, it may lead to poorer academic performance and perpetuate a cycle of disadvantage (Delhommer, 2022^[27]; Dee, 2005^[28]; Marx and Roman, 2022^[29]; Walker, 2001^[30]). Furthermore, Eurocentric content in history textbooks might foster feelings of alienation among minority students. When educational materials neglect the historical and cultural contributions of non-European ancestors, or present a skewed narrative of their histories, students may struggle with identity and belonging. This omission can make them feel invisible and lead to the perception that their cultural heritage is undervalued or inherently inferior. Additionally, understating the detrimental impact of colonialism fails to acknowledge the historical and ongoing struggles of their communities, which can exacerbate sense of exclusion (Aasebø and Willbergh, 2022^[31]).

Moreover, children’s books and textbooks play a crucial role in shaping the values and attitudes of future generations, potentially fostering an inclusive and diverse perspective among all students, regardless of their racial/ethnic background. In contrast, biased textbooks can reinforce ignorance and prejudice rather than promoting understanding and mutual respect. When youth from the majority population are not exposed to positive representations of visible minorities in children’s literature and educational materials, their perceptions, both of their own potential and that of others, can be distorted, further entrenching negative stereotypes against visible minorities. By contrast, studies have demonstrated that positive representations of members from marginalised groups can substantially lower prejudice. A notable example is Mohamed Salah, a prominently Muslim elite soccer player. A study by (Alrababa’h et al., 2021^[32]) found that following Salah’s transfer to Liverpool F.C., not only did the rate of anti-Muslim tweets among the club’s fans drop by half compared to fans of other premier league clubs, but hate crimes in the Liverpool area also decreased by 16%.

1.2.2. Biased behaviours among educators

Educators may not be immune to the influence of racial/ethnic bias. In the United States, a group of researchers conducted a study to evaluate the prevalence of such bias among teachers, in comparison to the general American population (Starck et al., 2020^[33]). The findings revealed that teachers exhibit levels of pro-White bias like those found in the broader population.

This section summarises the literature on the impact of bias within educational environments, focusing on whether educators – including teachers and career counsellors, who are pivotal in shaping students’ academic paths – exhibit discriminatory behaviours towards students from visible minority backgrounds.

Before proceeding, it is important to emphasise that bias among educators can lead not only to discriminatory behaviour toward students but also to unfair treatment of their parents. This consequence has been documented in the United States (see (Parsons et al., 2018^[34])). Data from Europe are sparse. However, existing studies indicate that access to school for visible minority parents may be difficult. For example, a qualitative study in the northeast of England found that educational professionals often labelled South Asian parents of Bangladeshi and Pakistani heritage as “hard to reach” (Crozier and Davies, 2007^[35]). Yet, the study suggests that schools also create barriers to engagement. For instance, the schools were found to apply a “one size fits all” approach, giving little recognition to parents’ needs or perspectives.

Parental involvement plays a crucial role in shaping children’s educational pathways. Students supported by proactive parental engagement are more likely to continue their education and achieve better outcomes,

as supported by meta-analyses by (Barger et al., 2019^[36]; Castro et al., 2015^[37]; Wilder, 2023^[38]). Particularly compelling evidence comes from a large-scale randomised control trial conducted in a socio-economically disadvantaged district in France, with a significant share of families with immigration background (Avvisati et al., 2014^[39]). The trial involved parent-school meetings aimed at increasing parental participation in their children's education. At the end of the school year, treated families showed increased school-based and home-based involvement activities. Consequently, students in the treatment classes exhibited more positive behaviour and attitudes at school, notably in terms of reduced truancy and fewer disciplinary sanctions.

Biased behaviour among teachers

A meta study examined the impact of racial/ethnic bias in educational settings, demonstrating that bias influences how students from visible minority groups are assessed (Malouff and Thorsteinsson, 2016^[40]), although teacher bias can affect more than just grading disparities between majority and minority students. For example, evidence from the United States (where research in this area is more developed) suggests that such bias also undermines the quality of instruction provided to minority students (Jacoby-Senghor, Sinclair and Shelton, 2016^[41]).

Research conducted in Europe confirms the prevalence of teacher bias in grading at the middle school level, a particularly concerning issue given that, in many European countries, middle school represents a critical juncture. At this stage, students are typically tracked into different types of high schools, shaping their future educational and career prospects.

In the United Kingdom, researchers have leveraged the dual assessment system in place for 11-year-olds, where student performance in English, mathematics, and science is evaluated both through a nationally set, blindly marked written exam and through assessments by their own teachers. By comparing these two evaluation methods, they identify significant disparities across racial and ethnic groups. Their findings show that Black Caribbean pupils are one-third more likely than their White peers to receive a lower grade from their teacher than what they achieved on the national exam (Burgess and Greaves, 2013^[42]).

Moreover, evidence from Italy links these disparities to teacher bias, as measured by IAT scores. Specifically, Alberto Alesina, Michela Carlana, Eliana La Ferrara, and Paolo Pinotti first confirm that students of immigrant parentage, despite performing similarly to their native peers on blindly graded standardised tests, consistently receive lower grades in non-blind teacher assessments (Alesina et al., 2024^[43]). Further analysis reveals a striking pattern: teachers with higher IAT scores – indicating stronger negative bias – disproportionately downgrade high-performing immigrant students, while native students' grades remain unaffected by teachers' bias levels.²

Teacher grading bias is not confined to middle school; it can also affect visible minority students at both earlier and later stages of their education.

At the high school level, a field experiment in Sweden examined grading disparities in a compulsory national test (Hinnerich, Höglin and Johannesson, 2015^[44]). In this study, 1 713 student tests, originally graded by the students' own teachers, were re-evaluated under blind grading conditions by 42 independent teachers. The results revealed a stark discrepancy: students of Swedish descent received significantly higher scores in non-blind assessments, with a difference equivalent to approximately 10% of the mean blind test score.

Similarly, in Finland, researchers analysed over half a million digital high school exit exams, leveraging a grading system where teachers initially grade student exams before they are randomly assigned to blind external evaluators, who determine the official final score (Sahlström and Silliman, 2024^[45]). Their findings highlight a clear pattern: immigrant students consistently received lower scores from their teachers than from blind evaluators, particularly in subjects like literature and foreign languages, where teachers have greater discretion in grading. By contrast, grading bias was negligible in mathematics. The magnitude of

this teacher grading bias was more than ten times greater than the bias observed by gender and remained significant even after accounting for students' socio-economic backgrounds.

Bias in teacher grading is evident even before middle school. In Germany, for instance, research has shown that primary school teachers tend to grade identical essays more harshly when they are attributed to students with Turkish-sounding names rather than German-sounding ones (Sprietsma, 2013^[46]).

Despite the crucial role of early childhood education and care (ECEC) in shaping future academic and labour market success (OECD, 2018^[47]), no study has yet examined bias in this critical stage of education. However, survey data reveal that fewer than two-thirds of ECEC staff receive training on working with children from vulnerable groups (OECD, 2021^[48]). While such gaps may contribute to bias, evidence suggests that they do not entirely negate the benefits of ECEC for children from immigrant backgrounds, who often face fewer opportunities to develop cognitive and socio-emotional skills in lower-socio-economic home environments (Heckman and Karapakula, 2019^[49]; OECD, 2017^[50]). In this context, ECEC proves especially advantageous for children of immigrants – by age 15, those who attended ECEC perform at a level equivalent to an additional year of schooling, whereas their peers with native-born parents experience only half that gain (OECD, 2019^[51]).

While most studies highlight teacher racial/ethnic bias in grading, one study found no evidence of such bias. In a laboratory experiment, (Van Ewijk, 2011^[52]) asked 113 Dutch teachers to grade the same set of ten essays written by 11-year-old students, with the essays randomly assigned Dutch, Turkish, or Moroccan names. The results showed that majority teachers did not assign systematically lower or higher grades to visible minority students.

Biased behaviour among career counsellors

Racial/ethnic bias among educators can also have a profound impact on minority students' access to career counselling. In Europe, children with immigrant parentage tend to be disproportionately steered towards vocational tracks in countries where such education is perceived as less prestigious. Conversely, in countries where vocational training is considered a solid path to the job market, these children are often underrepresented (OECD, 2017^[50]). This disparity in enrolment into more academically challenging tracks is likely to significantly affect the employment prospects of these students.

Although disparities in track choice between majority and minority students could flow from differences in educational performance, recent research from Italy – where students are tracked during the transition from middle to high school – suggests otherwise (Carlana, La Ferrara and Pinotti, 2022^[53]). This study demonstrates that the gap persists even when adjusting for performance. Specifically, among students of comparable abilities, as measured by standardised tests at the start of middle school, those from immigrant backgrounds are more likely to enrol in vocational rather than technical or academically oriented curricula, compared to their native peers. Notably, this trend persists across all ability levels for boys, while for girls, it appears primarily at the lower end of the ability spectrum.

The researchers suggest that these disparities may be linked to inadequate access to career counselling; notably, the gaps narrow when such counselling is provided. To reach this conclusion, they conducted a randomised control trial evaluating the “Equality of Opportunity for Immigrant Students” program, which was aimed at offering tutoring and career counselling to high-potential immigrant students. The results are striking: treated male students were 44% less likely to repeat their grade and had a 12% higher likelihood of attending academic or technical high schools, as opposed to vocational ones, compared to their peers in the control group.

Such counselling is especially crucial when bias affects teacher recommendations for prestigious academic tracks, as seen again in Italy, where teachers with stronger negative bias against immigrants are more likely to steer students with immigrant parents toward lower-tier educational paths, even when their abilities match those of their peers with native-born parents (Carlana, Ferrara and Pinotti, 2022^[54]).

Another illustrative example arises from a previously mentioned laboratory experiment involving primary school teachers in Germany (Sprietsma, 2013^[46]). In this study, typical German or Turkish names were randomly assigned to a set of ten essays to evaluate the impact of perceived pupil origin on grading. As noted in the previous section, the findings confirmed that essays attributed to Turkish names received lower grades. However, the significance of this experiment extends further. It also sheds light on discriminatory behaviour concerning recommendations for secondary school tracks. In Germany, students are generally sorted into various educational tracks by the end of the 4th grade, based on teacher recommendations and parental preferences: Hauptschule, the lowest track; Realschule, the middle track; and Gymnasium, the highest track, which leads to university eligibility. Primary school teachers in the experiment were asked not only to grade the essays but also to recommend a track based on their assessment. The results demonstrated that they were 11% less likely to recommend the Gymnasium track for essays with Turkish names compared to those with German names.

Discriminatory behaviour in education counselling not only negatively affects the chances of minority students being enrolled in the most challenging secondary school tracks; it also limits their access to elite tertiary education programmes. In a comprehensive field experiment in France involving over 600 Master's programmes and 1 800 messages sent, it was revealed that students of North African descent are over 10% less likely to receive responses from programme directors compared to their French peers when simply inquiring about application procedures (Chareyron, Erb and L'Horty, 2023^[55]). Alarming, the programmes most likely to discriminate are those with the strongest job placement records and thus highest prestige. Consequently, unless affected candidates exert greater effort, they risk only gaining access to training with less promising professional outcomes.

The evidence presented above suggests that the academic prospects of those who are unable to access selective tracks due to discriminatory practices is considerably hindered. Supporting this observation, a natural experiment conducted in Northern Ireland in 1989 demonstrated that increasing admissions to the “elite track” (by enabling the inclusion of students who were previously on the margins of acceptance) yielded improved examination performance and higher rates of entry into higher education (Guyon, Maurin and McNally, 2012^[56]).

The detrimental impact of unfair treatment by educators

Unfair treatment by educators is likely to negatively affect students' educational attainment and achievement directly. However, the evidence also indicates a significant indirect impact, primarily through students' internalisation of educators' low expectations and the stereotype threat effect. These dynamics can culminate in students devaluing academic success or questioning the legitimacy of academic outcomes, leading to disengagement (Schmader, Major and Gramzow, 2001^[57]). For instance, the previously mentioned study on teacher grading bias in Finland found that this bias negatively impacts visible minority students' educational outcomes. Immigrant students with similar academic performance are nearly 20% less likely to pursue higher education if they attend a secondary school in the quartile with the highest levels of teacher bias against immigrants, compared to those in schools with a median level of bias (Sahlström and Silliman, 2024^[45]).

One potential consequence is the “acting white” phenomenon, a concept originating in the United States, whereby minority students avoid academically oriented behaviours to conform to group norms (Box 1.4). However, a US-centred review of the literature presents mixed evidence regarding the existence of an oppositional culture within education among students from marginalised minority groups. On the one hand, (Fryer Jr and Torelli, 2010^[58]) found that while academic achievement positively correlates with popularity for White students, this relationship is less pronounced for their Black peers. Higher grades lead to a modest increase in popularity for medium-performing Black students but negatively impact the popularity of high-performing students. On the other hand, competing research suggests that the “acting white” hypothesis is an oversimplification of minority students' academic behaviour (Stinson, 2011^[59]). Carter's

work (Carter, 2006^[60]; Carter, 2005^[61]) highlights the adaptability and resilience of African American students. She argues that these students do not simply reject one form of cultural capital for another; instead, they adeptly navigate both worlds. Known as “cultural navigators”, they comprehend the nuances and practicalities of both dominant and non-dominant cultural capital.

In Europe, despite limited research on the topic, evidence does not support the existence of an oppositional culture among visible minority students. In Germany, researchers examined a sample of 2 419 students across 74 secondary schools to assess the influence of peer effort, achievement, and anti-school behaviour on adolescents’ friendship choices (Lorenz, Boda and Salikutluk, 2021^[62]). Results revealed that Turkish minority adolescents tend to prefer highly engaged and high-achieving peers as friends, contradicting the idea of oppositional behaviour. Similarly, in the Netherlands, a large-scale study involving 11 215 adolescents aged 11 to 19 across 340 schools found no evidence that immigrant adolescents endorse oppositional culture to a greater or lesser extent than their majority peers (Van Tubergen and van Gaans, 2016^[63]).

Box 1.4. The concept of “acting white”

The concept of “acting white” gained prominence following the publication of a seminal article in *Urban Review* (1986) by education anthropologists Signithia Fordham and John Ogbu (Fordham and Ogbu, 1986^[64]). These authors suggested that contemporary African American adolescents resist “acting white” by shunning or rejecting behaviours perceived as associated with whiteness, such as embracing the school curriculum, speaking standard English, spending significant time studying, and achieving high grades. As a result, these students inadvertently contribute to their own academic underachievement.

The concept aligns with earlier work by Ogbu (Ogbu, 1979^[65]) who distinguished between “involuntary minorities”, such as those forcibly conquered (Indigenous groups) or brought to a foreign context against their will (enslaved people and their descendants), and “voluntary minorities”, or “immigrant minorities”. Ogbu argued that a long history of institutional racism has led “involuntary” minorities to believe that education offers little return in the labour market. Consequently, they develop oppositional attitudes toward education and, within their peer groups, may view certain markers of identity as belonging exclusively to the dominant racial group (Whites).

In contrast, “voluntary” minorities often perceive US society through a culturally relativistic lens, comparing opportunities in the United States to those in their homelands. This perspective shapes their response to their social, economic, and political circumstances. According to Ogbu, “voluntary” minority youth generally do not adopt oppositional identities or reject the mainstream ideology of achievement. He contends that, as a result, they tend to perform better in school and are more motivated to pursue upward mobility.

Source: (Odim and Carter, 2023^[66]).

Internalisation by students of educators’ low expectations

There is substantial evidence suggesting that educators’ bias can create a self-fulfilling prophecy, leading students to internalise negative expectations and ultimately conform to them. This phenomenon, often studied in its positive form known as the Pygmalion effect, is well-documented. A notable experiment by American psychologists Robert Rosenthal and Lenore Jacobson in the late 1960s illustrated this effect (Rosenthal and Jacobson, 1968^[67]). They manipulated teachers’ perceptions at the start of the academic year by falsely reporting that certain students had shown high intellectual potential on IQ tests. In fact, these students were chosen at random, and their test scores were fabricated. Nonetheless, these students later scored 50% higher on a subsequent real IQ test, suggesting that the increased attention from

teachers, spurred by the belief in the students' higher abilities, significantly boosted their performance. This experiment underscores how teachers' perceptions, whether accurate or not, can profoundly impact students' academic outcomes and future career opportunities.

Consistent with the internalisation of negative expectations, a study conducted in France revealed that students of low socio-economic status (low-SES) in the Paris metropolitan area were less likely to aspire to top educational pathways compared to their peers from more advantaged backgrounds, even when their test scores were similar (Guyon and Huillery, 2021^[68]). The authors find that half of this gap results from low-SES students underestimating their academic abilities. Furthermore, another 25% of the gap is because even the highest-achieving low-SES students are less informed about top educational pathways than their high-SES counterparts. Thus, the disparity in aspirations is not primarily because low-SES students place less value on top educational pathways or face higher costs. Instead, it stems from doubts of low-SES students about their own academic qualifications, and from a lack of awareness of academic opportunities echoing their hampered access to career counselling.

Accordingly, programmes aimed at building self-esteem could help mitigate disparities. The positive outcomes of the "Equality of Opportunity for Immigrant Students" program, targeted at high-potential immigrant students in Italy and mentioned previously, supports this approach. The evaluation of this initiative attributes its success to the enhancement of students' self-confidence in their academic abilities, leading to heightened educational aspirations (Carlana, La Ferrara and Pinotti, 2022^[53]).

Stereotype threat effect

Social psychologists have long recognised that individuals may experience increased psychological pressure and anxiety when they perceive a risk of confirming negative stereotypes associated with their racial/ethnic group – a phenomenon known as "stereotype threat" (Steele, 1997^[69]). This increased stress can elevate blood pressure and diminish working memory capacity, potentially impairing performance (Schmader, Johns and Forbes, 2008^[70]). Consequently, individuals facing stereotype threat may underperform on tests, despite having the requisite skills and knowledge to excel.

In a seminal experiment, Jeff Stone and his colleagues demonstrated that invoking a negative stereotype about a group can disorient its members (Stone et al., 1999^[71]). The study leveraged the stereotype that African Americans are perceived as more athletically talented but less intellectually gifted than Whites. The researchers divided Princeton students into three groups for a sporting exercise. The first group's activity was described as "a measure of people's natural athletic ability". For the second group, the same exercise was framed as "a measure of the ability to develop a strategy during a sporting performance" – implicitly, an intelligence test. The third group, serving as a control, participated in what was described simply as "sports performance measurement". The results were telling: African Americans' performance was lower in the second group (sports intelligence) compared to the first group (natural athletic ability), where their performance aligned with that of the control group. Conversely, White participants performed significantly worse than African Americans in the first group but outperformed them in the second. Performance levels between African Americans and Whites converged in the control group, indicating that neither group could achieve their full potential when subjected to a stigmatizing context.

Numerous additional experiments have substantiated the significant impact of stereotype threat on the academic performance of some visible minority students. This effect is notably induced by reminding students of their racial/ethnic identity prior to a test or by informing them that the test evaluates intellectual ability, as highlighted in studies by (Steele and Aronson, 1995^[72]) and (Spencer, Logel and Davies, 2016^[73]).

Importantly, this phenomenon is not limited to the United States, suggesting its relevance across different cultural contexts (Appel, Weber and Kronberger, 2015^[74]). For instance, an experiment in Austrian schools demonstrated that the intelligence test performance of adolescents with immigrant parents declined after they were exposed to radical right election posters, while their majority peers remained unaffected (Appel,

2012^[75]). Similarly, in France, students of North African descent performed worse than their peers of French descent on a verbal task – but only when it was framed as a measure of intellectual ability. When the same task was presented as unrelated to ability, their performance matched that of majority students (Chateignier et al., 2009^[76]). In the same vein, research by (Sander et al., 2017^[77]) revealed that migrant students in a German primary school exhibited a reduced increase in vocabulary learning when reminded that their first language was not German.

1.2.3. Bullying by peers

The 2023 “Being Black in the EU” report surveyed parents and guardians of children within the compulsory schooling age range, asking about any racist incidents their children encountered at school in the previous year. The survey focused on bullying, including verbal abuse like insults and threats, physical aggression such as hitting and hair-pulling, and social exclusion. Overall, about one in four respondents of African descent (23%) reported that their children endured offensive comments related to their ethnic or immigrant background. Additionally, around one in ten (8%) said that their children suffered from discriminatory physical abuse, and 9% indicated that their children were isolated during playtime or excluded from social events and friendship circles because of their minority status.

A cross-country study involving students in grades 4 and 8 across 11 European countries – Belgium, Cyprus, England, Hungary, Italy, Latvia, Lithuania, the Netherlands, Norway, Scotland, and Slovenia – confirms that a migration background significantly increases the likelihood of being bullied (Ammermueller, 2012^[78]). This study also reveals that being a victim negatively affects both current and future academic performance. Complementary studies corroborate these findings. For instance, research from Denmark examines the determinants and effects on educational performance of being bullied at ages 10-12 (Eriksen, Nielsen and Simonsen, 2014^[79]). The findings indicate that immigrant parentage is predictive of being bullied, and that such victimisation negatively impacts students’ ninth grade GPA, with more severe effects as the intensity of bullying increases. One study focused on England and Germany, while another in the Netherlands also confirmed that racial/ethnic minority children are more likely to be victims of bullying (Wolke et al., 2010^[80]; Vitoroulis and Georgiades, 2017^[81]).

The long-term adverse effects of bullying can be understood within the context of General Strain Theory, which posits that individuals experiencing strain, such as bullying, may develop negative emotions like anger, frustration, depression, or anxiety (Agnew, 1992^[82]). These emotions can precipitate various maladaptive responses, including wrongdoing, self-harm, or in some extreme cases even suicide. Supporting this theoretical framework, research by (Ouellet-Morin et al., 2011^[83]) demonstrates that bullied children exhibit a diminished cortisol response to stress compared to their non-bullied peers, reducing their ability to cope and making them more vulnerable to anxiety, depression, emotional dysregulation, and long-term health issues.

1.3. What is the evidence on racial/ethnic discrimination in school-to-work transition?

A successful school-to-work transition, crucial for future career prospects, minimises the duration between leaving formal education and securing quality employment (OECD, 2022^[84]). Conversely, a poor transition can lead to long-lasting adverse consequences, often described as the “scarring effect”. This not only sends negative signals to potential employers but also significantly raises the risk of future unemployment and lower wage (Filomena, 2023^[85]). For instance, (Eriksson and Rooth, 2014^[86]) demonstrate how prolonged unemployment influences employer hiring decisions in Sweden. In their correspondence study, over 8 000 fictitious applications with varied employment histories were sent to employers. The results show a clear bias against candidates with unemployment spells exceeding nine months, particularly for low and medium-skilled positions. Similarly, (Cockx and Picchio, 2013^[87]) analysed the labour market

outcomes of 14 660 young Belgians who remained unemployed several months after graduation. They found that scarring effects intensify with the duration of unemployment, underscoring the critical need for swift and effective transition mechanisms from education to employment.

There are several barriers to a smooth school-to-work transition for visible minority youth, including lower educational attainment and hiring discrimination in entry-level job markets. These are discussed in the previous and subsequent sections, respectively. Low attainment hampers their ability to acquire the necessary educational credentials for successful labour market entry or further education and training. As a result, these individuals are more vulnerable to unemployment, inactivity, and prolonged socio-economic challenges. Additionally, discrimination in hiring, particularly for entry-level positions, delays their integration into the labour market and leads to skills mismatches. This can also result in poor quality employment, with visible minority students disproportionately likely to be overqualified for their first job.

This section examines two further obstacles that impede the effective transition from education to employment for racial/ethnic minority youth. The first barrier concerns their reduced access to work-based training during formal education, such as internships and apprenticeships. This hurdle impacts the breadth and depth of skills they can acquire throughout their educational journey, affecting their employability and ability to compete in the labour market. The second barrier involves their higher exposure to disciplinary actions, both in and outside schools, which increases dropout risk and the likelihood of a disciplinary record that discourages employers.

1.3.1. Reduced access to work-based learning during formal education

Strengthening work-based learning is considered essential to ensure a smooth transition from school to work, as it provides students with practical experience that enhances their employability (OECD, 2022^[84]). However, visible minorities often encounter discrimination in accessing such opportunities.

Understanding work-based learning (WBL)

WBL encompasses a variety of practices conducted within workplace settings, contrasting with traditional school-based learning (Musset, 2019^[88]). There are two main types of work-based learning in EU countries:

- **School-mediated WBL in General Education Upper Secondary Programs:** this category includes internships and work placements that primarily introduce students to the world of work. Such experiences not only enhance motivation by linking classroom studies to real work contexts but also facilitate the development of soft skills and career exploration.
- **WBL in Vocational Upper Secondary Programs:** compared to general education placements, these placements are usually longer and occur within Vocational Education and Training (VET) programmes. While some placements account for less than 50% of programme time, apprenticeships may involve longer workplace engagement. The primary goal here is for students to acquire technical skills through hands-on work experience, alongside the soft skills also developed during shorter placements. Additionally, these opportunities allow employers to assess potential future employees and provide students with insights into potential career paths.

In addition to these two types of WBL, it is important to also consider work placements within the framework of higher education. These placements can be either an official or an unofficial component of undergraduate or graduate programmes, whether in traditional universities, universities of applied sciences, or post-secondary technical colleges. These opportunities provide practical experience that complements academic learning, bridging theoretical knowledge with real-world application. Such experiences are integral in preparing students for professional environments, enhancing their employability upon graduation (Bolli, Caves and Oswald-Egg, 2021^[89]; Baert et al., 2021^[90]).

WBL: enhanced opportunities and challenge for visible minorities

WBL offers significant benefits, particularly for workers from disadvantaged backgrounds, including visible minorities. These groups can gain valuable insights into prospective job roles and organisational cultures, which is especially crucial for those historically subjected to workplace discrimination. This understanding can provide reassurance of fair treatment within a company, which is vital before committing to long-term employment. Additionally, WBL serves as a powerful tool to combat entrenched stereotypes in hiring practices by providing employers with firsthand exposure to candidates through internships or apprenticeships, reducing reliance on group-based bias. For example, research by (Sterling and Fernandez, 2018^[91]) shows that previous internship experiences at specific employers can lead to more equitable full-time salary offers, thus helping mitigate disparities across different groups of employees. This finding underscores the role of internships in reducing employer bias by enabling direct interactions and facilitating evaluations of candidates' actual capabilities.

While WBL offers valuable opportunities for visible minority youth, it also comes with challenges. On the one hand, where discrimination may be driven by uncertainty about actual skills, for instance in the case of immigrants with foreign education and work experience, one would expect lower differential treatment between majority and minority candidates when they apply to an internship rather than to a full-time position, due to the lower risk involved for the employer. On the other hand, visible minorities may also face stronger challenges in securing internships or apprenticeships compared to full-time positions, due to two significant demand-side mechanisms. First, candidates for internships or apprenticeships often have shorter academic and professional records, which can lead hiring decisions to be more influenced by group-level characteristics, such as race or ethnicity, than in full-time hiring scenarios. Second, firms tend to conduct less rigorous screening³ for internships or apprenticeships than for full-time roles, leaving more room for bias during the recruitment process.

Santiago Campero of the University of Toronto conducted a study to examine whether visible minorities are more susceptible to discrimination when applying for internships compared to full-time positions (Campero, 2023^[92]). To investigate this, he analysed the case of a Silicon Valley software firm. Between 2009 and 2012, this company recruited for two types of positions – software engineer internships and regular, entry-level, full-time software engineer roles – that were otherwise similar across several key dimensions. The study confirms that the firm allocated less screening time to interns and that non-White candidates, including individuals of Asian, Black, and Hispanic descent, faced greater disparities in access to internships compared to full-time positions.

Confirming greater discrimination in access to WBL for visible minority students

There is evidence of discrimination against visible minorities in accessing WBL. A survey conducted in France, involving over 2000 young people seeking internships or apprenticeships, reveals that 15% reported experiencing discrimination while searching for these contracts, with those of immigrant background being disproportionately affected (Kergoat and Sulzer, 2017^[93]). Additionally, a related study indicates that young people with at least one parent born outside of France are overrepresented among those facing difficulties securing internships (Farvaque, 2009^[94]). The primary barriers cited include skin colour and the racial/ethnic connotations of their names, with 40% of respondents identifying each of these factors as major obstacles.

These discrepancies are not merely perceived: they reflect a real disparity. Notably, Helland and Støren (2006) analysed outcomes for over 8 000 Norwegian youths who applied for apprenticeships in 2002. They found that vocational track students of non-European origin were less likely to secure an apprenticeship than their peers with equivalent grades and school attendance (Helland and Støren, 2006^[95]).

One could argue that these disparities may arise from differences in important productive characteristics that are observed by employers but not by researchers. To rule out this possibility, one must run

correspondence studies. They involve sending out, in response to real job ads, the CVs and letters of application of fictitious candidates who are identical except for their racial/ethnic background, indicated by their first and/or last names. The researchers then track the number of employer responses, or “callbacks”, received by each type of applicant, with any statistically significant differences in callbacks serving as indicators of racial/ethnic discrimination. For instance, (Kaas and Manger, 2012^[96]) applied this methodology in the German context by sending over 500 internship applications to firms advertising online. The only difference in the applications was the use of either a German-sounding or Turkish-sounding name. Applications with German-sounding names received 14% more callbacks. Essentially, an equally qualified applicant with a Turkish-sounding name had to send out 14% more applications to receive the same number of responses as an applicant with a German-sounding name. This result was reaffirmed in a later correspondence test focusing on internship applications within the German public sector. (Auer et al., 2022^[97]) found that candidates with German-sounding names received up to 50% more callbacks compared to those with Turkish-sounding names.

These findings underscore the significant hurdles that visible minorities encounter in accessing WBL. Discrimination in obtaining internships or apprenticeships may also relegate visible minorities to lower quality internships, including unpaid or low-paid positions. While analyses regarding the types of internships secured by racial/ethnic minority students remain limited in Europe, data from the United States (National Association of Colleges and Employers, 2020^[98]) confirm that Black, multi-racial, and Hispanic college students are disproportionately represented in unpaid internships and underrepresented in paid ones.

1.3.2. Greater exposure to disciplinary actions

The trend of offending behaviour peaking during the late teens and early 20s is well-documented, as shown in the seminal works of (Hirschi and Gottfredson, 1993^[99]) and (Quetelet, 2003^[100]). As a result, younger individuals, are more frequently subjected to disciplinary actions than older age groups.

However, this pattern is particularly pronounced among visible minority youth. Research suggests that these disparities may not only reflect a higher incidence of felonies or misdemeanours – potentially linked to lower socio-economic status – but also racial/ethnic bias manifesting in various forms. These include disparate punitive practices within educational settings, as well as in law enforcement, including differential treatment by the police and inequities in court proceedings.

Bias in punitive practices in school

In the United States, the 2020-21 Civil Rights Data Collection (CRDC), a comprehensive survey required of all public schools hosting students from preschool through grade 12, found that despite Black pre-schoolers comprising only 17% of preschool enrolment, they represented a striking 31% of those subjected to one or more out-of-school suspensions and 25% of those who were expelled (U.S. Department of Education, 2023^[101]).

Racial/ethnic bias appears to play a significant role in the discrepancies observed in disciplinary actions between Black and White students within school environments. As preliminary evidence, which is only correlational, a study examined the relationship between county-level explicit and implicit measures of racial/ethnic bias and racial/ethnic disciplinary disparities across approximately 96 000 schools in the United States, encompassing around 32 million White and Black students (Riddle and Sinclair, 2019^[102]). The findings show a positive correlation between both explicit and implicit forms of racial/ethnic bias and Black-White gaps in five disciplinary actions, namely school arrests, expulsions, law enforcement referrals, and in-school and out-of-school suspensions. Yet, this result could stem from reverse causation, with more offenses by Black students reinforcing racial bias.

That said, evidence also suggests a tendency to impose harsher disciplinary measures on minority students, even when their behaviours are comparable to those of their peers. In a pivotal study encompassing 364 elementary and middle schools during the 2005 to 2006 academic year, (Skiba et al., 2011_[103]) uncovered stark disparities: Black students were found to be twice more likely at the elementary level, and nearly four times more likely at the middle school level, to be sent to the office for behavioural misconduct compared to their White peers. Upon such referrals, Black students faced a higher likelihood of suspension or expulsion, *even for actions similar to those of their White counterparts*. Digging deeper into the nature of these disciplinary disparities, an earlier investigation by (Skiba et al., 2002_[104]) revealed that Black middle school students were disproportionately referred for subjective, less severe infractions – such as perceived disrespect, defiance, or loitering – while White students were more often cited for objective, more serious offenses like vandalism, fighting, or drug possession.

The repercussions of such disparate treatment are profound, as they may affect both educational achievements and later-life interactions with the criminal justice system. Over time, students subjected to differential treatment may internalise a sense of being inherently “problematic” or “less capable”, leading to diminished self-esteem and lowered academic aspirations. Moreover, this uneven treatment might steer them towards affiliations with at-risk peers, perpetuating harmful stereotypes and exacerbating their marginalised status. Research corroborates these adverse effects (Bacher-Hicks, Billings and Deming, 2024_[105]). The study capitalises on a significant boundary change in Charlotte-Mecklenburg middle schools in the fall of 2002, which resulted in approximately half of the students attending a new school. The authors observe that students quasi-randomly assigned to the “stricter” schools – identified by higher suspension rates – are significantly more prone to suspension during the 2002-03 school year, more likely to drop out of school, and less inclined to pursue college education. The ramifications extend into adulthood, with individuals assigned to stricter middle schools exhibiting higher rates of arrest and incarceration.

Comprehensive data and analyses like those available for the United States are currently lacking for Europe. Nevertheless, racial/ethnic disparities have been found in English schools, where exclusion rates for Black Caribbean students are up to six times higher than those of their White peers in some local authorities (McIntyre, Parveen and Thomas, 2021_[106]).

Bias in law enforcement

Bias in law enforcement includes differential treatment by the police and uneven justice in court proceedings.

While extensive documentation exists on racial/ethnic bias in law enforcement practices in the United States, comparable research in Europe is scarce. For instance, the report “Addressing racism in policing” published in 2024 by the Fundamental Rights Agency stresses that most EU countries do not have official data sources on racist incidents and discrimination involving the police (FRA, 2024_[107]). Yet, subjective measures suggest that discrimination against racial/ethnic minorities by law enforcement may be an issue beyond the United States. Notably, perceptions of discrimination within this realm are echoed on both sides of the Atlantic. In the United States, a 2019 survey by the Pew Research Center unveiled widespread perceptions of unequal treatment of Black individuals compared to Whites within the police force and the criminal justice system (Gramlich, 2019_[108]). This sentiment was shared by a majority of both Black and White Americans, with Black adults approximately five times more likely than Whites to report unfair treatment by police based on their race or ethnicity. Similarly, in the EU, nearly half (48%) of respondents of African descent who had been stopped by the police in the five years preceding the survey attributed these encounters to their immigrant or racial/ethnic minority background, including factors such as skin colour or religion (FRA, 2023_[14]). This figure increased to 58% among those stopped within the 12 months prior to the survey. Moreover, among those stopped, nearly one in five (19%) claimed that they were treated very or fairly disrespectfully by the police.

Bias in policing

While not necessarily evidence of actual bias and discrimination, the disproportionate likelihood of Blacks and Hispanics being subjected to police stops and searches is a well-documented phenomenon in the United States (Coviello and Persico, 2015^[109]). This trend is also observed in European countries where data are available. For instance, in France, a report gathered information on over 500 police stops at five locations in and around the Gare du Nord and Châtelet-Les Halles rail stations in Paris (Jobard and Lévy, 2009^[110]). The findings revealed that individuals of sub-Saharan African or Caribbean origin were six times more likely, and those of North African origin more than seven times more likely, to be stopped by the police than their White counterparts. Furthermore, the study identified a significant correlation between individuals' ethnicity, including specific styles of clothing worn by young people, and the probability of being subjected to police stops.

Similarly, in the United Kingdom, several studies have highlighted significant racial/ethnic disparities in stop-and-search rates. Analysing 12 years of annual data from 38 police force areas in England, (Miller, 2010^[111]) discovered disparities in police searches: Black individuals were 2 to 3 times more likely to be stopped and searched than Asian individuals, and 3 to 4 times more likely than those in the "others" category, which includes White people. In urban centres such as London, Manchester, and the West Midlands, the frequency for Black individuals increased, reaching nearly eight times that of others. The Lammy report, a comprehensive review commissioned by the UK Government to assess the situation of racial/ethnic minorities within the law enforcement system, corroborates these findings (Lammy, 2017^[112]). According to the report, Black individuals are approximately six times more likely to be subjected to stop-and-search procedures. Recent data from the UK Government further confirm these disparities. The search-and-stop rates for Black individuals in England and Wales from March 2022 to March 2023 were reported to be 5.5 times higher than those for White individuals (Home Office, 2024^[113]). Additionally, the study suggests that this disproportionality in stop-and-search activities translates into disparities in arrest rates. In 2022/23, Black individuals in England and Wales were approximately 2.2 times more likely than their White counterparts to be arrested.

The disproportionate exposure of visible minorities to police stops is especially concerning for visible minority youth. A quarter (26%) of individuals of African descent in the EU reported being stopped by the police at least once in the five years preceding the survey (FRA, 2023^[14]). Among those aged 16-24 years, the rate reaches 34%, which is three times higher than the rate for individuals aged 60 and over (11%). These findings are consistent with a 2016 survey conducted by the French equality body, which involved over 5 000 individuals (Défenseur des droits, 2017^[114]). The results showed that 80% of men under the age of 25, perceived as North African/Middle Eastern or Black, reported being stopped by the police at least once in the past five years, with over one-third experiencing more than five stops. When adjusting for factors like place of residence, education level, and financial situation, these young men were found to be 20 times more likely to be stopped than their peers of European background.

Although previous studies suggest racial/ethnic bias and discrimination, they do not provide clear-cut evidence of these mechanisms. In the United States, researchers have specifically examined this issue by investigating whether police officers discriminate against Black drivers caught speeding (Goncalves and Mello, 2021^[115]). As the penalty for speeding escalates discontinuously with the speed of the driver, some officers may be inclined to mitigate the penalty by reducing the recorded speed to just below a threshold. The authors reveal that Black drivers are less likely than their White counterparts to have a reported speed just below the threshold, and document that this disparity is unlikely to stem from differences in actual speeding behaviour. Furthermore, they demonstrate that 40% of officers contribute to this discrepancy, indicating that racial/ethnic bias in policing extends beyond isolated instances. Noting the unequal rates at which Black drivers were stopped in most US counties, a subsequent study delved into the connection between racial/ethnic bias and disparities in police traffic stops (Stelter et al., 2022^[116]). The authors found

that the uneven stopping of Black drivers was more pronounced in counties with higher levels of anti-Black prejudice.

Evidence of racial/ethnic discrimination in policing has also been found in Europe. In Denmark, immediate descendants of immigrants are nearly 50% more likely to be arrested by the police without subsequent conviction than their Danish-born peers, even after accounting for socio-economic factors – and this gap widens for those of non-European descent (Søndergaard and Hussein, 2022^[117]).

Bias in the criminal justice system

Racial/ethnic disparities may not only materialise in the likelihood of being stopped, searched, and arrested; they can also pervade several other stages of the criminal justice system, although observed raw gaps could stem from visible minorities engaging in more severe offenses than the majority population. In the United States, Blacks are more likely than Whites to be charged with a serious crime, detained before trial, convicted of an offense, and incarcerated (Arnold, Dobbie and Hull, 2022^[118]). Similar discrepancies have also been substantiated in the United Kingdom. According to the 2021 Prison Population Statistics of the UK Ministry of Justice, non-White individuals are overrepresented in British prisons compared to the general population (Ministry of Justice, 2021^[119]). Despite constituting only 15% of the general population in 2020, non-White individuals made up 27% of the entire incarcerated population. Particularly striking is the fact that Black individuals account for 13% of the prison population, while they represent just 3% of the population in England and Wales. Moreover, Black individuals face not only a higher likelihood of imprisonment but also longer sentences. Since 2016, White defendants have consistently received shorter average custodial sentence lengths (ACSL) compared to defendants from other ethnic backgrounds (Ministry of Justice, 2021^[119]). In 2020, the ACSL for White offenders was 19.6 months, while Black offenders received an average of 26.8 months. Asian offenders faced an average of 28.6 months, and offenders of Mixed, Chinese, or Other ethnic backgrounds received an average of 24.4 months.

These discrepancies persist even when moving away from raw gaps and comparing minority groups with their observably similar majority peers. In Spain, for example, even after controlling for gender, age, and legal factors such as offense type, African foreigners are more than four times as likely as Spanish defendants to receive a prison sentence (Riba et al., 2023^[120]). Likewise, in Ireland, even after adjusting for variables such as prior custodial sentences and gender, non-Irish nationals are given longer sentences than Irish nationals for identical criminal offenses (Brandon and O’Connell, 2017^[121]). Interestingly, the discrimination visible minorities experience in their interactions with the police in Denmark appears to extend into the criminal justice system. While many disparities in education and labour market outcomes between native-born individuals with at least one foreign-born parent and those with two native-born parents can be attributed to differences in parental socio-economic background, one key exception stands out: even after controlling for parental characteristics, individuals with at least one foreign-born parent face a higher likelihood of receiving a prison sentence than their peers with two native-born parents (Fjællegaard Jensen and Manning, 2025^[122]).

However, these findings should not be interpreted as definitive proof of racial/ethnic bias. Disparities between visible minority groups and the majority may also stem from factors unrelated to bias, such as unequal access to quality legal assistance, often linked to lower socio-economic status and rarely observable to researchers. To disentangle bias from both observable and unobservable factors unrelated to bias, a substantial body of literature, primarily from the United States, has developed rigorous methodologies. These studies indicate that bias does contribute to the disparities observed in the criminal justice system (Alesina and La Ferrara, 2014^[123]; Arnold, Dobbie and Yang, 2018^[124]; Arnold, Dobbie and Hull, 2022^[118]).

For instance, Alberto Alesina and Eliana La Ferrara utilised a unique feature of the US capital sentencing process whereby all first-degree capital sentences are automatically appealed. They focused on errors made by lower courts, specifically judgments that were later overturned by higher courts. The assumption

underlying their analysis was that higher courts should improve the accuracy of initial sentencing, thereby reducing or eliminating racial/ethnic bias.

A direct comparison of error rates against minority versus White defendants may be inconclusive due to potential differences in unobservables correlated with defendants' race. However, under the assumption that these unobservables remain constant relative to the victim's race, Alesina and La Ferrara constructed a test based on victim/defendant race pairings. Specifically, if courts are unbiased, error rates should not vary based on the race of the defendant-victim pair. For example, if courts commit more errors on minority defendants who killed White victims than on those who killed non-White victims, they should also commit more errors on White defendants who killed White victims than on those who killed non-White ones.

Analysis of an original dataset covering all capital appeals from 1973 to 1995 revealed significant racial/ethnic bias in capital sentencing: minority defendants who killed White victims were 3 to 9 percentage points more likely to face errors than those who killed minority victims, while no gap was observed between majority defendants who killed White victims relative to majority defendants who killed non-White victims. Further analysis indicated that this effect was particularly pronounced in Southern states.

1.4. What is the evidence on racial/ethnic discrimination in the labour market?

According to the 2023 "Being Black in the EU" report, about one in three respondents (34%) experienced racial/ethnic discrimination when seeking employment in the five years prior to the survey, with a 12-month prevalence of racial/ethnic discrimination at 28%. This perception extends to those who have successfully secured employment: nearly one in three respondents (31%) felt racially/ethnically discriminated against at work in the five years preceding the survey, and 23% experienced this discrimination in the past 12 months.

Drawing on the most robust empirical evidence available, this section summarises the literature on racial/ethnic discrimination across hiring, employment, and termination practices. The analysis reveals that discrimination against minorities is prevalent in hiring and employment, with some evidence indicating that this discrimination might extend to job dismissals as well.

Before proceeding, it is important to reiterate that, as highlighted in this chapter's introduction, the following discussion – like the chapter as a whole – primarily focuses on *direct* discrimination. However, it should be acknowledged that indirect discrimination in the labour market likely exacerbates disparities for racial/ethnic minorities (see Box 1.5 for further discussion).

Box 1.5. Indirect discrimination in the labour market likely exacerbates disparities for racial/ethnic minorities

Direct discrimination occurs when an individual is treated less favourably than others under similar circumstances due to a protected attribute such as race/ethnicity, gender, age, or disability. For instance, a hiring manager who decides against employing someone because of their race/ethnicity is engaging in direct discrimination. Indirect discrimination, on the other hand, involves policies, practices, or rules that, while appearing neutral, disproportionately impact certain groups. This form of discrimination often arises unintentionally. Both forms of discrimination are unlawful in many jurisdictions. However, identifying and addressing indirect discrimination often requires a deeper analysis to uncover the broader effects of policies that may initially seem innocuous.

In the labour market, indirect discrimination mainly emanates from hiring and termination processes (Small and Pager, 2020^[125]).

Regarding hiring, a common recruitment strategy involves employee referral networks, which can inadvertently perpetuate racial/ethnic uniformity. Since social circles tend to consist largely of individuals of the same racial/ethnic background (McPherson, Smith-Lovin and Cook, 2001^[126]), a company with an homogenous workforce is likely to continue hiring similar profiles if relying solely on employee referrals. To mitigate this form of indirect discrimination, organisations should broaden their recruitment outreach, utilise diverse job advertisement channels, and conduct targeted job fairs and recruitment campaigns to reach underrepresented groups (OECD, 2020^[127]).

Regarding termination, decisions on layoffs sometimes consider factors like tenure and/or the criticality of managerial roles, which can disproportionately affect visible minorities. This population frequently holds less tenure (specially in managerial positions) and occupies non-critical leadership role due to historical disparities (Elliott and Smith, 2004^[128]). Research by (Kalev, 2014^[129]) examining 327 US organisations that underwent downsizing between 1971 and 2002 found that basing layoffs on tenure or job criticality disproportionately reduced visible minority managerial representation. Alternatively, organisations that prioritised performance evaluations in their layoff decisions retained more diverse management teams. To mitigate this form of indirect discrimination, companies should consider emphasising performance over tenure or role criticality in their downsizing criteria.

1.4.1. Racial/ethnic discrimination in hiring

After examining the main findings from an extensive array of correspondence studies on racial/ethnic discrimination in hiring, this section focuses on six key additional insights drawn from this literature.

Strong evidence of hiring discrimination against racial/ethnic minorities

The first ever correspondence study was published in 1970 by Roger Jowell and Patricia Prescott-Clarke (Jowell and Prescott-Clarke, 1970^[130]). The researchers compared response rates between fictitious native British applicants and fictitious applicants with similar CVs who had immigrated to Britain in their youth and held “permanent resident” status. The applicants were from four different regions: the British West Indies, Australia, Asia (India and Pakistan), and Cyprus. Their geographical origins were discernible through their names and explicit references to their home countries in cover letters. The results revealed that applicants from Australia and Cyprus achieved interview rates comparable to those of UK applicants with no migrant parentage – 74% compared to 78% for British citizens. However, applicants from racial/ethnic minorities, specifically the West Indies and Asia, faced significant discrimination, with interview rates of only 52%, approximately a third lower than those of British citizens.

Since then, hundreds of correspondence studies have been conducted to verify the prevalence of discrimination based on racial/ethnic origin. These studies overwhelmingly confirm Roger Jowell and Patricia Prescott-Clarke’s findings that visible minorities face discrimination compared to their majority peers (Lippens, Vermeiren and Baert, 2023^[131]).

In a notable study, (Quillian et al., 2017^[132]) performed a comprehensive meta-analysis of 24 labour market correspondence tests conducted in the United States between 1989 and 2015. They found that, on average, White applicants received 36% more callbacks than equally qualified Black American applicants and 24% more callbacks than equally qualified Latino applicants.

Hiring discrimination against visible minorities is not confined to the United States. (Quillian et al., 2019^[133]) conducted a comprehensive meta-analysis of 97 field experiments to assess hiring discrimination across five EU countries (Belgium, France, Germany, the Netherlands, and Sweden) as well as Great Britain, Norway, the United States, and Canada. The findings revealed that non-White natives, including individuals of Asian, Middle Eastern, North African, and sub-Saharan African descent, were up to twice as likely to be denied a job interview compared to their White native counterparts with equivalent CVs. For

instance, the call-back rate for White majority applicants ranged from 24% higher in Germany to 78% higher in France when compared to candidates of Middle Eastern or North African descent. Similarly, the call-back rate gap for Black applicants varied from 5% in Belgium (not statistically significant) and 49% in Great Britain to 102% in France. While there are fewer studies on hiring discrimination against Asian groups, the available data indicate significant disparities. The call-back rate gap was estimated at 35% in Norway, 42% in Canada, 45% in France, and 60% in Great Britain. Gaps in the Netherlands and the United States were smaller and not statistically significant.

The correspondence studies on which these meta-analyses rely convey race and ethnicity through the applicants' first and last names, which combine phenotypical and ancestry triggers of discrimination. Under these circumstances, it is challenging to discern whether phenotype (race) plays a separate role when ancestry (ethnicity) is held constant. To investigate this question, recent research utilised a large-scale correspondence study on hiring discrimination based on racial appearance across Germany, the Netherlands, and Spain (Polavieja et al., 2023^[134]). Nearly 13 000 fictitious CVs were submitted to actual job vacancies, with applicants' phenotype and ancestry varied randomly. Phenotype was conveyed through applicants' photographs. Specifically, the authors created eight photographs representing four phenotypic groups: Black, Asian/Indigenous, Dark-Skinned Caucasian, and White. Ancestry was signalled by ethnic-sounding names with no strong religious or class connotation, mother tongue, and parental country of origin. Regarding the latter, the study included 44 different ancestries, grouped into five main regions: Asia, Europe (together with the United States), Latin America and the Caribbean, the Middle East and North Africa, and sub-Saharan Africa. Sub-Saharan Africa was uniquely associated with Black applicants, while the other regions included applicants across all four phenotypic groups. The results provided evidence that race triggers discriminatory behaviour in all three countries. In Germany and the Netherlands, race influenced discriminatory behaviour independently of ethnicity, while in Spain, race and ethnicity jointly affected hiring outcomes.

Overall, evidence shows that racial/ethnic minorities face considerable discrimination in hiring, including due to their visibly distinct (non-White) phenotypes. This situation raises concerns about the use of artificial intelligence (AI) in recruitment processes. If these AI systems are trained on historical data, they risk perpetuating discrimination since these data are typically fraught with bias (see Box 1.6).

Box 1.6. The use of artificial intelligence will not necessarily alleviate bias in hiring

Machine learning algorithms rely on training datasets to build models that capture relationships between individual factors and specific outcomes. For instance, these models can predict the likelihood of an applicant being hired conditional on being interviewed, or assess an employee's job performance once hired. Once established, the model can then be applied to forecast outcomes for new applicants.

Some observers believe that artificial intelligence (AI) can serve as a powerful tool to reduce discrimination. By uncovering predictive patterns, AI could enable employers to identify high-quality candidates that human recruiters, susceptible to bias, might overlook (Hoffman, Kahn and Li, 2018^[135]). However, this benefit only holds true if AI models are trained on unbiased data; otherwise, automated methods risk reinforcing existing bias (Schellmann, 2024^[136]). In an illustrative case, Bloomberg used Chat GPT to generate eight different resumes with identical educational attainment, job titles, and work experience (Yin, Alba and Nicoletti, 2024^[137]). The only variation was in the names, which represented different demographic groups: men and women who were Black, White, Hispanic, or Asian. Names were randomly assigned to each resume, and Chat GPT was prompted to rank candidates for a real job opening at a Fortune 500 company. Even though all resumes were equally qualified, Chat GPT ranked one candidate highest. After 1 000 iterations with various names and combinations, the results revealed clear evidence of name-based discrimination. Ideally, each of the eight demographic groups

would be ranked as the top candidate 12.5% of the time. Instead of this, names associated with Black Americans were consistently the least likely to be selected for a financial analyst role.

Such bias is particularly likely given that most modern hiring algorithms rely on “exploitation”, which focuses on identifying the characteristics of applicants that historically predicted success. This approach, known as supervised learning, works well when firms have representative data on past applicants and when past success predictors remain relevant over time. However, these assumptions often fall short. Candidates from non-traditional backgrounds may be underrepresented in the training data particularly due to discrimination, hindering accurate performance predictions. Additionally, skill demands evolve, as demonstrated by the emphasis on remote work capabilities during and in the immediate aftermath of the COVID-19 pandemic.

To counteract this issue, a team of researchers tackled hiring as a dynamic learning problem by assessing candidates based on their potential (Li, Raymond and Bergman, 2025^[138]). Their algorithm introduces an “exploration bonus” that prioritises candidates on whom the firm has limited data. This concept, known as “hiring as exploration”, encourages firms to take a chance on lesser-known applicants. Using data from a Fortune 500 firm’s professional services recruitment, the research team demonstrated that incorporating an exploration approach into hiring algorithms improved candidate quality (as measured by eventual hiring rates) and increased demographic diversity compared to the firm’s existing practices. In contrast, algorithms based on exploitation improved hiring rates but resulted in significantly fewer Black and Hispanic applicants being selected. Specifically, the exploration approach yielded more than three times as many Black and Hispanic candidates as traditional resume-screening algorithms.

Source: (Carcillo and Valfort, 2025 (forthcoming)^[139]), *Invisible Barriers. Understanding and Overcoming Discrimination in the Workplace*.

Additional insights into racial/ethnic discrimination in hiring

Complementary evidence provides six additional insights into racial/ethnic discrimination in hiring. First, the real-world impact of hiring discrimination, as evidenced by field experiments, is substantial. Second, correspondence studies underestimate the true extent of discrimination against visible minorities in the labour market at large. Third, racial/ethnic hiring discrimination has not diminished over time. Fourth, age exacerbates racial/ethnic discrimination. Fifth, hiring discrimination against racial/ethnic minorities isn’t driven by a specific sector/industry, occupation, or firm’s size. Finally, racial/ethnic discrimination in hiring is driven, at least in part, by bias rather than by solely rational economic calculations.

The real-world impact of hiring discrimination, as evidenced by field experiments, is substantial

In theory, hiring discrimination may not significantly impact the labour market outcomes of visible minorities if they can compensate for it, such as by submitting more applications than their majority counterparts. However, evidence indicates that hiring discrimination does reduce employment prospects for visible minorities.

A paper published in *Nature*, involving a partnership with the Swiss Government-affiliated online recruitment platform Job-Room (www.job-room.ch), provides critical insights in this regard (Hangartner, Kopp and Siegenthaler, 2021^[140]). Researchers employed machine learning to analyse the behaviour of employers on this platform, specifically evaluating the likelihood that employers contact “majority” and “minority” candidates with similar profiles. By linking jobseekers’ profiles to administrative unemployment data, the researchers could also examine the likelihood of “majority” and “minority” candidates securing employment, conditional on being contacted.

From March to December 2017, data were collected on 43 352 recruiters, 452 729 searches, and 17.4 million profiles that appeared in search results. The findings reveal that recruiters treat otherwise identical jobseekers differently based on their racial or ethnic background, inferred from their names, nationality, and language skills. Except for jobseekers from southern Europe, those with recent immigrant backgrounds face a significantly lower contact rate than native Swiss citizens, with penalties especially pronounced for visible minorities. Contact penalties amount to 4.2% for candidates from Western and Northern Europe, 6.2% for those from Central and Eastern Europe, 6.4% for candidates from the Americas, 12.6% for those from the Balkans, 13.5% for candidates from the Middle East and North Africa, 17.1% for those from sub-Saharan Africa, and 18.5% for individuals from Asia.

By linking jobseekers' profiles to unemployment data, the researchers also demonstrated the real-world impact of hiring discrimination: each click on the contact button increases the likelihood that an individual exits unemployment within three months by 2.1%. In other words, jobseekers who are not contacted face a substantially reduced chance of finding employment in the same timeframe.

Correspondence studies underestimate the true extent of hiring discrimination

Correspondence studies may understate the full extent of hiring discrimination against visible minorities because they don't assess post-interview outcomes. To test this assumption, several field experiments examining racial/ethnic hiring discrimination combined correspondence studies with audit studies. In these audits, actors represent fictitious applicants in real job interviews. Evidence from these combined studies highlights significant second-stage discrimination (Quillian, Lee and Oliver, 2020^[141]): candidates representing the racial/ethnic majority not only receive approximately 50% more callbacks, but also, if invited to an interview, secure roughly 50% more job offers than minority candidates. This pattern indicates that overall hiring discrimination against visible minorities is twice as large as what is measured at the callback stage.

Racial/ethnic hiring discrimination does not seem to have diminished over time

A longitudinal analysis of correspondence studies reveals a troubling trend: racial/ethnic discrimination in hiring has not declined over time. For instance, an examination of all correspondence studies conducted in the United States from 1989 to 2015, involving fictitious White and African-American job applicants, shows that the level of discrimination against African Americans has remained consistent throughout this period (Quillian et al., 2017^[132]).

Similarly, a review of correspondence studies from the late 1960s to the late 2010s across six European and North American countries (Canada, France, Germany, Great Britain, the Netherlands, and the United States) found that racial/ethnic discrimination has remained largely unchanged for most countries and visible minority groups (Quillian and Lee, 2023^[142]). However, there are three notable exceptions. First, based on the available studies, it seems that hiring discrimination against individuals of Middle Eastern and North African descent increased during the 2000s compared to the 1990s. Second, discrimination in France appears to have declined, although only from very high levels to merely high ones. Third, evidence suggests that discrimination in the Netherlands has risen over time.

Finally, after synthesizing an extensive compilation of correspondence studies published between 2005 and 2020, Louis Lippens and his co-authors found no evidence of changes in the level of hiring discrimination against racial/ethnic minorities (Lippens, Vermeiren and Baert, 2023^[131]). However, caution is needed when interpreting such trends, as studies conducted over time often differ in design and typically cover only a limited segment of the labour market. As a result, identifying broad time trends remains challenging.

Age exacerbates racial/ethnic hiring discrimination

While most correspondence studies investigating racial/ethnic discrimination in hiring focus on young candidates (under 30), complementary evidence indicates that discrimination against visible minorities does not diminish with age and may even intensify.

Economist Nick Drydakis and his co-authors, using a series of correspondence studies in the United Kingdom, explored the interplay between race/ethnicity, age, and gender (Drydakis, Paraskevopoulou and Bozani, 2022^[143]; Drydakis et al., 2018^[144]). They found that both White and Black fictitious applicants experienced age discrimination. In their experiments, older applicants (50-year-olds) possess 31 years of experience in the relevant occupation (applying for low-skilled private sector jobs, such as restaurant-café employees and sales assistants in England), while younger applicants (28-year-olds) only have nine years of experience in this occupation. Despite this gap, the latter were significantly more likely to receive interview invitations. Furthermore, the authors revealed that age-related discrimination was more severe for Black applicants, particularly women.

Lastly, the study illustrated that barriers to employment access for racial/ethnic minorities not only increase with age but also that these groups are more likely to be channelled into lower-paying positions, receiving invitations for vacancies offering lower wages compared to the wages associated with the vacancies for which majority candidates are interviewed.

Hiring discrimination against racial/ethnic minorities isn't driven by a specific sector/industry, occupation or firm's size

Meta-analyses of correspondence studies which assess racial/ethnic hiring discrimination control for variables such as the industry and occupation of the fictitious applicants. This approach ensures that the findings are not skewed by these factors.

Yet, correspondence studies predominantly examine private sector job listings. It is thus critical to question whether public sector employers exhibit similar discriminatory practices. While only a limited number of studies have explored this angle, the evidence generally indicates that the public sector does not fare better than the private sector in terms of equitable hiring practices (L'Horty et al., 2022^[145]; Petit, Bunel and L'horty, 2020^[146]; Villadsen and Wulff, 2018^[147]). At best, the public sector may show slightly less discrimination, yet it is by no means free from biased hiring practices (Baert et al., 2018^[148]). This may be particularly true, as research suggests that hiring discrimination in the public sector is more likely to occur at the post-interview stage, which correspondence studies fail to monitor (Cahuc et al., 2019^[149]).

In addition, although meta-analyses adjust for the occupation of the fictitious candidate, the correspondence studies they examine generally focus on non-leadership positions. To the best of our knowledge, only one correspondence study, conducted in Australia, has compared racial/ethnic discrimination in hiring for both non-leadership and leadership roles (Adamovic and Leibbrandt, 2023^[150]). The findings indicate substantial discrimination at both levels, with the most severe discrimination occurring in leadership positions. Specifically, 26.8% of job applicants with English names applying to leadership roles received positive responses, compared to just 11.4% of those with non-English names – this includes 14.3% for Greek, 11.8% for Aboriginal and Torres Strait Islander, 10.3% for Chinese, 10.8% for Indian, and 9.7% for Arabic names. Thus, applicants with non-English names experienced a 15.4 percentage point lower positive response rate than those with English names. This result equates to a 57.4% lower likelihood of receiving a positive response, with the greatest penalties faced by groups whose distinctiveness is more visible. Furthermore, when applying to non-leadership roles, applicants with non-English names still face a significant though slightly lesser disadvantage; their likelihood of being invited to a job interview is 45.3% lower than that for applicants with English names.

Lastly, an examination of the influence of firm size on hiring discrimination in Belgium suggests a consistent pattern of bias. Discriminatory hiring practices are pervasive irrespective of whether a company is classified

as large, medium, or small based on revenue, operating income, workforce size, and stock market listing (Baert et al., 2018^[148]).

Racial/ethnic discrimination in hiring is driven, at least in part, by bias rather than by solely rational economic calculations

The results from some of the studies reviewed above might be attributed at least in part to rational economic calculations – what economists refer to as “statistical discrimination”. For instance, employers may accurately anticipate that racial/ethnic minorities, on average, come from lower socio-economic backgrounds, which could detrimentally affect unobserved aspects of their human capital and, consequently, their productivity. As a result, employers may avoid hiring them, even in the absence of bias – a distinction from what economists call “taste-based discrimination”.

Several correspondence studies have sought to determine whether discrimination against racial/ethnic minorities is taste-based or statistical. Evidence for taste-based discrimination is typically gathered using three main approaches. The first approach focuses on employer bias, assessing discrimination in relation to employers’ prejudiced views towards racial/ethnic minorities. The second approach is centred on customer contact. It involves comparing discrimination levels in jobs with high versus low customer interaction, with greater discrimination in high-contact roles suggesting taste-based discrimination. The third approach examines co-worker contact, analysing discrimination in roles that require extensive interaction with coworkers versus those with minimal contact. Higher levels of discrimination in jobs with significant co-worker interaction indicate taste-based discrimination.

In contrast, evidence of statistical discrimination is usually measured by introducing an experimental condition that provides additional information about candidates’ language skills, academic achievements, job qualifications, and other productivity indicators. Researchers then assess whether this additional information affects the relationship between race/ethnicity and discriminatory behaviour. If discrimination remains unchanged despite the enhanced profile, it suggests that statistical discrimination is not the primary factor. On the other hand, a decrease in discrimination upon the introduction of additional information indicates the presence of statistical discrimination.

A review of the literature indicates that both statistical and taste-based discrimination influence hiring practices (Lippens et al., 2022^[151]). Providing employers with additional information about candidates’ productivity generally reduces – but does not eliminate – their reluctance to invite racial/ethnic minority candidates to job interviews, indicating that taste-based discrimination is at play. This is further supported by the correlation between the degree of discrimination, employers’ bias, and the level of customer and co-worker interaction required for the job.

1.4.2. Racial/ethnic discrimination while in employment

There is widespread evidence of lower wages for racial/ethnic minorities, and these persist even after adjusting for a range of observable characteristics such as education and experience. Employer-employee linked data in countries where the identification of racial/ethnic minorities is possible indicates that labour earnings disparities between majority and minority employees mainly emerge within firms rather than between them. This finding suggests that observed wage gaps are not primarily due to racial/ethnic minorities clustering in lower-paying firms.

This pattern has been documented in the United States (Carrington and Troske, 1998^[152]). It has also been demonstrated in Great Britain (Forth, Theodoropoulos and Bryson, 2023^[153]). Specifically, Alexander Bryson, John Forth, and Nikos Theodoropoulos identified significant racial/ethnic segregation across workplaces: approximately 60% of British firms employ no ethnic minority workers. However, this segregation does not explain the aggregate wage gap between racial/ethnic minority and White employees. Instead, most of the wage disparity exists between co-workers with comparable qualifications

within the same firm. Non-White male employees earn, on average, about 10% less than their White counterparts after adjusting for wage differences across workplaces, while the wage penalty for non-White female employees is around 6%. Furthermore, the authors identified higher levels of skills mismatch and lower pay satisfaction among racial/ethnic minorities.

These findings suggest that minorities are often relegated to lower-skilled roles that do not reflect their true capabilities and/or are paid less for work of equal value. This disparity can stem from discrimination in promotion, supervision, or wage negotiation – all of which are backed by research as common forms of workplace bias. While most evidence comes from the United States, where data on this issue are more abundant, emerging research from Europe, though still limited, points to similar patterns.

Discrimination in promotion

Discrimination in promotion has been well-documented in the United States. Studying 9 037 new hires at a US professional services firm, a group of economists documented large racial/ethnic promotion gaps (Linos, Mobasser and Roussille, 2025^[154]): even after controlling for observable characteristics, Black employees are 18.7 percentage points (26%) less likely to be promoted than their White counterparts over the same period. Similarly, using quasi-experimental data from a US police department, (Rim et al., 2024^[155]) found that White supervisors are 28% to 40% less likely to nominate Black officers for awards than their White counterparts, even after controlling for work performance. Furthermore, the authors stress that this nomination gap widens as supervisors' prejudice scores increase, which are measured by the use of force against Black civilians and citizen complaints.

Performance reviews appear as a critical mechanism being promotion gaps, as evidenced in the United States by a comprehensive meta-analysis conducted by (McKay and McDaniel, 2006^[156]). Another study by (Biernat and Kobrynowicz, 1997^[157]) highlights how stereotypes shape evaluations of racial/ethnic minorities. Their findings reveal a double standard in assessments: while Black applicants are judged against lower minimum standards, they must meet higher ability thresholds to be considered equally qualified. This paradoxically makes it easier for these to meet basic expectations but significantly harder to be recognised as highly competent or exceptional. In alignment with these findings, (Williams et al., 2021^[158]) analysed performance evaluations from a US law firm and discovered stark disparities in how employees are assessed: reviewers mentioned the mistakes of Black employees twice as often as those of White men, discussed their leadership skills 70% less frequently, and commented more on their personality traits.

The design of evaluation forms can significantly exacerbate performance review disparities. Commonly, these forms feature open-ended questions such as “Describe the employee’s accomplishments” or “How did the employee meet your expectations?”. However, the lack of specific criteria or clear definitions of expectations can introduce a high degree of subjectivity into the evaluation process. This ambiguity leaves substantial room for the evaluator’s bias to influence their judgments. Research indicates that when evaluation forms clearly define the expected competencies and require detailed evidence to support assessments, racial/ethnic disparities in reviews tend to diminish (Williams et al., 2021^[158]; Mackenzie, Wehner and Correll, 2019^[159]).

However, merely incorporating more quantitative measures does not automatically reduce bias. (Rivera and Tilcsik, 2019^[160]) found in their quasi-experimental study at a North American university that the structure of rating scales could significantly affect assessment bias. For instance, shifting from a 10-point to a 6-point scale in faculty teaching evaluations helped reduce the gender evaluation gap in the most male-dominated fields. The study suggests that higher ratings, like a perfect 10, are often subconsciously reserved for certain groups, in this case, men, due to stereotypical associations with brilliance or high ability. A 6-point scale, they argue, may curtail such biased perceptions.

Building on this initial finding, a recent study on a home-services labour platform in the United States demonstrated that switching from a five-star rating system to a simple thumbs-up/thumbs-down scale

significantly reduced discrimination. Under the original system, non-White workers received lower ratings and earned only 91 cents for every dollar paid to White workers for the same job. The shift to a dichotomous scale effectively eliminated this racial/ethnic bias in customer evaluations (Botelho et al., 2025^[161]).

(Bohnet, Hauser and Kristal, 2022^[162]) highlight another prevalent practice in organisations in performance review process that often disadvantages racial/ethnic minorities: the use of employee self-assessments shared with managers prior to final evaluations. Their analysis of performance evaluation data from an international financial services firm reveals that some racial/ethnic minorities and women, particularly women of colour, tend to underrate themselves, possibly due to the internalisation of negative bias. These self-assessments negatively impact managers' perceptions and decisions, creating an anchoring effect that undermines final evaluations (see (Bohnet and Chilazi, 2025^[163]) for additional evidence).

(Bellé, Cantarelli and Belardinelli, 2017^[164]) further substantiate the influence of such anchoring effects in an experiment involving 600 Italian public service employees. All participants received an identical description of a fictitious employee's performance, but the experiment manipulated their expectations by varying the employee's previous year's performance score – 91/100 in the high-anchor group versus 51/100 in the low-anchor group. Subsequent performance ratings for the current year were significantly higher in the high-anchor group than in the low-anchor group, illustrating how initial perceptions can skew subsequent evaluations.

Discrimination in supervision

An additional factor compounds the challenges faced by visible minorities in the workplace, contributing to their disproportionately lower pay and frequent confinement to lower-skilled jobs, despite performance levels that would justify better opportunities. This mechanism involves discriminatory managerial supervision, including inadequate oversight and the assignment of tasks that are unlikely to lead to promotion.

The detrimental effects of inadequate oversight on the productivity of visible minority employees – a phenomenon known as a self-fulfilling prophecy – have been demonstrated by (Glover, Pallais and Pariente, 2017^[165]). In their study, cashiers at a French grocery store chain were quasi-randomly assigned to various managers, and their performance data – including items scanned per minute and work hours – were analysed across 34 stores and 204 workers. The findings revealed that minority cashiers showed lower performance metrics, such as increased absenteeism, slower work pace, and reduced customer interaction, when supervised by biased managers identified through implicit association tests. These managers typically avoided meaningful interaction and supervision. In contrast, on days when they were managed by unbiased individuals, these minority employees outperformed their majority counterparts, underscoring the profound impact of managerial bias on worker performance.

As for bias in task assignment, evidence from the United States indicates that visible minorities are disproportionately often relegated to less favourable and less demanding tasks, which adversely affects their promotion and pay prospects, even after accounting for effort levels and career preferences (Lehmann, 2011^[166]).

This pattern is not confined to the United States; there is also some – albeit very limited – evidence for Europe. A study by (Siebers and Van Gastel, 2015^[167]) at the Dutch Ministry of Agriculture involved semi-structured interviews with 30 employees – half with a migration background and half without – and garnered 493 responses to an online questionnaire. The findings suggest that migrant employees were assigned less engaging tasks, diminishing their likelihood of participating actively in crucial workplace activities.

This reduced engagement may have significant implications for their earnings and career advancement, in a context where HR advisors underscore the importance of visibility for receiving positive performance

evaluations and recognition as high-potential employees, echoing research by (Rodwell, Kienzle and Shadur, 1998^[168]).

Discrimination in wage negotiation

The substantial racial/ethnic wage disparities between co-workers with similar qualifications within the same firm may partly be attributed to discrimination in wage negotiations.

The gender differences in negotiation behaviours have been extensively studied, revealing that traditional gender norms contribute to women's lower self-assessment in the labour market, often resulting in lower salary requests compared to their male counterparts – a phenomenon known as the “gender ask gap”. For instance, economist Nina Roussille utilised data from an online recruitment platform for engineering roles, finding that after accounting for resume differences, there was a 2.9% gender ask gap, which ultimately contributed to a 1% pay gap (Roussille, 2024^[169]).

Although research on wage negotiation dynamics related to race and ethnicity is not as well-documented as it is for gender, emerging evidence from the United States reveals influences of racial/ethnic bias on negotiation outcomes. In a 2019 study, a group of researchers conducted a salary negotiation simulation in the United States, revealing that job evaluators holding bias against Black candidates expected them to negotiate less frequently than their White counterparts, influenced by negative stereotypes about Black employees' job performance and a prejudiced belief that they should not advocate strongly for themselves (Hernandez et al., 2019^[170]). Each perceived negotiation attempt by a Black job seeker resulted in a starting salary that was, on average, USD 300 lower than the starting salary of their White counterparts. In contrast, evaluators with less racial bias offered salaries that were more equitable.

This type of bias may also be internalised by racial/ethnic minorities. For example, (Gasser, Flint and Tan, 2000^[171]) demonstrated that racial/ethnic minorities tend to adopt less assertive negotiation tactics and have lower salary expectations.

1.4.3. Racial/ethnic discrimination in job dismissal

Research on racial/ethnic discrimination in job dismissals is limited but indicative of potential firing discrimination, i.e. dismissal not justified by productivity differences.

In the United States, preliminary evidence suggests that racial/ethnic minorities are more susceptible to job dismissals than their White counterparts (Wilson, 2005^[172]; Hargis et al., 2006^[173]), with an increased likelihood under White supervisors (Giuliano, Levine and Leonard, 2011^[174]). Similarly, a study utilising Swedish population registers to compare native-born descendants of immigrants and descendants of native-born revealed that the disparities in unemployment rates between these two groups are primarily driven by differences in entering rather than exiting unemployment (Grotti, Aradhya and Härkönen, 2023^[175]).

However, identifying the exact factors leading to job dismissals is challenging due to their often unobservable nature. Unlike correspondence studies, which can effectively – though only partially – detect hiring discrimination, experimental studies measuring the impact of discrimination in firing are impossible to implement. Therefore, it is crucial to control for variables such as industry, occupation, contract type (e.g. part-time or fixed term), and proxies for individual productivity (e.g. wage, education, and age). Indeed, these factors can significantly influence exposure to termination, independently of any discriminatory actions by employers.

In this setting, exploring firing discrimination might be most feasible during economic downturns that result in mass layoffs. Such periods provide an opportunity to compare the termination rates of majority and minority employees under more controlled and comparable conditions, helping to isolate the possible effect of discriminatory practices more effectively.

Against this backdrop, economist Daniel Auer conducted a study exploring the disparate impact of the COVID-19 pandemic – an immense and all-encompassing economic shock – on migrants and natives within the German labour market (Auer, 2022^[176]). Utilising this unexpected economic downturn as a natural experiment, Auer investigated how firms across the industrial spectrum made critical decisions on employment retention, including who to keep or place on short-time work and who to dismiss.

His findings reveal that individuals with immigrant parentage were substantially more likely to be fired compared to their native German counterparts, controlling for industry, occupation, contract type and proxies for individual productivity. Specifically, employees with immigrant parentage faced a 4 percentage point higher likelihood of job dismissal under normal industry conditions. This disadvantage escalated dramatically in sectors most severely impacted by the pandemic, with the risk of being fired for migrants rising to 24 percentage points – a firing propensity three times higher than that of persons with native-born parents. Additionally, the study found no significant differences between the groups in terms of the likelihood to be put on short-time work.

Auer interprets these patterns as evidence that firms are more inclined to retain their workforce with native-born parentage while demonstrating less hesitation in dismissing workers with immigrant parentage. This suggests that firing discrimination exerts additional strain on the workforce during crises. Although these findings pertain to all persons with immigrant parentage rather than visible minorities per se, they underscore the need for further research into the reality of firing discrimination against this latter group.

1.5. What is the evidence on racial/ethnic discrimination in housing?

In the European Union, 31% of respondents of African descent reported encountering racial discrimination while trying to rent or buy property in the five years preceding the survey (FRA, 2023^[14]). Nearly a quarter (23%) of these individuals declared being barred from renting by private landlords, and almost 10% said they were prevented from purchasing homes by owners or estate agencies. For example, one in ten respondents of African descent reported seeing housing advertisements that explicitly excluded or discouraged applicants with ethnic or immigrant backgrounds. Consistent with these declarations, a French real estate agency faced backlash for a blatantly racist advertisement (International Business Times, 2016^[177]). The ad specified: “French nationality mandatory, no Blacks”, a discriminatory note reportedly included under the landlord’s pressure.

This instance is far from isolated. In Spain, an experimental study where researchers posed as property owners found that 72.5% of the 200 tested real estate agencies agreed to discriminate against racial/ethnic minorities when managing rentals (García Martín and Buch Sánchez, 2020^[178]).

More generally, evidence underscores pervasive discrimination against racial/ethnic minorities in both the rental and sale private housing markets. Discriminatory practices extend to mortgage loan access, creating compounded barriers to homeownership for these populations.

Before delving into this literature, it is essential to understand the profound repercussions discriminatory practices in housing and mortgage lending have.

- First, discrimination in the sale private housing market significantly hinders homeownership among racial/ethnic minorities. Lower homeownership rates translate into several disadvantages, including reduced economic security, housing stability, and housing quality. Homeownership is a crucial long-term investment and a primary avenue for wealth building. Moreover, homeowners generally enjoy more stability than renters, as they are less vulnerable to issues like rent increases or eviction. Additionally, homeowners have greater control over their living conditions, allowing them to invest in and improve their property, which often results in higher housing quality.
- Second, discriminatory practices in the rental and sale private housing markets tend to push racial/ethnic minorities into social housing at higher rates. For instance, (Fougère et al., 2013^[179])

found that from 1982 to 1999, immigrants from Türkiye, Morocco, Southeast Asia, Algeria, Tunisia, and Sub-Saharan Africa in France were significantly more likely to live in public housing. (Verdugo, 2011_[180]) similarly observed that immigrants from the Maghreb were more than twice as likely to reside in public housing compared to their French native counterparts in 1999, even after accounting for factors like age, education, and family structure. The evidence reported below suggests that this pattern may not only stem from visible minorities' lower income but also result from bias-motivated discrimination.

- Third, due to capacity constraints in social housing, discrimination in the rental and sale private housing market can contribute to the fact that minorities disproportionately face homelessness (OECD, 2024_[181]). In the United Kingdom, for example, they are overrepresented among the homeless even when controlling for demographics, employment, and other factors (Bramley et al., 2022_[182]). Similar patterns are seen across Europe. For instance, (Baptista and Marlier, 2019_[183]) reported that individuals of non-European background are overrepresented in homeless populations in Denmark and the Netherlands.
- Fourth, housing market discrimination exacerbates housing segregation, the physical separation of groups into different neighbourhoods. Consistent with this mechanism, (Liebig and Spielvogel, 2021_[7]) find that, across the EU, non-EU-born immigrants are more concentrated in specific areas than their EU-born counterparts. This segregation restricts access to essential resources such as quality education, healthcare, and employment opportunities, notably resulting in depressed property value. Policies that concentrate public housing in specific areas are a key factor behind the residential segregation of racial/ethnic minorities, as evidenced in Denmark and Sweden (Skifter Andersen et al., 2016_[184]), as well as in France (Verdugo and Toma, 2018_[185]; Verdugo, 2011_[180]). However, discrimination, along with phenomena like “white flight” and “white avoidance” (see Box 1.7), also likely plays a significant role in perpetuating this segregation.
- Fifth, discrimination in mortgage lending, which prevails even holding income constant, significantly impacts racial/ethnic differences in household wealth. Home equity is a major component of wealth accumulation; thus, mortgage loan discrimination reinforces the economic disparity faced by minorities.

Box 1.7. White flight and white avoidance

Not only landlords and real estate agents but also neighbours may harbour bias, leading to so-called phenomena of “white flight” and “white avoidance”. Extensive literature from the United States has documented the “white flight” phenomenon, which accelerates once the minority population in a neighbourhood surpasses a certain threshold, known as the “tipping point.” (Card, Mas and Rothstein, 2008_[186]) analysed US census data from 1970-2000, finding that when the proportion of racial/ethnic minorities in a neighbourhood exceeds 5%-20%, the White population moves out more rapidly. Historical research indicates that white flight, following the significant migration of Black individuals from the rural South to northern cities in the early twentieth century, significantly shaped the American geographic landscape, with Black populations concentrated in cities and White populations in suburbs. Economist Leah Platt Boustan estimated that each Black arrival led to 2.7 White departures (Boustan, 2010_[187]). Further analysis by (Shertzer and Walsh, 2019_[188]) suggests that segregation could have arisen solely from the flight behaviour of Whites.

Although less widespread, related research in Europe has emphasised a phenomenon of “white avoidance” rather than “white flight”. (Bråmă, 2006_[189]) found that in Sweden, “Swedish avoidance” – characterised by low in-migration rates among Swedes to areas with increased immigrant populations – rather than high out-migration rates (“flight”), was a key driver behind the formation of immigrant concentration areas. Similarly, using longitudinal data, (Rathelot and Safi, 2013_[190]) examined mobility

from one French municipality (commune) to another over time and assessed the effect of the initial municipality's ethnic composition on the probability of moving out. Their findings discredit the hypothesis of a “white flight” pattern in residential mobility dynamics in France but do reveal ethnic avoidance mechanisms among natives when relocating.

1.5.1. Racial/ethnic discrimination in the rental and sale private housing markets

After reviewing results from field experiments in the United States and Europe, this section explores whether racial/ethnic housing discrimination entirely stems from rational economic calculations or at least partly flows from bias.

Results from field experiments

In the United States, a group of researchers conducted a comprehensive meta-analysis exploring the outcomes of field experiments to measure housing discrimination spanning the past 40 years, from the 1970s to the 2010s (Quillian, Lee and Honoré, 2020^[191]). The primary source of data on discrimination in the US housing market stems from a series of large-scale national fair housing audits conducted by the U.S. Department of Housing and Urban Development (HUD) in 1977, 1989, 2000, and 2012. These audit studies involve pairs of test applicants with different racial and ethnic identities applying for the same housing vacancies, with profiles designed to make them equally desirable renters or home buyers. These HUD studies are remarkable for their extensive scope. For example, the 2012 HUD study conducted 2 999 Black-White rental and sale tests across 26 metropolitan areas with significant African American/Black populations, including Atlanta, Chicago, Detroit, Philadelphia, and New York City.

However, the meta-analysis does not rely solely on these audit studies. As online advertisements for dwellings have become more prevalent, audit studies have been increasingly supplemented by correspondence studies, where standardised written (e-mail) applications are sent out, typically with only the names of applicants indicating their race or ethnicity.

The findings of this meta-analysis reveal significant discrimination against racial/ethnic minority groups in both the rental and sales housing markets, with Black applicants facing the most severe penalties. Specifically, Black applicants have an 8 percentage point lower probability of receiving a response to an initial inquiry compared to equally qualified White applicants, while Hispanics face a 4 percentage point lower probability, and Asians a 3 percentage point lower probability. Substantial discrimination against Arab Americans is also noted, though this estimate is based on only two studies.

The analysis indicates a decline in housing discrimination from the late 1970s to the present. However, this decline is largely attributed to a reduction in overt exclusionary practices, such as not receiving a response or being told that the advertised unit is no longer available. In contrast, more subtle forms of differential treatment have remained virtually unchanged over time. In the 2010s, White auditors continued to be recommended more units and were more successful in inspecting units than their equally qualified minority counterparts.

Evidence of discrimination was also found in the private housing sector across eight European countries – France, Germany, Great Britain, Greece, Italy, Norway, Spain, and Sweden – according to a meta-analysis focused on the *rental* housing market (Auspurg, Schneck and Hinz, 2019^[192]), noting that no similar research has been conducted in the *sale* housing market. Arab/Muslim applicants consistently faced slightly higher levels of discrimination than Black applicants, while other ethnicities, primarily Central and Eastern Europeans and Asians, experienced the lowest levels of discrimination. However, the variations in discrimination across different racial and ethnic identities and countries were generally small.

Additional correspondence studies conducted after this meta-analysis confirm significant levels of discrimination against racial/ethnic minorities. In Ireland, the first field experiment on racial/ethnic

discrimination in the rental housing market demonstrated stronger discrimination against non-European migrants compared to European migrants (Gusciute, Mühlau and Layte, 2022^[193]). Irish applicants were more likely to receive invitations to view apartments than Polish applicants, who were, in turn, more likely than Nigerian applicants to receive such invitations. Gender discrimination was also evident, with female applicants receiving more invitations than their male counterparts. Overall, Irish females were the most likely to be invited to view an apartment, while Nigerian males were the least likely, with a statistically significant 23 percentage point (or nearly 50%) lower response rate.

Before concluding this section, it is crucial to highlight two complementary findings from the literature on racial/ethnic discrimination in the housing market. Research suggests that differential treatment extends to the prices paid for both dwellings on sale and rental properties. For example, an analysis of 2 million repeat-sales housing transactions from four major metropolitan areas in the United States found that racial/ethnic minorities pay approximately 2% more than Whites for comparable housing (Bayer et al., 2017^[194]). Similarly, (Drydakis, 2011^[195]) conducted a telephone correspondence experiment in the Greek rental market, which showed that Albanian renters faced significant price disparities. Specifically, Albanian renters were offered rentals that were 1.5% more expensive in middle-class areas and 2.3% more expensive in upper-class areas compared to their Greek counterparts.

Is bias at play?

Results from the field experiments reviewed above may be driven by statistical discrimination rather than bias. In the housing market, statistical discrimination refers to landlords and real estate agents making decisions based on accurate priors about the average characteristics of racial/ethnic minorities, which differ from those of the majority and impact profitability. One crucial characteristic is the likelihood of regular rental payments or successful bids from potential renters or buyers. Since racial/ethnic minorities have, on average, lower or more unstable household incomes than the majority population, landlords and agencies might use race or ethnicity as proxies for these unknown factors. What is more, in the case of immigrants, they often lack a credit history in the host country. In such cases, the discrimination observed may not be rooted in bias but in rational economic calculations.

Anecdotal evidence suggests that landlords often request excessive documentation or deposits from racial/ethnic minorities, particularly immigrants of African origin (Andrés Durà, 2021^[196]). Moreover, field experimental evidence indicates that minority applicants who receive positive responses from landlords or real estate agents are subsequently asked for more financial information (Acolin, Bostic and Painter, 2016^[197]). These are indications that statistical discrimination is at least in part at play. Additionally, the meta-analysis by (Auspurg, Schneck and Hinz, 2019^[192]) demonstrates that providing more positive information about applicants' social backgrounds reduces discrimination.

Yet, bias is also a substantial driver of the disparities observed between majority and minority applicants in their access to property rental or sale. Significant discrimination persists in the field experiments reviewed by (Auspurg, Schneck and Hinz, 2019^[192]) where extensive information on applicants' financial status is provided.

This research aligns with findings from a laboratory experiment conducted with 576 real estate students from various higher education institutions in Belgium. The experiment shows that neither the perceived financial reliability nor the communication skills of the rental applicants significantly influence their invitation rates. In contrast, the study reveals that bias from real estate agents plays a significant role in steering minority applicants towards lower-quality dwellings (Ghekiere et al., 2022^[198]).

Similarly, in the Austrian rental housing market, discrimination against applicants of foreign descent remains nearly unchanged when they state that they were born and raised in Austria – a detail that could otherwise signal integration – rather than leaving their migration background unspecified. Without providing this information, applicants with Austrian names are 10%, 33%, and 75% more likely to be invited for a viewing than those with Bosnian, Turkish, and Syrian names, respectively. Only Syrian applicants benefit

from clarifying that they were born and raised in Austria, likely because it distinguishes them from Syrian refugees fleeing the civil war – a group that has faced significant prejudice (Weichselbaumer and Riess, 2024^[199]).

Complementary research on the rental housing market provides compelling evidence that bias extends beyond landlords and real estate agents to neighbours, as illustrated by the phenomenon of “white flight/avoidance” (see Box 1.7). This neighbour bias has notable implications for landlords, especially those owning multiple units in the same building (building landlords), compared to those owning a single unit (dwelling landlords). If majority population members (“Whites”) avoid buildings where “Black” minorities reside, building landlords might be more likely to discriminate against Black tenants. This is because the prejudices of other tenants or prospective renters could adversely affect the landlord’s ability to rent out other units in the building. (Combes et al., 2018^[200]) examined this hypothesis using data from the French National Housing Survey. Their results indicate that African immigrants in privately rented apartments are less likely to have a building landlord. Furthermore, the study reveals a positive correlation between the likelihood of African-origin tenants living in public housing and the proportion of dwellings owned by building landlords in the local housing market. These findings provide some indication that neighbour discrimination may contribute to push African tenants towards public housing.

Further research is crucial to determine whether price disparities in both home sales and rental properties are due to statistical discrimination, bias, or a combination of both. Currently, these factors are either under-researched or yield inconclusive results. For instance, the 2% premium paid by Black and Hispanic homebuyers in the United States remains even when adjusted for buyer income and access to credit, indicating a minimal role for statistical discrimination. Yet, direct evidence of bias is not strong either. Black and Hispanic buyers consistently pay more for housing regardless of the seller’s race or ethnicity, suggesting that these price disparities are unlikely to be driven by overt racial prejudice, unless sellers have prejudice against their own co-ethnics (Bayer et al., 2017^[194]).

1.5.2. Racial/ethnic discrimination in access to (mortgage) loans

Barriers to homeownership for racial/ethnic minorities are increased by discriminatory practices in mortgage loan access. Field experiments have revealed substantial discrimination by mortgage loan originators (MLOs) in their responses to loan inquiries from minorities. In the United States, for example, being African American reduces the likelihood of receiving a response from an MLO as much as having a credit score deficit of 71 points (Hanson et al., 2016^[201]) – see (Ross et al., 2008^[202]) for evidence of variation in such discrimination across US cities.

Similarly, a correspondence experiment by (Stefan et al., 2018^[203]) in seven European countries (Austria, Germany, Belgium, the Netherlands, Denmark, Sweden, and Finland) involved sending 1 218 emails to banks. The emails were sent by individuals with either Arabic- or native-sounding names, both with a doctorate degree to signal high educational attainment, inquiring about loans for purchasing a house. The study found that inquiries from individuals with native-sounding names received 70% more responses than those with Arabic-sounding names (59.8% vs. 35.1%), a pattern broadly consistent across all seven countries.

Further studies have analysed two additional outcomes in the mortgage process: the likelihood of a mortgage application being denied, and the cost of the mortgage received upon approval. These analyses do not use experimental data, as it is challenging to conduct field experiments with fictitious White and minority borrowers beyond the initial inquiry phase: applying for a loan involves providing detailed, publicly verifiable financial information, such as credit scores. Consequently, these studies utilise observational data and employ the “residual method”, which examines racial and ethnic disparities in mortgage outcomes (loan approval or cost) while adjusting for non-racial borrower characteristics like income.

A meta-analysis conducted by (Quillian, Lee and Honoré, 2020^[191]), which synthesises findings from 19 observational studies in the United States, reveals evidence of racial/ethnic discrimination in both loan denial rates and mortgage costs. The analysis indicates that discrimination is more pronounced against Black borrowers compared to Hispanic borrowers, with Asians experiencing relatively low levels of discrimination. Moreover, the meta-analysis indicates that discrimination in loan denial and mortgage costs has not significantly declined over the past 40 years, suggesting a persistent legacy of “redlining”. Through redlining, an institutional practice in the United States which was outlawed only in 1968, neighbourhoods with significant Black populations were marked in red, deeming them hazardous for investment. This practice was adopted by banks and the Federal Housing Administration, systematically denying mortgages and financial services to residents in these areas. This led to widespread racial segregation, depressed property values, and limited economic opportunities for minorities,

There is also evidence of discriminatory practices in loan denial in Europe. For instance, (Aalbers, 2007^[204]) conducted in-depth interviews with real estate agents and mortgage intermediaries in the Dutch cities of Arnhem, The Hague, and Rotterdam. The findings indicate that both location and race/ethnicity significantly influence mortgage loan application assessments. Applicants who do not meet all formal criteria are more frequently approved if they are Dutch with native-born parentage or from “low-risk” neighbourhoods, compared to visible minorities or those from “high-risk” neighbourhoods.

1.6. What is the evidence on racial/ethnic discrimination in health?

Research consistently shows that south-to-north international migrants tend to have lower mortality rates than the non-migrant population in their host countries – a persistent trend that can last for decades after arrival. This phenomenon is often attributed to positive health selection, meaning that migrants, on average, are healthier than the general population in their country of origin (Aldridge et al., 2018^[205]; Shor and Roelfs, 2021^[206]).

However, the situation for children of immigrants tells a different story. Matthew Wallace and his team have synthesised findings from several European countries, including Belgium, Denmark, the Netherlands, Norway, and Sweden (Wallace, Hiam and Aldridge, 2023^[207]). These countries are distinguished by their comprehensive, register-based data systems, which reveal mortality patterns among the children of immigrants by adjusting for personal characteristics. The analysis highlights a stark divergence in mortality risks based on the geographic origin of immigrant parents. Notably, native-born children of European immigrants generally mirror the mortality rates of their peers with native-born parents in both early life and adulthood. However, native-born children of non-European immigrants face higher mortality risks throughout their lives. Specifically, children with mothers from Türkiye, Somalia, and Pakistan encounter the most significant and persistent early life mortality risks. Similarly, individuals with parents from MENA countries and Sub-Saharan Africa experience higher all-cause mortality risks in adulthood. Moreover, the review highlights that while socio-economic inequality significantly influences these health outcomes, it does not solely define them. Other critical factors, including racial/ethnic discrimination, may play a substantial role.

This section identifies two primary mechanisms through which racial/ethnic discrimination could adversely affect health. First, the cumulative psychological impact of repeated discrimination can lead to deteriorating mental and subsequently physical health, with potential life-long and intergenerational effects. Second, inherent bias among healthcare providers may further exacerbate health disparities.

1.6.1. *The impact of racial/ethnic discrimination on health*

The significance of biological responses to discrimination has been largely overlooked, often due to the mistaken belief that population differences in disease risk are primarily genetic (Selvarajah et al., 2022^[208]).

This assumption is increasingly challenged as new research suggests that the impact of racism may affect the entire body and perpetuate a vicious cycle of harm that extends from *in utero* to old age, impacting individuals throughout their entire lives. It can also have intergenerational consequences via changes in maternal health.

Discrimination causes poor mental health

Extensive evidence links racial/ethnic discrimination with poorer mental health outcomes, including anxiety (Berger and Sarnyai, 2015^[209]), depression (Hudson et al., 2016^[210]), and suicidal thoughts and attempts (Coimbra et al., 2022^[211]). For instance, a study by Stephanie Wallace and her coauthors, utilising the UK Household Longitudinal Survey, found that individuals from racial/ethnic minorities who reported experiencing racial/ethnic discrimination even once had significantly lower mental health indicators compared to those who had not experienced discrimination (Wallace, Nazroo and Bécaries, 2016^[212]). Moreover, for those who reportedly faced repeated instances of racial discrimination, the disparity in mental health indicators quadrupled, suggesting a cumulative impact of racism on mental well-being.

However, the relationship between reporting discrimination and experiencing mental health issues might be purely correlational, suggesting that discrimination may not per se cause psychological distress. For instance, it could be that individuals who feel discriminated against (as opposed to actual objective experience) have other conditions that may be associated with health issues.

In the United States, researchers have examined the impact of police killings of unarmed Black Americans and their spillover effects on the mental health of African Americans (Bor et al., 2018^[213]). Annually, over 300 Black Americans – at least a quarter of them unarmed – are killed by police in the United States. Using a nationally representative health survey, researchers analysed differences in self-reported mental health issues among Black and White respondents exposed to one or more police killings of unarmed Black Americans in their state within three months prior to the survey. The study found that each additional police killing of an unarmed Black American was associated with 0.14 additional self-reported poor mental health days among Black respondents, while no mental health impacts were observed among White respondents. The most significant effects on mental health occurred within one to two months after exposure. Further evidence of a likely causal effect was demonstrated by the fact that mental health impacts were only observed following police killings of unarmed Black Americans, not unarmed White Americans or armed Black Americans.⁴

Discrimination is also associated with poor physical health conditions

Medical research finds that repeated exposure to racism overactivates stress pathways, ultimately contributing to allostatic load – a term describing the cumulative burden and “wear-and-tear” on the body and overall health (Selvarajah et al., 2022^[208]). Neuroimaging studies suggest that racial discrimination may be linked to degradation in both grey and white matter of the brain. For example, in a study of 81 Black women who had experienced trauma, those who reported higher levels of racial discrimination exhibited proportionally thinner grey matter in the cingulate cortices (Fani et al., 2022^[214]). Additionally, racial discrimination compromises the integrity of white matter in the prefrontal cortex (Okeke et al., 2023^[215]). These brain regions are not only crucial for emotional regulation and thus mental health, they also play a key role in maintaining neurological functions.

Moreover, evidence suggests that allostatic load results in increased heart rate and blood pressure (Selvarajah et al., 2022^[208]), which are risk factors for cardiovascular diseases. It also leads to elevated blood glucose levels and central fat accumulation (Butler et al., 2002^[216]), increasing the risk of diabetes, as well as systemic inflammation, particularly in the gut and microbiome (Dong et al., 2023^[217]), which can contribute to cancer risk. The impact of racism on these outcomes may extend beyond physiological effects; it can also manifest through behavioural responses. Maladaptive coping mechanisms, such as substance abuse or eating disorders, can further exacerbate health issues. For instance, individuals facing

discrimination may engage in emotional eating (Raney et al., 2023^[218]) or turn to drugs (Carter et al., 2019^[219]), behaviours that increase risks of health problems like cardiovascular disease, diabetes, and metabolic problems.

Finally, allostatic load can trigger epigenetic responses, where environmental factors modify gene expression. For example, the cumulative strain on the body experienced by discriminated populations has been linked to epigenetic ageing – when biological age surpasses chronological age. This phenomenon is a predictor of coronary heart disease, diabetes, other age-related chronic illnesses, and premature mortality. Notably, a recent study published in the *Journal of Racial and Ethnic Health Disparities* explored the link between interpersonal racism and gene expression regulation – specifically DNA methylation – from blood samples of 384 participants in the Black Women’s Health Study (Ruiz-Narváez et al., 2024^[220]). Researchers used five different epigenetic clocks to assess ageing in participants, adjusting for factors such as age, body mass index, and socio-economic status. They identified significant changes in DNA methylation associated with reported experiences of racism, particularly among those who reported racism in their daily lives.

Discrimination can impact individuals’ health throughout their lives

Racism may negatively impact health, from *in utero* to end of life (Gee, Walsemann and Brondolo, 2012^[221]).

The pre-, peri- and postnatal period

Chronic racial/ethnic discrimination is linked to significant changes in maternal biology during pregnancy (Chaney et al., 2019^[222]). Such stress can lead to higher rates of birth complications, maternal mortality, excessive weight gain, and deteriorating physical and mental health. These adverse effects can extend to their offspring, resulting in increased rates of preterm birth, low birthweight, and congenital anomalies (Alhusen et al., 2016^[223]; Sheikh et al., 2022^[224]).

A study utilising comprehensive administrative data from California birth records, hospitalisations, death records, and parental income from Internal Revenue Service tax records has provided new insights into racial and ethnic disparities in maternal and infant health (Kennedy-Moulton et al., 2025^[225]). The outcomes for Black families at the top of the income distribution are significantly worse than those for White families at the bottom of the income distribution. The maternal mortality rate for Black mothers in the top income quintile stands at 4.3 deaths per 10 000, which is approximately 60% higher than the rate of 2.7 deaths per 10 000 among White mothers in the bottom quintile. Additionally, infants born to Black parents in the highest income bracket have low birth weight and preterm birth rates that are 1.5 to 2 times higher than those of infants born to White parents in the lowest income bracket. Specifically, 14% of Black infants in the top income ventile are low birth weight, and 15% are preterm, compared to 7.4% and 9.1%, respectively, for White infants in the bottom ventile. Furthermore, the infant mortality rate for Black infants in the top decile of the income distribution is 6.4 deaths per 1 000 births – around 10% higher than the rate of 5.8 deaths per 1 000 births among White infants in the bottom decile.

Yet, these residual gaps, which persist even after adjusting for patients’ socio-economic characteristics, may be driven by several factors other than discrimination. Such factors include, for instance, differences in health-seeking behaviours between majority and minority patients.

Childhood, adolescence and adulthood

As children and adolescents engage more with society outside their family, they face increasing social interactions that may heighten their awareness of their marginalised status (Spears Brown and Bigler, 2005^[226]). As seen above, discrimination is embedded within numerous institutions that influence these

formative years, particularly in the education system. Such entrenched discrimination can have profound and long-lasting effects on health and well-being.

The transition from adolescence to adulthood is a pivotal stage, often marked by significant life events which can be influenced by discrimination, such as unemployment, educational failure or even incarceration (Gee, Walsemann and Brondolo, 2012^[221]). By adulthood, the cumulative effects of discrimination can manifest after latency as overt mental and physical health problems.

Old age

In later life, the cumulative impact of exposure to discrimination may exacerbate the biological effects of ageing, leading to significant physical and mental health issues that often result in irreversible comorbidities, such as reduced hippocampal volume and impaired memory (Forrester et al., 2019^[227]). Continued exposure to stress is also linked to chronic degeneration, atrophy, and impaired neuronal function in the prefrontal cortex, further compromising cognitive abilities. For instance, Black older adults in the United States are nearly twice as likely to develop Alzheimer's disease or other forms of dementia compared to their White counterparts (Alzheimer's Association, 2024^[228]), although other factors than racial discrimination may explain these disparities.

1.6.2. Bias in the healthcare system

The detrimental impact of discrimination on the health outcomes of visible minorities may be further magnified by bias within healthcare systems. A comprehensive international survey conducted by SANOFI in 2022 and 2023 involved over 24 000 individuals across ten countries – Australia, Brazil, Canada, France, Germany, Japan, Mexico, Spain, the United Kingdom, and the United States (Sanofi, 2024^[229]). The findings highlight that racial/ethnic minorities, alongside other marginalised groups such as women, LGBTIQ+ individuals, and people with disabilities, consistently report worse healthcare experiences. Common grievances include not being heard, feeling unwelcome, facing judgment, and in some instances, feeling unsafe within healthcare environments.

Consistent with these findings, the 2023 report “Being Black in the EU” reveals that 9% of respondents of African descent reported facing racial discrimination in healthcare settings in the year prior to the survey (FRA, 2023^[14]). This included negative interactions during visits to healthcare professionals such as doctors, nurses, and dentists, and in various settings including hospitals, emergency clinics, and medical centres.

Research by (Rivenbark and Ichou, 2020^[230]) used data from a nationally representative cross-sectional survey conducted in France between 2008 and 2009, which included 21 761 participants. Their study reveals that racial/ethnic minorities, particularly those from Sub-Saharan or North African descent, reported significantly higher rates of discrimination in healthcare settings, even after adjusting for key factors such as socio-economic status. (Hanssens et al., 2017^[231]) come to the same conclusion after analysing survey data among 61 932 patients from 30 European countries. This (self-reported) discrimination is associated with detrimental health behaviours: racial/ethnic minorities reporting experiences of discrimination were significantly more likely to skip necessary medical care. After adjusting for age, marital status, socio-economic background, and health status, (Rivenbark and Ichou, 2020^[230]) show that self-reported discrimination is associated with a 14 percentage point increase in the predicted probability of foregoing care.

This section first explores the available evidence regarding possible bias against racial/ethnic minorities among healthcare professionals. It then investigates whether these minorities may receive differential treatment, notably drawing on field experiments conducted in real-world healthcare settings.

Evidence of racial/ethnic bias among healthcare professionals

Extensive research, largely from the United States, suggests that healthcare professionals, including nurses, personal care workers, and doctors, display levels of pro-White bias similar to those found in broader society (Maina et al., 2018^[232]; FitzGerald and Hurst, 2017^[233]; Hall et al., 2015^[234]). This bias, detected using implicit association tests, echoes other forms of prejudice. For instance, a study has found that racial/ethnic disparities in pain management – where Blacks are systematically undertreated for pain relative to Whites – may be associated with negative stereotypes against racial/ethnic minorities (Hoffman et al., 2016^[235]). Specifically, this study reveals that half of a sample of more than 400 White medical students and residents harbour erroneous beliefs about biological differences between Black and White individuals, such as the myth that Black people’s skin is thicker than White people’s skin. These misconceptions influence clinical judgments. Specifically, those endorsing these beliefs tend to underestimate the pain experienced by Black patients and make less accurate treatment recommendations. Similarly, the belief that visible minorities exaggerate pain contributes to their undertreatment. This bias is even reflected in informal medical terminology, with some European doctors using terms like “morbus mediterraneus” or “morbus Bosporus” to characterise what they perceive as heightened pain expression among visible minority groups (von Eisenhart Rothe, 2024^[236]).

The susceptibility to bias in healthcare is further exacerbated by insufficient knowledge about how symptoms and conditions manifest on skin of colour, often resulting in misdiagnoses and eroded patient trust. Most medical textbooks predominantly depict conditions as they appear on lighter skin (Louie and Wilkes, 2018^[237]). While not discriminatory, this may lead to inadequate treatment for visible minorities as many symptoms – from simple rashes to more complex diseases like Neurodermitis – appear differently on darker skin. For example, the typical red rings indicative of Borreliosis on white skin present as bluish-grey on black skin. Such discrepancies in clinical recognition can lead to severe outcomes, including nerve inflammation from untreated Borreliosis. In response to this critical gap in medical education, Mukwende, Tamony, and Turner published a textbook in 2021 in the United Kingdom that illustrates how various symptoms manifest across different Black and Brown skins, thereby fostering a more inclusive and accurate approach to medical diagnosis (Mukwende, Tamony and Turner, 2020^[238]).

Limited evidence that bias causes differential treatment in healthcare settings

Meta-analyses reveal a positive correlation between racial/ethnic bias in healthcare providers, as measured by the implicit association test, and outcomes for racial/ethnic minorities (Maina et al., 2018^[232]; FitzGerald and Hurst, 2017^[233]; Hall et al., 2015^[234]). These studies specifically indicate that increased health provider bias is associated with poorer patient-provider interactions, inadequate treatment decisions, lower treatment adherence, and ultimately, worse patient health outcomes.

A scoping review of (mostly qualitative) studies focused on migrants in Europe reaches a similar conclusion. Both overt and covert displays of racism by healthcare providers are associated with compromised quality of diagnosis and treatment (Pattillo et al., 2023^[239]).

However, these relationships cannot be deemed causal, as they may be influenced by various confounding factors. For example, the quality of the provider could play a role, if lower quality correlates with stronger bias. Moreover, residual gaps in health outcomes, even after adjusting for patients’ socio-economic characteristics and comorbidities, do not conclusively indicate discrimination. A case in point is (Graham, 2016^[240])’s study on racial/ethnic differences in two cardiovascular diseases – acute coronary syndrome and myocardial infarction – in the United States, which demonstrated that Black and Hispanic patients experienced longer treatment delays and poorer outcomes than their non-Hispanic White counterparts. However, these disparities do not inherently prove causation, as there may be unobserved variables correlated with different racial/ethnic identity, such as differences in health-seeking behaviours, that influence health outcomes independently of any discriminatory practices by health providers.

Field experiments, which control for various factors to isolate the effect of racial/ethnic identity, are invaluable for examining differential attitudes by healthcare providers. These studies are particularly effective for analysing disparities in access to healthcare. However, applying them to investigate disparities in patient-provider interactions and the care received by visible minority and majority patients is more challenging.

Mixed evidence that bias leads to differential access to healthcare

Only two field experiments have examined bias in medical appointment requests, carefully ensuring that all fictitious patients had identical insurance to eliminate financial risk as a factor. One study focuses on the mental health sector in the United States, while the other investigates non-mental health care in Germany. The findings are mixed, revealing evidence of discrimination in the United States but not in Germany.

In the United States, researchers manipulated three attributes of help-seekers: social class (middle or working), gender (female or male), and race (Black or White) (Kugelmass, 2016^[241]). Using voice-over artists, they recorded messages that portrayed racially distinctive names and adopted race- and class-specific speech patterns. These recordings, left on the voicemail of 320 therapists overnight, described symptoms of depression or anxiety, mentioned the same health insurance plan, and requested a callback with available appointment slots. The study found that White middle-class help seekers are more than 50% more likely (28% vs. 17%) than their Black counterparts to receive an appointment offer from therapists, with disparities being more pronounced for men (28% vs. 13%) than for women (29% vs. 21%). Conversely, the lower callback rates among working-class callers did not significantly vary by race or gender.

At first glance, these discrepancies could be driven by statistical discrimination, as financial concerns surely influence therapists' decisions. This might lead them to discriminate against both working-class and middle-class Black individuals, assuming a greater financial risk. However, the design of the experiment – which targeted therapists within the same insurance network covering all help-seekers involved in the experiment – was specifically chosen to eliminate any “rational calculus” based on financial risk.⁵

It is worth noting that a second field experiment was conducted in the US mental health sector, though it was not designed to rule out statistical discrimination as a potential factor (Fumarco et al., 2024^[242]). Using a popular online platform, sent emails to an array of mental health providers, including psychologists, counsellors, social workers, and psychiatrists. These emails requested appointments for common mental health issues such as anxiety, depression, and stress. The experiment manipulated three attributes of the help-seekers: gender (female or male), race/ethnicity (suggested through carefully chosen first and last names to imply middle, not low, socio-economic status), and transgender/non-binary identity. Specifically, for transgender/non-binary prospective patients, each request included the following statement: “I am (a transgender woman)/(a transgender man)/(non-binary) and am looking for a trans-friendly therapist”. The findings show that cisgender White patients were significantly more likely than African American and Hispanic patients to receive an appointment or a call offer. This discrepancy was particularly pronounced among transgender or non-binary individuals from these visible minority groups. That said, the experimental setup did not account for whether the help-seekers had health insurance, a factor that could influence the results, especially given that transgender and non-binary individuals are statistically less likely to be insured and tend to have lower incomes.

While a field experiment in the United States suggests that bias, rather than purely rational decision-making, plays a significant role in the unequal access to healthcare faced by visible minorities, no such evidence was found in Germany. In a large-scale email correspondence study, fictitious patients with German- and Turkish-sounding names (each with identical health insurance) requested appointments from over 3 000 physician offices across the 79 largest German cities. The study, which targeted dentists, ophthalmologists, dermatologists, and orthopaedists, found no evidence that perceived German or Turkish

descent influenced the likelihood of securing an appointment or the length of wait times (Halla, Kah and Sausgruber, 2021^[243]).

The differing findings between the United States and German studies may be partly explained by study design, underscoring the need for further research. The German study assured practitioners that only a single appointment was required, potentially making interactions with visible minority patients less costly for biased doctors. In contrast, the US study involved mental health providers, who likely anticipated ongoing interactions with patients, which may have created conditions that allowed bias to influence appointment scheduling.

Tentative evidence that bias may impact patient-provider interactions

Field experiments on healthcare access provide only a partial view, as they do not account for potential discrimination in critical areas such as diagnosis, billing, or treatment. However, no field experiment has yet directly compared how White practitioners interact with patients across different racial/ethnic backgrounds under controlled, equal conditions.

That said, a field experiment in Oakland, California, suggests that bias may be at play – not as overt hostility toward visible minority patients, but rather as lower cultural competency among White doctors when treating non-White patients (Alsan, Garrick and Graziani, 2019^[244]). Specifically, the study randomised more than 600 Black men to either Black or non-Black male doctors for a consultation about preventive cardiovascular screenings. Black patients paired with Black doctors were 18 percentage points more likely to agree to preventive procedures after consultation, compared to those with non-Black doctors. This trend was even more pronounced for invasive tests, such as diabetes and cholesterol screenings, which require a blood sample and more heavily depend on patient trust compared to non-invasive measures like body mass index and blood pressure measurements.

This outcome doesn't seem to be driven by outright tension between patients and practitioners of different racial/ethnic backgrounds. Before the consultation, patients could choose which screenings they wanted via a tablet that introduced their doctor with text and photos. If there was a bias against doctors of different racial/ethnic backgrounds, it would likely appear at this stage. However, the choice of preventive measures was similar regardless of the doctor's race/ethnicity, indicating no immediate prejudice based on the doctor's photo. Additionally, feedback from Black patients' post-consultation was equally positive for both Black and White doctors.

The critical insight from this study is that shared racial/ethnic backgrounds might facilitate better communication, a vital element in clinical care where effective information exchange can be lifesaving. Observations from the clinical interactions (as reflected by the doctors' notes) revealed that patients were more forthcoming and sought more advice when their doctor was Black. This phenomenon may reflect subtle (and unconscious) expression of bias among White doctors, manifesting as lower cultural competency when interacting with non-White patients.

Although not rooted in overt racism, the lower quality of interactions between doctors and patients of different racial/ethnic backgrounds has profound repercussions. The authors estimate that improving screening uptake through enhanced doctor-patient interactions for Black patients – achieved either through racial/ethnic concordance or improved cultural competency among White doctors – could reduce the cardiovascular mortality gap between Black and White men by 19% and the life expectancy gap by 8%.

1.7. Conclusion

This comprehensive review of academic research reveals that bias-driven racial/ethnic discrimination obstructs key pillars of well-being, including education, school-to-work transition, employment, housing, and health.

In education, bias manifests in three ways: underrepresentation in children's books and secondary school textbooks, bias among teachers and career counsellors, and bias among classmates – each with strong potential or clear evidence of negative effects on the educational trajectories of visible minority students.

In school-to-work transition, visible minority youth face discrimination in accessing work-based learning opportunities during formal education, limiting their ability to gain practical experience and reducing their employability. They are also disproportionately subjected to disciplinary actions, both in school and by law enforcement, with evidence that bias contributes to these disparities, increasing dropout risks and the likelihood of a disciplinary record that deters employers.

In employment, bias-driven racial/ethnic discrimination occurs both during and after hiring. A wealth of correspondence studies confirms significant hiring discrimination against non-White applicants, with gaps persisting even when fictitious candidates provide strong signals of employability and productivity in their CVs, indicating that bias, not just risk assessment, is at play. Discrimination also hampers visible minorities' career advancement – not only disadvantaging them despite similar performance but also limiting their ability to reach their full potential. Moreover, tentative evidence from Germany suggests that visible minorities may also face firing discrimination.

Bias-driven racial/ethnic discrimination is also prevalent in housing, particularly in the private rental market. As in employment, bias plays a key role, with significant discrimination persisting even when rental applicants provide extensive financial information. While no correspondence study in Europe has examined discrimination in private home sales, evidence suggests that bias hinders visible minorities' access to homeownership through discrimination in mortgage lending.

In health, extensive research links discrimination to poorer mental health among visible minorities, with US studies confirming a causal impact. This, in turn, can harm physical health by triggering stress pathways, effects that may be further compounded by maladaptive coping responses, such as substance abuse and eating disorders. Bias among healthcare providers could exacerbate these impacts, but further research is needed to confirm this.

A substantial share of the evidence presented comes not only from the United States but also from a wide range of European countries, which is crucial for ensuring the relevance of this literature review to EU countries, given the markedly different histories of visible minorities in the United States and Europe. The literature review also incorporates the latest research to ensure that recent progress – such as improvements in the integration of immigrants and their native-born descendants in Europe (OECD/European Commission, 2023^[1]) and growing efforts to combat racism and discrimination – is at least partly captured in the analysis.

However, ongoing literature reviews focusing on newly released research are needed to more fully reflect these developments. Moreover, significant gaps persist in key areas. For instance, evidence on disparities in disciplinary actions in schools, interactions with law enforcement, access to healthcare and treatment by healthcare providers remains limited or entirely absent in Europe, highlighting the need for further research.

That said, for many mechanisms examined, recent European studies already reveal worrisome patterns – especially given that bias-driven racial/ethnic discrimination in one life area often amplifies disadvantages in others, accumulating both across life domains and over time. These findings call for urgent policy action, starting with the development of a robust framework to monitor and assess the impact of racism and the effectiveness of measures to combat it – an endeavour that is the focus of Chapter 2.

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Notes

¹ Published in the 11 September 1965 issue of *The Saturday Review*, this study by Librarian Nancy scrutinised 5 206 children’s books released by 63 publishers between 1962 and 1964. Her findings were striking: only 349 books, or 6.4%, depicted one or more Black characters in their illustrations.

² This finding, however, is not consistent across all contexts. For example, experimental evidence from Germany indicates a different pattern of bias: teachers exhibit harsher grading towards below-average racial/ethnic minority students, aligning with their lower expectations, rather than towards above-average students from these groups. See (Glock, 2016^[245]).

³ This reduced intensity of screening is primarily because firms incur lower monitoring costs for interns, who are expected to be managed only for a few months, as opposed to full-time hires who are generally expected to stay longer. Furthermore, the implications of any errors in screening are generally less severe for internships or apprenticeships than for full-time positions.

⁴ It is crucial to emphasise that the negative impact of discrimination on mental health has also been confirmed in Europe, although not with a focus on racial/ethnic minorities. Notably, a study focusing on LGBTIQ+ individuals, another group particularly at risk of discrimination, provided the first comprehensive analysis of this issue (Meyerhoefer, Xue and Poznańska, 2025^[248]). This study examined the effects of anti-LGBTIQ+ laws implemented by provincial, county, and municipal governments in Poland between 2019 and 2020 on the population's mental health. Utilising county-level data from 2017 to 2020, the researchers employed difference-in-differences models to compare changes in suicide attempts, suicides, and overall mortality in areas that enacted anti-LGBTIQ laws with those that did not. The study found that annual suicide attempts increased by 16%, or 5 attempts per 100 000 people, following the enactment of these statutes. Furthermore, the researchers discovered an increase in suicide attempts in areas that considered but ultimately rejected anti-LGBTIQ resolutions, demonstrating that even the mere threat of discrimination against minority groups can lead to declines in mental health.

⁵ Instead, the observed disparities are possibly influenced by bias. For instance, research suggests that therapists favour patients who are “psychologically minded” – those capable of understanding and interpreting human behaviour from a psychological perspective (Teasdale and Hill, 2006^[247]). Notably, Black patients are perceived by psychiatrists as being less articulate compared to their White counterparts (Geller, 1988^[246]). This perception is potentially compounded by therapists' negative stereotypes about help seekers of disadvantaged socio-economic background, who are deemed hostile and untreatable (Lorion, 1974^[249]).

2 How to monitor the impact of racism on the lives of visible minorities?

This chapter proposes indicators designed to capture bias-driven discrimination against visible minorities across the five key life areas outlined in Chapter 1, as well as in the areas of poverty risk and low life satisfaction. It examines two main categories of indicators: “core indicators”, offering broad availability across EU countries but with limited precision, and “advanced indicators”, divided into “enhanced indicators”, offering greater precision but requiring more robust data collection, and “exploratory indicators”, which achieve the highest precision but depend on original data collection. The chapter also introduces supplementary proxies for racism, racial/ethnic bias, and discrimination, based on attitudinal and perception-based measures. It concludes by suggesting options for countries to expand data collection on visible minorities to include long-established populations, enabling a more comprehensive monitoring of anti-racism efforts.

Main findings

- Chapter 2 examines two categories of indicators, detailed in Annex Tables 1 to 6, designed to monitor bias-driven discrimination against visible minorities in all five key areas discussed in Chapter 1 – education, school-to-work transition, employment, housing, and health – as well as in the areas of poverty risk and low life satisfaction, which may be impacted by the cumulative effects of bias-driven disadvantages.
- Developing *precise* indicators that isolate the full impact of bias-driven discrimination on visible minorities, and nothing else, remains a challenge. Overall, there is a trade-off between how precisely bias-driven discrimination against visible minorities is measured and the availability (and cost) of the data required for such measurement. This trade-off gives rise to two categories of indicators.
- The first category consists of “core indicators”, characterised by high availability but only moderate precision. They are derived from cross-national surveys, including the EU Labour Force Survey (EU-LFS), the Programme for International Student Assessment (PISA), the EU Statistics on Income and Living Conditions (EU-SILC), and the European Health Interview Survey (EHIS), making them computable across all EU countries (except Cyprus for PISA). These surveys allow for measuring disparities between the majority and visible minority groups across a range of life areas and offer several advantages.
 - They collect information on individuals’ and their parents’ country of birth, either in every round or within specific modules that rotate periodically. This facilitates the comparison between native-born individuals with two native-born parents (the majority population) and native-born individuals with at least one foreign-born parent, distinguishing, where sample size permits, between European and non-European foreign parentage.
 - These surveys go beyond capturing final outcomes like educational attainment or achievement; they also provide standardised measures of intermediate factors that shape these outcomes, such as a sense of exclusion at school, perceived teacher hostility, limited access to quality career counselling, or exposure to bullying. By doing so, they shed light on some of the mechanisms discussed in Chapter 1 through which bias may operate.
 - These surveys measure a range of demographic factors that shape outcomes independently of discrimination. Adjusting for these factors is crucial to highlight the disparities between majority and visible minority individuals that persist after the adjustment – referred to as the “unexplained gap” and interpreted as an indication of bias. However, this gap only suggests bias; it does not directly measure it – hence, the moderate precision of core indicators in capturing bias-driven discrimination.
- The second category of indicators is composed of “advanced indicators”, which can be further divided into two subgroups: “enhanced indicators”, offering greater precision than core indicators but requiring more robust data collection, and “exploratory indicators”, which deliver the highest precision yet remain limited in availability due to their reliance on original data collection.
 - Advanced indicators of the enhanced type require more robust data collection than core indicators, as they involve calculating unexplained gaps between majority and visible minority populations across the entire population. For this to happen, it is necessary to collect information on both individuals’ and their parents’ country of birth, either through the census or national population registers, and to link these data with administrative databases in the key life areas covered in this report – a process possible in at most half of EU countries. These indicators offer greater precision in measuring bias-driven discrimination compared to core indicators for several reasons.

- Administrative databases cover a broader range of outcomes compared to the limited set captured through surveys, with some being better suited to identify bias-driven racial/ethnic discrimination.
- Advanced enhanced indicators are computable across the entire population rather than being restricted to cross-national survey samples of limited size. This comprehensive coverage enables a more granular analysis of visible minority subgroups. Furthermore, the removal of sample size constraints enables a full adjustment for key demographic factors, ensuring a more accurate analysis of disparities between majority and visible minority populations.
- Administrative data are collected at a high frequency, with updates ranging from annual (e.g. education enrolment data) to monthly or quarterly (e.g. employment or health records), and even continuously in certain cases, such as births and deaths. This high-frequency data collection enables advanced enhanced indicators to support near real-time monitoring of disparities between majority and visible minority populations, offering a significant advantage over survey-based indicators, which are updated at best annually.
- Advanced indicators of the exploratory type require the collection of original data, primarily through field experiments such as correspondence and audit studies, which offer strong potential for measuring bias-driven discrimination. Additionally, in more targeted cases, artificial intelligence can be leveraged to detect both the quantitative and qualitative underrepresentation of visible minorities in textbooks, as well as discriminatory patterns in employer searches on job portals. Despite several strengths, these methods also have limitations; they are not feasible in all settings, such as in schools or in workplaces, for instance when decisions are made about promotions.
- On top of core and advanced indicators, the chapter proposes a set of additional proxies for racism, racial/ethnic bias, and bias-driven discrimination, derived from cross-national surveys such as the European Values Survey (EVS), the European Social Survey (ESS), and the Eurobarometer survey on “Discrimination in the European Union”. These surveys allow for the measurement of two types of outcomes: attitudes of the majority population towards visible minorities, and perceptions or experiences of discrimination.
- The chapter concludes by exploring approaches for countries to enhance the identification of visible minorities within cross-national surveys and national statistical frameworks by incorporating long-established groups. Expanding data collection in this way would facilitate the adaptation of the indicators proposed in this chapter to these populations, thereby strengthening the monitoring of national anti-racism action plans aimed at protecting *all* segments of visible minorities.
 - A first approach involves gathering information on the country of birth across multiple generations by either adding questions about all four grandparents’ birthplaces to cross-national surveys, censuses, or large-scale nationally representative surveys that already capture respondents’ and parents’ birthplaces, or by linking individuals to their family records in national population registers.
 - A second approach involves adding racial/ethnic identification questions to cross-national surveys, censuses, or large-scale national surveys that already capture respondents’ and parents’ birthplaces. While this allows for identifying a broader range of visible minority subgroups beyond immigrants and their immediate descendants, it also raises concerns about potentially reinforcing racial/ethnic constructs and deepening social divisions. Strategies to enhance public acceptance of this approach are explored.

2.1. Introduction

Chapter 1 has demonstrated that racism permeates key areas of life for visible minorities. To effectively address the consequences of racism, it is crucial to first measure them. Robust monitoring allows countries to track progress, identify persistent challenges, and adapt strategies to ensure that national action plans against racism are both impactful and responsive to the needs of affected communities (European Commission, 2024^[1]; European Commission, 2020^[2]).

The purpose of this chapter is to support countries in evaluating the effectiveness of these action plans by proposing a set of indicators to assess the consequences of racism, hence to capture bias-driven discrimination against visible minorities across the key areas discussed in Chapter 1 – education, school-to-work transition, employment, housing, and health – as well as in the areas of poverty risk and low life satisfaction. Specifically, they seek to measure the full gaps resulting from unequal treatment of otherwise comparable individuals, driven solely by racial/ethnic bias against visible minority groups.

The proposed indicators primarily target recently arrived populations of non-European background, as they form a visible minority group common to many EU countries and for which cross-EU comparable data are most readily available. The capacity of EU-wide data collection to focus on these populations is exemplified by the 2021 addition of questions on parents' country of birth to the core EU-Labour Force Survey (LFS) questionnaire, complementing the existing collection of data on respondents' country of birth. That said, immigrants and their immediate descendant of non-European background only partially represents the full spectrum of visible minorities in the EU who are at risk of racialisation. Many have deeper roots, at least in some EU countries, including third-generation EU citizens of non-European descent, Black populations from overseas territories, and Roma people (see Box 2.1 for an overview). Consequently, the chapter concludes with a substantive discussion dedicated to extending the indicators proposed in its main sections to long-established visible minorities.

Even when focusing on recently arrived visible minorities for which data are most accessible, developing *precise* indicators that isolate the full impact of bias-driven discrimination on visible minorities, and nothing else, remains a challenge. Take the EU-LFS, the primary source for indicators measuring labour market disparities between the majority and visible minority populations due to bias-driven racial/ethnic discrimination. To ensure some level of precision, two key steps must be taken.

First, indicators should compare disparities between native-born individuals with two native-born parents (the majority population) and native-born individuals with at least one foreign-born parent, distinguishing, where possible, between European and non-European backgrounds. Foreign-born individuals should be excluded from the analysis, as immigrants face unique challenges beyond discrimination. Since the EU-LFS cannot account for all these factors, including immigrants would inflate disparities without clear proof that discrimination is the driving force.

Second, since socio-economic disadvantages unrelated to discrimination can carry over to the next generation, it is crucial to account for disparities stemming from different parental backgrounds. However, as the EU-LFS lacks these data (except for youth living with their parents), education serves as a proxy.

Yet, even after these adjustments, the extent to which the measured labour market disparities reflect bias-driven racial/ethnic discrimination remains uncertain. This is because some of the variables used for adjustment, such as education, are themselves partly shaped by labour market discrimination. If visible minority students anticipate discrimination, they may invest less (or more) in education, leading to an underestimation (or overestimation) of discrimination's impact on their labour market outcomes. These distortions are further compounded by unobserved factors that affect labour market outcomes differently for visible minorities and the majority population but are not captured in the available data. Regardless of whether these factors are themselves shaped by discrimination, their absence from the analysis introduces potential bias – either downward or upward – in the labour market gaps attributed to discrimination. One such unobserved factor is the effort individuals exert in the labour market, which can itself be influenced

by discrimination. If discrimination compels visible minorities to adopt catch-up strategies, investing more effort than their majority peers, its impact will be understated. Conversely, if discrimination discourages visible minorities from fully engaging – causing them to be less active in job search when unemployed or to exert less effort once employed – its impact will be overstated.

Overall, there is a trade-off between how precisely bias-driven discrimination against visible minorities is measured and the availability (and cost) of the data required for such measurement. This trade-off gives rise to two categories of indicators.

The first category, composed of “core indicators”, is characterised by limited precision but high availability, as these indicators rely on EU-wide surveys. The second category, composed of “advanced indicators”, is divided into two subgroups: “enhanced indicators”, which offer greater precision than core indicators but require specific administrative data that are available in at most half of EU countries, and “exploratory indicators”, which provide the highest precision but are limited in availability due to their reliance on original data collection methods, such as field experiments, including correspondence and audit studies, and big data. A summary of these indicators is provided in Annex Table 2.A.1 through Annex Table 2.A.6 .

To enhance its relevance for policy makers committed to combating racism, Chapter 2 offers two additional insights. First, it includes a section proposing additional general proxies for racism, racial/ethnic bias, and bias-driven discrimination based on (cross-national) surveys, namely attitudes towards visible minorities or perceptions and experiences of discrimination. Second, the chapter discusses options for countries to consider in extending data collection on visible minorities to also include long-established groups.

The chapter opens with an overview of core indicators (Section 2) and advanced indicators (Section 3), followed by a discussion on additional proxies for racism, racial/ethnic bias and bias-driven discrimination (Section 4). The chapter concludes with Section 5, which addresses ways in which EU countries might improve the identification of visible minorities and the measurement of the disparities they may face within national statistics.

Before delving into the chapter’s main sections, it is important to note four caveats.

First, while the focus is on the EU, the proposed indicators, conditional on data availability, can be easily adapted to other countries or to monitor disparities affecting other groups within visible minorities, including those with longer-standing roots. Accordingly, Chapter 2 may serve as a reference for non-EU countries as well, should they aim to assess the situation of recently arrived or long-established visible minorities.

Second, when it comes to survey-based indicators – whether core indicators or broader proxies for racism, racial/ethnic bias, and bias-driven discrimination – this chapter focuses on both quantitative (e.g. income-based) and qualitative (e.g. perception-based) measures that are nationally representative, a mixed-method approach recognised as key to comprehensively informing the fight against racism and discrimination (UNESCO, 2023^[3]). These indicators are drawn from surveys that rely on probability-based sampling, ensuring statistical validity. However, some countries may wish to assess the impact of racism and anti-racism policies on specific subsets of visible minorities that are too small to be captured by national statistics, even with oversampling in general population surveys. In such cases, countries can complement the indicators proposed in this chapter with data derived from non-standard sampling techniques. Most of these approaches, however, do not produce representative results – except for certain methods like multi-stage stratified random sampling, which, for instance, the European Union Agency for Fundamental Rights uses to survey Roma populations in Europe. Other techniques, such as snowball sampling (where participants are recruited through personal networks) or social media sampling (where participants are recruited via platforms like Facebook, Twitter, LinkedIn, or Instagram), though lacking representativeness, can still provide valuable insights – particularly for collecting qualitative information. For instance, semi-structured interviews can help uncover lived experiences and underlying mechanisms, while focus groups can shed light on how anti-racism policies and their impact have been perceived by targeted beneficiaries.

Third, a successful national action plan against racism will not necessarily result in a decline across all proposed indicators measuring racism’s harmful effects. In fact, perception-based indicators may move in the opposite direction. This pattern arises because effective anti-racism efforts are expected to raise awareness of racial/ethnic discrimination, enhancing the ability of visible minority groups – and society at large – to recognise discriminatory incidents. As a result, perceptions of how widespread discrimination is may actually increase, even as real progress is made in combating it.

Fourth, all proposed indicators are designed using methodologies that allow for intersectional analysis, making it possible to explore whether visible minorities who hold additional marginalised identities face compounded disadvantages compared to those who do not. This is a crucial step to ensure that anti-racism policies do not overlook individuals with double or triple minority statuses – whose compounded disadvantage could otherwise be exacerbated – but instead place them at the centre of policy action. For instance, the proposed indicators can be adapted to examine the intersection of visible minority status with gender or age. When looking at gender, for example, the indicators can assess whether visible minority women face greater discrimination than the sum of the disadvantages experienced by visible minority men (relative to majority men) and majority women (relative to majority men). This approach enables testing Kimberlé Crenshaw’s premise that the “intersectional experience” is greater than the sum of racism and sexism (Crenshaw, 1989^[4]). Alternatively, the analysis can determine whether the disadvantage faced by visible minority women is less than this sum – while still potentially exceeding that experienced by individuals marginalised on only one dimension, hence surpassing either the separate Black or female penalties (see (McLaughlin and Neumark, 2025^[5]) for an intersectional analysis of disadvantages in the labour market).

Box 2.1. Recently arrived and long-established visible minorities in the EU

Visible minorities in EU countries can be broadly categorised into two main groups.

Recently arrived visible minorities: Drawing on evidence on the geographic origin of immigrants and their immediate descendants (OECD/European Commission, 2023^[6]), it is estimated that the average share of those of non-European background falls within a range of over 5% but less than 10%, although the exact value cannot be precisely measured due to data limitations.

- In 11 EU countries, the share of recently arrived visible minorities lies below 5%. They include Bulgaria, Croatia, Czechia, Estonia, Greece, Hungary, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia.
- In nine EU countries, the share of recently arrived visible minorities varies from 5% to 10%. They are composed of Austria, Cyprus, Finland, Germany, Ireland, Italy, Latvia, Luxembourg, and Malta.
- In seven EU countries, the share of recently arrived visible minorities exceeds 10%. They encompass Belgium, Denmark, France, the Netherlands, Portugal, Spain, and Sweden.

Long-established visible minorities which comprise at least six main groups:

- Indigenous populations, such as the Sámi people in Finland and Sweden, who are descendants of the original inhabitants now living within current national boundaries.
- Jews, who are present across all EU countries and beyond.
- Roma people and similar groups, such as Irish Travellers and Yenish, who remain predominantly concentrated in European countries, although significant numbers of Roma people migrated to North and Latin America during the 19th and 20th centuries.
- Black populations from the overseas territories of France (French Guiana, Guadeloupe, Martinique, Saint Barthélemy, Saint Martin, Mayotte, and Réunion) and the Netherlands (the

Caribbean municipalities of Bonaire, Sint Eustatius, and Saba), who are primarily descendants of African slaves.

- Later generations of descendants of non-European immigrants, extending beyond immediate descendants to also include third generations (such as grandchildren of immigrants from non-European backgrounds) and potentially higher generations of EU citizens.
- Other long-standing groups whose distinctiveness benefits from official recognition in national legal frameworks to ensure their equal rights, including the preservation of their identities. These groups are officially recognised in 20 EU countries.
 - In most of them (16), these groups are explicitly recognised as minorities. They are typically referred to as “national minorities” when they identify with a nationality that has its own state. Conversely, when these groups possess a distinct language, culture, or tradition without affiliation to a nation-state, they are usually referred to as “ethnic minorities” (or linguistic or religious minorities if the focus is on their language or religion). As an illustration, in Poland, Armenians, Belarusians, Czechs, Germans, Jews, Lithuanians, Russians, Slovaks, and Ukrainians are recognised as “national minorities”, while Karaims, Lemkos, Roma, and Tatars are classified as “ethnic minorities”.
 - In contrast, in the remaining four countries, namely Belgium, Cyprus, Finland and Spain, while such groups are listed and their distinctiveness and right to preservation are officially acknowledged, their minority status is not explicitly mentioned – presumably to avoid stigmatizing integral constituents of the country, particularly in federal states where some of these groups wield significant legislative and executive powers.

2.2. Core indicators of bias-driven discrimination against visible minorities

This section introduces a set of core indicators that prioritise availability over precision, as shown in Annex Table 2.A.1 through Annex Table 2.A.6, where “+++” denotes strong availability and “+” indicates moderate precision in the columns devoted to assessing the availability of the proposed indicators across EU countries and to estimating their precision, respectively.

Box 2.2. The EU-LFS

The European Union Labour Force Survey (EU-LFS), which collects information on the respondent’s and their parents’ country of birth since 2021, is a household survey conducted across 34 countries, using probability sampling. The participating countries include the EU Member States, three EFTA countries (Iceland, Norway, Switzerland), and four Candidate Countries (Montenegro, North Macedonia, Serbia, and Türkiye).

The survey collects detailed information on all individuals aged 15 and above within selected private households, focusing on both labour market outcomes and related socio-economic factors, such as educational attainment and training. In cases where direct interviews with each eligible household member are not feasible, one member may provide responses on behalf of others. The EU-LFS consists of a core set of questions, consistently collected over time to allow for tracking labour market trends and related socio-economic factors. Additionally, it includes annually changing ad hoc modules designed to gather in-depth information on specific topics that may be of current interest or emerging relevance. These ad hoc modules vary each year and may cover topics such as work-life balance, young people in the labour market, or migration and labour market integration. Some ad hoc modules

are unique to a particular year, while others may recur periodically, allowing for multi-year comparisons on certain themes.

Initially conducted annually, starting with the first wave in 1983, the EU-LFS transitioned to a continuous quarterly survey in 1998, though access to microdata for researchers remains annual. Sample sizes vary by country and are typically proportional to population size. For example, in EU countries, the annual sample sizes range from roughly 5 000 individuals in Malta to nearly 100 000 individuals or more in France, Germany and Italy (Eurostat, 2024^[7]).

Core indicators are designed to measure disparities between the majority and visible minority groups across key life areas. Their key strength lies in their high availability, as they are derived from cross-national surveys, including the EU Labour Force Survey (EU-LFS), the Programme for International Student Assessment (PISA), the EU Statistics on Income and Living Conditions (EU-SILC), and the European Health Interview Survey (EHIS), making them computable across all EU countries (except Cyprus for PISA) (see Box 2.2, Box 2.3, Box 2.4, and Box 2.5 for an overview of these surveys).

Box 2.3. PISA

The Programme for International Student Assessment (PISA), which collects information on the respondent's and their parents' country of birth since 2018 (although some countries report significant levels of missing information), is a large-scale international survey managed by the OECD, using probability sampling. Launched in 2000 and conducted every three years, with the next cycle scheduled for 2025, PISA has become a benchmark for assessing educational systems globally. Recent cycles have included over 80 countries and economies, encompassing OECD members and numerous partner economies. Among EU countries, all participate in PISA except Cyprus, with Bulgaria, Croatia, Malta, and Romania taking part as non-OECD members.

PISA evaluates the knowledge and skills of 15-year-old students nearing the end of compulsory education. It assesses competencies in mathematics, reading, and science as core areas, with additional optional assessments in fields like financial literacy and creative thinking. To further enrich the data, PISA administers several questionnaires alongside the main assessment. The student questionnaire gathers insights into students' learning experiences, socio-economic backgrounds, and attitudes toward learning, while the parent questionnaire (optional and thus used in selected countries) captures data on family resources and parental expectations. The teacher questionnaire, also optional, collects information on classroom practices and school resources, providing a holistic view of the learning environment.

In the 2022 cycle, sample sizes in EU countries ranged from around 3 000 students in Malta to more than 30 000 in Spain (OECD, 2023^[8]).

In addition to their extensive coverage, these surveys offer several advantages.

- First, they collect information on individuals' and their parents' country of birth, either in every round (as in all these surveys except the EU-SILC) or within specific modules that rotate periodically, such as the EU-SILC's ad hoc module on "intergenerational transmission of disadvantages", conducted every six years. This facilitates the comparison between native-born individuals with two native-born parents (the majority population) and native-born individuals with at least one foreign-born parent of non-European background.
- Second, these surveys go beyond capturing final outcomes like educational attainment or achievement. They also provide standardised measures of intermediate factors through which

discrimination shapes final outcomes, such as a sense of exclusion at school, perceived teacher hostility, limited access to quality career counselling, or exposure to bullying. By doing so, they shed light on some of the mechanisms discussed in Chapter 1 through which bias may operate.

- Third, these surveys offer the valuable advantage of measuring a range of demographic factors that shape outcomes across the life areas examined in this report. For instance, educational outcomes are influenced by gendered societal expectations, parental education levels that impact learning environments, or disparities in access to quality resources based on urban or rural residence. Adjusting for these demographic factors is essential to isolate the differences in educational attainment between majority and visible minority youth that remain after the adjustment. This process enhances confidence that any remaining gaps – commonly referred to as adjusted, residual, or unexplained gaps – at least partially capture the impact of bias-driven discrimination.

However, it is precisely in this word, “partially”, that the main weakness of core indicators lies. While unexplained gaps suggest the presence of bias, they do not constitute definitive proof, as extensively discussed in the introduction. These indicators cannot fully isolate the impact of bias-driven discrimination on visible minorities, as they inherently carry the risk of either underestimating or overestimating its extent. This challenge is even more pronounced in countries where native-born individuals with at least one non-European foreign-born parent make up a small share of the population, which results in small sample sizes that hinder the ability to compute adjusted gaps. This limitation is particularly likely given that maximum national sample sizes in EU cross-national surveys remain modest. As highlighted in Box 2.2, Box 2.3, Box 2.4, and Box 2.5, sample sizes exceed 100 000 individuals only in the EU-LFS, with substantially smaller samples in other surveys. For example, in PISA, only three EU countries (Finland, Italy, and Spain) had sample sizes above 10 000 participating students.

Box 2.4. EU-SILC

The European Union Statistics on Income and Living Conditions (EU-SILC) is a household survey conducted across 38 countries through probability sampling. Participants include all EU Member States, the United Kingdom, three EFTA countries (Iceland, Norway, Switzerland), six Candidate Countries (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia, and Türkiye), and Kosovo* as a potential candidate.

EU-SILC serves as a key social policy tool for monitoring and supporting decision-making at the European level. Launched in 2003, the survey provides annual cross-sectional and longitudinal data covering a range of topics including income, housing, health, and life satisfaction. Each year, a core set of variables is consistently surveyed, while ad hoc modules, first introduced in 2005, provide additional focus on high-priority areas. As of 2021, these ad hoc modules are collected every three or six years, covering essential topics such as children, labour market and housing, and health in the 3-year modules, and issues like over-indebtedness, access to services, intergenerational transmission of disadvantages, and quality of life in the 6-year modules.

Household-related questions on housing and other living conditions are typically addressed by the household’s reference person, who responds on behalf of all members, while health and life satisfaction questions are answered by each individual aged 16 or older. Notably, while the EU-LFS annually collects information on respondents’ and parents’ country of birth, EU-SILC includes this detail only in

* This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo’s declaration of independence.

the “Intergenerational transmission of disadvantages” ad hoc module, surveyed in 2011, 2019, 2023, and planned for 2029. This restricts the identification of minority households to once every six years – a minority household being defined as one in which the household reference person or their partner (if applicable) is native-born with foreign-born parentage (allowing for distinction between European and non-European backgrounds), in contrast to a majority household where both the reference person and their partner are native-born with two native-born parents. However, for individuals aged 16 or older still residing with parents, it remains possible to analyse on an annual basis disparities in health and life satisfaction between those with two native-born versus at least one foreign-born parent.

The sample size of EU-SILC varies by country, generally in proportion to population. For example, within the EU, Malta’s sample includes approximately 4 000 households and 10 000 individuals every year, while larger countries like France, Germany, and Italy exceed 10 000 households and 20 000 individuals (Wirth and Pforr, 2022^[9]).

Box 2.5. EHIS

The European Health Interview Survey (EHIS), which collects information on the respondent’s and their parents’ country of birth since 2018, is a household survey conducted across 31 countries, using probability sampling (European Health Interview Survey (EHIS), 2024^[10]). The participating countries include the EU Member States, two EFTA countries (Iceland and Norway), and two Candidate Countries (Serbia, and Türkiye).

The survey collects detailed information on all individuals aged 15 and above within selected private households, focusing on a wide range of health-related information, divided in four core areas which remain constant over survey cycles: health status, healthcare access and use, health determinants (such as lifestyle and environment), and socio-economic background.

The EHIS, first launched in 2006, has completed three waves, each approximately five years apart: the first wave (2006-09), the second (2013-15), and the third (2018-20). The fourth wave is scheduled to start in 2025. Sample sizes differ by country, typically scaled to population size. They range from over 4 000 individuals in Malta to nearly 15 000 in France, close to 25 000 in Germany, and more than 45 000 in Italy (Eurostat, 2022^[11]).

This caveat is compounded by two additional limitations affecting some proposed core indicators:

In certain cases, indicators are calculated based on a specific condition, thus relying on a subsample of the total population, which further reduces the number of observations available. For example, in health, the intermediate outcome capturing unexplained gaps in unmet medical needs is measured by the adjusted difference in the proportion of majority and visible minority individuals who, among those needing medical or dental care at least once in the past 12 months, reported unmet care needs on at least one occasion. As evident, this analysis is limited to individuals who required medical or dental care within the past year, diminishing the relevant sample size. Such reduction may even compromise the ability to further disaggregate native-born individuals with at least one foreign-born parent by European or non-European background. To reflect these instances, which nuance the claim that core indicators are highly available, indicators with potentially limited applicability due to being based on a specific condition are flagged with the label “but small sample size” in the availability column of Annex Table 2.A.1 through Annex Table 2.A.6.

Similarly, indicators based on the PISA parent questionnaire, which is optional, are flagged with the label “but in a selection of countries” in the availability column of Annex Table 2.A.1 through Annex Table 2.A.6.

2.2.1. Education

Chapter 1 underscores the presence of bias in children’s books and textbooks, instances of discriminatory behaviour among educators, and peer bullying targeting visible minority students, all of which can significantly impede their educational attainment and achievement. Indicators from cross-country surveys, notably the EU-LFS and PISA, offer valuable insights into these dynamics, focusing on youth aged 15 to 24.

This age range is relevant for several reasons. First, it captures the transition from post-compulsory education to further education, leading at least to a Bachelor’s degree, which students usually complete between the ages of 21 and 23 if they follow a standard educational path without interruptions. This age group is also relevant for monitoring the effects of educational policies aimed at combating bias-driven discrimination. Given that the outcomes for this group are likely to be influenced in a timely manner by such policies, it provides a meaningful window for evaluation. Furthermore, the 15-24 age range allows for adjusting for socio-economic factors, such as parental education. While the EU-LFS does not include direct questions about parents’ education, this information can be inferred when children still live with their parents – a situation common for individuals below 24, as the average age of leaving the parental home in the EU was 26.5 years in 2021 (though this figure varies significantly across countries, ranging from 19 years in Sweden to 33.6 years in Portugal) (Eurostat, 2022^[12]).

While it would be ideal to assess educational outcomes for individuals under 15, current cross-country surveys do not facilitate such analysis. The EU-LFS focuses on individuals aged 15 and above, and PISA assesses only 15-year-old students. That said, PISA’s student questionnaire includes retrospective questions about grade repetition, which could allow EU countries to explore unexplained gaps in the share of majority and visible minority students who repeated a grade in primary or lower secondary education, an option that is further discussed in the next section.

Regarding cross-country educational surveys targeting students under 15, such as PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in International Mathematics and Science Study), they unfortunately do not collect detailed information on the country of birth of the respondent’s parents. PIRLS assesses the reading literacy of fourth-grade students (around 9-10 years old) every five years, while TIMSS evaluates mathematics and science knowledge among students in fourth and eighth grades (ages 9-10 and 13-14) every four years. Yet, both surveys only gather data on whether the respondent’s father or mother was born abroad, which prevents distinguishing between students with European and non-European backgrounds.

Despite their limitations, the EU-LFS and PISA offer important insights into unexplained gaps in final educational outcomes likely driven by bias. Moreover, PISA sheds light on nearly all intermediate factors discussed in Chapter 1 that may contribute to shape these final outcomes, except for bias in textbooks, as no PISA questions address that specific dimension.

It is important to highlight that the insights gathered from students and their parents could be enriched by perspectives from teachers, as collected in the OECD’s Teaching and Learning International Survey (TALIS). This large-scale international survey – covering all EU countries except Belgium, Greece, and Luxembourg – provides valuable data on teachers’ working conditions, teaching practices, and professional development, with each participating country surveying, on average, a nationally representative sample of 4 000 teachers. Notably, TALIS can shed light on trends in teachers’ capacity to teach in multicultural settings, as it includes several questions on whether teachers have received formal pre- or in-service training in this area – or if they feel the need for such professional development. Additionally, the survey explores how teachers engage with diversity in the classroom, asking about their involvement in practices such as reducing ethnic stereotyping among students or fostering collaboration between students with and without a migrant background. It also examines whether schools implement diversity-related initiatives, such as teaching students how to address ethnic and cultural discrimination.

TALIS is conducted in five-year cycles, with major waves in 2008, 2013, 2018, and 2024 edition (see (OECD, 2019^[13]) and (Ulferts, 2021^[14]) for an analysis of the 2018 edition from a multicultural perspective).

Final outcomes

Bias in textbooks, discriminatory behaviour by educators, and peer bullying targeting visible minority students can hinder their educational attainment and achievement, both directly and indirectly. Indirect processes include the internalisation of educators' low expectations, as well as the stereotype threat effect – describing the heightened psychological pressure and anxiety students experience when they perceive a risk of confirming negative stereotypes associated with their racial/ethnic group.

The EU-LFS and PISA provide eight key indicators related to educational attainment and educational achievement, respectively (see Box 2.6 and Box 2.7 for a discussion of recommended adjustments when using indicators derived from these surveys).

Box 2.6. Recommended adjustments when analysing indicators derived from the EU-LFS

The EU-LFS yields core indicators covering the following three areas: education, school-to-work transition, and employment.

Education

For indicators related to educational outcomes, specifically educational attainment among youth aged 15 to 24, differences between majority and minority individuals should ideally be adjusted for gender, parental educational attainment (recorded in the EU-LFS when youth still reside with their parents), and urban or rural residence. Gender influences educational trajectories due to differing societal expectations and experiences that can shape academic choices and opportunities. Parental educational attainment is a critical determinant of youth academic success, as it often reflects the household's overall educational environment and resources available for learning support. Additionally, urban or rural residence can affect access to quality education, by reflecting variations in school resources, teacher quality, and the availability of extracurricular programmes.

School-to-work transition

Similar control variables to those used for education should be applied when analysing the school-to-work transition, namely the difference in the share of majority and minority youth not in education, employment, or training (NEET), irrespective of whether the focus is on those aged 15-24 or 15-29.

Employment

For indicators aimed at capturing bias-driven discrimination at the recruitment stage and beyond, differences between majority and minority individuals aged 15 to 64 should ideally be adjusted for gender, age, highest educational attainment, and urban or rural residence. Gender significantly influences employment prospects, wage levels, and access to leadership roles, with women facing substantial barriers to career advancement. Age also plays a decisive role, with younger individuals encountering challenges related to job experience, while older workers may face age-related discrimination. Educational attainment remains a critical determinant of labour market outcomes, as individuals with higher levels of education generally have better employment prospects and earnings potential. Lastly, access to employment opportunities often varies by location, with urban areas typically offering a higher number and diversity of jobs.

For analyses focused on post-hire outcomes, it is crucial to adjust, additionally, for industry, occupation, and whether individuals work on a full-time basis. Industries vary in job stability, wage structures, and

promotion opportunities, while different occupations reflect different job responsibilities and skill requirements. Moreover, adjusting for the number of hours worked is important, as it directly impacts wage levels and may affect job security, with part-time contracts typically being more vulnerable to changes in employer needs, economic downturns, or organisational restructuring. When examining dismissal in a previous job, it is also important to control, whenever possible, for the individual's tenure in that position.

Box 2.7. Recommended adjustments when analysing indicators derived from PISA

PISA yields core indicators covering education and school-to-work transition, as well as an indicator on racial/ethnic segregation (discussed further in the section on housing and not requiring specific adjustments).

Education

For indicators related to final educational outcomes, specifically educational achievement, differences between majority and minority individuals should ideally be adjusted for gender and socio-economic background, following the rationale outlined in Box 2.6. Notably, the OECD has developed the Index of Economic, Social, and Cultural Status (ESCS), a composite measure to capture the socio-economic background of students participating in PISA (Avvisati and Wuyts, 2024^[15]). It combines three factors. First, parental education, based on the highest level of education attained by the parents. Second, parental occupation, reflecting the highest occupational status among parents. Third, home possessions, derived from student reports on various educational and cultural resources available in their homes, including items like books, a quiet study place, and access to the internet, as well as more culturally enriching possessions like artworks. Furthermore, adjusting the analysis for urban versus rural residence is necessary unless a more granular approach is feasible by introducing school fixed effects, which allows for comparisons between majority and minority students within the same school.

For indicators related to intermediate educational outcomes, the adjustment strategy may vary slightly depending on whether the data are derived from the student or parent questionnaire. If derived from the student questionnaire, the same control variables as those used for final educational outcomes should be applied. However, if substituting socio-economic background with educational achievement reduces the extent of missing data, then educational achievement should be preferred for the adjustment. If the indicators are derived from the parent questionnaire, the same set of student-level control variables should be applied. Additionally, it may be advantageous to include the gender of the responding parent or guardian, as parental perceptions of the school environment may differ by gender.

School-to-work transition

Indicators related to the school-to-work transition derived from PISA focus on intermediate outcomes and require the same adjustments as those applied to indicators associated with intermediate educational outcomes (see the paragraph above).

Educational attainment

The EU-LFS enables an exploration of unexplained gaps in the highest educational attainment among majority and visible minority individuals aged 15-24. Specifically, this broad label could encompass the following three sub-indicators:

- The unexplained gap in the share of majority and minority individuals with at most a low educational attainment, i.e. no higher than lower secondary education, corresponding to ISCED Levels 0 (Early Childhood Education), 1 (Primary Education) or 2 (Lower Secondary Education) – see Box 2.8 for a description of ISCED levels);
- The unexplained gap in the share of majority and minority individuals with at most a medium educational attainment, corresponding to ISCED Levels 3 (Upper Secondary Education) or 4 (Post-Secondary Non-Tertiary Education). ISCED Level 4 includes short-term programmes that provide further education after upper secondary but are not at the tertiary level.
- The unexplained gap in the share of majority and minority individuals with high educational attainment, i.e. tertiary education, corresponding to ISCED Levels 5 (Short-Cycle Tertiary Education), 6 (Bachelor’s or Equivalent Level), 7 (Master’s or Equivalent Level) or 8 (Doctoral or Equivalent Level).

In the EU, more than one-third of immigrants (35%) are low-educated – almost double the proportion among the native-born population (20%). This significant disparity is primarily driven by non-EU migrants, 40% of whom attain only a low level of education. Similar disparities are observed among native-born individuals of foreign-born parentage. EU-wide, young adults aged 25 to 34 with at least one foreign-born parent are less likely to be highly educated than their peers with two native-born parents (32% versus 40%) and more likely to be low-educated (21% versus 14%). These gaps are particularly pronounced for native-born individuals of non-EU parentage. Young native-born women, whether their parents are native-born or foreign-born, are more likely than their male peers to attain a high level of education in all EU countries. However, gender differences in educational attainment are less pronounced among native-born individuals with foreign-born parents (OECD/European Commission, 2023^[6]).

Box 2.8. The International Standard Classification of Education (ISCED)

The International Standard Classification of Education (ISCED), developed by UNESCO, is a framework for classifying educational programmes and qualifications by their level and field of study. The latest version, ISCED 2011, categorises education into the following eight levels:

- ISCED Level 0: Early Childhood Education, which introduces young children, typically under the age of 6, to structured learning environments before the start of compulsory education.
- ISCED Level 1: Primary Education, which provides basic instruction in fundamental subjects such as literacy, numeracy, and general knowledge, typically lasting 4 to 6 years and beginning when students are aged from 5 to 7.
- ISCED Level 2: Lower Secondary Education, which typically begins between the ages of 11 and 13 and builds upon the general education provided at the primary level, often introducing more subject-specific instruction.
- ISCED Level 3: Upper Secondary Education, which typically begins at around 15 to 16 years of age, lasts 2 to 4 years, and prepares students for either tertiary education or vocational training, offering increased specialisation.
- ISCED Level 4: Post-Secondary Non-Tertiary Education, which encompasses short-term programmes that provide further education after upper secondary, but below the tertiary level, such as vocational certificates, pre-university courses.
- ISCED Level 5: Short-Cycle Tertiary Education, which comprises shorter tertiary programmes, typically lasting no more than two years, and is generally more practical or occupationally focused.

- ISCED Level 6: Bachelor's or Equivalent Level, which includes academic and professional programmes that provide a broad and solid foundation in a field of study, typically lasting 3 to 4 years.
- ISCED Level 7: Master's or Equivalent Level, which refers to advanced academic or professional education beyond the bachelor's level, offering greater depth in a specific field. These programmes typically last 1 to 2 years.
- ISCED Level 8: Doctoral or Equivalent Level, which represents the highest level of education, emphasising original research and advanced knowledge in a field. These programmes typically last 3 to 6 years after a master's degree.

Furthermore, the EU-LFS allows conditioning the analysis on each of these three educational levels, enabling examination of outcomes specific to each level, including:

- Conditional on having at most a low educational attainment, the unexplained gap in the share of majority and minority individuals who have dropped out of school, i.e. who are neither in education nor training. In the EU, the dropout rate among native-born youth aged 15 to 24 with foreign-born parents stands at 11%, compared to 8% for their peers with native-born parents. Within this group, young people with non-EU parentage are particularly vulnerable, with higher dropout rates than those whose parents are EU-born. Boys are more likely to drop out than girls, a disparity that is even more pronounced among native-born youth of foreign-born parentage (OECD/European Commission, 2023^[6]).
- Conditional on having at most a medium educational attainment, unexplained gap in the share of majority and minority individuals having enrolled in the vocational or technical track, rather than the general track, of upper secondary education.
- Conditional on high educational attainment, unexplained gap in the share of majority and minority individuals not having enrolled in fields of study that are most conducive to high labour earnings. Although high-earning fields may vary slightly across countries, they are generally concentrated within the following ISCED-F categories:¹ Business, administration and law; Natural sciences, mathematics and statistics; Information and Communication Technologies; and Engineering, manufacturing and construction (OECD, 2022^[16]).

Finally, as previously mentioned, PISA collects information on grade repetition, offering insights into educational attainment by capturing students' ability to progress through the education system without delay. This survey enables the calculation of the unexplained gaps in the share of majority and minority students who report having repeated a grade at ISCED Levels 1 and/or 2.

Educational achievement

PISA measures educational achievement with standardised tests in reading, mathematics, and science.

Reading literacy is a foundational skill that is critical for personal, academic, and professional success in modern societies. PISA assesses reading literacy, which extends beyond the mechanical process of reading, i.e. converting text into sounds, to include a comprehensive set of competencies enabling individuals to effectively engage with written information presented in one or more texts for a particular purpose. PISA evaluates reading literacy by measuring how well students can understand, use, and reflect on written material. The focus is on students' ability to derive meaning from various types of texts and to engage with them critically and constructively. This involves tasks such as extracting relevant information, understanding the relationships within and across texts, and evaluating the quality and credibility of the information provided (OECD, 2019^[17]).

Likewise, a solid understanding of mathematics is essential for young people to be well-prepared for life in modern society. Many of the challenges and situations encountered every day, including those in

professional settings, require a certain level of mathematical knowledge, reasoning, and the ability to use mathematical tools to fully comprehend and address them. Therefore, it is crucial to assess how effectively young people finishing compulsory schooling are equipped to apply mathematical skills to real-world issues and solve meaningful problems. In this context, PISA moves beyond the traditional approach of solving specific equations or abstract problems. Instead, it evaluates students' ability to formulate, apply, and interpret mathematical concepts in a variety of concrete situations. This approach encompasses problem-solving, reasoning, and making judgments about quantities, shapes, patterns, and changes (OECD, 2019_[18]).

Lastly, following the widely held view that a solid understanding of science is vital, PISA assesses whether students are equipped with three science-specific competencies enabling them to understand and critically engage with scientific issues. The first competency is the ability to explain natural phenomena scientifically, which involves using scientific knowledge to describe and predict natural events. The second competency is the capacity to apply an understanding of scientific inquiry: this includes identifying questions that can be addressed through scientific investigation, proposing methods to explore these questions, and evaluating whether appropriate procedures were followed. The third competency is the ability to interpret and evaluate scientific data and evidence critically, assessing whether conclusions drawn from these data are valid and justified (OECD, 2019_[18]).

Within this framework, PISA allows for the computation of unexplained gaps in reading, mathematics, and science literacy between majority and minority students, with each of these broad categories decomposable into the following three sub-indicators:

- The unexplained gap in the share of majority and minority students who are low achievers, performing below Level 2, which corresponds to scores below 335 in reading, 358 in mathematics and 335 in science (OECD, 2023_[19]).
- The unexplained gap in the share of majority and minority students who are medium achievers, typically scoring at Levels 2 to 4.
- The unexplained gap in the share of majority and minority students who are high achievers, performing at Levels 5 or 6, which corresponds to score above 626 in reading, 607 in mathematics and 633 in science.

The 2018 edition of PISA reveals that, in the EU, children of native-born parents outperform their peers with foreign-born parents in reading skills by the equivalent of one year of schooling. Even after accounting for socio-economic status, children of foreign-born parents still lag behind by approximately half a school year. This disparity extends to basic reading proficiency: 29% of native-born pupils with foreign-born parents lack basic reading skills, compared to just 18% of those with native-born parents (OECD/European Commission, 2023_[6]). Preliminary results from the 2022 edition of PISA confirm a similar pattern, including comparable gaps in mathematics performance (OECD, 2023_[20]).

Intermediate outcomes

In addition to assessing educational attainment through grade repetition and measuring educational achievement with standardised tests in reading, mathematics, and science, PISA collects rich data on students' and their parents' educational experiences and perceptions of the school environment. Specifically, the PISA student questionnaire enables the creation of five indicators that shed light on intermediate factors through which bias-driven racial/ethnic discrimination may hinder students' academic progress.

Students' and parents' sense of exclusion at school

PISA allows devising a first indicator capturing students' sense of exclusion within the school setting, which may be influenced by the three channels detailed in Chapter 1: lack of representation and recognition in

children’s books and textbooks, unequitable treatment by educators, and low acceptance by peers. Specifically, this indicator captures the unexplained difference in the share of majority and minority students who agree or strongly agree with “I feel like an outsider (or left out of things) at school”, who disagree or strongly disagree with “I feel like I belong at school”, and who agree or strongly agree with “I feel awkward and out of place in my school”.

While the share of 15-year-old native-born pupils with foreign-born parentage who report feeling awkward or out of place at school (17%) is comparable to that of their peers with two native-born parents across EU countries, this average masks significant disparities: in the majority of EU countries, native-born pupils of foreign-born parentage report a weaker sense of belonging at school (OECD/European Commission, 2023^[6]).

Furthermore, PISA provides an additional indicator offering an opportunity to proxy for a channel – only briefly mentioned in Chapter 1 – namely, the unfair treatment of minority parents by the school system. This issue has been empirically supported primarily in the United States, with limited evidence in Europe. Specifically, the PISA questionnaire for parents enables the derivation of two sub-indicators related to parents’ sense of exclusion within the school setting.

- The first sub-indicator captures the unexplained gaps in the share of parents of majority and minority students who report that their participation in activities at their child’s school was hindered by feeling unwelcome.
- The second sub-indicator measures the unexplained gaps in the share of parents of majority and minority students who disagree or strongly disagree with all the following three statements: “My child’s school provides an inviting atmosphere for parents to get involved”; “My child’s school provides effective communication between the school and families”; and “My child’s school involves parents in the decision-making process”.

Biased educators

The next two indicators delve into potential bias among educators. The first examines students’ perceptions of teacher hostility, while the second explores their lack of exposure to (quality) career counselling in schools.

The first measure of perceived teacher hostility examines the unexplained gap in the share of majority and minority students reporting negative interactions with their teachers. Specifically, it considers students who disagree or strongly disagree with all of the following six statements: “The teachers at my school are respectful towards me”; “If I walked into my classes upset, my teachers would be concerned about me”; “If I came back to visit my school three years from now, my teachers would be excited to see me”; “When my teachers ask how I am doing, they are really interested in my answer”; “The teachers at my school are friendly towards me”; and “The teachers at my school are interested in students’ well-being”. Simultaneously, it includes students who agree or strongly agree with the two statements: “I feel intimidated by the teachers at my school”; and “The teachers at my school are mean towards me”.

In the EU, one-third of 15-year-old native-born children of immigrants believe that most of their teachers hold discriminatory attitudes toward other cultural groups, compared to one-quarter of their peers with native-born parents. The most frequently cited issue is that teachers tend to have lower academic expectations for students from different cultural backgrounds (OECD/European Commission, 2023^[6]).

The second indicator focuses on career counselling and encompasses the following two sub-indicators:

- One which concentrates on the lack of exposure to career counselling at school by calculating the unexplained gaps in the share of majority and minority students who report not having spoken to a career advisor at school (responding “No” to the question, “I spoke to a career advisor at my school”).

- One which proxies for students' dissatisfaction with career counselling by computing the unexplained gap in the share of majority and minority students who disagree or strongly disagree with the statement, "I feel well-informed about possible paths for me after [the final year of compulsory education]".

Biased schoolmates

The last indicator focuses on the degree of biased attitudes and behaviours among schoolmates and comprises two sub-indicators:

- The first sub-indicator assesses students' peer isolation at school by calculating the unexplained gap in the share of majority and minority students who disagree or strongly disagree with "I make friends easily at school" and "Other students seem to like me", and who agree or strongly agree with "I feel lonely at school".
- The second sub-indicator assesses students' experiences of bullying by schoolmates, by computing the unexplained gap in the share of majority and minority students who report being bullied "a few times a year", "a few times a month", or "once a week or more", compared to those who report "never or almost never", across each of the following nine scenarios: "Other students left me out of things on purpose"; "Other students made fun of me"; "I was threatened by other students"; "Other students took away or destroyed things that belonged to me"; "I got hit or pushed around by other students"; "Other students spread nasty rumours about me"; "I was in a physical fight on school property"; "I stayed home from school because I felt unsafe"; and "I gave money to someone at school because they threatened me".

While the proportion of 15-year-old children of immigrants reporting bullying EU-wide aligns with that of their peers with two native-born parents, the data reveal significant disparities. In over two-thirds of EU countries, children of immigrants are more frequently subjected to bullying than their native-born counterparts (OECD/European Commission, 2023^[6]).

Interestingly, this trend reverses depending on the socio-economic context: in underprivileged schools, children of immigrants experience less bullying than their peers with native-born parents, whereas in socio-economically privileged schools, the opposite is true. This finding aligns with previous research, such as (Vitoroulis and Georgiades, 2017^[21]) in the Netherlands, which highlights how the concentration of immigrant students in a school shapes the risk of bullying associated with an immigrant background. However, that study also found that non-White students faced higher odds of racial/ethnic victimisation compared to their White peers, regardless of the school's immigrant concentration.

2.2.2. School-to-work transition

Bias-driven discrimination against visible minorities can significantly hinder their school-to-work transition, prolonging the time between leaving formal education and securing quality employment. This occurs through various mechanisms. Low educational attainment and achievement, as well as difficulties in accessing entry-level jobs – topics addressed in the previous and following sections – are two key factors. However, as outlined in Chapter 1, research demonstrates that racial/ethnic bias introduces additional barriers, such as limited access to work-based learning opportunities during formal education (e.g. internships and apprenticeships), and disproportionate exposure to disciplinary actions both inside and outside the school environment, including when interacting with law enforcement.

The EU-LFS offers a measure of the final outcome that can serve as a proxy for assessing the effectiveness of the school-to-work transition. Meanwhile, PISA helps explore some of the underlying mechanisms contributing to these disparities (see Box 2.6 and Box 2.7 for a discussion of recommended adjustments when using indicators derived from these surveys).

Final outcomes

The EU-LFS enables the measurement of unexplained gaps in the share of majority and minority youth who are NEET (Not in Education, Employment, or Training). Youth can be defined either as those aged 15-24 or 15-29, each definition offering distinct advantages and limitations.

Focusing on the 15-24 age group allows better controlling for parental socio-economic background, as a significant proportion of this age group still resides with their parents. However, this narrower focus could underestimate the extent of NEETs, as many individuals in this age range may still be pursuing tertiary education.

In contrast, focusing on the 15-29 age group offers a more comprehensive analysis of youth transitions, as most individuals who pursued tertiary education are likely to have completed their studies by their late twenties. However, this broader age range includes a greater share of youth who no longer live with their parents, making it more challenging to adjust for parental socio-economic background.

Across the EU, native-born youth aged 15 to 34 with at least one foreign-born parent are slightly more likely than their peers with two native-born parents to be NEET (16% vs. 15%). However, this average masks large disparities in most EU countries, with gaps reaching nearly 10 percentage points in France and Belgium. Young women and the least educated are particularly vulnerable to being NEET, regardless of whether their parents are foreign-born or native-born. However, even highly educated individuals with at least one foreign-born parent face higher NEET rates than their counterparts with two native-born parents (OECD/European Commission, 2023^[6]).

Intermediate outcomes

PISA offers proxies for each of the two channels that hinder school-to-work transition beyond low educational attainment and achievement, and difficulties in accessing entry-level jobs.

- The PISA student questionnaire provides a basis for deriving an indicator on the lack of work-based learning experience during formal education. This indicator measures the unexplained gap in the share of majority and minority students who report not having done an internship to explore future study options or career paths. Yet, it is important to keep in mind that, while insightful, this indicator would be even more informative if gaps in internship experiences could also be measured beyond age 15, as older students often have increased access to structured work-based learning, allowing for a better understanding of disparities in this field.
- Both the PISA student and parent questionnaires provide insights into exposure to disciplinary actions within the school setting.
 - A first indicator, which relies on the student questionnaire, consists in calculating the unexplained gap in the share of majority and minority students who report having missed school for over three months in a row due to suspension for reasons such as violence, aggression, or drug-related issues, be it at ISCED Levels 1, 2 or 3. However, this measure has a notable limitation. Although unexplained gaps always require cautious interpretation – since unobserved factors may contribute to differences – this is especially true for this indicator. One critical factor that could affect results is the potential difference in behaviour between majority and minority students, a variable that, unfortunately, cannot be observed in PISA and thus not factored in when analysing disparities.
 - A second indicator, which relies on the parent questionnaire, captures parental dissatisfaction with disciplinary practices at school, allowing for the computation of the unexplained gap in the share of majority and minority parents who disagree or strongly disagree with the statement: “I am satisfied with the disciplinary atmosphere in my child’s school.” While this indicator offers valuable insight, it also has limitations. Notably, it may reflect factors unrelated to differential

exposure to disciplinary actions, such as differences in cultural norms regarding how strict school rules should be and how rigorously they should be enforced.

2.2.3. Employment

In the field of employment, the literature reviewed in Chapter 1 suggests that bias-driven racial/ethnic discrimination can occur at various stages: at the recruitment stage, and after hiring, including potentially at the point of dismissal. The EU-LFS enables the measurement of unexplained differences in final outcomes across these two stages (see Box 2.6 for a discussion of recommended adjustments when using indicators derived from this survey).

To account for the possibility that state action against racism may be more effective in the public than in the private sector, it is essential to analyse some of the proposed indicators separately for each sector, in addition to examining them economy-wide. This is particularly relevant for unexplained gaps in employment rates and labour earnings.

At the recruitment stage

Hiring discrimination against visible minorities likely reduces their employment prospects, thereby increasing their risk of unemployment, particularly long-term unemployment, as well as their risk of involuntary inactivity due to discouragement. Moreover, hiring discrimination can lead to their overrepresentation in lower-quality jobs, that is jobs not related to standard employment (defined as open-ended, full-time, dependent work) and/or for which visible minority job candidates are typically overqualified, as shown by (Drydak, Paraskevopoulou and Bozani, 2022^[22]) reviewed in Chapter 1.

Indicators for each of these dimensions can be derived from the EU-LFS. The first indicator assesses individuals' labour market status and consists of three sub-indicators that compute the unexplained gap in the proportion of majority and minority individuals across the following situations: (i) being inactive, (ii) being unemployed, and (iii) being employed.

Across the EU, 65% of immigrants are employed, compared with 69% of the native-born, while the immigrant unemployment rate (12%) is twice that of the native-born. Disparities persist when focusing on their immediate descendants, comparing native-born youth of foreign-born versus native-born parentage. In the EU, only slightly more than two-thirds of native-born individuals aged between 15 and 34 with foreign-born parents are in employment (67%), while this share exceeds three-quarters (77%) among their peers with two native-born parents. Moreover, 17% of native-born youth of foreign-born parentage are unemployed, against 10% of their peers with native-born parents. Young men are more likely to be unemployed than young women, and such gender gaps tend to be wider among native-born with foreign-born parents (OECD/European Commission, 2023^[6]).

The next three indicators provide a more detailed analysis of the previously mentioned labour market status categories by examining the unexplained gaps in the proportion of majority and minority individuals who:

- Conditional on being inactive, are involuntarily so, defined as individuals who wish to work but are not actively searching for employment. The EU-LFS provides additional insights into reasons for involuntary inactivity, such as “No suitable job is available” (indicating discouragement), instead of other reasons like “Currently in education or training”, “Own illness or disability”, “Care responsibilities”, or “Laid off and waiting to be called back to work”. In the EU, involuntary inactivity affects 28% of the foreign-born population compared to 18% of the native-born. Women are generally less likely than men to experience involuntary inactivity, though the gender gap is markedly wider among immigrants than among the native-born. Among involuntarily inactive men, discouragement in the labour market is the most common reason, while for women, family

responsibilities are the primary driver – affecting migrant women nearly twice as much as their native-born counterparts across the EU (OECD/European Commission, 2023^[6]).

- Conditional on being unemployed, are in long-term rather than short-term unemployment, where long-term unemployment refers to individuals who have been unemployed for 12 months or more and have actively sought work during this period. EU-wide, the share of immigrants and native-born who are long-term unemployed is similar. However, immigrants from non-EU countries are more likely to be unemployed than native-born, as are immigrant women when compared with their native-born peers (OECD/European Commission, 2023^[6]).
- Lack access to quality employment, which includes the following four sub-indicators:
 - Conditional on being employed, being self-employed rather than in dependent employment, where dependent employment refers to individuals working under an employer and receiving wages or salaries under a contractual relationship, as opposed to self-employment where individuals run their own business. In the EU, immigrants are just as likely as the native-born to be self-employed. However, the reasons behind their self-employment differ significantly: 30% of immigrants turn to self-employment out of necessity, due to a lack of alternative options, compared to only 20% of their native-born peers (OECD/European Commission, 2023^[6]). The 2024 edition of the OECD International Migration Outlook, which notably includes a focus on migrant entrepreneurship, confirms that self-employment remains a strategy for immigrants to overcome difficulties in accessing wage employment (OECD, 2024^[23]).
 - Conditional on being in dependent employment, holding a fixed term (or temporary) rather than an open-ended contract. In nearly all EU countries, immigrant workers are more likely than native-born workers to hold temporary contracts, with EU-wide shares at 17% compared to 10% (OECD/European Commission, 2023^[6]).
 - Conditional on being in dependent employment, engaging in part-time rather than full-time work. The EU-LFS offers the possibility to further distinguish, among part-time workers, between voluntary and involuntary part-time work, with involuntary part-time defined as individuals who work part-time but would prefer full-time employment if available. Across the EU, immigrants are more likely than their native-born peers to work part-time, with 22% of immigrants in part-time employment compared to 16% of native-born workers. Additionally, immigrants are disproportionately represented in involuntary part-time work: around 30% of immigrants express a desire to work longer hours, compared to just 20% of their native-born counterparts (OECD/European Commission, 2023^[6]).
 - Conditional on being in dependent employment, being overqualified, i.e. having tertiary education (ISCED Levels 5 to 8) while being employed in jobs classified as low- or medium-skilled (ISCO Levels 4-9; see Box 2.9 for a description of ISCO Levels). In the EU, overqualification is significantly more common among immigrants than among the native-born: approximately one-third (32%) of highly educated immigrants are overqualified for their jobs, compared to one-fifth (20%) of their native-born peers. These disparities persist among the immediate descendants of immigrants. Overqualification is a particularly acute issue for native-born youth with non-EU parentage, compared to those with EU parentage (OECD/European Commission, 2023^[6]).

After hiring

As outlined in Chapter 1, discrimination does not end at hiring but persists throughout employment, manifesting in biased managerial behaviour that affects promotion opportunities, supervision, and wage negotiations. This bias ultimately results in lower labour earnings for visible minorities – either because they face obstacles in career progression despite comparable performance, struggle to reach their full potential under discriminatory supervision, or are paid less than their peers for work of equal value.

Additionally, this bias may restrict their access to lifelong learning opportunities. Finally, tentative evidence from Germany suggests that visible minorities may also face firing discrimination, being more likely to be dismissed during economic downturns, even after accounting for productive characteristics.

Three key indicators can be derived from the EU-LFS to capture the impact of bias in the workplace. The first indicator focuses on the unexplained gap in labour earnings between majority and minority employees.

Bias in managerial practices can also manifest in disparities in access to life-long learning and training opportunities. Although research on this form of discrimination remains limited, the EU-LFS facilitates the assessment of unexplained gaps in the lack of exposure to job-related education or training programmes initiated or recommended by employers. Across the EU, immigrants are slightly less likely than native-born individuals to participate in adult education, with participation rates of 6% for immigrants compared to 7% for the native-born (OECD/European Commission, 2023^[6]).

Such unequal access to life-long learning could lead to faster skills depreciation among minority employees, affecting critical competencies such as literacy, numeracy, and problem-solving in technology-rich environments, essential for adaptability in evolving job markets. These competencies are measured internationally through the OECD's Programme for the International Assessment of Adult Competencies (PIAAC). Launched in 2011, PIAAC's first cycle evaluated skills in over 24 countries, with a second cycle initiated in 2022 across 31 countries. This representative household survey targets adults aged 16 to 65, with national sample sizes typically ranging between 5 000 and 10 000 individuals. However, the survey only gathers information on whether respondents' parents were born abroad, without specifying their country of origin. This limitation prevents from differentiating minority adults by European versus non-European background.

Regarding proxying for firing discrimination, the EU-LFS enables the computation of the unexplained gap in the share of majority and minority respondents who, among those with prior work experience, reported leaving their previous job due to dismissal. This indicator captures individuals who mentioned that they "lost job or made redundant or laid off", in contrast to other motives such as "contract ended or job was temporary", "caring responsibilities", "resuming education or training", "illness or disability", or "retirement".

Box 2.9. The International Standard Classification of Occupations (ISCO)

The International Standard Classification of Occupations (ISCO), developed by the International Labour Organization (ILO), classifies jobs based on the skills and qualifications required. The latest version, ISCO-08, organises occupations into nine major groups, ranging from the least to the most skilled:

- Low-skilled occupations, corresponding to ISCO Major Group 9, require basic education, typically aligned with ISCED Levels 0-2.
- Semi-skilled occupations, requiring upper secondary education (ISCED Levels 3-4), encompass several major groups:
 - ISCO Major Group 8 (Plant and machine operators and assemblers).
 - ISCO Major Group 7 (Craft and related trades workers).
 - ISCO Major Group 6 (Skilled agricultural, forestry, and fishery workers).
 - ISCO Major Group 5 (Service and sales workers).
 - ISCO Major Group 4 (Clerical support workers).
- Technicians and associate professionals (requiring ISCED Level 5 and corresponding to ISCO Major Group 3).
- Highly skilled occupations, requiring tertiary education (ISCED Levels 6-8) include :
 - ISCO Major Group 2 (Professionals).
 - ISCO Major Group 1 (Managers).

2.2.4. Housing

As highlighted in Chapter 1, bias-driven racial/ethnic discrimination adversely affects housing outcomes for visible minorities in several ways. First, discrimination in the private sale housing market and restricted access to mortgage loans significantly limit homeownership opportunities for racial/ethnic minorities. Simultaneously, discrimination in the private rental housing market often pushes visible minorities into social housing at disproportionately higher rates.

Second, this multifaceted discrimination likely undermines the value for money of the housing accessible to visible minorities, as they may not receive priority for high-quality housing. This effect is compounded by evidence, reviewed in Chapter 1, of differential treatment extending to the prices paid for both homes for sale and rental properties, as well as to the cost of mortgages approved for minority buyers.

Third, these two channels are expected to exacerbate racial and ethnic segregation – the physical separation of racial or ethnic groups. This issue is further intensified when, as evidence suggests, bias extends beyond landlords, real estate agents, and mortgage lenders, to include neighbours, reinforcing patterns of White avoidance, where White residents tend to leave or avoid neighbourhoods once the visible minority population surpasses a certain threshold.

The EU-SILC sheds light on final housing outcomes related to the first two mechanisms (see Box 2.10 for a discussion of recommended adjustments when using indicators derived from this survey). Additionally, PISA provides an indicator that sheds light on racial/ethnic segregation.

Box 2.10. Recommended adjustments when analysing indicators derived from EU-SILC

The EU-SILC yields core indicators covering the following three areas: housing, health, and poverty risk and low life satisfaction.

- **Housing**

For indicators related to housing (which are computed at the household level), differences between majority and minority households should, at a minimum, be adjusted for the gender and age of the household reference person, as well as for household disposable income, household size, and urban or rural residence. The gender and age of the household reference person are important because they often influence household financial stability. Household size and disposable income provide a basis for comparing households with similar economic resources, while accounting for urban or rural residence adjusts for the geographic disparities in housing availability and cost, which can vary significantly by location.

- **Health**

For indicators related to health, differences between majority and minority individuals should, at a minimum, be adjusted for the gender, age, and highest educational attainment of the individual, as well as for household disposable income, and urban or rural residence. Both gender and age play pivotal roles in shaping health outcomes. Gender-specific roles and societal expectations drive variations in stress levels, access to resources, and health-seeking behaviours. For instance, women often encounter unique challenges to life satisfaction and mental health due to pressures around work-life balance, while men may face mental health risks, as prevailing norms can discourage them from seeking psychological support. Aging, too, influences these dimensions: while the likelihood of chronic conditions rises with age, which can impact overall well-being, increased life experience and, frequently, enhanced financial stability offer a counterbalance, contributing positively to mental health. Higher educational attainment generally promotes health literacy and healthier behaviours. Similarly, household disposable income significantly impacts access to quality healthcare and the ability to maintain a healthy lifestyle. Lastly, living in an urban or rural area affects the availability of healthcare services.

- **Poverty risk and low life satisfaction**

For indicators assessing poverty risk (which is computed at the household level), the analysis should include the same control variables used for housing-related indicators, with one adjustment: instead of household disposable income (since it is used to calculate poverty risk), the highest educational attainment of the household reference person should be taken into account. This substitution serves as a valuable proxy for earnings potential, enabling a more accurate assessment of living conditions, including poverty risk, across various household types.

For indicators assessing low life satisfaction, the analysis should include the same control variables used for health-related indicators, given their strong correlation with overall well-being. For example, living in an urban or rural area affects not only access to healthcare services but also availability of recreational amenities and social support networks, both of which have a significant influence on life satisfaction.

Housing tenure

The EU-SILC provides one indicator related to housing tenure, which can be further broken down into two sub-components. First, it facilitates the analysis of unexplained gaps in homeownership rates between majority and minority households by measuring the proportion of tenants versus homeowners within each group. Additionally, it supports the assessment of disparities among tenants by examining the share of

majority and minority households renting at reduced rates, which serves as an indicator for social housing residency.

In the EU, home ownership among the native-born population aged 16 and over is nearly twice as high as that of the foreign-born (74% vs. 42%). This disparity may reflect not only discrimination in property purchases but also other factors, such as lower financial resources, limited knowledge of the host country's housing market, and the absence of inherited housing assets in the host country. Additionally, foreign-born renters across the EU are slightly more likely than their native-born counterparts – by 2 percentage points – to live in dwellings rented at a reduced rate (OECD/European Commission, 2023^[6]).

Since EU-SILC is a household survey collecting data from individuals living in private households, those without a fixed residence, including homeless individuals who do not reside in conventional housing or shelters, are typically excluded from the sample. Yet, discrimination in the private housing market (in access to both homeownership and rentals) combined with capacity constraints in social housing, can disproportionately push minorities towards homelessness.

Unfortunately, to our knowledge, very few countries report homelessness statistics in a manner that allows for the computation of unexplained gaps between native-born individuals with two native-born parents and those with at least one foreign-born parent. Moreover, none provides further disaggregation by European and non-European background. For example, Denmark has conducted a biannual survey on homelessness since 2007, collecting detailed personal information, including gender, age, immigrant background, citizenship, income, and whether the individual has children living with them in homelessness. The 2022 Danish report reveals a significant overrepresentation of second-generation Danish citizens among the homeless population, as immediate descendants of immigrants account for 8% of homeless individuals, compared to their 3% share in the total population (VIVE, 2022^[24]). This lack of detailed reporting reflects a broader context where collecting comparable cross-country data on the overall size of the homeless population, let alone the share of immigrants within it, remains highly challenging (see Box 2.11).

Box 2.11. Challenges to measuring homelessness among migrants in OECD and EU countries

Comprehensive, comparable data on homelessness among migrants in OECD and EU countries are lacking. Fewer than half of OECD and EU countries report the share of migrants in their national homelessness statistics, while the remaining 20 countries do not disaggregate homelessness data by migrant status.

Many of the broader methodological challenges that hinder the measurement and cross-country comparison of homelessness also affect how accurately migrants are accounted for in official homelessness statistics. These challenges include variations in definitions and measurement of homelessness, often leading to underestimation of both general homelessness and homelessness among migrants. Notably, there is no internationally harmonised definition of homelessness, leading governments to define and measure it in different ways. The widely used ETHOS Light Typology, which facilitates cross-country comparisons, outlines six categories of homelessness, including, among others, people sleeping rough (ETHOS 1), staying in emergency accommodation (ETHOS 2) or temporary shelters (ETHOS 3), and those temporarily housed with family or friends (ETHOS 6). While some countries adopt a narrow approach, such as Japan, which only includes individuals living rough, others use broader definitions. As a result, cross-country comparisons of homelessness statistics are not always meaningful.

Moreover, there are additional country-specific approaches to data collection when it comes to migrants, particularly regarding asylum seekers and refugees. In some OECD and EU countries, official

homelessness statistics explicitly include individuals staying in temporary accommodation for asylum seekers and refugees, whereas other countries exclude them from their counts.

Where disaggregated data on migrant homelessness are available, estimates indicate that migrants are overrepresented among individuals experiencing homelessness. However, due to inconsistencies in definitions and data collection, these estimates cannot be readily compared across countries.

Source: (OECD, 2024^[25]), “Challenges to measuring homelessness among migrants in OECD and EU countries”, https://www.oecd.org/en/publications/challenges-to-measuring-homelessness-among-migrants-in-oecd-and-eu-countries_b9855842-en.html.

Value for money in housing

In terms of the value for money of housing accessible to visible minorities, one key indicator can be derived from EU-SILC to assess unexplained gaps between majority and minority households with respect to the following three sub-items:

- Living in an overcrowded accommodation, defined as housing where the number of rooms is insufficient according to the following criteria: one living room, plus one room for each single person or couple responsible for the household, plus one room for every two additional adults, and one room for every two children. Across the EU, more than one-third (34%) of children under 16 in immigrant households live in overcrowded accommodation, compared to one-fifth (20%) of their peers in native-born households. A closer examination reveals that these disparities are largely driven by children with parents born outside the EU (OECD/European Commission, 2023^[6]).
- Living in a substandard accommodation, which includes housing conditions such as being too dark, lacking exclusive access to a bathroom, or having significant issues like a leaking roof. In the EU, 26% of immigrants live in substandard housing, compared to 20% of the native-born (OECD/European Commission, 2023^[6]).
- Spending more than 40% of disposable income on housing costs (after accounting for housing allowances) which represents the housing cost overburden rate. Across the EU, nearly one-fifth (19%) of immigrants aged 16 and over are overburdened by housing costs, compared to around one-eighth (12%) of their native-born counterparts (OECD/European Commission, 2023^[6]).

Racial/ethnic segregation

No cross-country survey currently enables the measurement of racial/ethnic residential segregation. Accurately capturing such segregation requires exhaustive data on populations living in narrowly defined geographic areas (Verdugo, 2011^[26]), including information on individuals’ and their parents’ country of birth. This level of detail is typically available only in some countries, through national population registers or census data.

However, PISA offers the possibility to compute racial/ethnic segregation at the school level, which provides two key insights. First, it serves as a proxy for residential segregation. School composition is often influenced by the segregation present in the surrounding neighbourhood as many parents prefer schools near their homes to avoid long commutes for their children (OECD, 2019^[27]). Second, racial/ethnic segregation at the school level can also be driven by the flight or avoidance of majority parents, who may prefer schools with a higher concentration of similar peers. These alternative schools are often private schools, particularly in countries where residence-based school assignment is strong. However, they are also public schools, especially in contexts where residence-based assignment is either weak or non-existent (Givord, 2019^[28]).

The detrimental impact that private schools exert on segregation within the public education system has been well-documented for France, although the focus has primarily been on social segregation due to the

lack of systematic data on its racial and ethnic counterpart (Boutchenik, Givord and Monso, 2018^[29]; Boutchenik, Givord and Monso, 2021^[30]; Souidi, 2023^[31]; Frohly, 2022^[32]). It is important to recall, however, that social and racial/ethnic segregation are strongly correlated. Interestingly, the concentration of students from privileged backgrounds, and by extension, those from racial/ethnic majority backgrounds, within private schools may not solely result from parental school choice. It may also derive from discriminatory practices on the part of private schools toward visible minority students, as highlighted in Box 2.12.

Box 2.12. Discrimination against visible minority students at the entry to private schools

Only one field experiment has explored whether private schools discriminate. Specifically, in 2011, a group of researchers examined discrimination based on presumed parental national origin at the entry point of 4 269 private schools across France. They created the fictional identities of two fathers: one with a French-sounding name, and the other with a Maghreb-sounding name. A few days apart, these two fictional fathers sent short messages to each of these schools, requesting more information about enrolling their child for the upcoming school year. The researchers then compared the responses from the schools to these two inquiries.

The results demonstrate the existence of discriminatory practices. Specifically, the father with a French-sounding name was more than 40% more likely to receive a “positive” response from the private schools, including offering a meeting with the principal, sending an application form for review, providing conditional acceptance with placement on a waiting list, or giving a firm acceptance.

Source: (Brodaty, Du Parquet and Petit, 2014^[33]), “La discrimination à l’entrée des établissements scolaires privés”, <https://doi.org/10.3917/rfe.142.0143>.

To capture these dynamics, PISA data can be used to compute a segregation (or dissimilarity) index at the school level, although the focus will be only on public schools. This index examines whether the distribution of native-born students with two native-born parents differs from that of foreign-born students or native-born students with at least one foreign-born parent across schools, relative to what would be expected if students were randomly distributed. Specifically, the index reflects the proportion of students from these two groups who would need to be redistributed across schools to achieve an identical distribution.

The dissimilarity index D is formally calculated as follows:

$$D = \frac{1}{2} \sum_k \left| \frac{G_k}{G} - \frac{N_k}{N} \right|$$

where G represents the total number of racial/ethnic minority group members in all PISA schools and G_k is the number of racial/ethnic minority group members in PISA school k . Similarly, N represents the total number of majority group members in all PISA schools, and N_k is the number of majority group members in PISA school k . A dissimilarity index of zero indicates that both groups are equally distributed across all schools, while a value of 1 represents complete segregation.

The share of pupils either foreign-born or with at least one foreign-born parent who attend the quartile of schools with the highest concentrations of such pupils can serve as an alternative to the dissimilarity index. Using this measure highlights the significant clustering of pupils with foreign-born parentage in schools. Across the EU, over half (53%) of 15-year-old pupils with at least one foreign-born parent attend the quartile of schools with the highest shares of pupils with foreign-born parentage – a figure that would be 25% if these pupils were evenly distributed across schools (OECD/European Commission, 2023^[6]).

It is important to stress that, as with any core indicator, this segregation index provides an imperfect measure of the impact of bias-driven racial/ethnic discrimination. Other factors, unrelated to discrimination, may also play a role. For example, residential racial/ethnic segregation could exclusively result from housing policies concentrating public housing in specific areas. Moreover, school segregation may be driven entirely by parental preferences for placing their children in environments with peers from privileged backgrounds, perceived as more likely to be high achievers, rather than by an aversion to have their children interact with peers of different racial or ethnic backgrounds. That said, research indicates that the benefits of exposure to high-achieving peers are primarily experienced by low-achieving students, while high achievers typically do not experience negative effects from being surrounded by lower-achieving peers (Fairlie et al., 2024^[34]).

2.2.5. Health

Chapter 1 reveals that racism or racial/ethnic bias have a profound impact on the health of visible minorities. First, these factors have a well-established causal effect on mental health and are also associated with deteriorated physical health, at least in specific dimensions. This is largely due to the overactivation of stress pathways, known as allostatic load, which triggers three major pathologies detrimental to physical health: increased heart rate and blood pressure, raising the risk of cardiovascular diseases; elevated blood glucose levels and central fat accumulation, increasing the likelihood of diabetes; and systemic inflammation, which contributes to cancer risk. In other words, general health, mental health, and certain aspects of physical health are expected to be negatively impacted by bias-driven racial/ethnic discrimination.

These direct effects may be further exacerbated by indirect effects that operate through intermediate factors. The literature highlights two such drivers. First, individuals facing discrimination may adopt maladaptive coping strategies, such as eating disorders or substance abuse, which heighten the risk of health issues. Second, although field experiments on access to healthcare are limited and mostly conducted in the United States, findings suggest that visible minorities may face greater barriers in securing medical appointments, even when they have comparable health insurance to their majority counterparts, with tentative evidence that such barriers could extend to the quality of patient-provider interactions.

The EHIS and/or EU-SILC allow the derivation of indicators for both the aforementioned final and intermediate outcomes (see Box 2.10 and Box 2.13 for a discussion of recommended adjustments when using indicators derived from these surveys).

Box 2.13. Recommended adjustments when analysing indicators derived from EHIS

The EHIS yields core indicators covering health. For these indicators, differences between majority and minority individuals should, at a minimum, be adjusted for the gender, age, and highest educational attainment of the individual, as well as for household disposable income, and urban or rural residence, consistent with the approach detailed in the health section of Box 2.10.

Final outcomes

Final health outcomes can be divided into three categories: general health, mental health, and specific aspects of physical health.

Poor general health status

Both the EHIS and EU-SILC provide the means to compute the unexplained gap in the share of majority and minority individuals who rate their general health as bad or very bad.

As highlighted in Chapter 1, research demonstrates a positive health selection effect among immigrants, driven by the stylised fact that those who migrate are healthier on average than the rest of the population (Aldridge et al., 2018^[35]; Shor and Roelfs, 2021^[36]). However, the situation for children of immigrants presents a different picture. Analysis reveals significant disparities in mortality risks based on the geographic origin of immigrant parents (Wallace, Hiam and Aldridge, 2023^[37]). While native-born children of European immigrants generally mirror the mortality rates of their peers with native-born parents, native-born children of non-European immigrants face higher mortality risks throughout their lives.

Poor mental health status

The indicator related to mental health status builds on three sub-items: two from the EHIS and one from the EU-SILC.

From the EHIS, it is possible to compute the unexplained gap in the share of majority and minority individuals who report:

- Having suffered from depression in the past 12 months.
- Having experienced any of the following nine symptoms of poor mental health over the last two weeks: little interest or pleasure in doing things ; feeling down, depressed or hopeless ; trouble falling or staying asleep, or sleeping too much ; feeling tired or having little energy ; poor appetite or overeating ; feeling negative about yourself or that you are a failure or have let yourself or your family down ; trouble concentrating on things, such as reading the newspaper or watching television ; moving or speaking so slowly that other people could have noticed; or being so fidgety or restless that you have been moving around a lot more than usual.

With the EU-SILC, one can compute the unexplained gap in the share of majority and minority individuals who report having felt downhearted or depressed during the past four weeks.

Poor physical health status

The EHIS allows for a detailed analysis of three specific aspects of physical health, focusing on pathologies associated with:

- Increased heart rate and blood pressure, which are significant risk factors for cardiovascular diseases. This is captured through the unexplained gap in the share of majority and minority individuals who report having experienced any of the following conditions in the past 12 months: a myocardial infarction (heart attack) or chronic consequences of myocardial infarction; coronary heart disease or angina pectoris ; high blood pressure ; a stroke (cerebral haemorrhage, cerebral thrombosis) or chronic consequences of stroke.
- Elevated blood glucose levels and central fat accumulation, both of which increase the risk of diabetes. This is measured by the unexplained gap in the share of majority and minority individuals who report having had diabetes or high blood lipids in the past 12 months.
- Systemic inflammation, which can contribute to cancer risk. This is captured by the unexplained gap in the share of majority and minority individuals who report having suffered from chronic bronchitis, chronic obstructive pulmonary disease, or emphysema in the past 12 months.

Intermediate outcomes

Intermediate outcomes include maladaptive coping strategies, such as eating disorders or substance abuse, and unmet health needs, possibly due to discriminatory behaviour among healthcare professionals.

Maladaptive coping strategies

The EHIS provides a way to proxy the potentially higher prevalence of eating disorders among visible minorities. These disorders involve severe disturbances in eating behaviour and include conditions such as anorexia nervosa (characterised by extreme food restriction and an intense fear of gaining weight), bulimia nervosa (involving cycles of binge eating followed by purging to avoid weight gain), and binge eating disorder (marked by episodes of excessive eating without compensatory behaviours).

Specifically, the EHIS enables the computation of the unexplained gap in the share of majority and minority individuals who don't have a normal weight based on their Body Mass Index (BMI). BMI can be derived from two EHIS questions: "How tall are you without shoes? (in cm)" and "How much do you weigh without clothes and shoes? (in kg)".² A normal weight is defined as a BMI between 18.5 and 24.9, indicating that the individual is neither underweight (BMI below 18.5), overweight (BMI between 25 and 29.9), nor obese (BMI over 30).

However, these BMI cutoffs must be applied with caution, as they were originally designed for White populations and may not accurately reflect health risks across different racial and ethnic groups. For instance, Black populations tend to have lower body fat at the same BMI, making them more likely to be misclassified as overweight, whereas the opposite is true for Asian populations, increasing the risk of misclassifying them as not overweight. Illustrating these differences, a US study found that for Black women, the threshold at which chronic illness risks increase is a BMI of 31-33, compared to a lower cutoff of 25-29 for White women (Stanford, Lee and Hur, 2019^[38]). Similarly, an analysis of nearly 1.5 million individuals in the United Kingdom revealed that while a BMI of 30 or above was associated with a higher risk of diabetes for White individuals, the threshold for South Asian individuals was significantly lower, at 23.9 or above (Caleyachetty et al., 2021^[39]).

In addition to BMI, the EHIS also allows for the derivation of a second indicator that analyses potential disparities in substance abuse. Specifically, this indicator comprises two sub-components that calculate the unexplained gap in the share of majority and minority individuals who report:

- Smoking tobacco products (excluding electronic cigarettes or similar electronic devices) on a daily basis, as opposed to occasionally or never.
- Consuming alcohol at a frequency of 3-4 days a week or more, including "5-6 days a week" and "every day or almost." This contrasts with those who drink less frequently (e.g. "1-2 days a week," "2-3 days in a month," "once a month," "less than once a month"), or who report abstaining ("not in the past 12 months, as I no longer drink alcohol" or "never, or only a few sips or tries in my whole life").

Although abstaining from alcohol remains the safest level of consumption (Griswold et al., 2018^[40]), research suggests that limiting alcohol intake to no more than three times per week may serve as a reasonable guideline for mitigating health risks. Studies show that, among alcohol consumers, those who drink 1 to 2 drinks per occasion, with an average frequency of 3.2 times per week, experience the lowest risk of alcohol-related harm (Hartz et al., 2018^[41]). Exceeding this level may increase the likelihood of developing alcohol use disorder (AUD), as defined in the DSM-5 by the American Psychiatric Association. According to the DSM-5, AUD is characterised by a pattern of alcohol consumption leading to significant distress or impairment in key areas of life, including health, relationships, work, or legal issues. Key symptoms include drinking more than intended, an inability to cut down, and continuing to drink despite experiencing negative consequences.

It is worth emphasising that, compared to tobacco use, alcohol consumption poses greater challenges in assessing differences in maladaptive coping strategies between majority and visible minority populations. This is because, in certain religious and cultural traditions – such as those followed by individuals of Muslim background, who make up a significant segment of visible minorities in Europe – alcohol may be prohibited or strongly discouraged. As a result, unexplained differences in frequent alcohol consumption may reflect variations in cultural and religious norms rather than actual disparities in coping behaviours and should therefore be interpreted critically.

Unmet health needs

The EU-SILC provides valuable data for analysing unmet needs in medical and dental examination and treatment. Specifically, it allows for the derivation of the unexplained gap in the share of majority and minority individuals who, among those who reported needing medical or dental care at least once in the past 12 months, indicated not having received this care on at least one occasion.

2.2.6. Poverty risk and low life satisfaction

The barriers raised by bias-driven racial and ethnic discrimination in critical life areas such as education, school-to-work transition, employment, housing, and health are expected to significantly increase the risk of poverty for visible minorities and undermine their life satisfaction.

The EU-SILC provides data to capture these dimensions, allowing for the computation of two critical indicators:

- The unexplained gap in the share of majority and minority households at risk of poverty, defined as those living below the poverty threshold. According to Eurostat, the poverty threshold is set at 60% of the median equivalised disposable income in each country. Equivalised disposable income results from adjusting disposable income for household size by dividing total household income (including earnings from labour and capital) by the square root of the number of household members. In the EU, 32% of children under 16 in immigrant households live in relative poverty, compared to 21% of children in native-born households (OECD/European Commission, 2023^[6]).
- The unexplained gap in the share of majority and minority individuals reporting low life satisfaction, based on the EU-SILC question: “On a scale of 0 to 10, where 0 is ‘not satisfied at all’ and 10 is ‘completely satisfied,’ how would you rate your overall satisfaction with life?” Eurostat uses a 20-60-20 distribution to categorise life satisfaction (Eurostat, 2017^[42]): low satisfaction (scores from 0 to 5), medium satisfaction (scores from 6 to 8), and high satisfaction (scores of 9 and 10). This distribution ensures approximately 20% of respondents fall into the low and high satisfaction categories, respectively, with 60% in the medium satisfaction category.

2.3. Advanced indicators of bias-driven discrimination against visible minorities

This section introduces a set of advanced indicators, categorised into two types: “enhanced indicators”, which offer greater precision but require more robust data collection, and “exploratory indicators”, which provide the highest precision but are limited in availability due to their reliance on original data.

Advanced indicators of the enhanced type require more robust data collection than core indicators, as they involve calculating unexplained gaps between majority and minority populations across the entire population. For this to happen, it is necessary to collect information on both individuals’ and their parents’ country of birth, either through the census or national population registers, and to link these data with administrative databases in the key life areas covered in this report.

These indicators offer greater precision in measuring bias-driven discrimination compared to core indicators for several reasons.

First, administrative databases cover a broader range of outcomes compared to the limited set captured through surveys, with some being better suited to identify bias-driven racial/ethnic discrimination. Moreover, for outcomes common to both sources, administrative data are generally more reliable. This is particularly evident in income-related measures, where misreporting – whether intentional or unintentional – is frequent in survey responses (Meyer, Mittag and Wu, 2024^[43]). However, a key limitation of administrative data is their focus on objective measures, excluding perceptions, which are nonetheless crucial for a comprehensive understanding of individuals' lived experiences. For example, relying solely on the share of majority and minority individuals diagnosed with depression provides only a partial view of mental health disparities. A more complete analysis emerges when this information is complemented by survey-based data capturing the share of individuals who report feeling depressed.

Second, advanced enhanced indicators are computable across the entire population, rather than by relying on cross-national survey samples of limited size. This comprehensive coverage allows for more granular distinctions within the minority population, such as differentiating native-born individuals with European versus non-European foreign-born parentage. Furthermore, the removal of sample size constraints enables a full adjustment for key demographic factors, ensuring a more accurate analysis of disparities between majority and minority populations – an approach that is sometimes hindered or even rendered impossible by the smaller sample sizes of cross-national survey.

Third, administrative data are collected at a high frequency, with updates ranging from annual (e.g. education enrolment data) to monthly or quarterly (e.g. employment or health records), and even continuously in certain cases, such as births and deaths. This high-frequency data collection enables advanced enhanced indicators to support near real-time monitoring of disparities between majority and minority populations, offering a significant advantage over survey-based indicators, which are updated at best annually, and often less frequently.

Identifying EU countries that meet the aforementioned data requirements is beyond the scope of this chapter. However, preliminary findings from a 2023 OECD questionnaire on data collection for visible minorities, supplemented by desk research for non-OECD EU countries, offer initial insights. This research indicates that slightly more than half of EU countries (15) collect data on individuals' and their parents' country of birth in their census and/or national population registers.³ In other words, in at most 15 EU countries, it is theoretically possible to link this information to topic-specific administrative databases, such as those related to education, employment or health. To indicate that advanced indicators of the enhanced type are available in, at most, half as many countries as core indicators, but offer greater precision than core indicators, these indicators are labelled with “+ / ++” in the availability columns (compared to “+++” for core indicators) and “++” in the precision columns (compared to “+” for core indicators) in Annex Table 2.A.1 through Annex Table 2.A.6.

Concerning advanced indicators of the exploratory type, they require the collection of original data, primarily through field experiments, with strong potential for identifying and measuring bias-driven discrimination, and, in a more targeted set of cases, the use of artificial intelligence.

Experimental methods include correspondence studies, which entail sending fictitious applications or inquiries to detect differential treatment based on characteristics such as perceived race or ethnicity, typically signalled through the fictitious applicants' first and last names. While commonly applied in the labour market, correspondence studies can also be used in other fields, such as housing or health. Experimental methods also include audit studies, where real individuals pose as, for example, job candidates in interviews to observe biased treatment in settings that cannot be easily explored through correspondence studies.

However, even field experiments, which yet have broader applications for capturing bias-driven discrimination compared to AI, cannot generate data in all settings. For example, they are not feasible for assessing bias in schools – where discrimination may stem from educators or peers – or in workplaces when decisions are made about promotions. To indicate their high precision but limited availability due to reliance on original data collection (or even the outright impossibility of computing them in certain settings), advanced indicators of the exploratory type are marked with “+” in the availability column and “+++” in the precision column in Annex Table 2.A.1 through Annex Table 2.A.6.

2.3.1. Education

For final educational outcomes (educational attainment and achievement), the ability to link administrative databases, including those related to education, with register-based or census data identifying individuals’ and their parents’ country of birth offers a powerful tool for analysing disparities. This linkage facilitates the examination of the same outcomes as those targeted by core indicators, but with significantly larger sample sizes and enhanced capacity to control for confounding factors, thereby achieving greater precision. Additionally, these data linkages can enrich the scope of outcomes analysed. For instance, in terms of educational achievement, unexplained gaps between majority and minority students could be calculated for each national standardised test conducted throughout the school curriculum, providing deeper insights into disparities across educational stages.

Likewise, advanced indicators focused on intermediate educational outcomes could not only enhance the measurement of existing outcomes covered by core indicators but also broaden the scope to new metrics. Specifically, to effectively capture teacher bias – and following the research methodology detailed in Chapter 1 to identify discriminatory behaviours among educators – countries with robust data collection systems might consider the following approach: comparing grading disparities between majority and minority students across two types of assessments in a specific subject. The first assessment type is national standardised examinations, which are blind-graded and thus less susceptible to teacher bias; the second is school-based, non-blindly graded tests, which may be more prone to such bias (Zanga and De Giannis, 2023^[44]). A lack of grading disparities between these two assessment types may indicate an absence of teacher bias, whereas grading disparities could suggest the presence of such bias. Yet, while this indicator potentially offers a more precise proxy for teacher bias than the core measure based on perceived teacher hostility, caution is warranted when interpreting grading disparities across blind- and non-blind assessments. Majority and minority students may react differently to each assessment type; for instance, one group might demonstrate higher (or lower) effort relative to the other under one approach, potentially creating score differentials across evaluation methods that do not necessarily reflect teacher bias.

To address the final mechanism discussed in Chapter 1 – namely bias in textbooks, which is not covered by core indicators due to lack of suitable data – an advanced indicator of the exploratory type could be developed. This indicator would leverage artificial intelligence to identify the quantitative and qualitative underrepresentation of visible minorities in children’s literature and educational materials, including history curricula and textbooks, following previous research highlighted in Chapter 1 and further summarised in Box 2.14.

Box 2.14. Measuring the quantitative and qualitative underrepresentation of visible minorities using artificial intelligence

Recently, artificial intelligence has been utilised to identify the underrepresentation of visible minorities in textbooks, from both a quantitative and a qualitative perspective.

Quantitative underrepresentation of visible minorities

To measure quantitative underrepresentation in images, (Adukia, 2023^[45]) leverage Google AutoML Vision’s face detection technology, which predicts a face’s gender, age, and racial or ethnic background. Recognising that children’s literature features numerous illustrations, the authors trained a custom face detection model to identify faces in both illustrations and photographs, as most existing models are optimised for photos alone. Once a face is detected, the model isolates the pixels representing skin tone, applying a machine learning algorithm to cluster all face pixels and calculate an average “representative skin colour” per face. This skin colour is then classified on a scale from 0 (lighter) to 100 (darker), providing a proxy for visible minority representation based on skin tone.

To assess quantitative underrepresentation in text, the authors utilise Google Vision Optical Character Recognition (OCR) to identify names and famous characters that can be associated with specific racial or ethnic groups.

Qualitative underrepresentation of visible minorities

While (Adukia, 2023^[45]) do not explore the qualitative underrepresentation of visible minorities, this aspect is examined in other studies, such as that of (Lucy et al., 2020^[46]), who analyse the portrayal of marginalised groups in 15 history textbooks widely used in Texas between 2015 and 2017. Using natural language processing (NLP), the authors extract verbs and adjectives associated with white versus non-white groups. They then rank these descriptors based on connotations of power/dominance (strong vs. weak), sentiment/valence (positive vs. negative), and agency/arousal (active vs. passive) to identify potential differences in portrayal across groups. Their findings indicate that non-white groups are more frequently described with terms scoring lower on the power/dominance and agency/arousal dimensions than those associated with white groups.

2.3.2. School-to-work transition

As for education, linking administrative databases, including those that track individuals after they leave formal education, with register-based or census data identifying individuals’ and their parents’ country of birth could enhance the analysis of outcomes covered by core indicators regarding school-to-work transition. Specifically, this linkage would enable the calculation of unexplained differences in NEET rates between majority and minority groups over a larger sample.

Beyond refining this final outcome indicator, robust data collection would also allow for a more precise measurement of unexplained disparities in an intermediate outcome, namely exposure to disciplinary actions within the school setting. For example, after adjusting for key confounding factors such as academic achievement and, where possible, the severity of student misbehaviour, this approach would facilitate comparing the share of majority and minority students experiencing in-school and out-of-school suspensions at different stages of the curriculum.

Advanced indicators of the enhanced type are not limited to providing more accurate measurements of outcomes already targeted by core indicators; they also include metrics that reveal an additional pathway identified in Chapter 1, namely exposure to disciplinary actions outside the school setting, including via interactions with law enforcement. Although research on bias-driven policing remains limited in Europe, (Søndergaard and Hussein, 2022^[47]) illustrate how robust data collection can help estimate this bias by calculating the unexplained gap between majority and minority individuals in arrest rates without subsequent, with in Denmark (see Box 2.15 for further information). If the police are more likely to arrest racial or ethnic minorities for offenses that do not lead to convictions, this may indicate bias in policing practices, as a lower threshold is applied to arrests involving minorities. However, caution is again

warranted when interpreting gaps, as other factors may be involved – such as potentially higher reporting rates of racial/ethnic minorities by the general population, though this channel may itself be related to bias.

Finally, an advanced exploratory indicator can be developed to better capture discrimination in access to work-based learning (WBL) opportunities. Building on prior research (Kaas and Manger, 2012^[48]; Auer et al., 2022^[49]), this indicator would employ correspondence studies to compare the invitation rates to a job interview for fictitious job candidates from majority and minority groups with similar applications. For a comprehensive overview of barriers to WBL, these correspondence studies could encompass three key stages: school-mediated WBL in General Education Secondary Programs, including internships and work placements designed to introduce students to the world of work; WBL in Vocational Upper Secondary Programs, encompassing internships and apprenticeships as part of Vocational Education and Training (VET) curricula; and WBL within Higher Education, covering placements that are either formal or informal components of undergraduate or graduate programmes. To capture the full extent of potential discrimination, these correspondence studies should ideally be complemented by audit studies, where trained actors represent fictional applicants in real job interviews, thereby capturing discrimination that may arise at this final stage. Examining this stage would also allow for the collection of additional valuable information, such as whether minority candidates are more frequently offered unpaid placements rather than paid ones.

Importantly, the CVs and cover letters of fictitious candidates in correspondence and audit studies must signal strong employability and productivity to ensure that any disparities in response rates or job offers are not driven by employers' risk assessment – commonly known as “statistical discrimination”. This practice, based on the assumption that visible minorities tend to come from lower socio-economic backgrounds, could otherwise obscure the true extent of bias in hiring decision.

Box 2.15. Unexplained gaps in police arrest rates without subsequent convictions

Researchers from the Danish Institute for Human Rights, (Søndergaard and Hussein, 2022^[47]), have linked extensive datasets from the public statistics office, including records on arrests and convictions, the population register, and education and income registers. This linkage has enabled them to compile a dataset of over 2.5 million preliminary charges, arrests, and court rulings from 2009-19, with rich demographic and socio-economic information, including sex/gender, age, country of origin, family and housing conditions, as well as education, employment, and income data for individuals and their parents.

Leveraging this dataset, the authors calculate and compare the likelihood of arrest (without conviction) for descendants of immigrants and of native-born individuals, controlling for key socio-economic variables. Their findings reveal that, even when these characteristics are held constant, descendants of immigrants face a 46% higher probability of being arrested without conviction compared to individuals of Danish descent. This disparity is particularly pronounced for specific groups, such as descendants of Syrian or Lebanese origin.

2.3.3. Employment

Linking administrative databases, including employment records, with census data or national population registers that identify individuals' and their parents' country of birth would allow generating a range of enhanced advanced indicators. These indicators enhance core measures by enabling a deeper analysis of disparities within visible minorities, leveraging population-wide data to provide greater granularity and uncover variations that might otherwise remain hidden. For example, an analysis of overqualification rates using Sweden's total population register data not only shows that native-born children of immigrants face up to 19% higher probabilities of overqualification compared to the majority population, but also reveals

striking differences by origin. Disparities are particularly pronounced among individuals of Iranian, Middle Eastern and North African, and Other Non-Western backgrounds, with overqualification probabilities reaching up to 39% higher than those of the majority population (Kim, 2024^[50]).

Furthermore, advanced indicators of the enhanced type allow for expanding the analysis to include additional dimensions. For instance, rather than focusing solely on economy-wide labour earnings gaps, robust data collection could enable the calculation of these gaps at the firm level – a critical step for effectively monitoring employers' career management behaviour and reducing the risk of discriminatory practices in wage-setting and promotion decisions arising in the first place. Currently, few countries or jurisdictions require such reporting from employers. In Canada, federally regulated employers must publish pay gaps across racial and ethnic groups, while recent progress has been made in the United States at the state level. For example, in July 2024, Massachusetts enacted legislation requiring employers with 100 or more employees to submit annual pay data reports disaggregated by race, ethnicity, gender, and job category.

Having this information calculated directly by a public body would represent a substantial step forward, by accelerating the adoption of pay transparency policies for visible minorities. This approach is especially timely given that over half of OECD countries already mandate gender wage gap reporting for private employers (OECD, 2024^[51]) – a number set to rise in the EU following the European Parliament's approval of the new EU Pay Transparency Directive in 2023, which member states must implement into national legislation within three years.⁴ Assigning a public body to calculate firm-level wage gaps between majority and minority employees would not only enhance employer buy-in by reducing administrative burdens but also ensure that the figures produced are accurate and comparable across firms. Evidence suggests that, in the absence of an independent body, employers tend to report information that underestimates wage gaps (Institut des Politiques Publiques, 2023^[52]), thereby weakening incentives to address disparities.

In addition to these enhanced indicators, two advanced exploratory indicators could provide valuable insights into discrimination at the recruitment stage. The first approach would employ correspondence studies, ideally complemented by audit studies, to measure discrimination throughout the recruitment process, but also to determine whether, conditional on receiving a job offer, minority candidates are proposed a lower starting wage. Again, these field experiments should be implemented within a framework designed to minimise employer uncertainties about candidates' employability and productivity, ensuring that observed disparities reflect bias-driven rather than statistical discrimination.

The second advanced exploratory indicator would leverage artificial intelligence tools to explore, following (Hangartner, Kopp and Siegenthaler, 2021^[53]) outlined in Chapter 1, how employers navigate job portals such as public employment service websites. This would include analysing, based on millions of observations, how employers sort profiles and make decisions about whom to contact or shortlist, thereby assessing potential discriminatory behaviour against minority candidates – identified through their first and last names as well as the language(s) they speak – while controlling for a broad range of characteristics.

While correspondence and audit studies in the labour market typically focus on specific industries or occupations, recent research offers the potential to estimate hiring discrimination at the firm level (see Box 2.16 for further information). This advancement enables the use of field experiments to expand the monitoring of employer practices beyond career management, as discussed in previous paragraphs, to also encompass recruitment behaviours.

Box 2.16. Estimating firm-level hiring discrimination through correspondence studies

Researchers from the University of California (Berkeley) and the University of Chicago recently analysed callback rates from over 83 000 fictitious job applications, varied by gender and race/ethnicity, sent in response to 11 000 job postings at 108 Fortune 500 firms (Kline, Rose and Walters, 2022^[54]). To estimate hiring discrimination at the firm level, the authors developed a methodology that ranks discriminatory behaviour in organisations by balancing the magnitude of callback gaps with the noisiness of these estimates. Their findings revealed that distinctly white names received higher contact rates than distinctly Black names, with the most discriminatory firms favouring white applicants over Black applicants by 24%, while the least discriminatory firms showed a 3% preference for white applicants (Kline, Rose and Walters, 2024^[55]).

The grading system is designed to be adjustable, allowing for more or less strict classification. A more stringent setting assigns each firm a unique grade based on highly specific data, though it can increase the risk of false positives – incorrectly identifying a firm as discriminatory or overestimating the level of bias. This approach is advisable when sample sizes are large or the data quality is particularly robust. In contrast, a more moderate setting groups firms into broader categories, reducing specificity in favour of greater confidence in the results by minimising the risk of misinterpretation of contact rate data.

2.3.4. Housing

In housing, advanced enhanced indicators enable more precise measurement of outcomes targeted by core indicators. Additionally, by leveraging national population registers containing information on individuals' place of residence, country of birth, and parental country of birth, it becomes possible to calculate a racial/ethnic segregation index at finely defined geographic levels. Two approaches could be considered to distinguish between majority and minority groups. As a first step, the dissimilarity index could classify the population into native-born individuals with two native-born parents on one hand, and foreign-born individuals or native-born individuals with at least one foreign-born parent on the other hand. This approach mirrors the dissimilarity index computed at the school level in the core indicators section. In a second step, to better capture visible minorities, the population could be divided into the following two populations : (i) individuals of European descent, including native-born individuals with two native-born parents, native-born individuals with two foreign-born parents of European background, or with one foreign-born parent of European background (in which case the other parent should be native-born), and foreign-born individuals of European background; (ii) individuals of non-European descent, including foreign-born individuals of non-European background and native-born individuals with one or two foreign-born parents of non-European background.

Additionally, two advanced exploratory indicators could be developed to illuminate discriminatory mechanisms that contribute to disparities in housing tenure, value for money in housing, and racial/ethnic segregation. Both indicators would rely on correspondence studies, potentially combined with audit studies, following the approach outlined in Chapter 1.

The first set of correspondence studies would focus on identifying discrimination in the private sales and rental housing markets. Extending these field experiments with audit studies would enable verification of earlier findings that minority applicants are often offered higher prices or rents for identical properties. The second set of correspondence studies would examine discrimination in access to mortgage loans, a key factor in the lower homeownership rates observed among visible minorities. Incorporating an audit study here would allow assessment of whether, all else being equal, visible minorities are indeed offered loans with higher costs, as preliminary evidence in Chapter 1 suggests. However, implementing an audit study may not always be feasible. Audit studies are inherently more complex than correspondence studies,

particularly when examining mortgage access, as loan applications require the submission of detailed, publicly verifiable financial information, such as credit scores.

When conducting these field experiments, it is critical to ensure that the profiles of fictitious applicants portray equally desirable homebuyers, renters, or loan applicants, with clear and reliable indicators of financial stability. This approach minimises the risk of detecting statistical discrimination rather than bias-driven discrimination.

2.3.5. Health

Linking administrative databases, including health records, with census data or national population registers that identify individuals' and their parents' country of birth would enable the creation of a range of advanced enhanced indicators. These indicators would focus on final outcomes already targeted by core indicators, particularly unexplained disparities in diagnoses of mental health issues and physical conditions related to cardiovascular diseases, diabetes, or systemic inflammation. This robust data linkage would also expand the set of monitored outcomes, allowing for the calculation of unexplained gaps in mortality rates, following (Wallace, Hiam and Aldridge, 2023^[56]) outlined in Chapter 1. Additionally, it would enable more precise estimation of certain intermediate outcomes, such as unexplained gaps in overweight or underweight status, using Body Mass Index as a proxy for eating disorders.

Preliminary evidence from the United States indicates that visible minorities encounter greater challenges in securing medical appointments, even when holding health insurance comparable to that of their majority counterparts. These barriers may also extend to the quality of patient-provider interactions as suggested by initial research, underscoring the importance of developing an advanced exploratory indicator based on field experiments.

In countries where appointment requests are commonly submitted via email, correspondence studies could be conducted to test for potential discriminatory treatment against minority patients, following (Fumarco et al., 2024^[57]). To ensure that observed discrimination reflects bias rather than statistical discrimination, it is essential to make minority and majority profiles equally desirable by emphasising the financial solvency of minority candidates. While extending these field experiments to in-person audit studies presents challenges – given that simulating health conditions may be difficult in face-to-face interactions – online settings provide a feasible alternative, especially as telemedicine becomes more widespread. This approach would allow researchers to assess whether fictitious patients with similar self-reported symptoms receive differential treatment based on race or ethnicity.

In countries where online platforms, such as Doctolib in France, Germany, and Italy, handle appointment scheduling by directly managing practitioners' agendas without the need for patient interaction with the provider, the scope for discrimination during appointment requests may be limited. Consequently, conducting correspondence studies may hold little value. Nevertheless, online audit studies could still provide valuable insights by determining whether discrimination may instead arise during the consultation itself, such as through reduced attention or quality of care provided to fictitious minority patients.

2.3.6. Poverty risk and low life satisfaction

There is limited scope for improving the measurement of low life satisfaction from EU-SILC, unless countries implement larger-scale, regularly conducted, nationally representative surveys addressing well-being. In contrast, linking administrative databases, including income records, with census data or national population registers that identify individuals' and their parents' country of birth would enable a more precise calculation of unexplained disparities in poverty risk between majority and minority households.

2.4. Additional proxies for racism, racial/ethnic bias, and bias-driven discrimination

This section outlines additional attitudinal and perception-based measures that could serve as proxies for racism, racial/ethnic bias, and bias-driven discrimination, beyond the five life areas examined.

While racism or racial/ethnic bias do not directly measure bias-driven discrimination against visible minorities, not least because individuals may successfully suppress them when acting, monitoring these dimensions can still provide valuable insights that complement the core and advanced indicators presented in the previous sections. Yet, measuring racism and racial/ethnic bias based on self-reported attitudes presents significant challenges, as stressed in Chapter 1. First, self-reported data capture only bias of which individuals are consciously aware, while bias can be unconscious. Second, even the measurement of conscious bias is difficult, as individuals are generally reluctant to disclose socially unacceptable views, a phenomenon commonly known as social desirability bias.

Furthermore, adopting the perspectives of witnesses or potential victims to capture bias-driven discrimination may not necessarily yield an accurate assessment either. General perceptions and self-reported experiences of discrimination are heavily influenced by the population's level of awareness regarding discrimination. Consequently, these perceptions may not accurately reflect the actual prevalence of discriminatory behaviour.

With these limitations in mind, three cross-country surveys offer additional options for measuring racism, racial/ethnic bias and bias-driven discrimination: the European Values Survey (EVS), the European Social Survey (ESS), and the Eurobarometer survey on “Discrimination in the European Union” (see Box 2.17 for a summary of their frequency, sampling methods, sample sizes, and suitability for distinguishing between majority and visible minority populations).

Specifically, these surveys allow for the measurement of two types of outcomes. First, attitudes of the majority population towards visible minorities. Second, perceptions and experiences of discrimination, which can be further disaggregated into: (i) public perceptions of the prevalence of discrimination based on race and ethnicity, and (ii) the (unexplained) gaps in experiences of discrimination between majority and visible minority populations.

The last item belongs to a broader category of social integration variables, all of which are likely to be negatively affected by experiences of bias-driven racial or ethnic discrimination. These variables encompass unexplained gaps in interpersonal trust, trust in public authorities (including the police), and levels of civic engagement –such as voting in elections, participating in political actions like signing petitions, or joining voluntary organisations. They also extend to adherence to core values of the host country, including democratic principles and gender equality (see (OECD, 2024^[58]) for a discussion on measuring social integration dimensions). Many of these dimensions are captured, in one form or another, in the EVS and ESS. Countries could enhance their monitoring and assessment frameworks by incorporating these additional measures, offering deeper insights into the impact of discrimination on social cohesion.

Caution should be exercised not only when interpreting the measures proposed in this section at a specific point in time but also when analysing trends. For example, an apparent improvement in self-reported attitudes of the majority population towards visible minorities may reflect an actual decrease in racism and/or racial/ethnic bias but could also indicate an increase in social desirability, where individuals are less likely to admit to holding prejudiced views. Likewise, a decrease in the unexplained gaps in self-reported experiences of discrimination between majority and visible minority populations could signal a genuine decline in discriminatory behaviour based on race and ethnicity. However, it may also stem from a decrease in minorities' awareness of discrimination or their ability to identify it. For instance, this could

occur if efforts to normalise certain discriminatory behaviours result in lower recognition of such incidents by minority groups.

Box 2.17. The European Values Survey (EVS), the European Social Survey (ESS), and the Eurobarometer survey on “Discrimination in the European Union”

Three cross-country surveys covering EU countries provide options for measuring racism, racial/ethnic bias and bias-driven discrimination: (i) the European Values Survey (EVS), initiated in 1981 and conducted every 9 to 10 years, with five rounds to date (1981, 1990, 1999, 2008, and 2017) and the next wave scheduled for 2026-28; (ii) the European Social Survey (ESS), launched in 2002 and conducted biennially, with the eleventh round completed in 2023 (round 12 being planned for between 2025 and 2026); and (iii) the Eurobarometer survey on “Discrimination in the European Union” (“Eurobarometer” henceforth) conducted in 2012, 2015, 2019, and 2023 (with the next round not expected before 2027).

All three surveys utilise probability sampling techniques to ensure representativeness and gather key demographic information, including gender, age, and education (with educational attainment collected in the EVS and ESS, and the number of years of education in the Eurobarometer). Furthermore, the minimum sample size generally ranges from 1 000 to 1 500 respondents, except in smaller countries where sample sizes may be lower.

The EVS and the ESS include questions regarding the country of birth of respondents and their parents, allowing for the distinction between the majority population, defined as native-born individuals with two native-born parents, and the minority population, defined as native-born individuals with at least one foreign-born parent. There is also the potential to further differentiate between individuals with European and non-European foreign-born parentage. However, in some countries, this decomposition may not be feasible due to the low proportion of the latter group in the total population, compounded by the small sample sizes of the EVS and ESS.

In the Eurobarometer, it is not possible to distinguish between the majority and minority populations based on country of birth, as this information is not collected. However, a distinction can be made using a question that asks respondents whether they consider themselves part of a minority, including categories such as “a minority in terms of skin colour” and “an ethnic minority”. In this context, the majority is defined as those who do not select these categories, while the minority comprises individuals who do. Across the EU, however, the share of people who self-identify as belonging to either of these two minority groups rarely exceeds 5%, amounting to 50 observations in the Eurobarometer. As a result, in some countries, analyses may be based on very small sample sizes, which could preclude meaningful analysis altogether or, at the very least, require considerable caution in interpreting the results.

The measures proposed in this section, which are based on cross-national surveys, could be complemented by proxies drawn from nationally representative, country-specific surveys focused on perceptions of discrimination. An example is the 2021 online survey on “Racism and Ethno-racial Discrimination” conducted by the Luxembourg Institute of Socio-Economic Research (LISER) in collaboration with the Ministry of Family Affairs, Integration, and the Greater Region (Docquier et al., 2022^[59]). Yet, although such surveys often involve larger samples than the cross-national surveys reviewed here – enabling enhanced measures through greater scope to disaggregate the analysis by different minority groups and adjust for confounding factors – they face similar limitations to cross-national surveys regarding the interpretability of perception-based measures of racism, racial/ethnic bias and bias-driven discrimination.

To address these limitations, one approach could be to again rely on field experiments, particularly those designed to detect differential treatment in social interactions. Such experiments are often considered a barometer of racism, racial/ethnic bias, and bias-driven discrimination within society (Crosby, Bromley and Saxe, 1980^[60]; Saucier, Miller and Doucet, 2005^[61]). Specifically, studies on helping behaviour offer a powerful means of examining the persistence of prejudice in everyday social settings. For example, a recent experiment in France readily replicable in other national contexts involved testers asking white pedestrians for directions at busy traffic lights (Aranguren, 2024^[62]). The findings indicate that Asian and Black testers received assistance less frequently than their white counterparts, with this differential treatment becoming more pronounced when the perceived cost of helping was higher (see Box 2.18 for further information).

Box 2.18. Differential treatment in helping behaviour based on race and ethnicity, as observed in France

Sociologist Martin Aranguren conducted a field experiment in the streets of Paris from July to September 2021, at four different pedestrian crossings along busy roads. In this experiment, a pedestrian waiting for the light to turn green is approached by a trained tester – either Asian, Black, or white – who initiates the interaction with a polite “Sorry to bother you” intending to ask for directions. The pedestrian’s reaction unfolds across several possible stages: first, the pedestrian may refuse the interaction, signalling “back off” through body language, potentially influenced by the tester’s perceived race/ethnicity; or they may accept the interaction. If the interaction proceeds, the tester then requests directions, such as “Hello, I’m looking for XXX street”. At this point, the pedestrian may either respond directly or hesitate, possibly due to unfamiliarity with the location. If the pedestrian is unfamiliar with the street and is informed by the tester that they cannot search for it independently due to a phone issue, the pedestrian faces a decision: to look up the information on their own phone or not – a choice that may again be influenced by the tester’s perceived race/ethnicity.

After observing 4 500 such interactions, Aranguren found that white pedestrians were equally likely to initiate the interaction with Asian and Black testers as they were with white testers. Additionally, if the interaction was initiated, they were no less likely to give directions immediately. However, when the cost of helping increased – specifically, when the pedestrian did not know the street and needed to use their own phone – significant differential treatment emerged, with the likelihood of help declining as the pedestrian’s age increased. Specifically, among 10 white pedestrians who check their phones for the white tester, the number who refuse to do so when the tester is Black is 2 among younger pedestrians, 4 among middle-aged pedestrians, and 7 among older pedestrians. For Asian testers, the corresponding figures are 1, 1.5, and 3, respectively.

Source: (Aranguren, 2024^[62]), “Racial discrimination in helping situations depends on the cost of help: A large field experiment in the streets of Paris”, <https://doi.org/10.1111/1468-4446.13156>.

2.4.1. Attitudes of the majority population towards visible minorities

All three surveys – the EVS, the ESS, and the Eurobarometer – provide proxies for assessing majority attitudes towards visible minorities.

- In the EVS, this can be assessed by calculating the proportion of the majority population who selects “People of a different race” (and optionally, “Immigrants/foreign workers”) in response to the question: “On this list are various groups of people. Could you identify any that you would not like to have as neighbours?”.

- In the ESS, majority attitudes towards visible minorities can be proxied by comparing the share of the majority population selecting “Allow none to come” in response to the question: “To what extent should [country] allow people of a different race or ethnic group from most [country]’s people?”, with the share selecting the same response when asked: “To what extent should [country] allow people of the same race or ethnic group as most [country]’s people to come and live here?”. Calculating this difference helps to identify aversion specifically towards immigrants of different racial or ethnic backgrounds, after accounting for general aversion to migration.
- In the Eurobarometer, three proxies can be used to measure discomfort levels among the majority population with individuals from visible minority populations.
 - The first proxy is based on the question: “Using a scale from 1 to 10, how comfortable would you feel about having a person from each of the following groups in the highest elected political position in [our country]? ‘1’ means ‘not at all comfortable,’ and ‘10’ means ‘totally comfortable.’.” This proxy yields the share of the majority population selecting “1” to “4” (thereby expressing discomfort) when referring to “a person with a different skin colour than the majority” or when referring to “a person from a different ethnic origin than the majority”. In 2023, 15% of EU respondents expressed discomfort with the latter hypothetical person, and 12% with the former.
 - The second proxy involves the question: “Regardless of whether you are actually working or not, how comfortable would you feel if a colleague at work, with whom you are in daily contact, belonged to each of the following groups?” This proxy compares the share of the majority population selecting “1” to “4” for “an Asian person” or “a Black person” versus “a white person”. In 2023, 8% of EU respondents reported feeling uncomfortable with an Asian or Black colleague, compared to 3% who expressed discomfort with a white colleague.
 - The third proxy is derived from the question: “Regardless of whether you have children or not, how comfortable would you feel if one of your children was in a relationship with someone from the following groups?” This last proxy consists in computing the share of the majority population selecting “1” to “4” for “an Asian person” or “a Black person” and in comparing it to the share giving a similar response for “a white person”. In 2023, 13% and 15% of EU respondents reported feeling uncomfortable with an Asian or Black son- or daughter-in-law, respectively, compared to 3% who expressed discomfort with a white son- or daughter-in-law.

Besides these visible minority populations, it is worth noting that the Eurobarometer enables analysis of majority attitudes towards a long-established visible minority group, namely the Roma people. Specifically, the Eurobarometer includes questions that assess the level of discomfort among the majority population with a Roma individual holding the highest elected position, being a colleague at work, or becoming a son- or daughter-in-law. Levels of discomfort towards Roma people remain particularly high. In 2023, 26% of EU respondents reported feeling uncomfortable with a Roma person in the highest elected political position, 16% with a Roma colleague, and 29% with a Roma son- or daughter-in-law.

2.4.2. Perceptions and experiences of discrimination

Measures of perceptions and experiences of discrimination consist of two categories of indicators: (i) public perceptions of the prevalence of discrimination based on race and ethnicity, and (ii) the (unexplained) gaps in experiences of discrimination between majority and visible minority populations.

Public perceptions of the prevalence of discrimination based on race and ethnicity

Public perceptions of the prevalence of racial/ethnic discrimination can serve as an indicator of the extent to which racism, racial/ethnic bias or bias-driven discrimination persist in society. The Eurobarometer includes a question designed to capture such perceptions: “For each of the following types of discrimination, could you please tell me whether, in your opinion, it is very widespread, fairly widespread,

fairly rare, or very rare in [our country]? By discrimination, we mean when someone is treated unfavourably compared to others based on arbitrary criteria”.

The proposed indicators would calculate the share of respondents who perceive discrimination based on skin colour or ethnic origin as widespread in their country. The Eurobarometer surveys on “Discrimination in the European Union” from 2012, 2015, 2019, and 2023 consistently show that racial/ethnic discrimination is viewed as the most prevalent form of discrimination within the EU. In 2023, around 60% of respondents perceived discrimination based on skin colour and/or ethnic origin as frequent – an increase of 4 percentage points since 2012.

As highlighted above, the Eurobarometer provides an opportunity to closely examine the situation of Roma people by including a question on whether discrimination “on the basis of being Roma” is perceived as widespread by the general public. This focus on Roma people within racial and ethnic minorities reveals the highest level of perceived discrimination, with 65% of EU respondents considering it to be widespread in 2023.

(Unexplained) gaps in experiences of discrimination between majority and visible minority populations

Both the ESS and the Eurobarometer facilitate the measurement of (unexplained) gaps in experiences of discrimination between majority and visible minority populations. It is important to measure, to the extent possible, the difference between these two populations, rather than focusing solely on the share of visible minority individuals reporting discrimination. This distinction is necessary when the grounds based on which discrimination is experienced are not specified in the survey, because even members of the majority population may experience discrimination, albeit more likely on different grounds such as gender, age, sexual orientation, or disability. Where sample size allows, it is also important to account for differences in key demographic factors (see Box 2.17) across these populations that may influence both their experiences of discrimination and/or their perception of it.

- Specifically, two indicators can be derived from the ESS.
 - The question “Would you describe yourself as being a member of a group that is discriminated against in this country?” enables the calculation of differences in the likelihood of responding “yes” between majority and minority respondents, possibly after controlling for variables such as gender, age, and education.
 - This measure can be further complemented by assessing the share of minority respondents who report that their group is discriminated against specifically based on “colour or race”, “ethnic group”, or “nationality,” using the following question: “On what grounds is your group discriminated against”. In the EU, more than one in five native-born young people with foreign-born parents feel part of a group that faces discrimination based on ethnicity, nationality, or race – a higher share than among the foreign-born population (15%) (OECD/European Commission, 2023^[6]). This heightened perception of discrimination among second-generation EU citizens may stem from greater expectations of fair and equal treatment as well as a deeper awareness of discrimination processes (OECD, 2024^[58]).
- Similarly, the Eurobarometer offers up to two measures for analysing disparities in experiences of discrimination between majority and visible minority populations. However, in some countries, small sample sizes may limit the feasibility of computing these gaps.
 - The first measure flows from the following question: “In the past 12 months, have you personally felt discriminated against or experienced harassment on one or more of the following reasons?”. This allows for the computation of differences in the probability of having personally felt discriminated against or harassed in the past 12 months between majority and minority respondents, if possible controlling for gender, age, and education.

- In countries where the number of respondents identifying as a minority in terms of skin colour or ethnicity is sufficient, further analysis can be conducted using the question: “Thinking about the most recent time when you felt discriminated against or experienced harassment, under what circumstances did it take place?” This question provides insights into the unexplained gaps in experiences of discrimination among those who reported such experiences in the first place, focusing on key life areas studied in this report. These areas include education (“when attending or applying to school or university”), the labour market (“when looking for a job” and “at work”), housing (“when seeking to rent or purchase accommodation”), and health services (“when using or requiring healthcare services”). The question also enables the inclusion of additional essential life dimensions in the analysis, such as day-to-day public interactions, capturing instances of discrimination occurring in settings like “a public space”, “a café, restaurant, bar or nightclub”, or “a shop or a bank”. It also allows for the analysis of discrimination “when requesting or using social services” or “online”.

In addition to the ESS and the Eurobarometer, it is important to highlight the efforts of the Fundamental Rights Agency (FRA) in conducting cross-national surveys to capture perceptions and experiences of discrimination among both recently arrived and long-established visible minorities, using, in most cases, multistage random probability sampling to ensure representativeness (see Box 2.19 for an overview). However, because these surveys do not simultaneously include representative samples of majority populations, they do not allow for the analysis of unexplained disparities between majority and minority populations.

Box 2.19. FRA’s cross-national surveys among visible minorities

The FRA has conducted three types of cross-national surveys measuring perceptions and experiences of discrimination among visible minorities living in the EU: those that cover both recently arrived and long-established visible minorities, and those that focus on only one of these groups.

Cross-national surveys focusing on both recently arrived and long-established visible minorities

The European Union Minorities and Discrimination Surveys (EU-MIDIS I and II), conducted in 2008 and 2015-16, respectively, gathered data from nearly 25 000 respondents across all EU countries, including the United Kingdom, which was an EU member at the time. EU-MIDIS I focused on visible minority immigrants – primarily those of African descent – and two long-established visible minorities in the EU, specifically the Roma and Russian communities residing in Estonia, Latvia and Lithuania (FRA, 2010^[63]). EU-MIDIS II expanded the scope to include direct descendants of visible minority immigrants, adding both foreign-born and native-born individuals with foreign-born parents of non-European background into the analysis, including those of Asian descent who were not covered in EU-MIDIS I (FRA, 2017^[64]).

Cross-national surveys focusing exclusively on recently arrived visible minorities

In 2022, the FRA conducted a follow-up to EU-MIDIS I and II, focusing exclusively on immigrants and their immediate descendants of non-European background (FRA, 2024^[65]). This survey, titled the “EU Survey on Immigrants and Descendants of Immigrants”, was administered to slightly more than 15 000 respondents across 15 EU countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Spain, and Sweden.

The FRA used this last survey as a foundation to take a closer look at the experiences of Black and Muslim communities in the EU. The report “Being Black in the EU” was published in 2023 (FRA, 2023^[66]), offering the first in-depth analysis of this group across Member States. In 2024, the FRA

released “Being Muslim in the EU” (FRA, 2024^[67]), with the first edition, based on EU-MIDIS II, having been published in 2017 (FRA, 2017^[68]).

Cross-national surveys focusing exclusively on long-established visible minorities

In 2021, the FRA conducted a survey on Roma populations across eight selected EU Member States (Czechia, Greece, Spain, Croatia, Italy, Hungary, Portugal, and Romania) and two accession countries (North Macedonia and Serbia). The findings, published in 2022 (FRA, 2022^[69]), build on insights from earlier reports released in 2012 (FRA, 2012^[70]) and 2016 (FRA, 2016^[71]), which were based on data from EU-MIDIS I and II, respectively.

Moreover, FRA conducted a cross-country survey among Jews living in the EU in 2012, 2018, and 2023 (FRA, 2013^[72]; FRA, 2018^[73]; FRA, 2024^[74]). However, these surveys cannot be considered representative, as they rely on social sampling – using social media platforms and networks to recruit participants, typically through surveys or polls distributed via these channels. This approach is commonly employed when no comprehensive sampling frame exists for the target group, as is the case for Jewish populations. In 2023, for example, nearly 8 000 individuals aged 16 and over who self-identified as Jewish were surveyed across 13 EU countries (Austria, Belgium, Czechia, Denmark, France, Germany, Hungary, Italy, the Netherlands, Poland, Romania, Spain, and Sweden). Over 300 international, national, and regional Jewish organisations, representing a wide range of affiliations, assisted in the outreach by disseminating multiple invitations through emails, newsletters, instant messages, and social media advertisements to encourage participation.

2.5. Extending data collection on visible minorities to also include long-established groups

Visible minorities in EU countries encompass a diverse array of groups, not limited to recently arrived individuals and their immediate descendants of non-European background. As highlighted in Box 2.1, these groups also include long-established populations, such as third-generation citizens of non-European descent, alongside other distinct communities such as Indigenous peoples, Jewish populations, Roma communities, Black populations from overseas territories as well as other national and ethnic minorities whose distinctiveness benefits from official recognition in national legal frameworks.

This section explores options for EU countries to enhance the identification of visible minorities within cross-national surveys and national statistical frameworks, by incorporating these long-established groups. Expanding data collection in this way would facilitate the adaptation of the indicators proposed in this chapter to these populations, thereby strengthening the monitoring of national anti-racism action plans aimed at protecting *all* segments of visible minorities.

Members have two main approaches to consider for extending data collection on visible minorities to include long-established groups. The first approach is intuitive, as it builds upon the current methodology used in all cross-national surveys examined in this chapter, as well as in the national statistics of over half of EU countries. This method involves gathering information on the country of birth of grandparents, and potentially earlier generations, in addition to that of individuals and their parents. This enables analysis of third and possibly higher generations of EU citizens of non-European descent, who represent a growing share of long-established visible minorities in the EU.

The second approach is more comprehensive but represents a significant departure from current practices, as it incorporates questions on racial and ethnic identification in both cross-national and national representative surveys that already collect data on respondents’ and their parents’ country of birth. Unlike the traditional focus on ancestors’ country of birth, this approach expands the ability to identify a broader

range of subgroups within visible minorities who are neither immigrants nor immediate descendants of immigrants – allowing for the recognition of those who can be characterised as “long-established”.

This section briefly discusses the strengths and limitations of each approach and, wherever possible, provides options to address some of their respective challenges.

2.5.1. Collecting information on the country of birth of grandparents and potentially earlier generations

The first approach consists in gathering information on the country of birth of grandparents, with two possible options for doing so. The first option is to expand existing cross-national surveys, national censuses, or large-scale nationally representative surveys that already collect information on respondents’ and parents’ country of birth by adding questions on the country of birth of all four grandparents. This approach has been implemented, for example, in the second wave of France’s Trajectories and Origins survey and in Portugal’s 2023 Survey on Living Conditions, Origins, and Trajectories of the Resident Population.

However, integrating such questions comes with challenges. Respondents may hesitate to disclose detailed family background information, either because they see it as a process that risks assigning them outsider status if an ancestor is non-native, or because they may not know all four grandparents’ birthplaces. Meanwhile, the inclusion of four additional questions could significantly increase survey complexity and the perceived burden on respondents, thereby further undermining response rates. In this setting, extending data collection beyond grandparents (e.g. to great-grandparents) is impractical with the first option.

To address these challenges, a second option involves collecting data on the birthplaces of individuals and their ancestors directly from national population registers. This process enables multi-generational tracking by linking individuals with their family records. In five EU countries – Belgium, Denmark, Finland, the Netherlands, and Sweden – such data are already collected across three generations, starting with parents’ declarations at their child’s birth. However, if a country adopts this approach only now, there will be a significant delay before more than two generations of data can be observed, unless retrospective linkage of family records across generations is achievable.

It is important to note that both the first and the second options face limitations when applied to specific national contexts. For instance, in countries with overseas territories, where individuals may belong to visible minority groups despite being native born for generations, these options risk generating “false negatives”, undercounting certain populations. Likewise, in countries with a considerable population of repatriates from former colonies, individuals born abroad may still be part of the majority, leading to “false positives” in the data.

2.5.2. Relying on questions on racial/ethnic identification

The second approach involves adding questions on racial and ethnic identification to cross-national and large-scale national surveys, including censuses, that already collect data on respondents’ and their parents’ countries of birth. This approach allows distinguishing a broader range of long-established groups, including not only the grandchildren of non-European immigrants but also other long-standing visible minorities.

Currently, only two EU countries, Estonia and Spain, have implemented or plan to implement this approach in their census.

- In Estonia, Statistics Estonia conducts the survey component of the population and housing census, which is otherwise based on registers, every ten years. This survey includes questions on respondents’, their parents’, and even their grandparents’ country of birth, along with a question

on race and ethnicity, designed to identify national and ethnic minorities residing in Estonia. This question is phrased as “What is your ethnicity?” with response options such as “Estonian”, “Russian”, “Ukrainian”, “Belarusian”, “Finnish”, and “Other ethnicity” (in which case respondents are prompted to specify).

- Spain plans to incorporate a question on race and ethnicity in the 2026 wave of the Encuesta de Características Esenciales de la Población y las Viviendas (ECEPOV), or Survey of Essential Population and Housing Characteristics. This survey, first conducted in 2021 with half a million participants (representing 1% of the population), already collects information on respondents’ and their parents’ country of birth. The planned question on race/ethnicity, subject to qualitative testing and possible adjustments, reads: “Considering your family history, ancestry, background, sense of belonging, and culture, you are considered a person who is...” with multiple answers allowed. Response options include: (i) “Black, Afro, Afro-descendant, Afro Spanish, African Black”; (ii) “Gypsy, Romani, Roma”; (iii) “Arabic, Amazigh, North African non-Arab”; (iv) “White Latin American”; (v) “Native American, Indo-American, Indigenous, Abya Yala Native”; (vi) “East or Southeast Asian”; (vii) “South Central Asian”; (viii) “West Asian, Turkish”; (ix) “White, Mediterranean”; (x) “Mixed, mestizo, multi-ancestry” (with a prompt to specify); (xi) “Other” (with a prompt to specify); (xii) “I don’t know”; (xiii) “I prefer not to answer”; (xiv) “I don’t understand this question”.

Although subject to stringent regulations, including the 2018 EU General Data Protection Regulation (GDPR), questions on sensitive characteristics are permissible if necessary for public interest and if they uphold high standards of human rights – particularly in terms of privacy, consent, and self-identification rather than third-party assignment, including interviewer assessment (European Commission, 2021^[75]).

- Privacy safeguards ensure that individuals’ information is protected from unauthorised access, thereby securing the confidentiality of collected data.
- Consent is crucial to allow individuals to decide voluntarily to share their data, especially regarding sensitive characteristics such as race or ethnicity. It is essential, therefore, that individuals are fully informed of the purpose of the data collection on race/ethnicity and of their right to disclose or withhold such information. Specifically, respondents should be clearly notified that providing information on race or ethnicity, or any other sensitive characteristic, is entirely optional.
- Self-identification empowers individuals to define their own identity. While an open-text response option might initially seem ideal for capturing such self-determined information, it presents several challenges. Firstly, individuals may not readily think of themselves in racial or ethnic terms. Secondly, open-ended responses generate a broad array of answers, complicating analysis due to the need for categorisation. A more effective approach is to use pre-coded answer options for racial and ethnic self-identification, supplemented by an “Other, please specify” option, with respondents able to select multiple categories to capture the complexity of their identities. The selection of pre-coded categories should be informed by extensive consultation with community organisations to ensure the options provided reflect the diverse ways people perceive their racial and ethnic identities. Moreover, respondents should have the option to select multiple racial/ethnic categories to reflect the complexity of their identities.

Finally, appropriate measures should be taken to ensure broad public acceptance of racial/ethnic self-identification questions, thereby supporting a high response rate. This can be achieved through comprehensive public consultations prior to implementing these questions, helping to foster trust in the data collection process. Such consultations should serve multiple purposes: they should facilitate discussions on defining pre-coded response options for racial and ethnic self-identification while also engaging both the majority population and visible minority groups in dialogue about the survey’s overarching goals.

Yet, fostering broad public acceptance of questions on racial and ethnic self-identification can be challenging, as concerns remain that such data collection could unintentionally reinforce racial/ethnic constructs and deepen social divisions rather than promote inclusion (Prewitt, 2013^[76]). In contexts where direct self-identification of visible minorities lacks broad support, alternative approaches may be more effective.

- One option is to introduce a question on self-assessed racial/ethnic hetero-perception, which asks respondents how they believe others perceive them in terms of race and ethnicity. This approach could be more relevant than a question on self-identification, as discrimination often hinges on external perceptions rather than an individual's own sense of identity. This perspective has influenced the design of the race/ethnicity question in the survey component of the Spanish census, which takes a middle ground between direct self-identification and self-assessed hetero-perception.
- A second option involves asking respondents if they are aware of any ancestors originating from specific world regions, based on a provided list. This approach, which captures a wide scope of family heritage without requiring direct self-identification and without asking exact details on the country of birth of ancestors that respondents may not possess, is recommended by Thomas Piketty in his 2022 book *Measuring Racism, Overcoming Discriminations* (Piketty, 2022^[77]). He proposes a general question such as: "To your knowledge, do you have ancestors from these parts of the world?" followed by regions like North Africa, Sub-Saharan Africa, South Asia, the Middle East, East Asia, Latin America, North America, Southern Europe, and Northern Europe, with a "Yes/No" choice for each.

However, this latter option primarily identifies the segment of long-established visible minorities composed of individuals of non-European background who are neither immigrants nor direct descendants of immigrants. Yet, as already stressed, even long-established populations of European descent can be visible minorities, in the sense of being perceived as culturally distinct, such as those of Jewish or Roma heritage. Similarly, long-established populations with ancestors from the Americas may not be considered visible minorities in Europe unless they are of Indigenous origin.

To enhance accuracy, follow-up questions could be added to clarify specific ancestral backgrounds. For example, a follow-up question could be phrased as: "You indicated some of your ancestors are from Europe; could you specify if they belonged to any of these subgroups?", with options such as "Sami", "Jewish", or "Roma" being proposed. Similarly, if a respondent indicates ancestry from the Americas, a subsequent question could help determine if they are of Indigenous background.

2.6. Conclusion

This chapter develops and discusses a range of indicators designed to measure bias-driven racial/ethnic discrimination across key areas, including education, school-to-work transition, employment, housing, and health. These indicators are essential for countries to track progress, identify persistent challenges, and adjust strategies to maximise the effectiveness of national action plans against racism.

These indicators can be split into three groups:

- Core indicators are derived from cross-country surveys and aim to capture "unexplained" gaps between majority and visible minority populations in critical final outcomes but also in a selection of intermediate factors that allow shedding light on some of the mechanisms highlighted in Chapter 1. Yet, although these gaps indicate potential bias-driven discrimination against visible minorities, they are not conclusive proof, as observed disparities could also be driven by differences in unobserved factors.

- Advanced enhanced indicators leverage administrative databases to analyse disparities across the entire population and a broader range of outcomes – although, unfortunately, not perception-based ones – while controlling for a more extensive set of confounding factors. This robust data collection allows, in some instances, to focus on outcomes better designed to assess the impact of bias-driven discrimination against visible minorities. Such is the exploration of bias in teacher grading by comparing grading disparities between majority and minority students across two assessment types within a specific subject, one that relies on blindly graded national standardised examinations, the other which is based on non-blindly graded school-based tests. Examples of tailored outcomes also include unexplained gaps in police arrest rates without subsequent convictions. Yet, although they offer greater precision, advanced enhanced indicators require data which are currently available in at most half of EU countries.
- Advanced exploratory indicators necessitate the collection of original data, primarily through field experiments with strong potential for identifying and measuring bias-driven discrimination, and, in a more targeted set of cases, the use of artificial intelligence. For instance, artificial intelligence can detect quantitative and qualitative underrepresentation of visible minorities in textbooks, or discriminatory practices in employer searches on job portals. Experimental methods include correspondence and audit studies. Despite several strengths, these methods also have limitations, as they are impractical in certain contexts, such as schools or workplaces, for instance when promotion decisions are involved.

Despite their respective limitations, the indicators proposed in this chapter provide a valuable foundation for countries to better monitor the impact of national action plans against racism. However, two additional caveats regarding core indicators highlight the need for more countries to develop their own advanced enhanced indicators.

First, although core indicators are intended to be readily computable across all EU countries, practical implementation may be challenging. Comparing native-born individuals with two native-born parents (majority population) to native-born individuals with at least one foreign-born parent – and further distinguishing those with European versus non-European ancestry – requires sufficiently large sample sizes. This may not be feasible in many EU countries with smaller populations and low shares of recently arrived visible minorities. To address this caveat, it is essential that EU countries strengthen their statistical frameworks by collecting data on individuals' and parents' country of birth and linking them with administrative databases in key areas such as education, employment, housing, health, and income.

Second, core indicators are derived from cross-national surveys that do not capture the situation of long-established visible minorities. Therefore, it is crucial for countries to explore options to ensure that their advanced enhanced indicators can monitor the impact of anti-racism efforts aimed at protecting not only recently arrived but also long-established visible minorities from bias-driven discrimination. It is hoped that this chapter's guidance on extending data collection on visible minorities will assist countries in stepping up efforts to achieve this goal.

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Annex 2.A. Tables

Annex Table 2.A.1. Thirteen core indicators, along with additional advanced indicators, can be developed to measure bias-driven discrimination in education

Overview of core and advanced indicators to measure bias-driven discrimination in education

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
FINAL OUTCOMES: Eight core indicators complemented by a range of advanced enhanced indicators						
Educational attainment: Unexplained gap in highest educational attainment, as captured by the following three sub-indicators: (i) Having at most a low educational attainment, defined as ISCED Level 2 or below; (ii) Having at most a medium educational attainment, defined as higher than ISCED Level 2 but below ISCED Level 5; (iii) Having a high educational attainment, defined as ISCED Level 5 or above.	EU-LFS	Individuals aged 15-24	Yearly	CORE	+++	+
Educational attainment: Conditional on having at most a low educational attainment, unexplained gap in being classified as having dropped out of school, i.e. being neither in education nor training.	EU-LFS	Individuals aged 15-24	Yearly	CORE	+++ but small sample size	+
Educational attainment: Conditional on having at most a medium educational attainment, unexplained gap in having enrolled in the vocational or technical track, rather than the general track, of upper secondary education.	EU-LFS	Individuals aged 15-24	Yearly	CORE	+++ but small sample size	+
Educational attainment: Conditional on having a high educational attainment, unexplained gap in not having enrolled in fields of study that are most conducive to high labour earnings.	EU-LFS	Individuals aged 15-24	Yearly	CORE	+++ but small sample size	+
Educational attainment: Unexplained gap in having repeated a grade at least once at ISCED Level 1 (during primary education), or at ISCED Level 2 (during lower secondary education).	PISA student questionnaire	Students aged 15	Every three years (next round in 2025)	CORE	+++	+
Educational achievement: Unexplained gap in reading literacy score, as captured by the following three sub-indicators: (i) Being a low achiever; (ii) Being a medium achiever; (iii) Being a high achiever.	PISA tests	Students aged 15	Every three years (next round in 2025)	CORE	+++	+
Educational achievement: Unexplained gap in mathematics literacy score, as captured by the following three sub-indicators: (i) Being a low achiever; (ii) Being a medium achiever; (iii) Being a high achiever.	PISA tests	Students aged 15	Every three years (next round in 2025)	CORE	+++	+
Educational achievement: Unexplained gap in science literacy score, as captured by the following three sub-indicators: (i) Being a low achiever; (ii) Being a medium achiever; (iii) Being a high achiever.	PISA tests	Students aged 15	Every three years (next round in 2025)	CORE	+++	+

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
FINAL OUTCOMES (continued)						
A range of additional indicators , targeting the same outcomes as core indicators as well as new ones. For instance, in terms of educational achievement, unexplained gaps between majority and minority students could be calculated for each national standardised test conducted throughout the school curriculum, providing deeper insights into disparities across educational stages.	Administrative databases, including education records, linked with census data or national population registers identifying individuals' and their parents' country of birth	Individuals below 24	Continuous	ADVANCED (enhanced)	+ / ++	++
INTERMEDIATE OUTCOMES: Five core indicators and three advanced indicators (two enhanced and one exploratory)						
Sense of exclusion at school (among students) : Unexplained gap in students' reactions to the following three statements: "I feel like an outsider (or left out of things) at school"; "I feel like I belong at school"; "I feel awkward and out of place in my school".	PISA student questionnaire	Students aged 15	Every three years (next round in 2025)	CORE	+++	+
Sense of exclusion at school (among parents) : Unexplained gap in the following two sub-indicators measured among parents of 15-year-old students: (i) Reporting that their participation in activities at their child's school was hindered by feeling unwelcome; (ii) Disagreeing or strongly disagreeing with all of the following three statements: "My child's school provides an inviting atmosphere for parents to get involved"; "My child's school provides effective communication between the school and families"; and "My child's school involves parents in the decision-making process".	PISA parent questionnaire	Parents of 15-year-old students	Every three years (next round in 2025)	CORE	+++ but in a selection of countries	+
Biased textbooks : Identifying the quantitative and qualitative underrepresentation of visible minorities using artificial intelligence.	Artificial intelligence tools	Children's literature and educational materials, including history curricula and textbooks	Flexible, depending on resources available to perform this analysis	ADVANCED (exploratory)	+	+++
Biased educators (teachers) : Unexplained gap in perceived teacher hostility based on students' reactions to the following eight statements: "The teachers at my school are respectful towards me"; "If I walked into my classes upset, my teachers would be concerned about me"; "If I came back to visit my school three years from now, my teachers would be excited to see me"; "When my teachers ask how I am doing, they are really interested in my answer"; "The teachers at my school are friendly towards me"; "The teachers at my school are interested in students' well-being"; I feel intimidated by the teachers at my school"; "The teachers at my school are mean towards me".	PISA student questionnaire	Students aged 15	Every three years (next round in 2025)	CORE	+++	+

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
INTERMEDIATE OUTCOMES (continued)						
Biased educators (teachers): Bias in teacher grading by comparing grading disparities between majority and minority students across two assessment types within a specific subject, one that relies on blindly graded national standardised examinations, the other which is based on non-blindly graded school-based tests.	Administrative databases, including education records, linked with census data or national population registers identifying individuals' and their parents' country of birth	Individuals below 24	Continuous	ADVANCED (enhanced)	+ / ++	++
Biased educators (career counsellors): Unexplained gap in the lack of students' exposure to (quality) career counselling at school based on the following two sub-indicators: (i) Reporting not having spoken to a career advisor at school; (ii) Disagreeing or strongly disagreeing with the following statement: "I feel well-informed about possible paths for me after [the final year of compulsory education]".	PISA student questionnaire	Students aged 15	Every three years (next round in 2025)	CORE	+++	+
Biased educators (career counsellors): Unexplained gap in students' access to career counselling services throughout the school curriculum, provided education records are comprehensive enough to support analysis of this dimension.	Administrative databases, including education records, linked with census data or national population registers identifying individuals' and their parents' country of birth	Individuals below 24	Continuous	ADVANCED (enhanced)	+ / ++	++
Biased schoolmates: Unexplained gap in student's perception of biased attitudes and behaviours among schoolmates, based on the following two sub-indicators: (i) Students' peer isolation at school which is computed based on students' reactions to the following three statements: "I make friends easily at school"; "Other students seem to like me"; and "I feel lonely at school"; (ii) Students' experiences of bullying by schoolmates based on their rating of the frequency of the following nine incidents: "Other students left me out of things on purpose"; "Other students made fun of me"; "I was threatened by other students"; "Other students took away or destroyed things that belonged to me"; "I got hit or pushed around by other students"; "Other students spread nasty rumors about me"; "I was in a physical fight on school property"; "I stayed home from school because I felt unsafe"; and "I gave money to someone at school because they threatened me".	PISA student questionnaire	Students aged 15	Every three years (next round in 2025)	CORE	+++	+

Note: Core indicators are defined by limited precision (+) but high availability (+++) as they rely on EU-wide cross-country surveys. Advanced indicators are divided into two subgroups: enhanced indicators, which provide greater precision than core indicators (++) but require more extensive data collection and are therefore available in at most half of EU countries (+/++), and exploratory indicators, which achieve the highest precision (+++) but have limited availability (+) due to their reliance on original data collection (or even the outright impossibility of computing them in certain settings). In some cases, core indicators are calculated based on specific conditions and therefore rely on a subset of the total population, which reduces the number of available observations. Indicators that may be limited by sample size are flagged with the label “but small sample size” in the availability column. Similarly, core indicators that rely on the PISA parent questionnaire, which is optional, are flagged with the label “but in a selection of countries” in the availability column.

Source: OECD.

Annex Table 2.A.2. Four core indicators, along with four advanced indicators, can be developed to measure bias-driven discrimination in school-to-work transition

Overview of core and advanced indicators to measure bias-driven discrimination in school-to-work transition

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
FINAL OUTCOMES: One core indicator and one advanced enhanced indicator						
NEET rate: unexplained gap in being NEET (neither in employment, nor in education or training).	EU-LFS	Individuals aged 15-24 or 15-29	Yearly	CORE	+++	+
NEET rate: unexplained gap in being NEET (neither in employment, nor in education or training).	Administrative databases, including those that track school-to-work transition, linked with census data or national population registers identifying individuals' and their parents' country of birth	Individuals aged 15-24 or 15-29	Continuous	ADVANCED (enhanced)	+ / ++	++
INTERMEDIATE OUTCOMES: Three core indicators and three advanced indicators (two enhanced and one exploratory)						
Lack of work-based learning experience during formal education: Unexplained gap in not having done an internship to explore future study options or career paths.	PISA student questionnaire	Students aged 15	Every three years (next round in 2025)	CORE	+++	+
Discrimination in access to work-based learning opportunities during formal education: As assessed through correspondence studies and, where feasible, audit studies.	Field experiments	Fictitious candidates playing the role of individuals below 24	Flexible, depending on resources available to perform this analysis	ADVANCED (exploratory)	+	+++
Exposure to disciplinary actions within the school setting (as reported by students): Unexplained gap in reporting having missed school for over three months in a row due to suspension for reasons such as violence, aggression, or drug-related issues, be it at ISCED Levels 1, 2 or 3.	PISA student questionnaire	Students aged 15	Every three years (next round in 2025)	CORE	+++	+
Exposure to disciplinary actions within the school setting (as reported by parents): Unexplained gap in parents' dissatisfaction with disciplinary practices in their child's school.	PISA parent questionnaire	Parents of 15-year-old students	Every three years (next round in 2025)	CORE	+++ but in a selection of countries	+

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
INTERMEDIATE OUTCOMES (continued)						
Exposure to disciplinary actions within the school setting (objective measure): Unexplained gap in being subjected to in-school and out-of-school suspensions at different stages of the curriculum, provided education records are comprehensive enough to support analysis of this dimension.	Administrative databases, including education records, linked with census data or national population registers identifying individuals' and their parents' country of birth	Individuals below 24	Continuous	ADVANCED (enhanced)	+ / ++	++
Exposure to disciplinary actions outside the school setting (law enforcement): Unexplained gap in police arrest rates without subsequent convictions.	Administrative databases, including records on arrests and convictions, linked with census data or national population registers identifying individuals' and their parents' country of birth	Individuals below 24 although the analysis could be performed on the entire population	Continuous	ADVANCED (enhanced)	+ / ++	++

Note: Core indicators are defined by limited precision (+) but high availability (+++) as they rely on EU-wide cross-country surveys. Advanced indicators are divided into two subgroups: enhanced indicators, which provide greater precision than core indicators (++) but require more extensive data collection and are therefore available in at most half of EU countries (+ / ++), and exploratory indicators, which achieve the highest precision (+++) but have limited availability (+) due to their reliance on original data collection (or even the outright impossibility of computing them in certain settings). In some cases, core indicators are calculated based on specific conditions and therefore rely on a subset of the total population, which reduces the number of available observations. Indicators that may be limited by sample size are flagged with the label “but small sample size” in the availability column. Similarly, core indicators that rely on the PISA parent questionnaire, which is optional, are flagged with the label “but in a selection of countries” in the availability column.

Source: OECD.

Annex Table 2.A.3. Seven core indicators, along with additional advanced indicators, can be developed to measure bias-driven discrimination in employment

Overview of core and advanced indicators to measure bias-driven discrimination in employment

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
FINAL OUTCOMES: Seven core indicators complemented by a range of advanced enhanced indicators						
Labour market status: Unexplained gap in labour market status is captured by the following three sub-indicators: (i) Being inactive; (ii) Being unemployed; (iii) Being employed.	EU-LFS	Individuals aged 15-64	Yearly	CORE	+++	+
Involuntary inactivity: Conditional on being inactive, unexplained gap in being involuntarily so.	EU-LFS	Individuals aged 15-64	Yearly	CORE	+++ but small sample size	+
Long-term unemployment: Conditional on being unemployed, unexplained gap in being in long-term rather than short-term unemployment.	EU-LFS	Individuals aged 15-64	Yearly	CORE	+++ but small sample size	+
Low quality employment: Unexplained gap in low-quality employment is captured by the following three sub-indicators: (i) Conditional on being employed, being self-employed rather than in dependent employment; (ii) Conditional on being in dependent employment, holding a fixed-term (or temporary) rather than an open-ended contract; (iii) Conditional on being in dependent employment, engaging in part-time rather than full-time work; (iv) Conditional on being in dependent employment, being overqualified for the job held.	EU-LFS	Individuals aged 15-64	Yearly	CORE	+++ but small sample size	+
Wage disparities: Unexplained gap in labour earnings, calculated conditional on being in dependent employment.	EU-LFS	Individuals aged 15-64	Yearly	CORE	+++ but small sample size	+
Lack of access to life-long learning: Conditional on being in dependent employment, unexplained gap in not having followed a job-related education or training initiated or recommended by employers.	EU-LFS	Individuals aged 15-64	Yearly	CORE	+++ but small sample size	+
Firing disparities: Conditional on prior work experience, unexplained gap in having left one's previous job due to dismissal.	EU-LFS	Individuals aged 15-64	Yearly	CORE	+++ but small sample size	+
A range of additional indicators, targeting the same outcomes as core indicators as well as new ones. For instance, rather than focusing solely on economy-wide labour earnings gaps, robust data collection could enable the calculation of these gaps at the firm level.	Administrative databases, including employment records, linked with census data or national population registers identifying individuals' and their parents' country of birth	Individuals aged 15-64	Continuous	ADVANCED (enhanced)	+ / ++	++

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
INTERMEDIATE OUTCOMES: Two advanced exploratory indicators						
<i>Hiring discrimination</i> : As assessed through correspondence studies and, where feasible, audit studies.	Field experiments	Fictitious candidates playing the role of individuals aged 15-64	Flexible, depending on resources available to perform this analysis	ADVANCED (exploratory)	+	+++
<i>Discrimination in employers' candidate search behaviour</i> : As assessed through the public employment service website.	Artificial intelligence tools	Employers and job seekers registered on the public employment service website	Flexible, depending on resources available to perform this analysis	ADVANCED (exploratory)	+	+++

Note: Core indicators are defined by limited precision (+) but high availability (+++) as they rely on EU-wide cross-country surveys. Advanced indicators are divided into two subgroups: enhanced indicators, which provide greater precision than core indicators (++) but require more extensive data collection and are therefore available in at most half of EU countries (+/++), and exploratory indicators, which achieve the highest precision (+++) but have limited availability (+) due to their reliance on original data collection (or even the outright impossibility of computing them in certain settings). In some cases, core indicators are calculated based on specific conditions and therefore rely on a subset of the total population, which reduces the number of available observations. Indicators that may be limited by sample size are flagged with the label “but small sample size” in the availability column. Similarly, core indicators that rely on the PISA parent questionnaire, which is optional, are flagged with the label “but in a selection of countries” in the availability column.

Source: OECD.

Annex Table 2.A.4. Three core indicators, along with additional advanced indicators, can be developed to measure bias-driven discrimination in housing

Overview of core and advanced indicators to measure bias-driven discrimination in housing

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
FINAL OUTCOMES: Three core indicators complemented by a range of advanced enhanced indicators						
Housing tenure: Unexplained gap in housing tenure is captured by the following two sub-indicators: (i) Being a tenant rather than homeowner household; (ii) Conditional on being a tenant household, residing in social housing.	EU-SILC	Private households (information on the indicator provided by the household reference person)	Every six years as part of the ad hoc module “Intergenerational transmission of disadvantages” (next round in 2029)	CORE	+++ but small sample size for the second sub-indicator	+
Value for money in housing: Unexplained gap in value for money in housing is captured by the following three sub-indicators: (i) Living in an overcrowded accommodation; (ii) Living in a substandard accommodation; (iii) Spending more than 40% of disposable income on housing costs, after accounting for housing allowances.	EU-SILC	Private households (information provided by the household reference person)	Every six years as part of the ad hoc module “Intergenerational transmission of disadvantages” (next round in 2029)	CORE	+++	+
Racial/ethnic segregation: as measured with a dissimilarity index at the school level, comparing two groups, namely native-born students with two native-born parents on one hand, and foreign-born students or native-born students with at least one foreign-born parent on the other hand.	PISA student questionnaire	PISA schools	Every three years (next round in 2025)	CORE	+++	+
A range of additional indicators, targeting the same outcomes as core indicators as well as new ones. For instance, robust data collection could facilitate the calculation of a dissimilarity index not only within schools but also outside schools, focusing on finely defined geographic levels.	Administrative databases, including housing records, linked with census data or national population registers identifying individuals’ and their parents’ country of birth	Private households	Continuous	ADVANCED (enhanced)	+ / ++	++

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
INTERMEDIATE OUTCOMES: Two advanced exploratory indicators						
<i>Discrimination in the private sales and rental housing markets:</i> As assessed through correspondence studies and, where feasible, audit studies.	Field experiments	Fictitious private households	Flexible, depending on resources available to perform this analysis	ADVANCED (exploratory)	+	+++
<i>Discrimination in access to mortgage loans:</i> As assessed through correspondence studies and, where feasible, audit studies.	Field experiments	Fictitious private households	Flexible, depending on resources available to perform this analysis	ADVANCED (exploratory)	+	+++

Note: Core indicators are defined by limited precision (+) but high availability (+++) as they rely on EU-wide cross-country surveys. Advanced indicators are divided into two subgroups: enhanced indicators, which provide greater precision than core indicators (++) but require more extensive data collection and are therefore available in at most half of EU countries (+/++), and exploratory indicators, which achieve the highest precision (+++) but have limited availability (+) due to their reliance on original data collection (or even the outright impossibility of computing them in certain settings). In some cases, core indicators are calculated based on specific conditions and therefore rely on a subset of the total population, which reduces the number of available observations. Indicators that may be limited by sample size are flagged with the label “but small sample size” in the availability column. Similarly, core indicators that rely on the PISA parent questionnaire, which is optional, are flagged with the label “but in a selection of countries” in the availability column.

Source: OECD.

Annex Table 2.A.5. Six core indicators, along with additional advanced indicators, can be developed to measure bias-driven discrimination in health

Overview of core and advanced indicators to measure bias-driven discrimination in health

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
FINAL OUTCOMES: Three core indicators complemented by a range of advanced enhanced indicators						
Poor general health status: Unexplained gap in rating one's general health as bad or very bad.	EU-SILC or EHIS	Individuals aged 15 (EHIS) or 16 (EU-SILC) and older	Every six years as part of the ad hoc module "Intergenerational transmission of disadvantages" (next round in 2029) for EU-SILC, and every five years as part of the EHIS (next round starting in 2025)	CORE	+++	+
Poor mental health status: Unexplained gap in poor mental health status is captured by the following three sub-indicators: (i) Having suffered from depression in the past 12 months; (ii) Having experienced any of nine symptoms of poor mental health over the last two weeks; (iii) Having felt downhearted or depressed during the past four weeks.	EU-SILC for the third sub-indicator and EHIS for the first two indicators	Individuals aged 15 (EHIS) or 16 (EU-SILC) and older	Every six years as part of the ad hoc module "Intergenerational transmission of disadvantages" (next round in 2029) for EU-SILC, and every five years as part of the EHIS (next round starting in 2025)	CORE	+++	+
Poor physical health status: Unexplained gap in poor physical health status is captured by the following three sub-indicators: (i) Having experienced any of four conditions associated with increased heart rate and blood pressure in the past 12 months; (ii) Having experienced diabetes or high blood lipids in the past 12 months; (iii) Having experienced symptoms of systemic inflammation.	EHIS	Individuals aged 15 and older	Every five years (next round starting in 2025)	CORE	+++	+
A range of additional indicators, targeting the same outcomes as core indicators as well as new ones. For instance, robust data collection could facilitate the calculation of mortality gaps between majority and minority populations.	Administrative databases, including health records, linked with census data or national population registers identifying individuals' and their parents' country of birth	The universe of individuals	Continuous	ADVANCED (enhanced)	+ / ++	++

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
INTERMEDIATE OUTCOMES: Three core indicators and two advanced indicators (one enhanced and one exploratory)						
Maladaptive coping strategies (eating disorder): Unexplained gap in being underweight or overweight based on the Body Mass Index.	EHIS	Individuals aged 15 and older	Every five years (next round starting in 2025)	CORE	+++	+
Maladaptive coping strategies (eating disorder): Unexplained gap in being underweight or overweight based on the Body Mass Index.	Administrative databases, including health records, linked with census data or national population registers identifying individuals' and their parents' country of birth	The universe of individuals	Continuous	ADVANCED (enhanced)	+ / ++	++
Maladaptive coping strategies (substance abuse): Unexplained gap in substance abuse is captured by the following two sub-indicators: (i) Smoking tobacco products (excluding electronic cigarettes or similar electronic devices) on a daily basis; (ii) Consuming alcohol at a frequency of 3-4 days a week or more.	EHIS	Individuals aged 15 and older	Every five years (next round starting in 2025)	CORE	+++	+
Unmet health needs: Conditional on having needed medical or dental care at least once in the past 12 months, unexplained gap in reporting at least one instance of not receiving the necessary care.	EHIS	Individuals aged 15 and older	Every five years (next round starting in 2025)	CORE	+++ but small sample size	+
Discrimination in access to medical appointments and in the quality of patient-provider interactions: As assessed through correspondence and audit studies.	Field experiments	Fictitious patients across all age groups	Flexible, depending on resources available to perform this analysis	ADVANCED (exploratory)	+	+++

Note: Core indicators are defined by limited precision (+) but high availability (+++) as they rely on EU-wide cross-country surveys. Advanced indicators are divided into two subgroups: enhanced indicators, which provide greater precision than core indicators (++) but require more extensive data collection and are therefore available in at most half of EU countries (+ / ++), and exploratory indicators, which achieve the highest precision (+++) but have limited availability (+) due to their reliance on original data collection (or even the outright impossibility of computing them in certain settings). In some cases, core indicators are calculated based on specific conditions and therefore rely on a subset of the total population, which reduces the number of available observations. Indicators that may be limited by sample size are flagged with the label “but small sample size” in the availability column. Similarly, core indicators that rely on the PISA parent questionnaire, which is optional, are flagged with the label “but in a selection of countries” in the availability column.

Source: OECD

Annex Table 2.A.6. Two core indicators, along with one advanced indicator, can be developed to measure the overall impact of bias-driven discrimination, specifically in terms of poverty risk and low life satisfaction

Overview of core and advanced indicators to measure the overall impact of bias-driven discrimination, specifically in terms of poverty risk and low life satisfaction

Indicator	Source	Target group	Frequency	Type of indicator	Availability	Precision
FINAL OUTCOMES: Two core indicators and one advanced enhanced indicator						
Poverty risk: Unexplained gap in being a household living below the poverty threshold.	EU-SILC	Private households (information on the indicator provided by the household reference person)	Every six years as part of the ad hoc module "Intergenerational transmission of disadvantages" (next round in 2029)	CORE	+++	+
Poverty risk: Unexplained gap in being a household living below the poverty threshold.	Administrative databases, including income records, linked with census data or national population registers identifying individuals' and their parents' country of birth	Private households	Continuous	ADVANCED (enhanced)	+ / +++	++
Low life satisfaction: Unexplained gap in rating one's life satisfaction below 5 on a 0-to-10 life satisfaction scale	EU-SILC	Individuals aged 16 and older	Every six years as part of the ad hoc module "Intergenerational transmission of disadvantages" (next round in 2029)	CORE	+++	+

Note: Core indicators are defined by limited precision (+) but high availability (+++) as they rely on EU-wide cross-country surveys. Advanced indicators are divided into two subgroups: enhanced indicators, which provide greater precision than core indicators (++) but require more extensive data collection and are therefore available in at most half of EU countries (+/++), and exploratory indicators, which achieve the highest precision (+++) but have limited availability (+) due to their reliance on original data collection (or even the outright impossibility of computing them in certain settings). In some cases, core indicators are calculated based on specific conditions and therefore rely on a subset of the total population, which reduces the number of available observations. Indicators that may be limited by sample size are flagged with the label "but small sample size" in the availability column. Similarly, core indicators that rely on the PISA parent questionnaire, which is optional, are flagged with the label "but in a selection of countries" in the availability column.

Source: OECD.

Notes

¹ ISCED-F (International Standard Classification of Education – Fields of Education and Training) is a detailed framework introduced by UNESCO in 2013 to classify educational programmes and qualifications by fields of study.

² The Body Mass Index is calculated by dividing a person's weight in kilograms by the square of their height in metres.

³ These 15 EU countries are Austria, Belgium, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Slovenia, Spain and Sweden.

⁴ Specifically, the 2023 EU Pay Transparency Directive introduces rules in three areas: access to information, reporting, and access to justice. Regarding access to information, employers must disclose starting salaries or pay ranges to job applicants and are prohibited from asking about pay history. Moreover, employees are entitled to request information on average pay levels for categories of employees doing the same work or work of equal value, broken down by sex, as well as on the criteria used for pay and career progression, which must be objective and gender-neutral. Regarding reporting, companies with over 250 employees must report annually on gender pay gaps, while smaller firms (100-249 employees) must report every three years; those with less than 100 employees are exempt. If a pay gap over 5% is found without objective justification, a joint pay assessment with worker representatives is required. Regarding access to justice, workers facing pay discrimination can claim compensation, while the burden of proof, which has traditionally fallen on the employee, now rests on employers, with penalties for non-compliance set to be effective, proportionate and dissuasive (European Commission, 2024^[1]).

Monitoring and Assessing the Impact of National Action Plans Against Racism

61% of respondents to a recent Eurobarometer survey on “Discrimination in the European Union” believe that discrimination based on skin colour is widespread. To address this, the European Commission launched the EU Anti-Racism Action Plan 2020-2025 and is now developing a post-2025 strategy that encourages EU countries to implement National Action Plans Against Racism (NAPARs). In this context, this report helps countries monitor and assess the impact of their NAPARs. The report first draws on a comprehensive review of academic literature to examine how bias-driven discrimination against visible minorities limits opportunities in education, school-to-work transition, employment, housing, and health. It then proposes indicators to measure this discrimination and suggests ways for countries to expand data collection on visible minorities, to enable more comprehensive monitoring of anti-racism efforts.



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