



# LEARN Brief

## Reviewing the Evidence on the SES Gradient in Tracking Decisions

### How Context and Institutions Can Cultivate Fair Education Pathways

Compiled by Doris Hanappi for LEARN, from an original document (Are tracking recommendations biased? A review of teachers' role in the creation of inequalities in tracking decisions) by Anatolia Batruch, Sara Geven, Emma Kessenich, Herman G. van de Werfhorst.  
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# ABOUT

## THE LEARN BRIEF

Imagine two students: Maria, from a low socio-economic status (SES) household, and Alex, from a high SES household. Despite having similar academic performance, their educational pathways may look very different. Studies show that Alex is more likely to receive teacher recommendations for advanced tracks, while Maria is more often directed toward less challenging options. This scenario reflects a broader trend: teacher judgments often extend beyond academic performance, with a meta-analysis of 73 studies showing that over 40% of the variance in teacher judgments can be attributed to non-academic factors (Südkamp, Kaiser, & Möller, 2012).

Addressing this issue, a research team affiliated to the EU Horizon Project LEARN undertook a comprehensive review to assess biases in teacher track recommendations, particularly against students from disadvantaged socio-economic and ethnic backgrounds. Researchers examined the sources of these biases, classifying them into student-parent, teacher, and contextual factors to understand how these influences interact with SES and ethnicity in shaping teacher recommendations. These findings, now available in detail, offer a critical foundation for policies aimed at promoting fairness in educational pathways. Please access the original paper [here](#).

## ABOUT THIS

### SYSTEMATIC REVIEW

A systematic review of 27 quantitative studies published between 2007 and 2020 examined whether students' socio-economic and ethnic backgrounds influence teachers' tracking recommendations and identified factors contributing to any observed biases. Tracking recommendations refer to teachers' placement of students into ability groups, which can shape educational opportunities. In this study, biases are defined as systematic differences in recommendations for equally performing students from different socio-economic or ethnic backgrounds.

The review analysed studies to understand how social and ethnic backgrounds impact teacher tracking and examined factors potentially driving these biases. These factors were categorized into three types: 1) individual student and parent characteristics like student school behaviour and attitudes, parent involvement and aspirations, 2) teacher-related characteristics like student-teacher relationship, teacher stereotypes and prejudices, and 3) contextual factors like institutional or school-specific conditions.

This review provides a comprehensive view of the socio-economic and ethnic biases in teacher recommendations, underscoring the role of institutional factors and offering a basis for policies to support fairer educational pathways.

## KEY FINDINGS

### 1. Tracking Titled

[Students from Low-SES Backgrounds Face Lower Track Recommendations Despite Comparable Performance](#)

Evidence across 19 studies consistently shows a bias favouring students from high socio-economic status (SES) backgrounds. For instance, in France and the Netherlands, high-SES students are frequently recommended for advanced tracks over equally performing low-SES peers (Barg, 2013; Timmermans et al., 2015).

Even when controlling for performance metrics like test scores and grades, students from lower SES backgrounds tend to receive lower track recommendations. In a three-country experimental design, teachers also had lower expectations about low-SES students. Importantly, earlier performance was a major predictor of teacher expectations particularly in tracked systems, leading to self-fulfilling prophecies (Geven et al., 2021). However, an observational study in Southern Germany using parental occupational status as a measure of SES found no significant SES bias in teacher track recommendations when parental reports on the student's home learning environment were included (Niklas & Schneider, 2017). This suggests that higher SES households may provide a more supportive environment for learning and development, which plays a critical role in shaping teacher recommendations.

### 2. Mixed Signals

[Inconsistent Evidence for Ethnic Bias in Teacher Track Recommendations](#)

Among 24 studies investigating ethnic or migration-related biases in teacher track recommendations, results are varied. Nine studies suggest a bias against students from migration or ethnic minority backgrounds, while six studies find no evidence of bias, and another six indicate a possible bias in favour of these students. Additionally, two studies report less accurate recommendations for students with migration backgrounds, which may reflect either positive or negative biases depending on the context (Glock et al., 2015; Pit-ten Cate et al., 2016).

These mixed results may be attributed to variations in study design, the inclusion of socio-economic factors, and differing methods for measuring ethnicity or migration background. While observational studies typically use country of birth or parental origin, experimental studies often rely on indirect indicators, such as student names or language spoken at home, which may influence findings. This diversity in methods highlights the need for standardized approaches in future research to more accurately assess the role of ethnic and migration background in teacher recommendations.

### 3. SES and Ethnic Biases Persist Despite Positive Student Attitudes and Parental Support

[Students' Behaviour and Home Shape Recommendations, But Bias Persists](#)

While student behaviour, effort, and motivation positively influence teacher track recommendations, these factors do not eliminate SES and ethnic biases. Studies from Luxembourg and Germany show that teachers recommend higher tracks for students they perceive as hardworking. However, even when controlling for behaviour and other factors like parental involvement and teacher expectations, biases linked to socio-economic status and ethnicity continue to affect recommendations.

Nine studies link the home environment, including parental support, school involvement, and aspirations, to higher teacher track recommendations. For instance, in France and Germany, teachers tend to recommend higher tracks for students whose parents are actively involved in school activities or perceived as supportive in their child's learning (Barg, 2013; Krolak-Schwerdt et al., 2018). Similarly, Dutch studies suggest that students from homes that encourage learning and curiosity receive more favourable recommendations (Driessen et al., 2008).

Teachers often hold positive perceptions of school-involved parents, typically associated with advantaged backgrounds, which may partially explain SES biases in tracking. Some research also suggests that middle- and upper-SES parents, more likely to advocate for their child, indirectly influence teachers to provide higher track recommendations (Barg, 2015). However, while parental involvement and aspirations relate to favourable tracking outcomes, studies indicate that these factors do not fully account for SES biases, suggesting that socio-economic disparities in recommendations persist despite controlling for the home environment.

#### 4. Shifting the Focus

##### Tackling Bias Through Institutional Change

Preliminary but promising evidence suggests that institutional features, particularly those related to accountability and selection, may amplify SES biases in teacher track recommendations. For instance, studies indicate that accountability structures impact teachers' decision-making processes, with less accountability leading to greater susceptibility to bias. In an experimental study by Glock et al. (2012), teachers made tracking recommendations under varying levels of accountability. When teachers were merely advising a colleague without responsibility for the final decision, biases linked to student nationality emerged. However, when teachers were held accountable to a decision-making council, these biases diminished, highlighting how institutional accountability can shape and potentially reduce biases.

Further emphasizing institutional impact, Pit-ten Cate et al. (2016) found that increasing accountability by prompting teachers to reflect on their decision accuracy improved tracking outcomes for ethnic minority students. However, accuracy improvements over time were more pronounced for majority students, indicating that accountability measures may not fully mitigate bias, particularly when related to SES and ethnic background.

Another study by Batruch et al. (2019) examined how a school's primary function, whether to "select" or "educate" students, influences tracking recommendations. Results showed that SES biases were heightened in a selection-oriented context, where high-SES students were deemed more suitable for advanced tracks, while low-SES students were more likely placed in lower tracks. In contrast, when the focus shifted to an educational function aimed at supporting all students, SES-related disparities in recommendations were smaller.

These findings suggest that institutional emphasis on selection versus support can shape the SES gradient in tracking decisions, with selection-focused environments likely reinforcing biases. Together, these studies highlight the need for educational policies that prioritize supportive, educational frameworks over selective mechanisms to reduce SES-related inequalities in teacher recommendations.

## IMPLICATIONS THE OPPORTUNITY

This section outlines the main implications of these findings for the evidence-informed policy-design, and the opportunities to build on, and drive forward the extension of evidence generation and the evaluation of existing evidence.

### 1. Exploring Institutional and Contextual Influences on Biases

Current research highlights the persistence of socio-economic (SES) and ethnic biases in teacher track recommendations, yet few studies have investigated the mechanisms underlying these biases. Individual characteristics, such as student behaviour and parental involvement, do not fully explain the bias observed in recommendations.

Moreover, studies indicate significant variation in biases across different teachers and schools, suggesting that the broader educational context may play a crucial role. To address this gap, future research should examine how contextual factors—like institutional policies and school environments—influence biases. Educational institutions, as cultural contexts, have the potential to shape teacher behaviours and contribute to reducing social inequalities, making them a promising focus for intervention.

### 2. Targeting Institutional Features for Policy Intervention

Understanding how national and school-level policies impact teacher recommendations could inform targeted interventions to reduce bias. For instance, non-binding recommendations, such as those in parts of Germany and Belgium, may lower teacher accountability and, in turn, amplify biases. Conversely, contexts with a high degree of school autonomy might allow for standardized guidelines and teacher collaboration that help mitigate biases. Cross-national studies also suggest that policy frameworks, such as those supporting disadvantaged students, can influence teacher attitudes and potentially reduce bias.

### 3. Developing Practical, Contextual Interventions

Research from non-educational settings offers insights into interventions that could apply to schools. Studies show that blinding decision-makers to social categories, using clear, pre-defined criteria, and involving third-party evaluators can reduce biases in evaluations. Applying these strategies in educational settings could involve anonymizing student records for track recommendations or requiring teachers to base recommendations on standardized, objective criteria. These low-cost, context-based interventions offer promising avenues for reducing SES and ethnic biases in teacher recommendations, thereby supporting more equitable student outcomes.



# RECOMMENDATIONS

## 1. Policy Recommendations

### 1.1. Implement **Standardized Criteria** for Track Recommendations

To reduce SES and ethnic biases in track recommendations, educational policymakers should consider developing standardized, objective criteria for track placements. By providing clear guidelines that focus on measurable competencies, institutions can help limit subjective factors in decision-making, making recommendations more equitable across socio-economic groups.

### 1.2. Increase **Accountability Measures** in Track Decision Processes

Introducing accountability structures, such as oversight councils or peer reviews for tracking decisions, could improve the fairness of teacher recommendations. Research indicates that accountability can reduce the expression of biases by ensuring that teachers are more deliberate and reflective in their recommendations, especially in contexts where biases against low-SES students have been observed.

### 1.3. Encourage **School-Level Policies** that Emphasize Educational Support Over Selection

Policies that shift the focus from selecting high-performing students to providing support for all can reduce SES-based disparities in tracking. Schools that prioritize educational support over selective categorization are likely to promote more inclusive and equitable pathways, particularly for students from disadvantaged backgrounds.

## 2. Research Recommendations

### 2.1. Examine the **Role of Contextual and Institutional Factors** in Bias

Researchers should further investigate how national and school-level institutional characteristics shape teacher biases in tracking. Cross-country studies, for instance, could provide insights into how varying educational structures, such as binding versus non-binding recommendations, influence the consistency and fairness of teacher judgments. In addition, longitudinal studies should be designed to assess long-term impacts of such recommendations on educational pathways, attainment, entry into the labour market, and overall development and well-being.

### 2.2. Investigate the Impact of **Accountability Mechanisms** on Teacher Tracking Decision Processes

Introducing accountability structures, such as oversight councils or peer reviews for tracking decisions, could improve the fairness of teacher recommendations and contribute to a culture of support and opportunity for learning. Research should assess how and to what extent accountability can reduce the expression of biases by ensuring that teachers are more deliberate and reflective in their recommendations, fostering an environment that prioritizes equitable opportunities for all students, especially those from disadvantaged backgrounds.

### 2.3. Explore **Longitudinal Effects** of Institutional Interventions on Bias

Long-term studies are needed to understand the sustained impact of institutional interventions, such as standardized criteria and accountability frameworks, on reducing SES and ethnic biases. Tracking these interventions over time would provide valuable data on the persistence of bias and the conditions that support lasting changes in teacher decision-making.

# CONCLUSIONS

This policy brief highlights the complex and enduring impact of socio-economic status (SES) and ethnic biases in teacher tracking recommendations, shedding light on how institutional and contextual factors can influence these decisions. Evidence suggests that, while individual characteristics like student behaviour and parental involvement affect track recommendations, they do not fully explain the persistent SES and ethnic disparities observed across educational systems. Rather, the institutional context—such as accountability measures, selection versus educational support emphasis, and standardized criteria—plays a critical role in either reinforcing or mitigating these biases.

To promote fair educational pathways, it is essential to prioritize policies that encourage accountability and focus on support over selection. Such initiatives can foster a culture of equity, enabling all students, regardless of their socio-economic or ethnic backgrounds, to have equal opportunities for advancement. Moving forward, research must deepen its focus on the mechanisms through which institutional contexts shape teacher decisions and explore interventions that can sustain bias reduction over time.

To create a more inclusive and equitable education system, policymakers must shift the emphasis from individual traits to institutional practices that actively promote fairness in teacher recommendations. By implementing accountability measures, standardized criteria, and policies that prioritize educational support over selection, educational systems can ensure that students' academic pathways reflect their true abilities and potential, and not the limitations imposed by socio-economic or ethnic biases.

This call to action underscores the responsibility of educational institutions to dismantle systemic barriers and foster learning environments where every student has an equal opportunity to thrive. Now is the time for concrete policy initiatives that will move us closer to a future where tracking decisions empower all students, regardless of background, to reach their fullest potential.

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