THE IMPACT OF IMPLICIT BIAS TRAINING

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In the following report, Hanover Research discusses empirical research on the effectiveness of implicit bias training. Hanover Research also reviews components of effective implicit bias training and methods districts can use to evaluate the impact of implicit bias training.

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EXECUTIVE SUMMARY

INTRODUCTION

To support partner districts considering implicit bias training, Hanover Research (Hanover) reviewed the literature and best practice guidelines related to implicit bias training across sectors, with a specific focus on K-12 education. This report is intended to help district leaders determine next steps related to implementation and evaluation of implicit bias training in the district. This report includes two sections:

- **Section I: Effectiveness of Implicit Bias Training** discusses empirical research on the effectiveness of implicit bias training on teacher practices and in sectors beyond education.

- **Section II: Implementation of Implicit Bias Training** reviews components of effective implicit bias training with a focus on effective debiasing strategies. Hanover also discusses methods organizations can use to measure the impact of implicit bias training.

KEY FINDINGS

EFFECTIVENESS OF IMPLICIT BIAS TRAINING

- **Research finds that interventions can produce immediate reductions in implicit bias but do not produce explicit or long-term changes in behavior.** A meta-analysis, for example, found that single-session implicit bias interventions can alter individuals' implicit biases, but had little to no impact on overt changes in behavior. Other research finds that brief implicit bias training produces immediate reductions in implicit bias but does not have long-term effects or impact participants' explicit behaviors and preferences.

- **However, at least one study found that a multifaceted, long-term implicit bias intervention produced long-term reductions in participants' implicit biases.** This study exposed participants to a variety of implicit bias intervention strategies including counter-stereotypic imaging and perspective-taking. Participants were asked to use these strategies outside the lab over eight weeks. Upon returning to the lab at the eight-week mark for post-testing, participants showed reductions in implicit biases and changes in explicit biases. This study's findings suggest that implicit bias interventions should be ongoing rather than occur in a single session.

- **Research on the effectiveness of implicit bias training in K-12 education is limited.** However, one recent study found that an empathy intervention produced immediate reductions in implicit biases in pre-service teachers. In the intervention, researchers exposed participants to personal accounts of explicit racism and asked participants to reflect on their feelings after reading the passages.

COMPONENTS OF EFFECTIVE IMPLICIT BIAS TRAINING

- **Districts should incorporate debiasing strategies and strategies for preventing biased decision-making in implicit bias training.**
  - Debiasing strategies include stereotype replacement, counter-stereotypic imaging, individuation, perspective-taking, and opportunities for contact. A study on the efficacy of 18 debiasing interventions found that the most effective strategies are those that expose participants to counterstereotypical exemplars, use intentionality, and involve evaluative conditioning.
  - Implicit bias training can also involve teaching individuals to avoid biased decision-making. These strategies include encouraging individuals to doubt their objectivity, increasing individuals' motivation to act fairly, improving decision-making conditions (e.g., allow for more time to make decisions), and using data to identify if individuals' actions are contributing to inequity.

- **Districts could also consider goals for training, logistical factors, and content to be covered during the training.**
  - Experts suggest that the goal of implicit bias training should be self-awareness of one's biases. This goal is more achievable and realistic than a goal of completely removing individuals' biases.
  - Experts find that implicit bias training is more effective when it is ongoing and in person than when it occurs in a single session or online. Further, organizations should select a highly qualified facilitator who is empathetic and avoids making participants feel guilty for their implicit biases.
  - Facilitators should keep implicit bias training focused on real, specific workplace situations. Districts might, for example, discuss how teachers can avoid biased decision-making when disciplining students.

METHODS FOR MEASURING THE IMPACT OF IMPLICIT BIAS TRAINING

- **Districts should use direct rather than self-report measures to evaluate the impact of implicit bias training on teachers' practices.** Self-report measures of implicit bias are unreliable and influenced by social desirability. As such, districts should evaluate teachers' practices using methods such as observation rubrics and protocols. More specifically, when evaluating the impact of equity-related training on teachers' practices, districts should measure teachers' attitudes, knowledge, and skills/behavior.

- **Districts can incorporate equity-related standards into their teacher evaluation instruments.** To evaluate teachers on the equity standards, districts can develop an observation rubric that contains specific knowledge, attitudes, and skills/behavior teachers should exhibit after receiving equity training. Examples of areas in which districts might evaluate teachers' equity practices include classroom relationships, instruction, student achievement on assessments.

- **Additionally, districts can evaluate teachers' equity practices by examining student achievement and outcomes data.** Implicit biases have been shown to influence teachers' expectations of students and perceptions of student actions which impact student achievement and disciplinary practices. As such, districts can use academic and behavior metrics such as SAT participation, AP participation, dropout, discipline, and extracurricular participation rates to evaluate the impact of implicit bias training.

SECTION I: EFFECTIVENESS OF IMPLICIT BIAS TRAINING

In this section, Hanover discusses empirical research on the effectiveness of implicit bias training on teacher practices and in sectors beyond education.

OVERVIEW OF IMPLICIT BIAS

Implicit biases are "attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner."[1] A 2014 review of the literature on implicit bias by the Kirwan Institute for the Study of Race and Ethnicity at Ohio State University concluded that "everyone is susceptible to implicit biases…about other people based on characteristics such as race, ethnicity, age, and appearance."[2] The Kirwan Institute's review found the following characteristics of implicit biases:[3]

- Implicit biases are pervasive and robust. Everyone possesses them, even people with avowed commitments to impartiality such as judges.

- Implicit and explicit biases are generally regarded as related but distinct mental constructs. They are not mutually exclusive and may even reinforce each other.

- The implicit associations we hold arise outside of conscious awareness; therefore, they do not necessarily align with our declared beliefs or even reflect stances we would explicitly endorse.

- We generally tend to hold implicit biases that favor our own ingroup, though research has shown that we can still hold implicit biases against our ingroup.

- Implicit biases have real-world effects on behavior.

- Implicit biases are malleable; therefore, the implicit associations that we have formed can be gradually unlearned and replaced with new mental associations.

Teachers, like the population at large, are susceptible to implicit biases. These unconscious beliefs can affect teachers' expectations of students, thereby influencing how teachers teach certain students. For example, teachers may implicitly expect less of African American students and thus may provide less rigorous instruction to those students compared to the instruction they provide to white students. This differentiation in instructional quality perpetuates achievement gaps. [4] Implicit biases in education also play a role in the overrepresentation of students of color in special education and remedial courses, as well as

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[1] Staats, C. "State of the Science: Implicit Bias Review." Kirwan Institute for the Study of Race and Ethnicity, 2014. p. 16. http://kirwaninstitute.osu.edu/wp-content/uploads/2014/03/2014-implicit-bias.pdf

[2] Ibid.

[3] Bullet points were taken verbatim from Ibid., p. 17.

[4] [1] Garcia, M. "Why Teachers Must Fight Their Own Implicit Biases." Education Week, July 25, 2018. https://www.edweek.org/tm/articles/2018/07/25/why-teachers-must-fight-implicit-biases.html [2] Flannery, M.E. "When Implicit Bias Shapes Teacher Expectations." NEA Today, September 9, 2015. http://neatoday.org/2015/09/09/when-implicit-bias-shapes-teacher-expectations/

in disciplinary action.[5] However, as noted by the Kirwan Institute, implicit biases can be modified.[6] Given the negative impacts implicit biases can have on student achievement and outcomes, districts and schools should consider providing implicit bias training.[7]

Districts commonly embed implicit bias training in cultural competency training. The New York City Department of Education, for example, developed a training program that covers implicit bias and cultural competency.[8] In the context of K-12 education, experts define cultural competency as "the ability to successfully teach students who come from [other] cultures," which may involve "developing certain personal and interpersonal awareness and sensitivities, developing certain bodies of cultural knowledge, and mastering a set of skills that [...] underlie effective cross-cultural teaching."[9] Implicit bias training relates to cultural competency by supporting individuals in developing a personal awareness of their beliefs and attitudes toward diverse others. This self-awareness is a critical first step to effectively working with people of other cultures and races.[10]

Implicit bias training is also often part of districts' larger equity efforts. For example, Jefferson County Public Schools in Kentucky recently developed a racial equity plan to guide its equity initiatives. One aspect of the plan is mandatory implicit bias training. The goals of the training program are to close the achievement gap between white and African American students and to reduce disparities in disciplinary practices.[11]

IMPACT OF IMPLICIT BIAS TRAINING

Some research suggests that implicit biases can be changed, but the changes do not necessarily produce changes in behavior. A 2018 meta-analysis synthesized findings from nearly 500 studies on the effectiveness of implicit bias training. This study was published online at PsyArXiv, which is a database of working papers and articles under review (i.e., preprints) designed to provide the public with rapid access to psychological research. The researchers used a multivariate implementation of network meta-analysis.[12] Overall, the

[5] [1] Staats, C. "Understanding Implicit Bias." *American Educator*, 2015. pp. 30–31. Retrieved from EBSCOhost. [2] Safir, S. "5 Keys to Challenging Implicit Bias." Edutopia, March 14, 2016. https://www.edutopia.org/blog/keys-to-challenging-implicit-bias-shane-safir

[6] Staats, "State of the Science: Implicit Bias Review," Op. cit., p. 17.

[7] Safir, Op. cit.

[8] Conrad, B. "NYC Speeds up Implicit Bias Training Plan for Educators." Washington Examiner, August 16, 2018. https://www.washingtonexaminer.com/news/nyc-speeds-up-implicit-bias-training-plan-for-educators

[9] "Promoting Educators' Cultural Competence to Better Serve Culturally Diverse Students." National Education Association, 2008. p. 1. http://www.nea.org/assets/docs/PB13_CulturalCompetence08.pdf

[10] [1] Boysen, G.A. and D.L. Vogel. "The Relationship between Level of Training, Implicit Bias, and Multicultural Competency among Counselor Trainees." *Training and Education in Professional Psychology*, 2:2, 2008. Retrieved from EBSCOhost. [2] Bellack, J.P. "Unconscious Bias: An Obstacle to Cultural Competence." *Journal of Nursing Education*, 54:9, 2015. http://www.healio.com/doiresolver?doi=10.3928/01484834-20150814-12

[11] Rivest, S. "Mandatory JCPS Implicit Bias Training for Teachers Combats Race Issues." Http://Www.Wave3.Com/2019/02/06/Mandatory-Jcps-Implicit-Bias-Training-Teachers-Combats-Race-Issues/, February 6, 2019. http://www.wave3.com/2019/02/06/mandatory-jcps-implicit-bias-training-teachers-combats-race-issues/

[12] Forscher, P.S. et al. "A Meta-Analysis of Procedures to Change Implicit Measures." *PsyArXiv*, August 13, 2018. pp. 2, 19. https://osf.io/dv8tu

researchers found that strategies can alter individuals' implicit biases, although the effects are weak (|*ds*| < .30). Most of the studies included in the meta-analysis used strategies that occurred in a single session. These brief sessions were focused on creating measurable short-term changes in participants' biases, which may account for the weak overall effect of implicit bias training techniques. Importantly, the researchers found that "procedures that associate sets of concepts, invoke goals or motivations, or tax mental resources changed implicit measures the most, whereas procedures that induced threat, affirmation, or specific moods/emotions changed implicit measures the least."[13]

The researchers also investigated the impact of implicit bias training on changes in explicit behaviors. They found that, overall, the strategies used to reduce the impact of implicit biases had little impact on explicit measures and overt changes in behavior (*g* < .20). Further, "changes in implicit measures did not mediate changes in explicit measures on behavior" (*p* = .735). As such, the researchers concluded that reductions in implicit biases do not necessarily cause changes in explicit behavior.[14]

Further, implicit bias training does not appear to produce long-term effects. Another 2016 study published in the *Journal of Experimental Psychology: General* examined several implicit bias training techniques in a sample of undergraduate students.[15] The researchers used the **Implicit Association Test** (IAT) to measure implicit biases and a self-report instrument to measure explicit biases. [16] All the interventions produced immediate reductions in participants' implicit biases; however, these effects were not evident "after a delay of several hours to several days."[17] Further, the bias interventions did not modify participants' "explicit racial preferences."[18] Like the researchers who conducted the aforementioned meta-analysis, the researchers of this study concluded that implicit bias training can produce changes, albeit short-term, in implicit biases and does not impact explicit behaviors.[19]

Other research supports the idea that implicit bias training can produce immediate decreases in implicit biases. For example, a study published in the *Journal of Personality and Social Psychology* examined the impact of a college-level seminar on prejudice and conflict on enrolled students' implicit biases.[20] The researchers used the IAT to measure implicit biases; nine weeks apart, participants completed two IATs and "explicit measures of prejudice and stereotypes."[21] Compared to a control group not enrolled in the course, enrolled students

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[13] Ibid., pp. 2, 24–26.

[14] Ibid., pp. 2, 27.

[15] Lai, C.K. et al. "Reducing Implicit Racial Preferences: II. Intervention Effectiveness across Time." *Journal of Experimental Psychology: General*, 145:8, August 2016. http://doi.apa.org/getdoi.cfm?doi=10.1037/xge0000179

[16] Ibid., pp. 6–7.

[17] Ibid., p. 2.

[18] Ibid.

[19] Ibid., pp. 21–25.

[20] Rudman, L.A., R.D. Ashmore, and M.L. Gary. "'Unlearning' Automatic Biases: The Malleability of Implicit Prejudice and Stereotypes." *Journal of Personality and Social Psychology*, 81:5, 2001. https://www.researchgate.net/profile/Laurie_Rudman/publication/11645675_Unlearning_automatic_biases_The _malleability_of_implicit_prejudice_and_stereotypes/links/0c9605324b86ab878a000000/Unlearning-automatic-biases-The-malleability-of-implicit-prejudice-and-stereotypes.pdf

[21] Ibid., p. 859.

showed reductions in implicit and explicit biases toward African Americans over time. The diversity education course also had a large effect size on measures of implicit and explicit biases among the experimental group (see Figure 1.1). Further, the researchers found that the students' implicit biases were modified through affective processes. This finding indicates that affective interventions may be most effective for reducing implicit biases.[22]

Figure 1.1: Effect Sizes of Diversity Education Intervention on Implicit and Explicit Biases

MEASURE	IMPLICIT	EXPLICIT
Prejudice	$d = .74$	$d = .47$
Stereotype	$d = .86$	$d = .91$

Source: *Journal of Personality and Social Psychology*[23]

At least one study, however, found that a multifaceted implicit bias intervention had a long-term impact on implicit bias. This study was published in 2012 in the *Journal of Experimental Social Psychology*. The researchers developed an implicit bias intervention based on the idea that "implicit bias is like a habit that can be reduced through a combination of awareness of implicit bias, concern about the effect of that bias, and the application of strategies to reduce bias."[24] The participants included in the study were 91 non-Black undergraduate students. The researchers used the IAT to measure implicit bias and several self-report instruments to measure explicit bias.[25] The bias intervention consisted of the following strategies: stereotype replacement, counter-stereotypic imaging, individuation, perspective-taking, and increasing opportunities for contact. The researchers explained these strategies to the participants, "reminded [them] that they would return to the lab for two subsequent sessions and would receive questionnaires to complete between lab sessions. Participants were then dismissed."[26] Using a pre-post design, the researchers found that participants who completed the intervention had lower IAT scores, and thus less implicit bias, compared to a control group eight weeks after the intervention occurred ($p = .006$).[27] In terms of explicit bias, the researchers found that the group who received the intervention showed increases in "self-reported concern about discrimination and prejudice-relevant discrepancies" ($p = .028$).[28]

IMPACT IN K-12 EDUCATION

Empirical research on the impact of implicit bias training in K-12 education is limited, but Hanover located one relevant study. A 2018 study published in *Psychological Reports* investigated the effectiveness of an empathy intervention on reducing implicit biases in pre-service teachers.[29] The participants were 34 White, female, English-speaking undergraduate

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[22] Ibid., pp. 860–861, 864–866.

[23] Figure contents were adapted from Ibid., p. 861.

[24] Devine, P.G. et al. "Long-Term Reduction in Implicit Race Bias: A Prejudice Habit-Breaking Intervention." *Journal of Experimental Social Psychology*, 48:6, 2012. p. 1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3603687/

[25] Ibid., pp. 4–6.

[26] Ibid., pp. 7–8.

[27] Ibid., p. 8.

[28] Ibid., pp. 9, 11.

[29] Whitford, D.K. and A.M. Emerson. "Empathy Intervention to Reduce Implicit Bias in Pre-Service Teachers." *Psychological Reports*, 2018. Retrieved from SAGE Journals.

students at a university in the midwestern United States; they were randomly assigned to an experimental or control group. The researchers measured implicit bias with the IAT and used a pre-post design.[30] The empathy intervention consisted of participants reading passages on "personal experiences of explicit racism faced by Black student peers on the same university campus." The participants were then asked to reflect on their feelings after reading the passages. [31] The findings indicated that there was a significant difference between the experimental group who received the intervention and the control group (p = .01). Further, after the intervention, the pre-service teachers' implicit biases toward African American individuals was reduced (p = .01).[32] However, the long-term impacts of this brief intervention are unclear based on the results of the study.

IMPACT IN OTHER SECTORS

Implicit bias is prevalent in sectors beyond K-12 education. For example, research has been published on the impact of implicit biases in healthcare.[33] However, as in K-12 education, research evaluating strategies to reduce biases in specific sectors is limited. Hanover located one relevant study, though, which is described below.

A 2014 study published in *Social Psychology of Education* examined the impact of implicit bias training on reducing biases and stereotypes around women in science, technology, engineering, and mathematics (STEM).[34] The researchers administered a diversity training to 127 university faculty members and had a control group of 107 faculty members. The training was a presentation that lasted for 30 minutes. The researchers administered a version of the IAT to measure implicit biases and used a pre-post design.[35] They found that after the training, participants' implicit biases about women in STEM improved. For instance, male participants' implicit biases about women in STEM improved from pre- to post-test (p = .02).[36]

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[30] Ibid., pp. 7–8.

[31] Ibid., p. 9.

[32] Ibid., p. 10.

[33] [1] Hall, W.J. et al. "Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review." *American Journal of Public Health*, 105:12, December 2015. Retrieved from EBSCOhost. [2] Burgess, D.J., M.C. Beach, and S. Saha. "Mindfulness Practice: A Promising Approach to Reducing the Effects of Clinician Implicit Bias on Patients." *Patient Education and Counseling*, 100, February 2017. https://linkinghub.elsevier.com/retrieve/pii/S0738399116304153 [3] Byrne, A. and A. Tanesini. "Instilling New Habits: Addressing Implicit Bias in Healthcare Professionals." *Advances in Health Sciences Education*, 20:5, 2015. http://link.springer.com/10.1007/s10459-015-9600-6

[34] Jackson, S.M., A.L. Hillard, and T.R. Schneider. "Using Implicit Bias Training to Improve Attitudes toward Women in STEM." *Social Psychology of Education*, 17:1, 2014. https://www.researchgate.net/profile/Tamera_Schneider/publication/263844577_Using_implicit_bias_training_to_improve_attitudes_toward_women_in_STEM/links/00b7d53bffd79a240b000000/Using-implicit-bias-training-to-improve-attitudes-toward-women-in-STEM.pdf

[35] Ibid., pp. 8–9.

[36] Ibid., pp. 12–15.

SECTION II: IMPLEMENTATION OF IMPLICIT BIAS TRAINING

In this section, Hanover reviews components of effective implicit bias training with a focus on effective debiasing strategies. Hanover also discusses methods organizations can use to measure the impact of implicit bias training.

COMPONENTS OF EFFECTIVE IMPLICIT BIAS TRAINING

STRATEGIES TO REDUCE IMPLICIT BIAS

There are two main types of implicit bias interventions discussed in the literature: (1) debiasing interventions and (2) strategies for preventing biased decision-making.

DEBIASING STRATEGIES

Debiasing techniques are designed to reduce implicit biases by challenging individuals' ideas and stereotypes about groups of people. Examples of debiasing interventions are stereotype replacement, counter-stereotypic imaging, individuation, perspective-taking, and opportunities for contact (see Figure 2.1). These interventions were shown to be effective at reducing implicit biases in the 2012 *Journal of Experimental Social Psychology* described in Section I of this report.[37]

Figure 2.1: Strategies to Reduce Implicit Biases, Devine et al. (2012)

STEREOTYPE REPLACEMENT

This strategy involves replacing stereotypical responses with non-stereotypical responses. Using this strategy involves recognizing that a response is based on stereotypes, labeling the response as stereotypical, and reflecting on why the biased response occurred. Next, one considers how the biased response could be avoided in the future and replaces it with an unbiased response.

COUNTER-STEREOTYPIC IMAGING

This strategy involves imagining in detail counter-stereotypic others. These can be abstract (e.g., smart black people), famous (e.g., Barack Obama), or non-famous (e.g., a personal friend). The strategy makes positive exemplars salient and accessible when challenging a stereotype's validity.

INDIVIDUATION

This strategy relies on preventing stereotypic inferences by obtaining specific information about group members. Using this strategy helps people evaluate members of the target group based on personal, rather than group-based, attributes.

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[37] Johnson, A.M., R.D. Godsil, and I. Butler. "Addressing Implicit Bias, Racial Anxiety, and Stereotype Threat in Education and Health Care." Perception Institute, Haas Institute, and the Center for Policing Equity, November 2014. pp. 45–46. https://equity.ucla.edu/wp-content/uploads/2016/11/Science-of-Equality-Vol.-1-Perception-Institute-2014.pdf

> ### PERSPECTIVE-TAKING
> This strategy involves assuming a first-person perspective of a member of a stereotyped group. Perspective taking increases psychological closeness to the stigmatized group, which ameliorates automatic group-based evaluations.

> ### INCREASING OPPORTUNITIES FOR CONTACT
> This strategy involves seeking opportunities to encounter and engage in positive interactions with out-group members. Increased contact can ameliorate implicit bias through a wide variety of mechanisms, including altering the cognitive representations of the group and directly improving evaluations of the group.

Source: *Journal of Experimental Social Psychology*[38]

The Kirwan Institute offers a similar list of debiasing techniques that can be used to reduce the impact of implicit biases (see Figure 2.2). These strategies largely overlap with those included in the 2012 *Journal of Experimental Social Psychology* study.

Figure 2.2: Strategies to Reduce Implicit Biases, Kirwan Institute

	COUNTER-STEREOTYPIC TRAINING	Uses visual or verbal cues to train individuals to develop new implicit associations that contrast with existing biased associations
	EXPOSURE TO COUNTER-STEREOTYPIC INDIVIDUALS	Exposes individuals to members of a demographic group whose personal traits contrast with stereotypes
	INTERGROUP CONTACT	Promotes interaction among individuals from diverse groups in a cooperative and supportive environment that includes common goals and equal status for participants from different groups
	ACCOUNTABILITY	Creates expectations that individuals will be required to justify their beliefs and actions
	PERSPECTIVE-TAKING	Causes individuals to consider alternative viewpoints and perspectives
	DELIBERATIVE PROCESSING	Causes individuals to monitor their own thoughts to reduce implicit bias, particularly when individuals are working under time constraints or a substantial cognitive load

Source: Kirwan Institute for the Study of Race and Ethnicity[39]

Further, a 2013 study evaluated the efficacy of 18 implicit bias interventions. The researchers tested the interventions two times across three studies with a total of 11,868 non-Black participants.[40] Figure 2.3 on the following page describes the effective strategies, ordered from most to least effective. Broadly, this research study finds that the debiasing techniques

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[38] Figure contents were taken verbaitm from Devine et al., Op. cit., pp. 7–8.
[39] Figure contents were adapted from Staats, "State of the Science: Implicit Bias Review," Op. cit., pp. 20–21.
[40] Ibid., p. 35.

of "exposure to counterstereotypical exemplars, using intentionality to reduce bias, and evaluative conditioning" are effective.[41]

Figure 2.3: Strategies to Reduce Implicit Biases, Lai et al. (2013)

SHIFTING GROUP BOUNDARIES THROUGH COMPETITION

Participants engaged in a dodgeball game in which all of their teammates were Black while the opposing team was an all-White collective that engaged in unfair play. Participants were instructed to think positive thoughts about Blackness and recall how their Black teammates helped them while their White opponents did not.

VIVID COUNTERSTEREOTYPIC SCENARIO

Participants read a graphic story in which they are to place themselves in the role of the victim who is assaulted by a White man and rescued by a Black man. Aiming to affirm the association that White = bad and Black = good, in each test of this intervention, the scenario was longer and enhanced by more detailed and dramatic imagery. Across three studies, this vivid counterstereotypic scenario substantially reduced implicit preferences among participants.

PRACTICING AN IAT WITH COUNTERSTEREOTYPIC EXEMPLARS

Previous research established that exposure to pro-Black exemplars (e.g., Michael Jordan, Martin Luther King, Jr.) and negative White exemplars (e.g., Timothy McVeigh, Jeffrey Dahmer) decreases the automatic White preferences effect. This effective contest intervention used these counterstereotypic primes and combined them with repeated practice of IAT trials in which participants were to pair Black faces with Good and White faces with Bad.

PRIMING MULTICULTURALISM

In contrast to the colorblind perspective common in society, participants in this intervention were encouraged to adopt a multicultural perspective. They read a piece that advocated for multiculturalism, summarized it, and gave two reasons that supported a multicultural approach to interethnic relations. With this multicultural prime in mind, and while asked to focus on Black = good, IAT results showed that this intervention decreased implicit preferences for Whites.

EVALUATIVE CONDITIONING WITH THE GNAT

A modified version of the Go/No-Go Association Task (GNAT) was used for another successful intervention. Participants were instructed to respond to stimuli or abstain from doing so based on the pairings presented to them, such as a responding when a Black person was paired with a good word but refraining when a good word was paired with a non-Black person.

FAKING THE IAT

Another intervention reduced participant implicit bias by instructing them to "fake out" the IAT by manipulating their reactions so that they associated White = Bad more quickly than they reacted to Black = Bad.

[41] Ibid., p. 36.

SHIFTING GROUP AFFILIATIONS UNDER THREAT

Upon reading a vivid post-apocalyptic scenario, subjects who saw faces of Blacks who were friendly and/or valuable in alliances for survival, as well as faces of White "enemies" showed decreased implicit bias.

USING IMPLEMENTATION INTENTIONS

When told to embrace the intention to respond to Black faces by thinking "good" on the IAT, the establishment of this "if-then" mental plan before taking the IAT lowered implicit bias against Blacks.

EVALUATIVE CONDITIONING

Participants repeatedly saw pairings of Black faces with positive words, and White faces with negative words. When asked to memorize the words as they appeared on the screen, implicit biases decreased.

Source: Kirwan Institute for the Study of Race and Ethnicity[42]

Although the strategies described above are not specific to K-12 education, a 2011 article published in *Action in Teacher Education* recommends that all teachers engage in professional development in which they "examine their own biases, misconceptions, and prejudices." This article also recommended that teachers receive professional development addressing the role of culture in education and specific strategies to support English learners.[43] Further, a 2015 article in *American Educator* on reducing implicit bias in K-12 education notes that effective debiasing strategies for teachers include forging meaningful connections with "individuals whose identifies (e.g., race, ethnicity, religion) differ from [their] own" and "exposure to counter-stereotypical exemplars."[44]

STRATEGIES TO REDUCE BIASED DECISION MAKING

Additionally, implicit bias interventions can target the effects bias has on decision making.[45] Figure 2.4 on the following page presents these types of strategies, which include encouraging individuals to doubt objectivity and using data to identify if actions are contributing to inequity or disparate outcomes. In K-12 education, districts might consider collecting data on school discipline to determine if teacher practices are resulting in disparate treatment of students.[46]

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[42] Figure contents were taken verbatim from Ibid., pp. 35–36.

[43] Pang, V.O. et al. "Cultural Competencies: Essential Elements of Caring-Centered Multicultural Education." *Action in Teacher Education*, 33, 2011. pp. 570–571. Retrieved from EBSCOhost.

[44] Staats, "Understanding Implicit Bias," Op. cit., p. 32.

[45] Johnson, Godsil, and Butler, Op. cit., p. 47.

[46] Staats, "Understanding Implicit Bias," Op. cit., p. 33.

Figure 2.4: Strategies to Reduce the Effect of Implicit Bias on Decision Making

DOUBT OBJECTIVITY

The greater the extent to which one presumes the capacity to be objective, the greater the risk that the person will inadvertently allow bias to influence decision-making. There is some evidence to suggest that teaching people about nonconscious thought processes will lead them to be more skeptical of their own objectivity and, as a result, be better able to guard against biased evaluations.

INCREASE MOTIVATION TO BE FAIR

Guarding against biased evaluations is obviously more likely to occur if a person has the motivation to be fair. Research has demonstrated that people with motivation to be egalitarian were able to prevent their implicit anti-gay attitudes from affecting their behavior. Consistent with this model, the National Center for State Courts has organized a project to teach judges and court staff about implicit bias. The results from a three-state project suggest that those judges who were taught the neuroscience of bias were successfully convinced that implicit bias can impact behavior, and those who responded to follow-up surveys indicated that they were making efforts in their own courtrooms to reduce the effects of bias.

IMPROVED CONDITIONS OF DECISION-MAKING

Implicit biases are a function of automaticity. "Thinking slow" by engaging in mindful, deliberate processing prevents our implicit schema from kicking in and determining our behaviors. Ideally, decisions are made in a context in which one is accountable for the outcome, rather than in the throes of any emotion (either positive or negative) that may exacerbate bias.

COUNT (USE DATA)

Implicitly biased behavior is best detected by using data to determine whether patterns of behavior are leading to racially disparate outcomes. Perhaps not surprisingly in light of the assumptions many make about the decrease in discrimination in our society, research has shown that people are more likely to detect discrimination when it is presented in the aggregate rather than on a case-by-case basis. Once one is aware that decisions or behavior are having disparate outcomes, it is then possible to consider whether and how the outcomes are linked to bias.

Source: Perception Institute, Haas Institute, and the Center for Policing Equity[47]

GOALS, LOGISTICS, AND CONTENT OF IMPLICIT BIAS TRAINING

In addition to using debiasing strategies and teaching teachers to avoid biased decision-making, districts should consider several additional features of implicit bias training.

Implicit bias training should focus on creating self-awareness rather than eliminating biases. Experts suggest incorporating self-reflection exercises, such as implicit bias tests (e.g., the IAT), into training sessions to promote self-awareness and self-monitoring.[48] Additionally, organizations should set awareness of implicit biases as the goal for training. Given that

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[47] Figure contents were taken verbatim from Johnson, Godsil, and Butler, Op. cit., pp. 47–48.

[48] [1] Boscardin, C.K. "Reducing Implicit Bias Through Curricular Interventions." *Journal of General Internal Medicine*, 30:12, December 2015. pp. 1726–1727. http://link.springer.com/10.1007/s11606-015-3496-y [2] Gassam, J. "Does Unconscious Bias Training Really Work?" Forbes, October 29, 2018. https://www.forbes.com/sites/janicegassam/2018/10/29/does-unconscious-bias-training-really-work/#4c133357b8a2

implicit biases are "deeply rooted within us…it may be impossible to completely wipe ourselves clean of bias."[49] Therefore, organizations should keep the goal of training realistic and achievable. Organizations should also ensure that participants understand the expectations and goals of the training.[50]

To be effective, implicit bias training will need to be administered over time, in person, and by an appropriate facilitator. Implicit biases form over extended periods of time and will require extensive training to replace.[51] Rather than holding a single one-hour training session, organizations should provide several, ongoing sessions.[52] Experts also suggest providing implicit bias training in person rather than online.[53] Organizations should also carefully select facilitators, selecting an individual who is "highly qualified and well versed in the social psychology of attitude formation, [an] excellent and empathetic facilitator, and [has] a non-threatening and inclusive style that avoids guilt trips."[54]

When providing implicit bias training, facilitators should keep the topic focused on workplace situations. Ideally, facilitators will use real, specific situations that frequently come up in the workplace environment.[55] Focusing training on these types of situations that occur in employees' day-to-day lives at work will make the content more memorable and actionable.[56] Districts might, for example, discuss how teachers can keep implicit biases in check when disciplining students so as not to contribute to disparate disciplinary practices.

METHODS FOR MEASURING THE IMPACT OF IMPLICIT BIAS TRAINING

Districts can yield valuable information from evaluations of teacher professional development. Specifically, districts can determine whether teachers are satisfied with their training, if the training is producing the intended outcomes, if modifications should be made to training, and if changes are occurring in school organization and culture as a result of teachers participating in professional development. To evaluate the impact of professional development on intended outcomes, districts should look for "changes in teachers' professional practice and increased student learning." [57]

To determine if equity-related trainings are producing the intended outcomes, districts should measure teachers' attitudes, knowledge, and skills. Figure 2.5 on the following page

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[49] Osborn, C. "Key Considerations for Implicit Bias Training." The Training Associates, April 17, 2018. https://thetrainingassociates.com/blog/key-considerations-for-implicit-bias-training/

[50] Ahmad, U. "Implicit Bias in the Workplace." Training Industry, June 8, 2017. https://trainingindustry.com/articles/compliance/implicit-bias-in-the-workplace/

[51] Osborn, Op. cit.

[52] [1] Goodman, N. "Unconscious Bias." *Training Magazine*, July 16, 2014. https://trainingmag.com/trgmag-article/unconscious-bias/ [2] Gassam, Op. cit.

[53] [1] Goodman, Op. cit. [2] Ahmad, Op. cit.

[54] Goodman, Op. cit.

[55] Ibid.

[56] Emerson, J. "Don't Give Up on Unconscious Bias Training — Make It Better." *Harvard Business Review*, April 28, 2017. https://hbr.org/2017/04/dont-give-up-on-unconscious-bias-training-make-it-better

[57] Haslam, M.B. "Teacher Professional Development Evaluation Guide." National Staff Development Council, January 2010. pp. 8-9. https://learningforward.org/docs/pdf/evaluationguide.pdf?sfvrsn=0

presents a list of the attitudes, knowledge, and skills that teachers and staff should exhibit related to equity. Districts can consider measuring these types of indicators to evaluate implicit bias training.

Figure 2.5: Examples of Equitable Practices in K-12 School Staff

ATTITUDES AND AWARENESS

- Teachers/staff value diversity and find teaching a culturally diverse group to be rewarding.
- Teachers/staff believe that they can learn a great deal from students with culturally different backgrounds.
- Teachers/staff believe that they have the responsibility to be aware of their students' cultural backgrounds.
- Teachers/staff accept and respect different cultural backgrounds and customs, different ways of communicating, and different traditions and values.
- Teachers/staff believe that teaching methods need to be adapted to meet the needs of diverse students.
- Teachers/staff believe that multicultural awareness and cultural competence training can help them work more effectively with diverse student populations.
- Teachers/staff are aware of their beliefs, attitudes, and expectations related to students' gender, culture, race, ethnicity, national origin, religion, language status, and mental or physical ability.

KNOWLEDGE

- Teachers/staff understand that their own cultures (experiences, background knowledge, skills, beliefs, values, and interests) shape their sense of who they are, where they fit into their family, school, community, and society, and how they interact with students.
- Teachers/staff know that there are many factors that can affect interactions across cultures, including historical cultural experiences and relationships between cultures in a local community.
- Teachers/staff know what can go wrong in cross-cultural communication and know how to respond.
- Teachers/staff have a base knowledge of their students' culture and understand student behaviors in their proper cultural context.
- Teachers/staff have a clear understanding of culturally responsive pedagogy.
- Teachers are knowledgeable about instructional strategies that affirm students' racial/ethnic identities.
- Teachers/staff are aware of services for supporting English Learners.

SKILLS AND BEHAVIOR

- Teachers examine the instructional materials they use in the classroom for racial and ethnic bias.
- Teachers often include examples of the experiences and perspectives of racial and ethnic groups during classroom lessons.
- Teachers/staff establish strong, supportive relationships with racial and ethnic minority parents.
- Teachers/staff examine policies and practices for overt and unintentional discrimination.
- Teachers/staff teach students the appropriate language for asking questions about other people's cultures and telling other people about theirs.
- Teachers/staff collaborate with peers who are knowledgeable about students' languages and cultures.
- Teachers/staff intervene when bullying, teasing, or use of slurs or stereotypes occur.
- Leaders hold staff accountable for cultural proficiency and equity.

Source: Gursoy,[58] National Education Association,[59] Nuri-Robins et al.,[60] Farr et al.,[61] and Spanierman et al.[62]

Districts will need to use data collection and measurement methods to evaluate the attitudes, knowledge, and skills that are presented in Figure 2.5. On the following page, Figure 2.6 summarizes the data collection and measurement methods that can provide insight into the five types of outcomes that districts typically measure to evaluate professional development broadly. These outcomes are participant feedback, participant learning, organizational context, application of learning, and student outcomes. Typically, a variety of quantitative and qualitative methods are necessary to gauge participants' reactions and to assess the short- and long-term effects of professional development. These methods may include: surveys; interviews or focus groups; competency tests; participant self-evaluation; analysis of school/program records; observations; student evaluations of teachers/staff; and analysis of student data. Districts interested in measuring the impact of implicit bias training on teachers' practices should use methods that evaluate the application of learning, which refers to the degree to which educators apply what they have learned in professional practice.[63]

[58] Gursoy, A. "Teachers' Attitudes Toward Multicultural Education According to Some Variables: Native or Foreign." *Romanian Journal of Applied Psychology*, 7:2. http://www.rjeap.ro/files/vol7no2/05_vol_7_i_2.pdf

[59] [1] "Diversity Toolkit: Cultural Competence for Educators." National Education Association. http://www.nea.org/tools/30402.htm [2] "Promoting Educators' Cultural Competence To Better Serve Culturally Diverse Students," Op. cit.

[60] Nuri-Robins, K. et al. "Cultural Proficiency: Tools for School Leaders." Corwin, 2005. https://www.aesa.us/about/Resources/CulturalProficiencyforLeaders.pdf

[61] Farr, B.P. et al. "Study of Availability and Effectiveness of Cultural Competency Training for Teachers in California." WestEd, September 2005. pp. 88–92. https://www.ctc.ca.gov/docs/default-source/commission/reports/cctc-ccs.pdf

[62] Spanierman, L.B. et al. "The Multicultural Teaching Competency Scale: Development and Initial Validation." *Urban Education*, 46:3, 2011. Retrieved from SAGE Journals.

[63] [1] Guskey, T.R. "Does It Make a Difference? Evaluating Professional Development." *Educational Leadership*, 2002. http://www.ascd.org/publications/educational-leadership/mar02/vol59/num06/Does-It-Make-a-Difference%C2%A2-Evaluating-Professional-Development.aspx [2] "How to Assess the Effectiveness of Your Training Using the Kirkpatrick Model." eLeap. https://www.eleapsoftware.com/files/wp/Kirkpatrick-eLeaP-Assess-Training.pdf [3] Haslam, Op. cit., p. 16.

Figure 2.6: Measurement Methods for Evaluating Professional Development

METHOD	OUTCOME AREA				
	PARTICIPANT FEEDBACK	PARTICIPANT LEARNING	ORGANIZATIONAL CONTEXT	APPLICATION OF LEARNING	STUDENT OUTCOMES
Surveys/questionnaires	✓		✓	✓	✓
Interviews or focus groups	✓		✓	✓	✓
Competency tests (e.g., knowledge/skill tests, demonstrations, simulations, or analysis of participant portfolios)		✓			
Participant self-evaluation (including written or oral reflections)		✓		✓	
Analysis of school/program records related to PD implementation (e.g., meeting minutes, participant logs, spending records)			✓		
Observations				✓	
Student evaluations of teachers/staff				✓	
Analysis of school/student records related to student outcomes (e.g., student work, grades, test scores, behavioral outcomes, etc.)					✓

Source: *Phi Delta Kappan*[64]

Districts should use direct rather than self-report measures to evaluate teachers' implicit biases. Self-report measures of biases are unreliable and influenced by social desirability effects in that respondents answer in perceived socially acceptable ways. Instead, districts should directly assess teachers' practices using assessments, observations, or student evaluations of teachers.[65] The following subsection discusses these evaluation methods.

EVALUATION INSTRUMENTS AND OBSERVATIONS

Most research studies on the impact of implicit bias training strategies use pre-post designs and the Implicit Association Test (IAT). That is, participants complete the IAT before and after the bias intervention to gauge how the intervention affected their scores on the IAT and, thus, their implicit biases.[66] The IAT measures implicit biases by evaluating "the strength of associations between concepts (e.g., black people, gay people) and evaluations (e.g., good, bad) or stereotypes (e.g., athletic, clumsy)."[67] The IAT asks, for example, respondents to sort concept (e.g., fat, thin) and evaluation words (e.g., good, bad). The IAT score "is based on how long it takes a person, on average, to sort the words." For example, "one has an implicit preference for thin people relative to fat people if they are faster to categorize words when Thin People and Good share a response key and Fat People and Bad share a response key,

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[64] Figure contents were adapted from Guskey, Op. cit.
[65] Staats, "State of the Science: Implicit Bias Review," Op. cit., pp. 17–18.
[66] See for examples: [1] "Strategies to Assess Unconscious Bias." University of California, San Francisco. https://diversity.ucsf.edu/resources/strategies-assess-unconscious-bias [2] Lai et al., Op. cit. [3] Rudman, Ashmore, and Gary, Op. cit. [4] Devine et al., Op. cit. [5] Sweetman, J. "Evaluation of Train the Trainers Unconscious Bias Training (Phase II)." Equity Challenge Unit, October 2017. p. 9. https://ore.exeter.ac.uk/repository/bitstream/handle/10871/30369/2017%20Equality%20Challenge%20Unit.pdf?sequence=1 [6] Staats, "State of the Science: Implicit Bias Review," Op. cit., pp. 18–19.
[67] "About the IAT." Project Implicit. https://implicit.harvard.edu/implicit/iatdetails.html

relative to the reverse."[68] The IAT is freely available to take. Districts could consider borrowing this technique to evaluate the impact their implicit bias trainings have on teachers' biases. However, this method would not allow districts to ascertain how teachers' practices are affected by the implicit bias training.

To measure teachers' practices, districts may be able to adapt methods for measuring the impact of equity or cultural competency training more broadly. For example, a 2011 conference presentation at the Culturally Responsive Teaching Awards Celebration, a project supported by the Southern Poverty Law Center, recommends incorporating standards for cultural responsiveness into the teacher evaluation system.[69] The authors suggest including the specific standards shown in Figure 2.7 into evaluation instruments. These standards focus on student and family engagement, along with culturally responsive student grouping and selection of diverse learning resources.

Figure 2.7: Teacher Evaluation Standards for Cultural Responsiveness

STANDARD	DESCRIPTION
Promoting and Learning from Family and Community Engagement	Culturally responsive teachers learn from families through home and community visits to incorporate knowledge of families and cultures into their instruction.
Developing Caring Relationships with Students	Culturally responsive teachers combine high expectations with a caring and respectful rapport with students that recognizes students' cultural identities.
Engaging and Motivating Students	Culturally responsive teachers differentiate motivational strategies to account for students' family experiences and language backgrounds, and link assignments to students' cultural backgrounds.
Assessing Student Performance	Culturally responsive teachers assess students using multiple measures that account for variation in background knowledge, self-confidence, and language proficiency while holding all students to the same expectations.
Grouping Students for Instruction	Culturally responsive teachers use flexible, heterogeneous grouping strategies that encourage diversity and participation by all students.
Selecting and Effectively Using Learning Resources	Culturally responsive teachers select learning resources that provide all students with both exposure to diverse cultures and materials relevant to their own backgrounds.

Source: Culturally Responsive Teaching Awards Celebration[70]

Some districts have adopted the types of culturally responsive standards shown above in Figure 2.7 into their teacher evaluation instruments. For example, Montgomery County Public Schools in Maryland developed a **guide to equitable practices** with 27 specific strategies designed to communicate high expectations to all students. This guide aligns with the district's teacher evaluation system and includes specific examples and non-examples of

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[68] Ibid.

[69] Hawley, W.D. and J.J. Irvine. "The Teaching Evaluation Gap: Current Assessments of Teacher Effectiveness Miss What's Needed to Eliminate the Achievement Gap." Presented at the Culturally Responsive Teaching Awards Celebration, December 9, 2011. p. 13. http://www.edweek.org/media/crt_research.pdf

[70] Figure contents were adapted from Ibid., pp. 14–15.

each strategy. [71] Arlington Public Schools uses the standardized **Classroom Assessment Scoring System (CLASS)**, which aligns with Geneva Gay's framework for cultural responsiveness.[72]

Further, several organizations have developed classroom observation rubrics or protocols to assess cultural responsiveness. For example, the Collaborative Center for Literacy Development in Kentucky developed the Culturally Responsive Instruction Observation Protocol (CRIOP) through a partnership with the Center for Culturally Relevant Pedagogy.[73] CRIOP assesses between 23 and 24 indicators of cultural responsiveness grouped into the following six components:[74]

- Classroom relationships;
- Family collaboration;
- Assessment;
- Instruction/Pedagogy;
- Discourse; and
- Socio-political consciousness.

Evaluators implement CRIOP by observing classrooms and then conducting post-observation interviews, which include questions regarding the representativeness of the instruction observed, teachers' experiences implementing culturally responsive instruction, and teachers' conversations with the families of students. [75] A 2015 program evaluation of a professional development initiative relying on CRIOP finds a significant correlation between CRIOP scores and student achievement in mathematics, although the correlation between CRIOP scores and student achievement in reading is not significant.[76]

STUDENT OUTCOMES

Beyond classroom observation rubrics and protocols, districts can examine data to determine the impact of bias training. Research finds that implicit biases impact teachers' expectations of students and perceptions of student actions, which in turn impact student achievement and disciplinary practices. As such, districts can also indirectly evaluate the degree to which teachers engage in equitable teaching and disciplinary practices by examining student achievement and outcomes data.[77]

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[71] "A Resource for Equitable Classroom Practices." Montgomery County Public Schools, 2010. pp. 3–4.
http://www.montgomeryschoolsmd.org/departments/development/resources/ecp/ECP%20-%2008-13-10.pdf

[72] "Appendix B: Observations." Arlington Public Schools. p. 4. http://www.apsva.us/wp-content/uploads/2015/05/APPENDIX-B-Soc-Stud.pdf

[73] "Culturally Responsive Instruction Observation Protocol." Collaborative Center for Literacy Development.
https://kentuckyliteracy.org/research/culturally-responsive-instruction-observation-protocol/

[74] Bullet points were taken verbatim from Cantrell, S.C. et al. "Culturally Responsive Instruction Observation Protocol (CRIOP) Professional Development: Year 3 Program Evaluation." University of Kentucky, 2015. pp. 1–2. https://kentuckyliteracy.org/wp-content/uploads/2018/03/2014-15_CRIOP_Evaluation_Report-Final.pdf

[75] Ibid., p. 7.

[76] Ibid., p. 27.

[77] Staats, "Understanding Implicit Bias," Op. cit., pp. 30–31.

For example, the New York City Department of Education (NYC DOE) will evaluate the impact of its cultural competency and implicit bias training program by monitoring metrics such as "student attendance and whether teachers report improvements in school climate."[78] The NYC DOE committed $23 million to the training program, which began in the summer of 2018 with 27 training sessions. In those sessions, the NYC DOE trained 1,000 staff members from 13 school districts.[79] The NYC DOE will continue the training program, which will be mandatory, for the next two years.[80]

Additionally, Seattle Public Schools in Washington monitors a variety of metrics to determine if it is meeting its goals in terms of closing opportunity gaps. These metrics include "standardized tests, graduation rates, discipline/suspension rates and school climate survey results."[81] The district has racial equity teams that are responsible for leading initiatives designed to reduce opportunity gaps for historically underserved students. The school-level teams have a variety of responsibilities related to creating equitable education environments. One of their tasks is to "[build] the capacity of the principal, teachers, staff and students to transform their school's policies and practices through examining implicit bias throughout the school system."[82]

Figure 2.8 on the following page provides an overview of student outcomes that are relevant to equity. For all outcomes, the district can segment results by gender, race/ethnicity, special education status, English Learner status, free/reduced price lunch status, and other student characteristics to identify and track disparities between groups.

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[78] Veiga, C. "Carranza Aims to Speed up Anti-Bias Training for Educators, Calling It a 'cornerstone' of School Improvement." Chalkbeat, August 15, 2018. https://chalkbeat.org/posts/ny/2018/08/15/carranza-aims-to-speed-up-anti-bias-training-for-educators-calling-it-a-cornerstone-to-school-improvement/

[79] Conrad, Op. cit.

[80] Veiga, Op. cit.

[81] "Racial Equity Teams." Seattle Public Schools, March 9, 2018. https://www.seattleschools.org/district/calendars/news/what_s_new/eliminating_opportunity_gaps/racial_equity_teams

[82] Ibid.

Figure 2.8: Examples of Student Outcomes Relevant to Equity and Cultural Competence

ACADEMIC OUTCOMES	▪ Gaps in student achievement (e.g., scores on state or district standardized tests) ▪ Student participation in advanced courses (e.g., gifted/talented programs, Advanced Placement, International Baccalaureate, dual enrollment, etc.) ▪ Completion of college entrance requirements or career-ready coursework and work-based learning ▪ SAT and ACT participation rates ▪ Dropout rates and five-year and six-year graduation rates
BEHAVIORAL AND OTHER OUTCOMES	▪ Discipline rates (especially exclusionary discipline) ▪ Chronic absenteeism ▪ Participation in extracurricular activities

Source: Learning Policy Institute,[83] U.S. Department of Education,[84] and Voices for Racial Justice[85]

[83] Cardichon, J. and L. Darling-Hammond. "Advancing Educational Equity for Underserved Youth - How New State Accountability Systems Can Support School Inclusion and Student Success." Learning Policy Institute, February 2017. https://learningpolicyinstitute.org/sites/default/files/product-files/Advancing_Educational_Equity_Underserved_Youth_REPORT.pdf

[84] "Civil Rights Data Collection." Office for Civil Rights, U.S. Department of Education. http://ocrdata.ed.gov/DistrictSchoolSearch

[85] "Equity Measures." Voices for Racial Justice. http://voicesforracialjustice.org/wp-content/uploads/2014/10/Equity-Measures.pdf

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