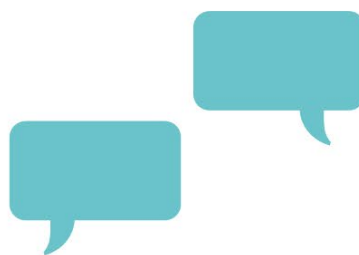


Retaining young people facing  
disadvantage in the workplace:  
an evidence review

Scientific summary

May 2022



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# Retaining young people facing disadvantage in the workplace: an evidence review

## 1. Background

Youth Futures Foundation is an independent, not-for-profit organisation dedicated to improving employment outcomes for young people from marginalised backgrounds. Youth Futures' mission is to narrow employment gaps by investing in evidence generation and identifying effective interventions to improve employment outcomes for these young people. For this reason, Youth Futures approached the Center for Evidence-Based Management (CEBMA) to undertake a review of the scientific research literature regarding the impact of practices to retain and include young people from marginalised backgrounds in the workplace. This review presents an overview of the findings.

## 2. What is a Rapid Evidence Assessment (REA)?

Evidence reviews come in many forms. One of the best-known is the conventional literature review, which provides an overview of the relevant scientific literature published on a topic. However, a conventional literature review's trustworthiness is often low: clear criteria for inclusion are sometimes lacking and studies may be selected based on the researcher's individual preferences.

As a result, conventional literature reviews are prone to severe bias. For this reason, 'rapid evidence assessments' (REAs) are used. An REA is a specific research methodology that aims to identify the most relevant studies on a specific topic as comprehensively as possible, and to select appropriate studies based on explicit criteria. In addition, the methodological quality of the studies included is assessed by independent reviewers using explicit criteria. In contrast to a conventional literature review, an REA is transparent, verifiable and reproducible, and, as a result, the likelihood of bias is considerably smaller.

## 3. Main question: What does the review answer?

What is known in the scientific literature about the impact of practices to retain and include young people from marginalised backgrounds?

Other issues raised, which will form the basis of our conclusion regarding the main question above, are:

1. What is meant by a marginalised background?
2. What is known about the antecedents of turnover of young people from marginalised backgrounds?

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3. What is known about the effectiveness of practices to retain young people from marginalised backgrounds?
4. What is known about the antecedents of an inclusive organisational climate?
5. What is known about the effectiveness of practises to include young people from marginalised backgrounds?

### **4. Search strategy: How was the evidence sought?**

Three databases were used to identify studies. The studies identified were peer-reviewed academic journals published between 1980-2021, with a focus on 2000-2021 for primary studies.

An overview of all search terms, databases and queries is provided in Appendix I.

### **5. Selection process: How were publications and papers selected?**

Selection of the scientific publications and papers took place in three phases.

First, titles and abstracts of the 1,500+ scientific publications and the 575 papers identified were screened for relevance. In case of doubt or lack of information, the publication/paper was included. This first phase yielded 516 (retention) + 615 (inclusion) scientific publications and 51 papers.

Second, the publications/papers were screened for relevance based on the full text. This second phase yielded 105 (retention) + 101 (inclusion) scientific publications and 25 papers.

Third, the 206 scientific publications were selected using these inclusion criteria:

1. Type of studies: Focusing on empirical studies.
2. Measurement: Only studies in which the attributes of successful practices to decrease turnover or to increase inclusion are quantitatively measured

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In addition, the following exclusion criteria were applied:

1. Studies that included people with an active disorder (e.g., alcoholism, drug abuse, mental health disorders)
2. Studies that include people with a mental, intellectual, or learning disability
3. Studies in non-Western countries
4. Studies on outcomes other than retainment or inclusion, such as health status, mental wellbeing, etc.

This second phase yielded a total number of 53 (retention) + 42 (inclusion) scientific publications and 25 papers. An overview of the selection process is provided in Appendix II.

### **6. Data extraction: What data was extracted?**

From each study, information relevant to the review question, such as year of publication, research design, sample size, population (e.g., industry, type of employees), type of practice, possible moderators or mediators, main findings, and effect sizes, were extracted. An overview of all data extracted is provided in Appendix III (scientific publications) and Appendix IV (papers).

### **7. Critical appraisal: How was the quality of the included studies judged?**

#### **Methodological Appropriateness**

The classification system described by Shadish, Cook and Campbell (2002) and Petticrew and Roberts (2006) was used to determine the methodological appropriateness of the research design of the studies included. Any discrepancies were resolved through discussion or by consulting a third party where necessary. The following levels of appropriateness were used for the classification, where an 'A' indicates a high level of appropriateness, and a 'D' indicates a low level of appropriateness:

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PURPOSE	EXAMPLE	STUDY DESIGN				
		RCT	CBA	C / BA	CROSS	QUAL
<b>EFFECT, IMPACT</b>	Does A have an effect/impact on B? What are the critical success factors for A? What are the factors that affect B?	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	na
<b>ASSOCIATION</b>	Is A related to B? Does A often occur with B? Do A and B co-vary?	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	na
<b>FREQUENCY</b>	How often does A occur? How many people prefer A?	na	na	na	<b>A</b>	na
<b>DIFFERENCE</b>	Is there a difference between A and B?	na	na	<b>A</b>	<b>A</b>	na
<b>ATTITUDE, OPINION</b>	What is people's attitude toward A? Are people satisfied with A? Do people agree with A?	na	na	na	<b>A</b>	<b>C</b>
<b>EXPERIENCE, PERCEPTIONS, FEELINGS, NEEDS</b>	What are people's experiences with A? What are people's feelings about A? What are people's perceptions about A?	na	na	na	<b>B</b>	<b>A</b>
<b>EXPLORATION, THEORY BUILDING</b>	Why does A occur? Why is A different from B? In what context does A occur?	na	na	na	<b>B</b>	<b>A</b>

RCT = Randomised controlled trial; CBA = Non-randomised controlled before-after study; C = Controlled study; BA = Before-after study; Cross = cross-sectional study; Qual = Qualitative study; na = not appropriate

### Methodological Quality

To determine methodological quality, all the studies included were systematically assessed based on explicit quality criteria, such as the PRISMA (Moher, Liberati, Tetzlaff, & Altman, 2009) and CONSORT statement (Moher, Schulz, & Altman, 2001), the CASP checklists (Critical Appraisal Skills Programme, n.d.), the checklists of the EPPI-Centre (Newman & Elbourne, 2005), and the critical appraisal criteria developed by the Center for Evidence-Based Management. Based on a tally of the number of weaknesses, the trustworthiness was downgraded. The final quality level was determined as follows: downgrade one level if two weaknesses were identified, downgrade two levels if four weaknesses were identified, etc.

### Effect Sizes

To determine the magnitude of an effect, Cohen's (1988) rule of thumb was applied. According to Cohen (1988) a 'small' effect is one that is only visible through careful examination. A 'medium' effect, however, is one that is 'visible to the naked eye of the careful observer'. Finally, a 'large' effect is an effect that anyone can easily see because it is substantial.

### Outcome of the appraisal: What is the quality of the studies included?

The overall quality of the included scientific publications was moderate to high. Of the 47 (retention) + 32 (inclusion) empirical studies included, 24 studies were graded level A, indicating a high level of evidence quality. The outcome of the critical appraisal of each academic study included is reported in Appendix III.

## 8. Main Findings

### Question 1: What is meant by 'disadvantaged' and 'marginalised' youth?

Based on the screening of the included empirical studies and policy papers, we made the following observations:

#### Observation 1

There is no generally agreed upon definition of the term 'marginalised' or 'disadvantaged youth'. When analysing census data or population segments in databases, various groups may be considered 'disadvantaged' or 'marginalised', such as Black, Asian, under-educated or physically disabled people. In fact, many authors of the studies included in this review consider being female or just being young to be a disadvantage.

As a result, the studies and papers cover a wide range of populations that all have their specific characteristics and needs (for example, young first-time mothers living in a disadvantaged community versus young men with a chronic health condition).

This heterogeneity makes it impossible to draw general conclusions regarding the attributes of effective recruitment and selection practices, as the effect is contingent on the characteristics and needs of the population studied.

#### Observation 2

Notwithstanding the observation made above, two broad categories can be distinguished that should be taken into consideration when considering practices aimed at retaining and including young people from marginalised backgrounds in the workplace:

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<b>EDUCATED &amp; SKILLED</b>	Young people who are sufficiently educated and who possess good skills but who have a disadvantage in the labour market due to their age, race, colour, gender, sexual orientation, disability, etc.
<b>UNDER-EDUCATED AND UN-SKILLED</b>	Young people with lower levels of educational attainment and lack (social and/or professional) skills due to a wide range of factors, such as poverty, drug abuse, mental health problems, social issues, discrimination, etc.

### Question 2: What is known about the antecedents of turnover of young people from marginalised backgrounds?

#### Finding 1: The scientific evidence on the antecedents of turnover of disadvantaged young people is largely absent

This review did not identify studies that focussed on the antecedents of turnover of disadvantaged young people. For this reason, we expanded the review to include studies on antecedents of turnover in general. An overview of the most relevant findings is provided below.

#### Finding 2: The evidence on whether young people are more likely to quit their job is inconclusive (Level A)

Past meta-analyses have consistently demonstrated that age does not substantially moderate voluntary turnover (e.g., Cheng, 2008; Costanza, 2012; Griffeth, 2000; Kostal, 2017; Ng, 2009). However, a recent meta-analysis found a small correlation of  $-.21$  between age and voluntary turnover, suggesting that younger workers may be (somewhat) more likely to quit (Rubenstein, 2018). Some scholars argue that, in general, young unexperienced employees may hold higher - perhaps even unrealistic - expectations than do experienced older workers regarding what they want from their employers, which in turn could affect their rates of voluntary turnover (see e.g., Rubenstein, 2018). However, it should be noted that in most studies no direct comparison between different age cohorts was made, and in some studies the cut-off between 'young' and 'older' employees was rather arbitrary (e.g.,  $< 40y$  and  $> 40y$ , Cheng, 2008; Mazzetti, 2021).

#### Finding 3: The evidence that people from an ethnic minority are more likely to quit their job is weak (Level A)

Although it is sometimes assumed that ethnic minority employees are more likely to quit, past meta-analyses have found no substantial relationships between ethnicity/race and voluntary turnover (e.g., Griffeth, 2000; Rubenstein, 2018). Some authors suggest that a possible explanation for this finding is that turnover also depends on market conditions of available jobs,



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which are typically unfavourable to members of minority groups, and as such may be a barrier for quitting (Mor Barak, 2016).

### **Finding 4: Ethnic minority employees quit their job for reasons that are different to non-minority employees (Level D)**

#### **Finding 4a: Ethnic minority employees are more likely to resign from their job due to negative social interactions (Level D)**

#### **Finding 4b: Ethnic minority employees tend to resign from their job more often because of a lack of perceived career opportunities (Level D)**

Although the evidence that ethnic minority employees are more likely to quit their job is weak, there is evidence that they may quit their job for reasons that differ from non-minority employees. For example, several cross-sectional studies found that employees with a non-western<sup>1</sup> cultural/ethnic background more often leave the organisation due to negative social interactions with colleagues and supervisors (Hofhuis, 2014; McKay, 2007). In addition, it was found that ethnic minority employees tend to resign more often due to lack of perceived career opportunities (Hofhuis, 2014).

### **Finding 5: There is strong evidence that assessment and selection procedures for promotion may be negatively biased against minority employees, which may affect their decision to leave the organisation (Level A)**

Numerous studies consistently demonstrate that assessment and selection procedures, including those for promotion, tend to be negatively biased toward groups of employees based on their ethnicity, gender, age, social background, sexual orientation, disability, etc. (e.g., Dean, 2008; Huffcutt, 1998; Martocchio, 1992; Roth, 2008; Whetzel, 2008). In addition, many of the included policy papers state that disadvantaged young people face (unconscious) bias and negative perceptions from employers when considered for promotion (e.g., Cooper, 2013; Haque, 2020; Hasluck, 2007; Morris, 2015).

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<sup>1</sup> <https://worldpopulationreview.com/country-rankings/western-countries>

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### Finding 6: In general, there is a wide range of antecedents of voluntary turnover, but only a limited number have substantial impact (Level A)

In the past six decades, a large volume of empirical studies on the antecedents (predictors) of turnover have been published. As a result, many antecedents are identified. For example, a recent meta-analysis examined 57 predictors across 1,800 effect sizes (Rubenstein, 2018). This large number highlights the many perspectives from which researchers have studied voluntary turnover but also raises questions regarding which antecedents have the greatest impact. For this reason, this review identified the most impactful (i.e., practically relevant) antecedents. An overview of the 15 most impactful antecedents is provided below.

The antecedents listed report only correlations with actual (objective) turnover (not turnover intention, that is, the subjective, self-reported probability that a person will leave the organisation). Several meta-analyses have demonstrated that the correlation between the two is not that strong (in the 0.3 range), suggesting that turnover intention cannot be considered a surrogate for actual turnover, but merely an indicator (Heavy, 2013; Hom, 1992; Tett, 1994).

ANTECEDENT	MEAN CORRELATION WEIGHTED BY SAMPLE SIZE	NO. OF STUDIES	LEVEL	SOURCE
1. OTHER SATISFACTION <sup>1</sup>	-.43	16	A	Rubenstein, 2018
2. COPING <sup>2</sup>	-.39	7	A	Rubenstein, 2018
3. OTHER COMMITMENT <sup>3</sup>	-.34	12	A	Rubenstein, 2018
4. JOB SECURITY	-.32	133	AA	Cheng, 2008
5. ORGANISATIONAL COMMITMENT	-.30	129	A	Rubenstein, 2018
6. SOCIAL INTEGRATION <sup>4</sup>	-.30	38	C	Guillaume, 2011
7. PERSON-JOB FIT <sup>5</sup>	-.29 / -.26	17 / 11	A / B	Rubenstein, 2018 Hoffman, 2006
8. SKILL ENHANCING HR PRACTICES <sup>6</sup>	-.29	61	C	Jiang, 2012
9. REWARDS OFFERED (BEYOND PAY) <sup>7</sup>	-.28	25	A	Rubenstein, 2018
10. JOB SATISFACTION	-.28	174	A	Rubenstein, 2018
11. JOB EMBEDDEDNESS <sup>8</sup>	-.26	29	A	Rubenstein, 2018
12. INTERNAL MOBILITY	-.25	82	C	Heavey, 2013
13. CLIMATE <sup>9</sup>	-.24	8	A	Rubenstein, 2018

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<b>14. LEADERSHIP</b>	-0.24	42	A	Rubenstein, 2018
<b>15. OPPORTUNITY ENHANCING HR PRACTICES <sup>10</sup></b>	-0.22	61	C	Jiang, 2012

1. Degree to which an individual likes other aspects relevant to employment, such as his or her career.
2. An individual's abilities to manage internal and external demands that are perceived as exceeding available resources.
3. Degree to which an individual experiences loyalty to targets other than the organisation, such as his or her occupation or career.
4. High quality of social relations within a team or group
5. Compatibility between an individual and a work environment that occurs when their characteristics are well matched.
6. HR practices designed to ensure appropriately skilled employees; they include comprehensive recruitment, rigorous selection, and extensive training.
7. Rewards provided to employees beyond pay. Includes benefits, career/growth opportunities, and training time.
8. An individual's "stuckness" within a larger social system as a function of external forces within the organisation (on-the-job) and the community (off-the-job). Encompasses links (connections to other people and activities), and fit (environment compatible with the individual's values and needs).
9. The shared experiences, perceptions, and behavioural tendencies among a group of employees.
10. HR practices designed to empower employees to use their skills and motivation to achieve organisational objectives. Practices such as flexible job design, work teams, employee involvement, and information sharing are generally used to offer these opportunities.

Finally, it should be noted that the antecedents listed above are derived from studies that did not control for demographic variables such as ethnicity, gender, age, social background, sexual orientation, disability, etc. It is therefore unclear whether other antecedents listed in Appendix III (e.g., perceived organisational support, work meaningfulness, role clarity, social acceptance) may show higher correlations within minority groups and/or young employees from a disadvantaged background.

### Question 3: What is known about the antecedents of inclusion of young people from marginalised backgrounds?

#### Finding 1: The scientific evidence on the antecedents of inclusion of disadvantaged young people is largely absent

Several policy papers, guidelines and other grey literature documents included in this review emphasise the relevance of an inclusive climate when enhancing the organisation's attractiveness for and retention of minority groups (e.g., Beyzak, 2020; Fillary, 2005; Gacillo, 2018; Gould, 2020; Wright, 2006). In the scientific literature, inclusion refers to '*... the individual's sense of being part of the organizational system in both the formal processes, such as access to information and decision-making channels, and the informal processes, such as 'water cooler' and lunch meetings where information and decisions informally take place.*' (Mor Barak, 2011, p166). A 'climate' for inclusion refers to employees' shared perceptions of the organisation's policies, practices and procedures that lead to the acceptance of all employees.

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Unfortunately, this review did not identify studies that focussed on the antecedents of inclusion of disadvantaged young people. In addition, studies on diversity and inclusion in general show findings that may be relevant to the inclusion of disadvantaged young people. An overview of the most relevant findings is provided below.

**Finding 2: Workforce diversity is associated with both beneficial and detrimental organisational outcomes (Level C).**

**Finding 3: Detrimental outcomes of workforce diversity are mitigated by diversity management efforts that promote a climate of inclusion (Level C)**

In the scientific literature, 'workforce diversity' refers to differences among employees. These differences can be categorised into two main domains: surface-level diversity characteristics and deep-level diversity characteristics (Casper, 2013; Harrison, 1998). Surface-level diversity characteristics refer to an individual's personal attributes that are observable (e.g., gender, race, ethnicity, age), whereas deep-level diversity characteristics refer to attributes that are less immediately visible to others (e.g., level of education, social background, sexual orientation). Management practitioners and scholars alike have long considered workforce diversity to have a positive impact on a wide range of organisational outcomes such as organisational commitment, job satisfaction, and employee retention. However, empirical studies have found mixed results or even detrimental outcomes such as a lack of retention, decreased performance, task conflicts, miscommunication and decreased social integration (Holmes, 2021; Hwang, 2012; McKay, 2015; Mor Barak, 2015; Pardasani, 2013; Shore, 2011; Stahl, 2010). This finding was confirmed by a recent meta-analysis of 30 studies demonstrating that workforce diversity is associated with both beneficial and detrimental effects on organisational outcomes such as turnover, absenteeism, intention to leave, job stress, and mental health (Mor Barak, 2016).

Diversity management efforts, however, are consistently associated with positive organisational outcomes while concurrently reducing negative consequences. Diversity management involves policies, programs and (HR) practices to enhance the recruitment, inclusion, recognition, promotion, and retention of employees who are different from the majority of an organisation's workforce. Many studies have shown that such policies and practices have a moderate to large positive effect on an organisation's climate of inclusion and, consequently, employees' inclusive behaviour (Ashikali, 2015; Homes, 2021; Mor Barak, 2016; Bilmoria, 2008; Brimhall, 2014; Boehm, 2014; Jansen, 2015; Li, 2019; Sessler, 2013).

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These findings suggest that it is important to develop organisational policies and practices that move beyond simply promoting workforce diversity (such as the recruitment and selection of disadvantaged young people) and actively manage how diversity translates into an inclusive climate.

### **Finding 4: Diversity management practices perceived as driven by a concern for employees is associated with lower turnover among minority employees (Level A)**

A recent cross-sectional study in the UK found that when minority employees perceive that diversity management practices are driven not by a concern for employees but by a compliance-focus (i.e., legal reasons and “political correctness”), turnover increases (Otave, 2019). Conversely, it was found that minority employees in organisations whose diversity management practices focus on leveraging diversity to achieve business-related outcomes (e.g., competitiveness) are more likely to have increased career satisfaction and reduced turnover intentions.

### **Finding 5: Diversity training has a moderate, positive effect on employees' attitudes, cognitions, and inclusive behaviours (Level A)**

A recent meta-analysis based on 260 controlled studies indicates that diversity training elicits strong positive emotional responses and has a positive effect on employees' attitudes, cognitions, and behaviours. (Bezrukova, 2016). However, several meta-analyses have demonstrated that the effect of diversity training is moderated by contextual factors (e.g., organisational vs educational setting, voluntary vs mandatory attendance, stand-alone vs part of a broader institutionalised effort), design (e.g., duration, opportunities to practice, instructional methods), and trainer/trainee characteristics. An overview of all effects and moderating factors is provided in Appendix V.

### **Finding 6: Gender representativeness is strongly associated with perceptions of inclusion, whereas ethnic representativeness is weakly associated (Level D).**

Representativeness refers to how close the gender and minority ethnic composition of the workforce in an organisation is at parity with the country's (or region's) working-age population. A large cross-sectional study from the UK indicates that a balanced gender representativeness positively affects perceptions of workplace inclusion (Andrews, 2015). This suggests that efforts to improve the recruitment of female staff has a positive impact on employees' perception of the organisation's inclusive

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climate. Ethnic group representativeness, however, has only a weak impact on perceptions of inclusion.

### **Finding 7: Employees' perceptions of inclusion are affected by leadership style (Level D)**

A large cross-sectional study from The Netherlands indicates that employee perceptions of inclusion are strongly affected by manager leadership styles. Specifically, the more a manager displays a transformational<sup>2</sup> style of leadership, the more employees experience an inclusive organisational climate (Ashikali, 2015). In addition, a cross-sectional study found that leadership perceived by employees as authentic is strongly associated with perceptions of inclusion (Cottrill, 2014). Smaller associations were found for trust in leader and supervisory support (Goswami, 2018).

### **Finding 8: Leader-member exchange and leader engagement predict perceived inclusive climate (Level C)**

Two recent longitudinal studies indicate that favourable perceptions of leader-member exchange (LMX) and leaders who engage employees in decision making are strongly associated with increased feelings of inclusion (Brimhall, 2017; Brimhall, 2019). LMX theory states that managers often have a special relationship with an inner circle of trusted employees, to whom they tend to give higher levels of responsibility, decision influence and access to resources. The research indicates that these employees are more likely to perceive the organisation as inclusive. The same counts for employees whose managers encourage them to give their unique perspective and to participate in decision making.

### **Finding 9: Disadvantaged young people may benefit from joining peer support network groups (Level n.a.)**

Although a recent cross-sectional study did not find a direct effect on turnover intentions (Friedman, 2020), several of the included non-academic (policy) papers emphasise the relevance of mentoring and personal advice networks, including developing peer support networks (e.g., Haslock, 2007, Learning and Work Institute, 2016; Morris, 2015). Such support networks, in the US referred to as 'affinity groups', are based on connecting employees sharing a common characteristic, trait, or interest. Today affinity groups go beyond race as the common tie to include communities of employees who share ethnicity, gender, sexual

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<sup>2</sup> A transformational leadership style is based on the creation of a shared vision employees are encouraged and empowered to pursue. Leaders who favor this style focus on the organisation's higher-order goals and engage followers to pursue their own personal higher-order needs.

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orientation, or other aspects. The focus of these affinity groups often falls into one of two categories: emotional and instrumental (Lambertz, 2017). The emotional focus of an affinity group allows for an expressive outlet on topics regarded as sensitive (Michael, 2012). Instrumental affinity groups move beyond emotional support and focus on the actions needed to accomplish specific goals (Van Aken, 1994).

### 9. Conclusion

This review did not find any studies focussed on the antecedents of turnover among disadvantaged young people. Fortunately, the scientific evidence on the antecedents of turnover in general is vast and many of its insights are relevant and applicable to the population of disadvantaged young people. When it comes to the prevalence of turnover among young people or employees from a minority background, the evidence suggests that they are not necessarily more likely to quit their jobs than majority group workers. However, evidence suggests they may leave the organisation for reasons that differ from non-minority employees. In addition, in the past decades several antecedents of voluntary turnover are identified that provide a good starting point for evidence-based HR interventions to increase the retention of disadvantaged young people.

When it comes to the antecedents of inclusion, again, scientific studies focussed on disadvantaged young people are largely absent. But here too, studies on diversity and inclusion in general provide insights relevant to the inclusion of disadvantaged young people. Importantly, diversity management practices aimed at the inclusion, recognition, and retention of employees different from the majority of an organisation's workforce are likely to have a similar positive impact on the inclusion and retention of disadvantaged young people.

### 10. Limitations

This REA aims to provide a balanced assessment of what is known in the scientific literature about the impact of practices to enhance the retention and inclusion of young people from marginalised backgrounds by using the systematic review method to search and critically appraise empirical studies. However, to be 'rapid', concessions were made in relation to the breadth and depth of the search process, such as the use of a limited number of databases and a focus on empirical research published in the period 2000 to 2022. In consequence, some relevant studies may have been missed.



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A second limitation concerns the critical appraisal of the studies included, which did not incorporate a comprehensive review of the psychometric properties of their tests, scales, and questionnaires.

Given these limitations, care must be taken not to present the findings presented in this REA as conclusive.



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### Appendices

#### Appendix I

#### Search terms & hits: Academic research publications

ABI/Inform Global, Business Source Elite, PsycINFO peer reviewed, scholarly journals, December 2021			
Search terms	ABI	BSE	PSY
S1: TI(retention) OR AB(retention) OR TI(turnover) OR AB(turnover) OR TI(retain*) OR AB(retain*) OR TI("career progress*") OR AB("career progress*") OR TI("career develop*") OR AB("career develop*") OR TI("professional develop*") OR AB("professional develop*") OR TI("vocational develop*") OR AB("vocational develop*")	46,437	50,944	64,935
S2: TI(work*) OR TI(organi?ation*) OR AB(workplace) OR AB(worker*) OR AB(organi?ation*) OR AB(employe*)	467,868	540,690	403,525
S3: S1 AND S2, limit > 2000 filter meta-analyses	<b>165</b>	<b>141</b>	<b>109</b>
S4: TI(disadvantage*) OR TI(margin*) OR TI(minorit*) OR TI(ethnic*) OR TI(migrant*) OR TI(poor) OR TI("low income") OR TI(black) OR TI("low educat*") OR TI(disabilities)	32,863	35,343	53,385
S5: S1 AND S2 AND S4, limit > 2000 filter quantitative studies	<b>163</b>	<b>135</b>	<b>138</b>

ABI/Inform Global, Business Source Elite, PsycINFO peer reviewed, scholarly journals, Dec 2021			
Search terms	ABI	BSP	PSY
S1: AB(inclusi*) AND AB(ivers*)	2,268	2,450	4,529
S2: AB("social inclusion")	849	923	1,796
S3: TI(inclusi*)	3,906	4,567	6,520
S4: AB(work*) OR AB(employe*)	447,302	574,535	618,176
S5: S3 AND S4	910	1076	1,634
S6: S1 OR S2 OR S5 AND filter MAs or SRs > 1980	<b>98</b>	<b>75</b>	<b>330</b>
S7: TI(disadvantage*) OR TI(margin*) OR TI(minorit*) OR TI(ethnic*) OR TI(migrant*) OR TI(poor) OR TI("low income") OR TI(black) OR TI("low educat*") OR TI(disabilities)	32,963	35,485	90,587

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S8: TI(train*) OR TI(climate) OR TI(culture) OR TI(organization*) OR TI(behavior*) OR TI(enhance*) OR TI(increase*) OR TI(foster*) OR TI(work*) OR TI(employe*) OR TI(strateg*) OR TI(team*)	878,136	611,373	571,049
S9: S3 AND S7 AND S8, limit > 2000 filter quantitative studies	92	79	55

### Search terms & hits Grey literature & policy papers December 2021

Database	Search terms	No. of hits
Social Policy and Practice	<p>1 employer*.mp. [mp=abstract, title, publication type, heading word, accession number] (5820)</p> <p>2 limit 1 to yr="2000 -Current" (4104)</p> <p>3 (retain* or retention or inclus*).mp. [mp=abstract, title, publication type, heading word, accession number] (15995)</p> <p>4 limit 3 to yr="2000 -Current" (14641)</p> <p>5 (adolescen* or teenage* or youth or young).mp. [mp=abstract, title, publication type, heading word, accession number] (55075)</p> <p>6 limit 5 to yr="2000 -Current" (45061)</p> <p>7 (ethnic* or margin* or discrimin* or disadvantage* or depriv* or poor or disab* or handicap* or poverty or afro* or migran* or immigrant* or minorit* or refugee*).mp. [mp=abstract, title, publication type, heading word, accession number] (89070)</p> <p>8 limit 7 to yr="2000 -Current" (64323)</p> <p>9 2 and 4 and 6 and 8 (25)</p> <p>10 2 and 4 and 8 (241)</p> <p>11 (covid or health or cancer* or clinic* or old* or elderly or geriatric).mp. [mp=abstract, title, publication type, heading word, accession number] (179795)</p> <p>12 limit 11 to yr="2000 -Current" (116352)</p> <p>13 10 not 12 (130)</p>	130
Social Policy and Practice, (revised search)	<p>1 (employer* and (retain* or retention or progress or develop*)).mp. [mp=abstract, title, publication type, heading word, accession number] (2055)</p> <p>2 limit 1 to yr="2000 -Current" (1595)</p> <p>3 (adolescen* or teenage* or youth or young).mp. [mp=abstract, title, publication type, heading word, accession number] (55075)</p> <p>4 limit 3 to yr="2000 -Current" (45061)</p> <p>5 (ethnic* or margin* or discrimin* or disadvantage* or depriv* or poor or disab* or handicap* or poverty or afro* or migran* or immigrant* or minorit* or refugee*).mp.</p>	30



## Retaining young people facing disadvantage in the workplace: an evidence review

Database	Search terms	No. of hits
	[mp=abstract, title, publication type, heading word, accession number] (89070) 6 limit 5 to yr="2000 -Current" (64323) 7 2 and 4 and 6 (62)	
Econlit	(employer* AND (retain* OR progress OR develop*)) AND (adolescen* OR teenage* OR youth OR young) AND (ethnic* or margin* or discrimin* or disadvantage* or depriv* or poor or disab* or handicap* or poverty or afro* or migran* or immigrant* or minorit* or refugee* or traveller* or mental* or gay or lesbian or trans*) AND rtype.exact("Dissertation" OR "Working Paper" OR "Book") AND pd(2000-2021)	32
Scopus	(employer* AND (retain* OR progress OR develop*)) AND (adolescen* OR teenage* OR youth OR young) AND (ethnic* or margin* or discrimin* or disadvantage* or depriv* or poor or disab* or handicap* or poverty or afro* or migran* or immigrant* or minorit* or refugee* or traveller* or mental* or gay or lesbian or trans*) AND rtype.exact("Dissertation" OR "Working Paper" OR "Book") AND pd(2000-2021)	76
Social Service Abstracts	(employer* AND (retain* OR progress OR develop*)) AND (adolescen* OR teenage* OR youth OR young) AND (ethnic* or margin* or discrimin* or disadvantage* or depriv* or poor or disab* or handicap* or poverty or afro* or migran* or immigrant* or minorit* or refugee* or traveller* or mental* or gay or lesbian or trans*) AND rtype.exact("Dissertation" OR "Working Paper" OR "Book") AND pd(2000-2021)	16
Web of Science	(employer* AND (retain* OR progress OR develop*)) AND (adolescen* OR teenage* OR youth OR young) AND (ethnic* or margin* or discrimin* or disadvantage* or depriv* or poor or disab* or handicap* or poverty or afro* or migran* or immigrant* or minorit* or refugee* or traveller* or mental* or gay or lesbian or trans*) AND rtype.exact("Dissertation" OR "Working Paper" OR "Book") AND pd(2000-2021)	242
International Bibliography of the Social Sciences	(employer* AND (retain* OR progress OR develop*)) AND (adolescen* OR teenage* OR youth OR young) AND (ethnic* or margin* or discrimin* or disadvantage* or depriv* or poor or disab* or handicap* or poverty or afro* or migran* or immigrant* or minorit* or refugee* or traveller* or mental* or gay or lesbian or trans*) AND rtype.exact("Dissertation" OR "Working Paper" OR "Book") AND pd(2000-2021)	29
British Library Catalogue	(retain or retention or inclusion) and employ*	6



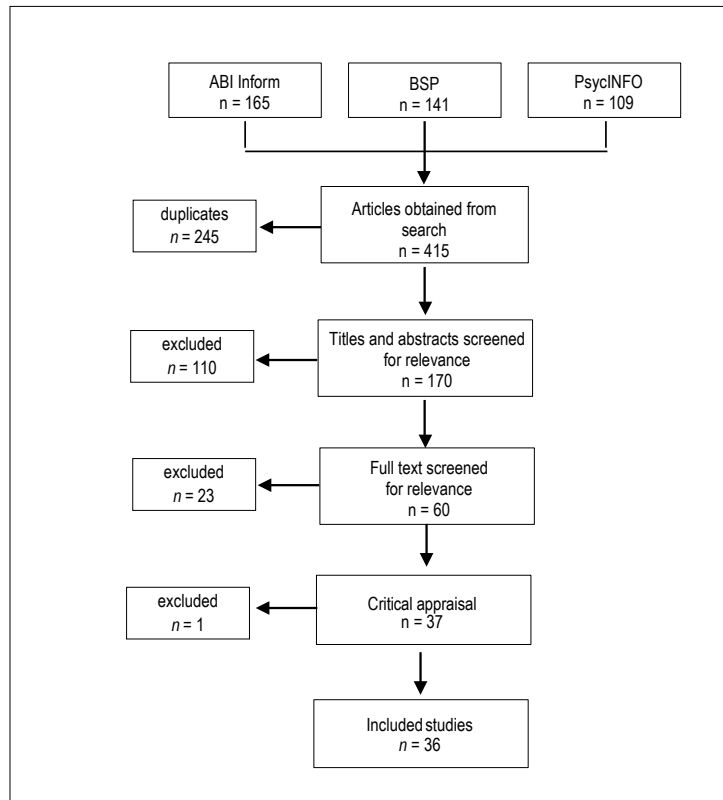
## Retaining young people facing disadvantage in the workplace: an evidence review

Database	Search terms	No. of hits
Google	(retain or retention or inclusion) and employ*	14
	<b>TOTAL HITS</b>	<b>575</b>

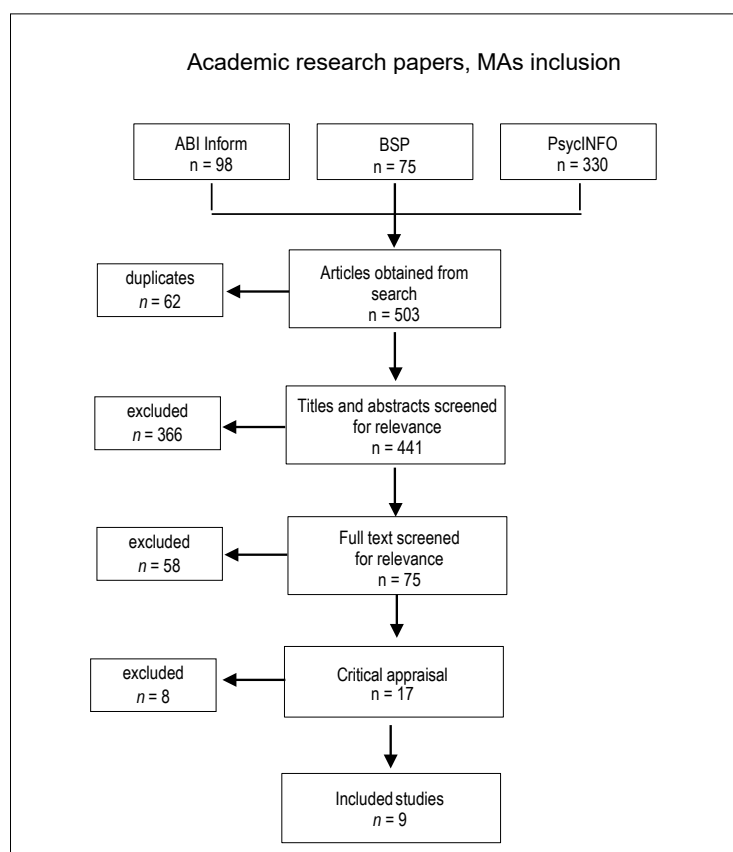
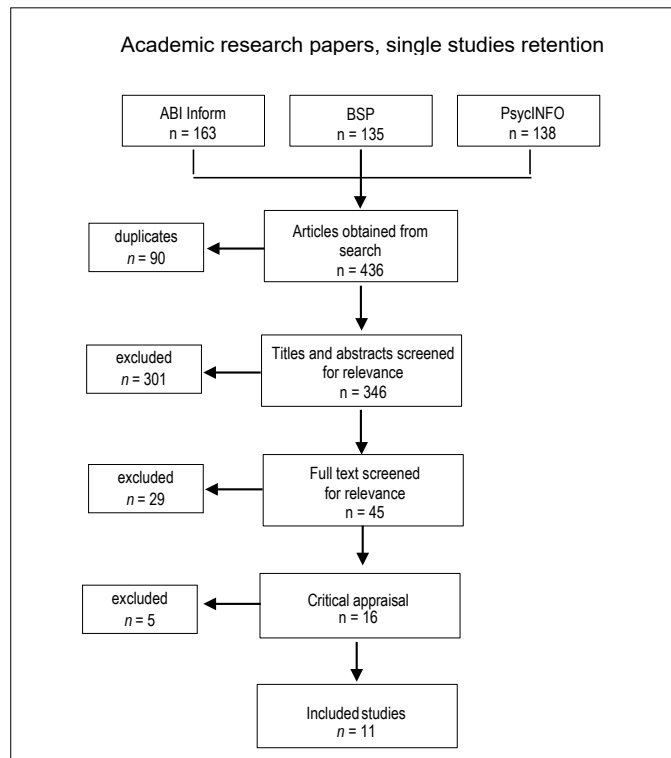
# Retaining young people facing disadvantage in the workplace: an evidence review

## Appendix II

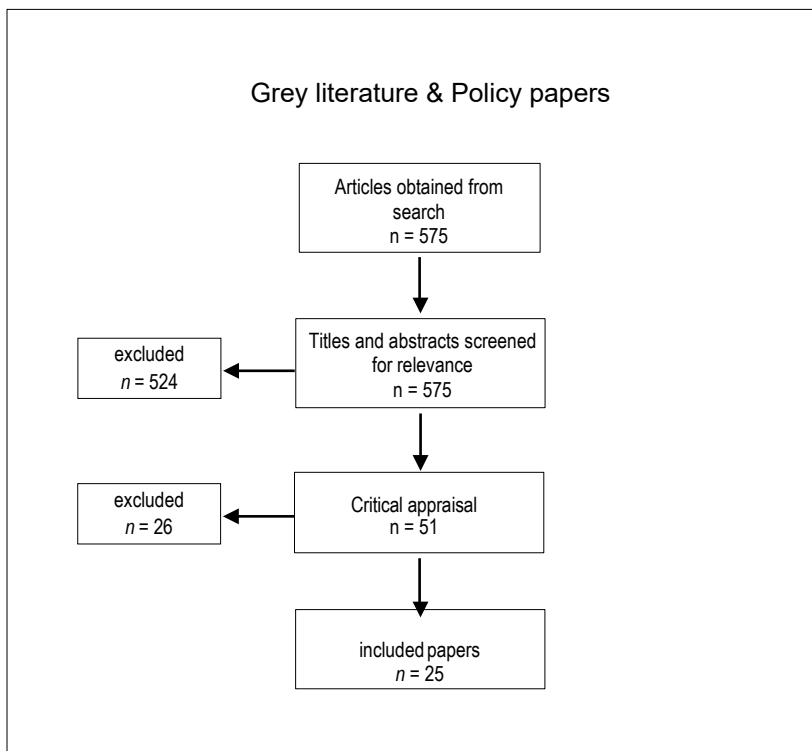
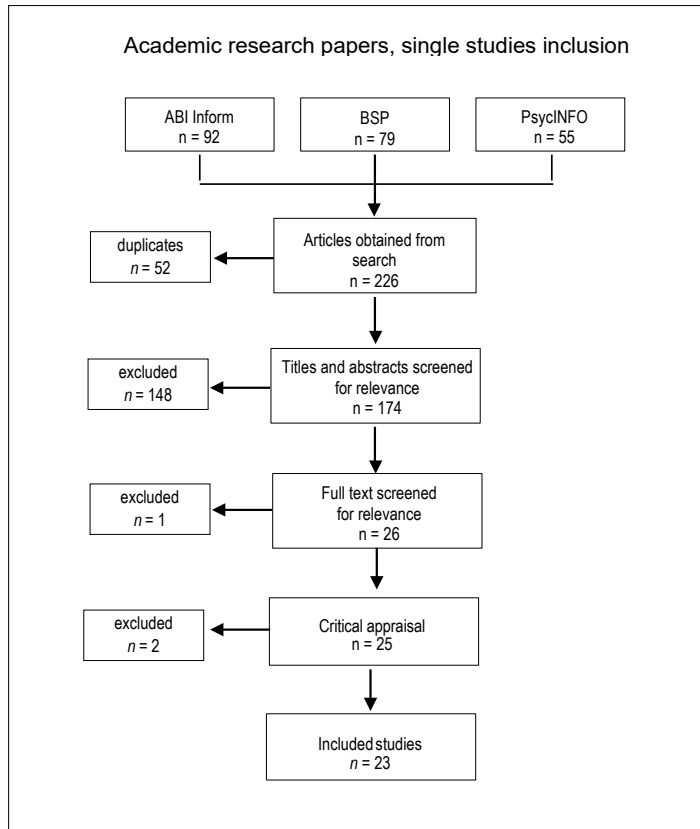
### Study selection



## Retaining young people facing disadvantage in the workplace: an evidence review



# Retaining young people facing disadvantage in the workplace: an evidence review



## Appendix III

### Data extraction forms

#### A. Employee retention - meta-analyses

1st Author & year	Design + sample size	Sector / Population	Main findings	Effect sizes (*calculated by reviewer)	Limitations	Level
1. Ahmed, 2015	Meta-analysis of 44 cross-sectional studies	Employees from organizations of diversified nature, including educational sector, government org., manufacturing, service org., financial org., and diversified org.	1. Perceived organizational support (POS) was negatively related to turnover intentions	1: $r = -.45$ ; 95%CI [-0.46; 0.44]*  *CI was not reported by the authors (our calculations; 95% CI)	no serious limitation  (The study did not control for age, gender, etc.)	C (eff)
2. Bagdadli, 2019	systematic review of 128 cross-sectional and longitudinal studies	mixed	1. The most widely used Organizational Career Management (OCM) practices are training, international assignments, developmental assignments, assessment & development centers, performance appraisal, mentoring, and networking  2. The most widely used OCM success measures are salary increase, hierarchical position and promotion  3. Most of the studies (57%) found a positive relationship between OCM practices and OCM success, but approximately one-third (34%) found no statistically significant relationship. Only three studies (2.3%) showed a negative relationship, while the results were mixed in eight studies (e.g., curvilinear relationship or different results for different samples).	not reported (only percentages are provided)	no serious limitations  (The study did not control for age, gender, etc.)	B (eff)

3. Bauer, 2007	meta-analysis of 70 cross-sectional and longitudinal studies	mixed	<p>1. Successful newcomer adjustment* increases a) intentions to remain and b) decreases turnover.</p> <p>2. Organizational socialization tactics** enhance newcomer adjustment</p> <p>*Newcomer adjustment = 1. Role clarity/resolution of role demands: Understanding the tasks to perform for the job and understanding task priorities and time allocation; 2. Self-efficacy/task mastery: Learning the tasks of the new job and gaining confidence in the role; 3. Social acceptance/adjustment to group: Coming to feel liked and trusted by peers.</p> <p>**Org soc tactics = 1. Content tactics: Clear stages exist for training, and there is a clear timetable for role adjustment; 2. Context tactics: Learning task requirements as part of a group and having formal training before starting the actual job; 3. Social tactics: Receiving positive feedback and identity affirmation from organizational insiders and having a trusted insider to guide them within the organization.</p>	<p>1a. Intention to Remain Role clarity: <math>r = .23</math> Self efficacy: <math>r = .15</math> Social acceptance: <math>r = .24</math> Job satisfaction: <math>r = .63</math></p> <p>1b. Turnover Role clarity: <math>r = -.11</math> Self efficacy: <math>r = -.16</math> Social acceptance: <math>r = -.16</math> Job satisfaction: <math>r = -.10</math></p> <p>2a. direct effect Intention to remain: <math>r = .34</math> Turnover: <math>r = -.14</math></p> <p>2b. indirect effect through: Role clarity: <math>r = .27</math> Self efficacy: <math>r = .42</math> Social acceptance: <math>r = .19</math> Job satisfaction: <math>r = .43</math></p>	<p>no serious limitations</p> <p>(The study did not control for age, gender, etc.)</p>	AA (ante)
4. Bedi, 2013	Meta-analysis of 34 cross-sectional studies	Unclear	<p>1: Perception of organizational politics (POP*) was positively associated with turnover intentions.</p> <p>* An individual's subjective appraisal of the extent to which the work environment is characterised as self-serving of various individuals and groups, to the detriment or at the cost of other individuals or groups</p>	<p>1: <math>\rho = .50</math>; 95%CI [0.52; 0.57]</p>	<p>no serious limitations</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)

5. Bowling, 2015	Meta-analysis of 16 studies	Unclear	1: Perceived workload was positively related with turnover intentions	1: $\rho = .16$ ; 95%CI [0.08; 0.19]	design of the included studies unclear  (The study did not control for age, gender, etc.)	C
6. Chang, 2009	Meta-analysis 27 (A) and 23 (B) studies	Unclear	<p>1: Perceptions of organizational politics (POP) had a positive relationship with turnover intentions (H3).</p> <p>The association was studied in two samples: employed students (A) and employees (B). However, the sample type did not moderate the magnitude of the association between POP and turnover intentions.</p> <p>2: The relationship between perceptions of organizational politics and turnover intentions was mediated by a) psychological strain (H5a) and b) morale (H5b).</p> <p>3: Role ambiguity had a direct link with turnover intentions.</p> <p>4: Role conflict had a direct link with turnover intentions.</p> <p>5: Relationship of turnover intentions with other possible antecedents:  a) Strain  b) Job satisfaction  c) Affective commitment  d) Task performance</p>	<p>1: <math>\rho = .43</math>; 95%CI [0.32; 0.40]  (A) <math>\rho = .47</math>; 95%CI [0.33; 0.44]  (B) <math>\rho = .43</math>; 95%CI [0.31; 0.40]</p> <p>2:  a) <math>\beta = -.02</math>  b) <math>\beta = -.70</math></p> <p>3: <math>\beta = .10</math></p> <p>4: <math>\beta = .16</math></p> <p>5:  a) <math>r = .31</math>; 95%CI [0.30; 0.32]*  b) <math>r = -.58</math>; 95%CI [-0.59; -0.57]*  c) <math>r = -.58</math>; 95%CI [-0.59; -0.57]*  d) <math>r = -.16</math>; 95%CI [-0.18; -0.14]*  e) <math>r = -.21</math>; 95%CI [-0.26; -0.16]*</p>	<p>Design of the included studies not reported</p> <p>Study A employed student samples</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)_

			e) OCB – individual f) OCB – organization	f) $r = -.22$ ; 95%CI [-0.27; -0.17]*  *CI was not reported by the authors (our calculations; 95% CI)		
7. Cheng, 2008	meta-analysis of 133 cross-sectional and longitudinal studies	mixed	1. Job insecurity is positively related to turnover intention  2. The relationship is (somewhat) moderated by age  3. Gender did not moderate the relationship	1. $r = .32$  2. $< 40y: r = .36$ $> 40y: r = .26$	no serious limitations	AA (ante)
8. Costanza, 2012	Meta-analysis of 20 studies	mixed	1. Moderate to small relationships between generations (Traditionals, Baby Boomers, Generation Xers, and Millennial) in work-related outcomes (job satisfaction, organizational commitment, intent to stay/quit) were found. In many cases relationships were essentially zero.  2. Thus, given the absence of systematic, substantial differences across generations, targeted interventions addressing generational differences may not be effective.	1. Older generations were somewhat less likely to leave their jobs ( $d = .05$ to $-.63$ ) than younger generations. However, removal of studies with large sample size lowered the estimates of all d's	Design of the included studies not reported  Outcomes of intention to quit is based only on 7 studies	A (diff)
9. Earnest, 2011	Meta-analysis  Overall turnover: $k = 48$ $N = 17,230$  Voluntary turnover:	Unclear	F1: Use of realistic job previews (RJPs) was related to lower voluntary turnover (a) and decreased overall turnover (b).  F2: Other actionable variables: Met expectation (a), perceptions of organizational honesty (b), attractiveness (c) and role clarity (d) were related to lower voluntary turnover.  F3: Moderator effect on the relationship between RJP and turnover were found for the following	F1: a) $r = -.07$ ; 95%CI [-0.10; -0.04] b) $r = -.04$ ; 95%CI [-0.05; -0.02]  F2: a) $r = -.15$ ; 95%CI [-0.20; -0.10]*	Design of the included studies not reported  The analysis of moderation effect is limited to a comparison of the $r$ values in different sub-samples.	C (eff)



	<p>k = 15 N = 4,924</p>		<p>variables (however, the differences were rather small):</p> <p>(a) experience: entry level (a.1), manager (a.2)</p> <p>(b) education: high school (b.1), college (b.2)</p> <p>(c) job industry: white collar (c.1), blue collar (c.2), military (c.3), education (c.4), healthcare (c.5)</p> <p>(d) exposure: less than 1h (d.1), more than 1h (d.2)</p> <p>(e) medium: oral (e.1), written (e.2), video (e.3), other (e.4), combined (e.5)</p> <p>(f) timing: prehire (f.1), posthire (f.2)</p>	<p>b) <math>r = -.38</math>; 95%CI [-0.45; -0.30]*</p> <p>c) <math>r = -.14</math>; 95%CI [-0.18; -0.10]*</p> <p>d) <math>r = -.11</math>; 95%CI [-0.22; 0.001]*</p> <p>F3: OVERALL TURNOVER</p> <p>a.1) <math>r = -.04</math>; 95%CI [-0.05; -0.01]</p> <p>a.2) <math>r = -.16</math>; 95%CI [-0.35; 0.03]</p> <p>b.1) <math>r = -.03</math>; 95%CI [-0.06; -0.01]</p> <p>b.2) <math>r = -.04</math>; 95%CI [-0.09; 0.01]</p> <p>c.1) <math>r = -.04</math>; 95%CI [-0.07; -0.02]</p> <p>c.2) <math>r = -.15</math>; 95%CI [-0.24; -0.07]</p> <p>c.3) <math>r = -.02</math>; 95%CI [-0.05; 0.01]</p> <p>c.4) <math>r = .04</math>; 95%CI [-0.21; 0.30]</p> <p>c.5) <math>r = -.19</math>; 95%CI [-0.44; 0.06]</p> <p>d.1) <math>r = -.03</math>; 95%CI [-0.07; 0.01]</p> <p>d.2) <math>r = -.04</math>; 95%CI [-0.08; 0.01]</p>		
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				<p>e.1) <math>r = -.15</math>; 95%CI [-0.27; -0.04]</p> <p>e.2) <math>r = -.05</math>; 95%CI [-0.07; -0.02]</p> <p>e.3) <math>r = .04</math>; 95%CI [-0.06; -0.01]</p> <p>e.4) <math>r = -.02</math>; 95%CI [-0.08; 0.05]</p> <p>e.5) <math>r = .05</math>; 95%CI [-0.10; 0.20]</p> <p>f.1) <math>r = -.02</math>; 95%CI [-0.04; -0.01]</p> <p>f.2) <math>r = -.08</math>; 95%CI [-0.12; -0.04]</p> <p>VOUNTARY TURNOVER</p> <p>b.1) <math>r = -.07</math>; 95%CI [-0.39; 0.24]</p> <p>b.2) <math>r = -.11</math>; 95%CI [-0.19; -0.04]</p> <p>c.1) <math>r = -.06</math>; 95%CI [-0.10; -0.01]</p> <p>c.2) <math>r = -.02</math>; 95%CI [-0.23; 0.16]</p> <p>c.3) <math>r = -.08</math>; 95%CI [-0.18; 0.02]</p> <p>d.1) <math>r = -.02</math>; 95%CI [-0.11; 0.08]</p> <p>d.2) <math>r = -.06</math>; 95%CI [-0.20; 0.03]</p> <p>e.2) <math>r = -.09</math>; 95%CI [-0.14; -0.03]</p> <p>e.3) <math>r = -.09</math>; 95%CI [-0.24; -0.06]</p>	
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				<p>e.4) <math>r = -.05</math>; 95%CI [-0.82; 0.71]</p> <p>e.5) <math>r = .04</math>; 95%CI [-0.43; 0.51]</p> <p>f.1) <math>r = -.06</math>; 95%CI [-0.09; -0.02]</p> <p>f.2) <math>r = -.10</math>; 95%CI [-0.18; -0.02]</p> <p>*CI was not reported by the authors (our calculations; 95% CI)</p>		
10. Griffeth, 2000	<p>Meta-analysis of cross-sectional studies</p> <p>Total k/N unclear</p>	Unclear	<p>F1: The authors meta-analyzed several predictors of turnover. These are the predictors (actionable or "human capital" variables), which relationship with turnover was significant:</p> <p>a) Supervisory satisfaction</p> <p>b) Co-worker satisfaction</p> <p>c) Role clarity</p> <p>d) Role overload</p> <p>e) Role conflict</p> <p>f) Overall stress</p> <p>g) Participation</p> <p>h) Alternative job opportunities</p> <p>i) Comparison of alternatives with present job</p> <p>j) Lateness</p> <p>k) Absenteeism</p> <p>l) Organizational commitment</p> <p>m) (Job) search intentions</p> <p>n) General job search scales</p>	<p>F1:</p> <p>a) <math>\rho = -.10</math>; 95%CI [-0.17; -0.04]</p> <p>b) <math>\rho = -.11</math>; 95%CI [-0.20; -0.01]</p> <p>c) <math>\rho = -.21</math>; 95%CI [-0.21; -0.21]</p> <p>d) <math>\rho = .10</math>; 95%CI [0.10; 0.10]</p> <p>e) <math>\rho = .20</math>; 95%CI [0.20; 0.20]</p> <p>f) <math>\rho = .14</math>; 95%CI [0.14; 0.14]</p> <p>g) <math>\rho = -.11</math>; 95%CI [-0.20; -0.02]</p> <p>h) <math>\rho = .12</math>; 95%CI [0.05; 0.22]</p> <p>i) <math>\rho = .15</math>; 95%CI [0.04; 0.25]</p> <p>j) <math>\rho = .06</math>; 95%CI [0.06; 0.06]</p> <p>k) <math>\rho = .20</math>; 95%CI [-0.17; -0.08]</p>	no serious limitations	<p>C (eff)</p> <p>AA (diff)</p>

		<p>o) Job search behaviors  p) Job search methods  r) Thinking of quitting  s) Withdrawal cognitions  t) Expected utility of withdrawal</p> <p><b>Subgroup analysis</b></p> <p>F2: Gender composition (a) and proportion of executives (b) represented in the samples moderated age-turnover correlations (higher concentrations of men and executives attenuated the negative age-turnover relationship).</p> <p>F3: Employee age moderated the tenure-turnover correlation (this inverse relationship is less negative in older populations).</p> <p>F4: Deviation of the turnover base rate from 50% moderated the pay-turnover relationship. That is, increasing quit rates (approaching 50%) decrease the (negative) pay-turnover correlation (but significant subgroup differences were not found).</p> <p>F5: Turnover lag influenced the performance-quit relationship (a long-time lag between when performance and turnover are measured weakened the inverse performance-quit relationship).</p> <p>F6: Performance-contingent rewards influenced the performance-quit relationship (a); the performance-turnover correlation is negative (b) when reward contingencies exist, but positive (c) when contingencies are absent.</p>	<p>l) <math>\rho = -.23</math>; 95%CI [-0.07; -0.39]  m) <math>\rho = .29</math>; 95%CI [0.13; 0.45]  n) <math>\rho = .23</math>; 95%CI [0.12; 0.34]  o) <math>\rho = .28</math>; 95%CI [0.16; 0.40]  p) <math>\rho = .47</math>; 95%CI [0.47; 0.47]  r) <math>\rho = .24</math>; 95%CI [0.19; 0.30]  s) <math>\rho = .32</math>; 95%CI [0.31; 0.33]  t) <math>\rho = .22</math>; 95%CI [0.18; 0.26]</p> <p>F2:  a) <math>r = .70</math>;  b) <math>r = .64</math>;</p> <p>F3:  <math>r = .49</math>;</p> <p>F4:  <math>r = -.51</math>;</p> <p>F5:  <math>r = .50</math>;</p> <p>F6:  a) <math>r = .75</math>;  b) <math>r = -.20</math>;</p>	
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			F7: Turnover lag moderated the commitment-turnover relationship. The negative commitment-turnover correlation shrank with long time lags between survey assessment of commitment and turnover data collection (but significant subgroup differences were not found).	c) $r = .07$ ;  F7: $r = -.41$ ;		
11. Guillaume, 2011	Meta-analysis of 38 studies	mixed	1. There is a negative relationship between social integration* and turnover.  *social integration = high quality of social relations within a team or group	1. $r = -.19 / -.30$ (SEM)	Design of the included studies not reported	C (eff)
12. Guzeller, 2020	Meta-analysis of 13 cross-sectional studies	Employees in the tourism and hospitality industry (excluding those at administrative level)	1: Organizational commitment had a positive relationship with turnover intentions.	1: $r = -.35$ ; 95%CI [-0.49; -0.19]	no serious limitations  (The study did not control for age, gender, etc.)	C (eff)
13. Harari, 2017	Meta-analysis of 61 studies	mixed	1. Perceived overqualification is associated with a) turnover intentions and b) job search behaviors	1a. $\rho = .37$ 1a. $\rho = .30$	Design of the included studies not reported	D (eff)
14. Heavey, 2013	Meta-analysis of 82 cross-sectional studies	Unclear	F1: HRM inducements and investments: (a) benefits, (b) dispute resolution, (c) high-commitment HR systems, (d) internal mobility, (e) participation-enhancing work design, (f) relative pay, (g) skill requirements, and (h) staffing selectivity, were negatively related to collective turnover Such relationship was not found for variable pay, proportion of full-time employees, straight pay, selection sophistication, staffing level, or training (H1 partially supported).  F2: Expectation-enhancing practices: (a) electronic monitoring, and (b) routinization, were positively related to collective turnover. Such relationship was	F1: a) $r = -.14$ ; 95%CI [-0.21; -0.08] b) $r = -.14$ ; 95%CI [-0.21; -0.06] c) $r = -.23$ ; 95%CI [-0.29; -0.16] d) $r = -.25$ ; 95%CI [-0.39; -0.10] e) $r = -.17$ ; 95%CI [-0.25; -0.09] f) $r = -.13$ ; 95%CI [-0.19; -0.07]	no serious limitations	C (eff)

		<p>not found for downsizing or managerial oversight (H2 partially supported).</p> <p>F3: Unit-level satisfaction (a) was negatively related to collective turnover; unit-level turnover intentions (b) were positively related to collective turnover. No significant relationship was found for commitment or justice (H3 partially supported).</p> <p>F4: Cohesiveness (a), supervisory relations (b), and OCBs (c) were negatively related to collective turnover; age diversity (d) was positively related to collective turnover. No significant relationship was found for climate or tenure diversity (H4 partially supported).</p> <p>F5: Alternative availability (a) was positively related to collective turnover; site quality (b), and establishment age (c) were negatively related to collective turnover. No significant relationship was found for unemployment rate, size or average employee education (H5 partially supported).</p> <p>F6: Average employee age (a), average employee tenure (b), proportion of unionized employees (c), and unionization (d) were negatively related to collective turnover; proportion female (e) was positively related to collective turnover. No significant relationship was found for experience concentration (H6 partially supported).</p> <p>F7: Firm-specific training (a) was moderately and negatively related to turnover, whereas general training (b) was unrelated to turnover (H7 partially supported).</p>	<p>g) <math>r = -.16</math>; 95%CI [-0.22; -0.09]</p> <p>h) <math>r = -.24</math>; 95%CI [-0.16; -0.31]</p> <p>F2:</p> <p>a) <math>r = .18</math>; 95%CI [0.09; 0.26]</p> <p>b) <math>r = .36</math>; 95%CI [0.12; 0.62]</p> <p>F3:</p> <p>a) <math>r = -.14</math>; 95%CI [-0.20; -0.07]</p> <p>b) <math>r = .34</math>; 95%CI [0.15; 0.50]</p> <p>F4:</p> <p>a) <math>r = -.16</math>; 95%CI [-0.29; -0.03]</p> <p>b) <math>r = -.10</math>; 95%CI [-0.17; -0.04]</p> <p>c) <math>r = -.12</math>; 95%CI [-0.19; -0.06]</p> <p>d) <math>r = .19</math>; 95%CI [0.04; 0.34]</p> <p>F5:</p> <p>a) <math>r = .16</math>; 95%CI [0.08; 0.24]</p> <p>b) <math>r = -.10</math>; 95%CI [-0.18; -0.02]</p> <p>c) <math>r = -.10</math>; 95%CI [-0.19; -0.01]</p> <p>F6:</p>	
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				<p>a) <math>r = -.26</math>; 95%CI [-0.35; -0.17]</p> <p>b) <math>r = -.25</math>; 95%CI [-0.33; -0.18]</p> <p>c) <math>r = -.21</math>; 95%CI [-0.27; -0.15]</p> <p>d) <math>r = -.13</math>; 95%CI [-0.17; -0.08]</p> <p>e) <math>r = .17</math>; 95%CI [0.08; 0.26]</p> <p>F7:</p> <p>a) <math>r = -.40</math>; 95%CI [-0.52; -0.25]</p> <p>b) <math>r = .01</math>; 95%CI [-0.15; 0.18]</p>		
15. Hoffman, 2006	Meta-analysis 11 studies	Unclear	F1: Person-organization fit was related to turnover.	<p>F1: <math>\rho = .26</math>; 90%CI [0.06; 0.45]</p>	<p>Design of the included studies not reported</p> <p>(The study did not control for age, gender, etc.)</p> <p>Wide CI</p>	B (ante)
16. Jackson, 2012	Meta-analysis 554 studies	Unclear	<p>F1: Leader contingent reward behavior has indirect effects (through justice and morale?) on employee turnover intentions (H1).</p> <p>F2: Employee morale partially mediated the effects of justice perceptions on employee turnover intentions (H3).</p> <p>F3: Relationship of turnover intentions with other possible antecedents:</p>	<p>F1 &amp; F2: Unclear</p> <p>F3: a) <math>r = -.32</math>; 95%CI [-0.39; -0.24]* b) <math>r = -.50</math>; 95%CI [-0.56; -0.43]*</p>	<p>Little information about the included studies (e.g., inclusion criteria).</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)

			<p>a) Leader contingent reward</p> <p>b) Distributive justice</p> <p>c) Procedural justice</p> <p>d) Interactional justice</p> <p>e) Affective commitment</p> <p>f) Job satisfaction</p> <p>g) Task performance</p> <p>h) OCB</p>	<p>c) <math>r = -.40</math>; 95%CI [-0.47; -0.33]*</p> <p>d) <math>r = -.24</math>; 95%CI [-0.32; -0.16]*</p> <p>e) <math>r = -.58</math>; 95%CI [-0.63; -0.52]*</p> <p>f) <math>r = -.58</math>; 95%CI [-0.63; -0.52]*</p> <p>g) <math>r = -.08</math>; 95%CI [-0.16; -0.03]*</p> <p>h) <math>r = -.23</math>; 95%CI [-0.31; -0.15]*</p> <p>*CI was not reported by the authors (our calculations; 95% CI)</p>		
17. Jiang, 2012	Meta-analysis of 61 studies	mixed	<p>1. Skill enhancing HR practices* are negatively associated with voluntary turnover</p> <p>2. Motivation enhancing HR practices** are negatively associated with voluntary turnover</p> <p>3. Opportunity enhancing HR practices*** are negatively associated with voluntary turnover</p> <p>4. The relationship between the three HR practices and voluntary turnover are mediated through a) human capital**** and b) employee motivation</p> <p>* Skill enhancing HR practices are designed to ensure</p>	<p>1. <math>\rho = -.29</math></p> <p>2. <math>\rho = -.17</math></p> <p>3. <math>\rho = -.22</math></p> <p>4a. <math>\rho = -.53</math></p> <p>4b. <math>\rho = -.56</math></p>	<p>Design of the included studies not reported</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)



			<p>appropriately skilled employees; they include comprehensive recruitment, rigorous selection, and extensive training</p> <p>**Motivation-enhancing HR practices are implemented to enhance employee motivation. Typical ones include developmental performance management, competitive compensation, incentives and rewards, extensive benefits, promotion and career development, and job security</p> <p>***Opportunity-enhancing HR practices are designed to empower employees to use their skills and motivation to achieve organizational objectives. Practices such as flexible job design, work teams, employee involvement, and information sharing are generally used to offer these opportunities</p> <p>****Human capital = the composition of employee skills, knowledge, and abilities</p>			
18. Ju, 2021	Meta-analysis of 6 cross-sectional studies	Working adults (samples from educational setting were excluded)	<p>F1: Learning organization* was negatively related to turnover intentions (RQ2C).</p> <p>*Specifically, Dimensions of Learning Organization Questionnaire (DLOQ)</p>	<p>F1:  <math>r = -.40</math>; 95%CI [-0.46; -0.33]  <math>\rho = -.47</math>; 90%CI [-0.53; -0.41]</p>	<p>Small sample</p> <p>(The study did not control for age, gender, etc.)</p>	C
19. Kostal, 2017	Meta-analysis of 56 studies	mixed	<p>1. Demographic differences in new career orientations are generally negligible to small, with organizational mobility preferences showing the largest differences across demographic characteristics.</p> <p>2. Age showed curvilinear relations with new career orientations (positive during early career (20-29), negligible during mid-career (30-39), and negative during late career (&gt; 40)).</p>	all correlations > .1	Design of the included studies not reported	AA (diff)

			<p>*Protean career orientation includes the components self-directed (feeling responsible for and in control of one's own career) and values-driven (prioritizing one's personal values when making career decisions and evaluating one's career success).</p> <p>** Boundaryless career orientation includes the components psychological mobility (preferences for variety in one's work contexts and self-confidence in one's career independent of one's employer) and physical mobility (desire to frequently move between objective employment situations, most typically by changing employers).</p>			
20. Mazzetti, 2021	Meta-analysis of 24 cross-sectional studies	Working adults (student samples excluded)	<p>F1: Work engagement (a) and its components: vigor (b), dedication (c) and absorption (d) were negatively related to turnover intentions (RQ2).</p> <p>F2: The negative relationship between work engagement and turnover intentions didn't differ between employees below (a) and above (b) 40 years of age.</p> <p>F3: The negative relationship between work engagement and turnover intentions was stronger among employees with tenure above 7Y (a), compared to employees with tenure below 7Y (b).</p> <p>F4: The negative relationship between work engagement and turnover intentions didn't differ between male-dominated (a) and female-dominated (b) samples.</p> <p>F5: The negative relationship between work engagement and turnover intentions was slightly stronger in sample where less than 50% employees</p>	<p>F1:</p> <p>a) <math>r = -.43</math>; 95%CI [-0.47; -0.40]</p> <p>b) <math>r = -.38</math>; 95%CI [-0.42; -0.33]</p> <p>c) <math>r = -.46</math>; 95%CI [-0.49; -0.42]</p> <p>d) <math>r = -.32</math>; 95%CI [-0.37; -0.29]</p> <p>F2:</p> <p>a) <math>r = -.45</math>; 95%CI [-0.51; -0.39]</p> <p>b) <math>r = -.45</math>; 95%CI [-0.50; -0.39]</p> <p>F3:</p> <p>a) <math>r = -.46</math>; 95%CI [-0.51; -0.40]</p>	no serious limitation.	C

		<p>had university degree (a), compared to samples where this percentage was higher than 50% (b).</p> <p>F6: The negative relationship between work engagement and turnover intentions was slightly stronger in collectivist cultures (a), compared to individualist cultures (b).</p> <p>F7: The negative relationship between work engagement and turnover intentions differed across sectors: private (a), state owned (b), and NGO (c).</p> <p>F8: The negative relationship between work engagement and turnover intentions differed across occupations: education (a), health (b), industry (c), and services (d).</p>	<p>b) <math>r = -.39</math>; 95%CI [-0.47; -0.31]</p> <p>F4: a) <math>r = -.43</math>; 95%CI [-0.49; -0.37] b) <math>r = -.43</math>; 95%CI [-0.48; -0.38]</p> <p>F5: a) <math>r = -.45</math>; 95%CI [-0.53; -0.36] b) <math>r = -.42</math>; 95%CI [-0.49; -0.36]</p> <p>F6: a) <math>r = -.45</math>; 95%CI [-0.52; -0.37] b) <math>r = -.43</math>; 95%CI [-0.47; -0.38]</p> <p>F7: a) <math>r = -.50</math>; 95%CI [-0.56; -0.43] b) <math>r = -.40</math>; 95%CI [-0.45; -0.35] c) <math>r = -.39</math>; 95%CI [-0.48; -0.30]</p> <p>F8:</p>	
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				<p>a) <math>r = -.35</math>; 95%CI [-0.42; -0.27]</p> <p>b) <math>r = -.48</math>; 95%CI [-0.58; -0.36]</p> <p>c) <math>r = -.52</math>; 95%CI [-0.60; -0.43]</p> <p>c) <math>r = -.46</math>; 95%CI [-0.52; -0.40]</p>		
21. McNall, 2010	<p>Meta-analysis</p> <p>k = 4</p> <p>N = 835</p>	Unclear	The relationships of work-to-family enrichment (WFE) and turnover intentions, and of family-to-work enrichment (FWE) and turnover intentions were not statistically significant (H3a y H3b not supported).	ns	<p>Design of the included studies not reported</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)
22. Meyer, 2002	<p>Meta-analysis of 8 cross-sectional studies</p>	Unclear	Turnover was negatively related to (a) affective commitment, (b) normative commitment, and (c) continuance commitment.	<p>a) <math>\rho = -.17</math>; 90%CI [-0.40; -0.06]</p> <p>b) <math>\rho = -.16</math>; 90%CI [-0.34; -0.02]</p> <p>c) <math>\rho = -.10</math>; 90%CI [-0.33; -0.13]</p>	<p>no serious limitations</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)
23. Ng, 2008	<p>Meta-analysis</p> <p>PSS:</p> <p>k = 15</p> <p>PCS:</p> <p>k = 11</p>	Unclear	Turnover intentions were negatively related to (a) perceived supervisor support (PSS), (b) perceived coworker support (PCS), (c) perceived organizational support (POS), (d) job satisfaction, and (e) affective commitment.	<p>a) <math>r = -.36</math>; 95%CI [-0.39; -0.33]</p> <p>b) <math>r = -.18</math>; 95%CI [-0.22; -0.15]</p> <p>c) <math>r = -.51</math>; 95%CI [-0.54; 0.48]*</p> <p>d) <math>r = -.52</math>; 95%CI [-0.53; 0.51]*</p> <p>e) <math>r = -.52</math>;</p>	<p>design of the studies included not reported</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)

24. Ng, 2009	meta-analysis of 49 cross-sectional and longitudinal studies	mixed	<p>1. Age is weakly related to voluntary turnover</p> <p>2. The age–turnover relationship was somewhat stronger when there were more racial minorities in the sample</p>	<p>1. <math>r = -.14</math></p> <p>2. <math>r = -.16</math></p>	no serious limitations	AA (ante)
25. Ng, 2015	<p>Meta-analysis</p> <p>Turnover intention</p> <p>OC: k = 97</p> <p>OT: k = 7</p> <p>OI: k = 34</p> <p>Turnover behavior</p> <p>OC: k = 67</p> <p>OT: k = 4</p> <p>OI: k = 6</p>	Unclear	<p>F1: (a) Organizational commitment (OC; H3a), (b) organizational trust (OT; H3b), and (c) organizational identification (OI; H3c) were negatively related to turnover intention.</p> <p>F2: Turnover intention was positively related to turnover behavior (H3d).</p> <p>F3: Relationship of turnover intentions with other possible antecedents:</p> <p>a) Perceived organizational support</p> <p>b) Psychological contract breach</p> <p>c) Job involvement</p> <p>d) Job satisfaction</p> <p>e) Task performance</p> <p>f) OCB</p> <p>F4: Relationship of turnover behavior with other possible antecedents:</p> <p>a) Perceived organizational support</p> <p>b) Job involvement</p> <p>c) Job satisfaction</p> <p>d) Task performance</p> <p>e) OCB</p> <p>f) Organizational commitment</p>	<p>F1:</p> <p>a) <math>\beta = -.45</math></p> <p>b) <math>\beta = -.12</math></p> <p>c) <math>\beta = -.08</math></p> <p>F2:</p> <p><math>\beta = .45</math></p> <p>F3:</p> <p>a) <math>r = -.51</math>; 95%CI [-0.54; -0.48]*</p> <p>b) <math>r = .42</math>; 95%CI [0.40; 0.44]*</p> <p>c) <math>r = -.31</math>; 95%CI [-0.33; -0.29]*</p> <p>d) <math>r = -.31</math>; 95%CI [-0.59; -0.57]*</p> <p>e) <math>r = -.16</math>; 95%CI [-0.18; -0.14]*</p> <p>f) <math>r = -.22</math>; 95%CI [-0.23; -0.21]*</p> <p>F4:</p> <p>a) <math>r = -.11</math>; 95%CI [-0.15; -0.07]*</p>	<p>Little information about the included studies (e.g., inclusion criteria).</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)

			<p>g) Organizational trust</p> <p>h) Organizational identification</p>	<p>b) <math>r = -.12</math>; 95%CI [-0.14; -0.10]*</p> <p>c) <math>r = -.22</math>; 95%CI [-0.23; -0.21]*</p> <p>d) <math>r = -.16</math>; 95%CI [-0.18; -0.14]*</p> <p>e) <math>r = -.22</math>; 95%CI [-0.27; -0.17]*</p> <p>f) <math>r = -.27</math>; 95%CI [-0.238 -0.26]*</p> <p>g) <math>r = -.10</math>; 95%CI [-0.12; -0.08]*</p> <p>h) <math>r = -.20</math>; 95%CI [-0.25; -0.15]*</p> <p>*CI was not reported by the authors (our calculations; 95% CI)</p>		
26. Onken-Menke, 2018	<p>Meta-analysis of cross-sectional studies</p> <p>Flexible work schedules: k = 13 N = 11,051</p> <p>Telecommuting: k = 10 N = 6,010</p>	Unclear	<p>F1: Flexible work practices (FWPs) such as (a) flexible work schedules (H5a) and (b) telecommuting (H5b) are negatively related to turnover intention (H5a). Similar effect could not have been tested (limited number of studies) for sabbaticals (H5c).</p> <p>F2: Relationship of turnover intentions with other possible antecedents: a) Perceived autonomy b) Organizational commitment</p>	<p>F1: a) <math>\rho = -.05</math>; 95%CI [-0.10; -0.01] b) <math>\rho = -.10</math>; 95%CI [-0.16; -0.04]</p> <p>F2: a) <math>r = -.15</math>; 95%CI [-0.20; -0.10]* b) <math>r = -.56</math>; 95%CI [-0.57; -0.55]*</p> <p>*CI was not reported by the authors (our calculations; 95% CI)</p>	<p>no serious limitations</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)

27. Ozkan, 2020	Meta-analysis of 101 cross-sectional studies	Samples from the US	<p>F1: Job satisfaction was negatively related to turnover intention (H1).</p> <p>F2: Organizational commitment was negatively related to turnover intention (H2).</p> <p>F3: Empowerment was negatively related to turnover intention (H3).</p> <p>F4: Type of industry was a moderator for the effect of job satisfaction on turnover intention (H5a). Similar effect could not have been tested (limited number of studies) for organizational commitment (H5b) and empowerment (H5c).</p> <p>F5: Region was a moderator for the effect of job satisfaction on turnover intention (H6a). Such effect was not found for organizational commitment (H6b not supported) and empowerment (H6c not supported).</p> <p>F6: The moderating effect of collar color for (a) job satisfaction/ (b) organizational commitment/ (c) empowerment and turnover intention was not found (H4a, H4b and H4c not supported)</p>	<p>F1: <math>r = -.55</math>; 99%CI [-0.56; -0.53]</p> <p>F2: <math>r = -.55</math>; 99%CI [-0.59; -0.50]</p> <p>F3: <math>r = -.22</math>; 99%CI [-0.36; -0.06]</p> <p>F4 &amp; F5: unclear</p>	<p>No serious limitation.</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)
28. Podsakoff, 2007	<p>Meta-analysis of cross-sectional studies</p> <p>Turnover: <math>k = 13</math></p>	Unclear	<p>F1: Hindrance stressors were positively associated with turnover intentions (H4).</p> <p>F2: Hindrance stressors were positively associated with turnover (H5).</p> <p>F3: Challenge stressors were negatively associated with turnover intentions (H10).</p>	<p>F1: <math>\beta = .53</math></p> <p>F2: <math>\beta = .25</math></p> <p>F3: <math>\beta = -.10</math></p> <p>F4: <math>\beta = -.06</math></p>	<p>no serious limitations</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)

	Turnover intentions: k = 76		F4: Challenge stressors were negatively associated with turnover (H11).			
29. Podsakoff, 2009	Meta-analysis of cross-sectional studies  Turnover: k = 12  Turnover intentions: k = 90	Unclear	F1: Organizational citizenship behaviors (OCBs) were negatively related to employee (a) turnover (H3a) and (b) turnover intentions (H3b).  This relationship was found for both, OCB directed toward other individuals (c, e) and organization (d, f).  F2: OCBs were negatively related to unit-level turnover (H8).	F1: Turnover: a) $r = -.14$ ; c) $r = -.11$ d) $r = -.18$  Turnover intentions b) $r = -.22$ ; e) $r = -.11$ ; f) $r = -.20$ ;  F2: $r = -.22$	no serious limitations  (The study did not control for age, gender, etc.)	C (eff)
30. Porter, 2019	Meta-analysis of 64 studies	Working adults	F1: Compared to instrumental degree centrality, expressive degree centrality had a stronger, relationship with turnover via job satisfaction (H2 partially supported, such relationship was not found for org commitment).  F2: Compared to expressive degree centrality, instrumental degree centrality had a stronger negative indirect relationship with turnover via job performance (H4b).  F3: After accounting for work attitudes, job alternatives, and job performance, expressive degree centrality (a) has a stronger negative relationship with turnover than instrumental degree centrality (b) (H5).	F1: $\beta = .02$  F2: $\beta = -.04$  F3: a) $r = -.48$ ; 95%CI [-0.60; -0.38] b) $r = -.17$ ; 95%CI [-0.23; 0.07]  F4:	design of the included studies unclear  Findings (esp constructs used) somewhat unclear  (The study did not control for age, gender, etc.)	C (eff)



			<p>F4: Relationship of turnover intentions with other possible antecedents:</p> <p>a) Job satisfaction</p> <p>b) Organizational commitment</p> <p>c) Job alternatives</p> <p>d) Job performance</p>	<p>a) <math>r = -.28</math>; 95%CI [-0.29; -0.27]*</p> <p>b) <math>r = -.29</math>; 95%CI [-0.30; -0.28]*</p> <p>c) <math>r = .23</math>; 95%CI [0.22; -0.24]*</p> <p>d) <math>r = -.21</math>; 95%CI [-0.22; -0.20]*</p> <p>*CI was not reported by the authors (our calculations; 95% CI)</p>		
31. Rockstuhl, 2012	<p>Meta-analysis</p> <p>Turnover int. &amp; horizontal individualism: k = 46</p> <p>Turnover int. &amp; vertical collectivism: k = 12</p>	Unclear	<p>F1: The negative association between LMX (leader-member exchange) and turnover intentions are stronger in samples from (a) horizontal-individualistic countries than they are in samples from (b) vertical-collectivistic countries (H1i).</p>	<p>F1:</p> <p>a) <math>\rho = -.40</math>; 95%CI [-0.44; -0.36]</p> <p>b) <math>\rho = -.25</math>; 95%CI [-0.35; -0.15]</p>	<p>design of the included studies not reported</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)
32. Rubenstein, 2018	Meta-analysis of 316 cross-sectional studies	Unclear	<p>F1: The authors meta-analyzed 57 predictors of turnover. These are the predictors (actionable or "human capital" variables), which relationship with turnover was significant:</p> <p>a) Age</p> <p>b) Children</p> <p>c) Ethnicity/race (white/non-white)</p> <p>d) Internal motivation</p> <p>e) Locus of control (higher=external)</p> <p>f) Marital status (0 = nonmarried, 1 = married)</p>	<p>F1:</p> <p>a) <math>\rho = -.06</math>; 95%CI [-0.24; -0.19]</p> <p>b) <math>\rho = -.20</math>; 95%CI [-0.24; -0.15]</p> <p>c) <math>\rho = .02</math>; 95%CI [0.01; 0.03]</p> <p>d) <math>\rho = -.16</math>; 95%CI [-0.24; -0.07]</p> <p>e) <math>\rho = .10</math>; 95%CI [0.02; 0.08]</p>	no serious limitations	C (eff)

			g) Tenure	f) $\rho = -.10$ ; 95%CI [-0.13; -0.06]	
			h) Instrumental communication		
			i) Job characteristics (VISAF)	g) $\rho = -.20$ ; 95%CI [-0.21; -0.18]	
			j) Job security	h) $\rho = -.14$ ; 95%CI [-0.17; -0.10]	
			k) Participation		
			l) Pay	i) $\rho = -.18$ ; 95%CI [-0.23; -0.11]	
			m) Role ambiguity		
			n) Role conflict	j) $\rho = -.18$ ; 95%CI [-0.30; -0.16]	
			o) Routinization		
			p) Workload	k) $\rho = -.13$ ; 95%CI [-0.17; -0.08]	
			r) Job involvement	l) $\rho = -.17$ ; 95%CI [-0.19; -0.15]	
			s) Job satisfaction		
			t) Organizational commitment	m) $\rho = .15$ ; 95%CI [0.07; 0.23]	
			u) Other commitment	n) $\rho = .15$ ; 95%CI [0.10; 0.21]	
			v) Other satisfaction	o) $\rho = -.12$ ; 95%CI [-0.20; -0.04]	
			w) Coping		
			x) Engagement	p) $\rho = -.10$ ; 95%CI [-0.13; -0.07]	
			y) Stress/exhaustion	r) $\rho = -.19$ ; 95%CI [-0.26; -0.12]	
			z) Climate (org. context)		
			aa) Organization support	s) $\rho = -.28$ ; 95%CI [-0.31; -0.26]	
			ab) Rewards offered	t) $\rho = -.29$ ; 95%CI [-0.31; -0.26]	
			ac) Fit		
			ad) Influence	u) $\rho = -.34$ ; 95%CI [-0.44; -0.24]	
			ae) Job embeddedness		
			af) Justice	v) $\rho = -.43$ ; 95%CI [-0.54; -0.32]	
			ag) Leadership		
			ah) Peer/group relations	w) $\rho = -.39$ ; 95%CI [-0.57; -0.20]	
			ai) Psychological contract breach	x) $\rho = -.20$ ; 95%CI [-0.26; -0.14]	

		<p>aj) Work-life conflict</p> <p>ak) (job) Alternatives</p> <p>al) Withdrawal cognitions</p> <p>am) Absenteeism</p> <p>an) Employee performance</p> <p>ao) Job search</p> <p>ap) Lateness</p> <p>ar) OCBs</p> <p>as) Selection process performance</p> <p>The correlation was not significant for the following variables: abilities and skills, education, sex, task complexity, centralization (org. context), organization prestige, organization size, reward contingency, met expectations.</p> <p>F2: The individual-level relationships between employee age (a), education (b), job satisfaction (c), organizational commitment (d), organizational tenure (e), sex (f) and stress/exhaustion (g) and turnover behavior were moderated by the antecedent's respective sample mean-level, such that relationships became more positive (or less negative) when employees are more dissimilar (i.e., a misfit) to others on that antecedent. Such effect was not found for: employee performance, job embeddedness, and justice (H1 partially supported).</p> <p>F3: The individual-level relationships between withdrawal cognitions and turnover behavior were moderated by sample mean-level job satisfaction and organizational commitment, such that the relationships became less positive (or more negative) when the attitudinal climate is more favorable (i.e., when mean levels are higher) Such</p>	<p>y) <math>\rho = .21</math>; 95%CI [0.17; 0.26]</p> <p>z) <math>\rho = -.24</math>; 95%CI [-0.33; -0.09]</p> <p>aa) <math>\rho = -.19</math>; 95%CI [-0.28; -0.10]</p> <p>ab) <math>\rho = -.28</math>; 95%CI [-0.35; -0.22]</p> <p>ac) <math>\rho = -.29</math>; 95%CI [-0.41; -0.17]</p> <p>ad) <math>\rho = -.09</math>; 95%CI [-0.14; -0.04]</p> <p>ae) <math>\rho = -.26</math>; 95%CI [-0.30; -0.22]</p> <p>af) <math>\rho = -.17</math>; 95%CI [-0.21; -0.13]</p> <p>ag) <math>\rho = -.24</math>; 95%CI [-0.29; -0.19]</p> <p>ah) <math>\rho = -.14</math>; 95%CI [-0.19; -0.08]</p> <p>ai) <math>\rho = .18</math>; 95%CI [0.13; 0.22]</p> <p>aj) <math>\rho = .19</math>; 95%CI [0.14; 0.24]</p> <p>ak) <math>\rho = .23</math>; 95%CI [0.19; 0.27]</p> <p>al) <math>\rho = .27</math>; 95%CI [0.52; 0.59]</p> <p>am) <math>\rho = .23</math>; 95%CI [0.16; 0.29]</p> <p>an) <math>\rho = -.08</math>; 95%CI [-0.11; -0.06]</p> <p>ao) <math>\rho = .40</math>; 95%CI [0.35; 0.46]</p> <p>ap) <math>\rho = .14</math>; 95%CI [0.07; 0.22]</p>	
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			<p>effect was not found for employee age, alternatives, commitment, tenure, pay, and sex (H2 partially supported).</p> <p>F4: The individual-level relationships between education (a), job satisfaction (b), sex/percent male (c), stress/exhaustion (d) and withdrawal cognitions (e), and turnover behavior were moderated by sample mean-level job alternatives and U.S. yearly unemployment rates, such that relationships became less positive (or more negative) when the unemployment rates were higher when data were collected and when sample mean-level job alternatives are lower. Such effect was no found for employee absenteeism, age, alternatives, performance, embeddedness, satisfaction, job search, justice, commitment, tenure, pay, (H3 partially supported).</p> <p>F5: The individual-level relationships between employee age (a), alternatives (b), performance (c), job satisfaction (d), job search (e), justice (f), commitment (g), tenure (h), pay (i), and withdrawal cognitions (j), and turnover behavior will be moderated by sample mean-level turnover base rates, withdrawal cognitions, and job search, such that relationships with turnover will become more positive (or less negative) when turnover base rates, withdrawal cognitions, and job search are higher . Such effect was no found for employee absenteeism, education, embeddedness, sex, stress/exhaustion (H4 partially supported).</p>	<p>ar) <math>\rho = -.10</math>; 95%CI [-0.12; -0.07]</p> <p>as) <math>\rho = -.11</math>; 95%CI [-0.16; -0.06]</p> <p>F2:</p> <p>a) <math>\beta = -.81</math></p> <p>b) <math>\beta = -.38</math></p> <p>c) <math>\beta = -.39</math></p> <p>d) <math>\beta = -.21</math></p> <p>e) <math>\beta = -.61</math></p> <p>f) <math>\beta = -1.13</math></p> <p>b) <math>\beta = -.57</math></p> <p>F3:</p> <p>a) <math>\beta = -.54</math></p> <p>F4:</p> <p>ALTERNATIVES</p> <p>b) <math>\beta = -.70</math></p> <p>e) <math>\beta = .45</math></p> <p>UNEMPLOYMENT RATE</p> <p>a) <math>\beta = .70</math></p> <p>c) <math>\beta = .76</math></p> <p>d) <math>\beta = -.29</math></p> <p>F4:</p> <p>MEAN TURNOVER BASE RATE</p>	
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				<p>a) <math>\beta = -.46</math>  d) <math>\beta = -.48</math></p> <p>MEAN WITHDRAWAL  COGNITIONS</p> <p>b) <math>\beta = .33</math>  c) <math>\beta = .78</math>  f) <math>\beta = -.54</math>  g) <math>\beta = -.51</math>  h) <math>\beta = .46</math>  i) <math>\beta = .71</math>  j) <math>\beta = .55</math></p> <p>MEAN JOB SEARCH  BEHAVIOR</p> <p>e) <math>\beta = .67</math></p>		
33. Seibert, 2011	Meta-analysis of 17 cross-sectional studies	Working adults	<p>F1: Psychological empowerment was positively related to turnover intentions (H4d).</p> <p>F2: Job level (a), tenure (b), and age (c) were positively related to psychological empowerment. Such relationship was not found for education and gender.</p> <p>The relationship of human capital variables (education, job level, tenure and age)/gender and turnover were not analyzed.</p>	<p>F1:  <math>r = -.36</math>; 95%CI [-0.44; -0.27]</p> <p>F2:  a) <math>r = .19</math>; 95%CI [0.03; 0.34]  b) <math>r = .11</math>; 95%CI [0.06; 0.15]  c) <math>r = .11</math>; 95%CI [0.07; 0.15]</p>	<p>No serious limitation.</p> <p>(The study did not control for age, gender, etc.)</p>	C (eff)

34. Van Iddekinge, 2011	Meta-analysis  Turnover intentions k = 22  Actual turnover k = 30	Working adults	F1: The meta-analysis confirms the criterion-related validity of vocational interest for turnover intentions (a) and actual turnover (b).	F1: a) $\rho = -.19$ ; 95%CI [-0.15; -0.24] b) $\rho = -.15$ ; 95%CI [-0.12; -0.18]	design of the included studies not reported  (The study did not control for age, gender, etc.)	C (eff)
35. Zimmerman, 2008	Meta-analysis of (nr ?) cross-sectional studies	Unclear	F1: Relationship of intent to quit with other possible antecedents: a) Job complexity b) Job performance c) Job satisfaction  F2: Relationship of turnover with other possible antecedents: a) Job complexity b) Job performance c) Job satisfaction	F1: a) $r = -.08$ ; 95%CI [-0.11; -0.05]* b) $r = -.14$ ; 95%CI [-0.17; -0.11]* c) $r = -.58$ ; 95%CI [-0.60; -0.56]*  F2: a) $r = -.14$ ; 95%CI [-0.17; -0.11]* b) $r = -.17$ ; 95%CI [-0.20; -0.14]* c) $r = -.22$ ; 95%CI [-0.25; -0.19]*  *CI was not reported by the authors (our calculations; 95% CI)	The inclusion/exclusion criteria are not clear  The main focus of the MA is the impact of personality traits (not actionable) on individuals' turnover decisions.  (The study did not control for age, gender, etc.)	C (eff)

<p>36. Zimmerman, 2009</p>	<p>Meta-analysis of 42 cross-sectional studies</p>	<p>Unclear</p>	<p>F1: Job performance had a negative relationship with intentions to quit (H1).</p> <p>Comparison of a correlation of job performance and intentions to quit in different subgroups:</p> <p>F1.1: Nationality – USA (a), non-USA (b)</p> <p>F1.2: Job type – Sales (a), nurses/health workers (b); supervisors (c); entry-level (d); professional (e); multiple job types (f)</p> <p>F2: Intentions to quit partially mediated the relationship between job performance and voluntary turnover (H2).</p> <p>F3: Job satisfaction partially mediated the relationship between job performance and intent to quit (H3).</p>	<p>F1: <math>\rho = -.15</math>; 95%CI [-0.19; -0.11]</p> <p>F1.1: a) <math>\rho = -.14</math>; 95%CI [-0.19; -0.09] b) <math>\rho = -.26</math>; 95%CI [-0.32; -0.20]</p> <p>F1.2: a) <math>\rho = -.24</math>; 95%CI [-0.32; -0.16] b) <math>\rho = -.20</math>; 95%CI [-0.33; -0.07] c) <math>\rho = -.04</math>; 95%CI [-0.12; 0.04] d) <math>\rho = -.07</math>; 95%CI [-0.20; 0.06] e) <math>\rho = -.22</math>; 95%CI [-0.29; -0.15] f) <math>\rho = -.17</math>; 95%CI [-0.26; -0.08]</p>	<p>The way of reporting the data is rather unclear (e.g., in Table 1, decimal separators are missing?)</p> <p>The study did not control for age, gender, etc.)</p>	<p>C (eff)</p>
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## Excluded studies

1st Author & year	Design	Reason for exclusion
1. Rudolph, 2017	meta-analysis	Examines the effect of career adaptability (a psychosocial resource for managing career-related tasks) on attitudinal and behavioral outcomes

## Data extraction form

### B. Employee retention - primary studies

1st Author & year	Design + sample size	Sector / Population	Main findings	Effect sizes (*calculated by reviewer)	Limitations	Level
1. Brzykcy, 2019	cross-sectional study  n = 19,770	employees working for a German federal agency equipped with a work computer	1. The negative direct effect of i-deals on turnover intentions was found to be stronger for employees with physical disabilities than for those without disabilities.  2. Age did not substantially moderate the relationship	1. $\beta = -0.41$	limited analysis of moderator variables such as age and gender	D (eff)
2. Choi, 2017	cross-sectional study  n = 252	migrant workers in the Korean restaurant industry	1. All three levels of fit, a) person-supervisor, b) person-group, and c) person-job, have an influence on work adjustment and job satisfaction, which in turn influence migrant employees' turnover intentions. However, person-group fit was the only one to have a direct effect on predicting turnover intentions.	1a and 1c: $r = ns$ 1b: $r = -.25$	limited generalizability	D (eff)



3. Chordiya, 2020	time-series/ cross-sectional study  n = 687,687	federal employees in the US	<p>1. Compared to employees without disabilities, the odds of demonstrating an intention to leave their current organization are significantly higher for employees with disabilities.</p> <p>2. While other inclusion practices (i.e. empowerment, openness, supportiveness, and cooperativeness) did not have the expected effects, only organizational fairness was found to mitigate the negative relationship between employee's disability status and turnover intentions.</p> <p>3. Gender and minority status did not affect the outcome, in addition these variables did not correlate with turnover intentions</p>	<p>1. <math>d^* = .18</math> 95% CI (.17-.19) OR = 1.14</p> <p>2. OR = .95</p> <p>3. <math>r = .02</math></p>	<p>Turnover intention was measured with a single item</p> <p>Unclear if (and how) the longitudinal aspect of the data were taken into account</p>	A (diff)
4. Friedman, 2020	cross-sectional study  n = 1,583	employees from a large US company large company with over 100,000 employees across 12 states.	<p>1. Minority employees who joined one of the company's network groups did NOT report lower turnover intentions.</p> <p>2. The impact of joining network groups on turnover intentions was moderated by employees' rank (managers benefit more than non-managerial employees), social embeddedness, mentoring, and social inclusion</p>	1. $r = .01$ (ns)	concerns only one company	A (diff)
5. Hofhuis, 2014	cross-sectional study  S1: n = 499 S2: n = 1,171	employees from the Netherlands' public service	<p>1. Minority employees tend to resign from their job more often because of a lack of perceived career opportunities.</p> <p>2. Social interactions in the workplace, specifically with a) colleagues and b) supervisor, also seem to be a motive for turnover more often among minority members.</p> <p>3. Dissatisfaction with career development predicts turnover intentions more strongly for minority employees,</p>	<p>1. <math>d = .36</math></p> <p>2a. <math>d = .25</math> 2b <math>d = .33</math></p> <p>3. not provided</p>	no serious limitations	A (diff)

			whereas dissatisfaction with work content predicts turnover intentions more strongly for majority employees.			
6. Hom, 2008	cross-sectional study  n = 475,458	employees from 20 US Fortune 500 corporations from the Attrition and Retention Consortium	<ol style="list-style-type: none"> <li>1. Women professionals and managers quit more than men.</li> <li>2. African and Hispanic Americans quit more than White Americans.</li> <li>3. Asian and Native Americans quit more than White Americans.</li> <li>4. African and Hispanic Americans quit more than Asian and Native Americans.</li> <li>5. Minority women quit most, relative to minority men and Whites of both sexes.</li> <li>6. Gender and race have multiplicative effects on voluntary terminations, such that women of color quit more than do men of color and Whites of both sexes</li> </ol>	<ol style="list-style-type: none"> <li>1. women quit at a 36% higher rate than did men</li> <li>2-4. overall, minority status increases turnover odds by 22%.</li> <li>5. compared to white men: 70% higher; compared to white women: 11% higher; compared to minority men: 40% higher</li> </ol>	data are from 2003	A
7. Jones, 2009	cross-sectional survey  n = 1,252		<ol style="list-style-type: none"> <li>1. Black and Latino respondents reported a higher level of perceived discrimination compared with White respondents. The level of perceived discrimination reported by Asian respondents did not differ significantly from that of White respondents.</li> <li>2. Black and Latino respondents were not significantly more or less likely to intend to remain than were Whites; Asians, however, were significantly less likely to report an intention to remain than were Whites.</li> </ol>	only unstandardized coefficients are provided	<p>the study concerns a telephone survey conducted by Gallup</p> <p>average age of respondents is 42 years (SD = 12)</p>	A (diff)

8. Kaye, 2011	cross-sectional survey  n = 463	HR professionals and managers working at "ADA-recalcitrant" employers	1. The principal barriers to employing workers with disabilities  are lack of awareness of disability and accommodation issues, concern over costs, and fear of legal liability	only percentages are provided	very specific sample ("ADA-recalcitrant" employers = businesses and government entities known or reputed to be reluctant to hire and accommodate workers with disabilities.)	A (freq)
9. Nouri, 2016	cross-sectional survey  n = 40,310  (collected from 1991 through 2006)	employees from a "Big-4" public accounting firm	1. The results showed that voluntary turnover was statistically significantly different between levels of ethnicity:  American Indians had the highest voluntary turnover during the period of study (23%), followed by African-Americans (21%), Asians and Hispanics (20%), and Caucasians (19%).	not reported	limited generalizability	A (diff)
10. Otake, 2019	cross-sectional study  n = 191	ethnic and minority employees selected  from a cross-section of public and private sector organizations in the UK	1. When minority employees perceive that diversity management practices (DMP) are driven not by a concern for employees but by an equality-driven compliance-focus (i.e. legal reasons and political correctness), there is an increased level of turnover intention)  2. Minority employees in organizations whose DMP focus on leveraging diversity to achieve business-related outcomes (e.g. competitiveness) are more likely to have increased career satisfaction and reduced turnover intentions	only unstandardized estimates are provided	very specific sample ("organizations generally considered leaders in diversity management")	A (diff)

11. Richard, 2019	cross-sectional study  n = 197	employees from organizations in the US	1. Supervisor-subordinate racial (gender) dissimilarity is positively related to turnover intention  2. The racial dissimilarity has a significant indirect effect on turnover intentions through mentoring quality	1. $r = .23$  2. indirect $r = .38$	no serious limitations	A (corr)
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## Excluded studies

1st Author & year	Reason for exclusion
1. Brown, 2008	Turnover, retainment or career development was not one of the outcome variables measured
2. Glastra, 2012	qualitative study
3. Habek, 2010	small sample, low response rate (15%), sample has a high risk of biased, retention effectiveness concerns perceptions
4. Poulter, 2015	very specific domain (dairy farming in New Zealand), hard to generalize
5. Rodriguez, 2020	Sample is too specific: respondents are from companies in the border region of South Texas, the majority self-identified as Hispanic.

## Data extraction form

### C. Inclusion - MAs and SRs

Author & year	Design & sample size	Sector / Population	Main findings	Effect sizes	Limitations	Level
1. Alhejji et al. 2015	<p><b>Design:</b> Systematic review</p> <p><b>Sample</b> k = 61 cross-sectional surveys</p>	<p>Public or private, manufacturing or service, profit or not, SME, MNC</p> <p>Mainly in USA and Canada</p>	<p>Findings mainly within the learning perspective: (self-report) enhanced employees' knowledge and awareness of diversity issues (k = 36); (self-report) enhanced diversity skills and behaviours on diversity issues (k = 9); (self-report) changes in attitudes towards diversity (k = 5). Few studies on business case perspective.</p> <p>Two studies reported organizational performance impacts. One study found increased sales, customer satisfaction, and productivity gains as measured with archival data on employees' annual survey and branch performance data. Very few studies on social justice perspective, reportedly improved relationships, enhanced tolerance towards minorities, and improved confidence to work with diverse groups.</p>	not reported	<p>Small sample sizes</p> <p>Poor use of diversity-training measures</p> <p>Self-report</p> <p>Little longitudinal investigations</p>	C
2. Barak, 2016	<p><b>Design:</b> meta-analysis, design of included studies not reported</p> <p><b>Sample</b> k = 30</p>	<p>Mixed, mainly from social service settings</p>	<p>1. Workforce diversity is associated with both beneficial and detrimental organizational outcomes</p> <p>2. Diversity management efforts that promote a climate of inclusion are consistently associated with positive outcomes</p> <p>3. Findings suggest that increasing diversity alone will not suffice as a human resource management strategy – It is important to develop organizational policies and practices that move beyond simply promoting diversity representation to creating policies that actively and effectively manage diversity and engender an inclusive work climate</p>	2. $r = .42$ (95%CI = .29, .54)	<p>No critical appraisal of studies included</p> <p>The effect of 2 includes an outlier, without the outlier the ES is .26</p>	C

<p>3. Bezrukova 2016</p>	<p><b>Design:</b> meta-analysis of k = 260 experimental, quasi, and non-experimental studies</p> <p><b>Sample:</b> N= 29,407 subjects</p>	<p>Adult population 89% in the USA 80% from educational settings</p>	<p><u>Main effect</u> Diversity training has an overall mean effect of <math>g = .38</math> on training outcomes.</p> <p><u>Training outcomes</u> 1. Diversity training has a larger effect on participants' reactions (<math>g = .61</math>) than on their cognitive learning (<math>g = .57</math>), behavioral learning (<math>g = .48</math>) and attitudinal learning (<math>g = .30</math>). 2. Cognitive learning is maintained over time, while reactions and attitudinal learning decay. Training input(s)</p> <p><u>Context</u> 1. Training setting doesn't have a significantly different effect on the outcomes, only on reactions (<math>g = .80</math> for educational setting vs. <math>g = .28</math> in organizations), meaning that other factors might influence how employees receive this type of training in organizational settings. 2. Training as part of a more complex diversity initiative had a greater effect overall than when it was standalone, specifically on attitudinal learning (<math>g = .47</math>) and behavioral learning (<math>g = .86</math>). 3. Whether attendance was mandatory or voluntarily didn't make a difference on the overall effect the training had on outcomes. However, mandatory training had a stronger effect on behavioral learning (<math>g = .63</math>), while voluntary training on reactions (<math>g = .71</math>)</p> <p><u>Design</u> 1. The focus of the training on one group, several groups or adopting an inclusive approach did not make any difference on its effect on the outcomes. 2. Longer trainings have a greater effect on all outcomes. 3. Awareness based trainings have a lower overall effect (<math>g = .31</math>) than other types of training, especially on attitudinal and</p>	<p>see main findings</p>	<p>part of the studies used explicit measures of attitudes and behaviors, which are prone to desirability bias</p>	<p>AA</p>
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			<p>behavioral learning. The most effective are combined trainings.</p> <p>4. Using many different instructional methods doesn't make a difference in the overall effect, and it only has a higher effect on reactions (people like diverse methods; <math>g = .73</math>).</p> <p><u>Trainee characteristics</u></p> <p>1. Age of participants doesn't make a difference in the effect of the training on outcomes.</p> <p>2. More women in the training groups only had an effect on reactions, but not overall or on the other outcomes.</p> <p>3. How many white people there are in the training group also doesn't affect the training's impact on the outcomes.</p>			
4. Chipps, 2008	<p><b>Design:</b> Systematic review</p> <p><b>Sample:</b> k = 5 single studies and k = 1 systematic review</p>	Focused on Western context (i.e., USA)	Based on Beach et al.'s (2005) review and the five included studies, reasonable evidence exists to indicate that cultural-competence training can increase the knowledge, attitudes, and skills of health professionals. Some evidence seems to indicate that cultural-competence training affects patient satisfaction, but little evidence that it improves patient care.	Not reported	Primary studies have serious weaknesses	B
5. Govere (2016)	<p><b>Design:</b> Systematic review</p> <p><b>Sample</b> 6 studies of which one experimental and five non-experimental study</p>	Healthcare providers in USA (k = 5), UK (k = 1), Canada (k = 1), such as dental practitioners, physicians, nurses	Six studies revealed that cultural competence training intervention significantly increased the cultural competence level of healthcare providers. Five studies demonstrated that cultural competence training of healthcare providers was significantly associated with increased patient satisfaction. Two studies that were less biased (i.e., powered samples, superior experimental design, and probability sampling) found no significant effect of cultural competence training on patient satisfaction.	Not reported	primary studies quality, e.g., use of not context specific measures, and not valid	C

<p>6. Holmes, 2021</p>	<p><b>Design:</b> Meta-analysis</p> <p><b>Sample</b> 94 studies</p>	<p>working adults</p>	<p>1. Climate type moderates the relationships of diversity climate* with organizational outcomes such that measures of inclusion climate** exhibit more positive relationships with organizational outcomes than do measures of diversity climate.</p> <p>2. Outcome type somewhat moderates the relationships of diversity climate with organizational outcomes such that diversity climate exhibits more positive relationships with attitudinal outcomes than with behavioral outcomes.</p> <p>3. Demographic diversity moderates the relationships of diversity climate with organizational outcomes such that the relationships are more strongly positive in samples containing greater racioethnic diversity than in those containing less diversity.</p> <p>5. Climate strength moderates the relationships of diversity climate with organizational outcomes such that the relationships are more positive when climates are stronger as opposed to weaker.</p> <p>*Diversity climate: employee perceptions of the extent that their employer is fair and inclusive of personnel irrespective of demographic group membership</p> <p>**Inclusion climate: how strongly employees feel that their unique backgrounds, knowledge, skills, and perspectives are integrated in a work environment</p> <p>***Employee withdrawal refers to the extent to which employees intend to withdraw from their jobs (e.g., turnover intentions) or actually withdraw from their current organization (e.g., voluntary turnover)</p>	<p>Diversity Climate - Employee withdrawal <math>\rho = -.37</math> 95% CI = [-.44: -.31]</p> <p>2. small betas</p> <p>3. <math>\beta = .29</math></p>	<p>design of the included studies not reported</p>	<p>C</p>
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<p>7. Kalinowski 2013</p>	<p><b>Design:</b> Meta-analysis</p> <p><b>Sample:</b> k = 65 studies (control + pre-test post- test, control + only post- test, single group pre- post test) with N = 8465</p>	<p>Adult and student populations from wide range of industries</p>	<p><u>Main findings</u></p> <p>Findings revealed sizable effects on affective-based (d = .30), cognitive-based (d = .71), and skill-based outcomes (d = .47). Mixed evidence was found for attitude change (e.g., being more tolerable towards diversity as a result of the training), but larger effects for cognitive and skills-based outcomes. Overall, study addressed the psychological effects of diversity training on change as opposed to how training actually worked in organizations.</p> <p><u>Moderators</u></p> <p>Interesting boundary conditions were found for the effects on affective-based outcomes à greater opportunities for social interactions, namely, higher task interdependence (d = .41) vs lower (d = .14), active and passive methods (d = .37) vs only passive (d = .07), online (d = .08; ns) vs face to face (d = .32), less than four hours duration (d = .11; ns) vs more than four hours (d = .52, .49, .46), distributed (d = .45) vs massed practice (d = .21). Again for affective-based outcomes, higher trainee motivation was related to: training delivered by direct manager/supervisor (d = .44) vs internal other vs diversity/inclusion manager, HR generalist (d = .05); participant employee (d = .50) vs student (d = .22); study setting field (d = .35) vs lab (d = .07; ns). Similar findings on motivational factors related cognitive based outcomes, with the exception of internal 'other' trainer yielding larger effect (d = 1.61) than training from direct manager (d = .51).</p> <p><u>Control variables</u></p> <p>Needs assessment (little information present, ns), voluntary vs mandatory (ns), awareness (e.g., cognitive biases) vs awareness + skills training (ns), compliance/legal content in training (ns), differences vs differences + similarities (ns). Training (d = .26) vs education (d = .45) on affective-based outcomes; subject matters focused on a single attribute of demographic diversity (e.g., race) yielded larger effect size (d = 1.28) on cognitive-based outcomes than generic (d = .52), multicultural (d = .54), and sexual harassment (d = .54); more or less diverse composition of participants pools on</p>	<p>See main findings</p>	<p>Search for unpublished was limited</p> <p>Quality not assessed, but controlled for study rigor effect</p>	<p>A</p>
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			<p>cognitive based outcomes: such as greater effects when pools composed by less than 40% of Caucasian (d = 1.28) compared with more than 60% Caucasian (d = .42), stronger effects when women make up was greater than 60% (d = .71) vs lower than 40% (d = .38); finally, larger effects when trainer was Caucasian (d = 1.61), than for non-Caucasian (d = .54) (interpret with caution because based on four studies). Finally, on cognitive-based outcomes, other findings were: self-reports (d = .85) vs non self-reports (d = .60); end-of-training evaluation (d = .82) vs time lag greater than one month (d = .39); single group repeated measures (d = 1.18); training vs control post-test only (d = .45); training vs control repeated measures (d = .66). Published (d = .38) vs unpublished (d = .13) on affective-based outcomes.</p>			
8. Lie 2010	<p><b>Design:</b> Systematic review</p> <p><b>Sample:</b> k = 7 studies: two quasi-randomised, two clusters randomised, three pre-test post-test field studies</p>	Physicians, mental health professionals, and multiple health professionals and students	<p>Included studies, albeit of limited quality, showed a trend for cultural-competence training as resulting in a positive impact on patient outcomes. It suggests that CC training as a standalone strategy may not suffice to improve outcomes, so it should fall within broader systemic and system changes. Provides a framework for conducting highly rigorous and relevant research in training settings.</p>	not reported	no serious limitations	A

9. Sit 2017	<p><b>Design:</b> Systematic review</p> <p><b>Sample:</b> k = 35 studies including k 46 = cultural competence intervention groups, median group size 32 and total 2834 students</p>	Tertiary education students, e.g., medical, counselling, and post-graduates	Review based on psychological theory of cross-cultural adjustment (namely, ABC model by Ward et al. 2001). Study found that experiential and multi-method delivery modes are more cross-culturally effective (e.g., role plays and individual or group exercises). Nearly two thirds of training programmes used three or more methods. Distributed delivery was more effective. According with ABC model which posit that successful acculturation is a robust process encompassing affective, behavioural and cognitive change, trainings that used both cognitive change and behavioural modification were more effective than cognitive alone and didactic alone. Programs were more effective in facilitating cross-cultural knowledge and inducing behavioural adjustment, than in fostering cross-cultural cognitive and emotional adjustments. Study also found that benefit in multicultural competence appear to influence students' academic performance and preparation for multicultural careers.	Not reported	no serious limitations	A
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### Excluded studies

Author & year	Reason for exclusion
1. Cordier, 2017	Not relevant: focusses on measures of social inclusion, participation, and/or acceptance
2. Lindsay, 2013	Not relevant: systematic review of the effect of disability awareness interventions for children
3. O'Keefe, 2020	Not relevant: focusses only on n measures of inclusion
4. Philips, 2016	Systematic review that includes only 3 (not relevant) studies
5. Rao, 2015	Not relevant: systematic review that examines the current state of theory and research in positive psychology with respect to issues related to gender, race, and ethnicity.

6. Rezai, 2020	Not relevant: focusses only on n measures of workplace inclusion
7. Schmidt, 2012	Search strategy seriously flawed, not a systematic review but a traditional and limited review of the literature.
8. Yadav, 2020	Descriptive gap review, no relevant quantitative/pooled findings are presented

## Data extraction form

### D. Inclusion - primary studies

Author & year	Design & sample size	Sector / Population	Main findings	Effect sizes	Limitations	Level
1. Andrews, 2015	<p><b>Design:</b> cross-sectional study</p> <p><b>Sample:</b> N = 325,119</p>	Civil service organizations within the U.K. central government	<ol style="list-style-type: none"> <li>Gender representativeness is positively associated with perceptions of inclusion and negatively associated with discrimination and bullying.</li> <li>Minority ethnic representativeness is weakly associated with perceptions of inclusion, discrimination and bullying.</li> <li>Perceptions of inclusion are associated with organizational size, organizational decline (staff reduction), proportion of administrative positions, median pay and lack of organizational autonomy (executive agencies vs. others)</li> </ol>	<ol style="list-style-type: none"> <li>Inclusion: <math>r=.30</math>, <math>\beta=.24</math>; discrimination: <math>r=-.42</math>, <math>\beta=-.29</math>; bullying: <math>r=-.33</math>, <math>\beta=-.24</math>.</li> <li>Inclusion: <math>r=.05</math>, <math>\beta=.28</math>; discrimination: <math>r=-.01</math>, <math>\beta=-.14</math>; bullying: <math>r=-.13</math>, <math>\beta=-.21</math>.</li> <li>Organizational size: <math>r=-.31</math></li> <li>organizational decline: <math>r=-.33</math>, administrative positions: <math>r=-.17</math>, median pay: <math>r=.27</math></li> </ol>	Data analysis is at the organization-level	D

				5. lack of organizational autonomy: $r = -.21$		
2. Ashikali, 2015	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 10,976	Public sector in the Netherlands	<ol style="list-style-type: none"> <li>1. Diversity management is positively associated with perceptions of inclusive culture</li> <li>2. Transformational leadership is positively associated with perceptions of inclusive culture</li> <li>3. Age, gender (male) and ethnic origin (Dutch) are weakly associated with perceptions of inclusive culture</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>r = .45</math></li> <li>2. <math>r = .49</math></li> <li>3. Age: <math>r = .02</math>; gender: <math>r = -.04</math>; ethnic origin: <math>r = -.03</math></li> </ol>	no serious limitations	D
3. Bae, 2017	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 455	Various state agencies in Florida and Texas	<ol style="list-style-type: none"> <li>1. Individual gender and age dissimilarity are weakly associated with perceptions of organizational inclusion (decision-making influence, information access, and job security)</li> <li>2. Individual educational level and tenure dissimilarity are weakly associated with perceptions of organizational inclusion</li> <li>3. Gender moderates the relationship between gender dissimilarity and perceptions of inclusion (stronger link for males than for females)</li> <li>4. Educational level moderates the relationship between educational dissimilarity and inclusion (stronger link for high education levels)</li> <li>5. Tenure moderate the relationship between tenure dissimilarity and inclusion (stronger link for long tenure)</li> </ol>	<ol style="list-style-type: none"> <li>1. <u>Gender dissimilarity</u>: <math>r = .03</math>, (HLM) <math>\beta = -.785</math> for decision making; <math>r = .06</math>, (HLM) <math>\beta = -.169</math> for information access; <math>r = .02</math>, (HLM) <math>\beta = -.618</math> for job security; <u>Age dissimilarity</u>: <math>r = .10</math>, (HLM) <math>\beta = .28</math> for decision making; <math>r = .09</math>, (HLM) <math>\beta = -.007</math> for information access; <math>r = .05</math>, (HLM) <math>\beta = .069</math> for job security.</li> <li>2. <u>Education level dissimilarity</u>: <math>r = .10</math>, (HLM) <math>\beta = .262</math> for decision making; <math>r = .09</math>, (HLM) <math>\beta = .237</math> for information access; <math>r = .03</math>, (HLM) <math>\beta = .157</math> for job security. <u>Tenure dissimilarity</u>: <math>r = .06</math>, (HLM) <math>\beta = .001</math> for decision making, <math>r = .01</math>, (HLM) <math>\beta = -.013</math> for information access, <math>r = .10</math>, (HLM) <math>\beta = .042</math> for job security.</li> </ol>	No serious limitations	D

				<p>3. <u>Gender dissimilarity and decision making</u> in male subsample: <math>\beta = -1.12</math>, in female subsample: <math>\beta = .05</math>;  <u>Gender dissimilarity and information access</u> in male subsample: <math>\beta = -.46</math>, in female subsample: <math>\beta = .19</math>;  <u>Gender dissimilarity and job security</u> in male subsample: <math>\beta = -2.59</math>, in female subsample: <math>\beta = -.68</math></p> <p>4. <u>Education dissimilarity and decision making</u> in high education subsample: <math>\beta = .43</math>, in low education subsample: <math>\beta = .41</math>;  <u>Education dissimilarity and information access</u> in high education subsample: <math>\beta = .56</math>, in low education subsample: <math>\beta = .01</math>;  <u>Education dissimilarity and job security</u> in high education subsample: <math>\beta = .01</math>, in low education subsample: <math>\beta = -.10</math></p> <p>5. <u>Tenure dissimilarity and decision making</u> in long tenure subsample: <math>\beta = .09</math>, in short tenure subsample: <math>\beta = .01</math>;  <u>Tenure dissimilarity and information access</u> in long tenure subsample: <math>\beta = .01</math>, in short tenure subsample: <math>\beta = -.01</math>;  <u>Tenure dissimilarity and</u></p>	
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				job security in long tenure subsample: $\beta = -.02$ , in short tenure subsample: $\beta = .02$		
4. Bernstein, 2010 (study 1)	<b>Design:</b> randomized controlled study  <b>Sample:</b> N = 73	White American undergraduate students	<ol style="list-style-type: none"> <li>1. Inclusion by in-group members is perceived as more positive than inclusion by out-group members (based on race differences)</li> <li>2. Exclusion by in-group members is perceived as more negative than exclusion by out-group members (based on race differences)</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>d = .67</math></li> <li>2. <math>d = .72</math></li> </ol>	Sample consists of undergraduate students	A
5. Bernstein, 2010 (study 2)	<b>Design:</b> randomized controlled study  <b>Sample:</b> N = 138	American undergraduate students	<ol style="list-style-type: none"> <li>1. Inclusion by in-group members is perceived as more positive than inclusion by out-group members, when groups are highly meaningful (based on stable party affiliation)</li> <li>2. Exclusion by in-group members is perceived as more negative than exclusion by out-group members, when groups are highly meaningful (based on stable party affiliation)</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>d = .72</math></li> <li>2. ns</li> </ol>	Sample consists of undergraduate students	A
6. Boehm, 2014	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 93	Employees, executives and HR executives from SMEs in Germany	<ol style="list-style-type: none"> <li>1. Age-inclusive HR practices are positively related to employees' perceptions of age-diversity climate.</li> <li>2. Age-diversity climate is positively related to collective perceptions of social exchange.</li> <li>3. Age diversity and tenure diversity are negatively related to perceptions of age-diversity climate</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>r = .21</math>, (SEM) <math>\beta = .20</math></li> <li>2. <math>r = .76</math>, (SEM) <math>\beta = .46</math></li> <li>3. age diversity: <math>r = -.29</math>; (SEM) <math>\beta = .23</math>; Tenure diversity: <math>r = -.59</math>, (SEM) <math>\beta = -.50</math>.</li> </ol>	no serious limitations	D

7. Brimhall, 2014	<p><b>Design:</b> longitudinal study with 2 measurement points at a 6-month interval</p> <p><b>Sample:</b> N = 364</p>	Child welfare workers from a large public child welfare agency located in the western region of the United States	<ol style="list-style-type: none"> <li>1. Perceived diversity climate positively predicts perceived inclusion climate</li> <li>2. Leader-member exchange is positively associated with perceived diversity climate</li> <li>3. Tenure and position are negatively associated with perceived diversity climate</li> </ol>	<ol style="list-style-type: none"> <li>1. B= .30</li> <li>2. B= .26</li> <li>3. B= -.21</li> </ol>	<p>Some findings are based on cross-sectional data (Finding #2 and #3)</p> <p>Data was analyzed at individual level (including climate)</p>	C
8. Brimhall, 2017	<p><b>Design:</b> longitudinal study with 3 measurement points at 6-month intervals</p> <p><b>Sample:</b> N = 364</p>	See Brimhall 2014	Leader-member exchange predicts perceived inclusion climate	$r = .54$ (T1) (6 and 12-month time lag) $b = 0.18$ , (cross-sectional) $b = 0.47$ .	<p>Retention rate of participants across all three measurement points: 36.6%</p> <p>Same sample as Brimhall 2014</p>	C
9. Brimhall, 2019	<p><b>Design:</b> longitudinal study with 3 measurement points at 6-month intervals</p> <p><b>Sample:</b> 201 employees</p>	A diverse nonprofit hospital department located in the western region of the United States	Leader engagement predicts work group inclusion	$r = .37$ , $B = .30$	no serious limitations	C



10. Chow, 2018	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 216 (48 teams)	A direct sales company in the health-care industry in China	Team cognitive diversity is positively associated with inclusion	$r = .48, \beta = .59$	subjective self report	D
11. Cottrill, 2014	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 107	Employees from various sectors in the USA	Perceived authentic leadership is positively associated with perceptions of inclusion	$r = .57, \beta = .58$	no serious limitations	D
12. Goswami, 2018	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 383	Employees from private telecom companies in India	<ol style="list-style-type: none"> <li>1. Workplace diversity is positively associated with workplace inclusion</li> <li>2. Managerial support is positively associated with workplace inclusion</li> <li>3. Trust in leader is positively associated with workplace inclusion</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>r = .21, \beta = .20</math></li> <li>2. <math>r = .19, \beta = .18</math></li> <li>3. <math>r = .27, \beta = .28</math></li> </ol>	no serious limitations	D
13. Jansen, 2015 (study 1)	<b>Design:</b> randomized controlled study  <b>Sample:</b> N = 114	Participants were visitors to a job fair in the Netherlands (no information on their employment status)	<ol style="list-style-type: none"> <li>1. All-inclusive multiculturalism (explicitly including the majority in the company's inclusion statements) predicts anticipated inclusion</li> <li>2. Individual Need to Belong moderates the above relationship (stronger link for people with high need to belong)</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>\beta = .18</math></li> <li>2. <math>b = .53</math> for high Need to Belong, <math>b = -.18</math> (ns) for low Need to Belong</li> </ol>	Not clear if sample consists of students or current employees	A

14. Jansen, 2015 (study 2)	<b>Design:</b> randomized controlled study  <b>Sample:</b> N = 99	Students of the University of Groningen	All-inclusive multiculturalism (explicitly including the majority in the organization's inclusion statements) positively predicts perceived inclusion	B=.37	Sample consists of university students	A
15. Jansen, 2017	<b>Design:</b> cross- sectional study  <b>Sample:</b> N = 397 (132 work groups)	Employees from a university of applied sciences from the Netherlands	<ol style="list-style-type: none"> <li>1. Gender dissimilarity is negatively associated with perceived inclusion</li> <li>2. Gender dissimilarity is negatively associated with perceived diversity climate</li> <li>3. Perceived diversity climate is positively associated with perceived inclusion</li> <li>4. Perceived diversity climate moderates the relationship between gender dissimilarity and perceived inclusion (stronger association in a negative diversity climate)</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>r=-.11</math>, <math>B=-.06</math></li> <li>2. <math>r=-.09</math></li> <li>3. <math>r=.30</math>, <math>B=.17</math></li> <li>4. <math>b=-.12</math> in negative diversity climate, <math>b=.01</math> in positive diversity climate.</li> </ol>	no serious limitations	D
16. Li, 2019	<b>Design:</b> cross- sectional study  <b>Sample</b> N = 100	HR managers from organizations in Australia	<ol style="list-style-type: none"> <li>1. Identity-conscious diversity management programs (vs. identity-blind) are positively associated with inclusion climate</li> <li>2. Identity-blind diversity management programs are negatively associated with inclusion climate</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>r=.20</math>, <math>b=.10</math></li> <li>2. <math>r=-.17</math>, <math>b=-.14</math></li> </ol>	no serious limitations	D
17. McNamar a, 2016	<b>Design:</b> cross- sectional study  <b>Sample:</b>	Employees from 9 organizations from different sectors and sizes	<ol style="list-style-type: none"> <li>1. Perceived supervisor age is associated with supervisor's support</li> <li>2. Age dissimilarity in the workgroup is associated with perceived group inclusiveness</li> <li>3. Core self-evaluation moderates the above relationship</li> </ol>	<ol style="list-style-type: none"> <li>1. (compared to supervisor being at least 10yrs older than respondent) supervisor is the same age: <math>b=.06</math>; supervisor is at least 10yrs younger: <math>b=.10</math>.</li> </ol>	The response rate varies between participating organizations	D

	N = 2,019			<p>2. (compared to work group is similar to the respondent's age) Work group is dissimilar and older: <math>b = -.14</math>; work group is dissimilar and younger: <math>b = .04</math>; work group is age diverse: <math>b = .02</math></p> <p>3. (compared to supervisor being at least 10yrs older than respondent * core self-evaluations) Supervisor the same age*core self-evaluation: <math>b = .12</math>; Supervisor at least 10yrs younger*core self-evaluation: <math>b = .05</math></p>		
18. Mulqueen, 2012	<p><b>Design:</b> cross-sectional study</p> <p><b>Sample:</b> N = 143</p>	Managers from the global training and learning division of a multinational defense contractor in the USA.	Leaders' versatility (emotional intelligence, consisting of 4 dimensions: image, presentation, competence, and feedback) is positively associated with diversity Inclusion practices (manager behavior, department practices, manager encouragement, diversity council, and rewards and recognition)	Correlations with discriminant function of versatility: manager behavior .97; department practices .71; manager encouragement .53; diversity council .46; rewards & recognition: .38	no serious limitations	D

19. Nelissen, 2015	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 313	Employees from organizations in the Netherlands	<ol style="list-style-type: none"> <li>1. The warmth and competence of stereotypes towards people with disability are positively associated with inclusive behavior</li> <li>2. Attitudes towards employment of people with disability is positively associated with inclusive behavior</li> <li>3. Attitudes towards employment of people with disabilities mediates the relationship between stereotype warmth and competence and inclusive behaviors</li> </ol>	<ol style="list-style-type: none"> <li>1. Stereotype warmth: <math>r=.07</math>, <math>b=.074</math>; Stereotype competence: <math>r=.04</math>, <math>b=.044</math>.</li> <li>2. <math>r=.19</math></li> <li>3. indirect effect of stereotype warmth: <math>b=.06</math>; indirect effect of stereotype competence: <math>b=.04</math></li> </ol>	no serious limitations	D
20. Nelissen, 2017	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 282	See Nelissen, 2015	<ol style="list-style-type: none"> <li>1. Prosocial motivation is positively associated with individual inclusive behavior</li> <li>2. Inclusive climate is positively associated with individual inclusive behavior</li> </ol>	<ol style="list-style-type: none"> <li>1. <math>r=.28</math></li> <li>2. <math>r=.38</math></li> </ol>	no serious limitations	D
21. Sessler Bernstein, 2013	<b>Design:</b> cross-sectional study  <b>Sample:</b> N = 403	Nonprofit board members from racial/ethnic minority groups	<ol style="list-style-type: none"> <li>1. Diversity motivation (discrimination &amp; fairness perspective, access &amp; legitimacy perspective, integration &amp; learning perspective) is positively associated with individual inclusion experiences</li> <li>2. Diversity motivation is positively associated with board inclusion behaviors</li> <li>3. Diversity motivation is positively associated with board inclusion practices</li> <li>4. Diversity motivation is positively associated with organizational inclusion practices</li> <li>5. Board inclusion behaviors, board inclusion practices and organizational inclusion practices are positively associated with individual inclusion experiences</li> </ol>	<ol style="list-style-type: none"> <li>1. Discrimination &amp; fairness: <math>r=.29</math>; access &amp; legitimacy: <math>r=.40</math>; integration &amp; learning: <math>r=.46</math></li> <li>2. Discrimination &amp; fairness: <math>r=.11</math>; access &amp; legitimacy: <math>r=.28</math>; integration &amp; learning: <math>r=.32</math></li> <li>3. Discrimination &amp; fairness: <math>r=.28</math>; access &amp; legitimacy: <math>r=.39</math>;</li> </ol>	no serious limitations	D

				<p>integration &amp; learning: <math>r=.43</math></p> <p>4. Discrimination &amp; fairness: <math>r=.33</math>; access &amp; legitimacy: <math>r=.50</math>; integration &amp; learning: <math>r=.56</math></p> <p>5. Board inclusion behaviors: <math>r=.58</math>; board inclusion practices: <math>r=.20</math>; organizational inclusion practices: <math>r=.54</math></p>		
22. Tremblay, 2017	<p><b>Design:</b> cross-sectional study</p> <p><b>Sample:</b> N = 225 (23 teams)</p>	Employees from a Canadian financial organization	<ol style="list-style-type: none"> <li>1. Leader humor climate (constructive vs. offensive) is associated with employee perceived inclusion</li> <li>2. Trust in leader moderates the above relationship</li> </ol>	<ol style="list-style-type: none"> <li>1. Leader constructive humor climate: <math>r=.19</math>, leader offensive humor climate: <math>r=-.23</math></li> <li>2. ES unclear</li> </ol>	no serious limitations	D
23. Triana, 2012	<p><b>Design:</b> randomized controlled study</p> <p><b>Sample:</b> N = 200 (50 teams)</p>	Juniors and seniors in a business class at a large university in the south-western United States.	Medium of first team meeting (F2F vs. Computer-mediated followed by a switch to the opposite) is positively associated with perceived inclusion for women in male-dominated teams (1 woman, 3 men)	<ol style="list-style-type: none"> <li>1. Women with Computer-mediated first meeting vs. women with F2F first meeting: partial <math>\eta^2 = .09</math></li> </ol>	no serious limitations	A

## Excluded studies

Author & year	Reason for exclusion
1. Brite, 2015	No relevant relationship is examined / no effect size estimates are provided
2. Gotsis, 2016	Theoretical paper

## Appendix IV

### Full text retrieval and data extraction grey literature

Ref no.	Reference	Notes
1	Adams, L., & Carter, K. (2007). Black and Asian Women in the Workplace: the employer perspective. <i>EOC: Manchester</i> .	Unable to access
2	Adams, L., Luanaigh, A. N., Thomson, D., & Rossiter, H. (2018). Measuring and reporting on disability and ethnicity pay gaps. <i>Equality and Human Rights Commission. Research report, 117</i> .	Empirical
3	Bachrach, T. (2015). Furthering disability rights through inclusive education and employment. <i>Journal of Vocational Rehabilitation, 42(3), 257-261</i> .	Discussion
4	Bento, J. P. C., & Kuznetsova, Y. (2018). Workplace adaptations promoting the inclusion of persons with disabilities in mainstream employment: a case-study on employers' responses in Norway. <i>Social Inclusion, 6(2), 34-45</i> .	Empirical – case studies
5	Bertilsdotter Rosqvist, H. (2019). Knowing what to do: Exploring meanings of development and peer support aimed at people with autism. <i>International Journal of Inclusive Education, 23(2), 174-187</i> .	Not employment specific
6	Bezyak, J., Moser, E., Iwanaga, K., Wu, J. R., Chen, X., & Chan, F. (2020). Disability inclusion strategies: an exploratory study. <i>Journal of Vocational Rehabilitation, (Preprint)</i> .	Empirical
7	Brown, K., Hamner, D., Foley, S., & Woodring, J. (2009). Doing disability: Disability formations in the search for work. <i>Sociological Inquiry, 79(1), 3-24</i> .	Focus on constructs of disability
8	Choudrey, S. (2016). Inclusivity: Supporting BAME Trans People. Gender Identity research and Education society.	Empirical - Focus groups
9	Coetzer, G., & Gibbison, G. (2016). Mediating influence of time management on the relationship between adult attention deficit and the operational effectiveness of project managers. <i>Journal of Management Development</i> .	Empirical – questionnaire based
10	Danson, M., & Gilmore, K. (2009). Evidence on employer attitudes and EQUAL opportunities for the disadvantaged in a flexible and open economy. <i>Environment and Planning C: Government and Policy, 27(6), 991-1007</i> .	Empirical - interviews
11	Department for Education. (2014) Supported Internships.	Govt guidance
12	Department for Education. (2016). Engaging with employers: a short guide for local authorities and post 16 providers.	Govt guidance

Ref no.	Reference	Notes
13	Department for Work and Pensions. (2013). The disability and health employment strategy: the story so far.	Govt guidance
14	Department of Health. (2007). Collaborative Recruitment Solutions in Social Care: Getting and Keeping Your Workforce.	Unable to find
15	Dewson, S., Ritchie, H., & Meager, N. (2005). <i>New Deal for Disabled People: survey of employers</i> (Vol. 301). CDS.	Empirical - survey
16	Erickson, W. A., von Schrader, S., Bruyère, S. M., & VanLooy, S. A. (2014). The employment environment: Employer perspectives, policies, and practices regarding the employment of persons with disabilities. <i>Rehabilitation Counseling Bulletin</i> , 57(4), 195-208.	Empirical - survey
17	Fillary, R., & Pernice, R. (2005). Workplace culture analysis where people with intellectual disabilities work: A case study approach. <i>Journal of Intellectual and Developmental Disability</i> , 30(3), 176-180.	Case studies
18	Fletcher, D. R. (2002). The Police Act and the recruitment of offenders: towards the limits of social exclusion? <i>Environment and Planning C: Government and Policy</i> , 20(5), 757-773.	Recruitment
19	Fletcher, D. R. (2004). Demand-led programmes: challenging labour-market inequalities or reinforcing them?. <i>Environment and Planning C: Government and Policy</i> , 22(1), 115-128.	Recruitment
20	Gacilo, J., Steinheider, B., Stone, T. H., Hoffmeister, V., Jawahar, I. M., & Garrett, T. (2018). The double-edged sword of having a unique perspective: Feelings of discrimination and perceived career advantages among LGBT employees. <i>Equality, Diversity and Inclusion: An International Journal</i> .	Exploratory survey
21	Glade, R., Koch, L. C., Zaandam, A., Simon, L. S., Manno, C. M., Rumril Jr, P. D., & Rosen, C. C. (2020). Recommendations from employees with disabilities for creating inclusive workplaces: Results from a grounded theory investigation. <i>Journal of Vocational Rehabilitation</i> , 53(1), 77-88.	Interviews
22	Goss, N (2000). Jobs Worth: Disability in a small business.	Unable to find
23	Gould, R., Harris, S. P., Mullin, C., & Jones, R. (2020). Disability, diversity, and corporate social responsibility: learning from recognized leaders in inclusion. <i>Journal of Vocational Rehabilitation</i> , 52(1), 29-42.	Content analysis of corporate CSR reports
24	Government office for Science. (2008). Mental Capital: Making the most of ourselves in the 21 <sup>st</sup> Century. Foresight.	Non-specific
25	Great Britain. Department of Trade. (2006). Success at Work: Protecting Vulnerable Workers, Supporting Good Employers: a Policy Statement for this Parliament.	Non-specific



Ref no.	Reference	Notes
39	Martz, E. (2007). Facilitating inclusive employment: an examination of the accommodations for and the barriers to employment for Russians with disabilities. <i>International Journal of Rehabilitation Research</i> , 30(4), 321-326.	Emailed to request access
40	McGregor-Smith, R. (2017). Race in the workplace: The McGregor-Smith review. <i>Report for Department for Business, Energy and Industrial Strategy</i> . Retrieved from <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/594336/race-in-workplace-mcgregor-smith-review.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/594336/race-in-workplace-mcgregor-smith-review.pdf</a> . Accessed on December, 12, 2018.	Govt report
41	McKeown, A & Nzeba, A. (2017). Working for all? Experiences of employment support amongst disabled people with high support needs. Scope. London.	Unable to access (Tony are you able to access via SCIE?)
42	McLEAN, J. (2003). Employees with long term illnesses or disabilities in the UK social services workforce. <i>Disability &amp; society</i> , 18(1), 51-70.	Social care specific
43	Mencap. (2017). Good for business: the benefits of employing people with a learning disability.	Too specific
44	National Audit Office. (2005). Department for work and pensions Gaining and retaining a job: the Department for Work and Pensions' support for disabled people.	Disability and Remploy (govt. intervention)
45	Rashid, M., Hodgetts, S., & Nicholas, D. (2017). Building employers' capacity to support vocational opportunities for adults with developmental disabilities. <i>Review Journal of Autism and Developmental Disorders</i> , 4(2), 165-173.	Review
46	Schur, L., Nishii, L., Adya, M., Kruse, D., Bruyère, S. M., & Blanck, P. (2014). Accommodating employees with and without disabilities. <i>Human Resource Management</i> , 53(4), 593-621.	Case studies
47	Spencer, C. (2011). Employment: what we have learned. <i>Tizard Learning Disability Review</i> .	
48	Steedman, H. (2011). Apprenticeship policy in England: Increasing skills versus boosting young people's job prospects.	
49	Trotter, R. (2013). Work in Progress. Rethinking Employment Support for Disabled People.	
50	Wilton, R., & Schuer, S. (2006). Towards socio-spatial inclusion? Disabled people, neoliberalism and the contemporary labour market. <i>Area</i> , 38(2), 186-195.	Qualitative interviews
51	Wright, T., Colgan, F., Creagany, C., & McKearney, A. (2006). Lesbian, gay and bisexual workers: equality, diversity and inclusion in the workplace. <i>Equal opportunities international</i> .	Qualitative interviews

## Appendix V

### Main findings diversity training

#### **What is diversity training?**

Diversity training has been defined as “instructional programs aimed at facilitating positive intergroup interactions, reducing prejudice and discrimination, and enhancing the skills, knowledge, and motivation of participants to interact with diverse others” (Berzukova et al., 2016). Put differently, it aims to reduce people's bias, prejudice and discrimination against others. The main goal of diversity training is to create a positive, inclusive work environment by helping employees to recognize and be tolerant of differences among co-workers. The training can target different types of “diversity”, such as gender, race, ethnicity, demographic background, ability, health status (i.e. disability), and sexual orientation. It can be divided into awareness-based and skill-based training. Awareness-based training makes employees conscious of their biases, prejudices, and cultural assumptions with respect to minorities. This training often uses case studies and experiential exercises. Skill-based training develops employees' proficiency in handling diversity in the workplace. Various tools are used to improve employees' interpretations of cross-cultural differences, communication with people from different cultures, and adaptability.

#### **How is diversity training supposed to work?**

The notion that diversity training reduces prejudice and discrimination against others is based on two theories: social identity theory (Tajfel, 1982) and the contact hypothesis (Allport, 1954). Social identity theory posits that people classify themselves and others into social categories, according to groups such as race, ethnicity, and gender. This classification shapes the way individuals interact with others. According to this theory people wish to belong to groups that enjoy distinct and positive identities, and therefore individuals who belong to groups with greater perceived social status will accept and include people they consider to be like them, while excluding those they perceive to be different. The contact hypothesis assumes that positive contact between members of different groups reduces prejudice, raises awareness, and changes group interactions. Put differently, if members of different groups have the opportunity to communicate with each other, they will learn to understand and appreciate different points of views, cultural habits, etc., and as a result prejudice should diminish.

#### **Measuring the effect of (diversity) training**

Researchers have grouped outcomes of training into cognitive, behavioral and attitudinal learning, as well as on trainee reactions. In the case of diversity training, cognitive learning refers to the extent to which trainees acquire knowledge about other cultures and problems or issues amongst different groups. Behavioral learning concerns the development of skills and behaviors. Attitudinal learning refers to the development of trainees' attitudes towards diversity.



### **What is the effectiveness of diversity training?**

#### **1. In general, diversity training elicits strong emotional reactions, and most participants see the training as worthwhile (Level AA).**

A recent meta-analysis indicates that diversity training elicits intense emotional responses, and participants see the training as effective and worthwhile (Bezrukova et al., 2016). Training reaction is an antecedent of learning that leads to the desired behavior in the short term. However, some people might like the training for reasons that are not directly related to its content (e.g. the trainers' sense of humor), and as a result their diversity-related attitudes and behaviors will not change.

#### **2. Reactions to diversity training and attitudinal learning appear to decay, whereas cognitive knowledge is maintained over time (Level AA).**

A meta-analysis found that cognitive learning (e.g. knowledge about different cultures) persists in the long run (Berzukova et al., 2016). After training, cues in the workplace or elsewhere reinforce cognitive responses that trainees have learned. These cues also come from other sources outside the immediate workplace or school (e.g. "Wow, this is what we learned about Italian culture in that diversity training half a year ago..."). In contrast, several meta-analyses and systematic reviews have consistently shown that participants' attitudes are less subject to change after training compared with cognitions and behaviors (Alhejji et al., 2015; Berzukova et al., 2016; Kalinoski et al., 2013; Sit et al., 2017). Most notably, attitudes may gravitate back to the original evaluative judgments after the diversity training ends if negative attitudes that a person had before the training are reinforced. In this sense, environmental prompts can even provoke "backfire effects" that reverse or retard skill development.

#### **3. Diversity training might lead to positive outcomes beyond effects on cognitions, behaviors, and attitudes (Level A).**

Several systematic reviews on diversity-related efforts in healthcare settings have investigated if the positive effects extend to higher-level outcomes. While it was found that health care professionals might improve their ability to deal with diversity following training (Chipps et al., 2008; Govere et al., 2016; Lie et al., 2010), it is not clear if this has an impact on patient satisfaction (Govere et al., 2016) or patient care (Chipps et al., 2008). However, it should be noted that generally primary studies in this context are often of poor methodological quality. Overall, studies have shown that arguments

for diversity training on a business case perspective (e.g. improves performance) are not well founded (Alhejji et al., 2015).

#### **4. The effects of diversity training are moderated by features related to context, design, and participants' characteristics.**

##### **Context**

##### **a. Positive reactions to training are considerably stronger in an educational setting compared with an organizational setting (Level AA).**

A meta-analysis based on 236 high-quality studies demonstrated that the diversity training in an educational setting (i.e. higher education) elicits stronger effects than in an organizational setting (Berzukova et al., 2016). A possible explanation may be that employees in organizations see diversity training as an "add-on" practice, something that "takes time away from work" and is secondary to the purpose of the organization. Instead, diversity training in an educational setting is usually part of the mission of such institutions, so it may be perceived as an opportunity to learn about diversity and prejudice and apply concepts through experiential learning (Sit et al., 2017).

##### **b. Training that is part of a larger diversity program tends to have better outcomes for both attitudes and behavior (Level AA).**

Companies rarely make diversity training part of a broader institutionalized effort. The meta-analysis by Berzukova et al. (2016) indicates that this is a key mistake, since integrated or embedded training leads to strong behavioral learning and moderately strong changes in attitudes. The critical importance of broader systemic and system changes as opposite to a standalone approach was also highlighted in the human service organizations (Lie et al., 2010; Mor Barak et al., 2016). In fact, employees may be more motivated to learn when managers commit to diversity efforts above and beyond that of a single initiative. In addition, the components of the larger program could strengthen one another. For example, a social-networking group of minority professionals, supported by the organization, is a follow-up outcome of a diversity course and also serves as a mentoring source.

##### **c. Training with mandatory attendance has stronger positive effects on behavioral learning, whereas voluntary attendance has stronger effects on reactions (Level AA).**

Attendance requirements do not affect all outcomes, but mandatory diversity training was found to have a moderate to strong effect on behavioral learning, whereas participants' reactions were considerably stronger when attendance was voluntary (Berzukova et al., 2016). A possible explanation is that people who willingly take training may already have an interest in the issue and are thus more likely to enjoy the training. However, a voluntary approach seems not to lead to the strongest effects in diversity training. One reason for this could be that under the voluntary scenario, people participating in training already want to be there and are not necessarily the ones who would benefit most from changes in cognitive, attitudinal, or behavioral outcomes. In addition, a mandatory attendance policy might signal that the organization is truly committed to facilitating positive intergroup relationships, thus enhancing trainees' motivation to learn.

##### **Design**

##### **d. Diversity training has stronger positive effects when it provides longer and distributed opportunities to learn (Level AA)**



The advantage of longer training interventions does seem to transfer to more positive reactions, and better diversity knowledge, attitudes, and skills, as reflected in the strong positive relationship between the hours of training and these outcomes (Berzukova et al., 2016). It seems that the more time participants spend together leads to them getting on better and makes intergroup encounters comfortable and feel "right". Also, a recent meta-analysis based on 65 studies found that training that provides (distributed) practice, yields better attitudinal outcomes (Kalinowski et al., 2013). The finding that massed practice fares worse than distributed learning was confirmed by a recent systematic review of studies conducted in educational settings (Sit et al., 2017).

**e. Diversity training that provides greater opportunities for cooperative contact and social interaction within the training pool yields mixed findings (Level AA).**

Diversity training can either focus on one group (e.g. race) or target multiple groups (e.g. race, gender, sexual orientation, etc.). The group-specific approach (i.e. involving only the minority/majority group) has been criticized as leading to intergroup differentiation and polarized attitudes. Several meta-analyses, however, have demonstrated that the outcomes of these two types of training are mixed. For example, several studies found that training that targets multiple groups and in which trainees interact with members of other groups has greater effects on attitudes compared with training that focuses on one group (Kalinowski et al., 2013), but an equal number of studies found no differences (Berzukova et al., 2016).

**f. Diversity training has stronger positive effects when it emphasizes both awareness and behavioral components (Level AA).**

Most effective types of diversity training programs were primarily designed to increase both diversity awareness and skills (Berzukova et al., 2016). Awareness training focuses on getting participants to be more aware of their own and other cultural assumptions, values, and biases. Skill-building (behavioral) training educates participants on monitoring their own actions and appropriate responses to specific differences, such as identifying and overcoming interracial communication barriers. Overall, several studies show that combining both awareness and behavioral components enables people to better understand their behavior (being aware of why they are doing what they are doing; e.g. Sit et al., 2017).

**g. Diversity training that combines multiple instructional methods does not seem to have stronger effects (Level AA).**

Diversity training can use several different instructional methods or just one. It's reasonable to assume that training that "touches all the bases," combining multiple methods (e.g. lectures, simulation exercises, group activities and discussions, etc.) leads to better outcomes. However, the most updated meta-analysis found that this has an effect only on how much people like training, i.e. on their reactions, and it does not affect cognitive, attitudinal, or behavioral learning (Berzukova et al., 2016). Nonetheless, findings from educational settings have suggested that multi-methods delivery modes seem cross-culturally effective (Sit et al., 2017). More generally, active methods and face-to-face methods still seem to lead to more positive attitudes than passive ones and online training (Kalinowski et al., 2013).

**h. Diversity training that focuses on one single aspect of demographic diversity has a stronger positive effect than aiming at multiple aspects (Level A).**

While focusing on multiple aspects of diversity training (e.g. generic diversity training, multicultural, or sexual harassment) yielded moderate effects on cognitive learning, it was found that dealing with one aspect of demographic diversity (e.g. race) at a time leads to considerably stronger effects on cognitive learning (Kalinowski et al., 2013). However, it should be noted that the majority of studies upon which this finding is based considered only race. Instead, for instance, a systematic review has concluded that there is a lack of empirically validated diversity training programs that specifically focus on disability (Phillips et al., 2016). Therefore it is possible that the evidence for diversity-specific interventions may be missing.

### **Trainee and trainer characteristics**

#### **i. A larger proportion of women in the training group leads to stronger reactions (e.g. liking), whereas a more diverse training group might have greater effects on cognitive learning (Level AA/A).**

Since women have a history of discrimination, the finding that they tend to be more receptive and welcoming of diversity training makes sense. Findings regarding the race composition of the training pool are, however, mixed: Berzukova et al. (2016) did not find an effect for a more diverse make-up on the outcomes assessed, whereas Kalinoski et al. (2013) found that people learn more (i.e. cognitive learning) when training involves a higher number of ethnic minorities. The latter finding, however, aligns with the hypothesis that social interdependence and contact under optimal conditions might reduce prejudice.

#### **j. Characteristics of the trainer affects outcomes at the affective and cognitive levels (Level A).**

It was found that trainees' motivation is higher and effects on attitudes are stronger when a direct manager/supervisor delivers the training, as opposed to an internal trainer belonging to a minority group, a diversity and inclusion manager, or a HR generalist. However, it was also found that cognitive learning (e.g. knowledge about other cultures) was strongly affected when the trainer belonged to a minority group (Kalinowski et al., 2013).

#### **k. Studies on the effects of de-biasing training are almost absent.**

Simply being aware that human judgment is subject to cognitive biases does not prevent them from occurring. Even Daniel Kahneman, the world's leading authority on this subject, stated: "I've been studying this stuff for 45 years, and I'm no better than when I started. I make extreme predictions. I'm over-confident. I fall for every one of the biases." Not surprisingly, studies on the effect of de-biasing training are almost absent. However, a recent study found that a single training intervention (i.e. playing a computer game or watching an instructional video) has sparked debiasing effects that persist across a variety of contexts affected by the same bias (e.g. blind spot bias, confirmation bias, fundamental attribution error, anchoring, social projection, representativeness; Morewedge et al., 2015). Here, games that incorporated personalized feedback and practice yielded the strongest effect. It is suggested by the authors that this type of simple intervention can be used alongside improved incentives, information presentation, and nudges to reduce costly errors associated with biased judgments and decisions. It should be noted, however, that no single study can be considered to be strong evidence – it is merely indicative.