

A field study of group diversity, participation in diversity education programs, and performance

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Summary

This study examined the impact of four dimensions of diversity—tenure, age, sex, and race—on performance in 486 retail bank branches and assessed whether employee participation in the firm's diversity education programs influenced these relationships. Data came from archives of the demographic composition of branches, an employee attitude–satisfaction poll, and branch performance assessed as part of the bank's bonus incentive plan. Race and sex diversity were unrelated to performance. The direct effects of tenure and age diversity were largely negative, but were moderated by quality of team processes, suggesting that cooperation and teamwork may suppress potentially task-enhancing differences associated with these aspects of diversity. Diversity education programs had minimal impact on performance. The results of this study suggest that there is a complex relationship between age and tenure diversity and performance and that, even in firms with characteristics that should be conducive to performance benefits from diversity, other conditions must be in place to foster such effects. Copyright © 2004 John Wiley & Sons, Ltd.

Introduction

Organizational scholars considering the link between cultural diversity in a workgroup and the group's performance have generally concluded that the relationship is neither simple nor direct (for reviews, see Milliken & Martins, 1996; Williams & O'Reilly, 1998). In some studies, diverse groups outperformed homogeneous groups (Cox, Lobel, & McLeod, 1991; Ruhe, 1978; Watson, Kumar, & Michaelsen, 1993), while in others homogeneous groups avoided the conflicts and communication problems that often beset diverse groups (O'Reilly, Caldwell, & Barnett, 1989; Pelled, 1966; Zenger & Lawrence, 1989). These findings have prompted researchers to investigate factors that might attenuate process losses in diverse groups in order to enhance performance gains.

Two schools of thought have shaped these investigations (Williams & O'Reilly, 1998). The first, based on social categorization and social identity theories (Tajfel, 1981; Turner, 1987) and the similarity–attraction paradigm (Byrne, 1971), argues that diversity will instigate ingroup–outgroup

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distinctions and negative social processes, thereby compromising group performance. The second, based on information and decision-making theories, argues that diversity will provide a broad range of perspectives, skills, and insights, which can increase the group's creativity and problem-solving capabilities, thereby enhancing performance (Cox, 1993; Cox & Blake, 1991). Taken together, these approaches suggest that the challenge for managers of diverse groups is to strike a balance by adopting interventions that diminish the detrimental effects of social categorization processes without relinquishing the benefits of the diversity. Researchers have yet to translate their empirical findings into concrete solutions that address this challenge. Instead, many managers rely on formal programs designed to educate employees about cultural differences as their primary strategy for 'managing diversity' (Cox, 1993). In light of research on the complex role differences seem to play in workgroups, it behooves us to investigate the impact of these programs on the diversity–performance link.

The causality proposed in both the social categorization and information and decision-making perspectives has been confirmed in careful laboratory studies (Williams & O'Reilly, 1998). The external validity of these findings in organizational settings remains a question, however, since there is almost no empirical evidence at the business unit or firm level that diversity has an independent or direct, positive or negative effect on bottom-line measures of performance (Robinson & Dechant, 1997; for exceptions, see Richard, 2000; Wright, Ferris, Hiller, & Kroll, 1995). Therefore, a group of scholars formed a Diversity Research Network to conduct a multi-firm study of the effects of diversity on performance (see Kochan, Bezrukova, Ely, Jackson, Joshi, Jehn, Leonard, & Levine, 2003, for a description of this research). This paper presents findings from research in one of the firms. In particular, I analyzed data from over 480 retail branches of a bank to investigate the relationships between branch performance and four commonly studied dimensions of diversity—tenure, age, sex, and race—and then to assess whether the degree of employee participation in the firm's diversity education programs influences these relationships.

Review and Hypotheses

Diversity in workgroups

According to social categorization and social identity theories, membership in any social category or group provides naturally occurring lines along which conflicts can be drawn. Such conflict stems from group members' tendency to establish a positive social identity and to confirm group affiliation by showing favoritism toward ingroup members and behaving in hostile or discriminatory ways toward outgroup members (Kramer, 1991; Tajfel, 1981). These effects provoke animosity and disrupt interactions in groups composed of people from different social categories. The similarity–attraction paradigm suggests similarly that people have a preference for interacting with similar others and find interactions with similar others easier, positively reinforcing, and more desirable compared to interactions with others who are different (Williams & O'Reilly, 1998). It differs from social categorization/social identity theories by not positing a hostile stance towards outgroup members. Both theories predict that increased diversity on any salient dimension results in group process losses, which in turn lead to group performance losses.

In contrast, more optimistic diversity scholars have argued that diversity can provide a competitive advantage for organizations by increasing the pool of resources—networks, perspectives, styles, knowledge, and insights—that people can bring to bear on complex problems (Cox, 1993; Cox & Blake, 1991). Information and decision-making theories support this idea. Research on how groups

generate knowledge suggests that social interaction among people with diverse perspectives can produce new insights and conceptual restructuring of ideas (Argote, Gruenfeld, & Naquin, 2001; Levine & Resnick, 1993). Moreover, group members holding unconventional views can lead groups to consider non-obvious alternatives (Nemeth, 1986). Heterogeneous groups are therefore likely to be more creative, make higher-quality decisions, and perform better than homogeneous groups (Wanous & Youtz, 1986).

In general, research supports the social categorization prediction that greater diversity is associated with less social integration, more conflict, and less cohesion in groups (for reviews, see Milliken & Martins, 1996; Williams & O'Reilly, 1998). These findings are most consistent in research on tenure diversity (e.g., O'Reilly et al., 1989), whereas research on age, sex, and race diversity has sometimes also shown adverse effects (e.g., Zenger & Lawrence, 1989; Alagna, Reddy, & Collins, 1982; Tsui, Egan, & O'Reilly, 1992, respectively) but sometimes no effect on group processes (e.g., O'Reilly et al., 1989; O'Reilly, Williams, & Barsade, 1997; Pelled, 1997, respectively).

Research investigating the impact of diversity on group performance is more mixed. Diversity in tenure, race, and sex has been shown both to have a deleterious effect on performance (e.g., Clement & Schiereck, 1973; O'Reilly et al., 1997) and, when properly managed, to be beneficial to performance (e.g., Cox et al., 1991; O'Reilly et al., 1997). Drawing on the contradictory findings in this body of research, a review of the literature concluded that 'diversity appears to be a double-edged sword, increasing the opportunity for creativity as well as the likelihood that group members will be dissatisfied and fail to identify with the group' (Milliken & Martins, 1996, p. 403).

This paradoxical nature of diverse groups has prompted researchers to search for factors that enable diverse groups to avoid the intergroup biases predicted by social categorization theories while leveraging the benefits promised by the information and decision-making approach (Ely & Thomas, 2001; Polzer, Milton, & Swann, 2002). This line of research has proved to be both theoretically rich and empirically productive, revealing factors at both the firm and workgroup levels that moderate the relationship between diversity and performance. At the firm level, business strategies can influence the types of human resources likely to be a source of sustained competitive advantage (Jackson & Schuler, 1995; Johnson, 2001; Richard, 2000). Companies seeking to exploit new product and market opportunities will benefit more from the diverse skills, judgments, and abilities of their employees than companies whose business strategy focuses on producing a limited set of products directed at narrow market segments. Hence, whereas the human capital in a culturally diverse workforce should be beneficial to growth-oriented firms, which profit from innovation and flexibility, the process and coordination costs associated with diversity should be detrimental to non-growth-oriented firms, which profit more from efficiency. An empirical test confirmed that racial diversity was positively related to firm performance in financial services firms that adopted a growth strategy but negatively related to firm performance in firms that adopted a no- or negative-growth strategy (Richard, 2000).

Characteristics of workgroups or teams also explain the mixed effects of diversity on performance. Shared goals and values among diverse group members can suppress divisive differences by encouraging members to use the workgroup as a whole, rather than their separate group identities, as the basis for identification and perceived similarity (Chatman, Polzer, Barsade, & Neale, 1998). In a simulation study of MBA students, in groups with a collectivistic culture that valued teamwork and rewarded cooperation and team performance, diversity in nationality, sex, and race was more beneficial to performance than in groups with an individualistic culture that valued individual effort and rewarded competition and individual performance (Chatman et al., 1998). Cooperation and collaboration in diverse teams increase over time, presumably as a result of increased intragroup contact, which diminish the negative effects of social categorization (Chatman & Flynn, 2000; Harrison, Price, Gavin, & Florey, 2002). In classroom studies, rewards that were contingent on team, rather than individual, performance also appeared to enhance team collaboration (Harrison et al., 2002).

The relationship between diversity and performance may also depend on the particular dimension of diversity under consideration. Surface-level diversity—differences among team members' overt, visible demographic characteristics, such as age, sex, and race—differs from deep-level diversity—differences among team members' personality, values, and attitudes. The negative effects of surface-level differences on team processes and outcomes diminished over time as team members learned more about each other, whereas the negative effects of deep-level differences intensified (Harrison, Price, & Bell, 1998; Harrison et al., 2002).

Different dimensions of diversity may be more or less salient depending on the context (Wharton, 1992), which can also influence how they relate to performance. Tenure and age diversity are especially context-dependent as they do not carry a societal history of intergroup conflict. Should tensions stemming from age or tenure diversity arise, firms are unlikely to have in place institutional mechanisms designed to mitigate their negative effects. Thus, to make accurate predictions about the impact of different dimensions of diversity on performance also requires some knowledge of their meaning in the local organizational context.

These studies suggest the importance of the social context in which diverse groups operate in determining whether diversity is a benefit or a liability. Thus, an understanding of firm context and how context varies across groups within firms is key to developing hypotheses. A detailed account of the organizational context of the financial services firm analyzed in the present study appears below. Key features of the firm are: (a) it has an integrated set of human resource policies and practices designed to foster and support employee diversity, which is viewed as a key organizational asset; (b) the branches are racially diverse and predominantly female in both officer and non-officer ranks; (c) the firm pursues a growth-oriented business strategy, exploiting new product and market opportunities through innovation, selling current products in new geographic markets, and acquiring new businesses; (d) the firm rewards employees within a branch for functioning interdependently as a team; and (e) recent technological advances in the financial services sector have heightened intergenerational tensions, stemming from generational differences in levels of experience and comfort with technology. In light of this context and based on previous research findings, I developed hypotheses about the impact of four dimensions of diversity on performance in this setting, as follows.

Tenure diversity

A closer look at the mixed results concerning the impact of tenure diversity on performance reveals that teams charged with being creative and teams that interact with customers may benefit from diversity in tenure among team members (Williams & O'Reilly, 1998). In addition, in the present context in which people are rewarded for team performance, teams will be more collaborative (Harrison et al., 2002), which may mitigate potentially disabling effects of tenure-based conflict.

Hypothesis 1: Tenure diversity will be positively related to team performance.

Age diversity

Previous research has shown minimal effects of age diversity on performance (see Williams & O'Reilly, 1998). Given that the firm in the present study identified generational differences in attitudes toward technology as a source of employee conflict, however, the benefits to innovation that age diversity might otherwise bring may be mitigated in this context.

Hypothesis 2: Age diversity will be negatively related to team performance.

Sex diversity

Although laboratory research on the effects of sex diversity on performance have produced mixed results (Williams & O'Reilly, 1998), research in field settings reveals patterns that would suggest a

positive relationship in this study, given that this sample is predominantly female. Field studies have found sex diversity to have negative effects in male-dominated but not in female-dominated samples (O'Reilly et al., 1997), possibly because men in predominantly female jobs or organizations are well integrated (Fairhurst & Snavely, 1983) and experience little hostility from their woman co-workers (Schreiber, 1979). Another field study of the effects of relational demography on organizational commitment, found that, for women, being in the numerical minority was associated with higher levels of psychological attachment, lower turnover, and less absenteeism relative to being in the majority, whereas, for men, being in the numerical minority had the opposite effect (Tsui et al., 1992). In the present sample, which is female-dominated, the level of diversity is defined by the proportion of men: the higher the proportion of men, the greater the sex diversity. As sex diversity increases, women's proportional representation goes down while men's goes up, creating more favorable conditions for each, given their different preferences. Therefore, greater sex diversity should be associated with greater psychological commitment for both men and women, which should positively affect team performance.

Hypothesis 3: Sex diversity will be positively related to team performance.

Racial diversity

Research in both the laboratory and the field provides a strong basis from which to expect that racial diversity in the present context will be positively related to performance. In the laboratory, racially diverse teams produced higher-quality ideas (McLeod & Loebel, 1992) and, over time, offered a wider range of perspectives (Watson et al., 1993) than racially homogeneous teams. In the field, racially diverse teams demonstrated more creativity and better implementation ability, controlling for the moderating effects of conflict (O'Reilly et al., 1997). In the present study, the firm's growth-oriented business strategy makes these capacities especially relevant as branches endeavor to reach new market segments and acquire new product lines (Richard, 2000). This expectation is strengthened by the fact that the firm in this study strongly affirms diversity (Williams & O'Reilly, 1998). In such settings, 'aversive racism,' the tendency for people to exaggerate their positive behaviors when confronted with situations that threaten to reveal negative or prejudiced attitudes so as to reaffirm their egalitarian convictions (Gaertner & Dovidio, 1986), may attenuate racial tensions that might otherwise hamper performance. Finally, the sample in this study is atypical in that both racial diversity and people of color are commonly found in the officer as well as non-officer ranks. Thus, racial 'faultlines,' which are strengthened when membership in hierarchical groups is correlated with membership in racial groups (Alderfer, 1987; Lau & Murnighan, 1998), are likely to be weak, further enabling groups to capitalize on the productive aspects of racial differences.

Hypothesis 4: Racial diversity will be positively related to team performance.

Diversity education programs

Changing workforce demographics have led many companies to re-evaluate their organizational cultures and their underlying values and belief systems (Kossek & Lobel, 1996). Diversity education has become an important tool for leading these cultural change efforts and for providing the most direct way of dealing with the issues and concerns that stem from a changing workforce (Cox, 1993; Ford & Fisher, 1996; Noe & Ford, 1992). According to Catalyst (1999), ongoing diversity awareness and education programs should provide a foundation that ensures that organizations maintain their focus on objectives. These programs, typically designed to sensitize employees to the impact of stereotypes on

their own and others' behaviors, are intended to promote communication and understanding and to build relationships among people of different backgrounds (Catalyst, 1999; Kossek & Lobel, 1996; Morrison, Ruderman, & Hughes-James, 1993).

Nevertheless, if trainees disagree in principle with the ideals of the organization's formal diversity program and are firmly committed to their beliefs, or if they perceive that the organization is not serious about its diversity goals, diversity training is likely to produce little change (Nemetz & Christensen, 1996). Worse, when such programs are insufficiently justified, majority group members express resentment toward the program's beneficiaries and hold negative views of the programs (Kirby, 1997). In these circumstances, diversity education programs become 'social traps' (Barry & Bateman, 1996). Social traps result from the unintended consequences of attempts to address a problem that exacerbate it (Platt, 1973). Social traps caused by diversity initiatives are mitigated when there are clear, unambiguous signals regarding the importance of diversity and when programs are well integrated into a larger set of diversity-related human resource practices (Johnson, 2001). In addition, diversity training itself can create an awareness of these traps and provide strategies for addressing the concerns that underlie them (Barry & Bateman, 1996).

Thus, context again matters. In firms with a well-supported, coherent, and integrated set of diversity activities, diversity training can create norms of behavior that facilitate cooperation and the motivation to solve collective action problems in diverse groups (Barry & Bateman, 1996; Hopkins & Hopkins, 2002; Johnson, 2001). This positive effect may be especially prevalent in consumer products and other marketing-focused workgroups, whose need to master diversity issues in their client base would require them to be more attentive to diversity traps (Barry & Bateman, 1996). Given the consumer- and market-focused nature of retail work in the branches I studied, together with the firm's diversity-oriented human resource system, I hypothesized that diversity education programs would enhance performance and that the pay-off of attending such programs would be greater in teams with greater sex, age, and racial diversity.¹

Hypothesis 5: Participation in diversity training programs will be positively related to team performance.

Hypothesis 6: Participation in diversity training programs will enhance the positive effects of sex and racial diversity on team performance and mitigate the negative effects of age diversity.

The moderating effects of team processes

The contingency approach I have taken to understanding the effects of diversity on performance, together with the organizational context of my research, supports a set of hypotheses that are largely consistent with the optimistic view advocated by information and decision-making theories of diversity. Yet there may be variability across organizational subunits, such as teams, or in this study, the retail branches, in the degree to which firm-level factors, such as the firm's diversity orientation, are operating. Linkages among policies and practices that lead to a diversity orientation are fragile: sustaining a firm's diversity orientation across organizational subunits requires coordinating mechanisms such as skilled supervision, mutual adjustment, and effective communication among employees (Johnson, 2001). Without effective team processes at the team level, the coordination and enactment of the firm's diversity policies and practices can become problematic. Diverse teams lacking cooperation and teamwork are associated with poor performance (Chatman et al., 1998). Therefore, regardless

¹Diversity education programs in this field setting did not address issues related to tenure diversity.

of the company's overall favorable climate for diversity, I anticipate that the quality of team processes will vary across organizational subunits (i.e., branches) and may moderate the impact of diversity on team performance.

Hypothesis 7: Cooperative team processes will moderate the impact of tenure, age, sex, and race diversity on team performance such that, for teams that are more cooperative, diversity will be positively related to performance, and for teams that are less cooperative, diversity will be negatively related to performance.

Organizational Context

The research site is a retail financial services firm, which is franchised to a leading wholesale financial services company with customers totaling more than 30 million individuals and small businesses across the United States. Like many firms in the banking industry, which has undergone significant changes in recent years from deregulation and technological developments, this firm's competitive strategy has involved both rapid internal growth, through extensive product and market diversification, and external growth, through mergers and acquisitions. As a result, human capital resources have become the most durable source of competitive advantage in the firm, as in the banking industry more generally (Richard, 2000).

This research focuses on the retail branches of the firm. The company defines branches as teams, expects employees within a branch to function interdependently as a team, and rewards them for doing so by allocating bonuses based on branch performance. Thus, the branch fits the widely accepted definition of organizational work teams as groups that exist within the context of a larger organization, have clear boundaries delineating who is a member and who is not, and share responsibility for a team product or service (Alderfer, 1987; Hackman, 1987).

Several years prior to the start of this study, the CEO acted on his belief that diversity efforts should be central to the company's management and business practices by establishing a formal diversity program. The retail branches of the firm have had access to and have participated in an array of corporate-level diversity initiatives, and, at the corporate level, the company has implemented several practices that the CEO considers 'best practice' in the field. First, all senior managers in the company, including regional managers of the retail branches, are held accountable to a formal diversity plan and for linking diversity to education, recruiting, succession planning, career development, and business growth. These plans cascade down to individual branch managers who, as part of their regional manager's plan, have diversity objectives they are required to meet. Second, in addition to a company-wide Diversity Council, chaired by the CEO, each business hosts its own diversity council, chaired by its respective business executive, to ensure employee involvement in their diversity initiatives. The company now has diversity councils around the world, which involve some 1000 employees, including many retail branch employees. Third, the company considers itself unique in extending its diversity efforts beyond race and gender also to include disabilities, religion, sexual orientation, and age.

Shortly after the launch of these initiatives, the CEO held a day-long, worldwide company forum to summarize findings from a series of focus groups with numerous groups of employees, including: women; African Americans; Hispanics; Asians; white men; disabled employees; generation Xers

and baby-boomers; and gay, lesbian, and bisexual people. The CEO's presentation focused on the importance of having a diverse workforce in order to reach and be responsive and credible to an increasingly diverse market. He reported that despite important firm initiatives that had created a more enabling work environment for many, focus group data suggested that stereotypes and unintentionally biased workplace practices still existed, and they contributed to an inhospitable work environment for many women, people of color, people with disabilities, and gay, lesbian, and bisexual people. Subsequent focus groups have revealed inter-generational conflict related to varying levels of comfort with technology as another source of tension in some branches. In addition, there is a widely shared perception that most middle-level managers, including many branch managers, do not 'walk the talk', even though senior executives were highly committed to working on diversity issues. Based on these findings, the corporate Diversity Council undertook an investigation into the factors that made it difficult or easy for middle-level managers to support diversity efforts and stepped up its diversity initiatives to assist them.

Many of the firm's diversity initiatives are aimed at changing the corporate culture so as to ensure a workplace where employees of all backgrounds and perspectives feel welcome, and where every employee feels her or his talents are matched by opportunities to grow and contribute. To this end, the company offers a number of voluntary programs to all employees, ranging from diversity education offerings and employee networking groups to mentoring opportunities and a variety of career development programs designed to attract and retain a broad range of employee talent and perspective. Most popular among branch employees are the diversity education offerings, described below in greater detail.

Finally, to ensure that their workforce reflects the communities they serve, the company aggressively recruits candidates of all backgrounds. Due in part to the success of their recruitment efforts, the racial composition of the branches is wide ranging, including branches that are predominantly black, Hispanic, Asian, or white, as well as branches with virtually every possible mix of these groups. Thus, this study overcomes a common limitation in diversity research, which often confounds racial heterogeneity with proportion minorities and limits comparisons to whites and blacks, or whites and 'others' (Williams & O'Reilly, 1998). Importantly, minority groups are represented in the officer ranks in nearly the same proportion as whites. In addition, consistent with demographic trends in retail banking industry-wide, most of the branches of this bank are female-dominated. This lopsided sex ratio means that variability in the sex composition of the branches is narrow, ranging from all women to about equal proportions of women and men. Thus, the male-dominated setting typical of many corporations is non-existent in the retail sector of the bank. At the corporate level, however, to which branches are in a formally subordinate position, the more typical pattern of male and white dominance prevails.

Method

Sample

The sample consists of 486 retail branches of the bank located primarily in and around a large city in the northeastern United States. In total, there were 7529 employees in the branches. Branches in this sample ranged in size from 4 to 70 employees, with an average of 15 and a standard deviation of 10. The average proportion of whites in the branches was 49 per cent; the average proportion of any one

racial or ethnic group of color ranged from 1 per cent (Native Americans) to 26 per cent (blacks). People of color were well represented in officer and non-officer ranks in the branches: on average, 44 per cent of officers and 55 per cent of non-officers were people of color. On average, 83 per cent of branch employees were women, and 77 per cent of officers and 86 per cent of non-officers were women. On average, employees' mean age in the branches was 37, with a standard deviation of 4, and employees' mean tenure with the bank was 8 years, with a standard deviation of 3.

Measures

Data came from three sources: (a) archival data on the race, sex, age, and tenure of each employee in each branch; (b) employee attitude–satisfaction data from an annual survey (response rate was 86 per cent); and (c) branch performance data used to allocate bonuses to branches. The data represent one time period and were collected at the end of 1999. There were four sets of measures, described below, to test the hypotheses in this study, each constructed with the branch as the unit of analysis.

Diversity

From the archival employee demographic data, I constructed branch-level measures of tenure and age diversity, using coefficients of variation (Allison, 1978), and sex and racial diversity, using the index of heterogeneity (Bantel & Jackson, 1989; Blau, 1977). The tenure variable is length of time employed by the company (which could be equal to or greater than the length of employment in a branch location). Correlations between racial group proportions and the measure of racial heterogeneity were low: racially homogeneous branches included those that were all or nearly all white, Asian, Hispanic, and black. In addition, most of the branches were predominantly female, so that variability in this sample on sex diversity ranges from maximally diverse branches, which are branches with nearly equal proportions of women and men, to maximally homogeneous branches, which are branches that are all women. Consequently, the correlation between proportion female and the sex heterogeneity index was high ($r = -0.97$). Regression analyses were the same using either variable, and I report results using the proportion female variable, which has more intuitive appeal.

Participation in diversity education programs

The measure of employee participation in diversity education programs was the proportion of employees in the branch who indicated on the employee attitude–satisfaction survey that they had, or were currently participating in, the firm's 'diversity education programs, e.g., interactive theater, managing diversity, valuing diversity.' Table 1 summarizes the diversity education programs in which branch employees were mostly likely to participate. Most programs addressed multiple dimensions of diversity, such as race, ethnicity, gender, age, religion, disabilities, and sexual orientation, while a few focused on a specific dimension such as age or gender. The primary purposes of these programs are to increase awareness of cultural differences and how people's perceptions, biases, and stereotypes of others influence their behavior, and to teach skills for addressing conflicts and managing discussions of issues related to diversity. In Nemetz and Christensen's (1996) typology of diversity training programs, these tactics fit the functionalist or functional pluralist view of the nature of society and the ideal state of multiculturalism.

Participation in the firm's diversity education programs is entirely voluntary. An employee requests permission to attend a diversity session from her or his manager and is granted permission unless the employee's absence unduly hampers the branch's ability to function. Employees' requests are virtually always accommodated, if not immediately, then within a reasonable timeframe.

Table 1. Diversity education programs commonly attended by branch employees

Course title	Course description	Diversity dimensions addressed ^a	Skill building included ^b	Length
Applying diversity	This is an introduction to key diversity activities linked to [company] values. Participants will explore diversity issues via case studies in addition to identifying ways to apply new learning's in the workplace			Half day
Applying diversity for managers	In this program, managers explore ways to utilize the diversity strategy to operationalize core business values and practices. Individuals practice skills required to realize [company] diversity strategy and learn ways to create a more inclusive environment		√	One day
Leveraging differences through living [company] values	This interactive session engages individuals in exploring personal values and perspectives. Participants learn to recognize the impact of personal perceptions on the workplace and explore the dynamics of inclusion and exclusion. They learn skills to address diversity conflicts and inappropriate behavior and develop an action plan with concrete ideas for leveraging diversity and living the [company] values		√	Half day
Managing diversity with skill building	This one-day session increases awareness of cultural differences and demonstrates ways to manage emotional climate in diversity discussions		√	Two days
Boomers vs. Xers: generational differences in the workplace	This session provides a better understanding of different generational perspectives on: work value, work/life balance issues, and politics at work via dialogue between generation Xers and boomers. Participants explore stereotypes faced by each generation in the workplace and identify ways to attract and retain the newest generation of workers	Age		Two hours
Culturally competent interviewing	Through the use of role-playing, participants examine the dimensions of diversity and their impact on the hiring process. Participants gain an understanding of biases and filters that may have an impact on their impressions of job candidates		√	One day
Gender flex	Participants gain a better understanding of male and female communication and learn ways to selectively adapt their communication styles to reflect the content, style, and structure of both genders	Gender		Two hours

Continues

Table 1. Continued

Course title	Course description	Diversity dimensions addressed ^a	Skill building included ^b	Length
Micro-inequities: the power of small	This course increases awareness of micro-inequities in the workplace. Participants explore the impact of micro-inequities on team dynamics, on the individual and on productivity and they develop skills to help minimize the impact of micro-inequities in the workplace		✓	One day
Transcultural competence	Participants increase their awareness of diversity issues and confront stereotypes in order to achieve excellence in the workplace. They learn about the norms, values, and behaviors that are key elements of a diverse workforce. Participants gain a new perspective about the role of diversity in team building and are able to apply the concept of the 'respectful organization' as a means of effectively resolving conflict		✓	One day

^aIf blank, then several dimensions of diversity are addressed in the program.

^bWhile most of the skill-building programs introduce a specific skill (ex: interviewing), some of the programs include case studies, which provide an opportunity for participants to apply new concepts.

Analyses of individual survey responses showed that men were somewhat more likely than women to participate in diversity education programs and that participation rates were slightly lower for blacks and Hispanics than for whites, Asians, or Native Americans. Not surprisingly, longer-tenured employees were more likely than those with shorter tenures to have attended a session, and officers were more likely to have attended than non-officers. These results are shown in Table 2. Analyses of branch-level data, presented in Table 3, show that racial, sex, age, and tenure diversity are unrelated to participation in diversity education programs; proportion of black employees is positively related to participation whereas proportion of Hispanic employees is negatively related; mean age and mean tenure of branch employees are also negatively related to participation.

Team processes

I developed a branch-level measure of the quality of a branch's team processes on the dimensions of teamwork and cooperation by averaging across the following five attitude-satisfaction survey items:

1. The people I work with cooperate to get the job done.
2. Employees at my work unit feel comfortable working with people from different backgrounds.
3. The people in my business/function have the skills and abilities to be a winning team.
4. In my business unit people openly discuss mistakes in order to learn from them.
5. How do you rate teamwork on your area at the present time?

Employees rated the first four items on a Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*) and responded to the last question on a similar scale from 1 (*very poor*) to 5 (*very good*). Principal components factor analysis, followed by varimax rotation, yielded a single factor on which these five items loaded, with factor loadings between 0.33 and 0.69; the scale's Cronbach's alpha was 0.88.

Table 2. Characteristics of participants in diversity education programs

Participant characteristics	Proportion ^a
<i>Race</i>	
White	0.30
Black	0.28
Hispanic	0.26
Asian	0.31
Native American	0.30
<i>Sex</i>	
Men	0.34
Women	0.26
<i>Tenure</i>	
Less than 6 months	0.14
6–12 months	0.16
1–5 years	0.22
8–10 years	0.29
10–20 years	0.36
20+ years	0.37
<i>Rank</i>	
Officer	0.38
Non-officer	0.23

^a $n = 7529$.

The individual data converged at the branch level, such that the intraclass correlation (ICC), which measured the extent to which branch employees' responses agreed with each other and differed from other branches' (Kenny and La Voie, 1985), was greater than zero and significant at the $p < 0.0001$ level.²

Team performance

I obtained performance measures from the firm's bonus incentive plan for motivating team performance. The plan assesses branch performance in several domains, relative to goals set for the branch. Goals are primarily a formulaic function of the branch's performance in the previous period, adjusted for any expected environmental irregularities, such as the closing of another branch in the area or unavoidable, long-term staffing shortages. Regional and branch managers make any necessary adjustments by mutual agreement. The plan allocates points in each performance domain on the basis of percentage of goal attained, giving the most points in domains for which the firm wants to provide the strongest incentives. Each branch receives a total performance score, which is the sum of points across performance domains. The system is designed such that branches that, on balance, meet their goals receive a total performance score of 100 points. Branches exceeding their goals receive additional points. Branches receive a monetary bonus in accordance with a set pay-out schedule, which is tied to points; the bonus is distributed to all employees in the branch according to grade level. I used four measures from this performance measurement system as the dependent variables for this study: (a) the *total performance score*, as an overall measure of branch performance; (b) percentage goal attainment in revenue from *new sales*; (c) percentage goal attainment in *customer satisfaction*, which is a composite score assessed from independently conducted surveys of approximately 50 randomly

²To generate the intraclass correlation coefficient, I conducted a one-way analysis of variance (ANOVA) on the individual-level survey data set of 7529 employees, with branch as the independent variable and the five-item team processes scale as the dependent variable. Intraclass correlations are significant when the one-way ANOVA from which the coefficients are derived are significant (Kenny & LaVoie, 1985).

Table 3. Means, standard deviations, and correlations for all variables^{a,b}

	Means	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1. # of employees	15.74	9.56	1.00																				
2. % black	0.26	0.23	0.21	1.00																			
3. % Native American	0.007	0.03	0.03	0.05	1.00																		
4. % Asian	0.07	0.11	0.02	-0.09	0.07	1.00																	
5. % Hispanic	0.17	0.18	0.19	-0.04	0.02	-0.15	1.00																
6. % white	0.49	0.29	-0.29	-0.72	-0.16	-0.22	-0.55	1.00															
7. % women	0.83	0.12	-0.17	-0.16	-0.05	-0.11	-0.14	0.26	1.00														
8. Mean age	37.41	4.31	-0.14	-0.32	-0.04	-0.04	-0.34	0.48	0.18	1.00													
9. Mean tenure	7.85	2.82	0.00	0.13	-0.05	-0.03	-0.22	0.05	0.11	0.55	1.00												
10. Racial diversity	0.47	0.20	0.26	0.39	0.25	0.21	0.25	-0.56	-0.29	-0.35	-0.14	1.00											
11. Sex diversity	0.26	0.15	0.23	0.18	0.02	0.12	0.18	-0.30	-0.97	-0.20	-0.10	0.32	1.00										
12. Age diversity	0.30	0.06	0.16	0.03	0.01	0.04	0.12	-0.11	-0.13	-0.16	-0.14	0.20	0.14	1.00									
13. Tenure diversity	0.92	0.23	0.10	0.25	0.07	0.01	0.14	-0.29	-0.11	-0.47	-0.19	0.16	0.13	0.19	1.00								
14. Team processes	3.81	0.33	-0.10	-0.26	-0.01	0.05	-0.04	0.21	0.07	0.06	-0.10	-0.07	-0.08	0.05	-0.11	1.00							
15. Diversity programs	0.20	0.14	0.07	-0.16	-0.05	0.07	0.12	0.03	-0.07	-0.11	-0.24	0.03	0.08	0.06	-0.02	0.09	1.00						
16. New sales revenue	106.67	33.03	0.24	-0.03	-0.07	-0.04	0.17	-0.06	-0.04	-0.10	-0.10	0.02	0.06	0.08	-0.03	0.12	0.16	1.00					
17. Customer satisfaction	98.05	7.15	-0.06	-0.16	-0.03	0.01	-0.28	0.30	0.09	0.25	0.16	-0.12	-0.12	-0.09	-0.22	0.22	0.00	0.04	1.00				
18. Customer referrals	113.10	47.68	-0.10	-0.03	0.08	0.04	-0.12	0.07	0.12	0.10	0.23	-0.07	-0.11	-0.13	0.04	0.05	-0.07	0.14	0.11	1.00			
19. Sales productivity	113.00	18.68	0.15	-0.12	-0.09	-0.07	0.16	0.03	-0.04	-0.08	-0.27	0.01	0.05	0.03	-0.10	0.14	0.21	0.50	0.02	-0.01	1.00		
20. Total performance score	81.82	26.15	0.10	-0.13	-0.02	0.00	-0.13	0.19	0.06	0.14	0.13	-0.07	-0.07	-0.05	-0.16	0.23	0.04	0.57	0.62	0.37	0.34	1.00	

^aCorrelation coefficients greater than 0.09 are statistically significant at $p < 0.05$, two-tailed.

^b $n = 486$.

selected customers for each branch; (d) percentage goal attainment in the number of *customer referrals* to bank services, which are referrals by employees from one product to another that resulted in a sale; and (e) percentage goal attainment in *sales productivity*, which is the total revenue from new sales relative to total salary expense. I focused on these domains of performance, in addition to total performance, because they were the domains to which all branch employees were expected to contribute. By using percentage goal attainment, I was able to control for much of the variance in performance that results from differences in the wealth and size of the branches' catchment area.

Results

Table 3 presents means, standard deviations, and correlations of all variables. Correlations tend to be relatively low. Of particular note are the low correlations among the four domains of performance, suggesting their independence. An exception is the correlation between new sales and sales productivity, likely due to the fact that sales productivity is a function of new sales. With the exception of a negative relationship between tenure heterogeneity and customer satisfaction, none of the diversity variables was notably correlated with performance or quality of team processes. Branches with higher-quality team processes performed better on customer satisfaction goals and attained higher total performance scores. Branches showing higher levels of diversity program participation had higher attainment of their sales productivity goals.

In a series of hierarchical regressions, I tested for the main and interaction effects of diversity on team processes,³ the four measures of branch performance, and the total performance score. Step 1 of the regressions contains the control variables, including branch size, proportions of each of the four minority racial groups, mean age, and mean tenure in the branches. Step 2 includes the main effects of the four diversity variables (Hypotheses 1–4). Step 3 includes the main effects of employee participation in diversity education programs and, in regressions predicting performance, quality of team processes⁴ (Hypotheses 5). Step 4 includes the interactions between age, sex, and racial diversity, on one hand, and employee involvement in diversity education programs, on the other (Hypotheses 6). For regressions predicting performance, there is a Step 5, which adds the two-way interactions between each of the four diversity variables and quality of team processes (Hypotheses 7). Table 4 presents these results.

Main effects of diversity on team processes and performance

Most notable in these results is the relative lack of statistically significant relationships between diversity and either team processes or performance. There was mixed support for the hypothesis that tenure diversity would be positively related to performance (Hypotheses 1) and minimal support for the hypothesis that age diversity would be negatively related to performance (Hypotheses 2). There was no support for the hypotheses that sex and race diversity would be positively related to performance

³I had not hypothesized direct effects of diversity on team processes, commonly posited in the diversity literature, because the organizational context in which I conducted this research was favorable to diversity and thus provided no reason to believe that diversity should be related to the level of cooperation and teamwork in a branch. Nevertheless, it was valuable to test this assumption.

⁴Although not warranted in the organizational context of this study, quality of team processes is commonly thought to mediate the relationship between diversity and performance (Chatman & Flynn, 2002; Harrison et al., 2002). Hence, it was worthwhile testing this possibility.

Table 3. Hierarchical regressions of team processes and performance on diversity and employee involvement in diversity programs^a

	Team processes	New sales revenue	Customer satisfaction	Customer referrals	Sales productivity	Total performance score
<i>Step 1: Controls</i>						
# of employees	-0.001	0.70***	0.03	-0.44 [†]	0.32***	0.45***
% black	-0.36***	-16.44*	-5.22***	-19.54 [†]	-6.17	-22.33***
% Native American	0.27	11.10	-4.37	130.16	-52.39	-10.04
% Asian	0.04	-14.21	-2.14	7.32	-11.17	-10.88
% Hispanic	-0.11	12.50	-10.06***	-20.88	8.95 [†]	-22.56**
Mean age	0.0003	-0.72	0.12	-1.44*	0.50 [†]	-0.11
Mean tenure	-0.01	-0.64	0.21	4.93***	-2.05***	1.07*
R ²	0.084	0.080	0.129	0.081	0.132	0.074
F	6.23***	5.94***	10.02***	5.98***	10.41***	5.46***
<i>Step 2: Main effects of diversity</i>						
Racial diversity	0.02	-1.40	0.51	0.81	-0.17	1.34
% women	0.01	0.96	0.06	3.63	-0.33	0.77
Age diversity	0.02	0.25	-0.20	-4.79*	-0.21	-0.77
Tenure diversity	-0.02	-3.01 [†]	-0.82*	5.79*	-2.65**	-3.04*
R ²	0.093	0.088	0.144	0.104	0.148	0.088
Change in R ²	0.009	0.008	0.015	0.023	0.016	0.014
F change	1.20	1.05	2.05 [†]	3.11*	2.22 [†]	1.87
<i>Step 3: Main effects of context</i>						
Diversity programs	0.01	1.90	0.14	0.03	2.10*	0.79
Team processes		4.47**	1.33***	3.25	1.94*	5.47***
R ²	0.095	0.108	0.176	0.108	0.170	0.129
Change in R ²	0.002	0.020	0.032	0.004	0.022	0.041
F change	0.95	5.32**	9.22***	1.11	6.32**	11.11***
<i>Step 4: Interactions with diversity programs</i>						
Racial diversity × programs	0.01	0.55	-0.18	1.83	0.30	1.22
% Women × programs	-0.02	-0.30	-0.12	5.00*	0.43	0.55
Age diversity × programs	0.00	1.21	-0.25	0.57	0.05	-0.88
R ²	0.099	0.110	0.178	0.118	0.171	0.129
Change in R ²	0.004	0.002	0.002	0.010	0.001	0.000
F change	0.81	0.34	0.41	1.67	0.11	0.48
<i>Step 5: Interactions with team processes</i>						
Racial diversity × processes		1.25	-0.09	2.56	-0.63	0.38
% Women × processes		-0.42	-0.19	2.76	-0.42	-1.00
Age diversity × processes		-4.46**	0.04	-4.07 [†]	-0.12	-2.38*
Tenure diversity × processes		-1.0	-0.69*	-3.34 [†]	-0.66	-2.50*
R ²		0.128	0.188	0.136	0.174	0.150
Change in R ²		0.018	0.010	0.018	0.003	0.021
F change		2.32 [†]	1.43	2.41*	0.34	2.40*
N	486	486	486	486	486	486

^aAll diversity and context variables standardized.[†] $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed.

(Hypotheses 3 and 4). Tenure diversity was negatively associated with attainment of goals set for sales productivity and customer satisfaction: a one standard unit increase in tenure diversity was associated with 2.7 and 0.8 percentage point decreases in these measures of performance, respectively. Tenure diversity was also negatively associated with total performance scores: a one standard unit increase in tenure diversity was associated with a 3.0-point decrease in branches' total performance score. Tenure diversity was positively associated with customer referrals, such that a one standard unit increase in tenure diversity was associated with a 5.8 percentage point increase in branches' attainment of customer referral goals. This finding, however, was the only direct positive relationship between a diversity variable and performance. Consistent with my hypothesis, age diversity was negatively associated with customer referrals, such that a one standard unit increase in age diversity was associated with a 4.8 percentage point decrease in branches' attainment of customer referral goals.

Impact of team processes

As expected, and contrary to social categorization predictions, none of the diversity variables was related to quality of team processes and thus team processes did not mediate relationships between diversity and performance. Not surprisingly, however, quality of team processes had a direct, positive relationship with several measures of performance. In particular, a one standard unit increase in quality of team processes was associated with 4.5, 1.3, and 1.9 percentage point increases in branches' attainment of goals set for revenue from new sales, customer satisfaction, and sales productivity, respectively, and a 5.5-point increase in branches' total performance score.

Quality of team processes moderated the relationship between age and tenure diversity, on the one hand, and several measures of performance, on the other, but not in the way I had anticipated (Hypotheses 7). Instead, there was a theoretically inexplicable, yet consistent, pattern of results such that greater cooperation and teamwork were associated with performance losses from diversity, whereas lower levels of cooperation and teamwork were associated with either performance gains or no relationship between diversity and performance. In particular, high cooperation and teamwork was associated with a negative relationship between age diversity and attainment of goals set for revenue from new sales, tenure diversity and goals set for customer satisfaction, and both age and tenure diversity and total performance. When cooperation and teamwork were low, the impacts of age and tenure diversity on performance were less consistent. Under these conditions, age diversity had a strong positive relationship with revenue from new sales and a weak positive relationship with total performance; tenure diversity had a weak negative relationship to both customer satisfaction and total performance. These findings are depicted in Figures 1–4. Similar patterns were also evident for the impacts of both age and tenure diversity on branches' attainment of customer referral goals, but these results were only marginally significant ($p < 0.10$).

Impact of diversity education programs

No evidence supported the prediction that employee participation in the bank's diversity education programs would positively affect branch performance (Hypotheses 5), and only modest support appeared for the hypothesis that it moderated the impact of diversity on performance (Hypotheses 6). Again, however, the nature of the moderation was counter to my prediction, which had derived from the strong diversity orientation of the firm. Findings showed that the closer to sex-balanced a branch's composition, the worse the performance, but only in branches with a high level of employee involvement in diversity education programs. Team processes had no mediating effect. Figure 5 illustrates this effect.

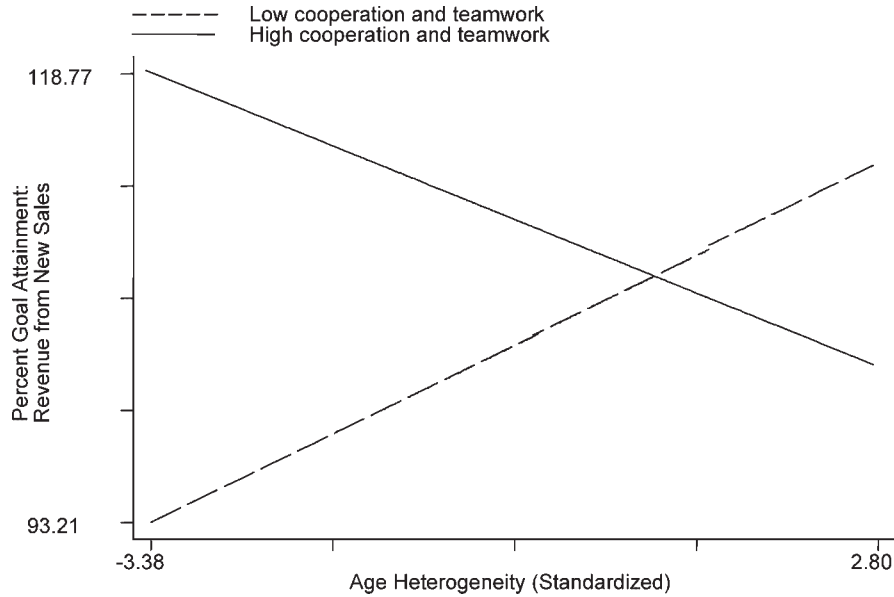


Figure 1. Interaction effect of age heterogeneity and quality of team processes on revenue from new sales

Other findings

Proportionate representation of different racial groups in branches was associated with several outcomes. Branches with higher proportions of black employees had lower-quality team processes. They also had lower revenue from new sales and lower customer satisfaction, relative to goals; and they had lower total performance scores. Quality of team processes did not mediate these negative effects on performance. Likewise, branches with higher proportions of Hispanic employees had lower customer satisfaction, relative to goals, and lower total performance scores.

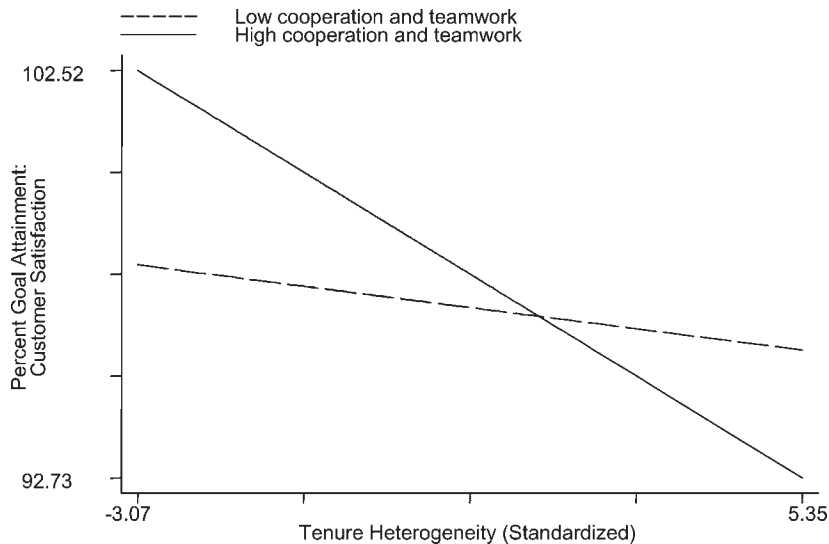


Figure 2. Interaction effect of tenure heterogeneity and quality of team processes on customer satisfaction

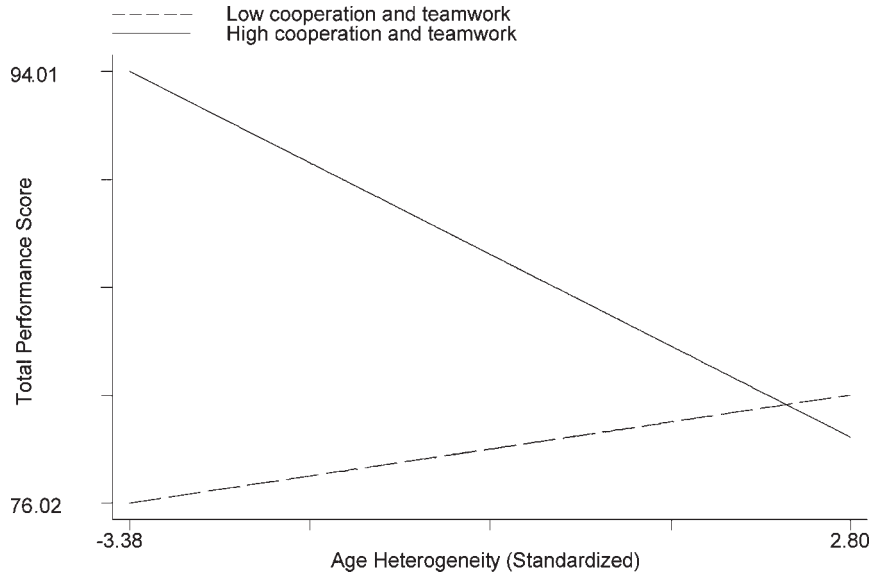


Figure 3. Interaction effect of age heterogeneity and quality of team processes on total performance score

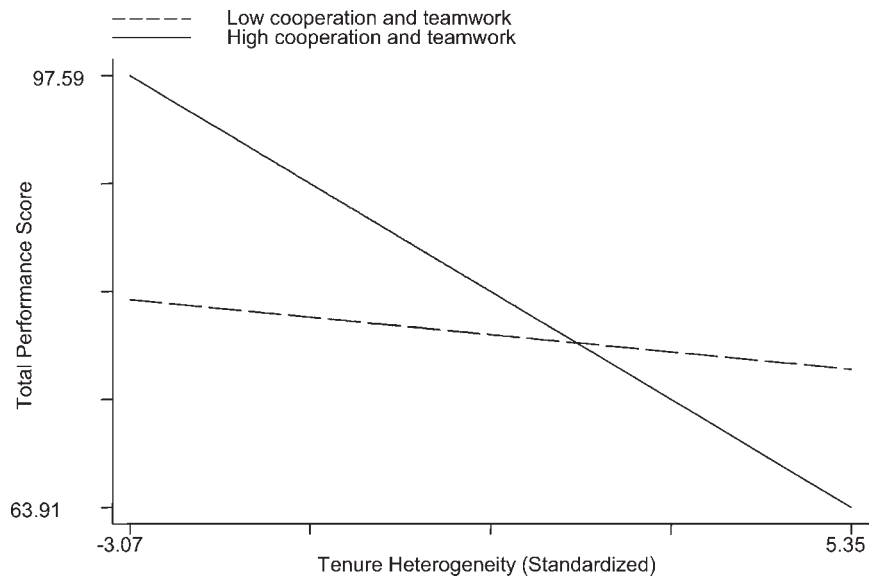


Figure 4. Interaction effect of tenure heterogeneity and quality of team processes on total performance score

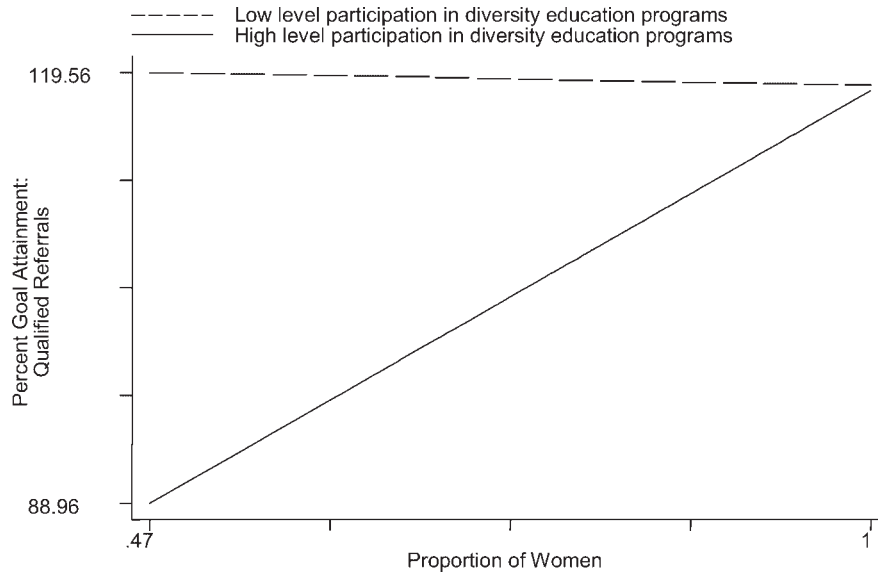


Figure 5. Interaction effect of proportion of women and level of participation in diversity education programs on customer referrals

Discussion

Based on a sample of 486 retail branches of a bank, this study examined the impact of four dimensions of diversity on team performance and assessed the role played by team processes and employee participation in the firm's diversity education programs. Results were consistent with previous studies that found that diversity has no strong or consistent impact on performance, either positive or negative. Nevertheless, interpreted in light of the current research setting, many of the findings presented here provide external validity for conclusions drawn from previous laboratory and classroom studies. Moreover, the unexpected findings concerning the role of cooperation and teamwork in shaping the diversity–performance link suggest new directions for future research in this area.

Impact of race and sex diversity on team performance

As expected, but counter to social categorization and similarity–attraction theories, neither race nor sex diversity was negatively related to performance. Several factors, identified in previous laboratory and classroom research, likely mitigated possible negative effects. First, I collected the data in the field, where people have the opportunity to interact with each other over relatively long periods of time, exchange more personal, idiosyncratic information, and observe larger samples of each other's behavior (Gruenfeld, Mannix, Williams, & Neale, 1996), thus affording them the opportunity to test their stereotypes against reality and have them disconfirmed. As demonstrated in classroom studies, the impact of surface-level differences in race and sex becomes less important over time, as people pay more attention to deep-level differences in attitudes and values and reduce stereotypic thoughts and evaluations (Harrison et al., 2002). Second, the performance measurement system in the branches I

studied was tied to team performance. Studies of MBA students have shown that team goals increase the salience of team members' shared fate, motivating group members to see themselves as one unified group rather than as individuals differentiated by demographic characteristics. This dynamic mitigates process losses that otherwise impede the performance of diverse teams (Chatman et al., 1998; Harrison et al., 2002). Thus, this study provides support from the field for previous research findings about the factors that mitigate the negative effects of race and sex diversity on performance in classroom and simulated settings.

Counter to my expectations, however, neither race nor sex diversity was positively related to team performance. Although the firm's business strategy positioned branches to reap benefits from their diversity, including their race and sex diversity, the null results reported here suggest that firm positioning may be necessary but insufficient for fostering performance gains from diversity. Such a finding begs the question of what conditions would enable such gains. Yet most studies that examine moderators of the diversity–performance link address factors that mitigate the liabilities of diversity rather than those that foster its benefits.

The drawback of research focusing on factors mitigating liabilities is that mitigating factors tend to work by suppressing divisive differences. Such suppression discards the very source of benefits that diversity is supposed to provide. In short, if group members suppress their differences then they may have difficulty mobilizing them as resources in service of the group's work (Polzer et al., 2002). It may be that to benefit from diversity requires more than simply operating in a favorable environment or mitigating diversity's negative effects.

Recent research has identified a team's perspective on diversity as one factor that fosters benefits from cultural diversity (Ely & Thomas, 2001). Groups that used their cultural knowledge as a resource for learning how better to do the group's core work had more open discussions because differences—including those explicitly linked to cultural experience—were valued as learning opportunities. This process encouraged employees to express themselves as members of their racial identity groups, providing more opportunities for cross-cultural learning, which in turn enhanced the group's performance. Thus, in order to reap the benefits of cultural dimensions of diversity, such as race and sex, teams in favorable diversity contexts may also need to take a learning perspective on their diversity. Unfortunately, the team process measure available in this study, which did not moderate the impact of either race or sex diversity on performance, did not measure this aspect of the team's process.

An alternative explanation for the lack of performance pay-offs from diversity may be that beneath race and sex differences were deep-level similarities in attitudes and values (Harrison, Price, & Bell, 1998). Organizations tend to attract, hire, and retain similar types of people (Schneider, 1987). Therefore, even with the company's commitment to hiring and retaining a race- and sex-diverse workforce, employees may have been relatively homogeneous at a deeper level. This line of reasoning suggests that null results may be more common in field studies where a variety of factors, such as selection effects and conformity pressures, may suppress variation, compared to laboratory studies where experimenters have more control and can ensure variation in their samples.

Finally, it is important to note that although racial diversity did not have a negative impact on performance, higher proportions of black and Hispanic employees were associated with lower performance on customer satisfaction and the total performance score, and for the former group, new sales revenue. The racial and economic make-up of customers may help explain these findings. Lower customer satisfaction may reflect differences between the racial composition of branch employees and branch customers, which in turn may underlie the negative effects on bottom-line measures of performance. Yet a study testing this possibility provides only limited support. Leonard, Levine, and Joshi's (2004) investigation of the impact on performance of the employee–customer racial match also found that proportion of black (but not Hispanic) employees lowered sales performance, but employee–customer racial match played a negligible role. Rather, lowered performance scores may

stem from customers' negative biases toward these groups or to omitted employee-related factors that co-vary with race and reduce effectiveness, such as training or experience.

Alternatively, it may be that branches with higher proportions of black and Hispanic employees serve more economically disadvantaged customers relative to branches with higher proportions of white employees, thus artificially driving down performance measures. The attempt to use relative measures of performance in these analyses may not have been entirely successful in mitigating such effects. The fact that quality of team processes did not mediate these race–performance relationships supports interpretations centering on customer composition, which locate the difficulty in the interface between employees and customers, rather than among employees. Unfortunately, the lack of data on customers does not allow a test of these possibilities. Research on the impact of employee–customer match is scant, and the Leonard et al. findings suggest that the role of customer preferences is complex and deserving of attention.

Impact of tenure and age diversity on team performance

The hypothesis that tenure diversity would be positively related to performance received only modest support. Branches with greater tenure diversity had more success in reaching their goals for customer referrals. This was the only instance in which any dimension of diversity had a positive effect on any dimension of performance, suggesting that it may have occurred by chance. Alternatively, tenure diversity may be an especially important resource for increasing referrals, if different organizational cohorts are exposed to and knowledgeable about different types of products or if diversity on this dimension creates more productive interactions among employees and between employees and customers. This latter interpretation is consistent with previous research, which showed that greater tenure diversity was associated with more customer-oriented prosocial behavior among sales staff (Kizilos, Pelled, & Cummings, 1996, cited in Williams & O'Reilly, 1998).

More often than not, tenure diversity was associated with lower performance, as was age diversity. Higher tenure diversity was associated with lower attainment of customer satisfaction and sales productivity goals and lower total performance scores. Higher age diversity was associated only with lower attainment of customer referral goals. To fully understand the effects of tenure and age diversity on performance requires attention to the moderating impact of employees' perceptions of cooperation and teamwork. Employees' perceptions of cooperation and teamwork had a positive impact on several measures of performance, which provides some evidence for the predictive validity of the team process measure, but they moderated the effects of age and tenure diversity in an unexpected way. Contrary to my predictions, in branches with high cooperation and teamwork, the relationship between diversity and performance was negative, and in branches with low cooperation and teamwork that relationship was either positive or absent. Thus the negative main effects of age and tenure diversity on performance appear to be partly dependent on the nature of team processes in the branch.

One explanation for these results is that there may be a trade-off between cooperation/teamwork and the expression of differences. When cooperation and teamwork are high, it may be at the expense of team members' expressing and drawing on differences that could benefit the work. In this particular organization, tensions around the use of information technology hamper cross-generational relationships. It is possible that tenure diversity reflects similar tensions, if longer-standing employees are more used to traditional, less technological ways of working, while newer and perhaps younger employees with technological experience from other companies are more interested in and capable of augmenting work processes via new technology. These tensions, although apparently not interfering with teamwork and cooperation, may nevertheless surface in ways that compromise performance. In contrast, low levels of cooperation and teamwork may enable these differences to surface in ways that

enhance performance or, at least, do not hinder it. An alternative explanation may be that the tension that results from considering a diversity of ideas, which also produces high performance, leads people to rate their teams lower on teamwork and cooperation.

This last possibility raises a question as to what employees have in mind when they encounter these team process items on the employee survey instrument. One possibility is that these items are tapping the degree to which conflict is suppressed in the group. Less conflict may translate into higher scores and more conflict into lower scores. But low conflict is not always desirable. Certain types of diversity-related conflict can enhance performance, especially if they are constructively harnessed to the task (Ely & Thomas, 2001; Jehn, 1995; Jehn, Northcraft, & Neale, 1997). For example, people from culturally different backgrounds may have different views about how to define or solve a problem, which can increase conflict while also increasing the range and quality of alternatives considered. These findings suggest that qualitative research, which can ascertain the actual nature of productive and unproductive conflict, may be an appropriate methodology for questions regarding teamwork and conflict. Alternatively, quantitative researchers may need to attend to question design issues when asking about these practices.

Impact of employee participation in diversity education programs

I found no support for predictions about the impact of employee involvement in diversity education programs on performance. Such involvement did not foster a positive relationship between diversity and performance. Instead, it appeared that, if anything, participation in diversity education programs may have created a social trap problem in branches with roughly equal proportions of men and women, i.e., branches that were maximally diverse with respect to sex. In these branches, greater participation in diversity education programs was associated with lower achievement of customer referral goals. One reason may be that when sex composition reaches parity, some men may resent such programs and their beneficiaries (Kirby, 1997). Alternatively, these programs may have focused too superficially on communicating diversity as a company value rather than on giving people concrete skills for how to use diversity as a resource and how to manage conflict constructively. Without such skills, co-workers and managers may fail to meet the new behavioral expectations set by these programs, which can lead employees to become cynical (Kossek & Lobel, 1996; Morrison et al., 1993). A final possible explanation is that if diversity education programs—many of which focus on the negative impacts of stereotypes and biases—communicate to employees that diversity is primarily a moral and ethical issue, then intergroup exchanges can devolve into charges and countercharges of prejudice and discrimination, creating more negative than positive effects on group functioning and performance (Ely & Thomas, 2001).

Bear in mind that the overall finding is one of no effect of diversity programs on performance; the finding discussed above is quite minor. It occurred for only one dimension of diversity on one measure of performance. The fact that diversity programs did not moderate the impact of any other dimensions of diversity on any other performance measure suggests that these programs either have no effects or that they are successfully addressing the problems they are designed to address.

Limitations

This study has several limitations. First, because participation in diversity education programs was voluntary, it is unclear if the link between low performance and being in a sex-balanced group with a high proportion of group members who had participated in diversity programs is due to that

participation or is instead spurious. It may be that tension and poor performance are what led these employees to participate at higher rates in the first place. In short, the study design does not enable disentangling the causal chain. Second, the measure of participation in diversity training programs—the proportion of employees in a branch who have attended at least one such program—may well have been insufficiently sensitive to capture the relevant effects of such programs, making it difficult to draw definitive conclusions about their impact. Finally, the employee satisfaction poll was the only source of data on factors that might moderate the impact of diversity on performance. These data did not provide measures of many of the factors identified by previous research as potential moderators that might foster performance benefits from diversity.

Conclusions

Despite these limitations, this study adds to the growing body of evidence on the impacts of diversity at work and the conditions that might foster better performance in diverse groups. Its strengths lie in the fact that it assesses the diversity–performance link using bottom-line measures of business performance in a relatively large sample of workgroups engaged in comparable work. The high quality of the diversity and performance measures together with the large sample should increase one's confidence in the null results concerning both race and sex diversity: these dimensions of diversity appear to have neither a net positive nor a net negative effect on performance in field settings of this kind. Less conclusive are the results concerning team processes and diversity programs as possible moderators of these relationships, given the limitations of these measures in this study. Team processes did, however, have a consistent, if counterintuitive, effect on the relationship between tenure and age diversity, on the one hand, and multiple measures of performance, on the other. These results strongly suggest that at least some forms of teamwork and cooperation may sometimes be at odds with a group's capacity to leverage such differences effectively. Team processes are complex, however, and it is worth exploring in future research how different kinds of team processes may moderate the impact of different dimensions of diversity.

Managers should take from this research a degree of caution in the way they address differences. While one would be hard pressed to suggest that enabling teamwork and cooperation is not a worthy goal in any team, managers should take care that such processes do not inadvertently suppress differences from which the workgroup could otherwise benefit. In addition, the failure to find positive relationships between diversity and performance in a setting that, by all accounts, should be a favorable one, suggests that, even in the best of settings, benefits from diversity will not accrue automatically. Further research into the conditions that enable employees to express their differences while maintaining effective work processes is needed. Such findings could help guide managers in their efforts to create better intergroup relations that would have the added benefit of harnessing employee differences in service to their work.

Author biography

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References

- Alagna, S., Reddy, D., & Collins, D. (1982). Perceptions of functioning in mixed-sex and male medical training groups. *Journal of Medical Education*, *57*, 801–803.
- Alderfer, C. P. (1987). An intergroup perspective on group dynamics. In J. W. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 190–219). Englewood Cliffs, NJ: Prentice-Hall.
- Allison, P. D. (1978). Measures of inequality. *American Sociological Review*, *43*, 865–880.
- Argote, L., Gruenfeld, D. H., & Naquin, C. (2001). Group learning in organizations. In M. Turner (Ed.), *Groups at work: Theory and research* (pp. 369–411). Mahwah, NJ: L. Erlbaum.
- Bantel, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: does the composition of the top team make a difference? *Strategic Management Journal*, *10*, 107–124.
- Barry, B., & Bateman, T. S. (1996). A social trap analysis of the management of diversity. *Academy of Management Review*, *21*, 757–790.
- Blau, P. M. (1977). *Inequality and heterogeneity*. New York: Free Press.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Catalyst. (1999). *Women of color in corporate management: Opportunities and barriers*. Catalyst: New York.
- Chatman, J., & Flynn, F. J. (2001). The influence of demographic heterogeneity on the emergence and consequences of cooperative norms in work teams. *Academy of Management Journal*, *44*, 956–974.
- Chatman, J., Polzer, J., Barsade, S., & Neale, M. (1998). Being different yet feeling similar: the influence of demographic composition and organizational culture on work processes and outcomes. *Administrative Science Quarterly*, *43*, 749–780.
- Clement, D. E., & Schiereck, J. J. (1973). Sex composition and group performance in a visual signal detection task. *Memory and Cognition*, *1*, 251–255.
- Cox, T. H., Jr. (1993). *Cultural diversity in organizations: Theory, research, and practice*. San Francisco: Berrett-Koehler.
- Cox, T. H., Jr., & Blake, S. (1991). Managing cultural diversity: implications for organizational competitiveness. *Academy of Management Executive*, *5*(3), 45–56.
- Cox, T. H., Jr., Lobel, S. A., & McLeod, P. A. (1991). Effects of ethnic group cultural differences on cooperative and competitive behavior on a group task. *Academy of Management Journal*, *34*, 827–847.
- Ely, R. J., & Thomas, D. A. (2001). Cultural diversity at work: the effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, *46*, 229–273.
- Fairhurst, G., & Snavelly, B. (1983). A test of the social isolation of male tokens. *Academy of Management Journal*, *26*, 353–361.
- Ford, J. K., & Fisher, S. (1996). The role of training in a changing workplace and workforce: new perspectives and approaches. In E. E. Kossek, & S. A. Lobel (Eds.), *Managing diversity: Human resource strategies for transforming the workplace* (pp. 164–193). Oxford: Blackwell.
- Gaertner, S., & Dovidio, J. (1986). The aversive form of racism. In J. Dovidio, & S. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61–89). New York: Academic Press.
- Gruenfeld, D., Mannix, E., Williams, K., & Neale, M. (1996). Group composition and decision making: how member familiarity and information distribution affect process and performance. *Organizational Behavior and Human Decision Processes*, *67*, 1–15.
- Hackman, J. R. (1987). The design of work teams. In J. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315–342). Englewood Cliffs, NJ: Prentice-Hall.
- Harrison, D. A., Price, K. H., & Bell, M. P. (1998). Beyond relational demography: time and the effects of surface- and deep-level diversity on work group cohesion. *Academy of Management Journal*, *41*, 96–107.

- Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams and task performance: changing effects of surface- and deep-level diversity on group functioning. *Academy of Management Journal*, *45*, 1029–1045.
- Hopkins, W. E., & Hopkins, S. A. (2002). Effects of cultural recomposition on group interaction processes. *Academy of Management Review*, *27*, 541–553.
- Jackson, S., & Schuler, R. S. (1995). Understanding human resource management in the context of organizations and their environments. In J. T. Spence, J. M. Darley, & D. J. Foss (Eds.), *Annual review of psychology* (Vol. 46, pp. 237–264). Palo Alto, CA: Annual Reviews.
- Jehn, K. (1995). A multi-method examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, *40*, 256–282.
- Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1997). Why differences make a difference: a field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly*, *44*, 741–763.
- Johnson, N. B. (2001). Understanding the impact of human resource diversity practices on firm performance. *Journal of Managerial Issues*, *13*, 177–195.
- Kenny, D. A., & La Voie, L. L. (1985). Separating individual and group effects. *Journal of Personality and Social Psychology*, *48*, 339–348.
- Kirby, S. L. (1997). Attitudes of White American male students toward work force diversity programs. *Journal of Social Psychology*, *137*, 784.
- Kochan, T., Bezrukova, K., Ely, R., Jackson, S., Joshi, A., Jehn, K., Leonard, J., & Levine, D. (2003). The effects of diversity on business performance: Report of the Diversity Research Network. *Human Resource Management Journal*, *42*, 3–21.
- Kossek, E. E., & Lobel, S. A. (1996). *Managing diversity: Human resource strategies for transforming the workplace*. Oxford: Blackwell.
- Kramer, R. M. (1991). Intergroup relations and organization dilemmas: the role of categorization processes. *Research in Organizational Behavior*, *13*, 191–228.
- Lau, D. C., & Murnighan, J. K. (1998). Demographic diversity and faultlines: the compositional dynamics of organizational groups. *Academy of Management Review*, *23*, 325–340.
- Leonard, J. S., Levine, D. I., & Joshi, A. (2004). Do birds of a feather shop together? The effects on performance of employees' similarity with one another and with customers. *Journal of Organizational Behavior*, *25*, 731–754.
- Levine, J. M., & Resnick, L. B. (1993). Social foundations of cognitions. *Annual Review of Psychology*, *41*, 585–612.
- McLeod, P. L., & Lobel, S. (1992). The effects of ethnic diversity on idea generation in small groups. Paper presented at the annual meeting of the Academy of Management, Las Vegas.
- Milliken, F., & Martins, L. (1996). Searching for common threads: understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, *21*, 402–433.
- Morrison, A., Ruderman, M., & Hughes-James, M. (1993). *Making diversity happen: Controversies and solutions*. Greensboro, NC: Center for Creative Leadership.
- Nemeth, C. (1986). Differential contributions of majority and minority influence. *Psychological Review*, *93*, 1–10.
- Nemetz, P. L., & Christensen, S. L. (1996). The challenge of cultural diversity: harnessing a diversity of views to understand multiculturalism. *Academy of Management Review*, *21*, 434–462.
- Noe, R. A., & Ford, J. K. (1992). Emerging issues and new directions for training research. In G. R. Ferris, & K. M. Rowland (Eds.), *Research in personnel and human resources management* (Vol. 10, pp. 345–384). Greenwich, CT: JAI Press.
- O'Reilly, C. A., Caldwell, D., & Barnett, W. (1989). Work group demography, social integration, and turnover. *Administrative Science Quarterly*, *34*, 21–37.
- O'Reilly, C. A., Williams, K., & Barsade, S. (1997). Group demography and innovation: does diversity help? In E. Mannix, & M. Neale (Eds.), *Research in the management of groups and teams* (Vol. 1, pp. 183–207). Greenwich, CT: JAI Press.
- Pelled, L. H. (1966). Relational demography and perceptions of group conflict and performance: a field investigation. *International Journal of Conflict Resolution*, *7*(3), 230–246.
- Platt, J. (1973). Social traps. *American Psychologist*, *28*, 641–651.
- Polzer, J. T., Milton, L. P., & Swann, W. B. (2002). Capitalizing on diversity: interpersonal congruence in small work groups. *Administrative Science Quarterly*, 296–324.
- Richard, O. (2000). Racial diversity, business strategy, and firm performance: a resource-based view. *Academy of Management Journal*, *43*, 164–177.

- Robinson, G., & Dechant, K. (1997). Building a business case for diversity. *Academy of Management Executive*, *11*, 21–31.
- Ruhe, J. A. (1978). Effect of leader sex and leader behavior on group problem-solving. *Proceedings of the American Institute for Decision Sciences, Northeast Division*, 123–127.
- Schneider, B. (1987). People make the place. *Personnel Psychology*, *40*, 437–453.
- Schreiber, C. (1979). *Changing places: Men and women in transitional occupations*. Cambridge, MA: MIT Press.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge, U.K.: Cambridge University Press.
- Tsui, A. S., Egan, T. D., & O'Reilly, C. A. (1992). Being different: relational demography and organizational attachment. *Administrative Science Quarterly*, *37*, 549–579.
- Turner, J. C. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell.
- Wanous, J. P., & Youtz, M. A. (1986). Solution diversity and the quality of group decisions. *Academy of Management Journal*, *29*, 149–159.
- Watson, W. E., Kumar, K., & Michaelsen, L. K. (1993). Cultural diversity's impact on interaction process and performance: comparing homogeneous and diverse task groups. *Academy of Management Journal*, *36*, 590–602.
- Wharton, A. S. (1992). The social construction of gender and race in organizations: a social identity and group mobilization perspective. *Research in the Sociology of Organizations*, *10*, 55–84.
- Williams, K., & O'Reilly, C. (1998). Demography and diversity in organizations: a review of 40 years of research. *Research in Organizational Behavior*, *20*, 77–140.
- Wright, P., Ferris, S. P., Hiller, J. S., & Kroll, M. (1995). Competitiveness through management of diversity: effects on stock price valuation. *Academy of Management Journal*, *38*, 272–287.
- Zenger, T., & Lawrence, B. (1989). Organizational demography: the differential effects of age and tenure distributions on technical communications. *Academy of Management Journal*, *32*, 353–376.