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# DIVERSITY AND INCLUSION: TOWARDS A BETTER UNDERSTANDING OF MANAGEMENT AND MEASUREMENT

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In collaboration with the Bushfire and Natural Hazards CRC 'Diversity and inclusion: building strength and capability' end user project group

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This project, 'Diversity and inclusion: building strength and capability', relies on the generosity and willingness of our end users to open up their organisations and give their time to explore a difficult, and sometimes potentially contentious issue. Research on diversity and inclusion (D&I) requires the same environment that implementing D&I needs: mutual trust and safe spaces where open and honest conversations can be had, and a willingness to be candid about the issues encountered by each organisation. Although this framework has been written by the authors, it is the result of many hours of work and conversations with our end users, and their knowledge and experience is contained within this as a result. These contributions have been invaluable; without it, the framework could not have been developed.

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## INTRODUCTION

Having effective diversity and inclusion (D&I) in emergency management organisations (EMOs) can improve their internal performance, and contribute to organisational and community capacities to manage disaster risk and resilience building. A diverse workforce provides a broad range of perspectives, experiences and skills. An inclusively-managed diverse workforce can support better decision making. It can also support better management of the increasingly unfamiliar risks that society is experiencing. Inclusion is also central to building productive working relationships and trust with the community. However, the benefits of D&I are poorly understood, and are often overlooked because they are hard to measure and account for.

This paper summarises the main concepts, findings and the framework that has been developed to support more effective management and measurement of D&I in EMOs.

Key findings in relation to D&I in the emergency management sector (EMS) are:

- Inclusion plays a pivotal role in the management of human and social risk associated with natural hazards for EMOs and communities. How people are included needs to be determined from their perspective and not imposed.
- Considerable work is needed to improve the measurement of D&I and its impacts on organisations and communities by developing appropriate performance metrics, data collection methods, data analysis and support tools.
- Management of D&I has, to date, been largely implicit – pockets of skills and capabilities can be found in all organisations. These tend to be less formally acknowledged, rewarded or valued than conventional technical skills and capabilities.
- D&I capability and skills need to be developed as part of strategic workforce management and integrated into organisational strategic, transformational change and risk management frameworks.
- Where implementation has been managed and measured appropriately, economic benefits were found for organisations and communities. Data paucity and a lack of appropriate economic models in relation to culturally and linguistically diverse (CALD) communities present considerable challenges to effectively calculating return on investment of some D&I programs. Overall benefits to the community are also hard to measure.
- Although diverse communities are recognised as having specific capabilities and skills important for building resilience and inclusion, gaps in relationships limit the community's ability to engage effectively in response and resilience-building activities. Further work is needed to identify these more fully.

## ABOUT THE PROJECT

'Diversity and inclusion: building strength and capability' was a three-year project funded by the Bushfire and Natural Hazards Cooperative Research Centre from 2017–2020. Its core aim was to develop a framework to support more effective management and measurement of D&I in EMOs. It has been undertaken by Victoria University in collaboration with D&I practitioners in EMOs. The team applied a transdisciplinary approach using an established end user-based methodology (Working from the inside out). This methodology uses context-specific, systemic assessments and embeds research into decision making systems. Co-design, knowledge sharing and reflection are central to this process.

## WHY IS INCLUSION IMPORTANT?

The need to increase diversity in EMOs is occurring within a rapidly evolving risk context due to systemic drivers of change. These include:

- Changing community demographics
- The emergence of new technologies, particularly digital
- Resource constraints and decreasing numbers of volunteers
- The changing nature of natural hazards events due to climate change
- The changing risk profiles due to new and emerging risks, such as COVID-19, which intersect with natural hazard events
- Increasing damage and loss from these events, resulting in higher costs.

Increasing diversity in any organisation or community creates change that can result in human and social risks emerging, especially if it is poorly managed. Due to the highly entwined relationship organisations have with their communities, the impacts of these risks can have a large footprint, spreading beyond organisations into communities. Inclusion is the central tool for the management and mitigation of these risks.

The highly dynamic and ongoing nature of these changes reinforces the need to build organisational and community capability, agility and the ability to respond effectively to natural hazard events. Having trusted long-term working partnerships between EMOs and communities is essential. This, however, presents challenges, as EMOs and communities are in the process of changing the existing social contract, where EMOs are providers and communities the receivers of emergency services, to co-partners in delivering those services. This will require new agreements to be negotiated in terms of what is needed and by whom, how this is enacted, and who is responsible.

## EMERGENCY MANAGEMENT INCLUSION CONTEXTS

The context for inclusion across the EMS varies, influencing the types of activities needed and how they might be implemented. The organisational context is strongly shaped by their physical environment, institutional and organisational structures, resources and existing workforce cultures.

Community roles are less well defined. They participate actively in the workforce as volunteers and as individuals within communities who undertake planning, preparedness, response and recovery (PPRR) and resilience-building activities. A larger cohort is less active, engaging periodically or not at all. This creates two contexts, shaped in the following ways:

- For volunteers, inclusion is shaped and formed through organisational frameworks and structures, workforce cultures and community context.
- For the general community member, inclusion is shaped by individual context and community structures, networks and relationships.

## UNDERSTANDING DIVERSITY AND INCLUSION RISK

Diversity and inclusion risks can be **direct** or **indirect**, affecting organisations and communities (Table 1, overleaf), manifesting as acute events and chronic long-term issues.

**Direct risks** are the result of specific action(s) from within the organisation or external parties. For example, a directed, destructive action that impacts an organisation, such as behaviour with a cultural or gendered bias, resulting in damage to a person or group.

**Indirect risks** are flow-on effects from a direct impact within an organisation or community that create new risks. The impacts of indirect risks can be just as severe as those from direct risks. For example, the breakage of trust with the community can reduce the ability of EMOs to take part in and encourage collective behaviour. This can reduce community safety and impede effectiveness of service delivery.

Although the risks associated with D&I are predominantly human and social, they can also affect other areas of risk (e.g., economic, political, environmental) through risk contagion. This can also result in compound risk (the combination of two or more risks), and increase pre-existing vulnerabilities. For example, a lack of inclusive practice can result in fragmentation in vulnerable communities, and in longer term impacts such as a negative image of a community, which can have economic impacts for local businesses and a reduction in community wellbeing.

Until recently, risk associated with D&I has been predominantly remained invisible, and was only responded to when impacts manifested. This has resulted in reactive responses and perverse outcomes, which can be counterproductive, harming the social contract within and external to organisations. This, in turn, can hamper resilience-building and community wellbeing, increasing the likelihood of damage and cost to communities and EMOs.

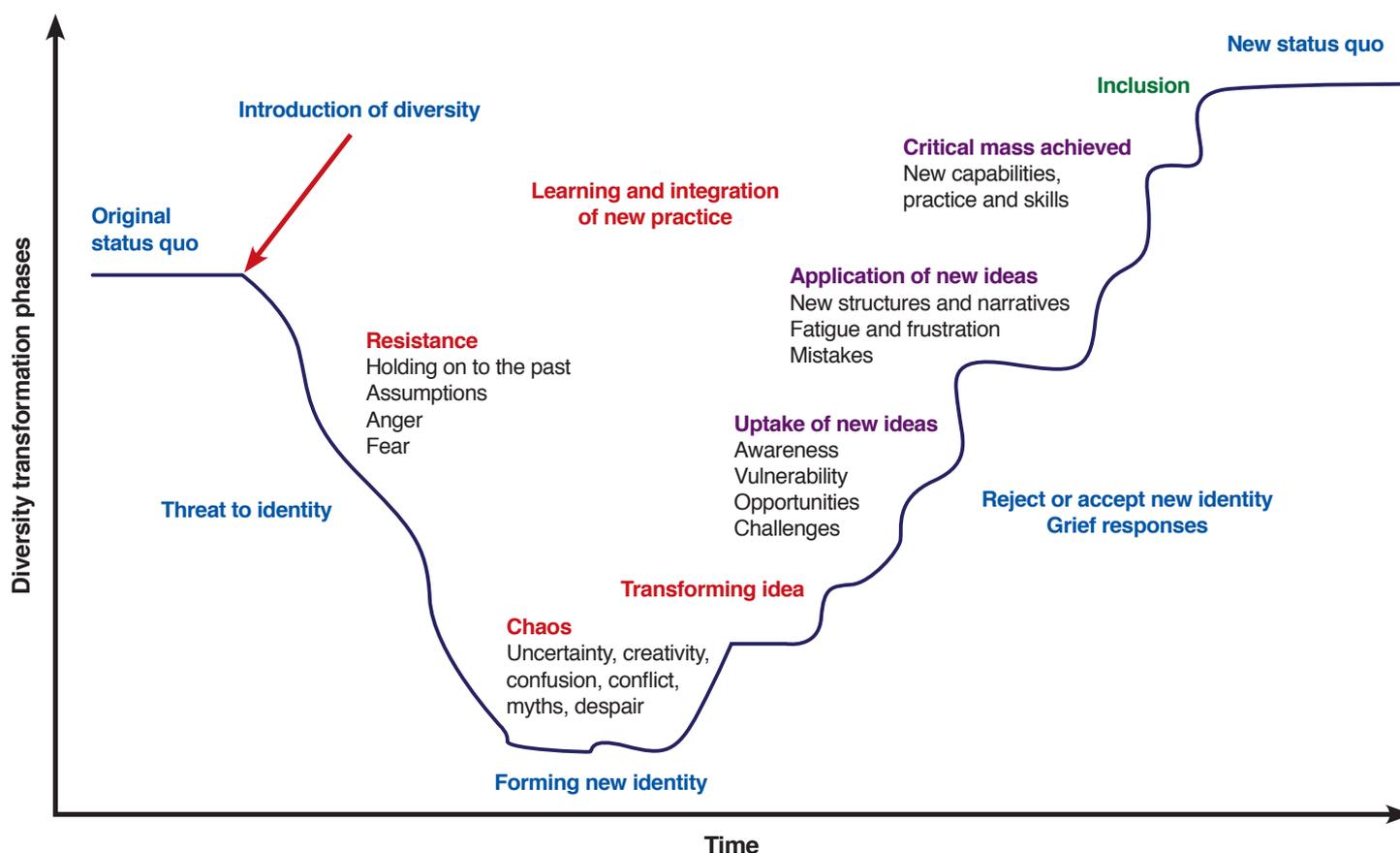
The implementation of inclusion also has a high level of innovation and uncertainty, offering both risk and reward. This has ramifications for how programs need to be developed, managed and measured. D&I management focuses on people and the quality of their interactions and experiences within their workplace and community, and the growth of social and human capital. As a result, management of D&I risk requires more people-focused skills and capabilities than the traditional, technically-based skills associated with natural hazard management.

**Table 1:** Risks where the origin is predominantly related to D&I (Young and Jones, 2019)

Risk category	Impact type	Risk example
OHS	Direct	Decreased wellbeing
Reputational	Indirect	Poor public perception, loss of social license with community
Operational (service delivery)	Direct	Reduced service/response capability
Regulatory and legal	Direct and indirect	Legal action for discrimination
Innovation	Direct	Reputational damage and disengagement due to perverse outcomes
Programmatic risk (D&I program implementation)	Direct	Inability to fulfil future community needs due to resistance
Strategic	Direct	Inability to transform and secure organisational sustainability due to lack of vision
Political	Direct and indirect	Disruption of D&I programs and strategies due to changing agenda
Social (community livelihoods)	Indirect	Reduction in safety, increased vulnerability in diverse cohorts
Economic	Indirect	Unforeseen liabilities (e.g., increased premiums due to discrimination claims)
Cultural	Indirect	Breakage of trust, cultural values at risk
Environmental	Indirect	Community risk increases due to loss and degraded natural environment

## DIVERSITY AND INCLUSION AS A PROCESS OF STRATEGIC CHANGE

Developing D&I practices throughout organisations is a form of social transformation that goes beyond a standard change process (Figure 1). This a long-term prospect that requires building and maintaining trust and working relationships across and between multiple stakeholder groups, over long periods of time. Rather than a change with a beginning and an end, it is made up of shorter-term transitional phases as part of an ongoing process of change.



**Figure 1:** Phases of the D&I transformation process (adapted from Satir et al., 1991; Kübler-Ross, 1993; Gardenswartz and Rowe, 2003; and Rogers, 2010)

The strong individual and organisational identities and the existing relationship between EMOs and the community add additional complexity to this process. This kind of change cannot be directed from the top down, but needs to guide people through the different phases of the process until a critical mass resets the status quo. This is a dynamic process that can revert to previous phases, and where components of each phase can also be present in other parts of the process. For example, grief responses and conflict can manifest in all phases. These behaviours require proactive management, as they are not exclusive to D&I activities, but are natural responses that accompany all change processes. If there is no widely accepted and understood vision of an inclusive future organisation, individuals are likely to anchor themselves to the past, which can impede progress.

A high level of innovation is also needed throughout this process. As a result, standard project management approaches may not always be suitable. This is because they do not account for the uncertainty and contingencies inherent in these types of activities, which need to be proactively managed.

## **ASSESSING DIVERSITY AND INCLUSION COSTS AND BENEFITS**

Understanding the costs of poorly managed D&I risk and the benefits of inclusion is important for identifying when, where, and how to invest.

Poor inclusion has been found to have ‘harmful cognitive, emotional, behavioural, and health outcomes’ (Shore et al., 2011). It can also result in other risks arising such as:

- Divisions across different cohorts and increased conflict (Pelled, 1996)
- Increased issues with communication and working together (Alagna et al., 1982)
- Increased intention to leave, turnover, job stress and burnout (Mor Borak et al., 2016)
- Poor organisational reputation that impacts on the attractiveness of organisations (PwC, 2017)
- Poor management of implementation of change (Young et al., 2019).

Within organisations, poor inclusion and increased diversity was also seen as a substantial risk to community safety in relation to natural hazard events by D&I experts (Young et al., 2019). Such risks are pervasive and can amplify pre-existing risks. They can also result in the emergence of new and more complex risks and increased impacts, which can reduce capability and resilience of the more vulnerable areas of organisations and communities (Young et al., 2019). For example, single parents or those with disabilities may become increasingly vulnerable if they experience exclusion following events. It can also result in reduced capability to prepare and recover from impacts of natural hazard events.

The cost of the social, environmental and monetary impacts can be substantial and difficult to measure. For example, the social and health costs of poor inclusion will have direct and indirect effects on individuals’ quality of life, which will flow through to productivity and the economy.

Modest investment in inclusion can lead to substantial economic benefits. For example, an assessment of the Fire and Rescue New South Wales, Indigenous Fire and Rescue Employment Strategy Pathway Program found ‘benefits of the program to be around \$8 million and estimates a benefit-cost ratio of 20’ (Rasmussen and Maharaj, 2019, p5). Inclusion within organisations and communities can also assist in reducing natural hazard impacts and support improved community recovery.

## THE FRAMEWORK



**Figure 2:** Diversity and inclusion framework components (Young et al., 2020)

The D&I framework to support management and measurement offers a whole-of-system approach, linking four key areas through which D&I can be managed and measured (Figure 3). The key focus is risk management of human and social risk, which provides the starting point for integration across organisational systems, and links it to emergency management practice and day-to-day tasks.

The overall aims of the framework include:

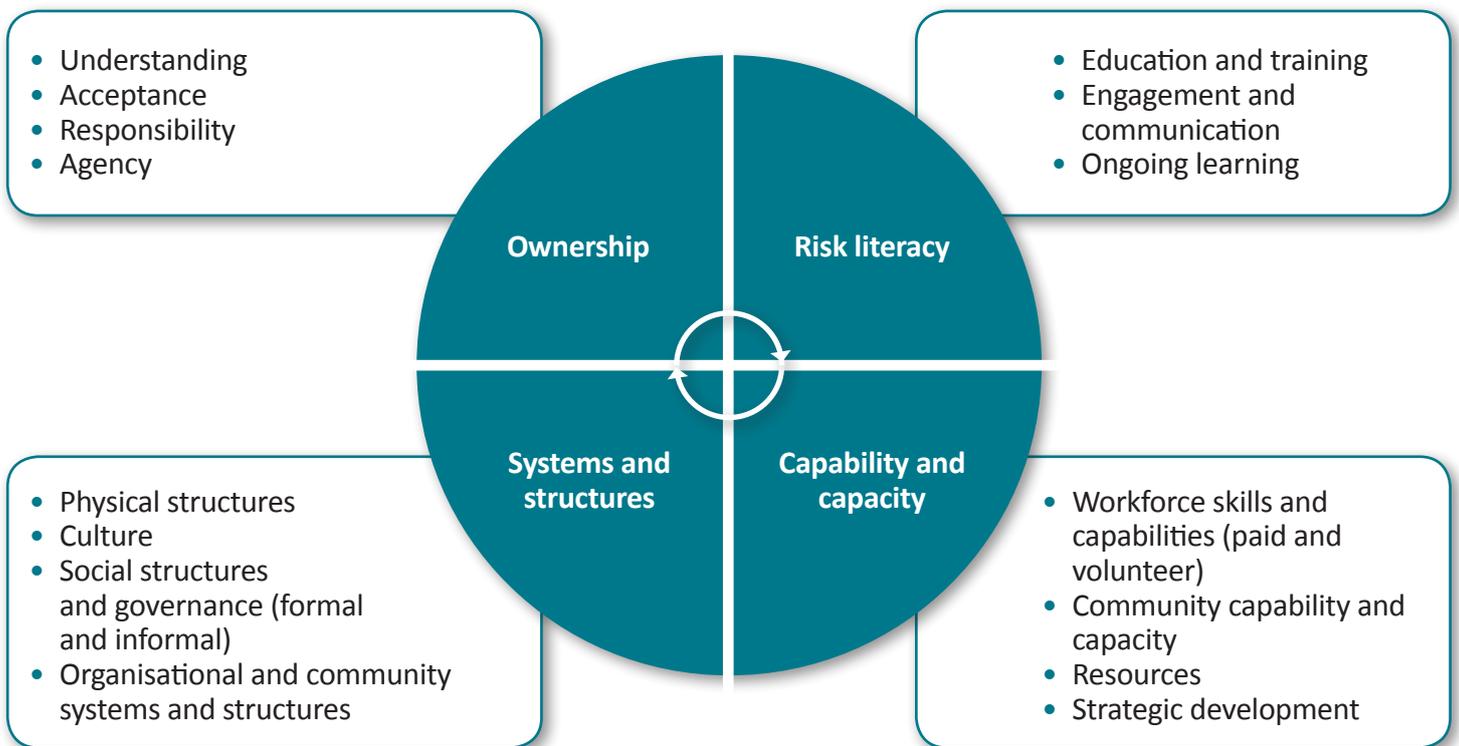
- To link the different areas of practice needed to manage and measure D&I more effectively into a transformative process that supports and enhances the core functions of EMOs.
- To support the increase of multiple types of diversity within the emergency management workforce (e.g., cultural, cognitive, capability and demographic diversity).
- To embed inclusion capability and skills into practice and day-to-day tasks to ensure that the increased diversity enhances, rather than impedes, organisational functionality.
- Building environments and ways of working conducive to inclusion and a workforce culture that supports this.

Key actions associated with this are:

- Development of a strategic vision of the future workforce
- Development of D&I workforce profiles
- Development of statements of inclusion from diverse cohorts to provide the basis for negotiation and action
- Supporting increased awareness of the role of D&I practice in the management of social and human risks
- Development of new workforce identities and narratives to support these
- Mapping D&I pathways into the future workforce vision
- Securing resources, leadership and organisational buy-in and the creation of safe and inclusive environments
- Identification of inclusion capability and skills in organisations and communities.

## INTEGRATING DIVERSITY AND INCLUSION MEASUREMENT AND MANAGEMENT

The four key areas through which D&I risk can be integrated into organisations and communities are ownership, risk literacy, systems and structures, and capability and capacity. Combined, they can be used to embed practice and build an inclusive culture throughout the EMS (Figure 3).



**Figure 3:** Key activities that support embedding D&I risk into existing systems (Young et al., 2020)

## MAPPING CAPABILITY

One way to identify and build the skills and capabilities needed to support practice and workforce development, is to initially map them as part of organisational and emergency management risk assessment processes (Table 2). This data can then be collated into specific workforce profiles that can be used for use in future workforce planning. When undertaking this planning, the framework or process being used needs to be appropriate for assessing systemic and strategic risk, and accommodate the long-term timeframe needed for effective practice to be achieved.

**Table 2:** Example of basic task connected mapping of a D&I risk (Young et al., 2019)

<b>Risk</b>	Exclusion or discrimination due to difference
<b>Risk category</b>	OHS
<b>Consequences</b>	Low morale, disengagement, WorkCover/liability claims
<b>Treatment</b>	Develop inclusive workplace culture program, education, measurement of wellbeing
<b>Benefits</b>	Decrease in insurance premiums, increase in trust, wellbeing and community safety
<b>Key tasks</b>	Monitoring and evaluation, engagement/communication, program development, project and risk management, innovation, education
<b>Skills</b>	Engagement, communication, educational, strategic, innovation, project and risk management
<b>Capability</b>	Risk management, self-care, cultural and emotional capability

## CONCLUSION

Our research found that D&I practice and awareness is growing but has yet to be fully integrated and implemented across EMOs. There is a critical need to identify, develop and value in D&I capability in organisations and communities. This is needed to support resilience-building and improved management of systemic risks, such as natural hazards.

Current measurements within organisations are primarily focused on diversity aspects; measurement of inclusion is emerging. The measurement and understanding of organisational and community D&I-related benefits is generally poor. This reinforces previous findings on the importance of having suitable measures for valuing D&I and program effectiveness and progress. It also underlines the need to develop tools for D&I business case development, and for calculating the return on investment of D&I workforce capability and programs.

The recent fires and current COVID-19 pandemic are highlighting the importance of inclusion in the strategic management of increasingly complex risks faced by EMOs and communities. Many communities find themselves responding to ongoing risks while recovering from past events, compounding risks and impacts. This leaves little space for preparing for future events. This is unfamiliar territory for these communities and the organisations that support them. Inclusion plays a critical role in the management and mitigation of these risks. It also offers a tangible way to unlock the full potential of diversity to create new solutions in response to the novel challenges we all now face.

## FURTHER READING

- Young, C and Jones, R. N. (2020 forthcoming). *Diversity and inclusion framework for policy and practice*, Bushfire and Natural Hazards CRC, Melbourne.
- MacDonald, F. (2020) *Building resilience: understanding the capabilities of diverse communities*, Bushfire and Natural Hazards CRC, Melbourne.
- Rasmussen, B and Maharaj, N. (2019). *The economic benefits of the Indigenous Fire and Rescue Employment Strategy (IFARES) program: Fire and Rescue New South Wales*, Bushfire and Natural Hazards CRC, Melbourne.
- Young, C and Jones, R N. (2019). *Risky business: why diversity and inclusion matter. Into the future: building skills and capabilities for a diverse and inclusive workforce, workshop synthesis and key findings*, Bushfire and Natural Hazards CRC, Melbourne.
- Young, C., Taylor, J and Cramer, Q. (2019). *Shaping the New Norm: Wafa Conference 2018 Evaluation and QFES Workshop Synthesis*, Women and Fire Fighting Australasia, Nowra.
- Young, C., Jones, R N, and Kumnick, M. (2018). *The long road: building effective diversity and inclusion in emergency management organisations. Case Study Synthesis and Draft Framework*, Bushfire and Natural Hazards CRC, Melbourne.
- Young, C. (September 2018). *Working from the inside out to improve utilisation of research in decision making*. Non-peer reviewed proceedings from the CRC and AFAC Conference, Perth.
- Young, C., Pyke, J., Maharaj, N., Cormack, C., Rasmussen, B., and Jones, R. N. (2018). *Diversity and inclusion: building strength and capability literature review*. Bushfire and Natural Hazards CRC, Melbourne.

## REFERENCES

- Alagna, S., Reddy, D and Collins, D. (1982). Perceptions of functioning in mixed-sex and male medical training groups, *Journal of Medical Education*, 57, 801–803.
- Gardenswartz, L and Rowe, A. (2003). *Diverse teams at work: capitalizing on the power of diversity*. Society for Human Resource Management, Alexandria.
- Kübler-Ross, E. (1969). *On death and dying*. Macmillan, New York.
- Mor Barak, M., Lizano, E., Kim, A., Duan, L., Rhee, M and Brimhall, K. (2016). The promise of diversity management for climate of inclusion: A state-of-the-art review and meta-analysis, *Human Service Organisations: Management Leadership and Governance*, 40(4), 305–333.
- Pelled, L. (1996). Demographic diversity, conflict, and work group outcomes: An intervening process theory. *Organization Science*, 7(6), 615–631.
- Price Waterhouse Coopers (PwC). (2017). *Opening up on diversity: Getting to grips with reputational risk*. PwC.
- Rasmussen, B and Maharaj, N. (2019). *The economic benefits of the Indigenous Fire and Rescue Employment Strategy (IFARES) program: Fire and Rescue New South Wales*, Bushfire and Natural Hazards CRC, Melbourne.
- Rogers, E. (2003). *Diffusion of innovations*, 5th Edn. Free Press, New York.
- Satir, V., Banmen, J., Gomori, M and Gerber, J. (1991). *The Satir model: family therapy and beyond*. Science and Behavior Books.
- Shore, L., Randel, A., Chung, B., Dean, M., Holcombe, K and Singh, E. (2011). Inclusion and diversity in work groups: A review and model for future research, *Journal of Management*, 37, 1262–1289.
- Young, C., Jones, R N and Kumnick, M. (2018). *The long road: building effective diversity and inclusion in emergency management organisations*, Bushfire and Natural Hazards CRC, Melbourne.
- Young, C and Jones, R N. (2019). *Risky business: why diversity and inclusion matter. Into the future: building skills and capabilities for a diverse and inclusive workforce, workshop synthesis and key research findings*, Bushfire and Natural Hazards CRC, Melbourne.
- Young, C. and Jones, R. N. (2020). *Diversity and inclusion framework for emergency management policy and practice*. Bushfire and Natural Hazards CRC, Melbourne.



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