Identifying Promising Approaches to U.S. Army Institutional Change

A Review of the Literature on Organizational Culture and Climate

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Preface

This report documents research conducted for a project entitled “Identifying Promising Approaches to U.S. Army Institutional Change: A Review of the Literature on Organizational Culture and Climate.” The project’s purpose was to review the literature on organizational culture and climate to identify promising approaches to help address some of the Army’s greatest challenges, including behavioral health treatment stigma, negative workplace behaviors, and the growing participation of women in combat-forward roles.

This report distills the results of the literature review, identifying key drivers of cultural change. It also describes how a group of subject-matter experts analyzed the results of that review by identifying the most important drivers of cultural change for the Army. Its findings should interest researchers and policy makers in the Army, the military as a whole, and other organizations in general as they must adapt in response to ongoing social changes. In particular, study findings will help guide policy decisions about institutionalizing organizational change in Army culture to cope with the aforementioned issues.

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Summary

Background, Purpose, and Approach

The U.S. Army is confronting a number of challenges. It has relatively well-established organizations and procedures for some challenges, such as force strength reductions. Other challenges are more difficult. These include combat stress and family issues that crop up as a result of repeated deployments. Some soldiers’ perceptions that seeking help for stress is a sign of weakness complicate these challenges. Other difficult issues pertain to the workplace, including sexual harassment and assault.

Qualitative research has characterized the current Army’s culture as high-stress and “hypermasculine” in that it has strong norms that discourage disclosures or seeking help for emotional concerns, coupled with norms for unhealthy behaviors, such as substance use and violence among personnel. Long-term solutions to such challenges very likely require changes in Army organizational culture and climate. Because many of these challenges are intertwined (e.g., sexual harassment incidents might also involve substance use or abuse), a comprehensive approach is necessary. Change at the institutional level in large organizations, however, is typically very difficult.

In recognition of this difficulty, the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) asked the RAND Arroyo Center to review the literature on organizational culture and climate to identify promising approaches that the Army might adopt in confronting some of these challenges, especially in the areas of behavioral health stigma and negative workplace behaviors. RAND Arroyo Center researchers identified literature in relevant fields, such as psychology, behavioral sciences, organizational behavior, and anthropology, that pertained to groups such as the military, first responders, and sports organizations; analyzed that literature to identify approaches that could drive culture change; and then vetted those approaches with subject-matter experts (SMEs) in military organizations and processes.
**Findings**

In reviewing the literature, RAND Arroyo Center researchers and SMEs identified the top five drivers of cultural change. These drivers are listed in Table S.1.

The drivers judged most critical to cultural change in the Army are goals and **accountability**. The former is typical of Army processes, in which the leader sets goals by stating intent and personnel at subordinate levels work to realize that intent. Accountability is seen as an inherent part of leadership in that responsibility is fixed at every leadership level. **Training** is a continuous process in and of itself, but it is not sufficient to change culture and climate. It must operate in concert with the other drivers. For example, bottom-up or “grass-roots” approaches, such as a front-line supervisor who emulates a particular climate of respect within his or her unit, would necessarily work in concert with top-down processes, such as formal training or selection by leaders higher in the chain of command. Any institutional change requires **resources**, and time is a critical resource, particularly for leadership. Leaders have many things to attend to, and time devoted to one activity means less time for another. Finally, formal and informal leaders must also be **engaged**. The Army has leaders at every level, from the squad leader to the chief of staff. But some leaders are informal. Communication across all levels of leadership will maximize alignment and effective change implementation.

Additionally, panel discussions identified the following four actions as a first step in affecting culture and climate change.

1. **Define the problem.**
2. **Understand current culture** in relation to a problem but at a general enough level to enable a holistic course of action.
3. **Define/articulate the desired culture or vision.** Note that “vision” is the level at which senior leaders would engage with the problem. Such a definition would be similar to the Australian Army’s “Statement of Cultural Intent,” which was articulated before an extensive years-long culture change effort and is now a priority second only to supporting personnel and operations. Another way to

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define the desired vision would be seeking what a panelist called a “Culture of Trust.”

4. **Identify specific goals.** Note that “goals” is the level at which operational/tactical implementation–level leaders would engage with the problem.

These steps are consistent with what is found in the literature. Additionally, panel members made the following points about implementing culture change. First, a holistic approach that focuses drivers in a coordinated way is necessary to effect change that persists. This approach differs from a “crisis-response” approach that treats a persistent cultural problem as a transient issue; once the immediate crisis passes, the problem is likely to reappear because no true institutional change has occurred. Second, the panel emphasized the need for clarity and specificity in articulating both problems and desired solutions. Third, it is necessary to engage people at different levels of the organization. While the Army is a hierarchical organization in which direction flows from the top, it is also an organization in which leadership responsibility exists at virtually every level. Therefore, low-level leaders need to be engaged in the change process to ensure it occurs at all levels.

**Conclusions**

**Definitions of Organizational Culture**
The literature identifies more than 80 definitions of organizational culture that could apply to the Army. A suitable definition of culture for the Army should accommodate depth, openness, and both top-down and bottom-up change. This definition is a good starting point:

> Culture is a pattern of shared basic assumptions, invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that has worked well enough to be considered valid, and, therefore, is to be taught to new members of the group as the correct way to perceive, think, and feel in relation to those problems reframing. (Schein, 1990)

**Drivers of Culture and Climate Change**
Of the many drivers of change we reviewed, several align particularly well with the existing Army culture and are feasible within the military structure. The top five drivers relevant to the Army are listed in Table S.1.
Applying Approaches
Organizational culture change is difficult, made more so by the fact that the theory of change outstrips the practice, and clear evidence of successful organizational culture change is sparse. The fact that such aggregate-level change also requires changing the values, beliefs, attitudes, and behaviors of many individuals further complicates organization change. However, changing individual attitudes is difficult, and it is not clear whether those changes must precede institutional change or whether broader changes at the institutional level facilitate sufficient change in an individual’s life to precipitate shifts in important attitudes (Lewin, 1947). But organizational culture change can work, and the drivers uncovered in the literature reviews and interactions with SMEs provide a good starting point.

Recommendations
We offer eight recommendations for developers of doctrine and policy interested in driving organizational culture change to address the Army’s biggest challenges. Our recommendations are framed broadly, and Army leaders would need to adjust these recommendations to a specific context in any attempts to implement change.

Define Organizational Culture
We recommend that, initially at least, the Army adopts the Schein definition of culture. The Army may wish to modify that definition as it gains experience in changing its culture.

Adopt a Common Definition of Army Organizational Culture
We suggest that the Army adopt a new definition of organizational culture that is both specific enough to fit with the Army domain and general enough to cover changes that occur within that domain. It should guide the Army to accomplish the following:

• Address multiple levels to manifest desired culture change through values and ideologies as well as symbols and artifacts
• Align policies with the practices, competencies, and perceptions of organizational members
• Use both a top-down and bottom-up approach, involving strategic and formalized processes as well as informal socialization processes
• Convey an openness to change to set the tone for continually adapting to change and transformation.

We recommend this because it is important to work from a common framework when attempting institutional culture change.
Determine Target Problems Amenable to Culture Change
We recommend that the Army avoid attempting to change the entire organizational culture, but rather undertake specific, problem-focused organizational culture change. Given that organizational culture change is often a time- and other resource–consuming endeavor, the change effort should be sufficiently focused. Also, outsiders to the organization may be able to identify some of the less visible aspects of culture (e.g., basic assumptions that guide policies, practices, and organizational behavior) in conjunction with insiders.

Assess the Culture and Climate in the Problem Context
We also recommend that the Army assess the current culture and climate to enable dealing with the most pressing problems. The Army is a large organization with diverse missions, skill sets, and suborganizations. It may be impossible to encompass its culture or climate except in generalities. The emphasis should be placed on those elements of culture that are relevant to a problem, not the entire culture. However, a holistic approach can be applied when using a specific problem set as a springboard and when setting parameters. Culture change should also involve various aspects of human resource management, such as training, incentives, and work design, as well as information and controlling systems.

Prioritize Organizational Culture Change
We recommend that senior Army leaders clearly articulate strategic goals, prioritizing competing values and initiatives (e.g., core values emphasizing personal sacrifice and obeying orders might be implicitly at odds with resilience initiatives) or delegate that authority appropriately; instill trust at all organizational levels that appropriate actions will be supported; and allocate sufficient time, training, measurement, tracking capacity, and finances to maximize cultural change.

Develop a Strategy for Change with Clear Goals
We recommend that the Army develop a clear strategy and goals to guide change planning and implementation. A change effort organized around clear goals, coupled with other individual behavior change efforts, is more likely to be institutionalized. Emphasizing personal accountability and responsibility for expected behavior may make it possible for change to happen even before formal policy implementation, which can often take a long time to formulate and implement.

Engage Stakeholders at All Levels
We recommend that the Army engage all levels of leadership through the command chain to address both overarching goals and those specific to different subcultures. Typically in the Army, directions for change issue from the top and flow down to subordinate levels. That, of course, must occur, but leadership must also pay attention to
local issues, particularly to address the more specific goals of the different subcultures in such a large and diverse force. This may include engaging individuals who are outside of established chains of command, but whose local influence is strong, such as chaplains.

**Consider Targeted Training to Maximize Resources and Uptake**

To maximize uptake of new skills, we recommend that trainees have opportunities to practice new skills and incorporate them into processes. We also recommend targeting training strategically to subgroups (e.g., certain units or subcultures) to maximize success. In addition to targeting both formal and informal leaders to influence their institutional unit members, it may be important to target some types of training to leaders to prioritize focus areas. Capabilities-based assessments can be structured to determine training requirements, especially when Army doctrine and education do not fully address emerging or changing policy. An organization can use capabilities-based assessments to recategorize mission-enhancing training as mission-essential or mission-critical training (e.g., classes on drinking and driving, sexual harassment training).
Acknowledgments

The authors thank the members of the subject-matter expert panel who helped us interpret the literature review findings. Panelists included members of the U.S. Army and Air Force, RAND researchers, and a member of a partner nation army. We also thank the panel observers from ARI, Dr. Melinda Key-Roberts and Kaitlin Thomas, for their insights during the panel discussion. Additionally, we thank LTC Heather Smigowski (who was serving at the time as a RAND Army Research fellow) for reviewing and validating portions of the report and both Rosie Velasquez and Jamie Greenberg for their help with project meeting logistics and report preparation. We are grateful for the guidance from our project officers at ARI, Dr. Miliani Jimenez, Dr. Jessica Gallus, and Dr. Gerald (Jay) Goodwin. Finally, we would like to thank peer reviewers Dr. Mark Ehrhart, from San Diego State University, and Dr. Kirsten Keller, from the RAND Corporation.
### Abbreviations

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<tr>
<td>AR</td>
<td>Army Regulation</td>
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<td>ARI</td>
<td>U.S. Army Research Institute for the Behavioral and Social Sciences</td>
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<td>PTSD</td>
<td>posttraumatic stress disorder</td>
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<td>SME</td>
<td>subject-matter expert</td>
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CHAPTER ONE

Introduction

Background and Context

The variety of issues faced by 21st century U.S. Army leadership charged with shaping organizational culture and climate affect military and civilian personnel across all ranks and at all levels. The Army is leading a campaign to optimize human performance by creating a conceptual strategic framework that requires individual adaptability and institutional agility. That framework expands the Army’s capability to develop a culture that values the human aspects of exploiting a decisive cognitive edge, physical supremacy, and cultural understanding over potential adversaries (United States Army Combined Arms Center, 2014).

The Army anticipates that its future force will need to innovate rapidly in environments often filled with volatility, uncertainty, complexity, and ambiguity. Therefore, there is an increasing demand to build an institutional culture and climate capable of addressing a diverse set of challenges. As contemporary examples, the Army is increasingly aware of and attending to challenges posed by negative workplace behaviors (e.g., sexual assault, hazing, toxic leadership); changing demographics, including the lifting of longstanding gender restrictions, such as the ban on women in combat units (see Farris and Hepner, 2014; Miller, et al., 2012; Ramchand et al., 2011); and behavioral health challenges (e.g., suicide and suicidal ideation).

The U.S. Army is not alone in its need to innovate. Several armies among partnering nations are doing the same. Australia, for example, is calling upon its army to adapt and innovate, examining conduct and behavior, gender issues, and technological change (Australian Army, 2009). Moreover, as a general principle, both civilian and military organizations face a need to adapt in response to ongoing social and other environmental changes. An examination of change for the Army can potentially benefit from a broader perspective.

It is useful to dissect the challenges facing the Army by exploring them in the context of specific issues of concern. One general area of concern is negative workplace behavior or misconduct (Dalal, 2005; Gruys and Sackett, 2003; Robinson and
Bennett, 1995), which includes specific issues like sexual harassment and assault (Morral, Gore, and Schell, 2014) and substance use, including alcohol abuse (United States Department of Defense, 2013). War’s behavioral health consequences pose a second challenge. While the majority of Army servicemembers fare well after deployment, others face a range of behavioral health challenges, including posttraumatic stress disorder (PTSD) and depression (Miller, et al., 2012); suicide and suicidal ideation (e.g., Ramchand et al., 2011); and stress from combat, isolation, and other sources. In addition to the behavioral health challenges themselves, some soldiers are concerned about a perceived stigma associated with seeking help for emotional concerns (Acosta et al., 2014). These concerns arise in the context of a major drawdown and shifting demographics, as personnel adjust to changes in the roles available to women in the Army. Changes to tackle these issues, as well as others that arise, could potentially represent major shifts for the Army—changes that may not align optimally with the current organizational culture and climate. Therefore, some perspective on the literature on culture and climate may offer the Army suggestions on how to manage these and any other challenges it may face going forward.

Why Culture and Climate Are Relevant

For the Army to adapt quickly and responsively to rapid societal change, technological change, and a multitude of newly emerging threat scenarios, it must itself change. “Culture” and “climate” are two approaches often used for organizational change efforts (Martins, 2011) that offer a systemic approach to challenges that often manifest at a more individual level, such as suicide, harassment, and assault. Organizational culture is often seen as tapping into the underlying “why” of organizational behavior (e.g., values, attitudes), while climate is seen more as the “what” of organizations (e.g., policies, rewards, and punishments; see Ostroff, Kinicki, and Muhammad, 2012; Schneider, Ehrhart, and Macey, 2011; and Zohar and Hofmann, 2012, for some recent reviews).1 While “climate change” deals with employees’ perceptions of current practices, policies, and implementation (and is more closely related to the behaviors mentioned above), the underlying culture must be changed as well, as it permeates all organizational activities and behaviors and sets the stage for climates to emerge.

Army leadership highlights the importance of innovation and change in official doctrine, especially in the context of soldier development (Army Regulation [AR] 600-100, 2007). The Army’s emphasis on change, though, is distinct from organizational culture change; the former has often emphasized external factors (e.g., political control, competition) and managerial efforts to aid performance within some domain (e.g., innovation; Fernandez and Rainey, 2006) as opposed to organizational culture

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1 We discuss similarities and differences in greater depth later.
change’s focus on human processes (e.g., informal socialization of values, behavioral norms). Despite a lack of consensus about the process of organizational change, evidence from a wide range of empirical studies with an emphasis on public organizations suggests that leaders can in fact effect large-scale strategic change by ensuring a need for change; developing clear goals and a detailed plan; building support and overcoming resistance; creating champions for change; attracting outside support; applying sufficient resources; integrating the change into formal doctrine or policy; and using a holistic approach (Fernandez and Rainey, 2006). In the broader organizational change literature, culture is simply cited as a bottom-up factor (one of many, including organization size) that might predict the success of a given organizational change effort (e.g., a risk-taking culture and innovation success; Fernandez and Rainey, 2006). Thus, it can be both a target and determinant of change within an organization (Burke, 2014). Moreover, it should be noted that prescriptions specific to climate or culture change bear strong resemblance to the more general organizational change tactics (e.g., recommendations for developing clear goals and plans, which may include relevant metrics, and integrating change into policies or procedures, which echo Schein’s 2004 leader-driven culture embedding techniques and Schneider, Ehrhart, and Macey’s 2011 recommendations for shaping a climate). Given the Army’s need to adapt continuously to external demands and recent strategic plans to promote force resilience, culture is an important target for setting up the adaptive development of the organization in a broader sense. However, the literature on culture and climate itself is very wide ranging and diffuse and not easily digestible to leaders. These circumstances combine to warrant a new review of culture and climate and how best to apply these constructs to meet the needs of the Army.

Research Goals and Objective

The Army asked the RAND Arroyo Center to provide a comprehensive review of the literature on organizational culture and climate to identify promising approaches that the Army might adopt in confronting some of the current challenges, such as behavioral health stigma and increasing negative workplace behaviors. While much of our report describes our research process and findings, we also present general recommendations that will require specification to each change effort. We examined literature pertaining to both organizational culture and climate, because both provide valu-

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2 There are many theories or perspectives of how organizational change occurs. Some, for example, emphasize a linear transformation wherein all institutions go through a set of predefined phases as a function of naturally occurring disruptions and competition (e.g., life cycle perspective, Burke, 2014; Fernandez and Rainey, 2006) or external selection processes that determine an organization’s ultimate survival (e.g., evolutionary theory; Burke, 2014; Fernandez and Rainey, 2006); others suggest a more planned approach with management in the driver’s seat (e.g., rational adaptive theories and policy diffusion models, Fernandez and Rainey, 2006).
able perspective in managing organizational change, and moreover as noted by Day, Griffin, and Louw (2014) they are sometimes used interchangeably or the term “culture” is used in the general sense. Following this convention we occasionally do this but more generally use the specific terms.

Given the broad purview of our task, we focused on answering the following research questions.

1. How is organizational culture defined?
2. What drives/maintains particular cultures or subcultures?
3. How can we apply promising approaches to institutional change from a variety of industries to the Army?

**Organization of This Report**

The remainder of this report consists of three chapters and five appendixes. In Chapter Two, we present the study approach to the literature review along with how we vetted preliminary review findings with a subject-matter expert (SME) panel. In Chapter Three, we present the results from the review and identify key drivers of institutional change and strategies for promoting cultural change in the Army. Finally, in Chapter Four we present conclusions and make initial recommendations for identifying promising approaches to institutional change. The appendixes provide more detail about the literature review abstraction tool, a bibliography of the literature included in the review along with links to the document sources, definitions of organizational culture abstracted from the literature, the SME panelist rating form, and the summary table of the panel discussion itself with feedback from the panelists incorporated.
In this chapter, we discuss the research questions, including how culture and climate are defined and distinguished in the literature as well as in the Army. We then move on to how we addressed each question. We begin with the literature review and then explain how we benefited from the input of six experts using a group panel format. We culminate this chapter by describing some strengths and caveats of this research process.

**Research Tasks**

To address the project objective and research questions, we took the following steps:

- Reviewed the literature on organizational culture and climate, and change
- Coded, analyzed, and synthesized the results from the literature review to identify definitions, subcultures, and drivers of organizational change
- Convened a discussion group with SMEs to:
  - Rate the literature-derived drivers prior to the SME discussion
  - Prioritize the rated drivers in terms of alignment with Army mission and feasibility for implementing change based on feedback from the discussion
- Identified promising approaches for realigning Army culture to embrace policy changes.

**Defining Culture and Climate**

Our first undertaking was to define culture and climate and examine their similarities and differences. The Army defines both culture and climate in AR 600-100 and other published regulations; however, those definitions are general and lack the scientific depth for evidence-based studies or staff analysis for capabilities-based assessments. The Army definition of culture is as follows:
The set of long-held values, beliefs, expectations, and practices shared by a group that signifies what is important and influences how an organization operates. (AR 600-100, 2007, p. 21)

The Army also defines climate as “The state of morale and level of satisfaction of members of an organization” (AR 600-100, 2007).

As noted earlier in this document,

Army culture is a consequence of customs, traditions, ideals, ethos, values, and norms of conduct that have existed for more than 230 years. The moral and ethical tenets of the U.S. Constitution, the Declaration of Independence, and the Army Values [Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage] characterize the Army’s professionalism and culture, and describe the ethical standards expected of all Army leaders. (AR 600-100, 2007, p. 1)

This statement aligns with Soeters’s observation that in pursuing organizational culture change, organizations such as the military must balance tradition with the needs of the present (Soeters, 2000). Moreover, while these definitions have value to the Army and speak to the centuries of history and tradition, for purposes of change implementation, it may be helpful to craft definitions to the specific purpose of culture or climate change that employ more particulars as described below.

Both culture and climate are organization-level constructs composed of aggregated individual employee-level constructs (Denison, 1996). At the organizational level, culture includes shared employee attitudes, beliefs, values, norms, and symbols and is often seen as tapping into the underlying “why” of organizational behavior. Meanwhile, organizational climate typically focuses more on employees’ shared perceptions of the “what” of organizational policies and practices, such as rewards and punishments (although there are variations on these themes; see Ostroff, Kinicki, and Muhammad, 2012; Schneider, Ehrhart, and Macey, 2011; and Zohar and Hofmann, 2012, for some recent reviews). Leaders play a critical role in establishing and maintaining both culture and climate through similar behaviors (Ehrhart, Schneider, and Macey, 2014).

For both culture and climate, issues of strength and alignment are relevant. In the work on climate, this is typically considered through measures of consensus or agreement among employees on a given issue (see Ostroff, Kinicki, and Muhammad, 2012). Ostroff, Kinicki, and Muhammad discuss the creation of climate strength in terms of creating a strong situation (see also Bowen and Ostroff, 2004). A “strong situation” is one that minimizes the effects of individual preferences and personalities on behavior and promotes conformity. To extend this to organizational life, consistent policies, procedures, and practices create little ambiguity in messaging and a shared climate among employees subject to the messaging—that is, a strong climate produces consistent interpretation and behavior. In contrast, culture strength is sometimes discussed, but not
in as consistent a manner (Ostroff, Kinicki, and Muhammad, 2012) and discussions of fragmentation and subcultures are more common in the culture domain (Schneider, Ehrhart, and Macey, 2011). Ehrhart, Schneider, and Macey (2014) do discuss culture strength in terms of alignment. Although alignment may be considered from multiple perspectives, the authors offer that internal alignment of the various aspects of culture and the resultant structures, processes, and communications is likely to create a strong culture. As with climate, a strong culture promotes agreement on common perceptions (although about values, symbols, etc.) and more consistency in behavior.

Climate is quite often currently conceptualized as being climate for some strategic goal, such as innovation or safety, although there have been attempts to create theoretically based global climate measures (Schneider, Ehrhart, and Macey, 2011; Zohar and Hofmann, 2012). Culture is more likely to be approached as a global characteristic of the organization, although popular operationalizations posit some general dimensions (Ostroff, Kinicki, and Muhammad, 2012; Schneider, Ehrhart, and Macey, 2011; Zohar and Hofmann, 2012). Thus, culture and climate are closely related but not the same constructs, although the literature is somewhat confused on this distinction and often uses the terms interchangeably (Day, Griffin, and Louw, 2014). As suggested by Ostroff, Kinicki, and Muhammad (2012), the root of conflation may rest in the empirical rather than theoretical literature.

However, both culture and climate change are necessary to effect comprehensive culture change; as a result, the literature included in this review encompasses both. Whereas culture is viewed as a more stable, historically rooted process that includes the deep assumptions and values (and the informal socialization of these values) that guide institutional priorities over longer periods, climate provides a snapshot of employees’ shared perceptions of current practices and policies (e.g., perceived inconsistencies between espoused beliefs and implicit priorities as dictated by culture). Current attempts to integrate the literatures suggest that climate offers perspective on the underlying values and assumptions of culture and that these values and assumptions affect policies, procedures, and practices that establish climates (Ostroff, Kinicki, and Muhammad, 2012; Schneider, Ehrhart, and Macey, 2011; Zohar and Hofmann, 2012). Thus, current writing specifies that there is interplay between the culture under the surface and the more visible climate manifestations. In other words, climate manifests the “work unit observables” (Burke, 2014) of the underlying culture (Denison, 1996).

We note that there may be many different manifestations of the same underlying culture, which highlights an important consideration for this work: Although organizational climate is theorized to be more amenable to change than organizational culture (though still difficult, given its many components; Burke, 2014), focusing exclusively on changing practices or employees’ attitudes and behaviors without also addressing problematic assumptions or values might only result in a different manifestation of the same underlying cultural problem. Conversely, focusing exclusively on creating a new vision for culture change and transforming institutional values does not ensure
that behavioral movement toward that change will occur (Burke, 2014). As Ostroff, Kinicki, and Tamkins (2003; see also Ostroff, Kinicki, and Muhammad, 2012; Zohar and Hofmann, 2014) have suggested, the ultimate goal of work in this area might be to promote adaptive consistency between organizational culture and climate through appropriate practices (e.g., how rule violators are dealt with; how mental health challenges are reported and treated in actuality). In any event, as noted by Schneider, Ehrhart, and Macey (2011), many of the cultural embedding mechanisms proposed by Schein serve quite well as pointers on how to change climate, as well. Burke (2014) even proposes focusing on behavior over attitudes in terms of change targets, noting that behaviors can precede and affect attitudes.

As may be clear from the discussion of alignment and consistency, a holistic approach to change is generally recommended—that is, specific change initiatives should work in concert rather than competing with one another. Despite the necessity of holism, understanding the whole of any organizational culture (and subcultures and climates) is not necessarily feasible. Hence, a holistic perspective should be applied to the aspects of climate and culture pertinent to the specific change effort.

Characterizing the Army’s Current Culture

The Army’s culture has been characterized as a high-stress, “hyper-masculine” culture (Bucher, 2011) that emphasizes core values of integrity through self-sacrifice, teamwork, and obedience and includes strong norms against emotional disclosure or seeking help for behavioral health. Although there is a strong, collective “Army” identity within the organization, qualitative research has revealed less emphasis on its individual members and a perceived lack of autonomy among enlisted personnel (Bucher, 2011). The Army also historically has had the most occupational restrictions placed on women and one of the lowest percentages of female personnel (Miller et al., 2012). As the Army faces shifting gender demographics, with more women entering previously restricted combat roles, it may have to adapt to maintain unit cohesion. To address strong masculine norms and integrate the changing roles of women, a more holistic approach is necessary, encompassing both climate and culture change.

The Army is certainly not alone in its challenges, and it has cultural overlaps with several other high-stress, traditionally masculine-oriented industries covered in this review. These settings include first-response and paramilitary organizations, medicine, higher education, for-profit corporate settings, and professional and college-level team sports. Cultural overlaps hierarchical structures and elements of bureaucracy; demands for time and energy from members (e.g., military personnel as well as their families); and challenges with member behavioral and mental health (e.g., sexual harassment, toxic leadership, hazing new members).
Importantly, subcultures (subgroups of an organization with their own values, beliefs, and behavior) are also commonly observed within these organizations. For example, two subcultures often exist within uniformed organizations, such as first responders and the military (Soeters, 2000). These are the “cold” organization, or the subgroup charged with preparing for action (civilian employees, high-level staff), and the “hot” organization, or those involved in carrying out the actions of the organization (active personnel in infantry divisions). Targeted change efforts must acknowledge the presence of subcultures, because they can serve as sources of resistance or champions of organizational culture or climate change.

The definitions of organizational culture and climate speak to why and how these concepts are relevant to organizational change efforts. The context of the Army speaks to specific issues and complexities that should be kept in mind when considering such an undertaking. Given this grounding, we turn to the specific methodology we used to review and synthesize the literature.

**Study Methods**

**Literature Review**

Our specific objective was to review the literature on organizational culture and climate to identify documents most relevant to understanding promising approaches to organizational change in the Army. The review involved five stages: (1) selecting relevant data sources, (2) developing a search strategy for the sources selected, (3) constructing an abstraction tool, (4) screening the results of the search, and (5) coding and analyzing the findings. In the following sections, we describe each of these stages in sequence.

**Data Source Selection**

We selected six industries to include in our review: the military, first responders, health and medicine, professional sports, private sector corporations, and education. We also had a general category. Our review focused on organizational culture and climate change in high-stress, traditionally masculine-oriented settings (cultures of “toughness”) because they might lend themselves more naturally to the military culture. These settings included paramilitary and first responder organizations (e.g., police, fire, emergency medicine), which bear the greatest similarities to military culture in that they are “uniformed organizations” that demand a lot of time and energy from their members (Soeters, 2000). We also drew upon literature that describes how best to manage large-scale changes in the military, such as “Don’t Ask, Don’t Tell” (National Defense Research Institute, 2010), as well as Army guidance and other materials intending to promote change within the Army, such as the Army’s Ready and Resilient Campaign (United States Army Medical Department, undated). We included sports because teams work as units, and historically a culture of “toughness” has prevailed in that domain as well. Finally, other areas have a robust literature on culture and/or
climate change (health/medicine and private sector corporate) that we thought would provide perspective on change in the military. We identified and coded the literature from these industries to consider potential industry-specific moderating factors and how those might affect our findings.

Search Strategy
Our primary search focused on identifying peer-reviewed citations from six databases:

- PsycINFO
- Business Source Complete
- Academic Search Complete
- MEDLINE
- Defense policy literature (Defense Technical Information Center)
- RAND publications (RAND Online Catalog System).

We used the following search terms:

- organization
- culture OR climate
- change
- transform
- adapt
- modify
- innovate
- intervention
- learn
- behavior
- NOT “climate change.”

We set our time frame from January 1, 2001, through July 31, 2014. This start date enabled us to cover nearly 15 years of literature. In addition, 9/11 was likely a significant trigger of culture change for the Army. As noted by others (Wong, Bliese, and McGurk, 2003), President George W. Bush saw 9/11 as an indication that leadership and the culture of leadership needed to change to meet the new challenges faced by national security. Including that seminal event capitalizes on the possibility that culture change was more extensive and/or more rapid at that point and generated reporting on culture and/or climate change efforts. Given that we also included recent literature reviews of general climate and culture as well as change in that context (Burke, 2011; Schneider, Ehrhart, and Macey, 2011; Zohar and Hofmann, 2012), we achieved reasonable coverage overall. We do not cover the larger literature on organizational change and development, as that would have been beyond the scope of our present study. We summarize our specific inclusion and exclusion criteria in the following list.
We *included* all documents that:

- explicitly discuss organizational culture or climate, subcultures, or the process of organizational transformation as a primary focus
- pertain to one of the following industries: military, education, first-response, health/medicine, corporate, and sports.

We *excluded* documents from review that:

- were published before January 2001
- were not peer-reviewed, published works (e.g., theses)
- were not in English or included a non-U.S. sample
- had only a secondary focus on organizational culture/climate
- did not include one of the listed industries
- were not cleared for open publication.

**Literature Abstraction**

We developed a tool for systematically abstracting information from the 549 documents we identified as relevant. We intentionally focused on the following seven key elements to characterize each of the documents.

1. document type (whether empirical—experiment or observational versus theoretical, review, or policy report)
2. data collection method (quantitative, qualitative, mixed methods)
3. industry (military, first response, health/medical, professional sports, corporate, education, or general/other)
4. subcultures (orthogonal, enhancing, and countercultures)
5. culture change mechanism (selection, training/development, monitoring/control)
6. content (values/attitudes/beliefs, norms, symbols, or knowledge/skills/resources)
7. outcomes (financial, behavioral, social, psychological, or other).

We chose these elements because we wanted to learn whether there would be differences in the type of content (i.e., culture, climate, subculture) for documents published in different forms (type of presentation, study design) and industries. We also wanted to examine whether there would be different patterns of covering the culture and climate content across type of document and industry.

We classified subcultures into the three types consistent with Martin and Siehl (1983). They describe an enhancing subculture as one that either enhances or augments preestablished organizational norms and values. An orthogonal subculture is similar to an enhancing subculture in that it, too, adheres to the core values of the larger organi-
zational culture. However, orthogonal subcultures also uphold values that are distinct from those of the dominant culture. Note that these values do not conflict with the core values reflective of the larger organizational culture. A counterculture is a subculture that upholds values that directly conflict with those characterizing the dominant organizational culture.

We also abstracted portions of text for any definitions of organizational culture or climate provided and coded both the “drivers” of organizational culture/climate or transformation (including maintaining factors, facilitators, and barriers to change) and policy recommendations or lessons as described in each document.

Before finalizing our abstraction tool, the research team randomly selected a subset of ten documents for each of the five team members to code using our literature abstraction tool. We reviewed and discussed the initial coding as a team. We resolved discrepancies until we all agreed on the approach and established intercoder agreement. More details about the literature review abstraction tool, including the full set of coding options and operational definitions, are provided in Appendix A.

**Document Screening**

Figure 2.1 shows the flow of our document review process. We identified nearly 4,000 documents from our initial search and randomly assigned them to three coders. At the first stage, based on title and abstract screening, we excluded 40 percent of the documents because they did not meet our criteria for inclusion (they came from international sources or were irrelevant because neither culture nor climate was the focus). We excluded another 549 documents because they covered international content not
deemed relevant to our topic,\(^1\) 319 because they were not relevant for some other reason, and 798 because they dealt with topics only tangential to our focus (including other industries). For example, an irrelevant article did not mention culture/climate or mentioned culture/climate in a context outside of organizations (e.g., surveys of differences in perspective by religious culture). An article with a topic tangential to our focus may have mentioned culture, but not used it in analysis or used it in analysis but not provided results or recommendations relevant to organizational culture. We validated our screening strategy by having two independent coders screen a randomly selected subset of 200 documents (100 per coder) and compared these results with the initial screening results (yielding a 75 percent consistency rate). We then discussed any discrepancies as a group to reach consensus before moving on to the second-stage review. After exclusions, we retained 549 documents to code. A complete bibliography of these documents is provided in Appendix B.

**Coding and Data Analysis**

Three elements from the literature review required additional coding of free text that was abstracted into the review tool. These elements included definitions of culture or climate along with drivers of organizational change and policy recommendations. We further coded definitions of organizational culture\(^2\) along four dimensions:

1. **Level**, surface level (structures, symbols, stories, policies, etc.) and “the way things are done” (Schein, 2000; cited in Schneider et al., 2011), compared with deep level (assumptions, values/attitudes/beliefs, etc.) and more about “why things are done”
2. **Specificity**, either general or domain-specific (“Army culture” is general, but “culture of respect” or “culture of safety” is domain-specific)
3. **Development**, whether the definitions are “top-down,” with strategic socialization by leaders, or “bottom-up,” in which development arises from members’ shared values, perceptions, or daily interactions
4. **Receptivity**, whether openness to change (culture is a changing or transformative construct) or resistance to change (culture as a stable or rigid construct).

\(^1\) As noted by Martins (2011), the body of change literature that takes into account national culture has grown in recent years and allows for analysis of this contextual element. National culture is certainly expected to be relevant to organizational culture (e.g., Hofstede and Hofstede, 2005; Schein, 2004). We determined that it would potentially be a conflating factor for our purposes and hence excluded articles that crossed national and organizational culture/climate.

\(^2\) We also coded only general definitions, not domain-specific ones, because we wanted to maximize the potential for transportability to the Army. We chose to restrict our more detailed coding of definitions only for those that defined organizational culture, as that was the specific task and most definitions of climate were similar to those of culture but with more context specificity. However, note that the dimension of level does include some aspect of what is generally considered to be climate in the surface pole (i.e., “what things are done”; Ostroff, Kinicki, and Muhammad, 2012).
To ensure accuracy of coding, we double coded a subset of the first 30 definitions, discussed any inconsistencies, and recoded until reaching agreement. Table 2.1 provides examples for each type of definition.

Using the information abstracted on drivers and policy recommendations, two members of the research team coded the content into different categories of drivers. Many of the documents covered content in more than a single category, so these are not intended to be mutually exclusive. We used a combination of bottom-up coding

Table 2.1
Example Definitions for Coding Elements

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Descriptions</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>Deep</td>
<td>The values, attitudes, beliefs, orientations, and underlying assumptions prevalent among people in a society (Harrison and Huntington, 2000, as cited in Linnean, 2007b)</td>
</tr>
<tr>
<td></td>
<td>Surface</td>
<td>Organizational practices and the consequences of those practices (Clayton et al., 1997, as cited in Bumstead and Boyce, 2004a)</td>
</tr>
<tr>
<td></td>
<td>Deep and surface</td>
<td>The transmitted patterns of values, beliefs and expectations shared by people, including the system of symbols which imparts them to members of the group (Schreyögg et al., 1995, as cited in Voelpel, Leibold, and Streb, 2005a)</td>
</tr>
<tr>
<td>Specificity</td>
<td>General</td>
<td>The culture of an organization consists of its norms, values, and beliefs, and is reflected by its stories, rituals and rites, symbols, and language (Daft, 2000, as cited in Zazzali et al., 2007a)</td>
</tr>
<tr>
<td></td>
<td>Domain-specific</td>
<td>Definition of the patient safety culture of an organization is “the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization’s health and safety management” (Great Britain Health and Safety Commission, 1993)</td>
</tr>
<tr>
<td>Development</td>
<td>Top-down</td>
<td>An organization’s value system, its collection of guiding principles driven by leadership (Evans and Lindsay, 2008, as cited in Wright, 2013a)</td>
</tr>
<tr>
<td></td>
<td>Bottom-up</td>
<td>No clear examplec</td>
</tr>
<tr>
<td></td>
<td>Top-down and bottom-up</td>
<td>A system of shared values and beliefs constructed by an organization and by its employees through tangible and intangible cues (Franklin and Pagan, as cited in Nica, 2013)</td>
</tr>
<tr>
<td>Receptivity</td>
<td>Open to change</td>
<td>The interaction between environmental variables, organizational practices, and the consequences of those practices (Bumstead and Boyce, 2004)</td>
</tr>
<tr>
<td></td>
<td>Resistant to change</td>
<td>The deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members and that is “rooted in history, collectively held, and sufficiently complex to resist many attempts at direct manipulation” (Denison, 1996)</td>
</tr>
</tbody>
</table>

a We included an “unclear” category in each dimension in which the definitions make no explicit or implicit references to any particular description.
b See Appendix B for full citation.
c We believe this process of development occurs and include it in the table, although we could not find clear examples from our list of definitions of culture.
(examining key words and phrases that were repeatedly mentioned across sources) and a top-down schema informed by knowledge of the culture/climate and implementation literature to develop our coding categories. The two coders initially reviewed the same content and developed independent coding schemas, which were then discussed. Through an iterative process, both stable driver codes and their definitions were developed, and subsequently applied to the abstracted literature review material. The two coders took the stable set of developed codes and independently coded the abstracted material, resolving any discrepancies through discussion.

**SME Panel**

We used an SME panel to vet the findings from the literature review and to prioritize the drivers of organizational culture change in terms of alignment with Army mission and feasibility of implementation. The purpose of this discussion was to use a participatory approach, involving multiple stakeholders, to review our literature review findings and identify the most promising approach to realign culture and climate in the Army. With that in mind, we solicited panelists with expertise with the literature and an academic perspective as well as panelists with military expertise. We identified not only SMEs with an Army perspective, but also SMEs with perspectives from other services and other nations’ military forces. We developed a list of SMEs in collaboration with our action officers and ultimately sent invitations to 22 individuals. Six SMEs ultimately accepted and participated, representing experience in the Army, other U.S. services, and other and national militaries as well as experience in applying research and policy analysis to varied military contexts. As part of the recruitment process and pre-meeting correspondence, we explained the nature of the study and our vision of the SMEs’ roles.

We generated a list of drivers in the coding of the literature abstraction form; before coming together for discussion, we asked the panelists to rate the drivers on separate five-point rating scales (see Appendix D) in which higher scores indicated greater alignment to the Army mission and implementation feasibility. We provided space for them to discuss their rating rationale for each driver as well as space to add drivers that they felt should be included. We integrated this feedback into discussion at the panel session.

We began the panel discussion with introductions and a review of the purpose, process, and findings of the literature review portion of the study. We then discussed panelists’ aggregated ratings, paying attention to areas of agreement and disagreement and covering the majority of drivers on the form at least briefly. We also discussed additional drivers generated in the pre-meeting exercise, ultimately including two of them by consensus. We concluded the session by prioritizing a subset of drivers for the Army to develop and emphasize going forward. Panelists were asked to nominate their “top three” drivers, and discussion focused on more-specific implementation rec-
ommendations for developing a comprehensive approach to influence organizational culture change.

During the course of the discussion, it became clear that some consideration of a general framework as well as some caveats were in order. In our findings, we draw on discussion of this framework as well as the specific discussion surrounding the drivers deemed most important. We provided the summary of the discussion to our SMEs after completion of the panel discussion and asked them to provide feedback and correction where needed (see Appendix E).

Study Caveats

This study contributes to our understanding of organizational culture and climate by identifying some of the most promising approaches to achieving change in these constructs. Nevertheless, some caveats apply to our effort. First, we were limited in how much literature we could cover within the available timeline and resources. The literature is far ranging across different disciplines and industries. To make the review manageable, we purposely selected the databases and industries most relevant to the military context. We also bounded our search to 15 years back in time. To ensure that we did not miss seminal literature from the more distant past, we supplemented the search by including chapters and seminal articles on the topic if they were highly relevant. For example, we include Schein’s (1990) American Psychologist review article; Denison’s 1996 review of similarities and differences between culture and climate; Schneider, Goldstein, and Smith’s (1995) update to the Attraction-Selection-Attrition framework; Soeters’s (2000) handbook chapter on culture in uniformed organizations; and Burke’s 2014 handbook chapter on climate and culture change.

A second caveat about the literature review is that while we sought to achieve consistency across document abstractors and coders, these processes are, by definition, subjective. While we tried to minimize subjectivity by having multiple ratings and discussions among raters to achieve consensus, there may still have been some unavoidable inconsistencies. To code the drivers of organizational change and policy recommendations, we used a pile sort technique to derive categories of similar drivers and held iterative discussions to reach consensus.

Our approach to the literature review was not to summarize all of the documents in the traditional manner. Rather, we sought to target our reviews so that we could focus on salient information. We did this using a standardized abstraction tool to maximize consistency among the reviewers. Moreover, what we provide is not a traditional meta-analysis in which we compile effect sizes. Although feasible for subsets of our article compilation, our scope was so broad and the literature so diverse it precluded this approach.
The panel discussion with experts, while a clear improvement over relying strictly on the literature, also had some limitations. The experiences and views of the small group of six individuals are unlikely to represent the views of all academic and military experts. However, we intentionally included a range of disciplinary perspectives among military research experts (an industrial/organizational psychologist and a sociologist) and active duty servicemembers from the U.S. and Australian Armies, as well as the U.S. Air Force. Thus, the vetting process in collaboration with the sponsor covered several possible perspectives.
CHAPTER THREE
Definitions and Drivers of Organizational Culture and Change

In this chapter, we present results from the literature search by characterizing the 549 relevant documents. We present data on definitions of organizational culture and of key drivers of organizational culture change and policy recommendations based on that literature. Finally, we describe our process of vetting the literature review findings with a panel of experts.

Literature Review

Most of the documents that we included addressed organizational culture (87 percent): 488 documents (74 percent) were about organizational culture only, 71 were about climate only (13 percent), and 70 were about both culture and climate (13 percent).

Document Type: Design and Data Collection Approach

Slightly more than half of the documents were empirical in nature (55 percent), most of which were observational studies (48 percent). Another 26 documents (5 percent) reported findings from longitudinal studies. Only 13 documents (2 percent) used robust designs based on experimental or quasiexperimental designs. In terms of data collection methods, among the 330 empirical documents, 42.7 percent used qualitative methods, 39.7 percent used quantitative methods, and the remaining 17.6 percent used mixed methods.

After closer examination of the 39 articles that used more robust designs (26 longitudinal and 13 experimental), we identified some of the key factors that influenced organizational culture change. Examples of articles in our literature review with robust designs include one that used a randomized trial of an organizational intervention with community-based mental health programs and clinicians serving youth (Glisson, et al., 2012), and another that used a pre-post survey design to assess change in attitudes among parole officers and supervisors over a six-month period (Schlager, 2008). These documents provided some important general lessons about organizational cul-
ture change. First, although leadership is one of the most commonly described ingre-
dients for achieving cultural transformation, organizational values may remain stable
over time and can be difficult to change even when environmental pressures are moti-
vating change (Campbell, 2004). However, the process of change is complex and not
quick, and even when cultural transformation is achieved, it may take up to three years
(Munroe, Kaza, and Howard, 2011). This literature also suggests that when change
takes place, generally with dedicated transformational leadership and through formal
and large-scale training and organizational development/learning interventions, it can
be sustained for more than a year (Simpson, Joe, and Rowan-Szal, 2007). Having a
dynamic design process, changing what is not working and focusing on what works
well, along with attending to everyday relationships and behaviors are also highlighted
in this subset of documents (Cottingham et al., 2008). Most of these studies evaluated
multicomponent interventions, suggesting that a program of change is needed and that
any single factor may be insufficient, a finding reflected in other literature reviews (see
Fernandez and Rainey’s 2006 overview of the change literature, Burke’s 2014 review
of the climate and culture change literature, or the principles of alignment discussed
by Bowen and Ostroff [2004] and Ehrhart, Schneider, and Macey [2014]). In sum,
change is difficult to achieve, it may take a long time, and it may take a combination
of strategies operating at multiple levels for success.

**Type of Industry**

Figure 3.1 shows the distribution of all 549 documents by type of industry. Most
of the documents were from the health/medical or corporate sectors (29 percent and

![Figure 3.1: Documents by Industry](image-url)
27 percent, respectively). Few documents were obtained from the first response or sports sectors.

**Subcultures**

We included a review of subcultures because of the importance of leadership’s consistent and passionate communication of priorities. If subordinates know the goals, then they will not be left to their own assumptions, which could ultimately lead to differing subcultures (Schein, 2004). Moreover, as the Army is a large and diverse organization, subcultures should be an issue of consideration for climate and culture change efforts. In our review, we found a limited amount of documents that discuss various subcultures. Of only 66, 35 were of general content and 26 were domain-specific. Only 27 of the documents were empirically based, and only one used a robust longitudinal design. Most of the documents were coded as having ambiguous information about the presence or description of particular subcultures. Where we did identify information about a subculture, 17 documents addressed a counterculture (i.e., clash between an electronic data systems culture and business development culture in an organization), five addressed an enhancing subculture (i.e., a flexible learning culture to enhance reporting culture), and five addressed an orthogonal subculture (i.e., importance of both separateness and integration).

Table 3.1 provides some example excerpts from documents to illustrate each of the three types of subcultures for both general and domain-specific documents.

<table>
<thead>
<tr>
<th>Subculture</th>
<th>General</th>
<th>Domain-Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counter</td>
<td>Dynamics of multiple, sometimes competing subcultures within organizations (Hofstede, 1998, and Wilson, 1989, as cited in Dull, 2010, p. 861)</td>
<td>(1) Different subcultures can exist throughout an organization, and (2) members of each subculture hold different attitudes toward corporate sustainability which are distinct from that of other subcultures (Linnenluecke and Griffiths, 2010)</td>
</tr>
<tr>
<td>Enhancing</td>
<td>Find the best subculture and hold it up as an example (Kingshott, 2009, p. 65)</td>
<td>Reporting subculture; just subculture; flexible subculture; learning subculture (Ruchlin, et al., 2004)</td>
</tr>
<tr>
<td>Orthogonal</td>
<td>Executives should acknowledge the need for subcultures and carefully examine the balance of separateness and integration that works best for the whole company (Kampas, 2003)</td>
<td>The intent of the academy was to have distinct faculty groups (rotators, permanent military, and civilians) with strengths, experiences, and expertise that were unique from and complementary to each other (Ruvolo, 2007)</td>
</tr>
</tbody>
</table>

NOTE: See Appendix B for full citations.
Unit of Analysis
We also looked at whether there are differences by unit of analysis. Among the documents that included information on unit of analysis (n=401), the vast majority addressed the organization as the unit (n=294). Fifty-two documents addressed smaller groups (e.g., military units/teams), and 45 addressed the individual as the unit of analysis. Twenty documents addressed other units, such as an entire region, a state, or a nation. We looked at how the 20 drivers identified in the literature review map out across levels of analysis.

Content
As far as broad culture change mechanisms coded during the document abstraction, we found that among those with mechanisms coded (41 percent were inapplicable), most of the documents discussed either training or mentoring (34 percent). Monitoring and control was discussed in 17 percent of the documents, and another 8 percent discussed selection.

Based on our coding of the literature content, we found that nearly all documents covered values, attitudes, and beliefs (n=476; 88 percent). Documents also commonly addressed norms (n=375; 69 percent), followed by knowledge, skills, and resources (n=232; 43 percent). Symbols were less common in the literature, with only 91 documents including such content (17 percent). In terms of outcomes discussed, the most common types were behavioral outcomes (n=385; 71 percent) and psychological outcomes (n=307; 57 percent). Some 232 of the documents (43 percent) covered social outcomes, and only 79 documents (15 percent) dealt with financial outcomes.

Definitions of Organizational Culture
There are many different ways to think about organizational culture, so a clear definition will help guide efforts at implementation. Definitions provide scope, target areas, and an opportunity to bring relevant stakeholders together to develop a central goal that will enable consideration of interventions that are appropriately targeted and agreed upon, which is of vital importance when dealing with constructs like culture that are shared across the organization. We examined how culture is defined in the literature to develop ways of thinking through definitional issues.

The literature review identified 369 documents that listed definition(s) of organizational culture or climate (of the 549 documents coded). Among these 369 documents, 69 percent covered culture only, 17 percent covered climate only, and 15 percent covered both culture and climate. We show the distribution of definitions by domain and industry in Table 3.2. Among these definitions, about 45 percent (n=167) were domain specific, while the remaining were general. Overall, more of the definitions came from the medical (28 percent) and corporate fields (25 percent), while the fewest were from military literature (last column of Table 3.2).
The frequency of distribution of general definitions followed this same trend. The percentage of domain-specific definitions by industry ranged from 7 to 31 percent, with the lowest relative percentage in the education (7 percent) and military (7 percent) literatures and the highest percentages in the medical (25 percent) and corporate industry literature (31 percent). The domain-specific definitions include definitions of ethical culture, safety culture, inclusive culture, blame-free culture, tough culture, organizational learning culture, etc. For example, an inclusive culture is one where individuals of all backgrounds experience a sense of belonging and experience their uniqueness as valued (Military Leadership Diversity Commission, 2011), and a safety culture is the product of individual and group values, attitudes, competencies, and patterns of behavior that determine the commitment to an organization’s health and safety programs (Great Britain Health and Safety Commission, 1993; Meaney, 2004).

Within the general definitions of culture category, we identified 86 unique definitions.1 A few were cited multiple times by other publications. For example, 73 articles cite Schein’s definitions of culture. Schein’s specific definition appears in 30 articles:

Culture is a pattern of shared basic assumptions, invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that has worked well enough to be considered valid, and, therefore, is to be taught to new members of the group as the correct way to perceive, think, and feel in relation to those problems’ reframing. (Schein, 1990)

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1 Note that some documents cited more than one definition and some definitions were cited repeatedly across documents. Also, popular authors in the field published variants on definitions across sources, making the exact count of unique definitions uncertain.
Sixty-six percent of documents focused at a deep level (e.g., emphasizing assumptions, values, attitudes, beliefs), relative to 6 percent that focused on the surface level and 27 percent that examined both deep and surface levels. About 9 percent of definitions purported a top-down approach; 24 percent purported both a top-down (strategic socialization by leaders) and bottom-up (shared values, perceptions, or daily interactions) approach, and none explicitly purported a bottom-up approach (66 percent did not contain sufficient information to make a determination). In terms of receptivity, 6 percent of definitions communicated openness to change, 3 percent were resistant to change, and 91 percent could not be coded. The full listing of unique definitions with source information and coding results is provided in Appendix C. Table 3.3 shows the distribution of the 86 unique general definitions for the additional coding on level of depth, development, and receptivity (see Appendix A for operational definitions). To summarize, we identified a wide variety of definitions, suggesting little overall consistency. However, many of the more heavily cited definitions shared some key features. These included the idea of shared assumptions (beliefs, norms, values, ideas, etc.) by groups and underlying patterns of an organization.

Drivers of Organizational Change

The literature reflects 20 categories of key drivers of organizational culture and climate change. These drivers and their descriptions appear in Table 3.4. Although we confined our literature search to organizational culture and climate change as described previously rather than widening the aperture to include the more general organizational change and development literature, the drivers revealed resemble those discussed in the more general literature (see Burke, 2002, or the change steps discussed by Fernandez and Rainey, 2006). Figure 3.2 shows that among these drivers, we found that organizational openness to transformation was the most prevalent (126 documents), followed by communication (107 documents) and collaboration (85 documents). The least prevalent drivers were autonomy (14 documents), standardization (19 documents), and mentoring (also 19 documents).

Table 3.3
Characteristics of the 86 Unique General Definitions

<table>
<thead>
<tr>
<th>Level of Depth</th>
<th>n</th>
<th>%</th>
<th>Development</th>
<th>n</th>
<th>%</th>
<th>Receptivity</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep</td>
<td>57</td>
<td>66</td>
<td>Top-down</td>
<td>8</td>
<td>9</td>
<td>Open</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Surface</td>
<td>5</td>
<td>6</td>
<td>Bottom-up</td>
<td>0</td>
<td>0</td>
<td>Resistant</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Deep and surface</td>
<td>23</td>
<td>27</td>
<td>Top-down and bottom-up</td>
<td>21</td>
<td>24</td>
<td>Unclear</td>
<td>78</td>
<td>91</td>
</tr>
<tr>
<td>Unclear</td>
<td>1</td>
<td>1</td>
<td>Unclear</td>
<td>57</td>
<td>66</td>
<td></td>
<td>86</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>100</td>
<td>Total</td>
<td>86</td>
<td>100</td>
<td></td>
<td>86</td>
<td>100</td>
</tr>
</tbody>
</table>
Regardless of the unit of analysis, transformation, communication, and collaboration were all among the five most prevalent drivers. For documents that addressed the organization as the unit, training and incentives were also commonly addressed. Documents addressing smaller groups (units/teams) commonly addressed resources and measurement, and in documents addressing individuals, alignment and stakeholders were among the top five.

Table 3.4
Coding Categories for Drivers and Policy Recommendations

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>Underscores shared responsibilities and accountability</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Allows for autonomy</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Uses shared decisionmaking, collaboration, teamwork, cross-functionality</td>
</tr>
<tr>
<td>Communication</td>
<td>Uses clear, open, transparent communication, etc.</td>
</tr>
<tr>
<td>Fit</td>
<td>Has values congruent with personnel (shared values, norms, symbols) or individual alignment with organization (person-organization fit)</td>
</tr>
<tr>
<td>Goals</td>
<td>Sets goals; uses coherent planning, persistence, and strategic/inspirational/ innovative thinking; results oriented</td>
</tr>
<tr>
<td>Incentives</td>
<td>Applies incentives, encouragement, motivation, or rewards</td>
</tr>
<tr>
<td>Measurement</td>
<td>Tracks progress through performance measurement, audit and feedback, gap analysis, benchmarking, Plan-Do-Study-Act cycles, change documentation/reporting systems, etc.</td>
</tr>
<tr>
<td>Mentoring</td>
<td>Employs mentoring, role modeling, or coaching</td>
</tr>
<tr>
<td>Resolution</td>
<td>Emphasizes problem-solving, error and disagreement resolution, tolerance for risk, surfacing/examining underlying assumptions, mindfulness, and self-awareness</td>
</tr>
<tr>
<td>Resources</td>
<td>Devotes sufficient resources (financial, staffing, time, etc.) to change efforts</td>
</tr>
<tr>
<td>Selection</td>
<td>Selects/retains appropriate personnel</td>
</tr>
<tr>
<td>Socialization</td>
<td>Is people-centered (values social interaction, socialization)</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Engages stakeholders, includes diverse perspectives, or develops partnerships</td>
</tr>
<tr>
<td>Standardization</td>
<td>Systematizes recommendations in day-to-day operations and standards</td>
</tr>
<tr>
<td>Structure</td>
<td>Has a structure/infrastructure that enables change (physical environment, size, spatial dynamics)</td>
</tr>
<tr>
<td>Training</td>
<td>Develops personnel through training (skills, engagement, education, etc.)</td>
</tr>
<tr>
<td>Transformation</td>
<td>Promotes openness to change/ transformation, flexibility, adaptability, optimism, or learning orientation</td>
</tr>
<tr>
<td>Trust</td>
<td>Focuses on trust, empowerment, self-efficacy, etc.</td>
</tr>
<tr>
<td>Vision</td>
<td>Articulates a clear mission, clear vision/goals, and clear expectations/expectation management</td>
</tr>
</tbody>
</table>
To place some of these drivers in context, we provide examples for those identified as more prevalent. For example, Army high-level leadership could exemplify “transformation” by emphasizing the importance of prompt mental health care through campaigns to eliminate stigma and programs to educate mid-level leaders to identify troops who need help and get them treatment without career repercussions. High-level leaders, as well as leaders at all levels, could also publicly talk about their own struggles with behavioral health issues and set an example by getting assistance for these issues.

“Communication” is also important in that clear, consistent communication is necessary across levels of command. For example, even one contravening narrative regarding requirements that soldiers’ careers go hold while they receive treatment will throw the validity of efforts combating stigma into doubt, so it is vital for this type of effort for the communication to be consistent and authentic. A “communication” driver may therefore include initiatives to reduce potential negative consequences of reporting. For example, policies that preclude individuals from carrying out particular duties if they are getting mental health care should be reviewed regularly and communicated widely.
“Collaboration” is the third most important driver. Discussion of strategies as they are implemented at various levels in a collaborative manner, using the input of stakeholders at the various levels to make this implementation feasible, and incorporating messages into the existing training culture of the Army would also be important drivers of organizational culture change. As noted, communication must be with one voice, so a collaborative determination of strategy in which leaders at all levels can engage may make for a more cohesive implementation.

We did not observe much variation in terms of outcomes across drivers. For all drivers, with a few exceptions, behavioral outcomes were the most commonly mentioned. Many drivers—goals, stakeholders, standardization, training, resources, autonomy, and selection—also mentioned psychological and social outcomes approximately equally or slightly less. Few documents, regardless of type of driver, measured financial outcomes.

The heat map in Figure 3.3 shows the percentage of documents across the different industries to illuminate issues of feasibility differentiation across fields, with a darker color in a cell indicating a higher percentage of documents. Despite not being chosen as one of the key drivers for Army implementation, “transformation” is nonetheless common in all fields, including the military, as is “communication.” “Goals” did not figure highly in any industry category, as shown by the consistently pale hue,
“accountability” figured only for first responders. “Training” was discussed at length, and it also appears with relative frequency in the military literature. Therefore, although the literature did show some differentiation in terms of types of efforts investigated for given contexts, no set of drivers appears unique to the military context. Rather, drivers appeared to be both general in nature and generally considered regardless of the specific type of organization. Our panelist ratings therefore provide potential insight into applicability to the Army context.

Within each type of subculture, we observed a different pattern of drivers. For those identifying a counterculture, the most commonly mentioned drivers in the literature were measurement, collaboration, and communication. In contrast, accountability and transformation were the most commonly mentioned drivers from the subset of literature that identified orthogonal subcultures, although communication was also mentioned (as it was for countercultures). For enhancing cultures, training and goals stood out as being more common relative to other drivers.

**SME Panel**

**Pre-Conference Driver Ratings**

We obtained feedback from panelists about each of the 20 drivers to place the literature findings within a military context. In Figure 3.4, we summarize panelist ratings made before the in-person discussion (the averages across all six panelists). We sorted the drivers by the sum of the ratings for alignment of Army mission and feasibility of implementing change. Although the range was greater for feasibility (averaged ratings ranged from a low of two to a high of four) than alignment (where averaged ratings ranged from a low of three to a high of 4.8), SME agreement was generally fairly high across the drivers. For both alignment and feasibility, driver rating standard deviations were rarely greater than one. Some exceptions included “mentoring” and “structure” for alignment ratings and “measurement,” “collaboration,” and “structure” for feasibility ratings. In summary, most of the drivers align with the Army, but there was far more variability for feasibility.

We list the five top-rated drivers with the definitions for each in Table 3.5. These five top-rated drivers include only one of the five most prevalent drivers (training) based on the literature review prevalence ordering in Figure 3.2. We discussed all of the drivers at least briefly during the panel, but given time constraints were forced to focus more deeply on only a few and use them to elicit wider-ranging discussion.

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2 Based on discussion, it seemed like the consistency for the rating of “structure” might have been based on difficulty envisioning how that particular driver would be implemented in the Army as it related to physical setting (note that a meta-analysis of organizational development interventions in public and private organizations, for example, found relatively few examples that fit a similar categorization; Robertson and Seneviratne, 1995).
The panelists agreed these five drivers are both well aligned with the Army mission and feasible for the Army to target as levers for culture change, based on pre-conference thought processes. “Fit” reflects the Army’s emphasis on mission and the fact that, as an all-volunteer force, it can anticipate that individuals who join have some knowledge of that mission and desire to serve. “Training” reflects the extensive training system that the Army uses to develop its professionals throughout their careers and the Army’s reliance on training to distribute information about what it means to be in the Army. As we will see, setting strategic “goals” and then supporting them with tactical “goals” aligns with the Army way of doing business, as well. (In contrast, “allowing for autonomy” was seen as less aligned in general with the Army mission and less feasible, as well.) “Vision” is about clearly articulating the Army’s mission and goals to set expectations. Finally, “trust,” empowerment, and self-efficacy are important for the Army to facilitate performance and the mission.

We used these pre-conference driver ratings to generate discussion at the SME panel. We discussed those drivers that seemed to be considered most aligned and feasible—the “top five.” We also discussed areas where ratings were similar and where they were different, and whether anything seemed missing. Based on that discussion,

**Figure 3.4**
Summary of Panelist Pre-Conference Ratings Across Drivers

![Graph showing the summary of panelist pre-conference ratings across drivers.](image-url)
we came to consensus that it was important to include two additional drivers not originally included in our list: (1) engaging both formal and informal leaders and (2) understanding current culture. The first is important because, although we identified a driver from the literature that encompassed stakeholder engagement, we felt that given the hierarchical character of the Army, the role of informal leaders should be highlighted beyond a general exhortation to include diverse perspectives. The second is important because the literature on change implementation sometimes assumes that change agents make a cultural or climate diagnosis before initiation of the change effort (Armenakis, Harris, and Feild, 2001; Schein, 2004; Schneider, Ehrhart, and Macey, 2011). However, we felt it was such a necessary aspect that specifying its presence was a requirement, although it cannot strictly be considered a driver. We further address this issue below.

### SME Discussion Integrated with the Literature: Process Recommendations and Targeted Drivers

SMEs first agreed on an approach for how to achieve institutional culture change and arrived at a consensus on which of the more than 20 drivers of organizational culture change to prioritize. With respect to achieving organizational culture change, the panel recommended a holistic approach (rather than a crisis-response approach). A holistic approach requires active consideration of the overlaps in different drivers of change and initiatives that target them and how they can work together or might conflict for a given culture change effort. The research supports this aligned approach (Ford and Foster-Fishman, 2012; see also Burke, 2014; Fernandez and Rainey, 2006; Ostroff, Kinicki, and Muhammad, 2012). A holistic approach would be aligned so that drivers would not conflict with each other and would serve to create a strong situation.

### Table 3.5
**Top-Rated Drivers and Descriptions from Pre-Conference Ratings**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fit</td>
<td>Has values congruent with personnel (shared values, norms, symbols) or individual alignment with organization (person-organization fit)</td>
</tr>
<tr>
<td>Training</td>
<td>Develops personnel through training (skills, engagement, education, etc.)</td>
</tr>
<tr>
<td>Goals</td>
<td>Sets goals, uses coherent planning, persistence, and strategic/inspirational/innovative thinking; results oriented</td>
</tr>
<tr>
<td>Vision</td>
<td>Articulates a clear mission, clear vision/goals, and clear expectations/expectation management</td>
</tr>
<tr>
<td>Trust</td>
<td>Focuses on trust, empowerment, self-efficacy, etc.</td>
</tr>
</tbody>
</table>

*NOTE: These are excerpted here for convenience; the drivers in their entirety are shown in Table 2.1.*
That is, it is important to send a clear message about what is valued within an organization across multiple policies, practices, and reward systems (Bowen and Ostroff, 2004).

The literature also emphasizes holism in the sense of using multiple drivers to effect successful change, though specific empirical prescriptions on how many and what kinds of coordinating efforts are required are not available.

As an example of overlap, SMEs discussed how “accountability” overlaps with the roles played by leaders in the Army to develop their subordinates through “training,” another driver. Determining how best to hold leaders accountable for subordinate development and enabling both leaders and subordinates to commit and learn from mistakes, is an example of a holistic approach. However, the discussion also made clear that a holistic understanding of all Army culture is perhaps not entirely feasible. Hence, it is worthwhile to point out that not all aspects of climate and culture will be relevant (e.g., Schein’s 2004 discussion on the impracticability of knowing and understanding every aspect of a culture before implementing a culture change effort).

Another example of the necessity of coordinating drivers is the broader tension within the Army between discipline and autonomous behavior. Discipline is essential to the military mission, and certain behavioral strictures are required to enforce it; however, the concept of the “strategic sergeant” suggests that even at low ranks, military members need to be developed as thoughtful decisionmakers who can be trusted to act in an ethical manner.

In keeping with this general frame to the discussion, we determined a general outline would help put the drivers into a context in which they could be better considered for implementation.

**General Framework for Approaching a Culture Problem**

Panelists suggested that as a first step, it is critical to determine that there is a problem and identify what it is (see also Schein, 2004).

1. **Define the problem.**
2. **Understand current culture**, particularly in relation to a problem but at a general enough level to enable a holistic course of action.
3. **Define/articulate the desired culture or vision.** Note that “vision” is the level at which senior leaders would engage with the problem. Such a definition would be similar to the Australian Army’s “Statement of Cultural Intent,” which was articulated before an extensive years-long culture change effort and is now a priority second only to supporting personnel and operations. Another way to define the desired vision would be seeking what a panelist called a “Culture of Trust.”
4. **Identify specific goals.** Note that “goals” is the level at which operational/tactical implementation–level leaders would engage with the problem.
For any problem, a holistic approach that targets drivers in a coordinated fashion also facilitates change that is more likely to persist. Panelists contrasted this approach with the crisis-response approach, in which a given problem area is supplanted by a subsequent crisis; the original problem crops up again because it has not been addressed in a comprehensive fashion. Although manifestations may change, the underlying issues remain and are not conclusively solved. The panelists discussed the issue of treatment of women in the services as an example of a crisis-response approach, exemplified by recurrent sexual assault and harassment scandals. Schein (2004) notes that scandals may be used as a tool in change efforts: A situation can be used to highlight relevant assumptions and norms and provide evidence that there is a discrepancy between how these are spoken of and documented compared with how they are implemented in reality. However, whereas scandals may have their uses for change efforts, our panelists did not indicate that crisis response typically engenders calm and thoughtful responses and coordinated culture change.

While panel discussion produced these specific steps, they are certainly consistent with recommendations in the literature (including those by Burke, 2002; Fernandez and Rainey, 2006; Kotter, 1995; and Schein, 2004). Also, some general principles should be followed in attempting to institute cultural change in the Army, as the panel concluded.

The first is a need for clarity and specificity. When approaching culture change, one panelist noted that research supports focusing on specific behavior sets (e.g., Burke, 2014; Schein, 2004), and climate in particular is quite often conceived of as a certain type of climate (e.g., “safety climate,” “climate of fear”). If the problem is articulated with concrete examples and detailed definitions, groups can more easily come to a common understanding of the problem and the desired solution—and because culture and climate are group constructs, a common understanding is vital. Moreover, measuring changes in behaviors (which can be observed and tracked) is much more feasible than changing values and assumptions. Burke (2014) suggests that behavior change (and subsequent culture change) can occur, for example, through the modeling of specific behaviors by leadership in a top-down manner. Finally, framing change efforts within the parameters of a certain problem behavior helps leaders articulate a common definition and goal set for culture and climate change.

It is also essential to engage people at different levels of an organization (see also Burke, 2002; Schneider, Ehrhart, and Macey, 2011) through cascading discussions of expected behaviors and accountability and to understand that different drivers will respond in different timelines (immediately, in the short term, or over the longer term). These aspects need to be taken into account for realistic planning. In addition, clear and consistent communication across all levels of leadership is important for maximizing the alignment and effectiveness of change.

Below, we summarize the consensus discussion regarding which drivers from the literature demonstrate the most promise for culture or climate change in the context
of the Army. We focus on the five drivers most frequently nominated to panelists’ “top three” and on examples drawn from the discussion to put a finer point on how best to implement these drivers in the Army. We also bolster the discussion with the literature itself. We cite some specific examples of overlap in the discussion below; note that such overlap is typical rather than exceptional. The tabular summary provided to the panelists for their feedback is reproduced in its entirety in Appendix E. Table 3.6 provides an overview of the key drivers and their longer descriptions. These top five drivers include only two of the five most prevalent drivers ("goals" and "training") based on pre-conference ratings of alignment and feasibility. Thus, some new drivers were introduced during discussion of the gathered panelists as ultimately being more useful than originally thought based on panelists’ pre-conference individual ratings. That is, discussion of application to the Army from a variety of perspectives generated three other drivers that were ultimately more important for consideration: accountability, resources, and engagement.

The most important driver was Goals. In terms of the discussion, this was seen as part of the typical work of the Army—subordinate leaders take commanders’ intent and translate that at lower levels, often with specific and more tactical goals. In the Army, senior leaders’ goal is in effect to describe the general “vision,” as called for in many implementation recommendations in the literature (Fernandez and Rainey, 2006; Kotter, 1995; Schein, 2004). Subordinate leaders then take their commanders’ intent and break it down into specific goals implementable at the relevant level of authority. The original vision must be clear enough that definitional ambiguities do not result in implementation that contravenes the intent. However, given the variety of different subcultures in an organization as large and diverse as the Army, local autonomy is required to be able to interpret commander intent in tandem with unique subcultural issues. An example might be senior leaders’ goal/vision of “fostering an innovative culture” to increase creative problem solving. U.S. Army Training and Doctrine Command may interpret that vision by creating a unit like the Asymmetric Warfare Group, which can provide training to help soldiers innovate and adapt effectively against adversaries in complex environments. At the brigade command level, the goal

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals</td>
<td>Setting goals; coherent planning; persistence; strategic, inspirational, innovative thinking; results oriented</td>
</tr>
<tr>
<td>Accountability</td>
<td>Underscoring shared responsibilities and accountability</td>
</tr>
<tr>
<td>Training</td>
<td>Developing personnel through training (skills, engagement, education)</td>
</tr>
<tr>
<td>Resources</td>
<td>Devoting sufficient resources (finances, staff, time) to change</td>
</tr>
<tr>
<td>Engagement</td>
<td>Engaging both formal and informal leaders (stakeholders)</td>
</tr>
</tbody>
</table>

NOTE: These are excerpted here for convenience; the drivers in their entirety are shown in Table 3.4.
may be to foster innovative tactical problem solving; a brigade commander may send soldiers to courses that foster innovation and problem solving and provide support for innovative ideas. Junior soldiers can internalize innovation by observing leaders at each level encouraging innovation and through creative problem solving incorporated into unit training. (Note that setting goals should be inextricably linked with measurement of progress toward those goals.)

The second most important driver was Accountability. The panel considered this to be a key part of “leadership,” and at least one panelist specified that other leadership-type responsibilities (and drivers from the literature), such as developing personnel/training and role modeling/mentoring, were subordinate to the overarching driver of accountability, given that developing quality Army personnel is often an explicit part of job responsibilities. The discussion generated several aspects of accountability in the context of the Army.

One noted point was that it could be difficult in the Army context to give and receive the honest feedback needed to enable accountability (this issue is hardly Army specific; see Newman, Kinney, Farr, 2003, and discussion of feedback interventions for organizational development in Church, Walker, Brockner, 2002). When a behavior change is sought, in some cases undesired behaviors should be expected and seen as learning opportunities for honest feedback. Zero error tolerance is an unforgiving standard that may cause people to game the reporting system rather than truly change behavior.

Part of accountability is also measuring the desired outcome, essential to tracking and measuring change (see Armenakis, Harris, and Feild, 2001; Burke, 2014; Fernandez and Rainey, 2006; Kotter, 1995). Schein’s (2004) embedding mechanisms also consider what organizational leaders measure, and he notes that measurement in itself sends a signal about leader priorities. When carefully considered in the context of holistic change, these signals facilitate alignment. It is easier to focus on and measure desired behavioral changes. In the Army context, an increase in traffic at a behavioral health clinic might be one measurement of a desired outcome. Another measurement of a desired outcome would be a drop in the more critical consequences of behavioral health challenges (for example, more people might seek treatment before becoming dependent on substance abuse to self-manage PTSD). A third outcome might be surveys that show decreased perceptions of stigma for seeking mental health treatment, although this is a less direct measurement. Measuring the desired outcome enables leaders to determine whether they are correctly prioritizing a given goal.

Appropriate measurement also requires an understanding of current culture and climate, a thorough definitional effort, and realistic estimates of expected change, particularly when behaviors that are targeted are quite low in terms of base rate. Armenakis, Harris, and Feild (2001) discuss what change would and should look like; surveys may show that an undesirable behavior is noted as “frequent” both before and after a
change effort because after a change, respondents may have a lower anchor for what frequency is appropriate.

Finally, part of accountability is actual execution of existing policy. Some issues relevant to the context of gender integration are as yet unarticulated in policy; however, ink has likely been spent on the specifics of other relevant issues in terms of policy guidance as well as pertinent outcome variables. What is missing is actual implementation. In some cases, determining and setting realistic priorities among competing imperatives is a challenge to leadership that must be addressed as well.

The third most frequently nominated driver was Training, which includes quite a broad purview. Our panelists noted that the military makes much use of training, but it may not be sufficient to facilitate organizational culture change. Schein (2004) discusses that training can help create the psychological safety to enable change; if change requires new skill sets, these skills must be taught to alleviate targets’ concerns about new performance requirements. Armenakis, Harris, and Feild (2001) note that training is one of the human resource levers that may be engaged in culture change efforts, and they describe its use both in terms of teaching new knowledge, skills, and abilities and in terms of reinforcing messages for an overall change effort. Peer and supervisor support helps ensure that training is applied in the workplace. Opportunities to practice soon after training and reorganizing work flow so that trained behaviors are integrated into regular processes also help (see reviews by Brown and Sitzmann, 2011; Burke and Hutchins, 2007).

Panelists discussed the importance of tailoring training to particular subgroups, especially given competing demands and limited resources. An example was to consider training to a specific problem behavior rather than all possible negative behaviors. Training to tiers would target high-level leaders with one form of training; leaders can then lead by example (enforce and model); Burke (2002) notes that training interventions for organizational culture change are most often targeted specifically at senior leaders. Another approach is creating modules that can be deployed only where relevant (though the definition of relevance should be carefully considered). For example, if women are embedded in a given unit, gender diversity training is key; if not, different training may have a somewhat higher prioritization. Note here the phrase “somewhat higher,” as consideration of the issue reveals that even men in an entirely male unit have to interact with women.

Resources were also high on panelists’ list of nomination and are related to the provision of training. General implementation guidance highlights this as well (e.g., Fernandez and Rainey, 2006; Kotter, 1995), as does Schein (2004) in his discussion of embedding mechanisms. Certainly, measuring outcomes, enforcing accountability, and establishing training all require resources; target participation in these efforts likewise requires organizational resources. Resourcing efforts adequately also demonstrates that efforts are a priority. Pursuing holistic change implies a variety of efforts, thoughtfully aligned and with sufficient resources to carry them out. Time and attention are
limited, so it is important to plan for the worst in provision of resources rather than hope that people will simply find the time and effort required.

Leadership is often emphasized in culture change or organizational change more generally (e.g., Burke, 2002; Burke, 2014; Day, Griffin, and Louw, 2014; Schein, 2004; Schneider, Ehrhart, and Macey, 2011), although the literature varies in how a “leader” is defined and can encompass everyone from company CEO to line supervisors to change champions who may or may not hold a formal position. Another driver noted prominently by our panel was a write-in suggestion that targeting formal and informal leaders was an important factor in influencing change. Targeting is in some sense included in our ratings (e.g., the driver “engages stakeholders, includes diverse perspectives, or develops partnerships”). For example, one article (Hauck, Winsett, and Kuric, 2013) about promoting a safety culture within hospital surgery units noted the importance of registered nurses who moved around the hospital and had the most interaction with various units. These nurses had the strongest effects on safety culture at follow-up and were seen as crucial change agents. However, targeting informal leaders—early adopters and influencers—was considered important enough to highlight separately. Depending on the circumstance, informal leaders may include first sergeants, chaplains, and similar people with specific authority, as well as other influencers without any official formally granted authority, job, or rank. Those who volunteer to be change champions may also be included here. (Formal leaders are generally readily identifiable in the military hierarchy.)

Overall Summary of SME Panel

Our panelists suggested that the prevalence of a given driver in the literature does not necessarily indicate its appropriateness for the Army or its potential for success. As one noted, management literature can be swayed by fads; a heavy concentration on transformational leadership may be one such example. In our coding of the policy recommendations and drivers, we noted that the term “transformational leadership” seemed almost a touchstone. However, some reviewed articles spoke of it in generalities rather than providing specific prescriptions regarding how transformational leadership behaviors helped generate culture change. Moreover, many reviews (Fernandez and Rainey, 2006; Martins, 2011; Ostroff, Kinicki, and Muhammad, 2012; Schneider, Ehrhart, and Macey, 2011) indicate that little research has provided specific implementation guidance supported by a rigorous evidence base despite notable interest in transformational leadership.

Based on the discussion of our coding categories, as well as the summary of the panel discussion, the panel delved quite deeply into the issues surrounding certain drivers and perhaps interpreted them a bit idiosyncratically. That does not detract from the importance of the panelists’ observations, but does explain some discrepancies. Our panelists and the literature are in agreement on key points, however—developing appropriate culture/climate definition and problem diagnosis; articulating a change
vision that is detailed enough even at its greatest breadth to generate actionable tactical goals; taking a holistic approach, with multiple drivers and change mechanisms; and engaging at multiple organizational levels.
In this chapter, we briefly summarize our main findings and suggest recommended actions for Army leadership and the military more broadly where applicable. Our recommendations may help craft culture change efforts, implemented at whatever levels are appropriate, to help servicemembers and leaders embrace the many changes taking place. However, our recommendations are framed quite broadly, and Army leaders would need to adjust these recommendations to a specific context to use them in a change implementation effort. Interested readers may read Chapter Three for more specific examples and discussion.

Findings

Our literature review led to several findings. For this overview, we organize these conclusions according to our guiding questions:

1. How is organizational culture defined?
2. What drives/maintains particular cultures or subcultures?
3. How can we apply promising approaches to institutional change from a variety of industries to the Army?

Definitions of Organizational Culture

Among the 86 unique definitions we identified from the literature, eight use a top-down approach (which may best resonate with military hierarchy), 57 convey deep (as opposed to surface) content, and five communicate openness to change. These unique definitions are also sufficiently general to apply to the Army. Future definitions targeting organizational culture change should focus on incorporating the following components:

- Emphasis on deep culture (assumptions, values, attitudes, beliefs) rather than on surface culture (symbols)
• Receptivity to change
• Both bottom-up (arising from members’ shared values) and top-down (strategic socialization) approaches to developing change.

Our first recommendation below discusses in greater detail our recommendations regarding definitional requirements.

Drivers of Organizational Culture and Climate Change
We identified 20 types of drivers of organizational culture/climate change from the literature. Several align particularly well with the existing Army culture and are feasible within the military structure. The top five drivers relevant to the Army are as follows:

1. **Goals**: Articulate and set clear goals; use coherent planning, persistence, and strategic, inspirational, innovative thinking; results oriented
2. **Accountability**: Underscore shared responsibilities and accountability
3. **Training**: Develop personnel through training (skills, engagement, etc.), education
4. **Resources**: Devote sufficient resources (financial, staffing, time, etc.) to change efforts
5. **Targeting**: Target both formal and informal leaders (engage stakeholders).

These top drivers are not intended to be viewed or implemented in isolation given how difficult it is to change an organization. It is expected that a combination of these (and other) strategies may be necessary for success. First and foremost, the Army senior leadership must understand the current culture before embarking on a transformation effort. It is also very important to target both formal and informal leaders, provide mentoring and role modeling, offer incentives, select and retain appropriate personnel, employ problem-solving approaches, and engage stakeholders with diverse perspectives. Although empirical work on development and maintenance of subcultures is not substantial enough to warrant specific conclusions, we suggest that the Army be aware of the potential issue of subcultures when considering culture and climate change efforts.

Applying Approaches to the Army
Evidence-based prescriptions for how to change culture and climate are currently elusive. Rather, theoretical development outstrips available empirical evidence. Nonetheless, this is clearly a topic of great interest—organizational culture change is widely considered a necessity and a process that can be implemented. Certainly, Martins’s (2011) review suggests that organizational change, especially when executed in a holistic fashion that includes a variety of interventions and intervention targets, can have a positive influence on desirable organizational outcomes, including productivity and employee job attitudes. Thus, organizational culture change can work. As would be
expected, the drivers our literature review uncovered are similar in nature to drivers and prescriptions in the general change implementation literature (e.g., Burke, 2002, 2014; Fernandez and Rainey, 2006); we recommend employing a holistic approach, as does the literature, and concentrating on behaviors that are measurable and actionable. We also note that the literature from the sports industry (albeit limited to just six documents in our review, none of which used robust empirical designs), which is both masculine-dominated and team-oriented, may offer some lessons that are particularly relevant to the military. For example, Walker and Sartore-Baldwin (2013) found that men’s college basketball is indeed hypermasculine, exclusive of women, and resistant to change. Accordingly, they suggest that leaders take organizational culture into account when developing policies to address gender inequality and promote inclusion of underrepresented groups. Additionally, the team-orientation approach taken by athletic coaches can be used to ingrain core values specific to the team and to recruit athletes who embrace those values relatively quickly to influence organizational culture change (Schroeder and Scribner, 2006).

**Recommendations**

We offer eight additional recommendations for developers of U.S. Army doctrine and policy interested in driving organizational culture change to address the Army’s biggest challenges. These are presented on the basis of the synthesized findings. Note that these recommendations are roughly ordered temporally, but in implementation many of the recommendations activities would overlap—and all are important.

**Define Organizational Culture**

In attempting to change the organizational culture, a necessary first step is to define what organizational culture means. We recommend using Schein’s (1990) definition\(^1\) as a starting point because of its common use in the literature, clarity, emphasis on depth of culture, change-orientation, and use of both top-down and bottom-up perspectives.

**Adopt a Common Definition of Army Organizational Culture**

We suggest that the Army adopt a new definition of organizational culture that is both specific enough to fit with the Army domain and general enough to cover changes that occur within that domain. We would also recommend reevaluation of the definition of climate to reflect the consensus that it, too, involves shared perceptions of policies and practices and is not simply morale. While still very general, our definitional rec-

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\(^{1}\) “Culture is a pattern of shared basic assumptions, invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that has worked well enough to be considered valid, and, therefore, is to be taught to new members of the group as the correct way to perceive, think, and feel in relation to those problems reframing.”
omendations would help bring the Army’s definition more in line with the current literature. It should guide the Army to accomplish the following:

- Address both the deep and surface level to manifest culture both through values and ideologies
- Align policies with the practices, competencies, and perceptions of organizational members (align the climate)
- Use both a top-down and bottom-up approach, involving strategic and formalized processes as well as informal socialization processes
- Convey an openness to change to set the tone for continually adapting to change and transformation.

It is important to work from a common framework when developing a change intervention. In addition, adopting a definition with the characteristics outlined above can help ensure that relevant aspects are considered, particularly because different organizational levels may manifest culture somewhat differently (e.g., at some levels following orders exemplifies the value of duty, while at other levels members have the duty to challenge orders if they are incongruent with Army end goals). Surface-level artifacts or symbols can call attention to certain values, e.g., rewarding a servicemember for receiving treatment for a psychological health issue.

In addition, a deeper understanding of why things are done a certain way is important for understanding institutional change. In particular, the Army’s main purpose is to defend the nation, and the historically rooted role of the warrior culture is a foundation for achieving this goal. It is important to acknowledge that policies cannot have their strongest effect without aligning them to a given goal; it is not sufficient to simply label something as a “core value” without aligning resources, competencies, and ultimately behavior patterns and perceptions of members in a definition.²

Further, the overall mission or strategy of the organization should be taken into that consideration. We also suggest selecting a definition of change that is both top-down and bottom-up because cultures generally involve both processes—strategic and formalized processes (that are especially relevant in the Army) along with naturally occurring selection and socialization of new members. Including a definition that emphasizes openness to change is also important because it sets the tone for continually adapting to change and transformation.

Lastly, tailoring the definition to the needs of the Army domain will best guide organizational change. Although we propose Schein’s (1990) definition as a starting point, it should by no means be considered the end point.

² Note that although we are explicitly addressing the definitional issues surrounding culture, this alignment requirement by default takes into account aspects of an organization that tend to fall under definitions of “climate.”
Determine Target Problems Amenable to Culture Change

We recommend that the Army first undertake organizational change within the context of a specific problem (Schein, 2010) and then understand the cultural implications of trying to solve that problem. In fact, we recommended that any attempt to undertake a change of the entire culture be avoided unless absolutely necessary. Given that organizational change is often a time- and other resource-consuming endeavor, the change effort should be focused. The Army, as noted, has a long and storied history, with established cultures and subcultures. It helps to set out the parameters of a specific problem, such as hostile workforce behavior, to delineate the necessary change and enable ways of thinking about how to change specific behaviors and underlying values and assumptions embodied in these behaviors. Further, cultural values or assumptions can be leveraged if they align with the desired changes. Although holism is key, as noted by Schein (2004) it is difficult to grasp the entirety of a culture before initiating a change effort. Also, engaging outsiders to an organization may help ease change, as they (in conjunction with insiders) may be able to highlight some of the less visible aspects of culture. The iceberg metaphor is commonly applied to discussions of culture, where only the tip is visible and much of the relevant content is underneath the surface.

Assess the Army’s Current Culture and Climate in the Problem Context

We also recommend that the Army assess the current culture and climate to best determine how to address the most pressing problems and make that assessment within the focus on the target problem as just described. The Army is a huge organization with diverse missions, skill sets, and suborganizations. Leaders must prioritize those elements of culture that are relevant to the problem of interest and the goals being targeted. Assessing cultural perceptions across levels of analysis is a useful approach to identify possible subcultures within the larger organization (see González-Romá and Hernandez’s discussion of climate uniformity, 2014) and manage those issues appropriately.

However, a holistic approach can be applied when using a specific problem set as a springboard and to help set parameters. This would entail considering various aspects of human resource management, such as training, incentives, and work design, as well as information and controlling systems; how these aspects align with respect to the problem at hand and their effects on culture and climate; and what messages changes in these aspects and systems would send.

Prioritize Organizational Culture Change

Our fifth recommendation is that senior Army leaders clearly articulate strategic goals to facilitate priority setting for competing initiatives or delegate that authority appropriately. This will help instill trust at all levels within the organization that appropriate actions will be supported. It is also necessary to allocate sufficient time, training, measurement and tracking capacity, and other more tangible resources to maximize
successful change. The military today faces a number of strategic goals and mission demands. Mission command is critical to the success of organizations as they adapt to new strategic imperatives and changing operational demands. Unit leaders’ prioritization efforts can help unit personnel distinguish what is mission critical, mission essential, and mission enhancing. Given that the work of the Army is to secure the nation, in some sense all missions are critical. However, a popular saying has it that if everything is urgent, nothing is in fact urgent. This observation points to the fact that priorities must be set to get important things done. Schein (2004) notes that culture arises from what leaders pay attention to—what they measure, what they reinforce, what they model, how they react to events. Therefore, part of leadership is choosing what to prioritize, and culture or climate change must be given the appropriate priority if the efforts are to succeed.

One perspective that emerged from this study is that the driving forces of institutional culture change in the Army that optimize human performance are mission critical. The Army must address how it is going to embrace institutional change, optimizing the human performance aspects of behavioral health, conduct in the workplace, changing demographics, and the use of new technologies to remain successful in the 21st century. A 20th-century Army perspective on institutional culture change that optimizes human performance seldom advanced beyond “mission enhancing” to “mission essential.” As the Army continues to draw down its total force and must more intently assess its human capabilities, considerations of institutional change that optimize human performance and organizational growth become more than “mission enhancing” or “mission essential.” They become, as this report suggests, “mission critical.”

**Develop a Strategy for Change with Clear Goals**

We recommend that the Army develop a clear strategy and goals to guide change planning and implementation. This approach is consistent with Army culture; further, a change effort organized around clear goals and coupled with other individual behavior change efforts is more likely to be institutionalized and maintained. For example, as noted earlier, the Australian Army has seen notable cultural change as a result of its clear and unambiguous articulation of the “culture of intent” wholeheartedly supported by leadership at the top of the command chain. Emphasizing personal accountability and responsibility for the expected behavior and tracking progress toward behavior-based goals may make it possible for change to happen even before formal policy implementation, which can often take a long time to formulate and implement.

**Engage Stakeholders at All Levels in the Army**

We recommend that the Army engage all levels of leadership through the command chain and through noncommissioned officer support channels outside the chain of command to address both overarching goals and goals specific to different subcultures.
For example, obtaining input from those directly engaged in combat as well as from those responsible for strategy may provide multiple perspectives that all contribute to the overall goal(s). Within the Army culture, it is common to employ a top-down, hierarchical strategy for articulating a vision. This process generally starts by engaging senior leadership in communicating goals and planning strategy as well as inspiring institutional change. This vision is then stepped down through the chain of command to infiltrate subordinates with more specific goals, as they are pertinent to that level. At the same time, leadership must pay attention to local issues for successful implementation, particularly to address the specific goals of the different subcultures in such a large and diverse force. This may include engaging individuals outside of established chains of command (e.g., chaplains) but whose local influence may be strong. Full-scale institutionally coordinated efforts would certainly involve the U.S. Army Headquarters G-3/5/7 staff and the U.S. Army Training and Doctrine Command.

Consider Targeted Training to Maximize Resources and Uptake

Although training is a driver that is used heavily in the military, it may not be sufficient by itself to change organizational culture if processes are not in place to enable trainees to perform new skills (Schein, 2004). Thus, engaging peer and supervisor support is critical to guarantee training transfer. Transfer might be enabled by providing opportunities to practice new skills and otherwise integrating those new skills into routine processes (Brown and Sitzmann, 2011; Burke and Hutchins, 2007). We also recommend that training be targeted to subgroups (e.g., certain units) to maximize success. In addition to targeting both formal and informal leaders as critical change agents to influence institutional unit members (and the climates or shared perceptions in these units), it may be important to consider delivering some types of training in a targeted manner. Military servicemembers are inundated with all types of training, and the mere piling-on of more training activities is both burdensome and impractical. In the context of this discussion, it is important to highlight distinctions between mission-critical, mission-essential, and mission-enhancing Army training. Capabilities-based assessments can be structured to determine requirements for training, especially when Army doctrine and education do not fully address emerging or changing policy. Capabilities-based assessments can be used by an organization to recategorize mission-enhancing training as mission essential or mission critical (e.g., classes on drinking and driving or sexual harassment).

Too much training may lead to inattention and poor participation. Moreover, to ensure training transfers to the workplace, it is helpful to engage peer and supervisor support as well as otherwise aligning the workplace climate to enable that transfer. Therefore, it may be worthwhile to consider where to target training to get the most benefit with limited training and support resources. While it is optimal that the entire force be trained equivalently on all topics, competing mission-related training requirements as well as general training requirements make that approach infeasible, particu-
larly if the training content is less relevant or is in response to rare or geographically concentrated events that are unlikely to persist over time. As an example of complexity, for highly specialized units in which women are not present, gender sensitivity training may have little immediate benefit. However, it may also be those units that most need the training because of limited exposure. Timing the training such that the lessons could be “practiced” during interaction with women would be more likely to change behavior and thus would be more valuable in such situations. On the other hand, training soldiers about coping with behavioral health problems may be of broader benefit not only for personal resilience (Meredith et al., 2011) but also for increasing awareness of others in the unit and knowing the signs of risk and when to step in and help.

Conclusion

A number of challenges are currently confronting the U.S. Army, including adverse consequences of combat and repeated deployments; perceived stigma associated with mental health care seeking; and sexual harassment and assault in the workplace. A clearly defined and elucidated understanding of Army organizational culture among servicemembers, commanders, and senior leaders is key to adaptation to the many changes taking place. Our study reached the following conclusions:

- The literature review identified over 80 definitions of organizational culture potentially applicable to the Army. To be aligned with the Army, an updated definition should cover depth, openness to change, and allow for both top-down and bottom-up change processes.
- Review of the literature found five top drivers of organizational culture change:
  - Goals: setting clear goals; using coherent planning, persistence, and strategic thinking; results oriented
  - Accountability: sharing responsibility and accountability
  - Training: developing personnel through training (i.e., skills, engagement, education, etc.)
  - Resources: devoting sufficient resources (i.e., financial, staffing, time, etc.) to change efforts
  - Stakeholders: engaging both formal and informal leaders.
- SMEs identified four actions that may be taken as a first step in affecting culture and climate change:
  - Define the problem.
  - Understand current culture.
  - Define/articulate the desired culture or vision.
  - Identify specific goals.
Changing culture is difficult across an organization because it is also necessary to change individual values, beliefs, attitudes, and behaviors within the organization. Nevertheless, change is possible in the Army, particularly through the use of a holistic approach that focuses drivers of change in a coordinated manner. Change is also more likely if problems to be solved are clearly specified and articulated. Finally, despite the inherent hierarchical structure of the Army, engaging people at all levels of the organization will facilitate organizational change, as leadership responsibility is present at every level.
APPENDIX A

Additional Details About the Literature Review

This appendix provides information about each of the elements coded or abstracted from the 549 documents we coded from the literature review. For each of the coding categories, we included operational definitions and explanations for the different codes.

<table>
<thead>
<tr>
<th>Category</th>
<th>Coding Options</th>
<th>Operational Definition(s)</th>
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<tr>
<td>Exclude</td>
<td></td>
<td>Should the article be excluded based on the following criteria:</td>
</tr>
<tr>
<td>International</td>
<td></td>
<td>Article is about countries besides the United States. This includes comparative articles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(i.e., those that compare U.S. organizations to non–U.S. organizations).</td>
</tr>
<tr>
<td>Not relevant</td>
<td></td>
<td>Article does not have to do with organizational culture/climate.</td>
</tr>
<tr>
<td>Not culture</td>
<td></td>
<td>Article is only tangentially related to culture/climate or culture/climate is a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>secondary part of the article.</td>
</tr>
</tbody>
</table>

Document type

- **Experimental**: Empirical study with causal design (experimenter-controlled conditions and random assignment).
- **Quasi-experimental**: Empirical study with causal design (experimenter-controlled conditions but not random assignment).
- **Longitudinal**: Empirical study with repeated assessments but without causal design (no experimenter-controlled conditions/random assignment).
- **Observational**: Empirical study without causal design (no experimenter-controlled conditions/random assignment).
- **Review**: Synthesis of a literature.
- **Policy report/directive**: Reviews policy or offers recommendations.
- **Other (specify)**:

Document type (specify)

- For empirical documents, what was the study design? For nonempirical documents, what was done?

Method

- What methods were used to answer the research question? (more precise than document type)
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<th>Category</th>
<th>Coding Options</th>
<th>Operational Definition(s)</th>
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</thead>
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<tr>
<td>Quantitative</td>
<td>Included standard measures with assigned numeric values; descriptive and inferential statistics.</td>
<td></td>
</tr>
<tr>
<td>Qualitative</td>
<td>Included descriptive measures; maybe some descriptive statistics.</td>
<td></td>
</tr>
<tr>
<td>Mixed methods</td>
<td>Combination of both.</td>
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</tr>
<tr>
<td>Not applicable</td>
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</table>

<table>
<thead>
<tr>
<th>Data collection method</th>
<th>What data collection methods did the document use?</th>
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<tbody>
<tr>
<td>Expert panel/focus group</td>
<td>Subject matter experts were consulted, for purposes of establishing feasibility, validity, etc.; OR asked a group of people questions about their knowledge, experiences, beliefs, attitudes on a particular topic in an interactive setting; online or in-person.</td>
</tr>
<tr>
<td>Interview</td>
<td>Structured or unstructured; conducted over phone, online, or in-person.</td>
</tr>
<tr>
<td>Survey/questionnaire</td>
<td>Included a group of standardized scales, subscales, or items; filled out over phone, online, or in-person.</td>
</tr>
<tr>
<td>Observational coding</td>
<td>Researchers systematically observed and coded participants’ behavior.</td>
</tr>
<tr>
<td>Secondary analysis/document review</td>
<td>Reviews data from secondary sources, such as archival datasets, documents/records, archives.</td>
</tr>
<tr>
<td>Not applicable</td>
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<table>
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<tr>
<th>Relevant unit of analysis</th>
<th>What unit of analysis did the document focus on?</th>
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<tbody>
<tr>
<td>National</td>
<td>Organizational data was collected/analyzed at the country level; includes multiple organizations.</td>
</tr>
<tr>
<td>Region</td>
<td>Organizational data from a section (or multiple sections) within a country; includes more than one state, and multiple organizations.</td>
</tr>
<tr>
<td>State</td>
<td>Organizational data at the state level; includes multiple organizations and looks at state differences.</td>
</tr>
<tr>
<td>Organization</td>
<td>Compares data on one or more organizations.</td>
</tr>
<tr>
<td>Unit/team</td>
<td>Organizational data on subunit(s) or team(s) within an organization.</td>
</tr>
<tr>
<td>Individual</td>
<td>Organizational data collected from individuals within a unit or organization that can’t be statistically aggregated or generalized beyond the individual.</td>
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<td>Other (specify)</td>
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</tr>
<tr>
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</table>

<p>| # Unit(s) (specify)       | Describe the populations within all applicable units of analysis (i.e., unit labels and, if available, numbers within each). |</p>
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<th>Category</th>
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<td>Industry</td>
<td>What industry does the document examine?</td>
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<tr>
<td>Military</td>
<td>Includes any/all branches of the U.S. military.</td>
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<tr>
<td>First responders</td>
<td>Industries involved in emergency response (not related to health care).</td>
<td></td>
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<tr>
<td>Health/medical</td>
<td>Industries directly involved in medicine, healthcare delivery, and treatment.</td>
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<tr>
<td>Professional sports</td>
<td>Industries that recruit, train, and manage professional athletes/teams.</td>
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<tr>
<td>Corporate</td>
<td>For-profit business entities.</td>
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<td>Other (specify)</td>
<td>If other, document is EXCLUDED, specify the industry and move on to the next article for extraction.</td>
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<tr>
<td>Climate</td>
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<td>Does the document self-identify as a “climate” piece?</td>
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<tr>
<td>Specificity</td>
<td>How general or specific is the document’s perspective on culture/climate?</td>
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<tr>
<td>General</td>
<td>Refers to a general climate or culture, and/or its valence (i.e., good or bad; positive or negative), but doesn’t specify a domain.</td>
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<tr>
<td>Domain-specific</td>
<td>Refers to a particular domain of culture/climate (e.g., safety, diversity, service, respect, innovation, etc.). Should be explicit!</td>
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<tr>
<td>Subculture(s)</td>
<td>What type of subculture(s) is discussed—if applicable?</td>
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<tr>
<td>Orthogonal</td>
<td>Applies to subculture(s) that uphold the core values of the dominant culture, but also have unique, nonconflicting ones.</td>
<td></td>
</tr>
<tr>
<td>Enhancing</td>
<td>Applies to subculture(s) with even stronger adherence to core values of the dominant culture than others.</td>
<td></td>
</tr>
<tr>
<td>Counter</td>
<td>Applies to subculture(s) directly challenging the core values of the dominant culture.</td>
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</tr>
<tr>
<td>Ambiguous</td>
<td>A subculture(s) was mentioned, but not enough detail to assign a category.</td>
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<tr>
<td>Not applicable</td>
<td>No subculture(s) mentioned.</td>
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<tr>
<td>Subculture(s) (describe)</td>
<td>The document’s verbatim description of the subculture(s) (copy/paste and provide page # if applicable).</td>
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<tr>
<td>Target content one–four</td>
<td>The “what” of culture or climate; the focal content the document is targeting or trying to change.</td>
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<tr>
<td>Values/attitudes/beliefs</td>
<td>Targets (perceptions of) an organization’s core priorities or assumptions; also includes communication of these priorities (by leadership or org members).</td>
<td></td>
</tr>
<tr>
<td>Norms</td>
<td>Targets (perceptions of) the shared expectations for ways to think and behave; Includes attraction-selection-attrition and other socialization processes for promoting behaviors that are in line with organizational values, and discouraging those that conflict.</td>
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<td>Category</td>
<td>Coding Options</td>
<td>Operational Definition(s)</td>
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<tr>
<td>Symbols</td>
<td>Targets (perceptions of) an organization’s physical objects/structural artifacts that are given meaning and reinforce a shared identity or underlying values.</td>
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<tr>
<td>Knowledge/skills/resources</td>
<td>Targets (perceptions of) an organization’s practices for providing information, skills, and resources (financial, technological, etc.).</td>
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<tr>
<td>Target mechanism (select one)</td>
<td>The “how” of culture or climate; What the document describes as the major mechanism or action lever for the desired culture/climate. (Select one that most applies).</td>
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<tr>
<td>Selection</td>
<td>Document emphasizes attracting, selecting, and/or retaining organizational members and leaders in line with the espoused culture or climate; person-organization fit is viewed as the action lever.</td>
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<tr>
<td>Training/mentoring</td>
<td>Document emphasizes training members and/or support of continued learning and career development.</td>
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</tr>
<tr>
<td>Monitoring/control</td>
<td>Document emphasizes planning; measuring/tracking progress toward goals or outcomes.</td>
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<tr>
<td>Outcome(s)</td>
<td>What is the ultimate (desired) consequence of the culture/climate?</td>
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<tr>
<td>Financial</td>
<td>Outcomes pertaining to the cost-efficiency or competitive financial performance of the organization.</td>
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</tr>
<tr>
<td>Behavioral</td>
<td>Outcomes pertaining to observable actions on the part of organizational members. Can also refer to putting a stop to some action.</td>
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<tr>
<td>Social</td>
<td>Outcomes pertaining to the social interactions among organizational members, and other team/group-related outcomes, as well as perceptions of these interactions/group factors.</td>
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<tr>
<td>Psychological</td>
<td>Outcomes pertaining to the emotions, beliefs/attitudes, and perceptions of organizational members.</td>
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<td>No organizational outcome was discussed.</td>
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<td>Outcome(s) (specify)</td>
<td>Specify the target outcomes.</td>
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<tr>
<td>Policy recommendations</td>
<td>What policy recommendations for org culture or climate does the document provide—if applicable? Or, what are the take-away points of potential interest to stakeholders?</td>
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<tr>
<td>Definition</td>
<td>How does the document operationalize culture or climate? (Cite original sources of these definitions, if included.)</td>
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<tr>
<td>Drivers</td>
<td>What factors may promote, hinder, or otherwise control the culture or climate (or culture/climate change)? List content of interventions if applicable.</td>
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</tr>
</tbody>
</table>
APPENDIX B

Documents Included in Literature Review


49. Boss, R. Wayne, Benjamin B. Dunford, Alan D. Boss, and Mark L. McConkie, “Sustainable Change in the Public Sector: The Longitudinal Benefits of Orga-


61. Bruhn, John G., and Josiah Lowrey, “The Good and Bad About Greed: How the Manifestations of Greed Can Be Used to Improve Organizational and Indi-


340. McKay, Patrick F., Derek R. Avery, and Mark A. Morris, “A Tale of Two Climates: Diversity Climate from Subordinates’ and Managers’ Perspectives and Their Role


441. Schraeder, Mike, Rachel S. Tears, and Mark H. Jordan, “Organizational Culture in Public Sector Organizations: Promoting Change Through Training and Lead-


518. Wallen, Gwyneth R., Sandra A. Mitchell, Bernadette Melnyk, Ellen Fineout-Overholt, Claiborne Miller-Davis, Janice Yates, and Clare Hastings, “Implementing Evidence-Based Practice: Effectiveness of a Structured Multifac-


541. Yackel, Edward E., Nancy M. Short, Pul C. Lewis, Sara T. Breckenridge-Sproat, and Barbara S. Turner, “Improving the Adoption of Evidence-Based Practice Among Nurses in Army Outpatient Medical Treatment Facilities,” Military Medicine, Vol. 178, No. 9, September 2013, pp. 1002–1009.


## APPENDIX C

### Summary of Definitions of Culture

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
<th>Level</th>
<th>Development</th>
<th>Receptivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>“the shared beliefs and values that are passed on to all within the organization”</td>
<td>Davidson, 2003, as cited in Koutroumanis and Alexakis, 2009</td>
<td>Deep</td>
<td>Top-down</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members”</td>
<td>Denison, 1996</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“what your employees do when no one is looking. It’s a set of values, norms, and unspoken ideas that produces a predictable human response”</td>
<td>Peshawaria, 2009, as cited in Gandossy et al., 2009</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“deeply rooted traditions, values, beliefs, and sense-of self”</td>
<td>Sopow, 2006, as cited in Heldenbrand and Simms, 2012</td>
<td>Deep</td>
<td>Unclear</td>
<td>Resistant</td>
</tr>
<tr>
<td>“a set of assumptions or an interpretative framework that undergirds daily life in an organization or occupation”</td>
<td>Barley, 1983, as cited in Lurie and Riccucci, 2003</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the characteristic way and values through which work is done in organizations”</td>
<td>Cabrera and Bonache, 1999, as cited in Riolli-Saltzman and Luthans, 2001</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the taken-for-granted values, the underlying assumptions, expectations, collective memories, and definitions present in the organization”</td>
<td>Cameron and Quinn, 1999, as cited in Koutroumanis and Alexakis, 2009</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<td>Definition</td>
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<tr>
<td>“Pattern of basic assumptions that a given group has invented, discovered</td>
<td>Schein 1992, as cited in Frontiera, 2010</td>
<td>Deep</td>
<td>Top-down</td>
<td>Open</td>
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<tr>
<td>or developed in learning to cope with its problems of external adaptation</td>
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<td>and internal integration, and that have worked well enough to be considered</td>
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<td>valid, and, therefore, to be taught to new members as the correct way to</td>
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<td>perceive, think, and feel in relation to those problems.”</td>
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<tr>
<td>“the existing ideologies, values, norms and expectations shared by an</td>
<td>Valentine, 2011</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<tr>
<td>organization which affects its members and performance”</td>
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<tr>
<td>“organizational practices and the consequences of those practices”</td>
<td>Clayton et al. 1997, as cited in Bumstead and Boyce, 2004</td>
<td>Surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“a set of cognitions shared by members of a social unit and that are</td>
<td>Cooke and Rouseau, 1988, as cited in Jaskyte et al., 2010</td>
<td>Deep</td>
<td>Top-down and</td>
<td>Unclear</td>
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<tr>
<td>acquired through social learning and a socialization process exposing</td>
<td></td>
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<td>bottom-up</td>
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<tr>
<td>individuals to a variety of culture-bearing elements, such as the</td>
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<td>observable activities and interactions, communicated information, and</td>
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<tr>
<td>artifacts”</td>
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<tr>
<td>“the normative beliefs and shared behavioral expectations in an</td>
<td>Cooke and Szumal, 1993, as cited in Glisson, 2002</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<tr>
<td>organization or work unit”</td>
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<tr>
<td>“the hidden curriculum of fundamental value systems, rituals, and</td>
<td>Corbett, as cited in Ware, 2000: Peters, 2002</td>
<td>Deep</td>
<td>Unclear</td>
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<td>routines, initiations and acceptance that forms the fabric of daily life</td>
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<td>(in schools)”</td>
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<tr>
<td>“a diffusion of the work-a-day world in which ways of doing work become</td>
<td>Crank, 1998, as cited in Kingshott, 2009</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<tr>
<td>habitual and habits become meaningful”</td>
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<tr>
<td>“compilation of shared meaning in a unique environment and is</td>
<td>Cummings and Worley, 2001, as cited in Foote and Ruona, 2008</td>
<td>Deep</td>
<td>Top-down and</td>
<td>Unclear</td>
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<tr>
<td>characterized by the pattern of basic underlying assumptions, espoused</td>
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<td>bottom-up</td>
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<tr>
<td>values, norms, and artifacts shared by the organizational members”</td>
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<tr>
<td>“norms, values, and beliefs, and is reflected by its stories, rituals and</td>
<td>Daft, 2000, as cited in Zazzali et al., 2007</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<tr>
<td>rites, symbols, and language”</td>
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<tr>
<td>“set of values, guiding beliefs, understandings, and ways of thinking</td>
<td>Daft, 2000, as cited in Zazzali et al., 2008</td>
<td>Deep</td>
<td>Top-down and</td>
<td>Unclear</td>
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<td>that is shared by members of an organization and taught to new members as</td>
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<td>bottom-up</td>
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<td>correct”</td>
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<tr>
<td>“the underground stream of norms, values, beliefs, traditions and rituals</td>
<td>Deal and Peterson, 1998, as cited in Arriaza, 2004</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
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<td>that has built up over time as people work together, solve problems and</td>
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<td>confront challenges”</td>
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<td>“the deep structure of organizations, which is rooted in the values,</td>
<td>Denison, 1996, as cited in Seltzer, et al., 2012</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Resistant</td>
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<tr>
<td>beliefs, and assumptions held by organizational members” and that is</td>
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<td>“rooted in history, collectively held, and sufficiently complex to resist</td>
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<td>many attempts at direct manipulation”</td>
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<tr>
<td>“an interlocking set of goals, roles, processes, values, communications</td>
<td>Denning, 2011, as cited in Heckelman, 2013</td>
<td>Deep</td>
<td>Unclear</td>
<td>Resistant</td>
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<tr>
<td>practices, attitudes, and assumptions [that] fit together as a mutually</td>
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<td>reinforcing system and combine to prevent any attempt to change it”</td>
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<tr>
<td>“the pattern of shared values and beliefs that help give the members of</td>
<td>Deshpande and Webster, 1987, as cited in Dosoglu-Guner, 2001</td>
<td>Deep</td>
<td>Unclear</td>
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<tr>
<td>an organization meaning, and provide them with the rules for behavior in</td>
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<td>the organization”</td>
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<tr>
<td>“an organization’s value system, its collection of guiding principles and</td>
<td>Evans and Lindsay, 2008, as cited in Wright, 2013</td>
<td>Deep</td>
<td>Top-down</td>
<td>Open</td>
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<td>is driven by leadership”</td>
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<tr>
<td>“means there are people who share a common history in some way, have a</td>
<td>Flood, 1996, as cited in Huq, Huq, and Cartwright, 2006</td>
<td>Deep</td>
<td>Unclear</td>
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<tr>
<td>common sense of belonging, and are therefore readily able to engage with</td>
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<td>other people who share these feelings”</td>
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<tr>
<td>“the organizational norms and expectations regarding how people behave</td>
<td>Glisson and James, 2002, as cited in Aarons and Sawitzky, 2006</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<tr>
<td>and how things are done in an organization”</td>
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<tr>
<td>“the way things are done in an organization or the system’s work norms”</td>
<td>Glisson, 2007, as cited in Gregory et al., 2012</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the sum of the beliefs and values held in common by those within the</td>
<td>Gould, 1997, as cited in Kingshott, 2009</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
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<td>organization, serving to formally and informally communicate what is</td>
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<td>expected”</td>
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<tr>
<td>“the collective behaviors of individuals within that organization”</td>
<td>Handy, 1976, as cited in Ulrich et al., 2009</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Open</td>
</tr>
<tr>
<td>“software of the mind” or the shared patterns of thought, emotion, and</td>
<td>Hofstede and Hofstede, 2005, as cited in Lyons, 2010</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<tr>
<td>action that distinguish one group of people from other groups”</td>
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<td>Definition</td>
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<tr>
<td>“collective programming of the mind that distinguishes the members of one organization from another”</td>
<td>Hofstede and Hofstede, 2005, pp. 282–283, as cited in Lyons, 2010</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the interactive aggregate of common characteristics that influence a human group’s response to its environment”</td>
<td>Hofstede, 2001, as cited in Bruhn and Lowrey, 2012</td>
<td>Unclear</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the shared philosophies, ideologies, values, assumptions, beliefs, expectations, attitudes and norms that knit a community together”</td>
<td>Kilman, Saxton, and Serpa, 1986, as cited in Lurie and Riccucci, 2003</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“patterned ways of thinking, feeling and reacting, acquired and transmitted by symbols, constituting the distinctive achievements of human groups”</td>
<td>Kluckhohn, 1951, as cited in Bruhn and Lowrey, 2012</td>
<td>Deep and surface</td>
<td>Top-down</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the values, beliefs, and expectations of employees, helping to set expectations and shape behaviors of employees”</td>
<td>Lahiry, 1994, as cited in Bell, Quick, and Cycyota., 2002</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the assumptions, ideas and beliefs, expressed or reflected in organizational symbols, rituals, and practices that give meaning to the activity of the organization”</td>
<td>Legro, 1995, as cited in Terriff, 2006</td>
<td>Deep and surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“set of meanings shared by a group of people”</td>
<td>Louis, 1985, as cited in Frontiera, 2010</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“an organization’s values, beliefs, practices, rituals, and customs”</td>
<td>Marquardt, 2002, as cited in Graham and Nafukho, 2007</td>
<td>Deep and surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“a system of shared values (that define what is important) and norms that define appropriate attitudes and behaviors for organizational members”</td>
<td>O’Reilly and Chatman, 1996, as cited in Flores et al., 2012</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“system of generally and collectively accepted meanings which operate for a certain group on a certain occasion”</td>
<td>Pettigrew, 1979, as cited in Bellot, 2011</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“The set of important assumptions (often unstated) that members of a community share in common”</td>
<td>Sathe, 1985, as cited in Glisson, 2002</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the way we do things around here”</td>
<td>Schein, 1965, 1985, as cited in Hopkins, 2006, Turnbeaug, 2010</td>
<td>Surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“basic assumptions and beliefs shared by members of a group or organization, that operate unconsciously”</td>
<td>Schein, 1985, as cited in Sims and Brinkman, 2002</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
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<td>Definition</td>
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<tr>
<td>“defined in terms of three elements. Artifacts are the most visible and</td>
<td>Schein, 2004</td>
<td>Deep and surface</td>
<td>Top-down</td>
<td>Unclear</td>
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<td>may include dress, organizational structure, and ceremonies. Espoused</td>
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<td>beliefs and values are conscious and are evidenced through management</td>
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<td>practices intended to influence the effectiveness and efficiency of the</td>
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<td>organization. Underlying assumptions are the unconscious thoughts,</td>
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<td>expectations, and theories on which artifacts and beliefs/values are</td>
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<td>founded.”</td>
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<td>“the climate and practices that organizations develop around their</td>
<td>Schein, 1992, as cited in Bruhn and Lowrey, 2012</td>
<td>Deep and surface</td>
<td>Unclear</td>
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<td>interaction with people or refer to the espoused values of an</td>
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<td>organization”</td>
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<td>“The sum total of all the shared, taken-for-granted assumptions that a</td>
<td>Schein, 1999, as cited in Buch and Wetzel, 2001</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
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<td>group has learned throughout its history. It is the residue of success.”</td>
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<td>“pattern of shared assumptions that people within an organization learn</td>
<td>Schein, 2004, as cited in Lyons, 2010</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
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<td>as a group, pass on to new members, and which influences their social</td>
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<td>interactions”</td>
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<td>“the system of shared beliefs and values that develops within an</td>
<td>Schermerhorn, 2005, as cited in Sauser, 2013</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
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<td>organization and guides the behavior of its members”</td>
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<td>“the transmitted patterns of values, beliefs and expectations shared by</td>
<td>Schreyögg et al., 1995, as cited in Voelpel, Leibold, and Streb, 2005</td>
<td>Deep</td>
<td>Top-down</td>
<td>Unclear</td>
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<td>people, including the system of symbols which imparts them to members of</td>
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<td>the group”</td>
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<td>“a normative glue and a set of values, social ideals or beliefs that</td>
<td>Siehl and Martin, 1983, as cited in Bellot, 2011</td>
<td>Deep</td>
<td>Unclear</td>
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<td>organization members share”</td>
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<td>“set of contingencies of reinforcement applicable to members of an</td>
<td>Skinner, 1971, as cited in Bushardt et al., 2011</td>
<td>Surface</td>
<td>Top-down and bottom-up</td>
<td>Open</td>
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<td>organization who share a common knowledge”</td>
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<td>the basic assumptions and beliefs that are “shared by members of an</td>
<td>Sleutel, 2000, as cited in Narine and Persaud, 2003</td>
<td>Deep</td>
<td>Unclear</td>
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<td>organization and that define an organization’s view of itself and its</td>
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<td>[sic] environment”</td>
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<td>“social or normative glue that holds an organization together”</td>
<td>Smircich, 1983, as cited in Conceição and Altman, 2011</td>
<td>Deep</td>
<td>Unclear</td>
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<tr>
<td>“a ‘toolkit’—a collection of rituals, symbols, stories, and worldviews</td>
<td>Swidler, 1986, as cited in Kellogg, 2011</td>
<td>Deep and surface</td>
<td>Unclear</td>
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<td>that actors can draw on to construct their action in particular situations”</td>
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<tr>
<td>&quot;The norms, values, beliefs, and attitudes embedded in the daily lives of institutional actors give meaning to an organization and, in part, represent what has come to be known as 'organizational culture'&quot;</td>
<td>Tierney, 1988, as cited in Ruvolo, 2007</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;what personality is to an individual&quot;</td>
<td>Wilson, 1989, as cited in Lurie and Riccucci, 2003</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;a set of habits and behavior within an organization that are typically exhibited by its members. These are accompanied by typical values, feelings, and beliefs. Together these comprise the 'personality' of an organization.&quot;</td>
<td>Balling, 2005</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;the prevailing implicit and explicit visions, assumptions, rules, norms, and policies of the organization (or subgroup) in which training and psychotherapy take place&quot;</td>
<td>Fauth et al, 2007</td>
<td>Deep and surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;the interaction between environmental variables, organizational practices, and the consequences of those practices&quot;</td>
<td>Bumstead and Boyce, 2004</td>
<td>Surface</td>
<td>Unclear</td>
<td>Open</td>
</tr>
<tr>
<td>&quot;set of deeply ingrained, taken-for-granted assumptions or beliefs about how people work, about what's important in the workplace, about what's considered 'acceptable' and what's not&quot;</td>
<td>Perlow, 2009, as cited in Gandossy et al., 2009</td>
<td>Deep</td>
<td>Top-down</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;cohesive system of meanings and symbols, in terms of which social interaction takes place&quot;</td>
<td>Alveeson, 2002, as cited in Bellot, 2011</td>
<td>Deep and surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;a human system of closely held beliefs that require certain behaviors and exclude other behaviors. Mostly, it is a set of unwritten rules.&quot;</td>
<td>McGuire, Rhodes, and Palus, 2008</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;patterns of shared meaning in an organization&quot;</td>
<td>Trice and Beyer, 1993, as cited in Robbins, 2008</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;collections of unspoken rules and traditions and operate 24 hours a day&quot;</td>
<td>Mike and Slocum Jr, 2003</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>&quot;shared perceptions of organizational values and practices within organizational units that both exemplify and reinforce the underlying assumptions and principles of an organization&quot;</td>
<td>Denison, 1990; van den Berg and Wilderom, 2004, as cited in Khoja, 2010</td>
<td>Deep and surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>Definition</td>
<td>Source</td>
<td>Level</td>
<td>Development</td>
<td>Receptivity</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>-------------</td>
<td>---------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>“a system of shared values and beliefs constructed by an organization and by its employees through tangible and intangible cues”</td>
<td>Franklin and Pagan, as cited in Nica, 2013</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“shared assumptions and values by group members and climate as shared perceptions about organizational conditions”</td>
<td>Lin, 1999, as cited in Wright, 2013</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“shared values and assumptions of ‘how’ things should be done (ideal environment)”</td>
<td>Lussier, 2010, as cited in Wright, 2013</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“manifestations of a process of ideational development located within a context of definite material conditions”</td>
<td>Mills, 1988, as cited in Frontiera, 2010</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“shared values and expectations by members of the organization”</td>
<td>Hill and Jones, 2001, as cited in Devine et al., 2007</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“organization’s personality which determines how its employees carry out their activities”</td>
<td>Armenakis and Lang, 2014</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“a system of shared meaning held by its members that distinguishes their organization from other organizations”</td>
<td>Schein, 1996, as cited in Brady and Haley, 2013</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the tacit organizational understandings (e.g. assumptions, beliefs and values) that contextualize efforts to make meaning, including internal self-definition”</td>
<td>Hatch and Schultz, 2002</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the shared beliefs, perceptions, and expectations of individuals in organizations”</td>
<td>Boan, 2006</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“an organization’s formally and informally expressed understandings of how it is to fulfill its functions and what functions are appropriate for it”</td>
<td>Nielsen, 2010</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“employees’ perceptions and beliefs regarding the organization’s typical mode of operation across multiple issues”</td>
<td>Hartmann et al., 2009</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the values, attitudes, beliefs, orientations, and underlying assumptions prevalent among people in a society”</td>
<td>Harrison and Huntington, 2000, as cited in Linnean, 2007</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“organizational culture is holistic, historically determined, and socially constructed, and it involves beliefs and behavior, exists at a variety of levels, and manifests itself in a wide range of features of organizational life”</td>
<td>Detert et al., 2000, as cited in Linnean, 2007</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>Definition</td>
<td>Source</td>
<td>Level</td>
<td>Development</td>
<td>Receptivity</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>“series of rules and methods which a society or organization has evolved to deal with the regular problems that face it”</td>
<td>Trompenaars and Woolliams, 2003</td>
<td>Deep and surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“your organization’s DNA—the intangible that guides action based on assumptions, beliefs, and values”</td>
<td>Pennington, 2009</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the way an organization functions and gets its business done”</td>
<td>Brown et al., 2003</td>
<td>Surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“summarizes collective standards of thinking/attitudes/values/convinces/norms/habits of an organization”</td>
<td>Mateiu, Puiu, and Puiu, 2013</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the shared values, shared beliefs, and shared rules for acceptable behavior”</td>
<td>Ondec, 2003</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“a shared experience by individuals creating a system with meaning, values, and beliefs that influences and shapes individual and group behaviors”</td>
<td>Nold, 2012</td>
<td>Deep</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“the way we do things around here and the manner in which these norms [the ‘ways’] and values are communicated”</td>
<td>Deal and Kennedy, 1982, as cited in Burke, 2014</td>
<td>Deep and surface</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“A system of shared, behavioral norms and underlying beliefs and values that shape the way of doing things in an organization”</td>
<td>Verbeke et al., 1998, as cited in Zohar and Hoffman, 2012</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>“Beliefs, ideologies, and values, and the ways these are transmitted through symbols, language, narratives (myths, stories), and practices (rituals and taboos) especially during socialization to the workplace”</td>
<td>Trice and Beyer, 1993, as cited in Schneider et al., 2011</td>
<td>Deep and surface</td>
<td>Top-down and bottom-up</td>
<td>Unclear</td>
</tr>
<tr>
<td>“Why it [what goes on in organizations] happens the way it does”</td>
<td>Schneider et al., 2011</td>
<td>Deep</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
</tbody>
</table>

a Definitions were those cited in documents that were part of our literature review. Full citations of those documents are included in Appendix B.
Expert Panelist Pre-Conference Rating Form

We collected and coded drivers of organizational culture change based on our literature review. These are shown in the leftmost column of the table below and include drivers that promote organizational change (or in its absence could hinder change). Please rate each driver on the dimensions described in the column headers by selecting a number from 1 to 5 where “5” is highest, or select DK if you don’t know on: (1) alignment with the Army’s mission, and (2) feasibility, or whether it is practical to implement the change in the Army; and (3) reasons for your ratings.

<table>
<thead>
<tr>
<th>Drivers of Organizational Cultural Change: The Organization or Leadership</th>
<th>Alignment with the Army’s Mission</th>
<th>Feasibility of Implementation</th>
<th>Reasons for Ratings (Write In)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sets goals; uses coherent planning, persistence, and strategic/inspirational/innovative thinking; results oriented</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>Engages stakeholders, includes diverse perspectives, or develops partnerships</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>Promotes openness to change/transformation, flexibility, adaptability, optimism, or learning orientation</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>Systematizes recommendations in day-to-day operations, standards</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>Develops personnel through training (skills, engagement, etc.), education</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>Devotes sufficient resources (financial, staffing, time, etc.) to change efforts</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>Articulates a clear mission, clear vision/goals, clear expectations/expectation management</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>Drivers of Organizational Cultural Change: The Organization or Leadership</td>
<td>Alignment with the Army’s Mission</td>
<td>Feasibility of Implementation</td>
<td>Reasons for Ratings (Write In)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Uses clear, open, or transparent communication, etc.</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Underscores shared responsibilities and accountability</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Focuses on trust, empowerment, self-efficacy, etc.</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Applies incentives, encouragement, motivation, or rewards</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Tracks progress through performance measurement, audit and feedback, gap analysis, benchmarking, Plan–Do–Study–Acts, change documentation/reporting systems, etc.</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Employs mentoring, role modeling, or coaching</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Has values congruent with personnel (i.e., shared values, norms, symbols), individual alignment with organization (person-organization fit)</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Emphasizes problem solving, error and disagreement resolution, tolerance for risk, surfacing/examining underlying assumptions, mindfulness, and self-awareness</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Has a structure/infrastructure that enables change (physical environment, size, spatial dynamics)</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Is people-centered (values social interaction, socialization)</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Uses shared decisionmaking, collaboration, teamwork, cross-functionality</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Allows for autonomy</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Selects/retains appropriate personnel</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
<tr>
<td>Write-in</td>
<td>1 ○ 2 ○ 3 ○</td>
<td>1 ○ 2 ○ 3 ○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 ○ 5 ○ DK ○</td>
<td>4 ○ 5 ○ DK ○</td>
<td></td>
</tr>
</tbody>
</table>
## SME Discussion Summary of Key Drivers of Change for the Army

<table>
<thead>
<tr>
<th>Driver</th>
<th>Nominations to Top Three</th>
<th>Explanation and Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goals:</strong> Sets goals; uses coherent planning, persistence, and strategic/inspirational/innovative thinking; results oriented</td>
<td>Six panelists</td>
<td>This occurs differently at various levels of the organization. In the Army, at the level of senior leadership, this is the description of the general “vision.” Subordinate leaders then take this general intent and break it down into specific goals implementable at the relevant level of authority. It is essential that the original vision be clear enough that ambiguities do not result in implementation that contravenes the intent. However, given the variety of different subcultures that exist in an organization as large and diverse as the Army, local autonomy is required to be able to interpret the commander’s intent in tandem with the unique local cultural issues.</td>
</tr>
</tbody>
</table>
| **Accountability:** Shared responsibility/accountability | Three panelists | This is part of “leadership.” Note that at least one panelist explicitly considered some other drivers (develop personnel/training and role modeling/mentoring/coaching) to be subordinate to this overarching driver of accountability for leaders and managers.³  
One way forward for this driver is to provide training to leaders at all levels on how to both give and receive honest feedback to enable accountability. Broadcasting honest feedback to the recruitment population and to Army personnel could produce greater person-organization fit, as people who are not suited for performance requirements of the Army either do not join or voluntarily leave.  
Part of accountability is measuring the desired outcome. As noted, it is easier to focus on and measure desired behavioral changes. Appropriate measurement requires an understanding of current culture, and realistic bounds. Note that in many cases the base rate of undesirable behaviors may be low, and goals for changing such a low base rate behavior should take into consideration the effort required to close the behavior gap and weigh that effort against the effort required for closing that gap. Moreover, in some cases some undesired behaviors should be expected to occur and should be seen as learning opportunities. Zero error tolerance is an unforgiving standard which may cause unseen risk, as people game the reporting system rather than focus on true behavior change. |
### Identifying Promising Approaches to U.S. Army Institutional Change

<table>
<thead>
<tr>
<th>Driver</th>
<th>Nominations to Top Three</th>
<th>Explanation and Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accountability:</strong> Shared responsibility/accountability (continued)</td>
<td>Three panelists</td>
<td>Improve execution of existing policy. A great deal of policy and procedure is already on the books, as well as direction on measurements and accountability. Actual improvement at the individual behavioral level and at the aggregate may require a realistic consideration of what behaviors are reinforced, the limitations of resources available (time, personnel energy and cognitive capacity). Determining and setting real priorities among competing imperatives is also part of leadership.</td>
</tr>
<tr>
<td><strong>Training:</strong> Develops personnel through training, education</td>
<td>Three panelists</td>
<td>This was noted as a vehicle that the military often uses, but one that may not be sufficient to facilitate organizational change. Panelists discussed the importance of targeting training to particular subgroups depending on priorities for each unique group. This is especially necessary given competing demands and limited resources. An example raised was to consider training to a specific problem behavior rather than every possible negative behavior. Training to tiers would suggest that one form of training targets high-level leaders, who can then lead by example to others (enforce and model). Another approach to training is modular training. For example, if women are embedded in a given unit, gender diversity training makes sense; if not, different training may be a higher priority (although members of an all-male unit would have to interact with women in the professional context, and such training would still be important).</td>
</tr>
<tr>
<td><strong>Resources:</strong> Devoting sufficient resources (financial, staffing, time, etc.) to change efforts</td>
<td>Two panelists</td>
<td>As noted, resources such as time and focus are limited and often conflict with demands. They should be used appropriately and considered in terms of prioritizing culture or climate change. For example, consider the message sent as well as the implications of a given decision taken in the case of a soldier deemed psychologically not ready for combat, when too few soldiers are deployable.</td>
</tr>
<tr>
<td><strong>Targeting:</strong> Both formal and informal leaders (write-in)</td>
<td>Two panelists</td>
<td>This driver is in some sense included in our ratings (e.g., &quot;stakeholders&quot;). However, the unique component of targeting informal leaders (early adopters, influencers) was considered important enough to highlight separately. Depending on circumstance, informal leaders may include first sergeants, chaplains, and similar people with specific authority, as well as other influencers without any official formally granted authority, job, or rank. Those who volunteer to be change champions may also be included here. Formal leaders are generally readily identifiable in the military hierarchy.</td>
</tr>
<tr>
<td><strong>Trust:</strong> Focuses on trust, empowerment, self-efficacy, etc.</td>
<td>One panelist</td>
<td>Trust needs to be included in the vision to address the problems of sexual assault and mental health, etc. Leadership should send clear messages that encourage responsible subordinate behavior. For example, a clear message that delaying deployment until an injury resolves is much better than “sucking it up” and risking longer-term challenges. Moreover, subordinates should be able to trust that if they responsibly surface an issue or make a decision within their scope of responsibility, they will not be subject to retaliation. Transparency without fear of reprisal is key. This overlaps with appropriate accountability, discussed above.</td>
</tr>
<tr>
<td>Driver</td>
<td>Nominations to Top Three</td>
<td>Explanation and Examples</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Mentoring:</strong> Role</td>
<td>One panelist</td>
<td>Role modeling includes which issues leaders think are important and how they react to bad information or negative feedback. Modeled behaviors in this regard will affect how well accountability for desired outcomes actually works.</td>
</tr>
<tr>
<td>modeling/mentoring/coaching</td>
<td></td>
<td>Leadership should send clear messages that encourage responsible subordinate behavior. For example, a clear message could be that delaying deployment until an injury resolves is much better than “sucking it up” and risking longer-term challenges.</td>
</tr>
<tr>
<td><strong>Incentives:</strong></td>
<td>One panelist</td>
<td>Incentives are not simply the “carrot” or the “stick” but also intrinsic acceptance of a change. As an example, people may agree that reporting sexual abuse is appropriate but it is counter to Army culture because of fear of reprisal. An incentive system must consider intrinsic motivation in addition to monetary and other rewards.</td>
</tr>
<tr>
<td>Applies incentives,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>encouragement, motivation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or rewards</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Understand current culture</strong></td>
<td>One panelist</td>
<td>As one panelist stated, “If you don’t know where you are going, you can’t get there.”</td>
</tr>
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<td>(write-in)</td>
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<tr>
<td><strong>Selection:</strong> Selects/</td>
<td>One panelist</td>
<td>This driver overlaps with communication and messaging in that people self-select to the message. Therefore, a critical aspect of selecting the desired recruits is to market in a manner that resonates with what they want. Retention and promotion are other opportunities for this mechanism.</td>
</tr>
<tr>
<td>retains appropriate</td>
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<tr>
<td>personnel</td>
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</tbody>
</table>

\[\text{Although a leader should be accountable for the appropriate professional development of his or her personnel, this should be considered within realistic bounds. For example, note that some of the issues that may be perceived as endemic to the Army culture may be in fact societal issues, and changes related to those issues are exacerbated by the relative youth of Army personnel. Young people make mistakes, which can be teachable moments.}\]

AR—See Army Regulation.


Ehrhart, Mark G., Benjamin Schneider, and William H. Macey, Organizational Climate and Culture: An Introduction to Theory, Research, and Practice, New York: Routledge, 2014.


United States Army Medical Department, “Ready and Resilient Campaign (R2C),” web page, undated. As of July 14, 2016: http://phc.amedd.army.mil/topics/healthyliving/hpr/Pages/ReadyandResilientCampaign.aspx


The U.S. Army is facing challenges stemming from behavioral health issues, misconduct, and adjustment to changing demographics. Long-term solutions to these problems very likely require changes in the Army’s organizational culture and climate, but institutional change in large organizations is typically very difficult. To deal with these challenges, researchers identify promising approaches to institutional change from the literature on organizational culture and climate. Researchers use findings from a systematic literature review, vetted by a panel of experts on organizational culture change and the military context, to develop recommendations. At the conclusion of this report, researchers recommend promising strategies for embracing change in the Army based on the literature. These strategies should help the Army prioritize organizational culture change; adopt a common definition of organizational culture; determine target problems amenable to culture change; assess the Army’s current culture and climate in the problem context; develop a strategy for culture change with clear goals; engage stakeholders at all levels in the Army; and target training to maximize resources and uptake.