Engineering Design for Policy: Generating Value-Focused Diversity, Equity, and Inclusion Policies at West Point

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Abstract: In 2015, the United States Military Academy (USMA) published a five-year Diversity and Inclusion Strategic Plan (DISP) to help achieve a key organizational objective: to prioritize diversity and inclusion throughout USMA. Between 2015 and 2020, the DISP contributed to significant progress in the institution’s diversification efforts, but it still left much to be desired in areas of equity and inclusion. To leverage the power of their increasingly diverse student-faculty population, USMA must establish strategic level, policy-driven directives that provide a greater level of organizational focus on equity and inclusion. This approach not only helps redress existing structures of inequity and exclusion within USMA, but also provides cadets with opportunities to develop into inclusive leaders of character who are more prepared and more inspired to lead a diverse Army organization. This research applies a rigorous engineering design method—the Systems Decision Process (SDP)—to identify instances of inequity and exclusion, design and evaluate policy alternatives, and present seven stakeholder-driven policy recommendations that foster more inclusive and equitable conditions. These recommendations call for increased data collection and internal organizational assessments, heightened levels of subordinate empowerment, and an integration of diversity, equity, and inclusion into key areas of cadet academic and professional development to better enable their growth into leaders of character.

Keywords: Diversity, Equity, Inclusion (DEI), Policy Development, Systems Decision Process

1. Introduction

Established in 1802, the United States Military Academy (USMA) at West Point began as an institution that exclusively accepted white men. Eventually, USMA achieved notable progress by graduating its first Black cadet in the late 1800s and its first woman in 1980. These cadets, however, faced significant challenges during their West Point experiences. Henry O. Flipper (Class of 1877), Benjamin O. Davis Jr. (Class of 1932), the first graduating class of women in 1980, and countless other minority cadets faced extreme forms of silencing, hazing, and ostracization from their classmates throughout their time at the Academy (Horton, 2020). Truthfully, USMA has not always been one to appreciate the diversity of all its sons and daughters. Over time, however, the joint efforts of cadets, officers, and civilians have contributed to drastic progress at the Academy. As of 2020, West Point houses over 4,400 cadets, 23% of which are women and 32% of which are individuals from underrepresented ethnic groups (USMA, 2019). It is an institution comprised of incredible people representing different backgrounds, races, socio-economic classes, sexes/genders, sexualities, religious affiliations, and more, showcasing an organization far more diverse than the West Point of days past (United States Military Academy West Point, 2019). Some scholars posit that such, “diversity is...power” (Birmingham, 2017, para. 1), especially for a global organization such as the U.S. Army. Others argue, however, that the, “benefits of diversity [alone] are too complex to ascertain,” with some research identifying that group diversification in fact leads to negative performance outcomes (Buse et al., 2016, p. 1). What is clear through the larger body of research surrounding Diversity, Equity, and Inclusion (DEI), however, is that prioritizing equity and
inclusion throughout diverse organizations fosters teams that are more cohesive, more innovative, and more effective (Choi et al., 2003). By the Army’s definition, diversity is, “all attributes, experiences, cultures, characteristics, and backgrounds of the total force which are reflective of the Nation we serve and enable the Army to deploy, fight, and win”. Equity is defined as, “the fair treatment, access, opportunity, choice, and advancement for all Soldiers and Civilians while striving to identify and eliminate barriers preventing the full participation of the total force”. Lastly, inclusion is defined as, “the process of valuing and integrating each individual’s perspectives, ideas and contributions into the way an organization functions” (United States Army, 2020, p. 4).

If USMA desires to realize the benefits of a contemporary student body that is more diverse than it has ever been, leaders throughout the entire organization must champion these principles collectively (Evans et al., 2018). Although several student-focused programs, clubs, and events related to DEI at USMA indicate that the Academy has taken steps to generate more inclusive and equitable conditions for all people, many still question whether the Academy is doing enough. In an open letter entitled “An Anti-Racist West Point”, nine officers who recently graduated from the Academy provide dozens of testimonies that expose glaring inequities and non-inclusive conditions at the Academy (Askew et al., 2020). When considering the Academy’s history of exclusionary practices, the testimonies provided by these recent graduates, and the full range of literature covering the topic of DEI, it is plausible to assert that USMA can still improve its approach to becoming a more diverse, equitable, and inclusive organization. This research intends to define what problems of inequity and exclusion exist in the West Point system, design policies and recommendations that address these identified issues, and improve the organization’s effectiveness and culture.

1.1 Methodology

This research applies the Systems Decision Process (SDP), a comprehensive, value-focused methodology used to design solutions for complex problems. As depicted in Figure 1, Problem Definition, Solution Design, Decision Making, and Solution Implementation are the four phases comprising the SDP. Although the SDP is sometimes taught with a focus on physical systems, this process can also help develop solutions in the areas of social and organizational policy. As such, this research utilizes the SDP to identify instances of inequity and exclusion within the system of West Point, design and evaluate policy alternatives, and recommend policy solutions that foster a more inclusive and equitable Academy experience for all people.

![Figure 1. Systems Decision Process (Parnell, Driscoll, & Henderson, 2011, p. 281-282).](image)

2. Problem Definition

The Systems Decision Process begins with the Problem Definition phase. This phase involved rigorous literature review and extensive engagement with USMA stakeholders, most notably USMA’s Chief Diversity Officer (CDO). The insight gained from this background research guided the identification of several key issues contributing to inequity and exclusion at West Point. These issues include:

1. Cadets in the minority group suffer academically, physically, and emotionally at disproportionate levels.
2. A significant lack of racial and gender diversity exists within the staff and faculty populations.
3. No comprehensive DEI plan, strategy, or policy for West Point exists.
4. Organizational commitment towards diversity and inclusion lacks necessary officer and cadet talent involvement.
5. West Point lacks formal DEI training for cadets, staff, or faculty.
6. USMA personnel are not held accountable for upholding DEI.

To develop solutions that rectify these issues and capture the needs, wants, and desires of West Point stakeholders, it is critical to define the fundamental objective for the proposed system solution. The fundamental objective for this system, which Parnell, Driscoll, and Henderson define as the, “most basic high-level objective the stakeholders are trying to achieve,” is: To empower the USMA population to lead inclusively and foster equitable environments for diverse teams (p. 326). This stakeholder-driven objective guides the development of the system’s Qualitative Value Model (QVM), shown in Figure 2, which contains the requisite functions, objectives, and value measures a DEI policy must fulfill. These three components of the value model provide the blueprint for the construction of effective candidate policy solutions centered on three functions: DEI training, talent integration, and accountability. Each function is associated with one to two objectives that specify how each function will provide value for the stakeholders by either maximizing, minimizing, or optimizing a given factor. The last facet of the QVM are system value measures, which are metrics that help quantify how well a policy solution achieves the objectives, functions, and, ultimately, the fundamental objective. The full QVM for this system is depicted below.

![Figure 2. Qualitative Value Model (QVM).](image)

### 3. Solution Design

The next phase of the SDP, Solution Design, involves formulating candidate policy solutions that achieve the fundamental objective and fulfill the functions and objectives outlined in the QVM. To do so, this research employs Zwicky’s Morphological Box (ZMB), a tool that enables researchers to combine system components to design and evaluate unique sets of candidate policy solutions (Parnell, Driscoll, & Henderson, 2011, p. 362). The parameters of each policy solution, displayed in Table 1 below, were informed by stakeholder input and five critical actions recommended by DEI researchers Lim, Haddad, and Daughtery (2014) and Jayne and Dipboye (2004). These actions include building senior management commitment and accountability, conducting a needs assessment, tying the DEI strategy or policy to organizational results, emphasizing team-building related to DEI, and developing and establishing standard metrics to help evaluate the effectiveness of DEI initiatives. These parameters will play an important role in developing and evaluating candidate solutions. Based on extensive input from notable stakeholders, all policy designs must include annual internal DEI assessments and a single DEI data repository. Without exception, each candidate solution will retain these two recommendations. To avoid presenting redundant information, these recommendation options are excluded from the ZMB below. They will be sufficiently outlined when presenting the final solution.

<table>
<thead>
<tr>
<th>Policy Design Parameters</th>
<th>Assessing DEI Performance</th>
<th>Subordinate Empowerment</th>
<th>DEI Education/Training Focus</th>
<th>Messaging Strategies</th>
<th>Mentorship</th>
<th>Faculty Recruitment</th>
</tr>
</thead>
</table>

Table 1: Zwicky’s Morphological Box With Stakeholder-Driven Design Parameters And Policy Options.
Based on the number of combinations the ZMB provides for, approximately 2,000 policy alternatives can be designed. Designing all two thousand alternatives, though possible, is highly unnecessary given the scope of this research. More appropriately, this research leveraged stakeholder input to construct, filter, and select five unique designs for further analysis. These designs are displayed in Table 2 below. The policy parameters for each candidate solution were selected from stakeholder engagements, QVM value measures, and the parameters developed for the ZMB. Although these final parameters listed in Table 2 do not map directly to those listed in the ZMB or the value measures identified in the QVM, they do capture all necessary components of a research-driven USMA policy that encourages DEI training, integrates diverse talent, and maintains accountability to DEI objectives.

Table 2. Candidate Policy Solutions with Accompanying Policy Parameters, As Informed by the ZMB and the QVM.

<table>
<thead>
<tr>
<th>Candidate Solutions</th>
<th>DEI Education Seminars</th>
<th>DEI Assessment</th>
<th>Classes w/ DEI Objectives</th>
<th>Primary Messaging Leaders</th>
<th>Faculty Recruiting Model</th>
<th>Cadets on DEI Committee</th>
<th>Mentorship Events</th>
<th># of KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadet-Faculty Centric</td>
<td>6</td>
<td>Survey</td>
<td>9</td>
<td>Generals + Cadets</td>
<td>Internal + External</td>
<td>13</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Cadet-Faculty Centric 2</td>
<td>4</td>
<td>Interview</td>
<td>25</td>
<td>Generals + Cadets</td>
<td>Internal</td>
<td>10</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Bias Training</td>
<td>3</td>
<td>DEI Maturity Level Scale</td>
<td>16</td>
<td>Cadets</td>
<td>Internal</td>
<td>9</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>External Focus</td>
<td>5</td>
<td>Survey</td>
<td>10</td>
<td>Generals</td>
<td>External</td>
<td>11</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>Honorable Living Day</td>
<td>1</td>
<td>Interview</td>
<td>5</td>
<td>Cadets</td>
<td>Internal</td>
<td>14</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

The differences that exist between each alternative provide themed solution designs that are distinct from one another. Cadet-Faculty Centric focuses on maximizing opportunities for cadets and faculty members to coordinate in the planning and execution of DEI policy through joint-messaging and increased mentorship events. Cadet-Faculty Centric 2 is similar to Cadet-Faculty Centric, but its heightened focus on integrating DEI into academic lesson objectives distinguishes it from other solutions. Bias Training largely focuses on providing a balanced approach to improving DEI. Allocating just three DEI education seminars per year, this candidate solution seeks to provide a quality and iterative DEI training approach with a recommended focus on unconscious biases. The DEI Maturity Level Scale, developed by Deloitte Co., is another unique aspect of this policy which allows USMA to rate their organizational DEI performance on a standard and objective scale (Bourke & Dillon, 2018). External Focus is distinct in that it includes a solely external faculty recruiting model. This, in addition to an increased number of mentorship events, seeks to leverage diverse external perspectives to lead necessary change. Lastly, Honorable Living Day is a candidate solution that seeks to leverage West Point’s annual honorable living day to provide focused emphasis on DEI training, talent integration, and DEI accountability. Each of these candidate solutions achieve the fundamental objective in varying degrees of fulfillment based on their unique constructions. The next phase, Decision Making, will offer an objective approach for quantifying these degrees of fulfillment.

4. Decision Making

The Decision Making phase of the SDP involves an objective comparison and analysis of the five candidate solutions based on value and cost. Rather than conducting a traditional monetary cost assessment, however, this research employs a comprehensive risk assessment. The scoring processes for both value and risk rely heavily on background research and
stakeholder input. Most notably, the mathematical model provided by Parnell, Driscoll, and Henderson in Equation 1 below leverages stakeholder feedback to determine the global weights (\(w_i\)) and value scores associated with each value measure (\(v_i(x_i)\)) to compute the total system value \(V(x)\).

\[
V(x) = \sum_{i=1}^{n} w_i v_i(x_i)
\]

Next, based on conversations with cadets, the CDO, and several faculty members across the Academy and supported by a research article written by Asare (2019), this research identifies five notable risk outcomes associated with implementing a DEI strategy. These risks include resistance to the policy, “check the box” implementation, ineffective prioritization of the policy and its initiatives, lack of leadership buy-in, and lack of time. The Risk Priority Number methodology, provided in Equation 2 by Dhillon (1999), offers an objective approach to quantifying the “cost” associated with these five key risk outcomes based on probability of occurrence, severity, and probability of detection. In the West Point system, probability of occurrence will be defined as the likelihood that the risk outcome will arise. Severity is defined as the impact an outcome has on the achievement of the fundamental objective. Lastly, detection is defined as “the ability to detect a potential problem before the item involved goes into production.” Each value is scored on a scale from 1-10, with higher values indicating higher probability, greater severity, or a greater difficulty to detect (Dhillon, 1999).

\[
RPN = (\text{Probability of Occurrence}) \times (\text{Severity of Effects}) \times (\text{Probability of Failure Detection})
\]

Utilizing Equations 1 and 2 above produced a Total Value and Total Risk scores for each candidate solution, all of which are specified in Table 3. The table also includes scores for the baseline solution, providing a stakeholder-based evaluation of West Point’s current state with regards to DEI. Additionally, the table outlines the score for the ideal solution, which is a notional candidate solution that serves as a guideline for determining the level of improvement each of the five candidate solutions must achieve before fully satisfying all stakeholder requirements. Based on this analysis, the Bias Training candidate solution produces the highest value score and second lowest risk. Thus, it exists as the best set of policy recommendations for creating a more diverse, equitable, and inclusive experience at West Point. Table 4 provides a detailed breakdown of the RPN calculations associated with this solution.

### Table 3: Total Risk and Total Value Scores.

<table>
<thead>
<tr>
<th>Alternative Baseline</th>
<th>Total Risk</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>1431</td>
<td>31.8</td>
</tr>
<tr>
<td>Cadet-Faculty Centric</td>
<td>928</td>
<td>62.5</td>
</tr>
<tr>
<td>Cadet-Faculty Centric 2</td>
<td>990</td>
<td>65.0</td>
</tr>
<tr>
<td>External Focus</td>
<td>731</td>
<td>65.0</td>
</tr>
<tr>
<td>Honorable Living Day</td>
<td>838</td>
<td>51.4</td>
</tr>
<tr>
<td>Bias Training</td>
<td>780</td>
<td>75.0</td>
</tr>
<tr>
<td>Ideal</td>
<td>0</td>
<td>31.8</td>
</tr>
</tbody>
</table>

### Table 4: Specific RPN Calculations for Bias

<table>
<thead>
<tr>
<th>Risk Outcomes</th>
<th>Occurrence</th>
<th>Severity</th>
<th>Detection</th>
<th>RPN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy resistance</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>252</td>
</tr>
<tr>
<td>“Check the box” implementation</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>192</td>
</tr>
<tr>
<td>Inconsistent prioritization (reactive posture)</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>150</td>
</tr>
<tr>
<td>Lack of leadership buy-in</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>126</td>
</tr>
<tr>
<td>Not enough time</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>60</td>
</tr>
</tbody>
</table>

Having recommended a policy solution, further analysis can inform how the Bias Training solution can be improved. Figure 3 below displays multiple stacked bar charts, with each one representing the composition of the candidate solution’s total value scores. This figure also helps depict value gaps between each candidate solution and the ideal solution. For the recommended Bias Training solution in particular, the graphic displays a 25-unit value gap. The factors that most significantly contribute to this value gap include DEI education seminars (3-unit value gap) and demographic differences between cadets and faculty (9.3-unit value gap). To close the gap in value for DEI education, simple alterations can be made. These alterations are outlined in Table 5 below.

### Table 5. Bias Training and Improved Bias Training Policy Parameters.

<table>
<thead>
<tr>
<th>Candidate Solutions</th>
<th>DEI Education Seminars</th>
<th>DEI Assessment</th>
<th>Classes w/ DEI Objectives</th>
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<td>Bias Training</td>
<td>3</td>
<td>DEI Maturity Level Scale</td>
<td>16</td>
<td>Cadets</td>
<td>Internal</td>
<td>9</td>
<td>4</td>
<td>21</td>
</tr>
</tbody>
</table>
These changes contributed to the improved Bias Training solution. The stacked bar chart for this solution is depicted in Figure 3. The improved solution, with a total value score of 81.4, presents an 18.6-unit value gap. Although this is a 6.4-unit improvement from its predecessor, the presence of a gap reveals that risk of policy failure still exists with this improved policy.

Figure 3. Stacked Bar Chart for Candidate Solutions.

Despite improvement, Bias Training is not a perfect solution invulnerable to risk. Integrating more diverse faculty, implementing effective training programs, and constructing robust assessment structures for DEI are just some of the complex tasks that, despite the analysis provided thus far, may hinder the policy’s success during implementation. Accomplishing all DEI objectives for USMA requires a detailed set of policy recommendations that not only adds value but also mitigates risk of failure. The next phase will present several in-depth risk mitigation measures that will further improve the effectiveness and success of the policy. These measures are driven by research and stakeholder input and will play a critical role in informing the Bias Training solution’s final design.

5. Solution Implementation

After identifying Bias Training as the recommended policy solution, the analysis for Solution Implementation will focus on mitigating the five risk outcomes identified in the Decision Making phase and translating the preceding analysis into a detailed policy proposal.

To reduce the probability that policy resistance and inconsistent policy prioritization occurs, Bias Training should include policy options that prioritize multilateral cooperation between cadets and officers. Thus, under the Primary Messaging Leaders policy option, the Bias Training solution will instead leverage both Generals and cadets to communicate the DEI priorities for the organization to mitigate risk in this area. Secondly, for the DEI Committee policy option, the Bias Training solution will implement a joint Cadet-Faculty committee to house, oversee, and manage data relating to various DEI metrics. Other aspects of the Bias Training policy that are especially vulnerable to the risk outcome of “not enough time” include the DEI Education Seminars and the Mentorship Events. To reduce the likelihood of this risk outcome, cadets and Officers should integrate these events into the formal training calendar to ensure competing mandatory requirements do not inhibit the
effectiveness of these events or decrease the level of participation. Executing these actions could significantly reduce the likelihood of these risk outcomes from occurring and enhances the productive implementation of the Bias Training policy.

To reduce the severity of the effects associated with “check the box” implementation, the same provisions mentioned previously (regarding active Cadet-Officer coordination) can be effective here. Such coordination will ensure that those who are most affected by the policy (i.e. cadets) are actively integrated into the policy’s entire implementation process, thus reducing the extent to which poor implementation impacts their development by empowering cadets to remedy any lackluster implementation concerns as they arise. To reduce the severity related to policy resistance and lack of leadership buy-in, not only should both cadets and officers lead the communication efforts, but they should also link the organization’s DEI objective to the organization’s overall objective, to graduate “commissioned leader[s] of character”, by defining key performance metrics related to DEI (United States Military Academy, n.d.). This alignment between DEI and the organization’s fundamental mission, the CDO stated, is a moral and organizational imperative for USMA, one that can certainly decrease the impact on cadets’ development into leaders of character capable of prioritizing DEI in their future formations.

The high values of detection for “check the box” implementation, lack of leadership buy-in, policy resistance, and inconsistent prioritization originate from two deficiencies. These deficiencies include the absence of a comprehensive USMA DEI assessment report and insufficient access to data on DEI. Cadets, faculty, and Department Heads alike offer that the inability for all members of the organization to access data on race and cadet performance (grades, retention rates, disciplinary actions, etc.) decreases the institution’s ability to detect failures related to DEI. To increase USMA’s ability to detect such failure, and to ensure the success of this policy’s implementation, a provision will be included that mandates 1) the publication of annual institutional DEI assessments and 2) the establishment of an accessible and active DEI related data repository to be managed by a Cadet-Faculty committee.

### 6. Conclusions and Recommendations

The research covered in this report substantiates the value and suitability of the Bias Training policy solution over all other designed solutions. This solution provides the most value based on stakeholder analysis and, after implementing the improvements outlined in the last phase, mitigates the most amount of risk within the system. The detailed set of recommendations from this policy, provided below, will be fundamental in empowering the USMA population to lead inclusively and foster equitable environments for diverse teams.

#### 5.1 Recommendations

1) Identify and establish at least twenty-four key performance metrics to tie the organization’s DEI goals to its overall mission: to educate, train, and inspire the Corps of Cadets so that each graduate is a commissioned leader of character. (E.g., demographic based data on application completion rates, persistence through Cadet Basic Training, disproportionate disciplinary sanctions, etc).

2) Establish an active and accessible DEI Data Repository for tracking key performance metrics.

3) Publish annual internal assessments related to the current state of DEI at USMA.

4) Establish a joint Cadet-Faculty committee under ODIEO focused on DEI. The committee will house, manage, and oversee the DEI Data Repository. The committee will lead the publication process for the annual DEI assessments.

5) Establish three Corps-wide unconscious bias training sessions and at least eight formal mentorship events per year. Both initiatives will be led by the Cadet Respect team; the team will work with BTD, SCPME, and the Dean’s staff to integrate training sessions and mentorship events into the training calendar at the beginning of each academic year.

6) Integrate DEI lesson objectives into at least sixteen core classes.

7) Prioritize internal faculty recruitment efforts to minimize difference in cadet and faculty demographics. Establish out briefs and networking opportunities for graduating cadets.

8) Both cadet and USMA leaders should engage in active messaging strategies for all recommendations, initiatives, and objectives outlined in this policy to ensure proper organizational understanding.

To ensure the recommendations outlined in this report are properly integrated into the West Point system, future steps will include organizing a task force of cadets and faculty members. This task force will draft official policy proposals guided by the recommendations above. Although integrating new organizational policies imposes certain levels of risk, the recommendations above minimize potential policy failures by leveraging research and stakeholder input to mitigate risk. Upon finalizing these proposals, the task force will seek senior leader approval prior to August of 2021. Should further analysis, revisions, or addendums be required before attaining approvals, the task force will remain in place to ensure improvements are made to these DEI policy recommendations.
7. References


