

**DEPARTMENT OF TRANSPORTATION
U.S. MERCHANT MARINE ACADEMY
CULTURE AUDIT**

DELIVERABLE 3. STATISTICS AND SUMMARIES OF
FINDINGS BASED ON ANALYSIS OF INTERVIEW NOTES



NOTICE:

THE VIEWS, OPINIONS, AND FINDINGS CONTAINED IN THIS REPORT ARE THOSE OF LMI AND SHOULD NOT BE CONSTRUED AS AN OFFICIAL AGENCY POSITION, POLICY, OR DECISION, UNLESS SO DESIGNATED BY OTHER OFFICIAL DOCUMENTATION.

LMI © 2016. ALL RIGHTS RESERVED.

Contents

Statistics and Summaries of Findings Based on Analysis of Interview Notes	1
INTRODUCTION	1
INTERVIEW NOTES DATABASE	1
PROJECT TEAM RESULTS	2
INDEPENDENT TEAM	3
Theme Frequency	3
Sentiment Score	8
Common Stakeholder Topics	9
SUMMARY	12

Figures

Figure 1. All DOT Senior Officials and Independent Oversight Bodies Interviewee Results (% of interview notes aligned to theme)	3
Figure 2. DOT Senior Officials Results and Independent Oversight Bodies by Gender (% of interview notes aligned to theme)	4
Figure 3. All USMMA Staff and Faculty Results (% of interview notes aligned to theme)	4
Figure 4. USMMA Staff and Faculty Results by Gender (% of interview notes aligned to theme)	5
Figure 5. All USMMA Midshipmen Results (% of interview notes aligned to theme)	5
Figure 6. USMMA Midshipmen Results by Gender (% of interview notes aligned to theme)	6
Figure 7. All Industry Results (% of interview notes aligned to theme)	6
Figure 8. Industry Results by Gender (% of interview notes aligned to theme)	7
Figure 9. All Alumni Results (% of interview notes aligned to theme)	7
Figure 10. Alumni Results by Gender (% of interview notes aligned to theme)	8

Tables

Table 1. Analysis Themes.....	2
Table 2. Themes with Positive Average Sentiment.....	9
Table 3. Five Themes with the Most Negative Average Sentiment.....	9

Statistics and Summaries of Findings Based on Analysis of Interview Notes

INTRODUCTION

The breadth of viewpoints, facts, anecdotes, and opinions revealed through our interviews and captured in our interview notes created a rich data set to support further analysis. The complexity of these data afforded us the opportunity to perform quantitative and qualitative analyses to reveal fact-based findings that are defensible and traceable.

We used two teams to review the data to ensure the validity of our findings. The first was the LMI project team, consisting of sexual assault and sexual harassment subject matter experts. The second was an independent team of seasoned LMI data analysts who were not involved in the project until the time of analysis. Both teams used the same database of interview notes to conduct their analyses. In the remainder of this document, we describe the interview notes database and the results produced by each team.

INTERVIEW NOTES DATABASE

We developed a database to make it easier for the teams to organize the interview notes for analysis. To do this, we first parsed the notes into more than 3,000 individual comments. We identified each comment by stakeholder group and gender. The five stakeholder groups are Department of Transportation (DOT) senior officials and independent oversight bodies, including individuals within the Office of the Secretary, Maritime Administration, and U.S. Merchant Marine Academy (USMMA, or the Academy) Advisory Board; USMMA staff and faculty, including Academy leadership; USMMA midshipmen; industry; and alumni.

Next, we developed themes to categorize the interview comments, starting with the topic areas specified in the Statement of Work and then expanding this list to include topics that we heard frequently during our interviews. We categorized each comment by a high-level primary theme and, if applicable, a secondary theme. Table 1 lists the themes we used.

Table 1. Analysis Themes

Academics	Leadership
Accountability	Management and Faculty
Alcohol	Military
Assault	Prevention
Campus Life	Regimental
Communication	Reporting
Culture and History	Reprisal
Discrimination	Response
Enforcement	Safety
Ethics	Ship Life, Ports
Fear	Training
Governance, Policies, Programs, Plans	Trends
Harassment	Trust

PROJECT TEAM RESULTS

The LMI project team conducted several working sessions during which they reviewed the interview notes database and discussed the broad themes and important takeaways. Next, we looked at commonalities across the interviews by posing a series of “why” questions and derived three root causes behind the issues of sexual assault and sexual harassment at the Academy:

- ◆ Lack of respect for personal dignity and personal differences
- ◆ Lack of trust and a culture of fear
- ◆ Lack of personal ownership.

We then developed four major barriers manifested by these root causes that stand in the way of the Academy’s ability to effectively address the issues. These barriers are shown below:

- ◆ Denial of the problem
- ◆ Victim blaming
- ◆ “Us versus them” mentality
- ◆ Unwillingness to intervene or hold each other accountable.

The team then used these results and those of the independent team (described in the next section), combined with the results of a literature review and their collective subject matter expertise, to develop findings and gaps. These are listed in Deliverable 4: Final Report.

INDEPENDENT TEAM

The independent team conducted three analyses. The first two analyses, theme frequency and sentiment score, quantified what the interviewees said in numerical terms. The final analysis melded different stakeholder group comments into common topics.

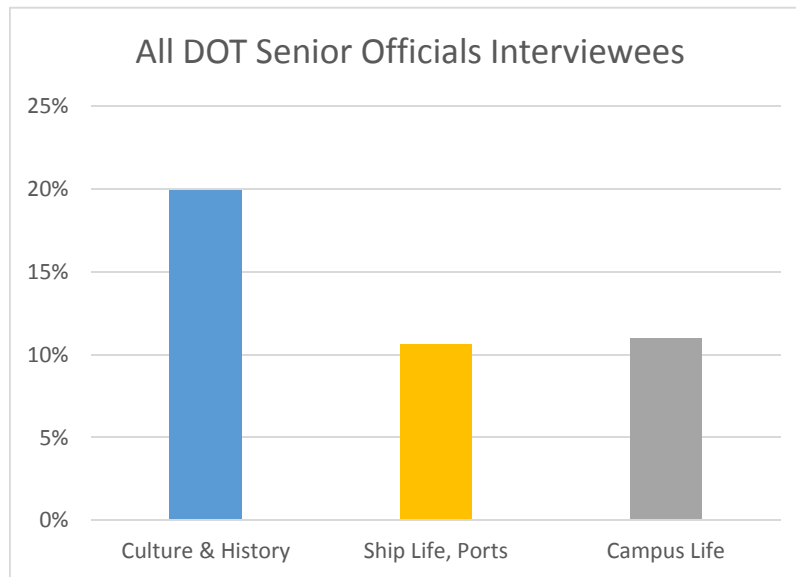
Theme Frequency

We report our results broken out by each of the five stakeholder groups and, within each of these groups, by gender. The results shown are the three most mentioned themes by these groups and gender segments.

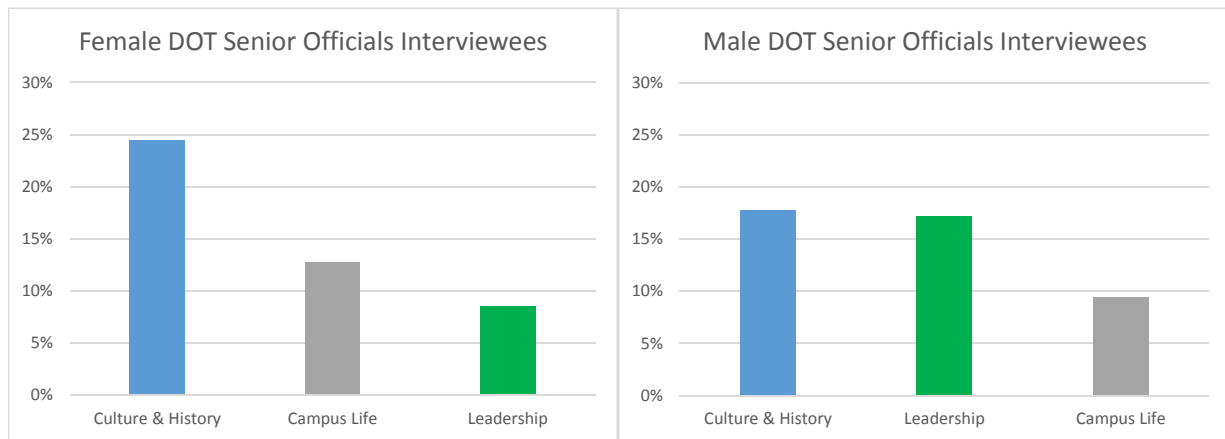
DOT Senior Officials and Independent Oversight Bodies Results

The dominant themes from the DOT senior officials and independent oversight bodies' interview notes, shown in Figure 1, are Culture & History; Ship Life, Ports; and Campus Life. Within the female and male results, shown in Figure 2, Leadership emerged as a more common theme than Ship Life, Ports, as compared with the results of the overall DOT senior officials. The male results showed a pronounced prevalence of the Leadership theme, as compared with the overall and female results.

Figure 1. All DOT Senior Officials and Independent Oversight Bodies Interviewee Results (% of interview notes aligned to theme)



*Figure 2. DOT Senior Officials Results and Independent Oversight Bodies by Gender
(% of interview notes aligned to theme)*



USMMA Staff and Faculty Results

The dominant themes from the USMMA staff and faculty interview notes, shown in Figure 3, are Culture & History; Leadership; and Governance, Policies, Programs, Plans. Looking at the gender breakouts (Figure 4), within the female USMMA staff and faculty results, Reporting emerged as a more common theme, displacing Governance, Policies, Programs, Plans, as compared with the overall USMMA staff and faculty results. The male USMMA staff and faculty results aligned directly with the overall USMMA staff and faculty results.

*Figure 3. All USMMA Staff and Faculty Results
(% of interview notes aligned to theme)*

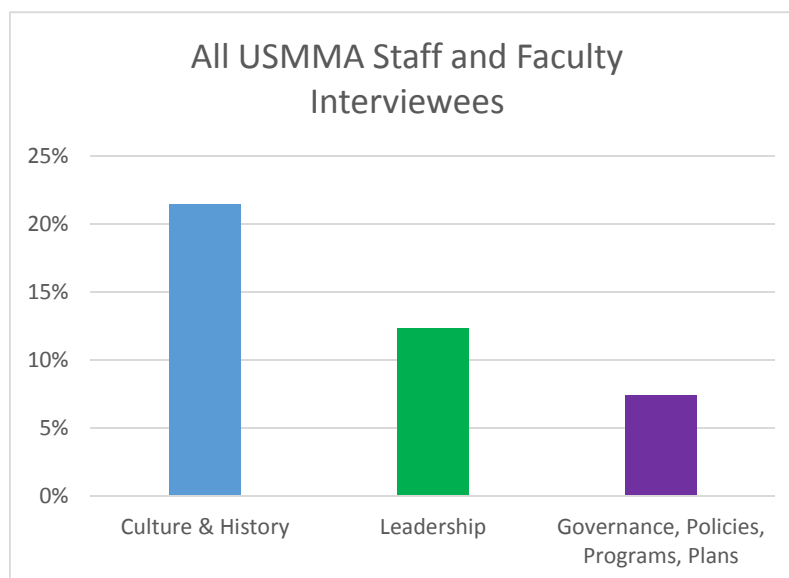
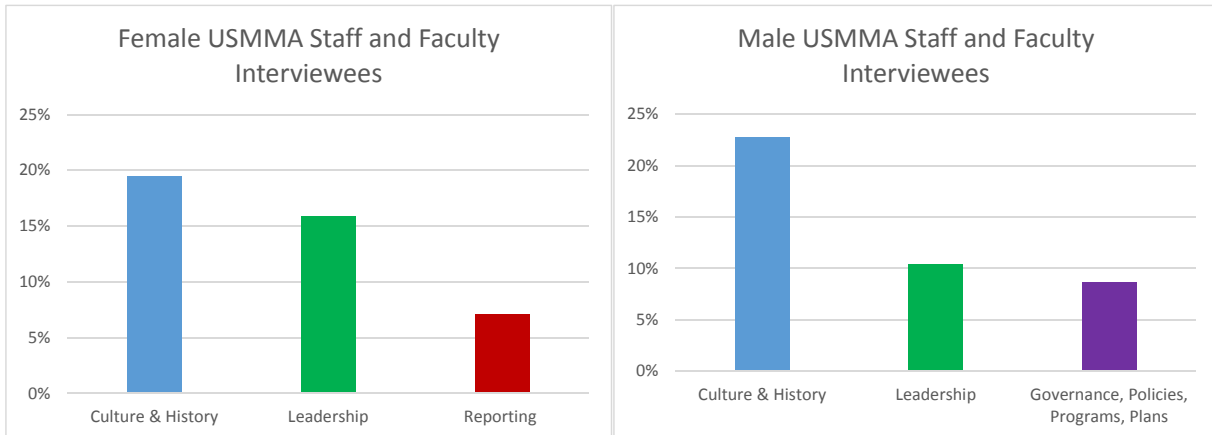


Figure 4. USMMA Staff and Faculty Results by Gender (% of interview notes aligned to theme)



USMMA Midshipmen Results

The dominant themes from the USMMA midshipmen interview notes, shown in Figure 5, are Culture & History; Leadership; and Ship Life, Ports. By gender (Figure 6), in the female USMMA midshipmen results, Reporting emerged as a more common theme, displacing Leadership, as compared with the overall USMMA midshipmen results. The male USMMA midshipmen results aligned directly with the overall USMMA midshipmen results.

Figure 5. All USMMA Midshipmen Results (% of interview notes aligned to theme)

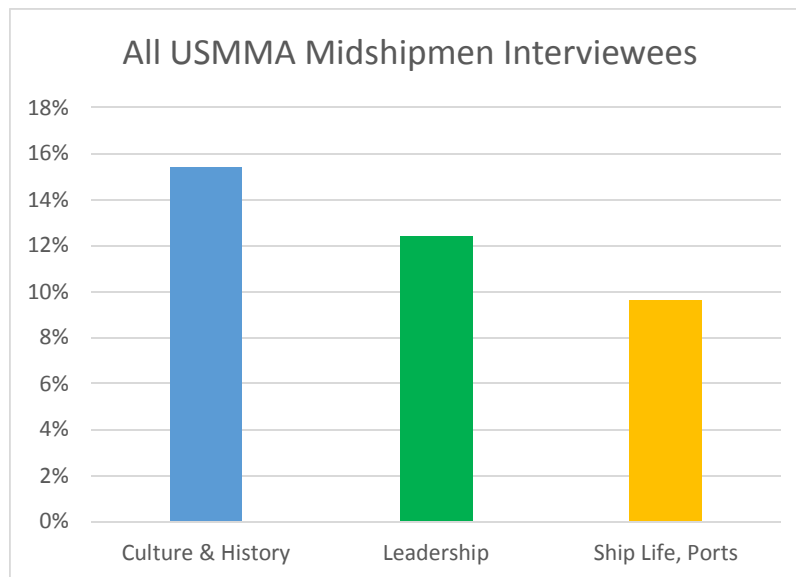
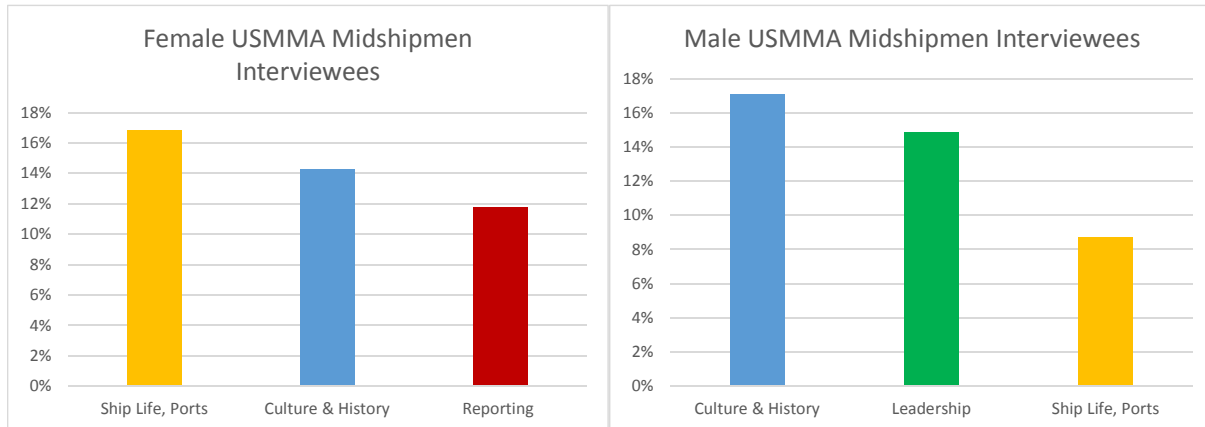


Figure 6. USMMA Midshipmen Results by Gender (% of interview notes aligned to theme)



Industry Results

The dominant themes from the industry interview notes, shown in Figure 7, are Culture & History, Ship Life, Ports, and Reporting. By gender (Figure 8), within the female industry results, Reporting emerged as a more common theme than Ship Life, Ports, as compared with the overall industry results. The male industry results aligned directly with the overall industry results.

Figure 7. All Industry Results (% of interview notes aligned to theme)

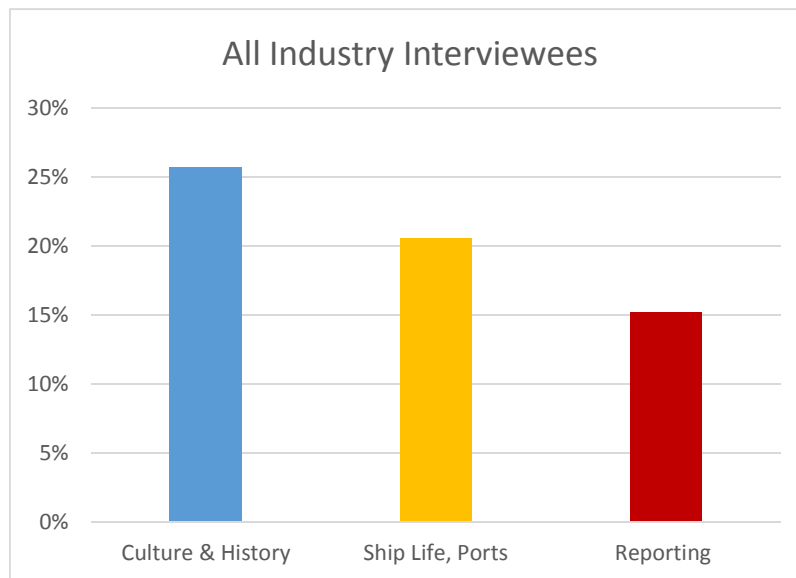
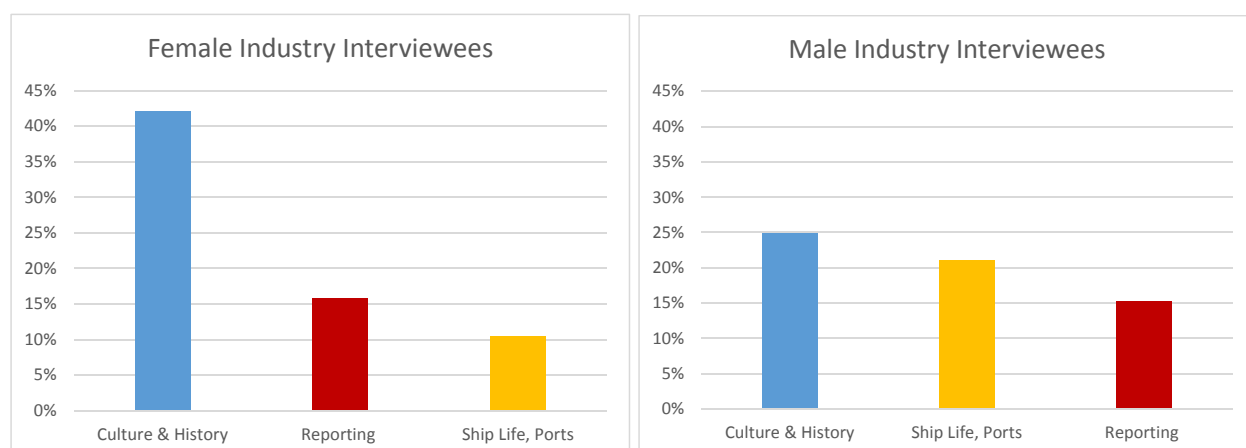


Figure 8. Industry Results by Gender (% of interview notes aligned to theme)



Alumni Results

The dominant themes from the alumni interview notes, shown in Figure 9, are Culture & History; Ship Life, Ports; and Campus Life. The female and male alumni results (Figure 10) maintained these same themes. The male alumni results showed greater emphasis of the Ship Life, Ports theme, as compared with the female alumni, who placed a greater emphasis on Campus Life.

Figure 9. All Alumni Results (% of interview notes aligned to theme)

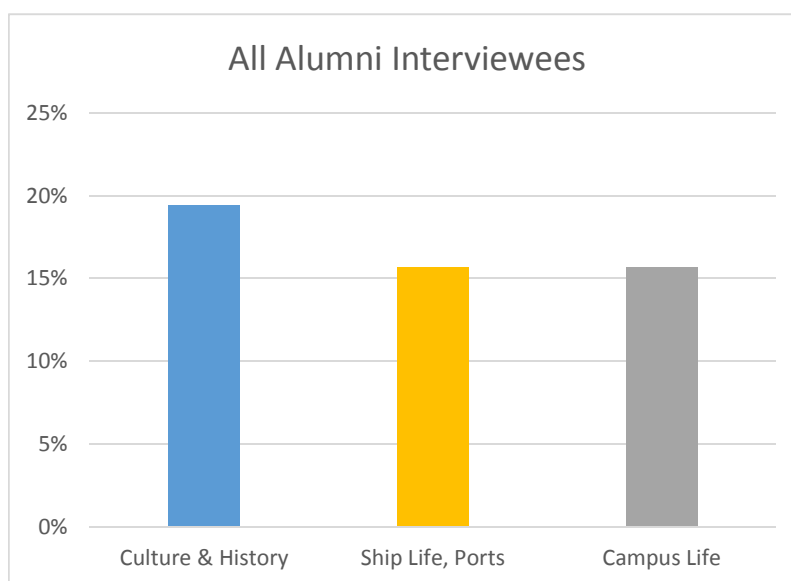
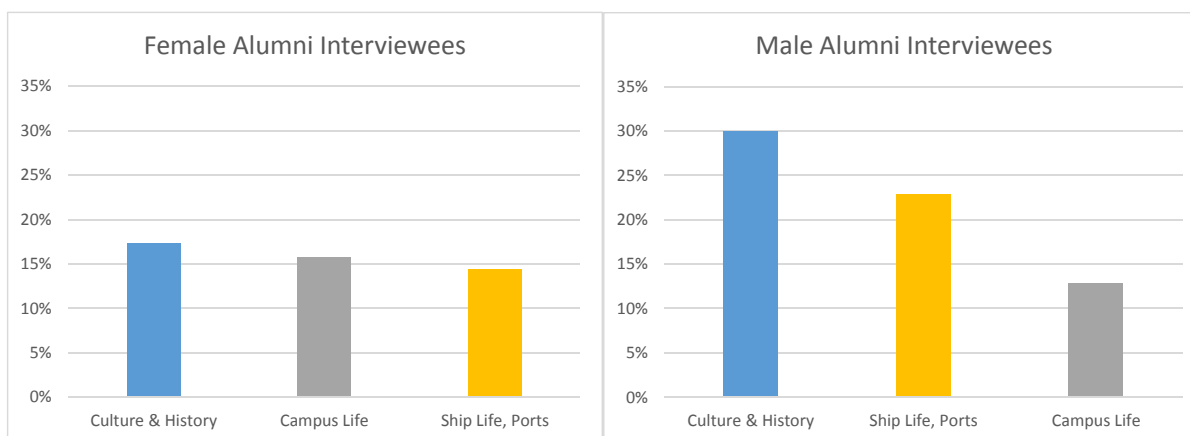


Figure 10. Alumni Results by Gender (% of interview notes aligned to theme)



Sentiment Score

We developed a structured approach to extract commonly occurring keywords and phrases associated with our themes and analyze the sentiment associated with discussions related to each theme. For each of the aforementioned themes, we assembled a vocabulary of related terms. To do this, we leveraged an open-source lexical database called WordNet.¹ We collected in the vocabulary those terms that are identified by WordNet as related to our theme given their similarity scores. These scores measure the closeness² of a term to the theme used to develop them. We discarded terms from the vocabulary if the level of similarity fell below a threshold value; otherwise, we included that term and its synonyms and antonyms as part of the theme's vocabulary.

Using the vocabulary for each theme, we processed the interview data to classify each data element (i.e., single interview note) into one or more of the identified themes. We also split each data element into individual words and applied stemming to each word. Stemming is necessary when performing any sort of text matching because without it, words like “communicate” and “communication” would not match with one another.

Finally, for each data element, we analyzed the total sentiment of the words used by consulting ANEW (Affective Norms for English Words),³ a list of commonly used English words with a human-provided sentiment score for each. Scores range from -5 to 5 but are typically between -2 and 2, where negative numbers

¹ Princeton University, *WordNet: A Lexical Database for English*, <http://wordnet.princeton.edu>.

² We used the Leacock-Chodorow measure to determine the similarity distance; see Martin Warin, “Using WordNet and Semantic Similarity to Disambiguate an Ontology,” research paper, Stockholm University, n.d., available at https://www.researchgate.net/publication/240722905_Using_WordNet_and_Semantic_Similarity_to_Disambiguate_an_Ontology.

³ Finn Arup Nielsen, “A New ANEW: Evaluation of a Word List for Sentiment Analysis in Microblogs,” research paper, Technical University of Denmark, March 2011, available at <https://arxiv.org/pdf/1103.2903v1.pdf>.

correspond to negative sentiment and positive numbers correspond to positive sentiment.

Our analyses revealed the themes with the most positive and most negative average sentiment, as shown in Table 2 and Table 3, respectively. Of note, we found only two themes with positive average sentiment scores. Further, we note that the negative sentiments are significantly stronger in degree than the positive sentiments.

Table 2. Themes with Positive Average Sentiment

Theme	Average Sentiment Score	Key Phrases
Ethics	0.87	human relations committee, think you need, deal with sexual harassment, need to know, Kings Point cadet, set the example
Military	0.73	deal with military, military and maritime, state maritime academy, staff and faculty, chain of command

Table 3. Five Themes with the Most Negative Average Sentiment

Theme	Average Sentiment Score	Key Phrases
Reprisal	-3.30	reprisal or retaliation, people ostracize
Reporting	-1.76	want to report, barrier to report, people don't report, report at sea, restricted and unrestricted, afraid to report, incident at sea, midshipmen don't report
Alcohol	-1.18	alcohol related incident, issue with alcohol, drugs and alcohol, class one offense, harass or assault
Enforcement	-1.07	chief of staff, things are handled, communication is poor, leader to help, outside the regiment, respond to sexual, see the deputy, does not know
Campus	-0.90	assault on campus, happen on campus, campus is small, people are stuck, experience on campus, problem on campus, harass on campus, culture on campus, issue on campus

Common Stakeholder Topics

The following are the most common topics that emerged from our analysis. All of these topics are important; they are not listed in any sort of ranked order.

SEA YEAR

The Sea Year experience is a fundamental part of a midshipman's USMMA career. The knowledge that midshipmen gain during Sea Year gives them real-life exposure to the type of work they will perform as professionals in the maritime industry. Although there are many positive aspects to the Sea Year program, significant issues have caused the Secretary to stand-down USMMA's participation. For example, because USMMA midshipmen can start the program after their plebe year, they are exposed to a greater amount of freedom at a younger age than are the state maritime program students who participate in ship-life programs later in their academic careers. Midshipmen can take part in new experiences, particularly in the ports of call. Professional mariners can apply pressure to cadets to experience things they may not have been exposed to at home, such as brothels and alcohol consumption. Because the midshipmen are traveling across the world, there is a lack of oversight provided by the Academy during Sea Year, and logistical communications challenges result. Being in different time zones, as well as the lack of reliable e-mail or telephone connectivity, can hamper ship-to-Academy communication.

RETURN FROM SEA YEAR

Once a midshipman completes the Sea Year program, the return to campus life at Kings Point is often jarring and can be troublesome. Many of the interviewees commented about the changes they see in their peers. They return to the Academy as different people. Some return to campus more "hardened" after their exposure to life at sea; making a reentry into regimental life almost seems pointless to them after experiencing so much freedom at sea.

ALUMNI INFLUENCE

USMMA has loyal alumni who strongly value the Kings Point culture. Their role in the Academy's community is critical, yet their level of influence over midshipmen can be both positive and negative. For example, alumni bring a historical perspective that helps midshipmen understand their current experiences—alumni have "lived the life." However, alumni tend to want to preserve the history and culture of the Academy, and this includes accepting some elements that are now less desirable, such as overt sexism. Alumni are a significant lever for retaining and changing culture.

MIDSHIPMEN LOYALTY

There is a strong, almost impermeable, sense of community amongst the midshipmen. "Mids look out for other mids," and their loyalty is to each other primarily. It appears they do not have the same sense of loyalty to management, leadership, or the faculty. The midshipmen's loyalty has positive and negative aspects. They may intervene among themselves, but also may question outsiders.

On the topic of loyalty, tangentially, from a management and faculty perspective, there have been instances of senior faculty members bullying and harassing newer faculty and staff members.

FEAR OF REPRISAL AND RETALIATION

Fear of reprisal and retaliation is a huge driver that causes midshipmen not to report incidents of sexual assault and sexual harassment. As stated above, midshipmen look out for other midshipmen, and they will close ranks at the expense of the victim. In addition, some midshipmen have raised questions such as, “What is worth reporting?” When a midshipman does make a report, the person to whom they report depends on the type of incident, supporting the finding that the reporting process is confusing and complex. And, in the case of the Academy Training Representatives, the person who receives the report is a male alumnus.

COMMUNICATION

The USMMA leadership needs to do a better job of communicating with all stakeholders (midshipmen, alumni, and the staff and faculty). A barrier to trust exists due to poor and infrequent communication. The way in which the stand-down was broadcasted emphasized this point. However, respondents viewed recent leadership communication actions positively (e.g., eating at the chow hall, attending trainings).

USMMA IDENTITY

USMMA has many “identity issues,” and this is highlighted at several levels. For example, USMMA is often compared with the other military academies, yet USMMA is not a military academy. Nor is it a traditional higher education institution. In addition, athletic programs at Kings Point are important but not heavily emphasized; academics are important (very high course loads), but parts of the academic curriculum, such as humanities, are disrespected. The Academy’s role in supporting multiple stakeholders creates a challenge for the institution.

OLD VERSUS NEW

Finally, the respondents’ comments highlighted a palpable tension between the “old guard” (less accepting of change—alumni, senior faculty) with sentiments like, “We’re fine; these problems are overblown,” and those newer to the Academy (more accepting of change) who believe significant problems exist. Some respondents commented that they do not believe the survey results and feel there is already too much training. Other respondents (some midshipmen, new faculty and staff members, parents, and leadership) see significant sexual assault and sexual harassment problems at the Academy that are not being addressed.

SUMMARY

Upon completing the separate analysis streams, we reconvened as a full team and compared results. We found no significant disparities between the important points uncovered by each team. The importance of Sea Year, influence of alumni, midshipmen loyalty, fear of retaliation, and issues with communication, identity, and old versus new (an example of us versus them) found by the independent team were all consistent with the findings of the project team. In addition, the result from the sentiment analysis of only 2 of 26 themes having a positive sentiment was consistent with the overall tone of the interviews from the project team's review. The identification of the top three negative themes as Reprisal, Reporting, and Alcohol is also consistent with what the project team found.