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## Faculty Advisors' Perspectives on the Current State of Construction Honor Societies

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The Sigma Lambda Chi International Construction Honor Society (SLC) is the only honor society associated with construction management. A few research studies have been published regarding the benefits, criteria, and motivations of joining an honor society, however, no research has been conducted specifically related to the honor society in the field of construction. This paper summarizes the results of a survey conducted to find out the opinions of SLC chapter advisors on how they perceive multiple factors related to student outcomes, the impact of the pandemic on SLC chapter operations, and both internal and external support for their respective SLC chapters. The outcomes revealed several interesting results regarding the benefits, obstacles, and motivations of advising a Sigma Lambda Chi chapter. The results of this study can help to understand the impact of the pandemic on SLC chapter operations. SLC faculty advisors can have a better understanding of their colleagues' perspectives, and SLC International Directors and Officers can use the results of this study to help to establish new SLC chapters and to be more supportive of existing SLC chapters and their faculty advisors.

**Key Words:** Honor Society, Sigma Lambda Chi, Faculty Advisor, Pandemic Impact

### Introduction

An honor society is “an association of primarily collegiate chapters whose purposes are to recognize and encourage high scholarship and/or leadership achievement in some broad or specialized field of study”, according to the Association of College Honor Societies' definition (ACHS, 2022). College honor societies began as social clubs that included activities such as drinking alcohol and discussing literature. The precursor to college honor societies was the social and literary fraternity Phi Beta Kappa formed at the College of William and Mary in 1776. This led to other similar groups eventually forming honor societies and fraternities that served specific academic disciplines with more formal requirements. Phi Beta Kappa finally became the first honor society for liberal arts and sciences in 1898. The field of engineering established Tau Beta Pi and the field of scientific research formed Sigma Xi in the 1880s (Watkins & Ostin, 2018).

The Sigma Lambda Chi International Construction Honor Society (SLC) is the only honor society associated with construction management. The first chapter of SLC, Alpha Chapter, was established on April 30, 1949, by a group of people from Michigan State University (SLC, 2022). SLC has grown to include 90 chapters across the United States and Australia, and 73 of them are currently active. SLC is a member of the Association of College Honor Societies (ACHS) which is the leading certifying body for honor societies (ACHS, 2022).

A few research studies have been published regarding the benefits, criteria, and motivations of joining an honor society. Watkins and Ostin (2018) studied the commonalities among Engineering Honor Societies, the possible roles of an honor society within an engineering department, and some best practices for effective honor society chapters. They found that the most effective honor society chapters recognize students' academic achievement and provide opportunities for networking, community outreach, and service. Ferrari et al. (2006) studied academic honor society alumni's education and employment experiences, comparing the responses from honor society leaders and non-leaders in the field of psychology. Gauer and Jackson (2017) developed a study to determine the association between the Medical College Admission Test and acceptance to Alpha Omega Alpha Medical Honors Society. Hopkins et al. (2015) explored the key technology design considerations for creating a virtual nursing honor society. They developed another student to explore honor society membership retention strategies in the field of nursing (Hopkins et al., 2016). Rosenthal et al. (2009) and Specter et al. (2015) explored the association between membership in an honor society in the medical field and the selection for residency. Hill et al. (2022) explore the disparities in medical student membership in honor societies based on students' race, ethnicity, sex, sexual orientation, socioeconomic status, and the intersection of different identities.

The research studies related to academic honor societies are mostly developed in the field of medical science, nursing, psychology, liberal arts, and engineering. However, no research has been conducted specifically related to the honor society in the field of construction. Moreover, like almost all aspects of our lives, the operations of student clubs and honor societies were greatly impacted by the COVID-19 pandemic. With many student chapters going dormant during the pandemic, the way SLC chapters are advised and supported may have shifted for some universities.

To bridge the gap mentioned above and to understand the impact of the pandemic on SLC chapters, this study is developed to gather SLC faculty advisors' perspectives on these issues. The main objectives of this study are to get SLC advisors' opinions on the benefits for students to joining SLC, the impact of the COVID-19 pandemic on SLC chapters, the motivations of becoming SLC advisors, the enablers and inhibitors of having an SLC chapter, and advisors' suggestions on how SLC chapters can be more effective and beneficial to the students. This study will contribute to the body of knowledge by being the first formal study on SLC. The results of this study can help to understand the impact of the pandemic on SLC chapter operations. SLC faculty advisors can have a better understanding of their colleagues' perspectives, and SLC International Directors and Officers can use the results of this study to help to establish new SLC chapters and to be more supportive of existing SLC chapters and their faculty advisors.

## **Research Method and Data Collection**

To fulfill the research objectives mentioned above, a survey is developed and disseminated to gather opinions from SLC faculty advisors. The survey is anonymous and has been reviewed by the Institutional Review Board under protocol #22-1374, which ensures that research projects involving

human subjects follow federal regulations. The survey includes four major groups of questions, including demographic information, SLC chapter information, SLC advisor’s opinions in Likert scales, and advisor’s opinions by text entry. Each group includes several questions, as shown in Table 1.

Table 1	
<i>Survey questions</i>	
Part I Demographic information	<ol style="list-style-type: none"> <li>1. Age</li> <li>2. Gender</li> <li>3. Academic position</li> <li>4. Years at current institution</li> <li>5. Years being an SLC advisor</li> </ol>
Part II SLC chapter information	<ol style="list-style-type: none"> <li>1. Number of induction ceremonies during the past academic year 2021-2022</li> <li>2. Number of induction ceremonies per academic year before COVID-19</li> <li>3. Number of inductees to SLC during the past academic year 2021-2022</li> <li>4. Number of inductees to SLC per academic year before COVID-19</li> </ol>
Part III Advisor’s perception of having SLC - Likert scale questions	<p>On a scale of 1 to 10 (1 minimal, 10 maximum), how much do you agree with the following statement?</p> <ol style="list-style-type: none"> <li>1. Joining SLC helps students to perform better in school.</li> <li>2. Joining SLC helps students with job placement.</li> <li>3. Joining SLC motivates students to provide services to local communities.</li> <li>4. Joining SLC motivates students to become leaders.</li> <li>5. Joining SLC helps students to communicate better.</li> <li>6. SLC officers are more likely than their peers to be leaders in other campus organizations.</li> </ol>
Part IV Advisor’s perception of having SLC – text entry	<ol style="list-style-type: none"> <li>1. In your opinion, what are the benefits of having an SLC at your institution?</li> <li>2. In your opinion, what are the obstacles to having an SLC at your institution?</li> <li>3. What motivates you to be the faculty advisor for SLC?</li> <li>4. What do you think SLC International can do to support advisors better?</li> <li>5. What can your Department Chair/Program Leader do better to promote and support SLC student chapters at your institution?</li> </ol>

The survey was hosted on Qualtrics and a link to the survey was sent out to 74 current SLC advisors through email. 26 responses were received within three weeks (35% response rate). Out of 26 responses, 22 of them are complete and the complete responses are used in the following results and analysis sessions.

### **Survey Results and Analysis**

The experience and background of survey respondents are diverse in terms of age, gender, academic positions, and years of experience. The demographic information of 22 complete survey respondents is summarized in Figure 1. It shows that 50% of respondents are over 50 years old and the other half

are from 31-50 years old. 41% of them are females and 59% of them are males. The results also show that SCL faculty advisors hold different academic positions in their departments. 32% of respondents hold the rank of tenure-track assistant professor positions, 18% of them are associate professors, and 18% of them are full professors. 23% are teaching professors/lecturers, one SLC faculty advisor is an Academic Advisor and another one is an Assistant Dean. As for their years of experience being SLC faculty advisors, 50% of the respondents have been SLC advisors for less than 6 years, and the other half of them have been SLC advisors for more than 6 years.

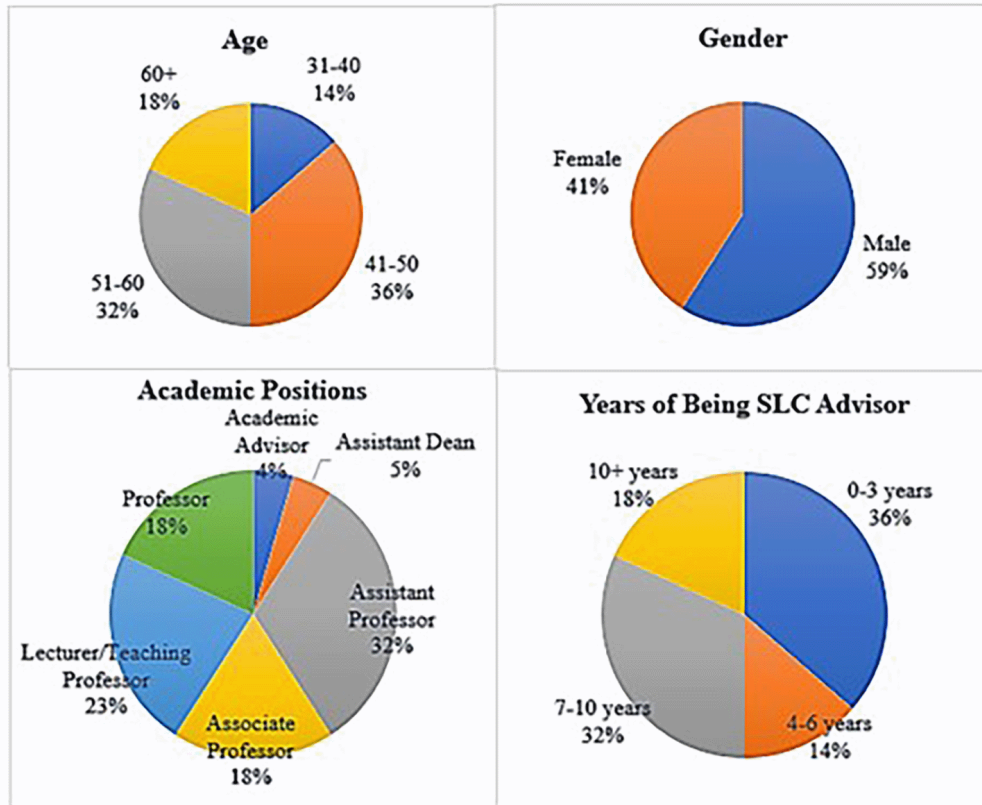


Figure 1. Demographic information of survey respondents

The SLC chapters' situation varies in terms of the number of induction ceremonies and the number of inductees. Figure 2 summarized the information related to chapter induction ceremonies and the number of inductees during the academic year of 2021-2022 and typical numbers before the COVID-19 pandemic. It shows that 5 out of the 22 chapters didn't conduct any induction ceremony during the academic year of 2021-2022, and only 2 chapters reported zero induction ceremonies before the COVID-19 pandemic. 3 chapters did more than 2 induction ceremonies before the COVID-19 pandemic and none of the chapters were able to do that during the year 2021-2022. Figure 2 shows that the COVID-19 pandemic impacted the number of inductees as well. During the year 2021-2022, 14 chapters inducted 0-10 new members, 7 chapters inducted 11-25 new members, and only 1 chapter inducted 25-50 new members. Before the COVID-19 pandemic, 11 chapters inducted 0-10 new members, 8 chapters inducted 11-25 new members, and 3 chapters inducted 25-50 new members each year. Figure 2 indicates that the COVID-19 pandemic negatively impacted the number of induction

ceremonies and the number of inductees for the 22 SLC chapters whose faculty advisors responded to this survey.

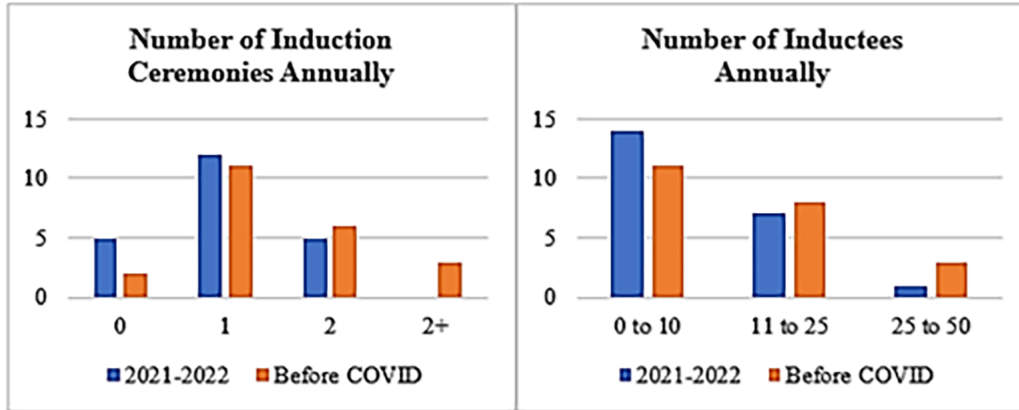


Figure 2. Number of induction ceremonies and inductees before and after the COVID-19 pandemic

The third group of questions is about the SLC faculty advisor’s opinions on the benefits for students joining SLC. The results are summarized by the boxplots in Figure 3. A wide range of responses are collected from advisors and for every question, there is someone giving 0 points and another advisor giving 10 points. The number of data points is not large enough to effectively determine outliers so all complete data are included in the results and analysis. The average score, 25<sup>th</sup> percentile score, and 75<sup>th</sup> percentile score for SLC members being leaders of campus organizations are higher than other questions’ responses, which indicates a stronger association between the two compared to the other benefits. Figure 3 indicates that there is no apparent association between being a member of SLC and their academic performance, job placement, service commitment, being future leaders, and better communication skills. This result is different from what is shown in the literature.

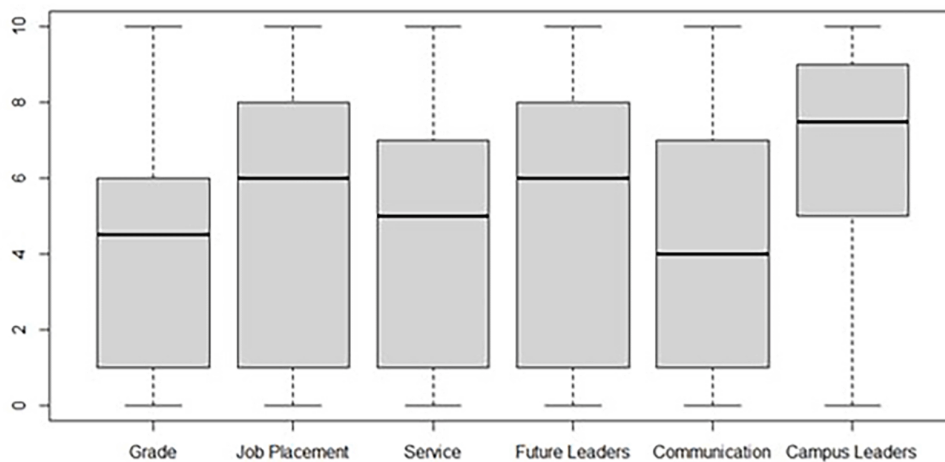


Figure 3. Boxplot of survey responses regarding benefits of joining SLC

The fourth group of questions is about the SLC faculty advisor’s perspectives on the current state of SLC and their suggestions. Many advisors answered these text-entry questions, and their responses

related to the benefits of having an SLC chapter, the obstacles to having an SLC chapter, their motivations for being an SLC faculty advisor, expectations on support from SLC International, and support from department leaders are summarized in Table 2.

Table 2	
<i>Survey responses related to SLC faculty advisor’s perspectives and suggestions</i>	
Benefits of having SLC	<ul style="list-style-type: none"> <li>• Recognize/distinguish students’ achievement and service to the program</li> <li>• A networking opportunity among alumni, industry, and students</li> <li>• Motivate students to be excellent</li> <li>• SLC organizes department golf tournaments and provides scholarships</li> <li>• Mentoring / Tutoring; pull TAs from SLC</li> <li>• Get students active and working together with their peers</li> <li>• Make students know that they are connected to other programs in other universities</li> </ul>
Obstacles to having SLC	<ul style="list-style-type: none"> <li>• Lack of understanding of what SLC is within the institution and industry</li> <li>• No active members currently</li> <li>• Faculty advisor’s availability and commitment</li> <li>• Difficult to get a list of qualifying students</li> <li>• Students’ lack of interest in organizations after COVID-19 pandemic</li> <li>• Have it recognized as an official student organization and receive funding from the university</li> <li>• Student involvement is low</li> <li>• Given the strong job market, an academic distinction is not a requirement for successful job placement.</li> </ul>
Motivations for being an SLC advisor	<ul style="list-style-type: none"> <li>• Enjoy recognizing students for their achievements.</li> <li>• Inducted when being a student</li> <li>• Know the value of SLC</li> <li>• Help students</li> <li>• Get students involved in non-academic activities and services</li> </ul>
Support from SLC International	<ul style="list-style-type: none"> <li>• Provide statistics or case studies on SLC members who have proceeded to the highest levels of success in CM</li> <li>• Provide additional assistance with recruiting and invitations</li> <li>• Connect Chapters with industry leaders looking for SLC members</li> <li>• Provide more networking opportunities, for example, the RENO event.</li> </ul>
Support from department leaders	<ul style="list-style-type: none"> <li>• Full support, encouragement, and budget</li> <li>• Commit to getting the SLC advisor a list of qualifying students within the first 4 weeks of each fall and spring semester</li> </ul>

Most of the respondents state that SLC International has done a great job in supporting their chapters and they are satisfied with the support from their department leaders. Some of them give constructive suggestions which are listed in Table 2. This is a starting point and opens a conversation as to how SLC International and department leaders can support SLC faculty advisors better.

It is fortunate that this study has received timely responses from many SLC advisors and with 22 complete responses to the survey, statistical analysis is possible and is applied to the data set to further exploration of correlations. The first analysis is applied to the chapter induction ceremony numbers and inductee numbers for each chapter before and after the COVID-19 pandemic. The differences are calculated for each chapter and one-sample t-tests are performed to see if the differences are statistically significant. The result shows that there is moderate evidence that the number of induction ceremonies is reduced by an average of 0.5 times (p-value = 0.038) and the reduction in the number of inductees is not statistically significant (p-value = 0.135).

Another analysis is applied to see if SLC advisors’ perspectives are related to their demographic differences. Survey scores for Part III questions are dependent variables and advisors’ age, gender, academic position, years at current institution, and years being an SLC advisor are independent variables. Models are fit for each dependent variable with all independent variables. The p-values for all models are summarized in Table 3.

Table 3						
<i>P-values for ANOVA analysis</i>						
	Grade	Job placement	Service	Future leader	Communication	Campus leader
Age	0.203	0.436	0.351	0.672	0.324	0.423
Gender	0.399	0.052	0.087	0.021	0.098	0.344
Academic position	0.841	0.779	0.690	0.735	0.873	0.992
Years at current institution	0.411	0.456	0.995	0.642	0.693	0.529
Years being an SLC advisor	0.189	0.090	0.666	0.243	0.340	0.271

In Table 3, most of the p-values are greater than 0.1, which means there are no correlations. The significant results are responses for job placement, service, future leaders, and communication for different gender groups. Since the gender group only has two values, two-sample t-tests are performed to see the differences in these groups. Table 4 summarizes the results.

Table 4				
<i>Two-sample t-test results for different gender groups.</i>				
	Job placement	Service	Future leaders	Communication
Mean for Male	6.154	6.308	6.692	5.462
Mean for Female	3.222	3.111	3.111	2.333
Mean Difference	2.932	3.197	3.581	3.129
P-value	0.036	0.049	0.024	0.034

Table 4 shows that the male advisors are more convinced that joining SLC helps students with job placement than female advisors (mean difference = 2.932, p-value = 0.036). Male advisors are also more positive than female advisors in that joining SLC motivates students to provide services to local communities (mean difference = 3.197, p-value = 0.036), to become future leaders (mean difference = 3.581, p-value = 0.024), and to communicate better (mean difference = 3.129, p-value = 0.034). It is

worth mentioning that these results only show correlations and they don't indicate any causation relationships. The results can't be inferred to a larger population and they only show the correlations of the 22 complete survey responses in this study.

## Conclusions and Recommendations

A survey is developed to gather opinions from SLC faculty advisors to explore the benefits of joining SLC and the impact of the pandemic on SCL chapters. The survey was sent to 74 SLC faculty advisors and 22 complete responses were collected and used in this study. Results of the survey show that SLC members are more likely to be leaders on campus, but there is no apparent association between being a member of SLC and students' academic performance, job placement, service commitment, being future leaders, and better communication skills. The analysis shows that male advisors' responses are more positive than female advisors' responses regarding the benefits of joining SLC for students. However, these results only show correlations, and they don't indicate any causation relationships, and the conclusion can't be inferred to a larger population.

The analysis also shows that there is moderate evidence that the number of induction ceremonies for each SLC chapter is reduced by an average of 0.5 times after the COVID-19 pandemic and the reduction in the number of inductees due to COVID-19 is not statistically significant. In another word, this study shows that COVID-19 has very little impact on the number of inductees even though it greatly impacted how student clubs and honor societies operate during the pandemic. However, this study doesn't show the full picture of the pandemic's impact due to the nature of the voluntary surveying method. The advisors who responded to this survey could be very active advisors which can compensate for the negative impact of the pandemic.

The advisors believe that having an SLC chapter at their institution can motivate students to be excellent and be more active in working together with their peers. Another benefit of having an SLC chapter is to provide more networking opportunities for members to connect with alumni, industry professionals, and other students. The advisors identified a few obstacles to having an SLC chapter, including a lack of understanding of the value of SLC, faculty advisor's availability and commitment, students' lack of interest in organizations after the COVID-19 pandemic, and the difficulty to get a list of qualified students. The most common motivation for advisors to serve in this role is to help students. Most of the SLC faculty advisors feel that they have received adequate support from the SLC International office and their department leaders. Some of them suggest that the SLC International office can provide more opportunities for chapters to connect with industry leaders and other networking opportunities.

This study serves as the first step to exploring the benefits and issues related to joining the SLC Construction Honor Society. The results of this study come from SLC faculty advisors' opinions. To get a full picture, more students to explore similar issues from different angles are needed. For example, a survey to department heads may be used to further explore the enablers and inhibitors of having an SLC chapter in their institution. Another study could be developed to gather students' opinions on joining SLC. Getting employers' perspectives on hiring SLC members is also worth studying.

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