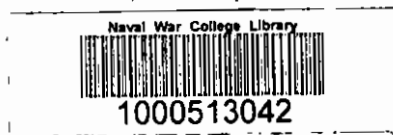


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THE UNITED STATES NAVAL WAR COLLEGE

SCHOOL OF NAVAL COMMAND AND STAFF



GROUP STUDY, 1968

THE SCHOOL OF NAVAL COMMAND AND STAFF

AS VIEWED BY THE GRADUATE

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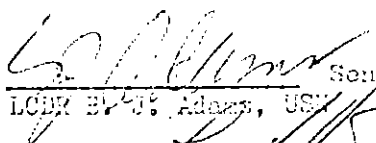
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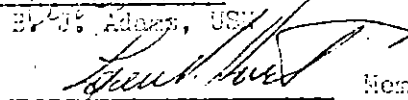
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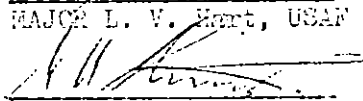
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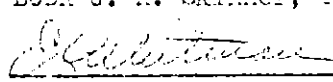
THE SCHOOL OF NAVAL COMMAND AND STAFF
AS VIEWED BY THE GRADUATE

The contents of this paper reflect the views of the student group engaged in this study whose signatures appear below and are not necessarily endorsed by the Naval War College or the Department of the Navy.


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Abstract of THE SCHOOL OF NAVAL COMMAND AND STAFF
AS VIEWED BY THE GRADUATE

The purpose of this study was to assess the impact of the Naval Command and Staff (NC&S) education upon the graduate and his subsequent duty performance. An attempt was also made to evaluate the NC&S education in comparison with alternative duty assignments.

The study group first traced the development in organization and curriculum of the War College and NC&S. The methodology for collecting data relevant to the impact of NC&S was arrived at after examination of available sources. The method used was a questionnaire survey of the Unrestricted Line (URL) graduates of the classes of 1962 through 1967. The questionnaire included 13 specific questions and one for optional comments. The response of the graduates to the survey equaled 78%, which provided an adequate data base for the study.

The responses to the questions were analyzed in detail, both individually and as they related to each other. The analysis of the optional comments question was particularly detailed and included many thought provoking comments by the graduates.

The conclusions drawn from the analysis included the following:

- a. Overall, 67% of the billets assigned were to command or to staff duty; however, only about one half of the recent graduates were so assigned.
- b. NC&S assignment occurred too late in the careers of 25% to 33% of the graduates.
- c. In general the graduates' capabilities were most improved in the Planning and in the Writing/Speaking areas.

d. In general the NCSS did have favorable impact upon subsequent duty performance of the graduates.

e. The benefits of NCSS are general in nature, and few billets are directly related. The coding of Navy billets as "NCSS Mandatory" is not now feasible.

f. The student input level is too low.

g. Graduates are generally satisfied with the balance between military and non-military subjects.

h. The motivation of the students was not as high as might be expected.

Recommendations supporting the above conclusions were offered. In addition, recommendations for further study of issues raised in the optional graduate comments were made. However, these issues were cited because of their interest; they were not considered necessarily to represent a majority viewpoint.

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INTRODUCTION

The need for professional education for military officers has long been recognized. However, the form of the educational process has varied widely among organizations and over time. Further, there appears to have been no substantial formal effort within the Navy to evaluate the effectiveness of this process. Such an evaluation appears to be an important, although by no means the only, consideration in assessing the Navy's needs for this type of education. This study will attempt to provide such an evaluation, from the viewpoint of the graduate, as it applies to the School of Naval Command and Staff.

The objective of the School of Naval Command and Staff (NC&S) is, simply stated, to prepare officers for command and staff duty. In considering the effectiveness of the School in meeting this objective, a number of questions become apparent. What percentage of the graduates are in fact being assigned to command and staff type billets? How valuable is this education to the graduate in his performance in future career assignments? Is the timing of the NC&S education consistent with both the officer's and the Navy's needs? Is it possible to compare the value of NC&S education with alternative career assignments? Do billets exist in the fleet and shore establishment which are directly related to experience gained at NC&S? If so, is billet identification desirable? The answers to these and related questions could affect both the student input level as well as the policy for subsequent assignment of students.

One of the most authoritative sources for the answers to these questions are the NC&S graduates themselves, and their viewpoints are the primary

source for the data used in this study. A total of 637 survey questionnaires were mailed to the unrestricted line officer graduates of the classes of 1962 through 1967. Of these, 494 or 77.6 percent completed and returned the questionnaire. The comments of the graduates are based upon a variety of subsequent duty experiences and perspectives, and should provide useful information for those concerned with the downstream result of the NC&S educational process.

In order to place the study in the proper perspective, Chapter One provides a brief description of the historical development of the Naval War College, and the School of Command and Staff in particular. Chapter Two is concerned with the methods and data available to conduct such a study. Chapter Three contains a detailed analysis and discussion of the graduates' responses to the questionnaire, and herein lies the essence of the report. The conclusions and recommendations drawn from the analysis are then presented in Chapter Four.

THE SCHOOL OF NAVAL COMMAND AND STAFF AS VIEWED BY THE GRADUATE

CHAPTER I

HISTORICAL DEVELOPMENT AND BACKGROUND

The School of Naval Command and Staff is a relatively new addition to the Naval War College, having made its debut in 1950. However, the concepts and objectives of the School are rooted much deeper in the history of the War College. Thus, in order to examine this study in the proper perspective, we must first review the historical development and objectives of the Naval War College, with particular emphasis on the School of Naval Command and Staff. Further, since the study does span the views of the graduates for the last six classes, it will be necessary to trace the development of the curriculum over this period.

Naval War College. "A place where officers might have the opportunity of studying the science and art of war and the laws of war as laid down by accepted authorities on marine international law." These were the words of Commodore Stephen B. Luce as he envisioned the War College when early in 1833 he proposed the establishment of the first course.¹ His proposal was investigated and finally approved by the then Secretary of the Navy, William E. Chandler, who issued General Order No. 325 on 6 October 1884

¹Stephen B. Luce, "The U.S. Naval War College", U.S. Naval Institute Proceedings, v. XXXVI 1910, p. 560.

establishing "a college for an advanced course of professional study for naval officers."² The first course was held in 1865, marking the birth of the Naval War College as an institution. This course included military science, the art of naval warfare and marine international law.

Despite this auspicious beginning, many years of bitter struggle for survival followed. During these years there were wide variations in policy and emphasis. However, the general characteristics of the original course were retained until 1910, at which time major changes in the college's approach were initiated. The principal change was the introduction of the "applicatory" system, which was adopted from the methods used at German war and staff colleges.³ The objective of this system was to instill in the minds of the officers the practice of systematic reasoning in approaching problems. The methods employed required individual, rather than committee solution of problems, and consisted of estimating the situation, making a concrete decision, and formulating the orders for executing the decision. Finally, during 1910, action was also taken to extend the course of study to one year's duration in order to provide time for more comprehensive study.⁴

With the approach of World War I, the value and importance of the work at the War College was at long last recognized, and the official support

²History of the U.S. Naval War College 1884-1963 and Succeeding Annual Reports (Newport, R.I.: Naval War College) 1963 p.1.

³Ibid, p.7.

⁴Department of the Navy, General Order No. 70, 17 January 1914.

which it needed was to be forthcoming. In contrast to the sentiment which prevailed earlier in its history, officers were now eager to have the privilege of attending the War College. Added incentive had been generated by the announced policy of the Navy Department to award higher commands, insofar as practicable, to those who had received the benefits of War College training. By 1921 about 50 percent of the flag officers afloat and their chiefs of staff were graduates of the long course. Thus, by 1922 the college's long struggle had been won. The Naval War College, through the efforts of men such as Admirals Luce, Mahan and Sims, was now a respected permanent institution with an assured future.

The next 20 years saw further expansion and change at the War College. During this period relations were established with the Army War College and problems involving joint operations were worked on by both colleges. In addition, the trend of concentrating on tactical training as opposed to strategic education was accelerated. Naval talent was directed at the problem of defeating the Japanese fleet in the Pacific, fighting battles instead of wars, with little attention being given to global strategy.

The coming of 1941 saw the regular War College courses suspended for the duration of the war. However, two short courses were conducted so that the War College, thus modified, continued to provide trained officers to the fleet. The resumption of the senior and junior courses after the war brought with it more emphasis in the curriculum on the global problems of geography, politics, and logistics.⁵

⁵History of the U.S. Naval War College, p.38, 39.

With the formal establishment of the School of Naval Command and Staff in 1950 and a major revision of the junior curriculum, the War College was faced with a dilemma in the senior course.⁶ For years the Navy had pondered the broadening of the scope of this course. This thinking was stimulated by the increasing numbers of officer assignments to joint staffs and the formation of NATO and other inter-allied groupings. The senior course thus went through a series of changes during the 1950's which were directed at broadening the curriculum by focusing on problems of national and international strategy.

Although one graduate degree program with Boston University was discontinued in 1957 after one year, a second such program was commenced in 1962 through George Washington University which provided the officer students an opportunity to earn a graduate degree. Other changes during this period were directed toward self-improvement of the officer with the introduction of a number of voluntary after hours courses in the areas of reading, writing, presentation, and languages. The years in the 1960's witnessed a continuing trend toward a broadening of the War College courses as well as an increased emphasis on research and current management problems within the Navy, and the introduction of a comprehensive group of elective courses.

This completes our review of the development of the Naval War College and, having been provided the broad foundation upon which it rests, we can now narrow our perspective and deal more specifically with the School of Naval Command and Staff.

⁶The development of the School of Command and Staff will be discussed in the next section of this chapter.

School of Naval Command and Staff. The forerunner to the School of Naval Command and Staff goes back to 1923 when a Junior Course was established at the Naval War College for the purpose of "preparing younger officers for staff duties dealing in problems of tactics and minor strategy."⁷ The course was designed for lieutenants and lieutenant commanders with over six years service, and by 1933 the length had been increased to one year with an average of 33 graduates.⁸ The curriculum was only slightly different from the senior course and included naval operations, minor naval strategy, logistics and international law. The junior course continued to parallel the senior course quite closely up until 1950, when the name was changed to the School of Naval Command and Staff.

The mission given to the school at that time was to provide officers of the intermediate grades with a better understanding of the operational functions of command and staff procedures. The curriculum was revised so as to approximate that of the Army's Command and General Staff School. The size of the classes were increased substantially by 1956 with an annual enrollment of 135. There was, throughout the first decade, a gradual broadening of the program which included the opportunity for attaining graduate degrees and the voluntary after hours courses previously discussed.

The objectives of the School were restated in 1962 as "to further the

⁷Ashurst, Albert J., "Decision Making and the School of Naval Command and Staff," Naval War College Review (Newport, R.I.: U.S. Naval War College, October 1967) p. 45.

⁸History of the U. S. Naval War College, p. 59-61.

student's understanding of the fundamentals of warfare, with emphasis upon the operational functions of command, including operational planning and command decisions."⁹ In 1965 the purpose of the School was stated as "to provide instruction in international affairs, fundamentals of strategy, the planning process, current and future weapons systems, logistics and staff organization and procedures."¹⁰ The enrollment at NC&S reached its peak in 1966 with a total of 190 students. The mission, as it is presently stated, is to instruct and develop officers of the middle grades in the employment of naval forces and operational and administrative techniques of staff planning in order to prepare them for command and for duty at the group and force levels in fleet operations.¹¹

Since the nature of the curriculum changes during the span of the graduate survey, 1962 through 1967, could have an important impact on the study findings, we must again narrow our perspective and proceed to a review of the NC&S curricula for this time period.

NC&S Curriculum 1962 - 1967. The NC&S curriculum has experienced numerous changes during the years 1962 through 1967, with the major change occurring in class year 1966.¹² Since the changes have been numerous, only

⁹Ibid., p. 46.

¹⁰Ibid., p. 13.

¹¹Curriculum of the School of Naval Command and Staff, Naval War College (Newport, R.I. 1967-1968).

¹²All of the factual information presented within this section of the chapter is based upon data in the History of the Naval War College and Supplements and is noted here as such in order to avoid excessive and repetitive referencing.

the more significant ones will be noted herein.

The noteworthy revisions which helped to shape the curriculum for the 1962 class year included two additions, two deletions, and one course extension. One addition was a course on Group Study Procedures which was designed to provide the students with the fundamentals of the group study process in decision making. A second addition was that of another Staff Study paper which placed further emphasis on improving the writing ability of the students. The deletions from the curriculum were the Intelligence Study, which was incorporated into the operational planning phase, and the Cold Weather Study. The increased importance of Counterinsurgency as an area of study was reflected in the extending of the course from two to seven days.

The revisions during the 1963 and 1964 class years were relatively minor. These included increasing the length of the Communications Study and modifying the Operations Problems so as to present a better coordinated and integrated study. In addition, the Public Relations and International Affairs studies were deleted as separate studies with the content being incorporated into other courses.

Class year 1965 saw further efforts to improve the Operations Problems by combining various aspects in order to minimize the repetition of the material presented. During this year the Communism research paper was replaced by two shorter papers, and the written and oral briefs were integrated into other curriculum studies.

In 1966 three major changes were introduced. First, the fragments of the various study areas were gathered into a more cohesive and logically structured framework. Secondly, the subject of Military Management was added to the curriculum with the purpose of providing the student with an understanding of the Department of Defense management approach and techniques. The final major change was the introduction of the Group Study concept which allowed those students with graduate degrees to pursue a different form of study as opposed to writing an individual thesis. This eliminated a duplication of effort on the part of these students and afforded them the opportunity to broaden their individual backgrounds through the interactions experienced in a group research effort. Other changes in class year 1966 included the establishment of a Chair of Economics and the addition of a three day Mine Warfare Study. No significant changes to the curriculum occurred in class year 1967.

The result of the changes which occurred during this six year period was a broadening of the studies offered and an integration of them into a more logical package sequence. However, the changes can be considered as more evolutionary than revolutionary, and consequently, should not contribute to an undue number of significant differences in the viewpoints among the graduates of the respective class years.

This completes our review of the development and background of the War College and NC&S as it applies to this study. The report will proceed in Chapter II with a discussion of the not inconsiderable problem of selecting the optimum method of data collection for the study.

CHAPTER II

DEVELOPMENT OF THE SURVEY

In considering the problem of assessing the effectiveness of the School of Naval Command and Staff, the study group became concerned about the best method to employ in collecting relevant data, given the time and space limitations attendant to the study. The questions which had to be resolved concerned the type of data required, the source of the data, and methodology employed to obtain it. Initial investigation indicated that there had been no formal studies in the area of interest, namely; the impact of NC&S education upon its graduates. In addition, there appeared to be only a limited amount of research material available on the entire area of military professional education. Thus, it was apparent that the group had to originate the major part of the study's data base, and it is with this effort that this chapter is concerned.

Initial Exploration. In exploring the various aspects of the process of professional military education, the study group noted the fact that little agreement apparently exists concerning its specific contribution. Military education at the Naval Command and Staff School has been described as "broadening" what has been, up to that point, narrow career experience.¹ Nasland and Radway, in discussing Command and Staff schools, stated, "Thus these schools are concerned with the organization and employment of Armed

¹ Letter from President, Naval War College to Chief, Naval Personnel, "Policy on Education for Unrestricted Line Officers," Newport, R.I.: 12 April 1966, Encl. 1, p. 3.

Forces in combat and related support activities."²

While these and other explanations seem to be reasonable descriptions of the objectives of such education, as previously indicated, the group could find no study on the degree to which the School of Naval Command and Staff has been successful in this effort. Moreover, since this education is general in nature, it is aimed at no specific billet assignment. The study group's inquiry into this aspect of NC&S education raised a series of questions which should be of interest to the school as well as present and future graduates. What percentage of the graduates are in fact being assigned to command and staff type billets? How valuable is this education to the graduate in future career assignments? Is the timing of the NC&S education consistent with both the officer's and the Navy's needs? Is it possible to compare the value of NC&S education with alternative career assignments? Do billets exist in the fleet and shore establishment which are directly related to the experience gained at NC&S? If so, is billet identification desirable? In considering the approach to providing the answers to such questions, the study group had to ponder the data collection process from two standpoints - that which was available and that which had to be generated.

Type of Data. In any data collection effort the data can be classified as primary (or original) versus secondary and objective versus subjective. Since there has been no known study efforts on the effectiveness of NC&S

²John Masland and Lawrence Radway, Soldiers and Scholars: Military Education and National Policy (Princeton, N.J.: Princeton University Press, 1957) p. 276.

education, the data used in this report will be, for the most part, primary.

The use of primary data has the following advantages:³

1. Having been collected for the specific research job, it is pertinent and directly related to its requirements.
2. The primary data have been freshly gathered for the research project and there is no risk of it being obsolete.
3. The researcher has the working papers and statistics immediately available and therefore may analyze them in any number of ways desired and consequently may better comprehend their meaning.
4. The researcher knows the extent and quality of the analysis and therefore can properly qualify any conclusions resulting from the research. These advantages of using primary data did provide the study group some consolation for the extensive efforts which would be required to obtain it.

A second classification which can be applied to research data is objective versus subjective. Clearly, objective data, being free from personal feelings or biases, is preferable to subjective data. Only one source of objective data which was relevant to our study area appeared to be available, that of promotion selection percentage comparisons between NC&S graduates and non-graduates. Could we reason that if NC&S graduates achieved a significantly higher selection percentage than non-graduates, this would be a measure of the School's effectiveness? To do so would ignore the fact that a bias is built into the student input because selection for attendance is not on a

³David Luck and Hugh Wales, Marketing Research (New York: Prentice Hall, 1952) p. 95,96.

random basis among all officers with the requisite time in service. Selection criteria provide that "Naval officers in the grades of commander and lieutenant commander, with 10-15 years of commissioned service, who are currently best qualified for promotion will be selected to attend."⁴ The obvious problem in basing study conclusions on such a relationship was well stated by Masland and Radway. They said, "For example, the promotion rate among school graduates is likely to be high whenever selection officials designate outstanding men for attendance."⁵ And it is true that graduates do achieve higher promotion selection percentages than non-graduates. For example, in an analysis of the 1967 selectees for promotion to commander, it was determined that 69 percent of the total URL officers in the zone were selected, whereas a selection rate of 93 percent was achieved by those in the zone who were graduates of a service school.⁶ The foregoing does indicate that a bias toward the attendance of better performers should be expected.

Theoretically, this bias could be eliminated by determining the names of those officers who failed to attend only because of non-availability and then by comparing the selection percentage of this group with that of the School graduates. This would be a valid comparison. However, since there

⁴U.S. Dept. of the Navy, Office of the Chief of Naval Operations, The Naval War College: mission and functions, OPNAVINST 1520.12B (Washington: 3 April 1965) p. 2.

⁵Masland and Radway, p. 457.

⁶Selections to Commander, Navy Times, 4 Oct. 1967, p. 3:1.

appeared to be no method for making such a determination, this possibility had to be discarded. Due to the lack of purely objective criteria, the study then proceeded along more subjective lines. These subjective approaches will now be considered.

Sources of Subjective Data. The first source of subjective data which the group considered was that which might be obtained from the commanders who are the primary users of NC&S graduates. This approach was rejected for two reasons. The first is that although commanders are in an excellent position to rate the effectiveness of the graduate's performance (as opposed to non-graduates), the fact of School selection criteria again introduces a bias in favor of the graduates in that generally the better performers attend NC&S. A second reason for rejecting this approach would be that the commander is not in a position to determine with any degree of validity the effect of NC&S education upon the performance of the individual officer as opposed to the effect of the other variables such as duty experience, PG education, and training. Only the individual graduate is in a position to best make this distinction, and it is to him that we turned next.

The primary source of information selected for the study was the graduate. The group reasoned that the graduates were in fact in an excellent position to comment upon the school and its effectiveness. Since many of the graduates would presumably have progressed to responsible command and staff assignments, their views would reflect both knowledge and perspective. In addition, it was recognized that although biases would exist among the graduates, they would be divergent biases (i.e., normally distributed), and as such, would

tend to balance out in a large population. With this decision made, the next problems to be faced were those of sample size and selection, and the methodology for obtaining the desired data. The remainder of this chapter will discuss these problems.

Sample Size and Selection. Even a cursory examination of the School's student input indicates the wide differences in individual backgrounds. Student sources include the Army, Air Force, Marine Corps and Coast Guard as well as members of the Navy unrestricted line (URL), staff corps, and other specialities. Due to the necessity for limiting the scope of the research effort it was not practical to include members of each student source in the study. Alternatives to reduce the size of the survey included the use of sampling or the elimination of non-Navy students from the study. Since the School is primarily oriented toward the URL officer, it was decided to eliminate all non-Navy and non-URL students from the survey. This elimination had two advantages. First, it made possible a 100 percent mail survey within the years selected by reducing the size of the study population. Secondly, it resulted in a far more homogeneous population.

The use of the 100 percent survey as opposed to a sampling survey served to limit one of the major problems associated with mail surveys. The experience in surveying the general public, although not strictly analagous to this case, indicates a wide variability in mail responses. One writer has summed up the problem as follows:

Ten percent tends to be a better than normal return for the typical survey of the general public.... From the first type of person will come few, if any, replies, while the high response of the latter type will greatly overrepresent their

proportion of the whole population. The resulting distortion of this sample of the population may lead to erroneous conclusion, and this is the worst indictment of mail surveys.⁷

Although the study group expected a far better response than 10 percent, perhaps 60 to 80 percent, a far lower response was always a possibility. In this event, the fact that the survey response would be a percentage of the population as opposed to a percentage of a sample of the population should tend to limit the problem cited above.

A second major problem associated with surveys is the homogeneity of the data collected. As previously indicated, this problem was minimized when the survey was limited to a URL population. However, the problem was by no means eliminated, since the URL includes surface, submarine and aviation officers, the career patterns of whom are vastly different. In order to eliminate this non-homogeneous element in the survey, the data will be analyzed by designator and also by graduating class year.

In selecting the number of classes to include in the survey it was decided that class years 1962 through 1967 would provide a suitable time span. This would eventually result in a total mailing of 637 questionnaires. The class of 1962 was selected as the earliest class to survey because most of the graduates would be on their third tour of duty subsequent to NC&S, and they would have a wide perspective on which to base their responses. To survey any earlier classes would have resulted in increasing problems in both accurate recall and class attrition. The class of 1967, while having

⁷Luck and Wales, p. 110.

only limited experience since their departure, was included because their recall would be excellent and their responses could provide some valuable feedback concerning the changes which have occurred at NC&S in the last few years.

Questionnaire Format and Content. The remaining problem to be solved was the questionnaire form to be used in the survey. In any mail survey this is the most difficult and critical problem. Poor questionnaire format and content can affect both the percentage of the response and the validity of the data. In developing the questionnaire format the group decided to use, for the most part, the multiple choice type question so that the data secured could be directly compared. However, in order to provide for the inclusion of any significant points which the respondents thought had been overlooked and to obtain comments which might be of interest to the School, one optional question inviting such comments was included.

In general, the determination of the content of the questions was based upon the questions which first arose in the exploration phase of our study. These questions are listed on page 10. Again, the object was to secure data which would indicate the contribution of the NC&S education to the graduates' future performance as well as that which would be of interest to the School. The rationale for the content of the individual questions will be discussed in Chapter III along with the analysis of the responses.

The questionnaire form which was finally adopted for use in the survey and the forwarding letter are included in Appendix I. In order to assure that both the format and content were comprehensible, the questionnaire was pretested with ten NC&S graduates who were serving on the Naval War

College staff or as School of Naval Warfare students. In general, the pretest indicated that the questions were clear. However, the pretest sample did make some recommendations concerning changes in format, primarily in the area of providing a greater number of choices.

Now that the methodology which culminated in the survey parameters and questionnaire has been traced, we can proceed to Chapter III for an analysis and detailed discussion of the responses, for therein lies the essence of this report.

CHAPTER III

ANALYSIS OF QUESTIONNAIRE RESPONSES

This chapter is the central point of this study for it provides the basis for all conclusions and recommendations. We shall begin with a discussion of the percentage of questionnaires returned and then proceed with an analysis of the responses to each question. In this analysis it should be recognized that certain questions deserve a more extensive treatment than others. This is particularly true in the case of Question 14 which consists of the optional comments of the graduates on the general area of NC&S effectiveness. The chapter will also consider comparisons of the responses by class year and designator as well as those to interrelated questions.

Analysis of Return Percentages. As indicated in Chapter II, the questionnaire responses of URL graduates in the last six graduating classes provide the data basis for this study. The study therefore is heavily dependent upon the adequacy of the data. In comparing the number and percentage of questionnaires completed and returned versus the number mailed this data base appears to be more than adequate. Out of a total of 637 questionnaires mailed, 494 were completed and returned, a percentage of 77.6.¹

¹Completed questionnaires were received after the tabulation cut off date and could not be included in the study; the actual number returned was 515. In addition, 16 questionnaires were returned as undeliverable resulting in a net mailing of 621 vice 637. Therefore, the final adjusted return percentage was 83%.

By any standards this percentage must be considered a sufficient basis from which to make general inferences. Moreover, this high percentage of returns also reflects a considerable degree of interest and enthusiasm on the part of the graduates in the study.

Appendix II provides a breakdown of the returns by class year and designator. The overall number of returns for the 1100 designators of 248 was almost the same as the 246 of the 1300 designators, while the return percentages of 82% and 74% respectively were quite comparable. Thus the total returns are relatively free of a designator bias. The highest return rate was the 1964/1100 group with a 93% while the lowest rate was that of the 1965/1300 group with a 62%. This low rate is partly explainable by the fact that many officers of the 1965/1300 group are now on duty with squadrons in Southeast Asia. Some difficulty was experienced with the mailing list process and this resulted in a less than 100% mailing to the 1966 and 1967 graduates. However, since the return percentages for these years do not vary much from the overall rate, this less than 100% mailing should not be of significance. In considering the task of mailing and receiving such a large number of questionnaires from officers stationed all over the world as well as a number in transit, the group was more than satisfied with the results of this aspect of the survey.

Analysis of Individual Questions. For the convenience of the reader each question will be restated prior to its analysis and discussion. The more significant statistics will be presented in tabular form within the analysis while a summary of the complete breakdown of the responses to the question will generally be included in Appendix III. Let us proceed.

Question #1

1. Please indicate the number and type of duty assignments which you have had since completion of your NC&S course.

<u>Type of Duty</u>	<u>Number of Tours</u>	<u>Type Ship/Staff</u>
Command	_____	_____
Staff	_____	_____
Other	_____	_____

There are two related reasons for asking this question. The first is that since the basic mission of NC&S is to prepare officers for command and for staff duty, it follows that its effectiveness can be evaluated only if a high percentage of its graduates have in fact been assigned to such duty. Therefore, it is pertinent to know what percentage of graduate assignments have been to command and staff billets. The second reason for asking the question is that many of the subsequent questions are predicated for the most part upon the graduates having had some command and/or staff experience, and consequently, it is important to validate this assumption. The overall total number of duty tours for the graduates responding are summarized in Table I, shown on page 21.

It is clear that, overall, a high percentage of the assignments (in this survey 67%) of NC&S graduates are to the types of billets for which NC&S has prepared them. It should be noted that "XO" billets were classified as "Other Duty" in the tabular analysis. If the "XO" billets were classified under "Command" (for in many cases they are direct "stepping stones" to a command billet) the percentage of assignments in this category would have been significantly higher, as many graduates are so assigned directly from NC&S.

TABLE I

SUMMARY OF RESPONSES TO QUESTION #1

	<u>Total Number of Assignments</u>	<u>Percentage of Assignments</u>	<u>Cumulative Percentage</u>
Command	285	27.5	27.5
Staff	410	39.5	67.0
Other	<u>344</u>	<u>33.0</u>	100.0
Total	<u>1039</u>	<u>100.0</u>	

Tab A to Appendix III provides a detailed breakdown of the responses to this question by year and designator. As expected, the "Command" percentages are much higher for the earlier classes with an almost linear decrease for each succeeding class. In comparing the "Command" assignments for the respective designators it can be seen that in general, for those officers responding, the 1100 officers have had a slightly improved opportunity (70.5% versus 63%) for command and/or staff assignments. This is particularly true for the classes of 1963 through 1966, and in view of the number of such billets available to the respective designators, is not surprising.

In examining the data from a slightly different aspect, that is, "What percentage of individual graduates have not been assigned to either a command or staff billet?", we find that, as expected, the percentage varies inversely with the number of duty assignment opportunities afforded to an officer since graduation. For example, in the earlier classes, 1962 and 1963, there are almost no graduates who have not had command or staff duty. As we progress into the succeeding classes we find, again as expected, that more and more

individuals have not had either type of duty until we reach the class of 1967 where the percentage is up to 55%. Tab B to Appendix III presents a summary of these percentages by year group and designator.

Question #2

2. Did you serve in any billets prior to attending NC&S in which your NC&S education would have proved valuable? Please check one:

Yes
High Value

Yes
Some Value

No

No Opinion

The basic reason for including this question was to determine if the unrestricted line officers were attending NC&S at a time most advantageous to them and to the Navy. Three factors are now in evidence which have a direct bearing upon this question, which could be alternatively posed as, "Is the ten to fifteen year career period the optimum period for assignment to NC&S?" The first is that due to grade shortages, officers may be assigned to billets which are designated for ranks one grade senior. This practice has been in effect for many years and, although always considered to be a temporary measure, it might more realistically be considered as a normal situation. The result has been that a number of staff CDR and LCDR billets have been filled with LCDR's and senior LT's. A second and more recent factor is the reduction in the number of years required for promotion to LCDR, which is now down to slightly over nine years in many cases. The third relevant factor stems from a recommendation in the Morris Study which stated, "It is recommended that the Navy reappraise its program for officer development and consider the adoption of professional military

educational courses below the command and staff level."² This recommendation is directed toward an apparent need for professional education earlier in an officer's career. All of these factors would tend to suggest that the current NC&S availability period should be moved forward of the ten year mark.

The graduate responses should thus provide an informed viewpoint on this question. The summary of total responses for this question is provided in Table II.

TABLE II

SUMMARY OF RESPONSES TO QUESTION #2

Yes High Value		Yes Some Value		No		No Opinion		Total	
#	%	#	%	#	%	#	%	#	%
131	27	251	51	93	18	19	4	494	100

While the response percentages cannot be regarded as conclusive, when viewed in the light of the practices mentioned heretofore, it can be said that they do leave the question of the optimum career availability period for NC&S education open to investigation. Tab C to Appendix III provides a breakdown of the responses to this question by class year and designator. It is apparent from this breakdown that the officers in the recent classes (1965 through 1967) had been more frequently ordered to duty (prior to NC&S) in

²U.S. Department of Defense, OASD (Manpower). Officer Education Study. (Washington: 1966), p. 94.

which their NC&S education would have proved to be of high value. The average percentage answering "Yes - High Value" for the 1965 through 1967 classes was 34% as opposed to 21% for the 1962 through 1964 classes. This would tend to suggest that there is a trend of assigning officers to more responsible billets earlier in their careers. It is also consistent with the trend in reduced time requirements for promotion. There are no significant differences between the 1100 and 1300 responses to this question.

Question #3

3. To what extent did your NC&S experience improve your capability in any of the below specific areas?

	<u>Greatly Improved</u>	<u>Slightly Improved</u>	<u>Did Not Improve</u>	<u>No Opinion</u>
a. Planning				
b. Problem solving				
c. Decision making				
d. Management				
e. Writing/Speaking				

This five part question was included to determine if the graduates considered that they had improved their capability in areas which are recognized as essential to good performance in command and staff assignments. It is apparent that there are problems of definition and semantics associated with specified areas, particularly since several of them are so interrelated. However, notwithstanding these definition problems, the group considered that the responses to the question would, in addition to the purposes of the

study, be also of interest to the school and might possibly be useful in planning future curricula. The total responses to the question are summarized in Table III.

TABLE III

SUMMARY OF RESPONSES TO QUESTION #3*

Area	Greatly Improved		Slightly Improved		Did Not Improve		No Opinion	
	#	%	#	%	#	%	#	%
Planning	279	56	190	39	14	3	11	2
Problem Solving	134	27	235	58	58	12	17	3
Decision Making	127	25	266	55	68	13	33	7
Management	77	15	275	57	107	21	35	7
Writing/Speaking	221	45	233	47	34	7	6	1

* Total Number of responses equals 494 or 100% for each area.

On the basis of the above summary it appears that the graduates' improvement was most significant in the areas of Planning and Writing/Speaking. In order to achieve a better understanding of this question it will be necessary to analyze each of the areas individually.

Planning. Tab D to Appendix III provides a breakdown of the responses to the "Planning" part of this question by class year and designator. As indicated, the responses reveal that among the five areas listed the graduates considered that their NC&S education improved their capability in Planning significantly more than any other area. With one exception this

ranking held up through all class years regardless of designator. This is probably not too surprising since, due to the emphasis on the planning exercises, the students are afforded more of an opportunity to exercise their capability in this area. Of particular interest are the responses of the class of 1967 in which 71% of the graduates indicated that their NC&S experience had "Greatly Improved" their capability in the Planning area. This is significantly higher than the responses of any other class as well as the overall average for this choice and does suggest an improvement in the Naval Operational Planning curriculum for the 1967 year. An investigation into this possibility revealed that the 1967 curriculum did require a more rigorous application of the methods learned during the Military Planning Process part in the subsequent exercises.

In examining the responses of the 1100 and 1300 designators, it is interesting to note that despite the vastly different backgrounds, the percentage of responses were almost identical. Another point of interest in this part of the question is that only 3% of the graduates indicated a "No Improvement" response in this area, despite the fact that a number of the graduates had previous planning experience.

Problem Solving and Decision Making. These areas will be discussed together as they are similar in that they cannot be taught per se. It is considered that an improved capability in these areas can evolve only as a result of coping with the various group problems and case studies presented throughout the school year. For purposes of this discussion, problem solving is defined as the capability to determine and eliminate the root cause in a

problem situation. Decision making is defined as the capability, given the choice of actions, to make a choice with conviction and confidence. Thus decision making involves both experience and character factors as well as the application of an analytical process.

A review of the summary of responses in Table III on page 25 indicates that the graduates apparently thought that these areas were somewhat related. The percentages within the respective choices are almost identical for the two areas. The total percentages shown hold true generally throughout all class years and designators, and since there are no significant differences within the totals, no such breakdown is included in this report. In these areas only 12% and 13% respectively indicated that no improvement in capability was attained. However, the "Greatly Improved" percentages for the Problem Solving and Decision Making areas (27% and 25% respectively) do vary significantly from the "Greatly Improved" percentage for the Planning area (which is 56%). The next question is obvious. *Why?*

One possible answer is that various group problems and case studies are more oriented toward the procedural aspects of planning (i.e., proper sequence, content, and format) than to the rigors of problem solving (i.e., what is the root problem?). Or to couch the answer in different terms, "The problems are too canned!"³ In particular, they are lacking to a certain extent in both realism and complexity. Consequently, the students spend too much of their time in fitting the pieces together to make up the plan and

³This comment was expressed by a number of the graduates under Question #14, Optional Comments.

not enough time in solving the problem. The case studies of the Harvard Business School are examples of problems which are realistic and complex, and which place heavy demands upon the student's intellect in order to arrive at a solution. If the problems used by EC&S could be developed in this manner, it might result in further improvement in the student's capabilities in the problem solving and decision making areas without degrading the high percentage of improvement being achieved in the planning area.

Management. The area of management also requires a definition for purposes of our discussion. This area embraces the other four and then some. A manager must plan, solve problems, make decisions and be able to communicate effectively. In addition, he must establish policy, initiate and monitor control systems, and get the most out of his people. Further, he must continually adapt to progress in technology and take advantage of the new tools being made available. This is a broad and complex definition. In order to narrow it for application to the EC&S objective in this area, we could state that the student should become acquainted with those principles and systems which enable him to utilize available resources to accomplish his desired goal in the optimum manner. Having necessarily belabored this point, we can proceed with the discussion.

A review of the summary in Table III on page 25 indicates that the improvement of the graduates' capability in the management area was less than the other four. One obvious reason for this is that as indicated in Chapter I, Management was not introduced as a curriculum subject per se

until the class of 1966. However, an analysis of the responses by class year indicates that this may not be the primary reason. Tab E to Appendix III provides such a breakdown. Table IV was extracted from this breakdown and reflects no significant improvement in management capability resulting from the establishment of the Military Management course with the class of 1966.

TABLE IV

SUMMARY OF MANAGEMENT CAPABILITY IMPROVEMENT
PERCENTAGES BY CLASS YEAR

<u>Class Year</u>	<u>% Greatly Improved</u>	<u>% Slightly Improved</u>	<u>% No Improvement</u>
1962	10	60	27
1963	11	56	21
1964	17	53	24
1965	17	55	19
1966	23	53	20
1967	18	58	14

What then is the reason why management improvement at NC&S is not on a level with the other areas? The answer appears to be basic. The area of management is so broad and spans so many disciplines, that NC&S cannot, without a major shift in curriculum emphasis, provide comprehensive coverage of all aspects of the subject. Thus, the question of improving capability in the management area may not yet be resolved, and it appears that a continued emphasis is warranted in this area.

Writing/Speaking. NC&S does require a substantial effort on the part of the students in the area of writing and speaking. In addition to regular curriculum requirements for a thesis, staff study briefs and oral presentations, the School also offers voluntary after hours courses for self improvement in these areas. A review of Table III on page 25 indicates that 45% of the graduates had greatly improved their writing and speaking capability with another 47% having slightly improved and only 7% indicating no improvement. A review of Tab F to Appendix III indicates that there are some differences in the responses for class years and designators. However, there are no definite trends within these differences, and the dispersion of the class year percentages around the overall total percentage do tend to approximate a normal distribution. In summary, it appears that the writing and speaking programs have been effective.

Question #4

4. Have you encountered any specific situations in which your NC&S experience has proven to be invaluable?

Yes

No

No Opinion

This question provides the graduate an opportunity to relate his NC&S experience to situations in which the NC&S education made an unique contribution. It was not possible to predict the probable responses to the question, although the wording is such as to inhibit "YES" answers unless situations had truly existed in which the NC&S experience had proven to be of extreme value. The responses are summarized in Table V on page 31.

TABLE V

SUMMARY OF RESPONSES TO QUESTION #4

<u>Yes</u>		<u>No</u>		<u>No Opinion</u>		<u>Total</u>	
<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
226	46	229	46	39	8	494	100

As can be seen the "Yes" and "No" responses were equally divided. Thus one out of two graduates could identify an instance which could be classified as an invaluable return on the NC&S investment.

It was anticipated that the frequency of "Yes" answers should be somewhat higher with the more senior classes due to the increased opportunity to apply their NC&S experience. Tab G to Appendix III provides a breakdown of the responses by class year and designator. As expected, the frequency of "Yes" responses is higher for the more senior classes, but only slightly so. Again, in spite of the differences in background, there were no significant variations in the responses of the 1100 and 1300 designators.

Question #5

5. How well do you think that you could have performed on subsequent duty assignments without your NC&S experience? Please check one:

<u>As Well</u>	<u>Almost As Well</u>	<u>Not Nearly As Well</u>	<u>No Opinion</u>
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This question was included to elicit a direct evaluation of the impact of NC&S experience upon subsequent duty performance. Having established that a high percentage of the graduates are being assigned to command and

staff type billets, the responses to this are critical, for improved performance is the ultimate test of any educational process. These responses are summarized in Table VI.

TABLE VI

SUMMARY OF RESPONSES TO QUESTION #5

<u>As Well</u>		<u>Almost As Well</u>		<u>Not Nearly As Well</u>		<u>No Opinion</u>		<u>Total</u>
<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>
59	13	253	51	159	32	23	4	494

As indicated in the table, HC&S had a very positive impact upon the performance of 32% of the graduates and a lesser positive impact upon 51%, resulting in an overall improved performance for 83% of the graduates. However, as pointed out in Question 14, it should be noted that this question may contain a bias toward the "Almost As Well" choice. The existence of such a bias would tend to understate the "Not Nearly As Well" and "As Well" choices.

Again, the responses were expected to indicate a trend of more improvement with the more senior classes. However, with the exception of the responses for class year 1966, there were no significant differences between the various classes. Tab H to Appendix III provides a breakdown of the responses by class year and designator.

Question #6

6. In terms of a positive contribution toward a successful career how would you rank your year at NC&S in comparison with a year in a challenging operational or staff assignment which you have had? Please check one:

<u>NC&S Experience</u> <u>Superior</u>	<u>About Equal</u>	<u>Duty Experience</u> <u>Superior</u>	<u>No Opinion</u>
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The purpose of this question was to determine how Naval Command and Staff graduates rated their NC&S experience as compared with a challenging job in the fleet. This type of comparison thus provides an evaluation of NC&S from a slightly different viewpoint than Question #5. The responses to the question are summarized in Table VII.

TABLE VII

SUMMARY OF RESPONSES TO QUESTION #6

<u>NC&S Experience</u>		<u>About Equal</u>		<u>Duty Experience</u>		<u>No Opinion</u>		<u>Total</u>
<u>Superior</u>				<u>Superior</u>				
#	%	#	%	#	%	#	%	#
222	45	145	29	93	19	34	7	494

The summary shows that more of the graduates' responses appear to be favorable to NC&S (45%) with only 19% indicating that a challenging duty assignment was superior. These responses thus appear to be generally consistent with the responses to Questions #4 and #5. However, a review of the breakdown of the responses by class year, which is included as Tab I to Appendix III shows some wide variances. The responses to the "NC&S Superior"

choice varied from 37% with the class of 1962 to 53% with the class of 1967. This did not represent a trend, as the classes of 1964 and 1966 were 41% and 40% respectively. Due to their inconsistency none of these variances appear to be explainable. In reviewing the "Duty Experience Superior" choice there is an apparent trend beginning with 24% for the class of 1962 and gradually declining to a low of 12% for the class of 1967. Thus the average of 19% for this choice does not reflect this trend, and it can be said that the graduates in the more recent classes appeared to be less convinced about the relative merits of a challenging duty assignment than the earlier classes.

Question #7

7. If you have had post graduate education at either civilian or military institutions (i.e., leading to a graduate degree) how would you compare the professional education offered by NC&S in terms of its contribution to your performance as a Naval Officer? Please check one:

If you have had PG education, degree was in _____

No PG Ed PG Superior PG Equal NC&S Superior No Opinion

This question provides an evaluation of NC&S from still another viewpoint, that of education. It was also designed to provide additional information on the educational background of the respondents. The case can be made that NC&S education is not comparable with post graduate education since each has different objectives. Notwithstanding this, the group considered that the responses would be of interest, and the graduates did have the option of checking "No Opinion".

For the graduates responding, 44% had PG degrees and 56% did not. The responses of the 44% who did have PG degrees are summarized in Table VIII. Those without PG degrees are obviously not in a position to make a comparison.

TABLE VIII

SUMMARY OF RESPONSES TO QUESTION #7

PG Superior		PG Equal		NC&S Superior		No Opinion		Total
#	%	#	%	#	%	#	%	#
50	23	73	34	62	29	31	14	216

The table indicates that the graduates making the comparison were equally divided between the relative superiority of NC&S and PG education. Tab J to Appendix III shows that there were a number of differences in the responses of both designators and class year groups. However, the differences are so random that it is impossible to draw any inferences from them. As a matter of interest the breakdown of the "PG" versus "No PG" responses is included as Tab K to Appendix III. One item of note is the disparity in PG degrees between the 1100 and 1300 designators with percentages of 49% and 38% respectively. The disparity is especially severe for the classes of 1966 (1100 - 54% and 1300 - 17%) and 1967 (1100 - 54% and 1300 - 17%) which is no doubt partly explainable by the demand for 1300's in Southeast Asia.

Question #8

8. Assume that an officer has 12 years of service and has had none of the below listed types of duty. At this point, which do you think would be of

most value to his career. Please rank in what you consider to be the order of importance (i.e., 1,2,3,4,5).

Fleet Washington No
Staff Command Opinion
NC&S PG Duty

The purpose of this question was to assess the relative importance of the career enhancement of NC&S education with respect to competing types of duty. Clearly, the introduction of the "Command" alternative results in a bias toward it, and this provides for an evaluation of NC&S in a more demanding array of choices. It was anticipated that the "Command" choice would rank first, but it also could be argued that the graduates might reason that the officer in question needed NC&S first in order to "catch up" and thus be better prepared for a command billet. Table IX presents an overall summary of the responses.

TABLE IX

SUMMARY OF RESPONSES TO QUESTION #8*

Type of Duty	Rank Preference (#)				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Command	263	76	65	31	13
NC&S	121	158	81	66	28
PG	50	83	88	107	120
Washington	21	52	80	107	189
Fleet Staff	9	79	132	135	91

* No opinion responses are not shown. These approximated 9% of the total response.

The Navy's program calls for an increase in the total NC&S input to more than 200 in FY 1970, although present trends are in the opposite direction.⁴ The responses to this question will thus provide some information relevant to this position. These are summarized in Table X.

TABLE X

SUMMARY OF RESPONSES TO QUESTION #9

Yes Increase By 100%		Yes Increase By 50%		No		No Opinion		Total
#	%	#	%	#	%	#	%	#
115	23	141	29	151	31	87	17	494

Thus 52% of the graduates thought that the number of students should be increased. However, it should be noted that the comments of the graduates revealed that this figure is actually understated, as it became obvious that a number of those who answered "No" did so because they "read into" the question. Some chose "No", indicating that they thought the quality of the education would suffer. Still a larger number chose "No", indicating that they thought the Navy could not afford to send any more officers. We did not intend for the graduates to be concerned with such problems, rather, merely with the value and need for the education. Despite this understatement, the responses of the graduates point in the same direction as the Navy program. The results of a survey conducted by the Morris Study also

⁴U.S. Department of Defense, Officer Education Study, p. 19.

pointed in this direction. The study stated, "In the educational survey of senior officers, 45% of the general and flag officers and 52% of officers in grade O6 thought that more officers should attend senior service college. A slightly higher percentage of both groups wanted more officers to attend at the command and staff level."⁵ There were no differences worthy of note in the responses of the various class years and designators to this question.

Question #10

10. One writer has stated that service colleges provide little more than temporary intellectual stimulation for students and do not offer enough useful military subjects. As it applies to NC&S to what extent do you agree with this opinion?

Completely

In Large Part

In Small Part

Disagree

This question was designed to trigger the thinking of the graduates toward the emphasis in the NC&S curriculum. The writer in question, Edward L. Katzenbach, Jr., did not believe that war colleges devoted sufficient emphasis to military subjects. He stated in part:

The curriculums of the Naval, Army, Air Force, and National War Colleges are ... not military service oriented. The curriculums cover political factors affecting U.S. strategy, broad national and technological trends, and intragovernmental affairs. Is it too much to say that the colleges' offerings are something between great issues courses and extended Administration policy briefings?

⁵Ibid. , p. 55.

⁶Edward L. Katzenbach, Jr., "The Demotion of Professionalism at the War Colleges", United States Naval Institute Proceedings, March 1965, p. 34.

The graduates were in a good position to determine the applicability of this indictment to NC&S. As can be seen by Table XI their responses to this question indicate that it is not considered to be applicable.

TABLE XI

SUMMARY OF RESPONSES TO QUESTION #10

<u>Completely</u>		<u>In Large Part</u>		<u>In Small Part</u>		<u>Disagree</u>		<u>Total</u>
<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>
18	4	62	12	162	33	252	51	494

There were no differences worthy of note between the class year and designator responses, hence no breakdown is provided. However, the NC&S curriculum content did prove to be one of the most popular areas of discussion under the optional comments in Question #14, and these will be reviewed under that section.

Question #11

11. Did your NC&S experience stimulate a continuing interest in improving your professional knowledge (e.g., "digging deeper" to get the best answer; or keeping current in professional subjects; or maintaining a lively interest in national defense and foreign policy problems)? If you think that you had achieved a high level of continuing interest prior to attending NC&S, then please check "No Opinion".

Yes

No

No Opinion

It is generally recognized that one of the primary goals of an educational institution is to instill in the student the need for continuing study and application of effort after graduation. The study group hoped that the responses to this question would indicate whether the NC&S experience stimulated a rise in interest level and whether this stimulation was temporary or continuing. A review of the responses in Table XII raises considerable doubt as to whether this question achieved its purpose.

TABLE XII

SUMMARY OF RESPONSES TO QUESTION #11

<u>Yes</u>		<u>No</u>		<u>No Opinion</u>		<u>Total</u>
<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>
332	67	32	7	130	26	494

The breakdown of the responses reveals a bias that should have been evident when constructing the question. The choices offered biased the responses to either "Yes" or "No Opinion" with only the unwary respondents indicating that their interest in professional and related subjects was low both before and after NC&S. In addition, the rigging of the "No Opinion" response resulted in losing the responses of those graduates who truly had no opinion. Properly posed the question should have been divided into two parts with each part offering a wider range of choices. Thus, while the figures in Table XII indicate a high percentage of graduates being more interested on a continuing basis, we are reluctant to consider the responses as valid because of the apparent bias in the question.

Question #12

12. If you had it to do over again (i.e., attend NC&S with the advantage of hindsight) would you be more highly motivated toward deriving the maximum possible benefit from your NC&S education?

Yes

No

No Opinion

The group recognized that this could be a sensitive question.⁷ Ideally, all officer students should be highly motivated. However, it is typical that students in general, for numerous reasons, do not take full advantage of their educational opportunities, and the study group wondered to what extent this situation prevailed at NC&S. The responses to this question should provide some indication of the graduates' motivation while attending NC&S. These responses are summarized in Table XIII.

TABLE XIII

SUMMARY OF RESPONSES TO QUESTION #12

<u>Yes</u>		<u>No</u>		<u>No Opinion</u>		<u>Total</u>
<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>
209	42	198	40	87	18	494

There could be a number of reasons why 42% of the graduates were not motivated to the fullest extent. These could range from a lack of realization of the potential value of NC&S to the recent completion of an extremely

⁷Several of the graduates reacted with such comments as, "No, I don't beat my wife."

arduous tour of duty to a disenchantment with some aspect of the School itself. Whatever the reason, the possible problem of student motivation is one which deserves consideration.

The breakdown of the responses by class year and designator is included as Tab L to Appendix III. While some variations were noted within the breakdown, there were no meaningful trends observed.

Question #13

13. Based upon your experience to what extent do you think that NC&S education should be a consideration in the assignment of officers to specific fleet staff and unit billets?

- a. Specific billets should be coded NC&S Mandatory _____
- b. Specific billets should be coded NC&S Desirable _____
- c. Specific billets should not be related to NC&S _____
- d. No opinion _____

Since the subsequent experience of the graduates covered a wide variety of command and staff assignments, this question was included to determine how strong their opinions were on billet coding. Such billet coding would possibly result in a more efficient assignment of NC&S graduates. The responses to this question should also provide some indication on whether the graduates considered their NC&S education to be broad and general or specific and billet oriented. These responses are summarized in Table XIV on page 44.

As can be seen by the responses, the majority of the graduates fell

TABLE XIV

SUMMARY OF RESPONSES TO QUESTION #13

Code NC&S Mandatory		Code NC&S Desirable		Do Not Code		No Opinion	
#	%	#	%	#	%	#	%
72	15	292	59	103	22	22	4

between "Code NC&S Mandatory" and "Do Not Code". The "Code NC&S Desirable" response is an appealing one, because the respondent can hedge between the extreme positions. A number of the graduates did comment that the coding of billets as mandatory would place the Bureau of Naval Personnel in an extremely inflexible position with respect to the filling of such billets. One point also offered was that since better performers are generally selected for NC&S, one way for a commander to obtain better officers would be to request his staff billets to be coded as NC&S mandatory. The Morris Study also commented upon the problem of meeting billet requirements for officers with command and staff training:

A sample survey of the requisitions from OSD, JCS, the unified, specified, and combined commands, and departmental staffs with only the Navy and Air Force reporting, indicated that there are insufficient graduates of service colleges.... The Navy reported an inventory of 264 graduates of command and staff level schooling in grades O3 and O4 with requirements for 404 graduates in the activities sampled....

Thus it can be seen that the coding of Navy billets as NC&S Mandatory would add to an already impossible task for the BuPers detailers.

⁸U.S. Dept. of Defense, Officer Education Study, p. 55.

Because the majority of the responses were in the "Code NC&S Desirable" category, it would not be appropriate to make any definite inferences on the graduates' views with respect to billet coding. The responses between the class years and designators were remarkably uniform; hence, no breakdown is included.

Question #14

14. OPTIONAL: If you feel so inclined, please include any comments which you may have relative to the effectiveness of NC&S. Please use the reverse side of this sheet if necessary.

The purpose of this question was to provide an opportunity for amplifying remarks about the previous questions and responses and to solicit any additional information which the respondent considered to be relevant and significant. An average of 70% of the questionnaires returned contained such comments. The percentage of optional responses varied from a low of 63% for the class of 1963 to a high of 83% for the class of 1967. The length of the comments varied from a single sentence to over three handwritten pages, and the tone varied from making light of the study effort to serious and perceptive statements.

Due to the nonspecific nature of the question, it was considered that the application of a statistical technique to such a wide variety of comments would not be valid. There was no way to determine what the response of any year group would have been if a particular issue had been raised as a specific question in the questionnaire; therefore, those responses made could not be

considered to be a valid sample of views toward each individual subject mentioned. With this point in mind, the following analysis will consist of classifying the responses under appropriate headings and discussing the ideas presented.

The general subject areas under which responses have been classified include the following:

1. Value of NC&S education to the individual officer.
2. NC&S faculty and staff.
3. NC&S Curriculum.
4. George Washington University program.

Value of NC&S Education. In expressing their ideas on the value of NC&S education, the graduates' comments concentrated around four areas of observation:

1. Broadening of viewpoint beyond one's own previous experience.
2. Invaluable personal associations with other Navy and other service officers.
3. Perceived value of NC&S is greatly influenced by subsequent billet assignments.
4. Perceived value of NC&S is increased by the passage of time.

Broadening of Viewpoint. Eighty-eight graduates commented upon this aspect of the course. Typical was the response of questionnaire number 6530B which stated "...in short I saw the other fellow's point of view while at NC&S. Indeed my point of view expanded to include and appreciate the capabilities and problems of the carrier, the submariner,

amphibs, and truly by surprise, the problems of the Air Force and Army."

Invaluable Personal Association With Other Officers. This was one of the most frequently mentioned benefits cited. A total of 88 officers indicated a high value of these associations. The wide range of backgrounds and interests of the student body appear to preclude the accomplishment of the desired educational goals by formal techniques alone. The sharing of experience and viewpoints appears to bridge the gap in the educational process. In fact, many graduates cited this factor as the most important aspect of NC&S and expressed fear that scheduled activity might be so intensified as to cause a net reduction in education.

The other favorable aspect cited was the value of both Navy and other service acquaintances in future assignments. Members of the earlier classes in the survey frequently mentioned the benefits derived later from these contacts.

Concept of NC&S Value is Influenced by Subsequent Assignment. Those officers who were most emphatic in the comments regarding the positive value of NC&S education, generally speaking, were those subsequently assigned to a staff planning function. The exceptions were usually those officers who had had substantial staff experience prior to NC&S.

This point of view is well illustrated by questionnaire number 6525B, which stated "Incidentally, my CCS training was perfect for the plans division" A similar idea was expressed by number 6510A, "Perhaps I am prejudiced because I am in a Plans billet on a major joint staff but I am of the firm opinion that Command and Staff at the NWC should be a definite prerequisite to such assignments."

Although question # 1 did not ask for specific billets assigned during staff tours, several officers so indicated. Others, as the two cited above, indicated the nature of their duties in Question 14. In many instances, favorable comments on the value of the course appeared to be directly related to billet assignments.

In summary, it appears that the perceived value of the NC&S education is influenced more by the specific duties of the graduate than by the general type of organization to which he is assigned.

Perceived Value Increases With Time. The examination of comments also tends to indicate that less value is attached to the NC&S course initially than is later the case. There are several possible explanations for this, but two appear to be most probable.

The first is that a greater appreciation is gained as greater professional maturity and experience are acquired. Second is the higher probability that a graduate will have acquired more planning experience, where the value to the graduate seems most readily apparent.

That the value of NC&S to many graduates changes over time is illustrated by the following response from questionnaire number 6442A: "... I find in retrospect (emphasis added) that it was a year well spent...." This officer had held a command but had not been assigned to a staff since graduation.

The same idea was expressed somewhat more bluntly in questionnaire number 6556A. It stated, "Most members of the class ... seemed to think that C&S was a waste of time while we were going Now, every member

of the class that I have met has changed their views 180° and feel that the school was very beneficial, myself included." This attitude is somewhat consistent with the responses to Question #12 in which 42% of the graduates indicated that they would be more highly motivated, if they had it to do over again.

NC&S Faculty and Staff. The two factors mentioned under this general subject were the qualifications of instructors and the availability of clerical support. There were 31 graduates who commented upon the necessity for better qualified instructors. A number of graduates commented upon the fact that the only apparent qualification for a staff instructor was (1) completion of NC&S and (2) BuPers availability. The graduates from the earlier classes, 1962 through 1964, indicated that a disproportionate number of officers on the staff had been passed over for promotion with some on their final tour in the Navy. The comments indicated that qualification and motivation problems resulting from the staff assignment policy had a degrading effect since some officers on the staff offered little in the way of expertise or leadership. One graduate thought that the only way to raise the prestige of the staff was to accept only those officers who are highly motivated to such duty, and who, in addition, possessed operational expertise and a Master's degree. With more expertise on the staff there would be less reliance on guest speakers and hence more continuity and organization within a given course. The graduate further expressed the view that there was in general a low Navy image of instructor duty which tended to prevent the assignment of the best qualified, a view which he believed

could be substantiated by a comparison of passover rates of Navy with other service instructors.

There was comment concerning the disproportionate amount of time which the students had to spend on clerical functions. The graduates believed that these hours would have been more effectively utilized in the pursuit of their studies.

The NC&S Curriculum. Comments concerning the curriculum fall into five general areas as follows:

1. Desire for award of an academic degree for completion of NC&S.
2. Content of the research program.
3. Offer more "Military" and less "broad education."
4. Required level of student effort.
5. General organization and administration.

Desire for Award of Academic Degree. This is an area which has been mentioned many times in the past in connection with the entire service school effort. Some have cited the accreditation of the Army Command and General Staff School. Almost unnoticed, however, is the fact that ACGS has not been authorized to award degrees, and such authorization is not likely to be forthcoming.

There is one primary reason cited by the Morris Study for this situation, the overwhelming opposition of the academic community to the awarding of academic degrees by service schools.⁹ In any event, some of the graduates

⁹Ibid., p. 312.

did believe that a degree should be awarded to all students completing NC&S.

Content of the Research Program. The research program is one of the subjects where graduates' opinions tended to divide along "military utility" versus "educational" lines. In general the suggestions involved three objective areas as follows:

1. Concentrate only on those areas which develop specific knowledge and skills directly transferable to future assignments.
2. Stress the educational aspect by emphasizing research method and writing techniques without regard for usefulness of the final research product itself.
3. Combine 1 and 2 so as to provide the educational aspects but also provide a greater opportunity and incentive to address real world problems.

Questionnaire number 64333 expressed the first view above quite forcefully:

I do not believe that writing two term papers, one on Communism and a second on a freely selected subject, was of any value in either the short or long terms. I do not believe that the other papers on staff studies, etc. have served any useful purpose either. Thus far I have had two major staff tours ... and have yet to prepare a thesis or a staff study. Hundreds of point papers, talking papers, situation summaries, oral briefings, and letters - yes -- but thesis and staff studies -- no.

A similar idea with a different point of view as to specifics came from questionnaire number 6516A: " ... feel very strongly that the extended thesis requirement should be dispensed with (except for CW enrollees) and additional staff studies substituted therefor; after all the latter is the very core of staff level work." This officer had served on a Navy type commander's staff since graduation.

Support for objective area 2 was less numerous and much less emphatic. One graduate did note that NCSS was his first exposure to thesis writing and that he found it both challenging and satisfying, particularly since his thesis was singled out as one of the five best in his class.

Those supporting objective area 3 were most numerous. This idea was expressed by number 6629A, which stated "I believe that a worthwhile purpose could be served by more extensive operational - school liaison. ... those who contributed most through their thesis work ... had seen the problem in the fleet or ... at the Washington level, and thus knew both the theoretical and the actual problem."

A specific proposal to achieve this objective was submitted by one graduate, number 6548B.

The research paper required by the students at the Naval War College is a major effort by the students and is completed under instruction and guidance to maintain a high standard of thoroughness. It seems that with little change, this program could be much more beneficial to the Navy. The staff officers on major commands in the fleet today on occasion find that time permitting, they would like to conduct informal studies to reevaluate old concepts and desire to investigate new proposals suggested by subordinate commands. These informal studies are time consuming and frequently do not get the attention that they deserve. They are also done after hours, and without the access to studies and reference material found only at the War College.

It is proposed that once a year, a form letter be sent to the major commands (none below the type commander level) requesting topics on which studies are desired. These studies should be requested in the format of a brief, similar to the brief that the war college students presently submit for approval prior to starting their research paper. The request would be with the understanding that the student may not elect to do the suggested study, that it will be strictly up to the student to choose his topic, just as it is now. These proposed studies would be on a list indicating specific problem areas that are of growing concern within the Navy. The studies, when completed, would be loaned to the interested commands in much the same way as it

was presently done this past year in the Naval War College letter of 3 Nov 67, (Naval War College Research Papers), which listed the papers that the college believed have special merit. ...

The slight change that is proposed herein requires a small departure from the present program and should be far more beneficial to all concerned. The student, I believe, would like to feel that his product would have a chance of being used, instead of more or less a drill in "spinning his wheels." I am not suggesting that the topics be forced on the students, only provided to him as an area of growing concern in the fleet, as opposed to some of the abstract problems that are now being worked on, with the end product providing interesting reading and little else. I realize that some of the officers are well aware of the problems that concern the major commands because of their prior experience before arriving at the college. However, there are others that do not. ...

Offer More "Military" and Less "Broad Education". Thirty-five graduates, all of whom were in the classes of 1962-1965, made this suggestion. The study group believes that the fact that these suggestions did not come from the most recent graduates is significant. For example, only a few respondents urged a greater stress on characteristics of existing weapons systems and tactical doctrine, but many urged greater stress on such subjects as systems analysis, financial planning and public affairs. These latter subjects have, among others, been receiving much greater emphasis in recent years.

The respondents generally agreed that the increased emphasis on "military" subjects should, if necessary, displace part of the effort on such broad educational areas as International Affairs.

The desire for more "hardware" in the course was expressed by number 6218B as follows: "I do wish that the War College required more hard technical detail: destructive power of bombs and projectiles; ranges;

costs; etc. ...". The exact opposite of this viewpoint was expressed by a classmate in questionnaire number 62143. He stated "... That it does not impart more 'nuts and bolts' to the student is of no concern to me. On the contrary, its greatest value ... comes from the students' exposure to the 'big picture!'"

The increasing emphasis on such subjects as systems analysis without eliminating international relations and other "big picture" courses appears to be a sound middle ground in the judgement of the graduates.

Required Level of Student Effort. Most of the discussion on this topic was contributed by graduates of the period 1962-1965 on the basis of discussions with recent graduates. While no specific levels of effort were discussed, the general idea offered was that the formal schedule should not be so demanding as to discourage frequent informal discussion. A number of graduates maintained that the exchange in these "bull sessions" did more to round out their own experience than any other single feature of the course.

General Organization and Administration. The ideas presented in this area involve primarily proposed shifts in curriculum emphasis and coordination of lectures. Some of the subjects which have already been included in the curriculum in recent years were suggested as proposed additions by earlier graduates. However, one area which has not been addressed involves the relative degree of emphasis on command and staff procedures.

A few graduates suggested that greater emphasis should be placed on the administrative demands on a commanding officer. Suggested topics included

personnel management, personnel distribution and financial management at the unit level.

In the area of course administration, several graduates suggested that a greater degree of selectivity should be exercised with regard to the guest speaker program. Questionnaire number 6313B, submitted by a graduate who was also familiar with the Air War College, made a specific proposal to alleviate this problem. He stated:

...lecture series ... seems to be designed primarily for Naval Warfare students with C&S attending as outsiders. I found this lecture series, and the question period which followed, to be a major asset and a major frustration in my year at C&S. Often-times the lecturers and their subjects were not correlated with the C&S curriculum. While what they had to say was extremely interesting and thought provoking, there was no followup in the C&S course. Air War College carefully correlates outside reading in preparation for the speaker, followed by the speech, a one hour question period and finally a one hour seminar (committee) discussion period during which there is a free exchange of ideas within the seminar concerning the subject matter and the speakers presentation. This procedure ties the subject together and offers every student the opportunity to gain maximum benefit from the speech. I would suggest a similar approach to those lectures on the hill which have actual value in supplementing the C&S curriculum. The other lectures which are extraneous to the subject course matter should be eliminated with separate speakers invited as necessary to speak in Sims Hall.

The George Washington University Program. Comments concerning the GWU program revolve around the respondent's view of its impact on the NC&S curriculum. Two very strongly held and quite contradictory opinions emerge as follows:

1. The GWU program detracts from the effectiveness of the NC&S curriculum by diverting required student effort toward obtaining a Masters degree.

2. The CWU program enhances the effectiveness of the NC&S curriculum because of the complementary nature of the two curricula. Students do not shirk their NC&S requirements, although they do work harder than non-CWU students.

The CWU Program Detracts from NC&S. Twenty-five graduates reported holding this belief, and this number included several CWU participants as well as non-CWU participants.

A typical non-CWU participant response was expressed in questionnaire number 6625A, which stated "... It was also noted that during the course of the academic year some of those students enrolled in C.W. were neglecting the NC&S to some extent...."

The most extreme position by a CWU graduate was expressed in questionnaire number 6305B as follows: "...the PG program did detract from the overall effort I might have extended to the NC&S curriculum. ...I must recommend that the CW program be dropped"

A more representative viewpoint of both participants and non-participants who felt that there was interference was expressed in questionnaire number 6747B. It stated "As one who participated in the CWU program I must frankly state that such work is done at the expense of NC&S projects, studies and so forth. This is not necessarily a bad thing...." The graduate believed that the CWU program was of value, although he expressed a preference for incorporating it into the Naval Warfare course rather than offering it as an option to both courses.

Several non-CWU participants expressed regret at not having done so, but no CWU graduate indicated regret for having participated.

The GWU Program Complements and Enhances NC&S. A similar number, 22 in all, thought that the courses were so complementary that the extra effort applied in order to complete both outweighed any other considerations. A few graduates, who had subsequently served in politico-military staff billets, felt that the value of GWU equaled or exceeded that of NC&S.

A typical response from those supporting the GWU program was contained in questionnaire 6418A. It stated "...I gained much from the C&S experience and I gained much from the GW experience. The overlap is great...."

Comparative Analysis of Questions. The study group believed that subsequent assignments might influence the graduates' responses to several questions. In order to evaluate this possibility, the types of assignments reported in Question 1 were related to the answers each graduate gave to questions 3, 4, 5 and 13.

For the purpose of comparison, subsequent assignments were divided as follows: Command Only, Staff Only, Both Command and Staff, Other. Each graduate was placed in one of these categories, and his response to each of the separate questions was recorded.

The responses to each individual question were summarized for each of the four assignment categories above, the responses for each assignment category were then compared with the overall response as indicated by the question analysis data in Appendix IV.

No significant correlations were noted. The responses by each assignment category conformed closely with the percentages indicated in Appendix IV. Therefore, the statistical summary for this analysis has not been included.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

The basic purpose of this study was to develop and to analyze answers to specific questions concerning NCES, and to draw appropriate conclusions from them. These questions, as presented in the introduction and again in Chapter II, formed the basis for the survey questionnaire. Chapter III provided an analysis of the survey responses, and it is from this analysis that the conclusions are drawn.

These conclusions are presented in two separate categories; the first consists of those conclusions which are based upon the responses to Questions #1 through #13 to which all graduates had an equal opportunity to respond. The second category consists, not of conclusions per se, but rather of observations which are drawn from the optional responses to Question #14. The applicable page references of the analysis are listed after each conclusion.

Conclusions Related to Specific Questions. The study group arrived at the following conclusions from the responses to Questions #1 through #13. Paragraph numbers are not related to specific question numbers.

1. A large percentage of the assignments of NCES graduates are to command and staff billets. In the case of this survey the number was 67%. (pages 20 and 21)
2. Only about one half of the more recent classes were assigned to command or to staff type billets. In this survey 45% of the class of 1967

and 53% of the class of 1966 were assigned to such billets. (pages 21, 22 and Tab B to Appendix III).

3. Without a lower level professional education opportunity, NC&S appears to have occurred too late in the careers of 25% to 33% of the graduates. (page 23)

4. In general, NC&S made a significant contribution toward the Planning and Writing/Speaking capabilities of the graduates. (pages 25, 26 and 30)

5. In general, NC&S made a significant contribution to the subsequent career performances of the graduates. (pages 31, 32 and 33)

6. No valid comparison between NC&S and alternative duty assignments or education can be made. (page 35)

7. The benefits derived from NC&S are general in nature and comparatively few billets are considered to be directly related. Identification of such billets would require a detailed analysis of specific duties rather than association with a specific organization, such as a joint staff. (pages 56 and 57)

8. The coding of Navy billets as "NC&S Mandatory" is not feasible at the present time. The coding of billets outside the Navy as "NC&S Mandatory" appears to be excessive. (page 44)

9. Based upon the graduate's observed value and need for NC&S education, the unrestricted line officer student input is not sufficient. The input should be increased by at least 50 percent. (page 38)

10. A reasonable balance between military and non-military subjects in the NC&S curriculum is being maintained. (page 40)

11. The motivation of the graduates while attending NC&S was not as high as might be expected. (pages 42, 43, 48 and 49)

Observations Related to Optional Comments. Question #14 invited the optional comments of the graduates. Since the points covered by the graduates were diverse and varied and were not specifically addressed by a suitable sample of them, any conclusions drawn from these comments would not be statistically significant. Thus the points presented may or may not represent a majority opinion, and as such, can only be regarded as random observations. The rationale for including these observations in this chapter is that the study group believes them worthy of further study.

1. The value of free exchange and informal discussion between the students is one of the most valuable aspects of NC&S, and the schedules should allow for it. (page 54)

2. The prestige associated with being a member of the NC&S staff is lower than it should be. (pages 49 and 50)

3. The Research Program is not sufficiently oriented towards the needs and problems of the fleet, nor to the future research needs of the individual officer. (pages 51, 52 and 53)

4. There is insufficient emphasis toward the problems faced by the unit commanding officer. (pages 54 and 55)

5. There is a need for closer integration of guest lectures into the curriculum. (page 55)

6. The requirements of NC&S and GWU exceed the academic capabilities of some students who participate in both programs. (pages 55 and 56)

Recommendations. Recommendations based upon the conclusions and observations are as follows:

1. That selection for NC&S prior to the tenth year of commissioned service be adopted.

2. That specific Navy billets not be coded as "NC&S Mandatory" at the present time.

3. That possible methods of improving NC&S student motivation be investigated.

4. That the following issues raised by the optional responses be afforded further study:

a. The prestige which is associated with NC&S staff duty.

b. The feasibility of more closely aligning the NC&S Research Program with the problems of the fleet as well as the future research skills which may be needed by the graduate.

c. The feasibility of incorporating into the curriculum an increased number of problem areas which will be encountered by unit commanding officers.

d. The feasibility of integrating the guest lecture program more closely with the curriculum.

e. The feasibility of establishing a Graduate Record Examination cutting score, prior academic performance, or other criteria, which will identify those NC&S students capable of meeting the demands of both the NC&S and GWU programs.

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APPENDIX I

SAMPLE FORWARDING LETTER AND SURVEY QUESTIONNAIRE

TAB	PAGE
TAB A -- SAMPLE FORWARDING LETTER	65
TAB B -- SAMPLE SURVEY QUESTIONNAIRE	66

SAMPLE FORWARDING LETTER

22 December 1967

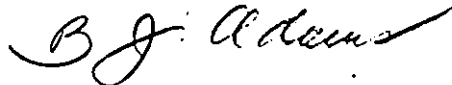
From: Senior Member, Group Study Project
To:

Via: President, U.S. Naval War College

Subj: Survey Questionnaire for Group Study Project

Encl: (1) Survey Questionnaire
(2) Return Addressed Envelope

1. The enclosed questionnaire will take only a few minutes of your time. The information generated will be used in our Naval War College group study project on "The School of Naval Command and Staff as Viewed By the Graduate." Since you are a graduate of the School, your response will be a valuable contribution to the study.
2. An addressed franked envelope is enclosed for your convenience in returning the questionnaire. A desired date of return of 1 February 1968 is required in order to support the study time frame.
3. All replies, as well as any additional comments that you may wish to make, will be held in strict confidence. Your response will be much appreciated.



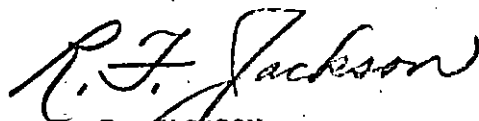
B. J. ADAMS

22 December 1967

FIRST ENDORSEMENT on ltr of 22 Dec 1967

From: President, Naval War College
To:

1. Forwarded.
2. This survey is being conducted by four students of the School of Naval Command and Staff in fulfillment of an academic requirement of the Naval War College Research Program.



R. F. JACKSON
By direction

GROUP STUDY PROJECT SURVEY QUESTIONNAIRE ON
 THE EFFECTIVENESS OF THE SCHOOL OF NAVAL COMMAND AND STAFF
 AS VIEWED BY THE GRADUATE

1. Please indicate the number and type of duty assignments which you have had since completion of your NC&S course.

<u>Type of Duty</u>	<u>Number of Tours</u>	<u>Type Ship/Staff</u>
Command	_____	_____
Staff	_____	_____
Other	_____	_____

2. Did you serve in any billets prior to attending NC&S in which your NC&S education would have proved valuable? Please check one:

Yes Yes No No Opinion
High value Some value

3. To what extent did your NC&S experience improve your capability in any of the below specific areas?

- | | <u>Greatly Improved</u> | <u>Slightly Improved</u> | <u>Did Not Improve</u> | <u>No Opinion</u> |
|---------------------|-------------------------|--------------------------|------------------------|-------------------|
| a. Planning | | | | |
| b. Problem solving | | | | |
| c. Decision making | | | | |
| d. Management | | | | |
| e. Writing/Speaking | | | | |

4. Have you encountered any specific situations in which your NC&S experience has proven to be invaluable?

Yes No No Opinion

5. How well do you think that you could have performed on subsequent duty assignments without your NC&S experience? Please check one:

As Well Almost As Well Not Nearly As Well No Opinion

6. In terms of a positive contribution towards a successful career how would you rank your year at NC&S in comparison with a year in a challenging operational or staff assignment which you have had? Please check one:

NC&S Experience Duty Experience
Superior About Equal Superior No Opinion

7. If you have had post graduate education at either civilian or military institutions (i.e., leading to a graduate degree) how would you compare the professional education offered by NC&S in terms of its contribution to your performance as a Naval Officer? Please check one:

If you have had PG education, degree was in _____

No PG Ed PG Superior PG Equal NC&S Superior No Opinion

8. Assume that an officer has 12 years of service and has had none of the below listed types of duty. At this point, which do you think would be of most value to his career. Please rank in what you consider to be the order of importance (i.e., 1,2,3,4,5.).

Fleet Staff Command NC&S PG Washington Duty No Opinion

9. There have been approximately 100 unrestricted line officers per year attending NC&S. Based upon your estimate of the value and need for NC&S professional education do you think that this number should be increased? Please check one:

Yes Increase by 100% Yes Increase by 50% No No Opinion

10. One writer has stated that service colleges provide little more than temporary intellectual stimulation for students and do not offer enough useful military subjects. As it applies to NC&S to what extent do you agree with this opinion?

Completely In Large Part In Small Part Disagree

11. Did your NC&S experience stimulate a continuing interest in improving your professional knowledge (e.g., "digging deeper" to get the best answer; or keeping current in professional subjects; or maintaining a lively interest in national defense and foreign policy problems)? If you think that you had achieved a high level of continuing interest prior to attending NC&S, then please check "No Opinion".

Yes

No

No Opinion

12. If you had it to do over again (i.e., attend NC&S with the advantage of hindsight) would you be more highly motivated toward deriving the maximum possible benefit from your NC&S education?

Yes

No

No Opinion

13. Based upon your experience to what extent do you think that NC&S education should be a consideration in the assignment of officers to specific fleet staff and unit billets?

- a. Specific billets should be coded NC&S Mandatory _____
- b. Specific billets should be coded NC&S Desirable _____
- c. Specific billets should not be related to NC&S _____
- d. No opinion _____

14 OPTIONAL: If you feel so inclined, please include any comments which you may have relative to the effectiveness of NC&S. Please use the reverse side of this sheet if necessary.

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS

APPENDIX II

ANALYSIS OF QUESTIONNAIRE RETURNS BY CLASS YEAR
AND DESIGNATOR

<u>Class/Designator</u>	<u>Total Mailed</u>	<u>Total Returned</u>	<u>Percentage Returned</u>
1962 - 1100	52	43	83
1300	<u>60</u>	<u>52</u>	87
Subtotal	<u>112</u>	<u>95</u>	85
1963 - 1100	51	43	84
1300	<u>65</u>	<u>47</u>	72
Subtotal	<u>116</u>	<u>90</u>	78
1964 - 1100	55	51	93
1300	<u>56</u>	<u>42</u>	77
Subtotal	<u>111</u>	<u>93</u>	85
1965 - 1100	59	46	78
1300	<u>65</u>	<u>40</u>	62
Subtotal	<u>124</u>	<u>86</u>	69
1966 - 1100	35	28	80
1300	<u>49</u>	<u>36</u>	74
Subtotal	<u>84</u>	<u>64</u>	76
1967 - 1100	50	37	74
1300	<u>40</u>	<u>29</u>	73
Subtotal	<u>90</u>	<u>66</u>	73
Total	<u>637</u>	<u>494</u>	77.5
1100 Subtotal	302	248	82
1300 Subtotal	<u>335</u>	<u>246</u>	74
Total	<u>637</u>	<u>494</u>	77.5

APPENDIX III

ANALYSIS OF RESPONSES TO INDIVIDUAL QUESTIONS

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TAB A TO APPENDIX III

ANALYSIS OF DUTY ASSIGNMENTS OF NC&S GRADUATES
BY CLASS YEAR AND DESIGNATOR (#1)

<u>Class/Desig</u>	<u>Command</u>		<u>Type of Duty Staff</u>		<u>Other</u>		<u>Total</u> [*]
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	
1962 - 1100	50	36	58	42	31	22	139
1300	<u>49</u>	32	<u>63</u>	41	<u>42</u>	27	<u>154</u>
Subtotal	<u>99</u>	34	<u>121</u>	41	<u>73</u>	25	<u>293</u>
1963 - 1100	41	34	45	37	35	29	121
1300	<u>37</u>	29	<u>43</u>	34	<u>46</u>	37	<u>126</u>
Subtotal	<u>78</u>	32	<u>88</u>	35	<u>81</u>	33	<u>247</u>
1964 - 1100	34	31	43	38	34	31	111
1300	<u>16</u>	17	<u>42</u>	44	<u>37</u>	39	<u>95</u>
Subtotal	<u>50</u>	24	<u>85</u>	41	<u>71</u>	35	<u>206</u>
1965 - 1100	22	25	41	47	25	28	88
1300	<u>12</u>	18	<u>28</u>	42	<u>27</u>	40	<u>67</u>
Subtotal	<u>34</u>	22	<u>69</u>	45	<u>52</u>	33	<u>155</u>
1966 - 1100	8	25	13	41	11	34	32
1300	<u>6</u>	15	<u>15</u>	36	<u>20</u>	49	<u>41</u>
Subtotal	<u>14</u>	19	<u>28</u>	39	<u>31</u>	42	<u>73</u>
1967 - 1100	6	16	10	27	21	57	37
1300	<u>4</u>	14	<u>9</u>	32	<u>15</u>	54	<u>28</u>
Subtotal	<u>10</u>	15	<u>19</u>	29	<u>36</u>	56	<u>65</u>
Total	<u>285</u>	27.5	<u>410</u>	39.5	<u>344</u>	33	<u>1039</u>
1100 Subtotal	161	30.5	210	40	157	29.5	528
1300 Subtotal	<u>124</u>	24	<u>200</u>	39	<u>187</u>	37	<u>511</u>
Total	<u>285</u>	27.5	<u>410</u>	39.5	<u>344</u>	33	<u>1039</u>

*Total figures represent 100% for each row.

TAB B TO APPENDIX III

ANALYSIS OF NC&S GRADUATES NOT HAVING COMMAND
OR STAFF ASSIGNMENTS SINCE GRADUATION (#1)

<u>Class/Desig</u>	<u>Number Responding</u>	<u>Number Having No Command/Staff Duty</u>	
		<u>#</u>	<u>%</u>
1962 - 1100	43	1	2
1300	<u>52</u>	<u>1</u>	2
Subtotal	<u>95</u>	<u>2</u>	2
1963 - 1100	43	1	2
1300	<u>47</u>	<u>0</u>	0
Subtotal	<u>90</u>	<u>1</u>	1
1964 - 1100	51	5	10
1300	<u>42</u>	<u>5</u>	12
Subtotal	<u>93</u>	<u>10</u>	11
1965 - 1100	46	1	2
1300	<u>40</u>	<u>8</u>	20
Subtotal	<u>86</u>	<u>9</u>	10
1966 - 1100	28	11	39
1300	<u>36</u>	<u>16</u>	44
Subtotal	<u>64</u>	<u>27</u>	42
1967 - 1100	37	21	57
1300	<u>29</u>	<u>15</u>	52
Subtotal	<u>66</u>	<u>36</u>	55
Total	<u>494</u>	<u>85</u>	17
1100 Subtotal	248	40	16
1300 Subtotal	<u>246</u>	<u>45</u>	18
Total	<u>494</u>	<u>85</u>	17

TAB C TO APPENDIX III

ANALYSIS OF VALUE OF NC&S TO GRADUATES IN DUTY ASSIGNMENTS PRIOR TO NC&S BY CLASS YEAR AND DESIGNATOR (#2)

Class/Desig	Yes		Yes		No Value		Total*
	High Value		Some Value				
	#	%	#	%	#	%	#
1962 - 1100	14	33	17	39	11	26	43
1300	<u>9</u>	17	<u>29</u>	56	<u>10</u>	19	<u>52</u>
Subtotal	<u>23</u>	24	<u>46</u>	48	<u>21</u>	22	<u>95</u>
1963 - 1100	12	28	23	54	6	14	43
1300	<u>9</u>	19	<u>27</u>	57	<u>10</u>	21	<u>47</u>
Subtotal	<u>21</u>	23	<u>50</u>	56	<u>16</u>	18	<u>90</u>
1964 - 1100	7	15	32	68	8	15	47
1300	<u>6</u>	14	<u>24</u>	57	<u>12</u>	29	<u>42</u>
Subtotal	<u>13</u>	15	<u>56</u>	63	<u>20</u>	22	<u>89</u>
1965 - 1100	19	41	20	43	6	13	46
1300	<u>13</u>	33	<u>13</u>	33	<u>11</u>	28	<u>40</u>
Subtotal	<u>32</u>	37	<u>33</u>	37	<u>17</u>	20	<u>86</u>
1966 - 1100	7	25	15	54	6	21	28
1300	<u>13</u>	36	<u>17</u>	47	<u>5</u>	14	<u>36</u>
Subtotal	<u>20</u>	31	<u>32</u>	50	<u>11</u>	17	<u>64</u>
1967 - 1100	8	22	25	67	3	8	37
1300	<u>14</u>	48	<u>9</u>	31	<u>5</u>	17	<u>29</u>
Subtotal	<u>22</u>	33	<u>34</u>	52	<u>8</u>	11	<u>66</u>
Total	<u>131</u>	27	<u>251</u>	51	<u>93</u>	18	<u>494</u>
1100 Subtotal	67	27	132	53	40	16	248
1300 Subtotal	<u>64</u>	27	<u>119</u>	48	<u>53</u>	22	<u>246</u>
Total	<u>131</u>	27	<u>251</u>	51	<u>93</u>	18	<u>494</u>

*Total figures represent 100% for each row. No opinion responses are included only in total column since there are too few to warrant listing separately.

TAB D TO APPENDIX III

ANALYSIS OF PLANNING CAPABILITY RESPONSES BY CLASS
YEAR AND DESIGNATOR (#3)

<u>Class/Desig</u>	<u>Greatly Improved</u>		<u>Slightly Improved</u>		<u>No Improvement</u>		<u>Total</u> *
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	
1962 - 1100	23	54	19	44	0	0	43
1300	<u>33</u>	64	<u>16</u>	31	<u>2</u>	4	<u>52</u>
Subtotal	<u>56</u>	59	<u>35</u>	37	<u>2</u>	2	<u>95</u>
1963 - 1100	24	56	17	40	1	2	43
1300	<u>24</u>	51	<u>21</u>	45	<u>2</u>	4	<u>47</u>
Subtotal	<u>48</u>	53	<u>38</u>	43	<u>3</u>	3	<u>90</u>
1964 - 1100	26	51	24	47	1	2	51
1300	<u>24</u>	57	<u>16</u>	38	<u>2</u>	5	<u>42</u>
Subtotal	<u>50</u>	54	<u>40</u>	43	<u>3</u>	3	<u>93</u>
1965 - 1100	26	57	17	37	1	2	46
1300	<u>18</u>	45	<u>22</u>	55	<u>0</u>	0	<u>40</u>
Subtotal	<u>44</u>	51	<u>39</u>	45	<u>1</u>	1	<u>86</u>
1966 - 1100	17	61	9	32	2	7	28
1300	<u>17</u>	47	<u>17</u>	47	<u>1</u>	3	<u>36</u>
Subtotal	<u>34</u>	53	<u>26</u>	41	<u>3</u>	5	<u>64</u>
1967 - 1100	24	65	8	22	2	5	37
1300	<u>23</u>	79	<u>4</u>	14	<u>0</u>	0	<u>29</u>
Subtotal	<u>47</u>	71	<u>12</u>	18	<u>2</u>	3	<u>66</u>
Total	<u>279</u>	56	<u>190</u>	39	<u>14</u>	3	<u>494</u>
1100 Subtotal	140	57	94	38	7	3	248
1300 Subtotal	<u>139</u>	56	<u>96</u>	39	<u>7</u>	3	<u>246</u>
Total	<u>279</u>	56	<u>190</u>	39	<u>14</u>	3	<u>494</u>

*Total figures represent 100% for each row. No opinion responses are included only in total column since there are too few to warrant listing separately.

TAB E TO APPENDIX III

ANALYSIS OF MANAGEMENT CAPABILITY RESPONSES BY CLASS
YEAR AND DESIGNATOR (#3)

Class/Desig	Greatly Improved		Slightly Improved		No Improvement		Total*
	#	%	#	%	#	%	#
1962 - 1100	4	9	22	51	14	33	43
1300	<u>5</u>	10	<u>35</u>	67	<u>11</u>	21	<u>52</u>
Subtotal	<u>9</u>	10	<u>57</u>	60	<u>25</u>	27	<u>95</u>
1963 - 1100	5	12	21	49	14	33	43
1300	<u>5</u>	11	<u>29</u>	62	<u>10</u>	21	<u>47</u>
Subtotal	<u>10</u>	11	<u>50</u>	56	<u>24</u>	27	<u>90</u>
1964 - 1100	7	14	28	55	11	22	51
1300	<u>9</u>	21	<u>21</u>	50	<u>9</u>	21	<u>42</u>
Subtotal	<u>16</u>	17	<u>49</u>	53	<u>20</u>	24	<u>93</u>
1965 - 1100	8	17	24	52	10	22	46
1300	<u>7</u>	17	<u>23</u>	57	<u>6</u>	15	<u>40</u>
Subtotal	<u>15</u>	17	<u>47</u>	55	<u>16</u>	19	<u>86</u>
1966 - 1100	5	18	19	68	4	14	28
1300	<u>10</u>	28	<u>15</u>	42	<u>9</u>	25	<u>36</u>
Subtotal	<u>15</u>	23	<u>34</u>	53	<u>13</u>	20	<u>64</u>
1967 - 1100	6	16	22	60	5	14	37
1300	<u>6</u>	21	<u>16</u>	55	<u>4</u>	14	<u>29</u>
Subtotal	<u>12</u>	18	<u>38</u>	58	<u>9</u>	14	<u>66</u>
Total	<u>77</u>	15	<u>275</u>	57	<u>107</u>	21	<u>494</u>
1100 Subtotal	35	14	136	55	58	23	248
1300 Subtotal	<u>42</u>	17	<u>139</u>	57	<u>49</u>	20	<u>246</u>
Total	<u>77</u>	15	<u>275</u>	57	<u>107</u>	21	<u>494</u>

*

Total figures represent 100% for each row. No opinion responses are included only in total column since there are too few to warrant listing separately.

TAB F TO APPENDIX III

ANALYSIS OF WRITING/SPEAKING CAPABILITY RESPONSES
BY CLASS YEAR AND DESIGNATOR (#3)

Class/Desig	Greatly Improved		Slightly Improved		No Improvement		Total #
	#	%	#	%	#	%	
1962 - 1100	19	44	23	54	1	2	43
1300	<u>21</u>	40	<u>30</u>	58	<u>1</u>	2	<u>52</u>
Subtotal	<u>40</u>	42	<u>53</u>	56	<u>2</u>	2	<u>95</u>
1963 - 1100	16	37	23	54	2	4	43
1300	<u>23</u>	49	<u>22</u>	47	<u>2</u>	4	<u>47</u>
Subtotal	<u>39</u>	43	<u>45</u>	50	<u>4</u>	4	<u>90</u>
1964 - 1100	25	49	22	43	4	8	51
1300	<u>18</u>	43	<u>20</u>	48	<u>4</u>	9	<u>42</u>
Subtotal	<u>43</u>	46	<u>42</u>	45	<u>8</u>	9	<u>93</u>
1965 - 1100	27	59	13	28	6	13	46
1300	<u>18</u>	45	<u>16</u>	40	<u>4</u>	10	<u>40</u>
Subtotal	<u>45</u>	52	<u>29</u>	34	<u>10</u>	12	<u>86</u>
1966 - 1100	11	39	16	57	1	4	28
1300	<u>14</u>	39	<u>20</u>	56	<u>2</u>	6	<u>36</u>
Subtotal	<u>25</u>	39	<u>36</u>	56	<u>3</u>	5	<u>64</u>
1967 - 1100	14	38	18	49	3	8	37
1300	<u>15</u>	52	<u>10</u>	34	<u>4</u>	14	<u>29</u>
Subtotal	<u>29</u>	44	<u>28</u>	42	<u>7</u>	11	<u>66</u>
Total	<u>221</u>	45	<u>233</u>	47	<u>34</u>	7	<u>494</u>
1100 Subtotal	112	45	115	46	17	7	248
1300 Subtotal	<u>109</u>	44	<u>118</u>	48	<u>17</u>	7	<u>246</u>
Total	<u>221</u>	45	<u>233</u>	47	<u>34</u>	7	<u>494</u>

*Total figures represent 100% for each row. No opinion responses are included only in total column since there are too few to warrant listing separately.

TAB G TO APPENDIX III

ANALYSIS OF NC&S EXPERIENCE PROVING TO BE
 INVALUABLE IN SPECIFIC SITUATIONS (#4)

Class/Desig	Yes		No		No Opinion		Total
	#	%	#	%	#	%	#
1962 - 1100	23	53	19	44	1	3	43
1300	23	44	24	46	5	10	52
Subtotal	46	48	43	45	6	7	95
1963 - 1100	18	43	21	50	4	7	43
1300	23	49	21	45	3	6	47
Subtotal	41	46	42	47	7	7	90
1964 - 1100	19	37	28	55	4	8	51
1300	25	59	16	38	1	3	42
Subtotal	44	47	44	47	5	6	93
1965 - 1100	27	59	18	39	1	2	46
1300	17	42	18	45	5	13	40
Subtotal	44	51	36	42	6	7	86
1966 - 1100	10	36	15	53	3	11	28
1300	16	44	18	50	2	6	36
Subtotal	26	41	33	51	5	8	64
1967 - 1100	15	40	19	51	3	9	37
1300	10	34	12	41	7	25	29
Subtotal	25	38	31	47	10	15	66
Total	226	46	229	46	39	8	494
1100 Subtotal	112	45	120	49	16	6	248
1300 Subtotal	114	46	109	44	23	10	246
Total	226	46	229	46	39	8	494

*Total figures represent 100% for each row.

TAB H TO APPENDIX III

ANALYSIS OF NC&S IMPACT UPON SUBSEQUENT DUTY PERFORMANCE OF GRADUATES (#5)

Class/Desig	As Well		Almost As Well		Not Nearly As Well		Total*
	#	%	#	%	#	%	
1962 - 1100	3	7	24	56	16	37	43
1300	<u>5</u>	9	<u>31</u>	60	<u>16</u>	31	<u>52</u>
Subtotal	<u>8</u>	8	<u>55</u>	58	<u>32</u>	34	<u>95</u>
1963 - 1100	4	10	25	59	12	29	43
1300	<u>6</u>	13	<u>24</u>	51	<u>15</u>	32	<u>47</u>
Subtotal	<u>10</u>	11	<u>49</u>	55	<u>27</u>	30	<u>90</u>
1964 - 1100	15	29	20	39	15	29	51
1300	<u>3</u>	7	<u>21</u>	50	<u>17</u>	40	<u>42</u>
Subtotal	<u>18</u>	19	<u>41</u>	44	<u>32</u>	34	<u>93</u>
1965 - 1100	5	11	28	61	13	28	46
1300	<u>6</u>	15	<u>18</u>	45	<u>16</u>	40	<u>40</u>
Subtotal	<u>11</u>	13	<u>46</u>	53	<u>29</u>	34	<u>86</u>
1966 - 1100	4	14	13	46	5	18	28
1300	<u>1</u>	3	<u>27</u>	75	<u>7</u>	19	<u>36</u>
Subtotal	<u>5</u>	8	<u>40</u>	62	<u>12</u>	19	<u>64</u>
1967 - 1100	6	16	15	40	11	30	37
1300	<u>1</u>	4	<u>7</u>	24	<u>16</u>	55	<u>29</u>
Subtotal	<u>7</u>	11	<u>22</u>	33	<u>27</u>	41	<u>66</u>
Total	<u>59</u>	13	<u>253</u>	51	<u>159</u>	32	<u>494</u>
1100 Subtotal	37	15	125	50	72	29	248
1300 Subtotal	<u>22</u>	9	<u>128</u>	52	<u>87</u>	35	<u>246</u>
Total	<u>59</u>	13	<u>253</u>	51	<u>159</u>	32	<u>494</u>

*Total figures represent 100% for each row. No opinion responses are included only in total column since there are too few to warrant listing separately.

TAB I TO APPENDIX III

ANALYSIS OF NC&S EXPERIENCE VERSUS A CHALLENGING DUTY ASSIGNMENT (#6)

<u>Class/Desig</u>	NC&S Ex- perience Superior		About Equal		Duty Ex- perience Superior		Total [*] #
	#	%	#	%	#	%	
1962 - 1100	17	40	12	28	12	28	43
1300	<u>18</u>	35	<u>20</u>	38	<u>11</u>	21	<u>52</u>
Subtotal	<u>35</u>	37	<u>32</u>	34	<u>23</u>	24	<u>95</u>
1963 - 1100	18	42	11	26	11	26	43
1300	<u>22</u>	47	<u>10</u>	21	<u>9</u>	19	<u>47</u>
Subtotal	<u>40</u>	45	<u>21</u>	23	<u>20</u>	22	<u>90</u>
1964 - 1100	23	45	16	31	10	20	51
1300	<u>15</u>	36	<u>16</u>	38	<u>10</u>	24	<u>42</u>
Subtotal	<u>38</u>	41	<u>32</u>	34	<u>20</u>	22	<u>93</u>
1965 - 1100	30	65	11	24	5	11	46
1300	<u>15</u>	38	<u>10</u>	25	<u>9</u>	22	<u>40</u>
Subtotal	<u>45</u>	52	<u>21</u>	24	<u>14</u>	17	<u>86</u>
1966 - 1100	10	36	14	50	3	11	28
1300	<u>16</u>	44	<u>10</u>	28	<u>5</u>	14	<u>36</u>
Subtotal	<u>26</u>	40	<u>24</u>	38	<u>8</u>	13	<u>64</u>
1967 - 1100	19	52	10	27	6	16	37
1300	<u>19</u>	66	<u>5</u>	17	<u>2</u>	7	<u>29</u>
Subtotal	<u>38</u>	58	<u>15</u>	23	<u>8</u>	12	<u>66</u>
Total	<u>222</u>	45	<u>145</u>	29	<u>93</u>	19	<u>494</u>
1100 Subtotal	117	47	74	30	47	19	248
1300 Subtotal	<u>105</u>	42	<u>71</u>	29	<u>46</u>	19	<u>246</u>
Total	<u>222</u>	45	<u>145</u>	29	<u>93</u>	19	<u>494</u>

*Total figures represent 100% for each row. No opinion responses included in total column as figures were too low to warrant listing separately.

TAB J TO APPENDIX III

ANALYSIS OF NC&S EDUCATION VERSUS PG EDUCATION BY CLASS YEAR AND DESIGNATOR (#7)

Class/Desig	PG Superior		PG Equal		NC&S Superior		No Opinion		Total #	*
	#	%	#	%	#	%	#	%		
1962 - 1100	7	32	7	32	3	13	5	23	22	
1300	<u>2</u>	11	<u>5</u>	28	<u>8</u>	44	<u>3</u>	17	<u>18</u>	
Subtotal	<u>9</u>	23	<u>12</u>	30	<u>11</u>	27	<u>8</u>	20	<u>40</u>	
1963 - 1100	6	38	5	31	2	12	3	19	16	
1300	<u>6</u>	35	<u>5</u>	29	<u>4</u>	24	<u>2</u>	12	<u>17</u>	
Subtotal	<u>12</u>	37	<u>10</u>	30	<u>6</u>	18	<u>5</u>	15	<u>33</u>	
1964 - 1100	7	27	10	38	7	27	2	8	26	
1300	<u>5</u>	21	<u>10</u>	42	<u>7</u>	29	<u>2</u>	8	<u>24</u>	
Subtotal	<u>12</u>	24	<u>20</u>	40	<u>14</u>	28	<u>4</u>	8	<u>50</u>	
1965 - 1100	2	10	7	33	8	38	4	19	21	
1300	<u>3</u>	15	<u>6</u>	30	<u>6</u>	30	<u>5</u>	25	<u>20</u>	
Subtotal	<u>5</u>	12	<u>13</u>	32	<u>14</u>	34	<u>9</u>	22	<u>41</u>	
1966 - 1100	6	35	5	30	6	35	0	0	17	
1300	<u>2</u>	20	<u>5</u>	50	<u>3</u>	30	<u>0</u>	0	<u>10</u>	
Subtotal	<u>8</u>	30	<u>10</u>	37	<u>9</u>	33	<u>0</u>	0	<u>27</u>	
1967 - 1100	3	15	7	35	8	40	2	10	20	
1300	<u>1</u>	20	<u>1</u>	20	<u>0</u>	0	<u>3</u>	60	<u>5</u>	
Subtotal	<u>4</u>	16	<u>8</u>	32	<u>8</u>	32	<u>5</u>	20	<u>25</u>	
Total	<u>50</u>	23	<u>73</u>	34	<u>62</u>	29	<u>31</u>	14	<u>216</u>	
1100 Subtotal	31	25	41	34	34	28	16	13	122	
1300 Subtotal	<u>19</u>	20	<u>32</u>	34	<u>28</u>	30	<u>15</u>	16	<u>94</u>	
Total	<u>50</u>	23	<u>73</u>	34	<u>62</u>	29	<u>31</u>	14	<u>216</u>	

*Total figures represent 100% for each row.

TAB K TO APPENDIX III

ANALYSIS OF PG EDUCATION BACKGROUND
OF RESPONDENTS (#7)

<u>Class/Desig</u>	<u>PG</u>		<u>NO PG</u>		<u>Total</u> *
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>
1962 - 1100	22	51	21	49	43
1300	<u>18</u>	35	<u>34</u>	65	<u>52</u>
Subtotal	<u>40</u>	42	<u>55</u>	58	<u>95</u>
1963 - 1100	16	37	27	63	43
1300	<u>17</u>	36	<u>30</u>	64	<u>47</u>
Subtotal	<u>33</u>	37	<u>57</u>	63	<u>90</u>
1964 - 1100	26	51	25	49	51
1300	<u>24</u>	57	<u>18</u>	43	<u>42</u>
Subtotal	<u>50</u>	54	<u>43</u>	46	<u>93</u>
1965 - 1100	21	46	25	54	46
1300	<u>20</u>	50	<u>20</u>	50	<u>40</u>
Subtotal	<u>41</u>	48	<u>45</u>	52	<u>86</u>
1966 - 1100	17	61	11	39	28
1300	<u>10</u>	28	<u>26</u>	72	<u>36</u>
Subtotal	<u>27</u>	42	<u>37</u>	58	<u>64</u>
1967 - 1100	20	54	17	46	37
1300	<u>5</u>	17	<u>24</u>	83	<u>29</u>
Subtotal	<u>25</u>	38	<u>41</u>	62	<u>66</u>
Total	<u>216</u>	44	<u>278</u>	56	<u>494</u>
1100 Subtotal	122	49	126	51	248
1300 Subtotal	<u>94</u>	38	<u>152</u>	62	<u>246</u>
Total	<u>216</u>	44	<u>278</u>	56	<u>494</u>

*Total figures represent 100% for each row.

TAB L TO APPENDIX III

ANALYSIS OF GRADUATE MOTIVATION RESPONSES (#12)

Class/Desig	Yes		No		No Opinion		Total
	#	%	#	%	#	%	
1962 - 1100	17	40	20	46	6	14	43
1300	<u>21</u>	40	<u>26</u>	50	<u>5</u>	10	<u>52</u>
Subtotal	<u>38</u>	40	<u>46</u>	48	<u>11</u>	12	<u>95</u>
1963 - 1100	19	44	16	37	8	19	43
1300	<u>15</u>	32	<u>21</u>	45	<u>11</u>	23	<u>47</u>
Subtotal	<u>34</u>	38	<u>37</u>	41	<u>19</u>	21	<u>90</u>
1964 - 1100	22	43	18	35	11	22	51
1300	<u>17</u>	40	<u>18</u>	43	<u>7</u>	17	<u>42</u>
Subtotal	<u>39</u>	42	<u>36</u>	39	<u>18</u>	19	<u>92</u>
1965 - 1100	20	43	20	43	6	14	46
1300	<u>17</u>	42	<u>14</u>	35	<u>9</u>	23	<u>40</u>
Subtotal	<u>37</u>	43	<u>34</u>	40	<u>15</u>	17	<u>86</u>
1966 - 1100	10	36	12	43	6	21	28
1300	<u>19</u>	53	<u>12</u>	33	<u>5</u>	14	<u>36</u>
Subtotal	<u>29</u>	45	<u>24</u>	38	<u>11</u>	17	<u>64</u>
1967 - 1100	16	43	14	38	7	19	37
1300	<u>16</u>	55	<u>7</u>	24	<u>6</u>	21	<u>29</u>
Subtotal	<u>32</u>	49	<u>21</u>	32	<u>13</u>	19	<u>66</u>
Total	<u>209</u>	42	<u>198</u>	40	<u>87</u>	18	<u>494</u>
1100 Subtotal	104	42	100	40	44	18	248
1300 Subtotal	<u>105</u>	43	<u>98</u>	40	<u>43</u>	17	<u>246</u>
Total	<u>209</u>	42	<u>198</u>	40	<u>87</u>	18	<u>494</u>

*Total figures represent 100% for each row.