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THESIS

COST BENEFIT ANALYSIS OF THE VISA CREDIT CARD AT THE NAVAL POSTGRADUATE SCHOOL

by

Anthony W. Swain

June, 1992

Thesis Advisor:

Jerry L. McCaffery

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Cost Benefit Analysis Of The VISA Credit Card At The Naval PostGraduate School

by

Anthony W. Swain Lieutenant, United States Navy

B.S., Elizabeth City State University, 1982

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL June 1992

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ABSTRACT

This purpose of this thesis is to analyze the cost effectiveness of the government-wide credit card within the Naval Postgraduate School Procurement Department. The intent of the study is to review current management policies relating to the credit card program, analyze the small procurement process and make ecommendations on the usage of credit card at Naval Postgraduate School. A questionnaire and cost benefit analysis was developed to explain the credit card at the NPS and compare the BPA, purchase order and imprest fund with the credit card. Card holders and authorizing officials are the operators in this system and were the respondents in the questionnaire. The thrust of the study is to improve the efficiency and effectiveness of the small procurement division in the area of the credit card use. By identifying the cost and benefits of the credit card and other procurement programs, the NPS small procurement division will have the information necessary to determine which method of procurement is most cost effective for a particular purchase.

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DEDICATION

This thesis is dedicated to

my wife, Joy and my son, Trevon

AC..NOWLEDGEMENT

The author wishes to acknowledge the assistance provided by some good friends and shipmates:

Wanda Travis

Kathi Shirley

I. INTRODUCTION

The Naval Postgraduate School (NPS), located in Monterey, California, is the focus for my research. NPS has two major functions; first to provide graduate education for members of the Armed Services and many of the Allied Services. Secondly, it is a major research facility for the Department of Navy, as well as other Department of Defense (DOD) organizations. Both missions involve the consumption of various goods and services for the school to operate at its optimum. The effective operation sometimes causes problems with efficiency, particularly in the area of material procurement. Analyzing the effectiveness and efficiency of the small procurement process at the school is the specific area of concentration of this thesis.

NPS is an organization within the Department of Defense and the Navy that provides the DOD an ideal avenue for its officers to obtain their advanced education. The school is often asked to accomplish research through Operation and Maintenance Navy (O&M,N) direct funding and from other research funding via reimbursable accounts. This other research funding can be from many different appropriations, even non-DOD agencies, or private industry. Some of the materials required by professors and administrators is not available within the normal supply route. Therefore, many

purchases are made from the local community. These purchases are made by different procurement methods. This thesis will focus on the Government-wide Credit Card (VISA) method.

The program was established by the U.S. General Services Administration (GSA) as another method for acquiring small purchases. This allows for the full range of low dollar value Government purchases to be made that otherwise would have been made using imprest Funds, Standard Form 44 (SF-44) or purchase orders [Ref 1]. Purchases of less than \$2500.00 can be made using this method.

The credit card program objectives were to include simplifying procurement, improving productivity by reducing procurement administrative lead time, strengthening internal management controls, enhancing cash management, and improving customer support. Under authority from the Office of Federal Procurement Policy, Office of Management and Budget, the Department of Commerce initiated a pilot credit card project to promote vendors acceptance of the credit card and increase the operational efficiency of purchases [Ref 2]. This program promises to improve efficiency of the procurement process by reducing the volume of open purchase orders and reducing the check issue and imprest fund handling requirements [Ref 3].

Based on the objectives cited above the Supply Department Small Purchase section at the Naval Postgraduate School was selected as the area of research. The author reviewed the use of the Visa bank card program at the Naval Postgraduate School. In 1989, the Naval Supply Systems Command authorized the Visa bank card purchase method for small purchases of less than \$2,500. The author's primary research thrust was to evaluate the cost and benefits of implementation of the card system at the Naval Postgraduate School and to develop a standard cost benefit analysis to evaluate the program.

B. RESEARCH QUESTION

This thesis will focus on the following areas:

- I. Primary Research Question: What are the cost and benefits associated with the implementation of the credit card program?
- II. Secondary Research Questions:
- 1. Do the benefits outweigh the cost of the credit card program?
- 2. Is there a standard way to implement the program?
- 3. How easy is it to convert to full implementation of this program?
- 4. What is the projected life-cycle savings of the credit card program?
- 5. What is the current command policy for the use of the credit card?

5. What is the current command policy for the use of the credit card?

C. DISCUSSION

VISA credit cards are currently in use at Naval Postgraduate School for small purchases of less than \$2,500. This study will attempt to assess the costs and benefits of the credit card program at NPS. This will include a cost benefit analysis of the credit card program, imprest fund, purchase/delivery orders (1155) expenditures, and a blank purchase agreement (BPA) small purchases.

D. LIMITATIONS

Purchase requirements for the Naval Postgraduate School are the same as any other organization and environment with this mission. The unique aspect of the procurement system is the funding; most of the funds for the school are direct or appropriated funded. Most naval activities that use the credit card are funded through Naval Industrial Funds (NIF).

The majority of the open purchase buys are in support of internal research projects which include thesis research, student experiments, faculty research and laboratory packages. Some of the additional purchase requirements are from DOD, other Federal Agencies and private industry who request and provide research projects. The composition of these types of purchases provided some comparisons of the NPS purchases with

activities having similar dollar expenditures. A limitation placed on the research was to cover the NPS Small Procurement system only. Also, the lack of automation in the payment and receipt process limited the full use of the credit card program.

E. ASSUMPTIONS

It is assumed throughout this study that the reader is familiar with the Federal Acquisition process and the limitations of the small purchase program. The reader is expected to be somewhat familiar with Naval terminology and with basic acquisition terminology. To analyze the information available some assumptions were used in regard to the administrative fee:

- (RMBCS) will be amended as outlined in the original agreement to refund the administrative fee on the semi-annual basis during the fiscal year. When the lower administrative fee is accomplished, it is assumed RMBCS will refund to the agencies involved the difference between what was paid under the previous agreement and the new fees. Also, this refund will be calculated and paid at the end of the contract year [Ref 4].
- (2) The administrative fee is based on the manual process method vice the electronic method viich provides an additional 0.094% discount. The capability to electronically

transfer funds or reports between NPS and RMBCS is not available at this time.

F. DEFINITIONS

Administrative Fee - this is a percentage fee that the GSA Contractor assesses the card for the each purchase made. Once the government reaches certain dollar thresholds, this fee decreases as each level of purchases is achieved. The Administrative fee as of January 3, 1992 was at .442% for standard accounts [Ref 5]. The electronically transferred transactions are given an additional discount of 0.094%.

Approving Official - is the person responsible for reviewing the cardholder's monthly statements and serving as liaison with key personnel involved in the credit card process. This person certifies monthly statements and ensures payments are for authorized purchases according to applicable instructions.

Bankcard (VISA) - a distinctive VISA bankcard received from RMBCS which is embossed with "FOR OFFICIAL USE ONLY" and the cardholders name. The card also bears the Great Seal of the United States and has "United States of America" printed on the face of the card. Other noticeable items on the card are the U S GOVT TAX EXEMPT and I.M.P.A.C. The IMPAC is the legally protected name provided by RMBCS, which stands for International Merchant Purchase Authorization Card.

Cardholder - An individual to whom a card is issued. The card bears the name of the cardholder and is only authorized for that person. This person is responsible for following all applicable purchase regulations including the FAR, DFAR, and other Navy policies.

Contracting Officer's Technical Representative (COTR) - The COTR serves as liaison between NPS and RMBCS. The COTR is responsible for overseeing the program at their command. The program guidelines are also their obligation. Changes in dollar limitations and/or merchant (vender) codes must be approved by the COTR. The Receipt Control Supervisor is designated as the COTR.

Contractor(vendor) - An individual, small business or corporation with whom an agreement in writing is made to provide a service or product for use by the activity.

Disputes - Occurs when the card holders, through reconciliation of their account detects an incorrect amount (i.e., taxes charges, wrong amount charged, etc.) has been charged by the vendors.

Imprest Fund - A cash fund with an authorized person responsible for receiving monies and expelling small cash disbursements.

Standard Form 44 (SF-44) - This is a Government Purchase Order Invoice. Used for counter purchases made while away from the purchasing office or at isolated activities.

Supply Officer - The official with the overall responsibility for the credit card program at NPS. The Supply Officer is authorized to delegate purchase authority to cardholders and approving officials.

G. SCOPE OF THE THESIS

This thesis will focus on a cost benefit analysis of the VISA credit card program at the Naval Postgraduate School. A review of the current management policy regarding the program and review different alternative uses of the program was researched. Also, the research will focus on the Naval Postgraduate School use of the credit card and how the GSA recommends using the card. In small purchases procedures, the credit card is used under the noncompetitive threshold as outlined in the Federal Acquisition Regulation of \$2500.

The research of purchase files was completed in conjunction with the NPS's Command Evaluation Team. It is assumed the readers are familiar with the Department of Defense Acquisition concepts and terminology as well as the Federal Acquisition Regulation (FAR) and its language.

H. METHODOLOGY

The Methodology for this research will consist primarily of the review of existing policy, interviews with the NPS Supply Department and users of the VISA credit card. This method of research was chosen after an extensive literature

search revealed that there was not a great deal of existing literature on the subject of credit cards for government small purchases. A questionnaire was developed for the users of the credit cards and a cost benefit analysis of the VISA credit card program and government small procurement was undertaken. Examples of questions to be considered are: 1. How does the credit card program work? 2. What type of problems are there with the program? 3. What are some of the benefits of the program? 4. What has the vendors' response been with the new method of purchase and payment? 5. What type of improvements are needed with the program? 6. Should the use of this program continue? 7. What are the alternatives to the program?

I. BENEFITS OF STUDY

The research will help the Naval Postgraduate School evaluate the credit card program as compared with other procurement programs. The research will provide management with another tool to evaluate the best way to utilize resources. Analyzing the responses to the questionnaire can provide an insight about the thinking of employees and their impression of the credit card program. An analysis such as this can help to improve the working relationship of management and employees. The small procurement section will have additional ideas to apply to procurement management.

II. BACKGROUND

The Government-wide Commercial Credit Card program was initiated as a procurement reform initiative under Executive Order 12352, "Procurement Reform" [Ref 6]. This credit card program began as a Government-wide pilot program sponsored by the Department of Commerce in 1986. To improve cash flow, reduce paper work, simplify the small purchase process and improve internal control this pilot test was developed. RMBCS won the competitive bid for the test program. The Office of Management and Budget (OMB) subsequently tasked the General Services Administration (GSA) with the acquisition of Government-wide commercial credit card services. GSA awarded the Government contract to RMBCS, a subsidiary of the Colorado National Bank. This new contract award provided Visa cards for the entire government starting in November 1988. Visa cards were guaranteed for one year with annual renewal options for four subsequent years. In August 1989 the Naval Supply Systems Command (NAVSYSCOM) authorized the use of commercial credit cards for all Navy activities [Ref 7]. The Naval Postgraduate School started using the card in April 1991.

The NPS Supply Officer developed an operating instruction to provide guidance for the local program. These procedures

are designed to supplement the "Instructions for the Use of the U.S. Government Credit Card" distributed to the cardholder and "Approving Official Instructions for the Use of the U.S. Government Credit Card" distributed to the approving official at the time the card is issued [Ref 8]. These procedures take precedence over all other instructions. NPS's instruction is currently under revision to clarify some of the vague areas associated with use of the card.

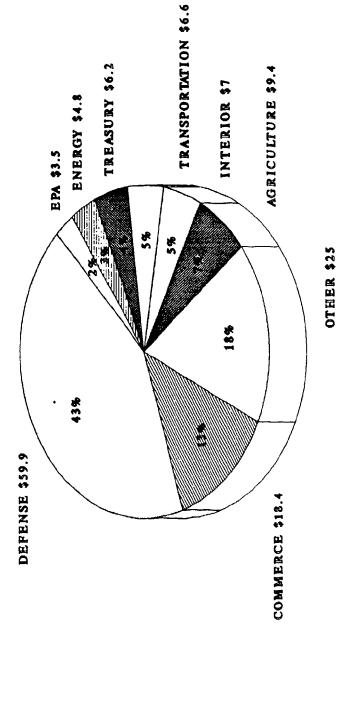
The official name of the Government-wide commercial card is International Merchant Purchase Authorization Card (I.M.P.A.C.). The credit card is distinctively designed and identified for official Government use. The card provides another method of acquiring small purchases, which are frequently made with the imprest funds, blanket purchase agreement or purchase orders.

The credit card can be used worldwide for small purchases of less than \$2,500. These purchases are for commercially available items that can be delivered for immediate use. The use of the credit card does not replace other methods of procurement such as stock in local warehouses, GSA mandatory sources of supply, or blanket purchase agreements and purchase orders. The card also does not relieve the holder of complying with existing Department of the Navy controls and restrictions that apply to certain types of goods and services such as automated data processing equipment (ADP) and plant property. The use of the card is intended to provide a less

costly and more efficient method of delivering goods and services to the end-user (customer). If the vendor will not accept the credit card, this is not a reason for not doing business with that vendor. The most cost-effective purchasing method must be used. Participation in the GSA government-wide VISA credit card is strictly voluntary for all government activities.

GSA provided some interesting data concerning the fiscal Sales were year 1991 for total sales (purchases). \$140,735,006. The pie chart on the following page provides the breakdown by major users. The Department of Defense is the largest user of the program. DOD made purchases that totalled \$59.9 million, this represent 43% of total sales, no Department of Navy other agency was close in it use. represents 69% of DOD purchases and 29.4% of the entire program with a dollar value of \$41.4 million [Ref 9]. NPS had sales of \$236 thousand dollars [Ref 9]. This amount is small due to the program start up date in the middle of this fiscal year and the fact that the number of users is limited to sixteen.

GSA IMPAC PROGRAM MAJOR USERS FY91 TOTAL SALES - \$140,735,006



\$MILLIONS

This chapter presented the background of the Visa card and displayed how extensively the DOD uses the credit card. The next discussion presents the methodology that impacted the credit card research. Chapter III expands the research using a questionnaire and develops a cost benefit analysis. These two methods were chosen to further provide insight for the author in the NPS small procurement procedures.

III. RESEARCH METHODOLOGY

Research data was collected through personal interviews, a questionnaire, literature searches, attendance at the GSA user's conference, comparison to the Coast Guard's Cost Analysis, and a review of the purchase files at the Naval Postgraduate School. Interviews were conducted with personnel in the Supply Department's procurement section and Comptroller's Office at NPS. The literature review included the Federal Acquisition Regulation (FAR), General Accounting Office (GAO) reports, Defense Logistics Studies Information Exchange reports, Naval Postgraduate School Masters Theses, U.S. Department of Commerce's Cost Benefit Analysis, and the I.M.P.A.C. INSIGHTS, a RMBCS Newsletter.

The research was organized to give the reader an understanding of the small purchase process and the cost and benefits associated with the commercial credit card. The first phase was the data collecting phase, the next phase involved attending the GSA User's Conference, interviews and a questionnaire. The third phase involved establishing a cost benefit analysis for the commercial credit card and other small procurement methods. The effectiveness and efficiency of the Visa Bankcard program was evaluated through an assessment of the costs associated with each alternative

approach. The analysis compares the costs associated with the Visa transactions to the costs associated with other small purchase methods.

A. SURVEY METHODOLOGY

In the review of the literature, it was noted that no study included the user's view in the credit card process. Therefore, a questionnaire was developed to provide a forum for the users (cardholders and approving officials) to voice their opinion of the credit card program. The questionnaire reached the entire targeted population at the Naval Postgraduate School because of the small numbers.

The questionnaire consisted of four sections. Section one consisted of questions that provided information on the purchasing experience of the targeted population. Section two addressed the credit card program at NPS. This was a forum to express individual opinions about the internal workings of the program. The third section was designed to obtain information on the credit card training program. An assessment of the overall program was obtained in the final section.

To determine how well the questions were worded and the questionnaire was structured, a sample questionnaire was given to supply corp officers, and (or who were) supervisors in the comptroller and supply department. Based on the pretest results, several changes and improvements were made to the questionnaire. The questionnaire was cleared by the civilian

questionnaire. The questionnaire was cleared by the civilian personnel office (CPO), Equal Employment Opportunity Office at NPS, and the local union President. No violations of union agreements or legal rights were identified in the questions. Thirty questions, with explanations requesting more detailed responses, constituted the questionnaire. The responses to the questions are explained in Chapter IV.

The questionnaire was given to the credit cardholders and approving officials during their weekly training session. Some questionnaire were hand delivered, by the supervisors, to their cardholders and approving officials for completion, due to their absence from the meeting.

The goal of the author was to reach the entire population of credit card users at NPS with the questionnaire. This population of credit card users and approving officials was selected because they are responsible for carrying out management decision. Seventy five percent of the population responded to the questionnaire, which the author interprets as a communication gap with management or twenty five percent of the population has nothing to contribute to the discussion. Further response was encouraged by offering the population a choice. First, they could get credit for their ideas by placing their name on the questionnaire. Secondly, if the participants desired to be anonymous then the option to leave their name off the questionnaire was available.

After all the data were collected, each question was analyzed and the results of the responses are in Chapter IV. Each question provides management with another tool to assist in the administration of the credit card program. This is the only documented questionnaire of this type to this known population. This approach to solving some management problems could be an area for further research.

Using the cost benefit analysis discussed in the next section contributes to an improved procurement system. The analysis will illustrate the peculiarity of cost and the benefits of the small purchase systems.

B. COST BENEFIT ANALYSIS METHODOLOGY

The main area of concentration was to develop a cost benefit analysis for NFS Supply Department's procurement division. The nucleus of all research subject material centered around the theme of a cost benefit analysis. To formulate the analysis, documentation was compiled through literature research, interviews with the comptroller department and the GSA user's conference.

This author attended the March 1992 credit card user's conference. A conference is held at different venues each quarter with the second quarter's conference held in Washington, D.C. The conference provided the author with insights to several COTRs' programs. During the conference the author met several COTRs that had completed the cost

analysis of their respective program. Some have sent their cost benefit analysis to the author to assist in the completion of his own analysis. These analyses are referenced throughout the thesis.

The cost benefit analysis process was constructed in several sections. Raw data collected with the NPS Command Evaluation Team was used as the basis for the author's thesis. Specific data was collected that the author felt was important. The following characteristics were considered the most important: 1) The dollar value of each transaction, 2) total number of transactions per month before the credit card, 3) small procurement use of the credit card and 4) some percentage comparison on monthly procurement. Second, the cost benefit analysis will compare similarities and differences of various NPS small procurement programs. The cost benefit analysis outlined was derived from GSA, Coast Guard and Digital System Research, Inc. (DSR) studies. Third, data from the supervisors in the NPS Comptroller and Supply Office and the COTR provided the heart of the thesis. Their insight and corporate knowledge was instrumental throughout the process. Fourth, the information gathered was used to develop an analysis that will conceivably work within the current supply system.

The goal behind conducting the cost benefit analysis of the credit card program was to evaluate the resource expenditures and foregone opportunities associated with time consuming steps in the other transactions processes. The credit card may provide a quicker response to the customers' requests and therefore provide unforeseen benefits throughout the school. These benefits are expected to be in the form of students working with the latest technology. Another expected benefit is providing the clerks with non-stock items to perform their job more efficiently. These benefits may not be quantitative but only qualitative.

IV. DATA ANALYSIS

This Data Analysis chapter is divided into three sections. Section A is a summary of the questionnaire responses. These responses were utilized to develop quantitative data for the cost benefit analysis. Section B contains credit card usage information. This section explains the NPS's small procurement programs as they compare to each other. Section C is the cost benefit analysis of the NPS small procurement programs and specifically compares the cost of utilizing credit cards verses BPA's, imprest fund, and purchase orders.

A. QUESTIONNAIRE SUMMARY

The questionnaire summary recaps all of the responses received. The actual percent of response is listed first, with a brief summary of all comments gathered. The responses are used later in the analysis portion of the chapter.

1. Purchasing Experience

This area of the questionnaire was used to give the researcher some knowledge about the respondents, in particular their level of work and credit card experience. This area was important in identifying the time spent completing a small purchase transaction.

 How long have you held your present position? ____months average 20.8 months 2. How long have you worked in government procurement? ______ months.

average 74.54 months

3. Have you or do you make government purchases with BPA, Imprest Fund, Credit Card or Purchase/Delivery Order (1155). Yes/No

90.9% - YES 9.1% - NO

- 5. How long have you used the government credit card?_____
 months

Average 9.2 months

- 6. What is your average number of purchases monthly: BPA 20

 1155 58 Credit Card 20.3 Imprest Fund 6.4
- 7. How long (on average) does it take you to make a purchase?

 BPA 15 Purchase Order 10 Credit Card 8 Imprest Fund 7

 (minutes)
- 8. How long (on average) does it take you to reconcile your credit card statement? 41 minutes
- 9. What is the complete transaction turnaround time (from material ordered to acceptance): BPA 13 days 1155 33

 days Credit card 17 days Imprest Fund 13 days

2. NPS Credit Card Program

This section was used to gather information about the system and how well the system was operating. Operators of the program were provided with an open opportunity to critque the present credit card system. Some had very strong opposing views, while others had strong supporting opinion of the program as evident in this summary.

- 10. (In your opinion) Has the credit card improved transaction procedures? Yes/No Explain?
 - 72.7% YES. There is an overwhelming satisfactory reaction to the card. There were comments from every "yes" response, mostly stating how the card is a "more concise method of purchasing" and how "one phone call can complete a buy". These are two positive improvements to the procurement process.
 - 09.1% NO. There were no comments.
 - 18.2% Neutral. Other purchasing methods work as well as the card, so the improvement is negligible. Difficulties exist when the vendor sends a partial shipment or bills before shipping; this is an area for dispute. The dispute area is a problem in the system that is currently being resolved at the credit card head level.
- 11. Are there benefits to using the credit card? Yes/No Explain?

90.9% - YES. One comment made by an unidentifiable respondent summarized the responses, "the transaction process is quicker, the order is placed immediately, delivery is immediate, and there is less paper work..."; also commented that this appears to be an improved method of procurement. Some vendors who in the past have had problems with other procurement "slow payment" method, now get paid almost instantaneously with the credit card. This procurement method is providing faster service to the end user, because vendors respond swiftly with the credit card. Some respondents feel they are providing better service to their customers and reducing the back log of orders, while improving their own productivity, therefore reducing the administration cost.

0.0% - NO. All respondents had a positive or neutral opinion.

09.1% - Neutral. There are some positive aspect to the program, particularly when the vendor sends the goods that were ordered within the billing cycle. The problem occurs as stated above, when the vendor bills before delivery of the entire order. Proper documentation is also a problem with this method of procurement, for instance, the billing statement does not reference purchase order number or requisition number or even the phone call.

- 12. Are there impediments to using the credit card? Yes/No Explain?
 - 64% YES. The major impediments to using the credit cards are described below:
 - 1. Reconciliation causes increased paperwork
 - 2. Partial delivery of goods ordered
 - 36% NO. No comments.
- 13. Does the credit card program increase purchasing paperwork? Yes/No Explain?
 - 36% YES. The reconciliation process increases the paperwork workload by 3 hours on average monthly. The card holder is responsible for this process with the credit card. Using other procurement methods, the reconciliation is completed by the Receipt Control Division in the Supply Department. Increase in paperwork occurs when there is a dispute of a purchase because the card holder is responsible for resolving the disagreement with the vendor.
 - 64% NO. The respondents had little to say on why their responses were no, except to say the paperwork was basically the same as other procurement methods.
- - 54.5% YES. No explanations were provided for the positive response.

36.4% - NO. The instructions were perceived as out of date or missing important information to fully carry out the procurement process. A Current instruction is needed to respond to the comment mention according to one respondent.

09.1% - UNKNOWN. One comment was made to the extent, "the credit card program appears to be a mystery to purchasing agents and management". It was expressed that a "wait and see if it works" approach is used. If no complaints are heard from higher authority as to processing then the program must be "o.k."

The author surmises the area that needs the most attention is the reconciliation portion of the process. This area is causing the most problems with card holders.

- 15. Should the credit card be optional or mandatory for government purchases at NPS?
 - 27.3% MANDATORY. The credit card has improved the rapport with vendors by providing an assurance of being paid in a reasonable time. It reduces the administrative cost, paper work, and timely procurement of commercially available goods and services according to one respondent.
 - 72.7% OPTIONAL. The decision on when and where the card is most effective should be the choice of the contract specialist, given the level of experience of the specialist.

- 16. Should the card be expanded to other departments at NPS?
 Yes/No Explain?
 - 54.5% YES. Providing credit cards to the various departments would allow the contract specialist to concentrate on larger buys. The other departments would get an insight of the supply process through the training. The proper supply channels would still be followed and the request would still go through the comptroller's office. Some respondents feel that this would relieve some of the stress from their job. This decentralized process can develop into a problem if the proper training is omitted. Therefore, the accountability and responsibility must be transferred as well. The audit function must remain in the supply department to ensure compliance with applicable regulations.
 - 45.5% NO. Those respondents who believe the credit card in the hands of the department would mean trouble had several reasons to support their claims:
 - 1. There would be total chaos with the use of the card, it would be like "kids in a candy store".
 - 2. Probably would cause a lot of unauthorized calls to the vendors for purchases.
 - 3. The accountability for public funds would be a problem with decentralized buys.
 - 4. Regulations must be followed to assure competition and fair relations with businesses.

- 5. Disaster will occur with the cards the same way as the BPA disaster occurred several years ago. This could cause the school to lose its purchase authority.
- 6. Professors would "sacrifice the regulations for expediency" therefore pressure would be on the person with the card to follow the wishes of the boss vice following the regulations.
- 7. The approving officials must also be decentralized with supervisory authority over the card holder. If this is not the situation, there will be wide abuse with the card. These are all sound arguments that have to be addressed if the credit card is to be decentralized. The problems with the BPA could reoccur if the proper training and follow up audits are not conducted.

This researcher acknowledges the possibility of abuse with any procurement method whether centralized or decentralized, but with appropriate controls in place will limit the mishandling of the card.

- 17. Does your organization save time/money by using the card? Yes/No Explain?
 - 71.4% YES. Time is saved with the orders being fulfilled right away and limiting distribution of purchase requests. Also, the processing time is shorter based on the respondents replies. With instant payment there are no penalty charges from vendors according to the fast payment act. The cost of purchase orders are more because

a separate payment is required for each transaction vice a monthly bill as with the credit card.

28.6% - NO. The major reasons for the negative responses were in the areas of vendor disputes with charges to the wrong accounts, canceled orders, lost shipments, and partial shipments.

Another area this researches recognizes as a problem area is the reconciliation process, which appears to be the single most difficult part of the credit card program. Card holders must find a way to accomplish this with less time.

18. Which form of procurement, do vendors view as most preferable? BPA 1155 CREDIT CARD Imprest Fund BPA -most preferable

CREDIT CARD -second most

1155 - second least

IMPREST FUND - least preferred

- 19. Are there ways to improve the credit card program? Yes/No Explain?
 - 54.5% YES. There are several ways to improve the credit card program and here are some of the suggestion provided:
 - 1. Select a data base of vendors who comply with restrictions and regulations.
 - 2. Take the administration and reconciliation out of the buyers cognizance.

- 3. Clarify the program for the purchasing agents/ card holders.
- 4. Communicate with the vendors about the credit card and explain the benefits of using the card. Respondents acknowledged the need for more endorsement of the credit card program from both vendors and card holders. The card holders expressed the need to relieve themselves from the burden of reconciliation.

45.5% - NO COMMENT.

3. Training

The training section was used to identify the strengths and weaknesses of the credit card program instructional process. Based on responses the deficiency is with the program's training sessions. It was noted that most complaints dealt with reconciliation training. This would appear to be one choke point in the program.

20. How many hours of training have you been trained to use the credit card? 3 hours

The mean is 3 hours with the mode being 2 hours. Time spent in training is an important part of how well the program works. There is not enough training completed at this point to expect a high success rate. This program is only a year old with most of the participants on the low end of the learning curve.

21. What style/type of training did you receive? On the Job training Workshop Seminar Other _____

On the Job Training - 70%

Workshop - 10.0%

Seminar - 00.0%

Other - 20.%. Training was in house and "sitting around a table with hand-outs."

22. How often is training being conducted? monthly/annually
Other_____

The training is conducted when the credit card is initially given and only if there are changes with the program. Regular training with the credit card does not currently exist with the NPS program.

- 23. Is there a follow-on training program? Yes/No Explain?

 There was a resounding NO to this question. There was only one person that can remember a single follow-on training session.
- 24. What portion of the training was most beneficial?
 Several comments were made in regard to the training benefits. A few examples are listed below:
 - 1. The credit card reconciliation process.
 - 2. One trainer gave examples of problems that may be encountered with processing, such as overcharges and disputes.

- 3. How to enter a credit card purchase into the computer via SACONS
- 4. Identifying the items that can and cannot be purchased.
- 5. Reading the manual was more informative and helpful, than were the facilitors of the program. As one respondent states the "facilitator seem so unsure," that learning the credit card procedures on their own was the only choice.
- 6. The entire training was beneficial because the program is still fairly new to the procurement personnel.

4. Overall Assessment Of The Program

The overall assessment of the program was good. Most respondents felt that the expectations of the program, thus far, have been met. The program appears to be doing well given its limited time of use.

- 25. Has the credit card met your expectations as explained before implementation? Yes/No Explain?
 - 90.9% YES. The credit card has proven to be an asset for the small purchase procedure. The card is an easy method of purchasing. It has worked well for simple off the self type of items. These were a few of the positive comments made about the card.
 - 09.1% NO. One of the main problems focused on vendors inability and lack of knowledge in completing a credit

card transaction. The RMBCS allows the vendors to change charges to the government at will. Vendors have failed to respond as fast as expected, and delivery has not been noticeably faster.

- 26. Are there any difficulties in obtaining the receipt documentation from Receipt Control? Yes/No Explain?
 10% YES. The only area of difficulty is losing the paperwork.
 - 90% NO. Receipt control has a good working relationship with the credit card holders and all the problems are easy to correct.
- 27. Are there any major problems with the vendors charging tax? Yes/No Explain?
 - 27.3% YES. Most of the problems with the taxes being charged are with small businesses that do few transactions with the government. Each month there are 3 to 4 vendors who charge taxes and they are the extent of the problem. This problem is compounded, according to a respondent, with the bank not allowing this to be a disputable charge.
 - 72.7% NO. Most of the vendors know from past experience in dealing with the government that this is a tax exempt organization. If taxes are charged, they issue a credit right away.
- 28. Are the financial limits established at the inception of the program adequate? (\$2500 max.) Yes/No Explain?

81.8% - YES. Since the card is used for quick to purchase items, it is an acceptable limit. If the limits were higher the competition process would have to be followed. All of the procurement methods should have at least this amount of purchasing authority. The imprest fund has a purchase limit of \$500.00.

18.2% - NO. The limit is too low and should be raised to at least \$5000.00 because several purchases are over the \$2500.00 limit for a single purchase. These would bring the credit card closer to the small purchase limit.

29. Rate the overall credit card program from 1 to 10,

excellent good average poor 10-9 8-6 5-3 2-1

excellent - none

good - 81.8%

average - 18.2%

poor - none

30. Additional Comments.

These additional comments were provided by the respondents. There is need for an in-depth evaluation of the strengths and weaknesses of the credit card program. This questionnaire is an attempt at gathering some responses from the users of the program. Some answers were expected to be vague but provide a general feeling for the strong and weak aspects of the program. This type of questioning has inspired the idea of another study being conducted on all methods of

procurement. There appears to be too many supplies being ordered just to sit in closets or ordered on personal preference.

"Supply technicians and end-user may want to research pricing when calling vendors to eliminate wasted time of decentralized buyers." This thought sets the stage for using the supply technicians and end-users card holders; then they don't have to use the buyers to make their orders and they can purchase their own items and save the buyers time.

The author believes the comments were made in good faith and to the best of the knowledge of the respondents. The comments were well received and paraphrased to the best of the author's ability. There are several action items throughout the survey that require management and the users of the credit card to work on as the program develops.

B. CREDIT CARD USAGE

During the initial year of the NPS credit card program, the small procurement division steadily increased the number of purchases made with the credit card. Promoting the usage of the card to become a significant method for procuring goods and services was the role of the NPS COTR and others in the comptroller's office. Based on the data collected for this evaluation, from the program's inception April of 1991 to

April of 1992, the NPS is realizing a savings in administrative costs when compared to acquiring similar items through the other small purchase programs.

One primary purpose of the credit card program was to reduce the number of requisitions required for ordering supplies and services. Throughout this analysis the author will present the facts around this issue. It will be shown how effective the NPS system has been in accomplishing this objective. The documented use of the open purchase agreement will be displayed along side the credit card. The reader will be able to draw his own conclusion as to whether this objective is completed or more work in this area is needed.

First, reviewing the credit card program from the top down will provide an overview of the program. Using this approach the author will walk the reader through the process. This process will focus on the NPS small procurement system. All figures used to demonstrate the various points are from the fiscal year 1991 and to April in fiscal year 1992. The cost benefit analysis will focus on the use of the credit card and several alternative procurement methods.

The pie chart exhibit of the government credit card program on page 13 shows the actual breakdown of major users. DOD is the largest users of the program. There are two pie charts on the following pages that further breakdown the DOD and DON expenditures. NPS small procurement division is only

a small part of the total the program, however it is the central focus of this thesis.

To determine the cost of a credit card, purchase order and other traditional procurements, a questionnaire was used. In explaining the government-wide credit card program at the NPS the information from table 1 was presented. Table 1 has the listings of the purchases made, dollar amount, administrative fees, and administrative fee percentages for the first year of operation at the NPS.

TABLE 1.	NP	S CREDIT CAR	D SALES	
Month	Number Purchase	Dollar Amount	Admin Fee	Admin Fee Percentage
April 91 May 91 June 91 July 91 Aug. 91 Sept. 91	4 64 110 115 185 173	619.06 24966.95 35252.64 39424.72 67542.46 66970.51	4.72 190.72 269.29 301.16 515.97 409.82	.764% .764% .764% .764% .764%
Total FY91	651	234776.34	1691.68	AVG .738%
Oct. 91 Nov. 91 Dec. 91 Jan. 92 Feb. 92 Mar. 92 April 92	56 82 149 151 156 107 155	22344.91 30225.02 64237.31 45693.44 66457.65 51406.74 66200.07	112.13 147.01 312.65 220.64 280.39 216.87 119.13	.502% .502% .502% .502% .422% .422% .180%
To Apr. Total FY92	856	346565.10	1408.82	AVG .433%
Total FY 91-92	1507	581341.44	3100.50	AVG .585%
Refund from	RMBCS Apr	91-Mar 92	(621.56)	

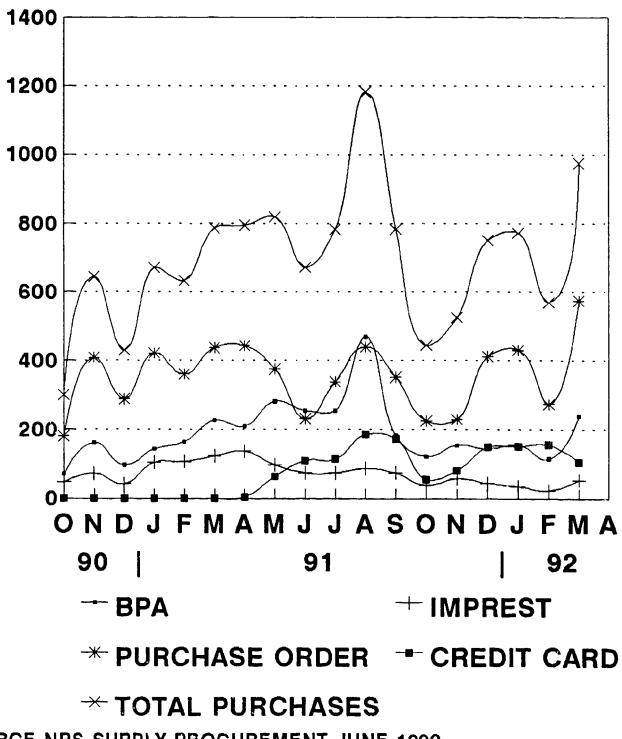
*SOURCE: NPS Comptroller Office, May 1992

To establish the use of the credit card, a line gragh (figure 1) chart was used. This graph illustrates the increase in procurement purchases over the life of the credit card usage since its inception. The graph (figure 1) clearly shows that the card has steadily increased over its first year. An average of one hundred and fifty transactions per month emerges as the mean. Decreases in the transactions of the credit card occurred around the end of the fiscal year 1991 and at the beginning of fiscal year of 1992. This decrease in credit card use coincides with the NPS Supply Department small procurement reduction that transpired during that same time.

To assess the impact of the number of purchase orders issued, purchases for fiscal year (FY) 1991 and FY 1992 were compared. Data from the NPS Supply Department, Comptroller Office and GSA were collected for the comparison. Figure 1 illustrates the transactions for all NPS procurement for FY 91 through March FY 92. This curve clearly shows the increased use of the credit card and a decreased use of the imprest fund with the BPA and purchase/delivery orders holding steady throughout this time-frame. While reviewing figure 2, there is a strong correlations with the dollar expenditures with credit card and the imprest fund. The credit card appears to gain support throughout this time-frame. Figure 3 further compares the credit card and imprest fund purchases. This

chart clearly shows the credit card increasing as the imprest fund decreases.

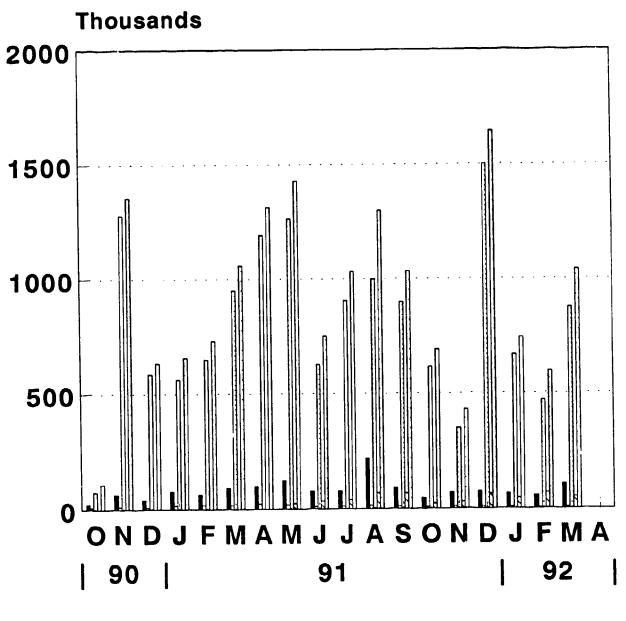
NPS SMALL PROCUREMENT **FY 91 TO MAR FY 92**



***SOURCE NPS SUPPLY PROCUREMENT JUNE 1992**

Figure 1

NPS SMALL (\$) PROCUREMENT FY 91 TO MAR FY 92





IMPREST

PURCHASE ORD

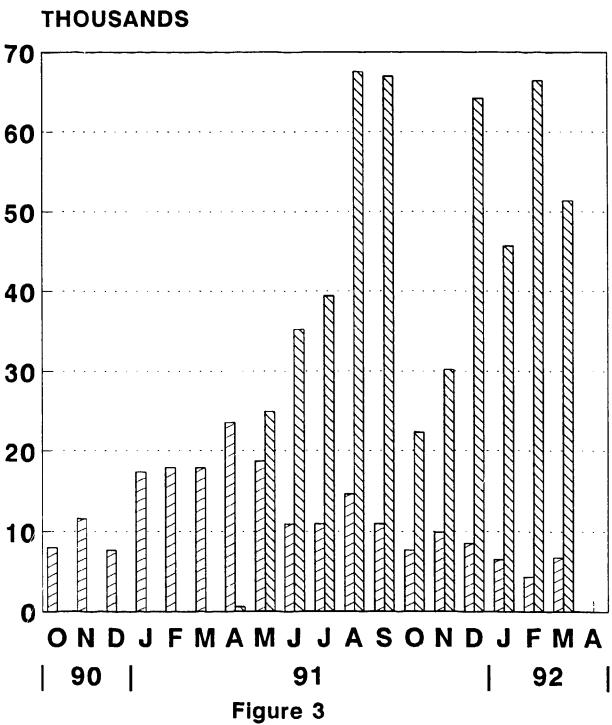
CREDIT CARD

TOTAL \$ PURCHASE

Figure 2

*SOURCE NPS SUPPLY PROCUREMENT JUNE 1992

CREDIT CARD AND IMPREST FUND **FY 91 TO MAR FY 92**



☐ IMPREST ☐ CREDIT CARD

***SOURCE NPS SUPPLY PROCUREMENT JUNE 1992**

A table was used to compare the credit card and imprest fund use simultaneously. Table 2 on (pg. 51) presents the results of the comparison. The imprest fund is on a downward curve while the credit card is on the opposite route. Watching the card progress for the year observed has promise to limit the use of the imprest fund completely.

C. COST BENEFIT ANALYSIS

The cost benefit analysis is divided into four sections. Section one is cash management savings. This area explains how a dollar today is worth more than a dollar tomorrow or in the case of credit cards: use now, pay tomorrow. Section two is the administrative fee charged by RMBCS for use of the VISA card. This shows dollar thresholds and the administrative fee percent rate. Section three is the procurement cost. Procurement cost compares the credit card with the BPA, imprest fund, and purchase order programs. Section four is the benefits. The benefits are viewed from the viewpoint of the credit card.

These factors were considered but not included in this analysis:

- 1. Time factors.

 The processing of a purchase request through the comptroller's office, technical screening to the purchase team. The cost for each procurement method is relatively the same because the type of procurement is decided down stream of these processes.
- 2. Dispute process.

This process is a trouble area for the credit card program as a whole, so this area is being dealt with by the GSA panel along with RMBCS team. Some disputes can be solved in minutes while others take months to solve the problem.

1. Cash Management Savings

Collection of data from NPS purchasing agents and receiving clerks questionnaire, the Treasury Financial Manual instructional booklet, Federal Supply Schedule and the Armed Forces Comptroller quarterly newsletter, Spring 1991 report, were used in computing time management of money. In addition to the findings from these reports, the current rate of eight percent (federal funds, March 1992) was also used to determine cash management savings. The cash management savings for these small procurement methods represents the current level of expenditures.

Cash management savings is based on the time value of money. The credit card, purchase order and BPA all have float days allowing for a delay in payment of purchases. The imprest fund does not have float days, therefore requiring payment at the time of purchase. Forty five float days are associated with the credit card and thirty days are provide with BPA and purchase order.

The use of float days gives the Department of Treasury an opportunity to earn interest on the funds committed to purchases. These savings benefit the overall program and not the NPS procurement division directly. Therefore, are separately addressed in the authors analysis.

Next an example of the savings possible is provided to explain how to compute the savings:

IMPREST FUND

 $$25000.00 \times .08/360 \times 45 \text{ float days } [Ref 10] = 250.00

BPA PURCHASES

 $$25000.00 \times .08/360 \times 15 \text{ days } (45-30 \text{ days}) \text{ [Ref 11] = }83.33

PURCHASE/DELIVERY ORDERS

 $$25000.00 \times .08/360 \times 15 \text{ days (45-30 days) (Ref 11]} = 83.33

2. Administrative Fee Associat 1 with The Government Wide Credit Card

This section is used to identify the dollar threshold and percentage rate for the administrative fee. This fee is charged monthly by RMBCS for the use of the VISA card. The threshold is the amount of purchases made with the credit card government-wide [Ref 9].

Threshold	Estimate Date for Threshold	Rate
\$100,000,000	1 OCT 91	.00654
\$150,000,000	1 DEC 91	.00502
\$250,000,000	1 FEB 92	.00422
\$500,000,000	1 APR 92	.00180

3. NPS Procurement Costs

This cost includes direct cost of the procurement division and warehouse workers, not the fixed cost (building and fixtures) and U.S. Treasury cost. The following are the average transactions for one month.

Credit Card	BPA	
116	216	purchases per month
<u>x.13</u>	x.27	hours per purchases
12.51	58.32	hours per month
x\$12.84	<u>x\$12.84</u>	hourly rate for GS-9
160.63	807.15	-

+ 6.46		reconciliation GS-6
+153.60	+204.30	warehouse personnel WG-6
320.69	1011.45	(sal. x purchase x hours)

Purchase Order	Imprest Fund	
360	⁻ 67	purchases per month
x.35	<u>x.13</u>	hours per purchase
126.00	8.71	hours per month
x\$12.84	<u>x12.84</u>	hourly rate for GS-9
1617.84	111.84	card holders & authorizing
		officials
+1021.5	+120.39	warehouse per. WG-6 & SK1
2639.34	232.23	(sal. x purchase x hours)

Next, add in the additional manpower cost for the Administrative Office support, COTR, Finance Office processing and Disputes for the credit card program for a month.

Credit Card	
\$59.56	COTR-3 hours/mo (GS-12-3)
132.10	Admin-16 hours/mo (E5)
79.44	Finance-4 hours/mo (GS-12-3)
158.88	Disputes-8 hours/mo (GS-12-3)
429.98	•

These programs only have additional cost in the area of administrative support. The following are these cost:

BPA (GS-5 x 15 minutes x 216 purchases) = \$457.38

Purchase Order (GS-5 x 15 minutes x 360 purchases) = \$762.30

Imprest Fund (SK1 x 5 minutes x 67 purchases) = \$54.60

The administrative fees charged to credit card use are calculated on the monthly balance, the current percentage rate is .18%. The average administrative fee per month for the first year of the credit card was \$238.46.

Credit Card cost: \$320.69 + 429.98 + 238.46 = \$990.13

BPA cost: \$1011.45 + 457.38 = \$1468.83

Purchase order cost: \$2639.34 + 762.30 = \$3401.64

Imprest Fund cost: \$232.23 + 54.60 = \$286.83

Lastly, the total cost is divided by the number of transactions per month to provide the cost for a single transaction. This cost includes the payment for the credit card and imprest fund. However, this cost does not include the cost of payments for BPA's and purchase orders because this is paid by the Finance center in Washington, DC.

\$ 990.13/116 = \$8.53 for Credit Card purchase

\$3401.64/360 = \$9.45 for Purchase Order

\$1468.83/216 = \$6.80 for BPA purchase

\$232.23/67 = \$3.47 for Imprest Fund

4. Benefits Of The Credit Card Program

In the previous section the cost of using the different programs was explained. These calculations and final figures were important for reaching a comparison level among the procurement methods, but did not calculate or include the benefits associated with each program. This author will not attempt to promote the beneficial features of all the preceding procurement systems, but focus on the Credit card procurement program.

⁻ From the point of the U.S. Treasury, fewer checks mean an overall savings. The cost of processing a 2000

transaction batch is significantly reduced. A saving of 700.00 is realized at thirty four cents per check [Ref 12].

- "Vendor payment complaints are rare because vendors are usually reimbursed within 48 hours", this makes the credit card an attractive alternative [Ref 12]. Vendors that would not take government paper before are willingly accepting the credit card as payment for services and goods rendered.
- An overwhelming 72.7% positive response by NPS card holders and authorizing officials confirms and affirms this system. As stated by some, the card is a "more concise method of purchasing" and "one phone call can complete a buy" illustrate the attractiveness of the credit card usage.
- 64% of the respondents concurred that paper work for the reconciliation process of the credit card was the same as those of the other procurement methods.
- 90.9% reported it provided faster services to the end user, because vendors responded rapidly to the credit card purchases; vendors are paid instantaneously; no more "slow payment" as associated with the other procurement methods. Respondents also felt they are able to provide better services to their customers, reduce back log of orders, enhance their own productivity resulting in the reduction of administrative cost.
- 71.4% said time and money is saved, time, since the orders are placed right away with limited distribution of purchase request and money, because penalties charges are averted since payment is instant.
- 90.9% confirmed the card as an asset for small purchases.

Although, the utilization of the credit cards is still a novelty to the NPS small procurement staff, their weighty affirmative response is an optimistic one. In addition, the NPS procurement officials substantiate this positive reaction by agreeing that the credit card procurement system is the one they prefer operating.

TABLE 2. NPS CREDIT CARD SALES and IMPREST FUND

		Credit Card		Imprest	
		Purchase	Dollar	Fund	Dollars
April	91	4	619	137	23611
May	91	64	24967	98	18707
June		110	35252	75	10942
July		115	39424	75	10942
Aug.	91	185	67542	88	14618
Sept.	91	173	66970	75	10943
First				* .	
Six Mo	onths	651	234776	548	89763
Oct.	91	56	22344	39	7644
Nov.	91	82	30225	58	9903
Dec.	91	149	64237	45	8544
Jan.		151	45693	36	6537
Feb.	92	156	66457	23	4384
Mar.	92	107	51406	54	6767
Last					
Six Mo	onths	856	346565	255	43779
Increa (Decre		205	111789	(293)	(45984)

*SOURCE: NPS Comptroller Office, May 1992

V. CONCLUSION AND RECOMMENDATION

The purpose of this study was to analyze NPS Supply department small procurement division, with emphasis on the commercial government-wide credit card program. This cost benefit analysis compared the cost of BPA, purchase orders, imprest fund and credit card. The cost for the credit card was more extensive because of the author's focus. The major conclusions and recommendations of this study are presented below.

A. CONCLUSION

- 1. The credit card program has improved the relationship of the government and the vendors by assuring the vendors prompt payment for services and goods rendered. Vendors are paid immediately from the VISA credit card company at the origin of purchase. The only system that came close is the imprest fund, this method is a cash on delivery system.
- 2. Cash management savings distinctly reflect the credit card as the most advantageous procurement program. This program offers 45 float days. BPA and purchase order program offers 30 float days according to the prompt payment act. The credit card program offers the additional 15 days grace. As

computation has shown, this could mean a substantial savings in the NPS Procurement Division.

- 3. An increase in the productivity by procurement personnel was reflected in the questionnaire. The overall opinion of the credit card program was positive. This was a good sign given the youth of this program.
- 4. The cost of using the credit card program is about the same as other small procurement programs; however, the cash management savings gives the edge to this program.
- 5. A structured training program does not presently exist for users of the credit card program. This can lead to abuse and misuse of the card. The respondents are asking for help in the area of reconciliation and disputes.
- 6. With the number of credit card holders at the NPS at bare minimum, the potential for growth and savings are bypassed. Extending the card throughout the school will provide the procurement managers an opportunity to optimize the use of their personnel by assigning them to other jobs.

B. RECOMMENDATIONS

1. The researcher recommends the implementation of a structured training program for all card holders and authorizing officials. This program should be conducted with personnel from the comptroller's office and the supply department. Initiating and conducting formal classroom training to all card holders will assure appropriate use of

the card. Training should be held quarterly with an examination at the end of each session. This will help to chart the users and instructors' progress and comprehension of the program. It will also provide them with an avenue to updated material, and keep them abreast of the latest development of the RMBCS and GSA policies.

2. Incorporate other NPS departments into using the credit card as a first step to expansion. Secondly, the supply technicians would be designated as card holders and authorizing officials would be the supervisors from their respective department. Thirdly, these card holders will be responsible for the request, acquisitions, technical screening and receipts of goods ordered. The comptroller will retain monetary control of all purchases. Fourth, establish an audit team from the NPS small procurement division to monitor user's compliance to procurement and credit card policies.

Using the above steps will aid in eliminating the back log on procurement requests, provide end-users control over open purchase items and a savings in time and money.

- 3. Develop a data base of vendors who comply with restrictions and regulations. By compiling this catalog of participating vendors the credit card user can select the appropriate vendor with minimal effort, resulting in a savings of time and money.
 - 4. Apply the concept of Total Quality Management (TQM).

 TQM should be incorporated in the development of the credit

card procedural manual at the NPS. The TQM concept utilizes the employee and managerial base to jointly set future goals

C. AREAS FOR FURTHER STUDY

Potentially productive areas for additional research arising out of this study include a number of topics. The following are areas recommended for future study:

- 1. Perform a Cost Benefits Analysis for computerizing the billing and receiving process of credit card purchases.
- 2. An examination of the cost and benefits of raising the small purchase limit of the credit card.
- 3. Develop an extensive training program for supply technicians and other non-procurement personnel on the use of the credit card.
- 4. Conduct a study of expanding the credit card usage throughout all department at Naval Postgraduate School.

APPENDIX

Name	Rank/Pay gradePosition Title
	PURCHASING EXPERIENCE
1.	How long have you held your present position?mths/yrs
2.	How long have you worked in government procurement?
	mths/yrs
3.	Have you or do you make government purchases with BPA,
	Imprest Fund, Credit Card or 1155's. Yes/No
4.	What is your role in the credit card program? Card
	holder/ Approving Official/ Other
5.	How long have you used the government credit card?
	months
6.	What is your average number of purchases monthly: BPA
	1155 Credit CardImprest Fund
7.	How long (on average) does it take you to make a purchase?
	BPA 1155 Credit Card Imprest Fund_
8.	How long (on average) does it take you to reconcile your
	credit card statement?min/hrs
9.	What is the complete transaction turnaround time (from
	material ordered to acceptance): BPA 1155
	Credit cardImprest Fund

NPS CREDIT CARD PROGRAM

- 10. (In your opinion) Has the credit card improved transaction procedures? Yes/No Explain?
- 11. Are there benefits to using the credit card? Yes/No Explain?
- 12. Are there impediments to using the credit card? Yes/No Explain?
- 13. Does the credit card program increase purchasing paperwork?

 Yes/No Explain?
- 14. Are the current instructions adequate? Yes/No If No, Explain?
- 15. Should the credit card be optional or mandatory for government purchases at NPS? Yes/No
- 16. Should the card be expanded to other departments at NPS?
 Yes/No Explain?
- 17. Does your organization save time/money by using the credit card? Yes/No Explain?
- 18. Which form of procurement, do vendors view as most preferable? BPA 1155 CREDIT CARD Imprest Fund
- 19. Are there ways to improve the credit card program? Yes/No Explain?

TRAINING

20.	How many hours of training have you been trained to use
	the credit card?hours
21.	What style/type of training did you receive? On the Job
	training Workshop Seminar Other
22.	How often is training being conducted? monthly/annually

- 23. Is there a follow-on training program? Yes/No Explain?
- 24. What portion of the training was most beneficial?

OVERALL ASSESSMENT OF THE PROGRAM

Other ____

- 25. Has the credit card met your expectations as explained before implementation? Yes/No Explain?
- 26. Are there any difficulties in obtaining the receipt documentation from Receipt Control? Yes/No Explain?
- 27. Are there any major problems with the vendors charging tax? Yes/No Explain?
- 28. Are the financial limits established at the inception of the program adequate? (\$2500 max.) Yes/No Explain?
- 29. Rate the overall credit card program from 1 to 10,

excellent good average poor 10-9 8-6 5-3 2-1

Additional Comments Welcome.

LIST OF REFERENCES

- 1. Linda Budach, "Is the Government-Wide Commerical Credit Card Program Achieving the Anticipated Results at the David Taylor Research Center?" master's thesis, American University, Washington, D.C., May 1991, p. 2.
- 2. "The U.S. Government Credit Card," <u>Cardholder Instruction</u>, undated, p. 1.
- 3. Robert F. Baudrau, "Visa Bankcard User Manual," <u>Baseline Bankcard User Manual for Ord-Nif Activity Tailoring</u>, Digital Systems Research, Inc., Port Orchard, WA., undated, p. 1.
- 4. General Accounting Office Report, <u>Cash Management</u>, <u>Benefits and Limitation of the Small Purchases Credit Card Program</u>, Document No. GAO/AFMD-90-89BR, Washington, D.C. GAO, 1990.
- 5. "IMPAC User, s Meeting," Washington, D.C., March 25, 1992.
- 6. "United States Government-Wide Credit Card Program," A Management Overview, Brochure published by Rocky Mountain Bankcard System, Inc.
- 7. Commander Naval Supply Systems Command, "Bank Card Program," Naval Message, 166230Z Aug 89.
- 8. "Bank Card Procedures Manual," <u>NAVPGSCOL Instruction</u>, Naval Postgradute School, Monterey, CA. p. 1.
- 9. Interview between Kathi D. Moore, Supervisory Fiscal Analyst, Comptroller, Naval Postgraduate School, June 1992.
- 10. Treasury Financial Manual 4-4500, "Chapter 4500 Governmentwide Credit Cards," <u>Department of Treasury</u>, Washington, D.C., Vol. I, pp. 4.4500.1 4.4500.3.
- 11. Federal Supply Schedule, <u>Government-Wide Commercial Credit Card Service</u>, Industrial Group 615, IG Class 6153, for the period March 4, 1991 through march 3, 1992, Federal Supply Service, April 18, 1991.
- 12. Loren Tshohl, "The I.M.P.A.C.-A Resource Management Tool," <u>Armed Forces Comptroller</u>, Vol.36, No.2, Spring 1991, p. 39.

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