

<b>To:</b> President Gamble Business Process Review Oversight Committee	<b>From:</b> BPR Accounts Payable Ed Binkley, Great Falls Lynne Hendrickson, Bozeman Bonita Jans, Bozeman Lorraine Johnson, Havre Peggy Kastella, Bozeman Jim Nielsen, Billings Sue Ost, Havre
<b>Date:</b> 14 May 2007	<b>Document Number:</b>

**MSU Business Process Review Business Case:**

**Accounts Payable**

**Data Entry**

**Executive Summary**

Each campus follows the same process for entering data to Banner to produce checks to pay vendor invoices (i.e, formFAAINVE). Three of the campuses use the ‘multiple invoices per check’ feature whereas the Bozeman campus utilizes ‘one invoice per check’. This means that Bozeman issues one check to pay for each individual invoice received from a given vendor whereas the other campuses enter the invoices individually, but the Banner system aggregates the invoice and amount information per vendor and issues only one check to pay several different vendor invoices. Implementing the ‘multiple invoices per check’ function involves marking a check box on the FAAINVE form used by all campuses.

The following table shows the estimated numbers of non-Purchasing card transactions processed by each campus in FY 06:

Non-Pcard transactions FY 06 – BZ	Non-Pcard transactions FY 06 – BL	Non-Pcard transactions FY 06 – HV	Non-Pcard transactions FY 06 – GF	Total
16,114	5,753	990	1,477	24,334

Because this uses existing Banner functionality, there are no hardware or software requirements and, because all AP people across campus are familiar with the FAAINVE form, training to utilize the ‘multiple invoices per check’ feature would require minimal training.

Assuming a 10% reduction in the number of checks produced for Bozeman and assuming a 2% increase in volume annually along with attendant inflationary and salary/benefit increases, the Cost Benefit Analysis shows an overall reduction in cost to Bozeman and the system in excess of \$6,300 over the five-year period of analysis.

Recognizing the State Warrant remittance advice area is limited to 14 lines of text with 70 characters per line (980 characters total), the team’s recommendation is that the Bozeman campus utilize the “multiple invoices per check” feature in Banner whenever possible subject to the coordination of the rehabilitation and oversight of the Master Vendor File in the Vendor Set-Up process.

We are also recommending implementation as soon as practicable, subject to the Master Vendor File Maintenance rehabilitation mentioned above.

**Table of Contents**

- Accounts Payable ..... 1**
- Executive Summary ..... 1**
- Table of Contents..... 3**
- A. Introduction ..... 4**
  - 1. MSU Business Process Review ..... 4
    - a. Summary of Processes to be Redesigned or Modified: Accounts Payable 4
    - b. Business Process Review Objectives ..... 4
    - c. Scope of This Case ..... 5
    - d. Recommendation ..... 6
  - 2. Business Process Review Business Case Purpose..... 6
  - 3. Background ..... 6
    - a. Problems and/or Opportunities Addressed by Business Process Review7
    - b. Connections to other Projects/Products or Programs ..... 7
    - c. Other, Alternative Actions..... 7
- B. Methods and Assumptions ..... 8**
  - 1. Financial Metrics ..... 8
  - 2. Business Case Scope and Boundaries ..... 8
    - a. The Analysis Period..... 8
    - b. Geography or Location ..... 8
    - c. Organizations ..... 8
    - d. Functions and Positions ..... 9
  - 3. The Cost Model ..... 9
  - 4. The Benefits Rationale ..... 9
  - 5. Data Structure ..... 9
  - 6. Assumptions..... 9
- C. Business Impacts..... 9**
- D. Sensitivity and Risk Analysis..... 9**
- E. Recommendation ..... 9**

**A. Introduction**

**1. MSU Business Process Review**

The 4 campuses of MSU were invited to participate in a business process review of all administrative and financial business processes across the 4 campuses.

There were several strategic objectives:

- develop a single process to be used by the 4 campuses,
- have a consistent set of definitions for all data elements, and
- improve institutional and system efficiencies and effectiveness.

Each of the processes will be:

- Redesigned,
- Modified, or
- Remain unchanged.

Each process will have a business case and cost benefit analysis to support the final recommendations.

The investigation and development phases (Phases I and II) occurred during 2006. Implementation of approved recommendations will occur during 2006 and 2007 in alignment with business cycles and resources availability.

**a. Summary of Processes to be Redesigned or Modified: Accounts Payable**

<b>Process Title</b>	<b>June 28<sup>th</sup> 2006 Recommendations</b>	<b>Oversight Committee Recommendations</b>
Vendor Set Up	No Change	No Change
Warrant Maintenance	No Change	No Change
Manual Checks	Modify	Modify
1099s	Modify	Modify
Data Entry	Modify	Modify
Invoice Payment	Redesign	Redesign
Purchasing Card	No Change	Redesign
Travel	No Change	Redesign

During Phase I, the Accounts Payable Team reviewed the eight processes listed above and recommendations were brought to the Oversight Committee in June. The Team’s and the Oversight Committee’s suggestions are shown above. The Accounts Payable Team investigated the feasibility of the Modify and Redesign recommendations during Phase II.

**b. Business Process Review Objectives**

President Geoff Gamble’s letter to the MSU campuses focused on 6 major desired outcomes of the BPR project:

1. A strategic effort to enhance all of the University's business processes that fall under the general umbrella of Administration and Finance operations.
2. Establish a University wide information system based upon a set of common, standardized data elements and business processes used by all campuses and agencies.
3. The BPR teams will review all processes and develop a standardized design for all data elements and business processes which will be selected for President. Gamble's final approval.
4. The BPR outcomes will be a visible example of a more operationally consistent Montana State University.
5. MSU will enjoy a higher level of efficiency and effectiveness throughout our administrative operations and information systems
6. MSU's commitment to the Board of Regents in support of their Strategic Goal III – Improving institutional and system efficiency and effectiveness.

These 6 major strategies can be translated into 6 subordinate strategies or tactics that can be identified and measured for many of the individual processes to demonstrate achievement and accountability:

- Improved institutional and systems efficiencies and effectiveness;
  - Single process across 4 campuses,
  - Data consistency,
  - Quality process,
  - High level of customer service, and
  - Timeliness of product or service delivery.
- Reduction of paper based transactions.
- Improved records management.
- Improved technical functionality.
- Development of Business Continuity Plan.
- Implementation of Front Office/Back Office concept

The Accounts Payable Team's goals for the Data Entry process are to:

- Achieve a single process across the four campuses
- Gain efficiency in processing

### **c. Scope of This Case**

As proposed by President Gamble, the BPR project will review all administrative and financial processes across all four MSU campuses. During 2006 BPR Teams collected and analyzed data as part of the assessment and recommendation periods, being Phase I and II respectively. Implementation will occur during 2007.

It was assumed that since the BPR project could only make recommendations pertaining to administration and finance policies and procedures, any investigation would be contained to within central administration and finance departments. Cost benefit analysis will include estimates for the whole organization based on detailed analysis in central administration and finance, and extrapolated analysis of other departments.

Recommendations pertaining to other Divisions, for example, Student Administration, or Office of Sponsored Programs, could be made based on the Administration and Finance Division data collection and analysis. Although the implementation of such recommendations would be determined by the Executive of these other Divisions.

The Data Entry process involves the entry of information into the Banner system to accurately pay various obligations of the campuses and to record necessary historical payment information by fund, organization, program, vendor, etc. Each vendor issuing an invoice to a campus reasonably expects to receive payment in some form. This Data Entry process accomplishes that objective.

At the end of Phase I, the Accounts Payable Team recommended the Bozeman campus implement, where possible, the “multiple invoices per check” functionality available through Banner form FAAINVE rather using the “one check per invoice” functionality on the same Banner form. The overall result expected is a reduction in the number of checks issued for the Bozeman campus and a reduction in the cost of issuing checks.

#### **d. Recommendation**

Recognizing the State Warrant remittance advice area is limited to 14 lines of text with 70 characters per line (980 characters total), the team’s recommendation is that the Bozeman campus utilize the “multiple invoices per check” feature in Banner whenever possible subject to the coordination of the rehabilitation and oversight of the Master Vendor File in the Vendor Set-Up process.

## **2. Business Process Review Business Case Purpose**

The purpose of the investigation in to the Data Entry portion of the Accounts Payable function was to determine if there were possibilities to achieve efficiencies and commonality in operation.

In Phase I it was determined that all campuses follow essentially the same process in accounts payable including receiving vendor invoices, reviewing propriety of the claim, obtaining sufficient and requisite supporting documentation, obtaining the necessary approvals for payment, entering the information Banner through form FAAINVE and, through the interface between Banner and SABHRS, issuance of the payment.

However, it was found that only one campus never uses the ‘multiple invoices per check functionality’ on the FAAINVE form.

## **3. Background**

At a very high level, the background to the MSU Business Process review is based on:

- a commitment by President Gamble to the Board of Regents to improve the institutional and system efficiency and effectiveness of MSU, and
- addressing issues that were identified by the Pappas Consultants (see Appendix 1) being:
  - decision-making lacks a system wide perspective,
  - inefficient business processes,
  - suboptimal use of technology, and
  - operational information, expertise and best practices are not systematically identified and shared across MSU Administration and finance organizations

The Accounts Payable function has a high impact on the campuses and on the outside world. Paying obligations accurately and on time reflects directly on the reputation of the campuses and their administrations. Accounts Payable across the four campuses handles a high volume of payments requiring entry to the Banner system, excluding purchasing card transactions that are entered through interface from the purchasing card processor:

Campus	Non-pcard invoices	Non-pcard travel	Total
Bozeman	13,118	2,996	16,114
Billings	5,051	702	5,753
Great Falls	905	85	990
Havre	1,187	290	1,477
Total	20,261	4,073	24,334

While each vendor invoice needs to be entered to Banner under either the ‘multiple invoices one check’ or the ‘one invoice one check’ functionality, the cost of issuing and mailing checks can be reduced if multiple invoices are paid via one check. Checks are actually produced by the State of Montana through interface to the SABHRS accounting system at a cost of \$0.58089 per mailed check.

**a. Problems and/or Opportunities Addressed by Business Process Review**

As is the case with other BPR teams, Accounts Payable sees several opportunities presented by BPR. However, not all of the overall issues are applicable to this team. Those that we explicitly considered during our review included:

- Single process across 4 campuses to promote efficiency, succession planning, training, and improved ability to meet peak demands.
- Data consistency to improve the reliability of management reports both from an individual campus perspective and a comparative, cross campus perspective.
- Improved technical functionality by implementing Banner functionality that MSU already owns
- Implementation of Front Office/Back Office concept, *if appropriate*

**b. Connections to other Projects/Products or Programs**

The Accounts Payable Team has ongoing links with:

- BPR Purchasing Team
- Accounting Functions Team

**c. Other, Alternative Actions**

If the Oversight Committee or President Gamble do not approve our recommendation to utilize existing Banner technology on the FAAINVE form, our alternative suggestion is to maintain the status quo on the Bozeman campus. While this will not address any efficiency goals, in reality, invoices must be paid in some fashion whether with one check per invoice or one check per vendor regardless of the number of invoices involved.

## **B. Methods and Assumptions**

In Phase I, the Accounts Payable Team developed flowcharts for each process under review, comparing steps involved on all campuses. We collected data on the amount of time each step takes (flowchart analysis) as well as how much of each employee's FTE is devoted to the process overall (workload distribution analysis). There is significant agreement among the campuses in the steps of the process, data definitions, and reporting needs in Accounts Payable in general and in the Data Entry process, specifically.

We have assumed that every non-pcard transaction for the Bozeman campus currently generates a check to be mailed to a vendor. We have also assumed that implementation of the recommendation will result in a minimum 10% reduction in the number of checks issued for Bozeman. In addition, we assumed a 2% increase in the volume of invoices reaching the Bozeman campus and that the cost to produce a check would increase by the annual rate of inflation, assumed to be 3.0%.

### **1. Financial Metrics**

Because all vendor invoices must be keyed in to Banner to maintain accurate and detailed vendor history records, the advantage will be in the reduction in the numbers of and the attendant cost of issuing checks.

### **2. Business Case Scope and Boundaries**

This business case covers applies to all four campuses in that implementation of the solution will bring all four campuses into compliance with President Gamble's directive of commonality among the campuses. To that end, this solution will also apply to all departments and agencies of Montana State University.

#### **a. The Analysis Period**

The Cost Benefit Analysis has been completed on a fiscal year basis over a five-year period.

#### **b. Geography or Location**

The recommendations to utilize the 'multiple invoices one check' functionality wherever possible will apply across the four campuses and to all agencies and departments entering accounts payable information on form FAAINVE.

#### **c. Organizations**

The organizations covered by this business case include the administrative and finance processes across the following:

Montana State University

- Billings campus
- Bozeman campus
- Great Falls campus
- Northern campus

#### **d. Functions and Positions**

While this business case study has been centered on the Accounts Payable function within Administration and Finance, the analysis has been based on the numbers of checks issued institution-wide regardless of the source of the entry.

### **3. The Cost Model**

The cost model used has taken into account the salary and benefits costs of performing data entry on each campus, the cost charged by the State for each check produced, and inflationary pressures.

Because existing functionality is being utilized, there are no hardware or software purchasing costs nor any implementation costs included.

### **4. The Benefits Rationale**

The benefits include a monetary savings of \$6,300 over the five year projection period in addition to the non-monetary benefit of using the same process across all four campuses.

### **5. Data Structure**

### **6. Assumptions**

It is assumed all AP entries, insofar as possible, will comply with the implementation of this recommendation when approved by the Oversight Committee.

It is also assumed implementation will result in, at least, a 10% reduction of checks issued for the Bozeman campus.

## **C. Business Impacts**

The financial model shows a \$6,300 cost savings over the five year projection period. In addition, implementation will bring common process to all four campuses.

## **D. Sensitivity and Risk Analysis**

Because the analysis assumes implementation of the recommendation, non-compliance will present the risk of failing to realize the projected saving and not realizing President Gamble's desire for common processes across the MSU system.

## **E. Recommendation**

Recognizing the State Warrant remittance advice area is limited to 14 lines of text with 70 characters per line (980 characters total), the team's recommendation is that the Bozeman campus utilize the "multiple invoices per check" feature in Banner whenever possible subject to the coordination of the rehabilitation and oversight of the Master Vendor File in the Vendor Set-Up process.