

Benchmark Report

Cost Savings: Purchasing Cards vs. Traditional Purchase Orders in the Government Sector

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Executive Summary

Use of Purchasing Cards began in the mid-1980s in the federal government. Since then, their use has grown steadily, and public-sector entities at all levels—federal, state, local, school districts and universities—have adopted the use of cards in different ways.

Barriers to Adoption

Despite widespread adoption and potential cost savings, barriers to their use remain—particularly in local government. Reasons for non-adoption include concerns about misuse, discomfort or unfamiliarity with electronic processes, and resource constraints. While much information is available to address each of these issues, this paper focuses on four public-sector entities that have thoroughly analyzed and compared the cost of processing a manual purchase order versus a Purchasing Card.

Commonly cited transactional savings range from \$50 to \$90. Rebate typically pales in comparison.

Financial Benefits

Financial benefits of Purchasing Cards are commonly discussed in terms of rebates that the card-issuing bank gives the purchasing organization based on volume of transactions. These rebates range from less than 0.5% to more than 1.5%. On a typical \$300 transaction, then, a 1% rebate is \$3. However, as data from public-sector organizations highlighted in this paper show, the cost savings is typically significantly greater than the rebate. More and more often, the savings are extended by connecting the organization's accounts payable system to a Purchasing Card issuer to pay contractors when card payments provide value to both the buying entity and the merchant.

True Cost Analysis

Several surveys have pegged the cost savings of Purchasing Cards at about \$50, with some up to \$90. However, financial decisions in public-sector entities need to be based on true costs. The value of the data from the organizations that have conducted the analyses detailed here is in both the documented savings per transaction and in the process they use to document their efforts.

What to Consider

Each organization has different internal processes and labor rates. Therefore, an analysis of one organization does not necessarily apply to another—even one of similar size and focus. However, the information in this paper is a good guide for any public-sector organization that wants to analyze its purchasing process and document potential savings from initiating or expanding a Purchasing Card program.

The NAPCP and its participating members provide a wealth of resources to any public- or private-sector entity looking to initiate or expand a Commercial Card (e.g., Purchasing Card, Travel Card) program. The information in this report is used with the permission of the study participants and shared to help other public-sector entities achieve savings that can provide scarce resources for the necessary functions of government at any level.

Introduction

Background

The NAPCP Government/K–12 Advisory Group was formed to discuss how the NAPCP membership could help similar entities by sharing best practices, providing analyses or other information. In that spirit, participating members of four public-sector entities analyzed and compared the cost of processing a purchase order versus the use of a Purchasing Card. We present the results here.

Public-sector organizations and commercial private companies need to procure goods and services in order to achieve their missions. However, unlike private companies, public-sector entities most often draw their resources from taxes paid by citizens of the locality, state or—in the case of the federal government—the country.

The use of taxpayer dollars brings with it restrictions and accountability requirements different from those in most private companies. In the last 30 years, most public-sector entities have depended on Purchasing Cards to cost-effectively procure goods and services within regulatory constraints. Indeed, many organizations have practices that encourage and maximize the use of Purchasing Cards. Recently, leading organizations began tying the use of cards to accounts payable systems to harness the cost savings of electronic payments, additional data capture and rebates that card issuers offer on card transactions.

While rebates tend to dominate conversations about the value of Purchasing Cards, an organization's cost savings can be greater than rebates. As public-sector entities—particularly at the local level—continue to struggle from spending reductions caused by federal and state program cuts, it is important to take every opportunity to find savings to

continue to offer critical services (e.g., education, public safety, infrastructure maintenance, debt service).

Participants

The organizations that conducted the cost analyses presented herein include a state-level department, two city government purchasing departments and a school district. In each case, a representative reviewed the process for both traditional purchase orders and Purchasing Card transactions, hourly pay of employees involved, and average time to complete the process.

Processes are different among organizations. Therefore, one cannot assume that the savings one organization realizes would be the same as that of another organization—even if they are the same size and function. The value lies in documenting the review process as a comparative guide to help other organizations make similar decisions based on a true cost analysis.

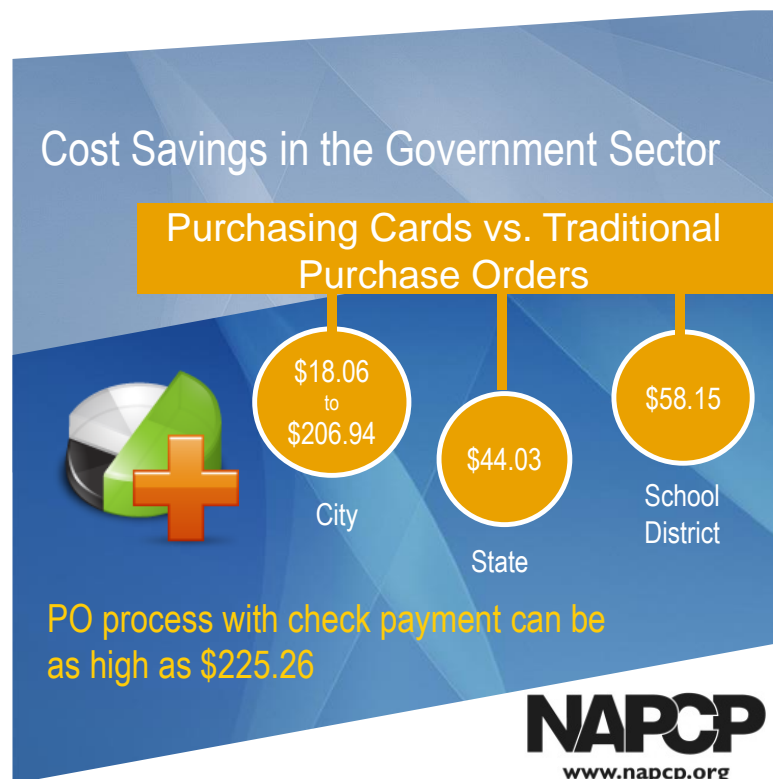
Methodology

In conducting the analysis, each participating entity completed the same basic steps:

1. Identify average cost of personnel who conduct the process, including benefits but not overtime
2. Map and compare the process for purchase orders, Purchasing Cards and, in one case, the process for card payments tied to an accounts payable system
3. Estimate the time to complete each step
4. Compare total costs for each process

This whitepaper is designated to help program administrators familiarize themselves with their true cost analysis and allow organizations to benchmark their procure-to-pay process. The following organizations participated in the study:

- City of Tacoma, Washington
- City of Arvada, Colorado
- Washington State Department of Transportation
- Harford County Public Schools, Maryland



City of Tacoma, Washington

Figure 1.1 is a diagram of the traditional purchase order process and how the City of Tacoma assigned costs to each step. Figure 1.2 is the same diagram for the use of Purchasing Cards. Tacoma's Purchasing Card program consists of nearly 900 cards and a biennium spend of \$25 million for 2011 and 2012—a 26% increase over the previous biennium.

Only 12 cards are used for high-dollar contracts. A similar process map with calculations was completed for the traditional Purchasing Card process and Purchasing Cards used with the contracting office for high-dollar contracts. The net result of the analysis was a savings of \$20 to \$207, depending on the complexity of the purchase and whether formal bid, legal review or request-for-proposal processes were needed.

Figure 1.1 Process map of traditional purchase orders for the City of Tacoma

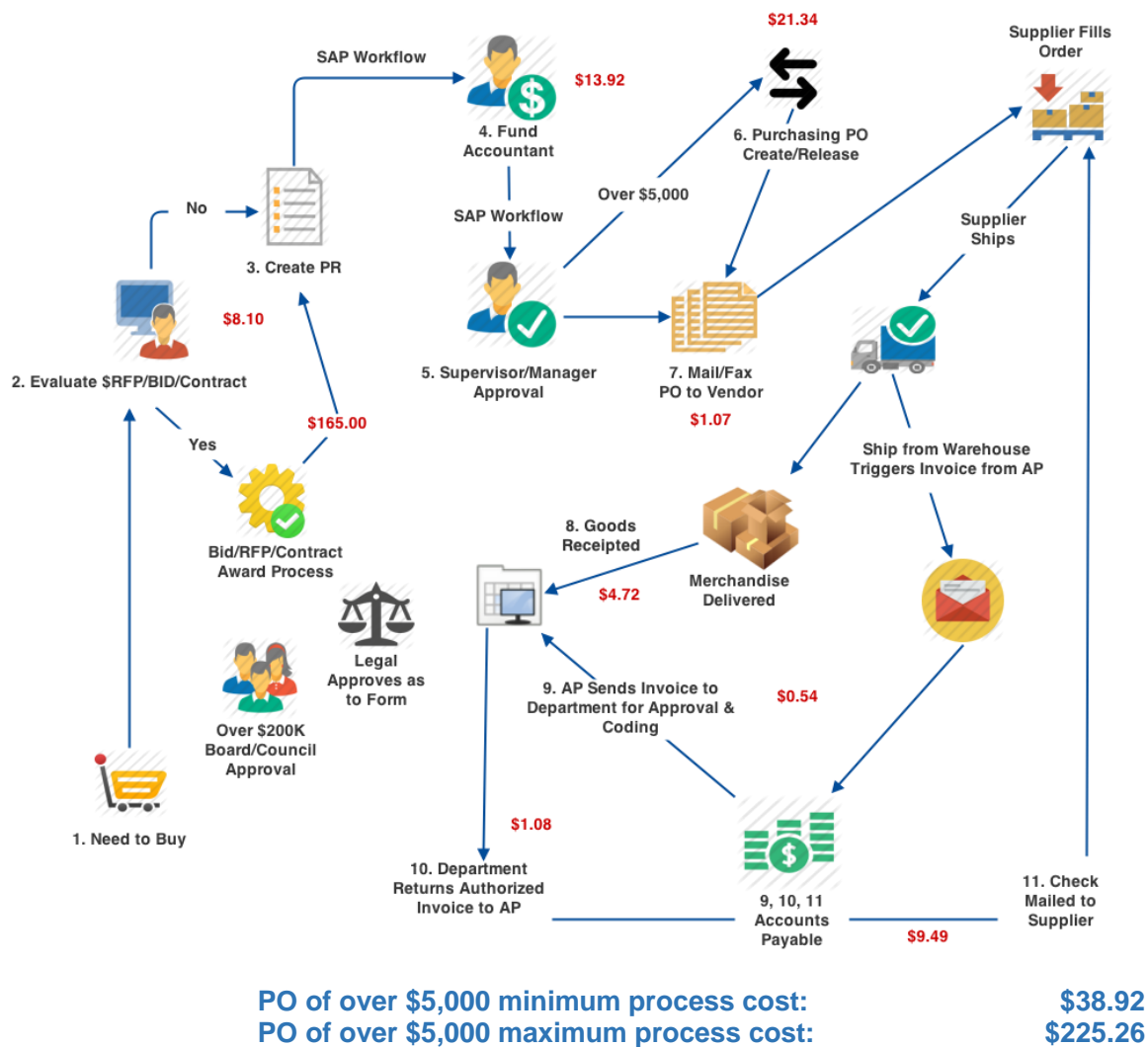
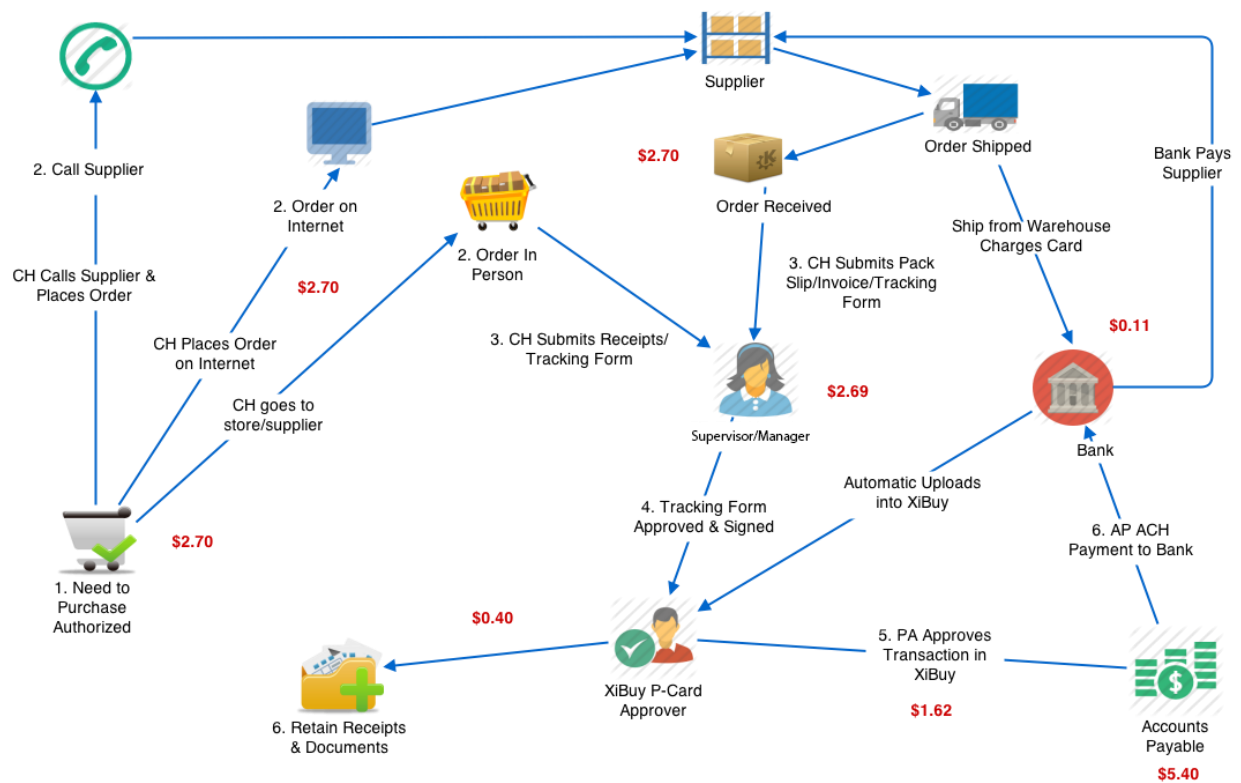


Figure 1.2 Process map of the use of Purchasing Cards for the City of Tacoma



Tacoma's Purchasing Card program consists of nearly 900 cards and a biennium spend of \$25 million for 2011 and 2012—a 26% increase over the previous biennium. Cost of avoidance savings of up to \$206 per transaction was realized. The annual cost avoidance savings was estimated at \$1.2M.

City of Arvada, Colorado

Similarly, the City of Arvada documented and estimated each step using average salary and time estimates for completion of the steps. The City of Arvada serves more than 108,000 residents with approximately 900 full and part-time employees. The City has 320 traditional Purchasing Cards and 20 Departmental Cards. Purchasing Card use represented about 68% of all transactions and 23% of all payment volume in fiscal year 2011. The City also analyzed the use of Purchasing Cards with its accounts payable system. Figure 2.1 shows the purchase order with check payment costs. Figure 2.2 shows the cost of the use of traditional Purchasing Cards. Figure 2.3 shows the cost of Purchasing Cards tied to the City's accounts payable system.

Figure 2.1 Purchase order process with check payment for the City of Arvada

Supplier Set-Up	Role	Minutes	Cost/Minute	Extended Cost
Receive request to set up supplier/set up in Financial System	A/P Tech	3	\$0.50	\$ 1.50
Request via phone or e-mail a completed W-9 prior to making payment	A/P Tech	2	\$0.50	\$ 1.00
<i>Supplier Set-Up Process sub-total</i>				\$ 2.50
PO Process	Role	Minutes	Cost/Minute	Extended Cost
Contact supplier for product & price information	Req	15	\$0.45	\$ 6.75
Cost of phone call / internet usage				\$ 2.00
Create PO in Financial System (if over \$5,000)	Req	10	\$0.45	\$ 4.50
Approve PO in Financial System	Mgr	3	\$0.96	\$ 2.88
Mail or FAX PO to supplier	Req	3	\$0.45	\$ 1.35
<i>PO Process sub-total</i>				\$ 17.48
Invoice Process	Role	Minutes	Cost/Minute	Extended Cost
Receive invoice & match to PO (if over \$5,000)	Req	3	\$0.45	\$ 1.35
Verify invoice accuracy, including pricing & extensions	Req	1	\$0.45	\$ 0.45
Assign account coding to the invoice	Req	1	\$0.45	\$ 0.45
Enter invoice into Financial System - A/P Module	Req	5	\$0.45	\$ 2.25
Cost of forms (paper)				\$ 0.15
Approve invoice in Financial System	Mgr	3	\$0.96	\$ 2.88
File & scan invoice	Req	2	\$0.45	\$ 0.90
<i>Invoice Process sub-total</i>				\$ 8.43
Accounts Payable Process	Role	Minutes	Cost/Minute	Extended Cost
Print check register, spot-check to verify invoice accuracy, handle exceptions (Match to PO? Place call to requester?)	A/P Tech	1	\$0.50	\$ 0.50
File check register & supporting documentation	A/P Tech	1	\$0.50	\$ 0.50
<i>A/P Process sub-total</i>				\$ 1.00
Paper Check Payment Process	Role	Minutes	Cost/Minute	Extended Cost
Request check in Financial System	A/P Tech	3	\$0.50	\$ 1.50
Processing & printing of checks (ink cost, counting, verify first/last check)	A/P Tech	1	\$0.50	\$ 0.50
Separate checks	A/P Tech	1	\$0.50	\$ 0.50
Prepare check for U.S. or interoffice mail	A/P Tech	0.5	\$0.50	\$ 0.25
Cost of check/envelope/postage				\$ 0.55
Send positive pay file to bank	A/P Tech	5	\$0.50	\$ 2.50
Receive & reconcile supplier statement	A/P Tech	3	\$0.50	\$ 1.50
Report 1099, if applicable (generate, import, print, mail)	A/P Tech	2	\$0.50	\$ 1.00
Stale Date Check Process (reconciliation)	A/P Tech	5	\$0.50	\$ 2.50
<i>Paper Check Process sub-total</i>				\$ 10.80
Receiving Process	Role	Minutes	Cost/Minute	Extended Cost
Receive shipment of goods	Store	3	\$0.43	\$ 1.29
Deliver goods to End User	Store	10	\$0.43	\$ 4.30
<i>Receiving Process sub-total</i>				\$ 5.59
Grand Total of Payment Cost via Paper Check				\$ 45.80

Figure 2.2 Purchasing Card process at the City of Arvada

Purchase & Payment Process	Role	Minutes	Cost/Minute	Extended Cost
Select supplier	Req	5	\$0.45	\$ 2.25
Contact supplier for product & price information; place order	Req	15	\$0.45	\$ 6.75
Cost of phone call / internet usage				\$ 2.00
				\$ 11.00
Receiving Process	Role	Minutes	Cost/Minute	Extended Cost
Receive shipment of goods	Store	3	\$0.43	\$ 1.29
Deliver goods to Financial System End User	Store	10	\$0.43	\$ 4.30
				\$ 5.59
Reconciliation & Review Process	Role	Minutes	Cost/Minute	Extended Cost
Review P-Card transaction (account coding, business purpose description)	Req	3	\$0.45	\$ 1.35
Copy NCR receipt and staple to original receipt	Req	1	\$0.45	\$ 0.45
Fill out monthly blue envelope containing receipt	Req	1	\$0.45	\$ 0.45
Cost of blue envelope				\$ 0.80
Print monthly card statement off website	Req	1	\$0.45	\$ 0.45
Cost of paper				\$ 0.15
Reconcile monthly blue envelope	Req	5	\$0.45	\$ 2.25
Review & approve monthly blue envelope	Mgr	5	\$0.96	\$ 4.80
File blue envelope	Req	1	\$0.45	\$ 0.45
				\$ 11.15
Grand Total of Payment Cost via Traditional P-Card				\$ 27.74

City of Arvada Roles:

Role	Abbreviation
End-User Requester	Req
AP Technician	AP Tech
Accountant1	Acct
Department Manager	Mgr
Stores Keeper-Receiver	Store

The City has 320 traditional Purchasing Cards and 20 Departmental Cards. Purchasing Card use represented about 68% of all transactions and 23% of all payment volume in fiscal year 2011. Approximate cost avoidance savings of approximately \$18 per transaction was realized. The annual cost avoidance savings was estimated at \$350K.

Figure 2.3 Process cost for use of Purchasing Card with accounts payable at the City of Arvada

Supplier Set-Up				
	Role	Minutes	Cost/Minute	Extended Cost
Receive request to set up supplier/set up in Financial System	A/P Tech	3	\$0.50	\$ 1.50
Request via phone or e-mail a completed W-9 prior to making payment	A/P Tech	2	\$0.50	\$ 2.00
				\$ 3.50
PO Process				
	Role	Minutes	Cost/Minute	Extended Cost
Contact supplier for product & price information	Req	15	\$0.45	\$ 6.75
Cost of phone call / internet usage				\$ 2.00
Create PO in Financial System	Req	10	\$0.45	\$ 4.50
Approve PO in Financial System	Mgr	3	\$0.96	\$ 2.88
Mail or FAX PO to supplier	Req	3	\$0.45	\$ 1.35
				\$ 17.48
<i>PO Process sub-total</i>				
Invoice Process				
	Role	Minutes	Cost/Minute	Extended Cost
Receive invoice & match to PO (if over \$5,000)	Req	3	\$0.45	\$ 1.35
Verify invoice accuracy, including pricing & extensions	Req	1	\$0.45	\$ 0.45
Assign account coding to the invoice	Req	1	\$0.45	\$ 0.45
Enter invoice into Financial System - A/P Module	Req	5	\$0.45	\$ 2.25
Cost of forms (paper)				\$ 0.15
Approve invoice in Financial System	Mgr	3	\$0.96	\$ 2.88
File & scan invoice	Req	2	\$0.45	\$ 0.90
				\$ 8.43
<i>Invoice Process sub-total</i>				
Accounts Payable Process				
	Role	Minutes	Cost/Minute	Extended Cost
Run ePayable process in Financial System (Spot check: print check register, verify invoice accuracy Handle exceptions.) (Match to PO? Place call to requester?)	A/P Tech	1	\$0.50	\$ 0.50
File check register & supporting documentation	A/P Tech	1	\$0.50	\$ 0.50
				\$ 1.00
<i>A/P Process sub-total</i>				
ePayable Payment Process				
	Role	Minutes	Cost/Minute	Extended Cost
Request payment in Financial System	A/P Tech	3	\$0.50	\$ 1.50
Create PIF file	A/P Tech	0.5	\$0.50	\$ 0.25
If private ePayable supplier, call supplier w/virtual credit card information (optional)	Req	2	\$0.45	\$ 0.90
Monthly reconciliation	Acct	0.50	\$0.58	\$ 0.29
Uncollected Payment Processes	Acct	1.00	\$0.58	\$ 0.58
				\$ 3.52
<i>Accounts Payable Process Associated with ePayable sub-total</i>				
Receiving Process				
	Role	Minutes	Cost/Minute	Extended Cost
Receive shipment of goods	Store	3	\$0.43	\$ 1.29
Deliver goods to End User	Store	10	\$0.43	\$ 4.30
				\$ 5.59
<i>Receiving Process sub-total</i>				
Grand Total of Payment Cost via ePayables:				\$ 39.52

Summary:

Cost of Payment via Paper Check Process per payment	\$ 45.80	
Cost of Payment via Traditional P-Card Process per payment	\$ 27.74	
	\$ 18.06	Savings per Payment
Cost of Writing a Check (outside of PO/invoice cost) per payment	\$ 10.80	
Cost of ePayables payment (outside of PO/invoice cost) per payment	\$ 3.52	
	\$ 7.28	Savings per Payment

Washington State Department of Transportation

The Washington State Department of Transportation maintains 18,600 lane miles of highway, 3,700 bridges, passenger and freight rail, and the nation's largest ferry system. The Department uses 978 Purchasing Cards and 38 Ghost Accounts (cards used by a supplier for recurring billing) to process more than half of the 185,000-plus transactions each year. This represented about \$45 million in 2011 and accounts for 13% of total Department expenses. Figure 3.1 shows the cost of a traditional purchase order process. Figure 3.2 shows the cost for the use of a Purchasing Card.

Figure 3.1 Purchase order process cost for the Washington State Department of Transportation

Traditional PO Process

Requisitions:

- 5 steps
- 2 employees
- 21 minutes + cost of forms
- Total = \$7.80

Purchasing:

- 8 steps
- 2 employees
- 63* minutes
- Cost of forms + postage
- Total = \$21.71

Receiving:

- 4 steps
- 1 employee
- 28 minutes
- Total = \$8.51



**Washington State
Department of Transportation**

Accounts Payable:

- 12 steps
- 3 employees
- 61 minutes
- Total = \$25.87

Grand Total

- 29 steps
- 8 employees
- 173* minutes + cost of forms, checks, envelopes and postage

Total PO Process Cost = \$63.88*

* Development and posting of RFPs over \$5,000 not included in totals; add 60 minutes, 2 more steps and \$18.00 which increases cost to approximately **\$81.00**.

Figure 3.2 Purchasing Card process cost for the Washington State Department of Transportation

Traditional P-Card Process



Requisitions:

- Not required
- Cardholder pre-authorized by delegated spend limits
- Total = \$0

Purchasing:

- 3 steps
- 1 employee
- 20* minutes
- Order via phone, fax, internet or email
- Total = \$6.50

Receiving:

- 2 steps
- 1 employee
- 13 minutes
- Total = \$3.50

Accounts Payable:

- 6 steps
- 4 employees
- 27 minutes
- Total = \$9.45

Grand Total

- 11 steps
- 6 employees
- 60* minutes

Total P-Card Process Cost = \$19.85*

Cost Avoidance Savings: \$44.03

* Development and posting of RFPs over \$5,000 not included in totals; add 60 minutes, 2 more steps and \$18.00 which increases cost to approximately **\$37.00**.

The Washington State Department of Transportation uses 978 Purchasing Cards and 38 Ghost Accounts to process more than half of the 185,000-plus transactions each year. This represented about \$45 million in 2011. Approximate cost avoidance savings of \$44 per transaction was realized. The annual cost avoidance savings was estimated at \$4.7M.

Harford County Public Schools, Maryland

Harford County Public Schools supports more than 38,000 students in 54 schools and has about 5,300 employees. The District uses 376 Departmental Cards and 188 Declining Balance Cards (cards in which the credit line does not refresh as payments are made). This use of Purchasing Cards accounts for about 77% of all the school district's payments for supplies and about \$18 million in spend for fiscal year 2012. Figure 4.1 shows the cost of processing a traditional purchase order. Figure 4.2 shows the cost of using a Purchasing Card.

Figure 4.1 Purchase order cost for Harford County Public Schools

Traditional PO Process



Requisitions:

- 4 steps
- 2 employees
- 20 minutes + cost of forms
- Total = \$10.65

Purchasing:

- 6 steps
- 2 employees
- 50* minutes
- Total = \$50.70

Receiving at Site:

- 3 steps
- 1 employee
- 13 minutes
- Total = \$5.46

Purchasing Post Receiving:

- 2 steps
- 1 employee
- 12 minutes
- Total = \$5.04

Accounts Payable:

- 10 steps
- 1 employee
- 31.3 minutes
- Cost of checks, envelopes, postage
- Total = \$11.80

Grand Total:

- 25 steps
- 5 employees
- 171.3* minutes + cost of forms, checks, envelopes and postage

Total PO Process Cost = \$83.65*

* Development and posting of RFPs over \$5,000 are included in totals; this step adds 45 minutes and 2 steps for a cost of \$18.90. If this step is eliminated, the cost of the purchasing process becomes \$31.80. Additionally, the traditional PO process grand total becomes **\$64.75** rather than \$83.65.

Figure 4.2 Purchasing Card process cost for Harford County Public Schools



Traditional P-Card Process

Requisitions:

- Not required
- Cardholder pre-authorized by delegated spend limits
- Total = \$0

Purchasing:

- 3 steps
- Cardholder*
- 16 minutes
- Order via phone, fax, internet or email
- Total = \$9.12

Receiving:

- 2 steps
- 2 employees
- 8 minutes
- Total = \$3.81

Reconciliation/Review:

- 5 steps
- 3 employees
- 21 minutes
- Total = \$12.57

Grand Total

- 10 steps
- 6 employees
- 45* minutes

Total P-Card Process Cost = \$25.50*

Cost Avoidance Savings: \$58.15

* Average cost per minute from ALL groups

Harford Public Schools uses 376 Purchasing Cards and 188 Declining Balance Cards. Purchasing Card use represented 77% of all payments for supplies and about \$18 million in spend for fiscal year 2012. The school district realized an approximate cost avoidance savings of \$58 per transaction. The annual cost avoidance savings was estimated at \$2.6M.

Conclusion

In each example, state and city government and a school district are realizing thousands of dollars of savings each year, above rebates, resulting in better use of public funds to carry out their missions. Based on the most recent annual Purchasing Card volumes available (either 2012 or 2011), the approximate annual cost avoidance is as follows:

1. City of Tacoma, Washington: \$1.2M
2. City of Arvada, Colorado: \$350K
3. Washington State Department of Transportation: \$4.7M
4. Harford County Public Schools, Maryland: \$2.6M

At a time in which all levels of government face increased financial pressure—even to the point of bankruptcy in local government—electronic payments stand out as a relatively easy way to continue to provide essential services at a lower cost.

We encourage public-sector entities facing financial pressures (and those with less financial pressure but that are still processing payments by check) to examine their procurement processes to determine whether they might achieve similar savings as the entities highlighted here. The ability to free up potentially \$1M annually through more efficient electronic payment processes will not solve all the financial problems facing state and local governments, but it certainly can be a first step that is easily implemented and realized. The NAPCP has a valuable network of experienced Purchasing Card professionals willing to help other professionals by sharing their experiences.

Acknowledgements

We acknowledge and thank these individuals and their organizations for sharing their cost analyses for this paper. We trust that their efforts can benefit similar organizations in conducting their own cost analyses.

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- Mr. Kevin White, CPCP, CPPB, Program Administrator, Washington State Department of Transportation
- Ms. Christine Wertz, CPCP, Purchasing Card Coordinator, Harford County Public Schools, Harford County, Maryland

About the NAPCP: Advancing Commercial Card and Payment Practices Worldwide

The NAPCP is a membership-based professional association committed to advancing Commercial Card and payment professionals and industry practices worldwide. The NAPCP is a respected voice in the industry, serving as an impartial resource for members at all experience levels in the public and private sectors. The NAPCP provides unmatched opportunities for continuing education and peer networking through its conferences, Regional Forums, webinars, website, newsletter and regular communication. The association sponsors research and publishes timely and relevant white papers and survey results. The NAPCP launched the Certified Purchasing Card Professional (CPCP) credential in 2006 (www.napcp.org/cpcp).

Visit www.napcp.org to learn more about Commercial Card and payment programs in general, the value of membership, current member demographics, upcoming events and benefits of becoming a partner sponsor.