
Purchasing card spending by state and local governments more than doubled between 1998 and 2001, fueled by greater card distribution among public employees and fewer restrictions on usage.

Purchasing Cards Come of Age: A Survey of State and Local Governments

By Richard J. Palmer, Mahendra Gupta, Antonio Davila, and Tim Mills

Purchasing cards were developed in the late 1980s as a means of helping federal government agencies acquire small-dollar goods without subjecting their vendors to payment delays associated with the bureaucratic procurement processes at that time. In addition to expediting payment, purchasing cards have been found to have numerous other important benefits, principally relating to the reduction or elimination of the paperwork plague associated with requisitions, purchase orders, and invoices for thousands of small-dollar transactions.¹ The elimination of the bureaucratic red tape typically required to process small-dollar purchases empowers procurement and payables personnel to focus on issues of greater importance to taxpayers, such as negotiating the best terms on high-dollar expenditures.

These benefits account for the \$12.3 billion worth of purchasing card spending by federal government agencies in 2000.² Based on an average transaction size of \$524, more than 23 million small-dollar transactions were shifted from a paper-based procurement process to a card-based process.³ Given the General Services Administration's estimate that federal agencies save more than \$50 in administrative costs per purchasing card transaction, federal government savings attributable to purchasing cards totaled \$1.2 billion in 2000.⁴ Rebates from card issuers to the federal government for discounts paid by vendors generated another \$55 million in 1999 alone.⁵

Although the growth and benefits of federal government usage of purchasing cards have been widely reported, little is known about the effects of these cards on state and local government operations. Specifically, no study to date has examined the impact of purchasing cards on the cost, efficiency, or cycle times of state and local government procurement practices. This article fills this void by summarizing the results of a survey on purchasing card usage by state and local (i.e., city and county) governments. The purpose of the article is fourfold: (1) identify the benefits associated with state and local government usage of purchasing cards, (2) document both current and projected purchasing card spending patterns of state and local governments, (3) establish benchmark data by which state and local governments can evaluate the success of their purchasing card programs, and (4) identify "best practices" of successful state and local government purchasing card programs.

Survey Methodology and Response Rates

In October and November of 2000, 2,551 corporate purchasing card benchmark surveys were distributed to the institutional clients of 14 major purchasing card issuers.⁶ Three hundred and nine responses were returned for a response rate of 12.3 percent.⁷ A late mailing of 500 surveys with a constricted response time yielded an additional 24 responses. Four responses were dropped from the database because the participants had yet to issue purchasing cards or they did not provide any usable information. The final survey database consisted of 329 usable responses received before February 2001. One hundred and fifty respondents were governmental users of purchasing cards, including 50 (15.2 percent) city or county governments and 29 (8.8 percent) state government agencies.

Current Purchasing Card Usage by State Agencies

Overall, the impact of purchasing cards on state government has been significant. State agencies report an average per transaction savings in administrative paperwork handling of \$101 and an average reduction of seven days in the time elapsed from determination of employee need to the receipt of the ordered good. Exhibit 1 provides a comparison of 1998 and 2001 state purchasing card statistics. The average state agency purchasing card spending increased by 227 percent in the 29-month period between surveys, which is the largest increase of any survey respondent group—government or corporate.

This phenomenal growth in purchasing card usage by state agencies can be attributed to three other survey statistics. First, average state agency spending per transaction increased by 45 percent—from \$182 to \$264. The \$264 figure is higher than any corporate respondent group and second only to federal government agency activity. Second, the average percentage of state agency employees authorized as cardholders more than doubled from 29 months previous, increasing from 4.2 percent to 9.5 percent. And third, the percentage of active cards (cards that had been used in the last month) at state agencies grew from 61 to 76 percent.

Not everything about state agency usage of purchasing cards was on an upswing. Exhibit 1 shows that the number of transactions per card dropped from 4.7 to 4.1 per month. This falloff is attributed to the fact that greater purchasing card distribution necessari-

Exhibit 1
PURCHASING CARD USAGE BY STATE AGENCIES, 1998 AND 2001

| Measure | 1998 (n=10) | 2001 (n=29) | Percentage Increase (Decrease) |
|---|----------------|----------------|--------------------------------------|
| Average number of unit employees | 16,808 | 15,129 | (10) |
| Average number of unit purchasing cards | 552 | 1,649 | 199 |
| Mean monthly purchasing card spending | \$550,152 | \$1,797,769 | 227 |
| Median monthly purchasing card spending | \$7,975 | \$295,761 | 3,609 |
| Monthly spending per card | \$863 | \$1,090 | 26 |
| Monthly transactions per card | 4.7 | 4.1 | (13) |
| Spending per transaction | \$182 | \$264 | 45 |
| Cardholders as a percentage of employees | 4.2% | 9.5% | 126 |
| Percentage of cards active | 61% | 76% | 25 |
| Percentage of small-dollar purchases (\$2,000 or less) transacted via purchasing card | 2% | 45% | 105 |

ly results in card usage at increasingly lower levels of the organization. Many governments have lower spending limits and fewer allowable spending categories for personnel at lower levels of the organization. The reduction in the number of transactions per card is probably due to the fact that greater card distribution ultimately translates into higher numbers of lower-level employees possessing and using purchasing cards. It is not uncommon for organizations to restrict usage by lower-level personnel by imposing spending limits or constraining allowable categories of purchases.

In sum, state agencies have tripled purchasing card spending by providing more cards to employees who are using those cards to buy goods that are more expensive than those purchased 29 months ago. On average, the state agency respondents use their purchasing cards 81,131 times per year to pay for \$21.6 million worth of goods and services. Assuming that the average respondent-reported administrative cost savings of \$101 per transaction is reasonable, purchasing card usage generates savings of \$8.2 million annually

per state agency. These savings can be used for tax cuts or to free up government resources for services that add greater value to society.

Projected Purchasing Card Usage by State Agencies

Exhibit 2 shows current and projected state agency purchasing card usage in both dollar volume and as a percentage of total spending by category. Overall, purchasing card spending is expected to grow 37 percent over the next two years, driving up purchasing card usage as a percentage of total state agency spending from 4 percent to 6 percent by 2003. The expected growth in purchasing card spending by state agencies is lower than the experience of the past two years (see Exhibit 1) and lower than the expected growth for corporate respondents.⁸

These expectations suggest that the aggressive purchasing card usage of the past few years may have reached a plateau. Nevertheless, if 4 percent of *all* state spending (\$998 billion) were transacted via purchasing cards, states would represent a \$40 bil-

Exhibit 2
CURRENT AND PROJECTED PURCHASING CARD SPENDING BY STATE AGENCIES

| Commodity Category | Current Total Monthly Spending (000s) | Current Purchasing Card Spending (000s) | Projected Purchasing Card Spending 2 Years Out (000s) | Projected Dollar Increase (000s) | Projected Percent Increase | Current Spending Captured by Purchasing Cards | Projected Spending Captured by Purchasing Cards |
|--------------------|---------------------------------------|---|---|----------------------------------|----------------------------|---|---|
| Utilities | \$1,052,600 | \$147,100 | \$189,200 | \$42,100 | 29% | 14% | 18% |
| MRO | 1,977,600 | 138,600 | 217,800 | 79,200 | 57 | 7 | 11 |
| Travel | 88,800 | 36,200 | 40,100 | 3,900 | 11 | 41 | 45 |
| Leases | 240,700 | 36,000 | 45,500 | 9,500 | 26 | 15 | 19 |
| Office products | 23,800 | 10,900 | 12,000 | 1,100 | 10 | 46 | 50 |
| Services | 83,200 | 8,300 | 11,600 | 3,300 | 40 | 10 | 14 |
| Freight | 14,300 | 700 | 1,300 | 600 | 86 | 5 | 9 |
| Other | 13,100 | 600 | 1,800 | 1,200 | 200 | 5 | 14 |
| Computer | 1,100 | 300 | 300 | 0 | 0 | 27 | 27 |
| Capital | 127,900 | 200 | 300 | 100 | 50 | 0 | 0 |
| Postage | 2,600 | 100 | 200 | 100 | 100 | 4 | 8 |
| Direct material | 4,189,400 | 100 | 100 | 0 | 0 | 0 | 0 |
| Temp labor | 200 | 0 | 0 | 0 | 0 | 0 | 0 |
| Benefits | 1,563,300 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | \$9,378,600 | \$379,100 | \$520,200 | \$141,100 | 37% | 4% | 6% |

Exhibit 3

PURCHASING CARD USAGE BY LOCAL GOVERNMENTS, 1998 AND 2001

| Measure | 1998 (n=7) | 2001 (n=50) | Percentage Increase (Decrease) |
|---|---------------|----------------|--------------------------------------|
| Average number of employees | 2,323 | 3,412 | 47% |
| Average number of purchasing cards | 104 | 342 | 229 |
| Average monthly purchasing card spending | \$78,014 | \$194,981 | 150 |
| Median monthly purchasing card spending | \$66,013 | \$110,000 | 67 |
| Monthly spending per card | \$747 | \$578 | (23) |
| Monthly transactions per card | 4.3 | 3.4 | (21) |
| Spending per transaction | \$173 | \$168 | (3) |
| Cardholders as a percentage of employees | 4.1% | 9.5% | 132 |
| Percentage of cards active | 77% | 83% | 8 |
| Percentage of small-dollar purchases (\$2,000 or less) transacted via purchasing card | 24% | 38% | 58 |

dling of \$46 and an average reduction of 5.4 days in the time elapsed from need determination to receipt of the ordered good. Exhibit 3 provides a comparison of 1998 and 2001 local government purchasing card statistics. Average city/county purchasing card spending increased by 150 percent in the 29-month period between surveys. This growth is primarily attributed to a modest increase in the percentage of cards that are active (from 77 to 83 percent) and to a significant increase (from 4.1 to 9.5 percent) in the average percentage of city/county

lion market for card issuers.⁹ Given the average transaction size of \$264 and administrative cost savings of \$101 per transaction, this \$40 billion in annual purchasing card spending translates into 151.5 million annual transactions for collective cost savings to states of \$15.3 billion.

Exhibit 2 shows that the bulk of state agency purchasing card spending goes to offices supplies, travel and entertainment, computers, lease payments, and utility bills. The greatest penetration of purchasing cards is in the category of office supplies, where state agencies are expected to acquire half of these products with purchasing cards by 2003.

Current Purchasing Card Usage by Local Governments

The impact of purchasing cards on city and county government operations also has been significant. Cities and counties report an average per transaction savings in administrative paperwork han-

employees who are cardholders. As was the case for state agencies, this latter percentage more than doubled from 29 months previous.

Other aspects of local government purchasing card spending moved in the opposite direction. The number of transactions per card dropped from 4.3 to 3.4 per month, while the average spending per transaction decreased slightly from \$173 to \$168. These two facts combined created the lowest average monthly spending per purchasing card (\$578) of all respondent groups—corporate or government. As noted above, the reduction in the number of monthly transactions per card may be attributable to the fact that greater card distribution ultimately results in greater numbers of lower-level employees possessing and using purchasing cards, typically with smaller spending allowances and more restrictions on allowable purchases.

In sum, cities and counties have more than doubled purchasing card spending, primarily by increasing the percentage of their

Exhibit 4

CURRENT AND PROJECTED PURCHASING CARD SPENDING BY LOCAL GOVERNMENTS

| Commodity Category | Current Total Monthly Spending (000s) | Current Purchasing Card Spending (000s) | Projected Purchasing Card Spending 2 Years Out (000s) | Projected Dollar Increase (000s) | Projected Percent Increase | Current Spending Captured by Purchasing Cards | Projected Spending Captured by Purchasing Cards |
|--------------------|---------------------------------------|---|---|----------------------------------|----------------------------|---|---|
| Utilities | \$ 7,825 | \$1,202 | \$1,563 | \$ 361 | 30% | 15% | 20% |
| MRO | 995 | 382 | 257 | (125) | (33) | 38 | 26 |
| Travel | 6,530 | 88 | 517 | 429 | 488 | 1 | 8 |
| Leases | 12,010 | 83 | 497 | 414 | 499 | 1 | 4 |
| Office products | 450 | 62 | 121 | 59 | 95 | 14 | 27 |
| Services | 3,610 | 50 | 125 | 75 | 150 | 1 | 3 |
| Freight | 4,780 | 48 | 423 | 375 | 781 | 1 | 9 |
| Other | 4,630 | 44 | 52 | 8 | 18 | 1 | 1 |
| Computer | 660 | 27 | 256 | 229 | 848 | 4 | 39 |
| Capital | 580 | 5 | 1 | (4) | (80) | 1 | 0 |
| Postage | 50 | 5 | 10 | 5 | 100 | 10 | 20 |
| Direct material | 550 | 5 | 14 | 9 | 180 | 1 | 3 |
| Temp labor | 1,045 | 3 | 9 | 6 | 200 | 0 | 1 |
| Benefits | 8,620 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | \$52,335 | \$2,004 | \$3,845 | \$1,841 | 92% | 4% | 7% |

employees who are issued purchasing cards. On average, local government respondents use their purchasing cards 13,954 times per year to pay for \$2.3 million worth of goods and services. Assuming that the average respondent-reported administrative cost savings of \$46 per transaction is reasonable, purchasing card usage generates annual savings of \$641,866 per city or county.

Projected Purchasing Card Usage by Local Governments

Exhibit 4 shows current and projected city/county purchasing card spending in both dollar volume and as a percentage of spending by commodity category. Overall, purchasing card spending is expected to grow 92 percent over the next two years, driving up purchasing card spending from 4 percent to 7 percent of total city/county spending by 2003. Although the expected growth in purchasing card spending by cities and counties is lower than the experience of the past two years (see Exhibit 3), purchasing cards are playing an increasingly important role in local government procurement.

The greatest penetration of purchasing cards into city/county spending is in the categories of office supplies and maintenance, repairs, and operating goods. Currently, cities and counties use purchasing cards to pay for 38 and 15 percent of the products acquired in these categories, respectively. In dollar terms, office products and MRO account for 79 percent of current city/county purchasing card spending. Because of the significant increases in expected purchasing card spending for other commodities (e.g., capital goods, utilities, services, and computers), office supplies and MRO should account for less than half of this spending by 2003.

Understanding State and Local Government Purchasing Card Usage

One goal of the study was to gain insights into why some state and local governments shift millions of dollars of spending to purchasing cards, while others only thousands. Of course, purchasing card spending is a function of a government's size and the age of its purchasing card program. A simple demonstration sample that con-

trols for size and age revealed some important differences between "successful" and "unsuccessful" purchasing card programs.

Exhibit 5 compares organizational and program performance statistics from a selected sample of state and local governments. This respondent base was divided into two groups: a "high-spend" group and a "low-spend" group. The high-spend group is characterized by monthly purchasing card spending of \$750,000 or more, and the low-spend group by monthly spending of less than \$750,000. To ensure that the units within each group were otherwise homogenous, all programs that were less than one year old were eliminated, as were all programs with less than 3,000 or more than 50,000 employees. This resulted in two groups that differ in terms of monthly purchasing card spending, but are not significantly different in terms of size (as measured by number of employees) or program age.

The differences between the high-spend and low-spend groups are indicative of some of the best practices in state and local government purchasing card programs. The most striking difference is that high-spend organizations issue purchasing cards to a significantly larger percentage of their employees than low-spend organizations (13 percent versus 5 percent). In raw numbers, high-spend organizations average more than 2.5 times as many purchasing cards as low-spend organizations. The analysis also revealed that although high-spend cardholders use their cards less frequently than their low-spend counterparts, they spend significantly more per transaction (\$289 versus \$119).

Exhibit 5 also shows that the benefits accruing to high-spend organizations by virtue of employee card spending behavior are significantly greater those of low-spend organizations. High-spend entities report headcount reductions more than seven times greater than low-spend organizations. High-spend organizations were able to reduce or redeploy an average of 2.9 full-time equivalent staff by shifting transactions to purchasing cards, compared to just .4 for low-spend organizations. However, higher levels of spending were not reflected in the percentage of organizations sharing card issuer revenue. This fact seems to suggest that the agency banking rela-

Exhibit 5

DIFFERENCES IN PURCHASING CARD USAGE BETWEEN LOW- AND HIGH-SPEND GOVERNMENTS

| Measure | State & Local Low-Spend Group (n=14) | State & Local High-Spend Group (n=8) |
|---|--|--|
| Average number of employees | 10,071 | 10,621 |
| Average monthly purchasing card spending | \$370,603 | \$1,728,116 |
| Average monthly purchasing card transactions | 3,107 | 5,977 |
| Average number of cards | 572 | 1,477 |
| Average monthly spending per card | \$647 | \$1,169 |
| Average monthly transactions per cardholder | 5.4 | 4.0 |
| Average transaction size | \$119 | \$289 |
| Cardholders as a percentage of employees | 5% | 13% |
| Percentage of small-dollar purchases (\$2,000 or less) transacted via purchasing card | 34% | 54% |
| Percentage of cards active | 89% | 88% |
| Average percent reduction/redeployment of purchasing and accounts payable FTEs | .4 | 2.9 |
| Percent sharing in card provider's revenue associated with purchasing card use | 42% | 43% |

No statistically significant difference in the size of the agencies (as measured by the number of employees) in each group. Agencies reporting fewer than 3,000 or more than 50,000 employees, or purchasing card programs less than a year old, were excluded from this sub-sample to minimize group differences while maintaining sufficient observations to sustain a valid comparison.

Exhibit 6**CONTROL DIFFERENCES BETWEEN LOW- AND HIGH-SPEND GOVERNMENTS**

| Control Differences | State & Local Low-Spend Group (n=14) | State & Local High-Spend Group (n=8) |
|---|--|--|
| Mean per transaction spending limit | \$1,342 | \$1,393 |
| Mean monthly spending limit | \$7,750 | \$8,571 |
| Block fuel and auto purchases | 54% | 14% |
| Allow capital purchases | 28% | 63% |
| Single card for both travel and purchases of goods and services | 36% | 63% |
| Refusal to process requisitions that could be bought with a purchasing card | 28% | 75% |

tionships are defined at levels higher up in the organization.

Organizational policies and procedures must support active use of purchasing cards. Exhibit 6 presents an analysis that identifies key differences in card-related policies and procedures between the two groups. There is a modest \$821 difference between the groups in terms of the average spending allowed per month. High-spend units place fewer restrictions on purchasing card spending than their low-spend counterparts. Specifically, a much higher percentage of high-spend governments permit the use of purchasing cards for capital goods, travel and entertainment, and fuel and automotive purchases. Likewise, high-spend organizations are much more likely than low-spend organizations to refuse to process requisitions for products that can be bought with a purchasing card.

High purchasing card spending apparently comes at a cost to management's sense of control. Managers at high-spend state and local governments were uniformly more concerned than their low-spend counterparts that purchasing card spending would undermine their ability to control departmental spending. They were also more concerned that employees would pay too much for goods and services, make duplicate purchases, buy products with unnecessary bells and whistles, and make unapproved purchases requiring corrective action. By contrast, low-spend managers were more concerned that spending limits and other controls prevented them from realizing the benefits of purchasing cards.

Conclusion

The purpose of this article was to present the results of a survey on state and local government use of purchasing cards. Purchasing card spending at these levels of government more than doubled between 1998 and 2001, generating average annual administrative cost savings of \$8.2 million per state agency and \$641,866 per city or county. If all state agencies used purchasing cards to the extent that the survey respondents are using them, approximately \$40 billion in annual state spending could be shifted to the cards, saving states more than \$15.3 billion in non-value-adding paperwork processing charges. Projected growth in purchasing card spending is expected to be modest for state agencies, yet strong among cities and counties.

The key drivers of purchasing card program growth for state and local government have been the dissemination of purchasing cards to a larger percentage of the employee base and the opening of spending categories that enable the acquisition of higher dollar goods. High-spending governments have a greater tendency to use administrative policies to force small-dollar spending to the purchasing card. These same governments are significantly more likely to realize hard-dollar savings from purchasing card usage. At the same time, managers at these governments express greater concern over losing control over employee spending behavior. ■

NOTES

¹ See, for example, R. Palmer, L. Green, and M. Ventura, "Are Corporate Procurement Cards for You?" *Management Accounting* (September 1996): 23-30.

² Lisa Daigle, "A Rough Ride Inside the Beltway," *Credit Card Management* 14 (July 2001): 4, 48-54. For perspective on this growth, consider that in 1989 the Department of Defense used 10,000 purchasing cards to pay for 2,000 transactions totaling \$460,000. By 2000, the Department of Defense used purchasing cards to engage in approximately 10 million transactions for \$5.5 billion (see www.purchasecard.saalt.army.mil/00metrics.htm).

³ Ibid. However, it should be noted that other reports and studies show the average federal government purchase transaction size to be \$400 (see, for example, www.napcp.org/palmersurvey).

⁴ Anne Laurent, "Trump Card," *Government Executive* (May 2000): 30-38.

⁵ Ibid.

⁶ Bank participants included Bank of America, Bank One, Canadian Imperial Bank of Commerce, Chase Manhattan, Citibank, Firststar, National City Bank, GE Capital Financial, Mellon Bank, PNC Bank, SunTrust, USBank, Wachovia, and Wells Fargo. It should be noted that the results of the survey are based on purchasing card spending patterns and card-related organizational activities of the customers of the 14 participating card issuers. The results may not necessarily reflect the purchasing card spending and card-related organizational activities of customers of other non-participating purchasing card issuers.

⁷ A similar, but smaller, study was performed in August of 1998. That study was mailed to 1,034 purchasing card users of seven major card issuers (American Express, Chase Manhattan, First Chicago NBD, GE Capital Financial, PNC Bank, Wachovia, and Wells Fargo). One hundred and eighty-eight usable surveys were returned for an overall response rate of 18.3 percent.

⁸ Expected purchasing card growth by corporate respondents ranged from 100 to 400 percent according to R. Palmer, M. Gupta, and A. Davila, "Corporate Purchasing Card Benchmark Survey," www.napcp.org/palmer-survey.

⁹ U.S. Census Bureau Governments Division, "States Ranked by Revenues and Expenditure Total Amount and Per Capita Total Amount: 1999," (May 2, 2001). Also available at www.census.gov/ftp/pub/govs/state/99rank.html.

RICHARD J. PALMER is the Lumpkin Distinguished Professor of Business at Eastern Illinois University. Dr. Palmer is a frequent speaker at purchasing card training and user conferences, and he has authored more than 40 publications on cost management and electronic commerce topics, including award-winning studies on industry use of corporate purchasing cards.

MAHENDRA GUPTA is an associate professor at the Olin School of Business at Washington University in St. Louis. He received his doctorate from Stanford University in 1990 and his master's degree from Carnegie Mellon University in 1981. Professor Gupta currently studies issues in strategic cost management, benchmarking, and performance measurement.

ANTONIO DAVILA is an assistant professor at the Graduate School of Business at Stanford University. He received his doctorate from the Harvard School of Business in 1998 and a telecommunications engineering degree from the University of Catalunya, Spain. Dr. Davila's research interests include the design and use of cost management systems, control systems for implementing strategy, and performance measurement. TIM MILLS is an associate professor at Eastern Illinois University. He received his doctorate from Louisiana Tech in 1989. Dr. Mills' research interest is governmental accounting.